Traffic Study
Advocate Illinois Masonic Medical Center
Proposed New/Expanded Buildings

Chicago, Illinois

Prepared For:

Advocate Illinois Masonic Medical Center

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

October 7, 2019

I. Executive Summary

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Wellington Medical Office Building, Sheffield Clinic and Parking Garage, and the Center for Advanced Care (CAC) expansion to be located on the Advocate Illinois Masonic Medical Center (AIMMC) campus located in Chicago, Illinois. The objectives of the traffic study are as follows:

- Determine the existing vehicular, pedestrian, bicycle, and public transportation conditions in the study area to establish a base condition.

- Assess the impact that the proposed new/expanded buildings will have on transportation conditions in the area.

- Determine any street, access, bicycle, and pedestrian modifications and/or improvements that will be necessary to effectively accommodate and mitigate future conditions.

Vehicle, pedestrian, and bicycle counts were conducted during the weekday morning and evening peak periods at eight intersections within and adjacent to the AIMMC campus in order to determine the existing traffic volumes during the general peak hours of commuter activity within each of these time periods. In addition, follow-up traffic counts were conducted at the three intersections along Sheffield Avenue during a Chicago Cubs home day game.

Accessibility to and from the area is enhanced by various alternative modes of transportation. The Chicago Transit Authority (CTA) rapid transit Purple/Brown Line Wellington station is located within the AIMMC campus, the Belmont Avenue Red/Purple/Brown Line station is within walking distance from the campus, and multiple CTA bus routes have stops within the study area. In addition, pedestrian facilities including sidewalks and crosswalks are generally provided in the area. Mode-sharing facilities, including Divvy bike stations and car-sharing vehicles, are also located within the area.

Current plans for the AIMMC campus include (1) replacing the existing 21,600 square-foot Cancer Center building with the 56,000 square-foot Wellington Pediatric Development and Counseling Center, (2) replacing the approximate 70-space Sheffield parking lot with a 408-space parking garage, and (3) the construction of the westward expansion of the Center of Advanced Care (CAC) building.

The following summarizes the results, findings, and recommendations of the traffic study:

- The proposed parking garage will primarily be used to accommodate faculty and staff, will replace the parking lost in the Sheffield and Wilton parking lots, and will eliminate the need for AIMMC to lease the 150 off-campus parking spaces at the Century and Vic parking garages. In addition, the proposed parking garage will be used to accommodate the projected increase in parking demand generated by the proposed new/expanded buildings and general campus growth.

- The potential impact of the new traffic generated by the new/expanded buildings will be reduced due to the following:

    - Approximately 40 to 50 percent of the parking spaces in the proposed parking garage will be used to accommodate the AIMMC faculty/staff that are currently parking in the Vic and Century parking garages and in other facilities. As such, a good portion of the traffic to be using the proposed parking garage is already generated by the AIMMC campus and is traversing the area streets.

    - With the elimination of the use of the Vic and Century parking garages, AIMMC will be able to eliminate the use of the shuttle bus that currently transports faculty/staff between the AIMMC campus and the off-campus parking facilities.

    - The estimate of the traffic to use the proposed parking garage assumes a 10 to 15 percent increase in the existing AIMMC parking demand.

- Access to the proposed parking garage will be provided via one access drive located on the south side of Nelson Street approximately 140 feet east of Sheffield Avenue. The existing access drive is sufficient to accommodate the traffic estimated to use the parking garage. Similar to other parking garages on the campus, during peak exiting times from the garage, some additional delay and queueing may occur on Nelson Street due to the surge of traffic. However, this is likely to only occur once or twice a day and will only last for a short period.

- The results of the capacity analyses have shown that the existing street system has sufficient reserve capacity to accommodate the additional traffic that will be generated by the new/expanded buildings, including during a Chicago Cubs home game.

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the Advocate Illinois Masonic Medical Center (AIMMC) campus located in Chicago, Illinois. The campus is generally bounded by Barry Avenue on the north, Halsted Street on the east, Wellington Avenue on the south, and Sheffield Avenue on the west. In addition, several buildings are located on the south side of Wellington Avenue. Currently, the AIMMC campus contains the following primary buildings:

- The Main Hospital
- The Center for Advanced Care (CAC)
- The Wilton Building
- The Center for Education
- The Dental Center
- The Medical Office Center (MOC)

In addition, the campus has three parking garages, four surface parking lots, and leases 125 off-campus parking spaces at the Century parking garage and 25 off-campus parking spaces at the Vic parking garage. **Figure 1** shows an aerial view of the AIMMC campus and the parking facilities.

Current plans for the AIMMC campus include the addition of two new buildings and the expansion of the CAC, which are summarized below:

- *Wellington Pediatric Development and Counseling Center.* The existing 21,600 square-foot former Cancer Center building located in the southwest corner of Wellington Avenue with Mildred Avenue is proposed to be replaced with a new 56,000 square-foot building. As proposed, the new building will include outpatient exam rooms, consultation clinics for therapeutic counseling, and a pediatric development center.

- *Sheffield Parking Garage*. A parking garage is proposed to replace the existing 70-space gravel parking lot and a commercial building located on the east side of Sheffield Avenue bounded by Nelson Street on the north and Wellington Avenue on the south. As proposed, the parking garage is to contain approximately 408 parking spaces and an approximate 15,000 square-foot clinic for physical therapy. Vehicle access to the parking garage is proposed to be provided via a single access drive on Nelson Street.

- *The Center of Advanced Care (CAC) Westward Expansion.* Ultimately, the CAC is proposed to be expanded to the west by approximately 64,900 square feet and will replace the 26-space Wilton parking lot and the 27,000 square-foot Wilton building. As proposed, the three-level expansion will include new or additional facilities for the cancer center, a new heart center, and procedure, preparation, recovery, and surgical suites.

Figure 2 shows the locations of the two proposed new buildings and the CAC westward expansion.

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EXISTING CAMPUS AND PARKING FACILITIES

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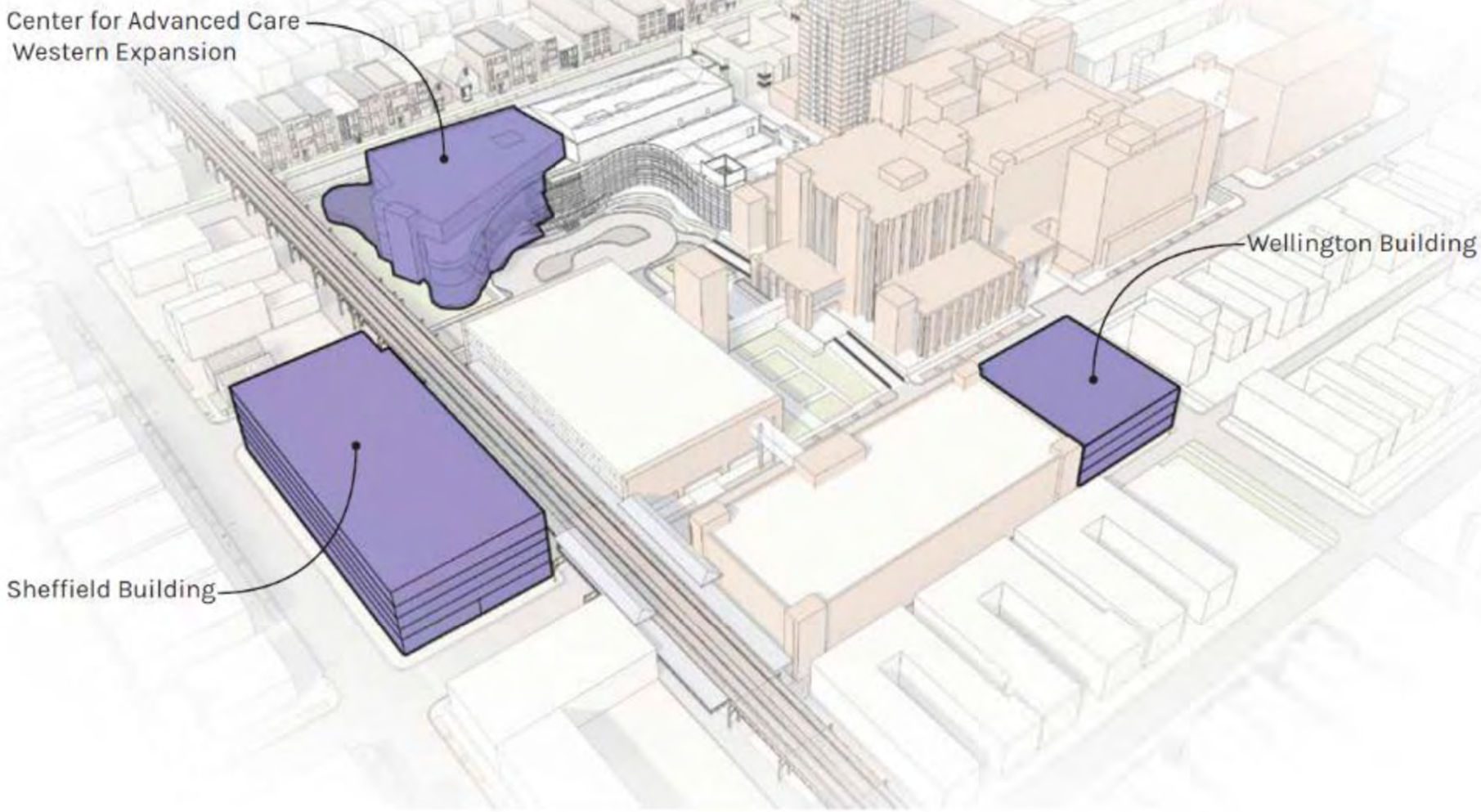

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PROPOSED NEW AND EXPANDED BUILDINGS

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Job No: 19-036 Figure: 2

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed new/expanded buildings will have on transportation conditions in the area, and determine if any street or access improvements are necessary to accommodate traffic generated by the proposed new/expanded buildings.

The sections of this report present the following:

- Existing transportation conditions
- A description of the proposed new/expanded buildings
- Directional distribution of the proposed new/expanded buildings traffic
- Vehicle trip generation for the proposed new/expanded buildings
- Future traffic conditions including access to the proposed new/expanded buildings
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the transportation system

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

1. Existing Conditions – Analyze the capacity of the existing street system using existing peak hour traffic volumes in the surrounding area.

2. Projected Conditions – Analyze the capacity of the future street system using projected traffic volumes that include the existing traffic volumes, ambient traffic growth, and the traffic estimated to be generated by the proposed new/expanded buildings.

2. Existing Transportation Conditions

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

AIMMC Campus Location

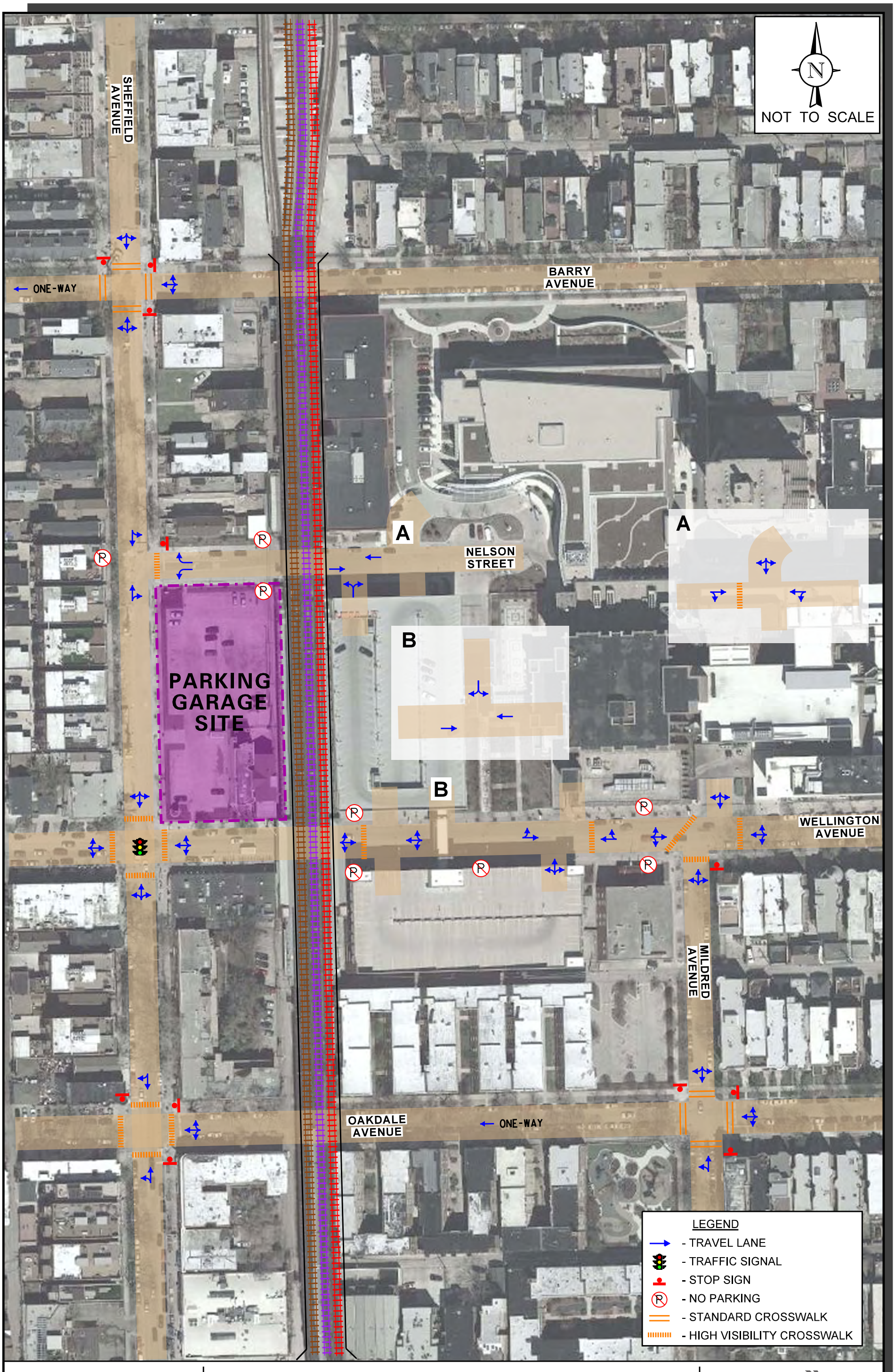
The AIMMC campus, which is located at 836 West Wellington Avenue in the Lakeview neighborhood of Chicago, is generally bounded by Barry Avenue on the north, Halsted Street on the east, Wellington Avenue on the south, and Sheffield Avenue on the west. In addition, several buildings are located on the south side of Wellington Avenue. Land uses in the area primarily consist of residential and commercial buildings/developments. The commercial developments are generally located north and south of the campus along Halsted Street, Clark Street, and Sheffield Avenue. The CTA Rapid Transit tracks that serve the Red, Brown, and Purple lines extend through the western portion of the campus in a north-south direction.

Existing Street System Characteristics

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

Sheffield Avenue is a north-south, collector street that has one through lane in each direction with parking generally permitted on both sides of the street. At its signalized intersection with Wellington Avenue, Sheffield Avenue provides a shared left-turn/through/right-turn lane on both approaches. At its all-way stop-sign controlled intersection with Barry Avenue, Sheffield Avenue provides a shared left-turn/through/right-turn lane in both directions. At its unsignalized intersection with Nelson Street, Sheffield Avenue provides a shared through/right-turn lane in the northbound direction and a shared left-turn/through lane in the southbound direction.

Wellington Avenue is an east-west, collector street that has one travel lane in each direction. Parking is generally permitted on both sides of the street except along sections of the AIMMC campus. At its signalized intersections with Sheffield Avenue and Halsted Street, Wellington Avenue provides a shared left-turn/through/right-turn lane on both approaches. At its unsignalized intersection with Mildred Avenue, Wellington Avenue provides a shared through/right-turn lane on the eastbound approach and a shared left-turn/though lane on the westbound approach. Wellington Avenue has a posted speed limit of 25 miles per hour.



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EXISTING STREET CHARACTERISTICS

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Barry Avenue is an east-west, local street. Between Sheffield Avenue and Halsted Street, Barry Avenue has one lane in each direction with parking generally permitted on both sides of the street. West of Sheffield Avenue, Barry Avenue has one wide westbound lane with parking generally permitted on both sides of the street. At its all-way stop sign controlled intersection with Sheffield Avenue, Barry Avenue provides a shared left-turn/through/right-turn lane on its westbound approach.

Nelson Street is an east-west, local street that extends from Sheffield Avenue to the drop-off/pick-up lanes serving the main hospital and the CAC. Parking is generally prohibited on both sides of the street. At its unsignalized intersection with Sheffield Avenue, Nelson Street provides an exclusive left-turn lane and an exclusive right-turn lane under stop sign control.

Mildred Avenue is a north-south, local street that has one through lane in each direction with parking generally permitted on both sides of the street. At its unsignalized intersection with Wellington Avenue, Mildred Avenue has a shared left-turn/right-turn lane under stop sign control. At its all-way stop sign controlled intersection with Oakdale Avenue, Mildred Avenue has a shared through/right-turn lane on the southbound approach and a shared through/left-turn lane on the northbound approach.

Oakdale Avenue is a one-way westbound, local street that has one wide lane with parking generally permitted on both sides of the street. At its all-way stop sign controlled intersection with Mildred Avenue, Oakdale Avenue provides a shared left-turn/through/right-turn lane.

Halsted Street is a north-south, arterial street that has one through lane in each direction with parking generally permitted on both sides of the street. At its signalized intersection with Wellington Avenue, Halsted Street provides an exclusive left-turn lane and a shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the southbound approach. Halsted Street carries an annual average daily traffic (AADT) volume of 15,400 vehicles and is under the jurisdiction of the Illinois Department of Transportation (IDOT).

On-Street Parking

The on-street parking serving the area is provided as follows:

- *Wellington Avenue:* Between Sheffield Avenue and the CTA Wellington station, pay box parking is provided on both sides of the street. Between the CTA Wellington station and Mildred Avenue, no parking is permitted on either side of the street except for emergency vehicles and vehicles displaying a handicap placard. Between Mildred Avenue and Halsted Street, parking is generally provided on both sides of the street and is restricted to permit parking only.

- *Sheffield Avenue:* Between Wellington Avenue and Nelson Street, pay box parking is provided on both sides of the street. Between Nelson Street and Barry Avenue, pay box parking is provided on the west side of the street and unrestricted parking is provided on the east side of the street except for three parking spaces designated for pay box parking.

- *Halsted Street:* Between Wellington Avenue and Clark Street/Barry Avenue, pay box parking is provided on both sides of the street. South of Wellington Avenue, unrestricted parking is provided on both sides of the street. However, the east side of the street is restricted to permit parking only between 6:00 P.M. and 12:00 A.M.

- *Barry Avenue, Mildred Avenue, and Oakdale Avenue:* Parking is restricted to permit parking at all times on Barry Avenue, Mildred Avenue, and Oakdale Avenue.

- *Nelson Street*. On-street parking is prohibited on both sides of Nelson Street.

Public Transportation

The public transportation serving the area is summarized below and illustrated in **Figure 4**.

CTA Rapid Transit. The area is served by the CTA rapid transit Brown and Purple Lines via the Wellington station located between Wellington Avenue and Nelson Street just east of Sheffield Avenue. Pedestrians can enter and exit the Wellington station on the north side of Wellington Avenue approximately 175 feet east of Sheffield Avenue and exit the station on the south side of Nelson Street approximately 175 feet east of Sheffield Avenue. It should be noted that the Brown and Purple Lines can be utilized to transfer to the Red Line at the Belmont station (approximately one-quarter mile north) and the Fullerton station (approximately three-quarters of a mile south). However, the Red Line station can also be accessed directly at the Belmont station which is a walking distance of approximately 825 feet north of the campus.

The following summarizes the rapid transit lines serving the area:

- The CTA Brown Line operates daily from the Kimball station to the downtown Loop.

- The CTA Purple Line operates between Linden Avenue (in Wilmette) and Howard Street (in Chicago) via Evanston. Additionally, the Purple Express Line, which serves the stop at Chicago Avenue, runs during weekday rush periods between the Howard station and the downtown Loop.

- The CTA Red Line operates 24 hours a day, seven days a week between Howard Street and the 95th/Dan Ryan station located along the Dan Ryan Expressway at 95th Street. Additional service is provided via the Green Line tracks between the Cermak-McCormick Place station and the Ashland/63rd station during rush periods only.

CTA Bus Routes. The area is also served by the following bus routes, all of which have bus stops within a few blocks of the AIMMC campus:

Route 8 (Halsted) runs along Halsted Street between 79th Street and Waveland Avenue. It operates daily, including holidays, from approximately 4:00 A.M. to 12:40 P.M.

R*oute 22 (Clark)* provides service on Clark Street from Howard Street at the north to Polk Street at the south. This route provides southbound service on Clark Street and northbound service on Dearborn Street from Walton Street to Polk Street. This route runs daily at all times, including weekends and holidays.

N

NOT TO SCALE

BELMONT RED/BROWN/PURPLE STATION

BELMONT AVENUE

#77

#151

#156

CLARK STREET

HALSTED STREET

FLETCHER STREET

SHEFFIELD AVENUE

BARRY AVENUE

NELSON STREET

WELLINGTON BROWN/PURPLE STATION

#8

#22

WELLINGTON AVENUE

OAKDALE AVENUE

GEORGE STREET

LEGEND

- ROUTE 8 - HALSTED
- ROUTE 22 - CLARK
- ROUTE 76 - DIVERSEY
- ROUTE 77 - BELMONT
- ROUTE 151 - SHERIDAN/LASALLE
- ROUTE 156 - LASALLE
- CTA BROWN LINE
- CTA PURPLE LINE
- CTA RED LINE
- EXISTING CAMPUS

WOLFRAM STREET

DIVERSEY BROWN/PURPLE STATION

DIVERSEY PARKWAY

#76

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PUBLIC TRANSIT

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Figure: 4

Route 77 (Belmont) provides 24-hour service primarily on Belmont Avenue between Cumberland Avenue and Lake Shore Drive with major stops including the Belmont Blue Line station and the Belmont Red/Brown/Purple Line station.

Route 151 (Sheridan) generally operates in a north-south orientation providing service to Loyola University, Howard Terminal (Red-Purple-Yellow lines), Sheridan Red Line station, Lincoln Park Zoo, Millennium Park, and Union Station. Service is provided seven days a week, including holidays.

Route 156 (LaSalle) provides service primarily on LaSalle Street from Belmont Avenue to Adams Street. This route also extends along Belmont Avenue to Halsted Street at the north end of the route and past Union Station and the LaSalle Street Metra station at the south end of the route. It generally runs from 5:15 A.M. to 8:00 P.M. on weekdays.

Alternative Modes of Transportation

The alternative modes of transportation serving the area are summarized below.

Pedestrian Accommodations. Sidewalks are generally located on both sides of the area streets and crosswalks are generally located at the area intersections. High-visibility crosswalks are provided on all legs of the study intersections except the intersections of Sheffield Avenue with Barry Avenue and Mildred Avenue with Oakdale Avenue. Additionally, pedestrian countdown signals are provided at the signalized intersection of Sheffield Avenue with Wellington Avenue.

Bike Lanes. Within the vicinity of the study area, buffer-protected bike lanes are provided on Clark Street, bicycle sharrows are provided on Halsted Street north of Wellington Avenue and buffer-protected bike lanes are provided on Halsted Street south of Wellington Avenue. According to the City of Chicago's *Streets for Cycling Plan 2020,* the following streets in the area are designated bike routes:

- Spoke Route
  - Clark Street
- Crosstown Bike Route
  - Halsted Street
  - Belmont Avenue
  - Lincoln Avenue
  - Fullerton Avenue
- Neighborhood Bike Route
  - Wellington Avenue

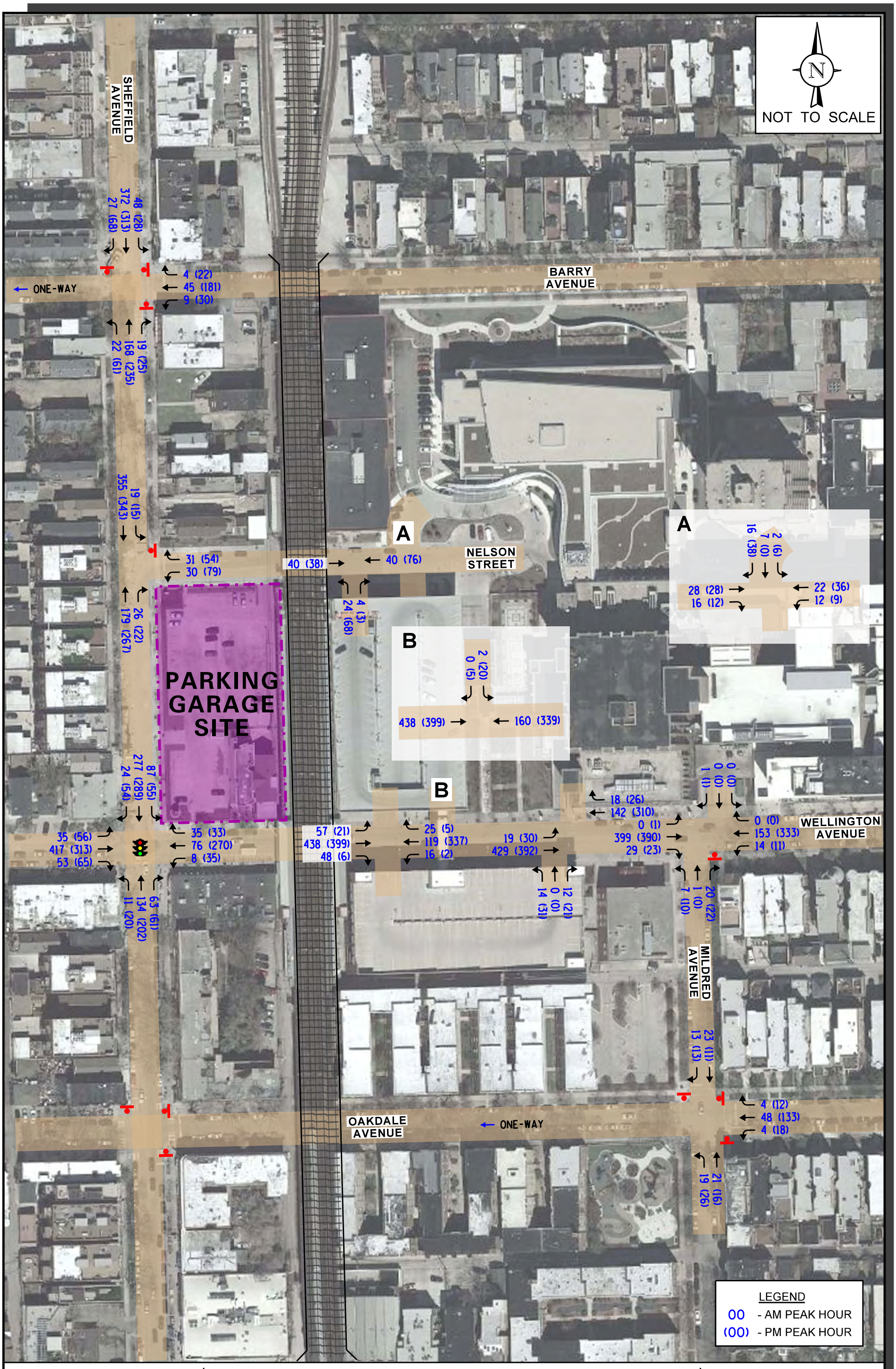
Mode-Sharing Transportation Availability. Several Divvy bike-sharing stations are located within the area with the closest station located on the south side of Wellington Avenue, immediately east of the Wellington station. This station provides a total of 23 bike docks. Other Divvy bike-sharing stations are located in the northeast corner of the intersection of Wellington Avenue with Clark Street (15 docks) and in the northwest corner of the intersection of Wilton Avenue with Belmont Avenue (27 docks).

Existing Traffic Volumes

In order to determine current vehicle, pedestrian, and bicycle conditions within the study area, KLOA, Inc. performed peak period traffic, pedestrian, and bicycle counts on Thursday, March 21, 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 following intersections:

- Wellington Avenue with Sheffield Avenue
- Wellington Avenue with Mildred Avenue
- Sheffield Avenue with Barry Avenue
- Sheffield Avenue with Nelson Street
- Mildred Avenue with Oakdale Avenue
- Wellington Avenue with the Wellington and Employee Parking Garage Access Drives
- Nelson Street with the Wellington Parking Garage Access Drives
- Nelson Street with the Valet/Pick-up/Drop-Off Circle Drive

In addition, follow-up counts were performed at the three intersections along Sheffield Avenue on Thursday, June 27, 2019 from 1:00 P.M. to 6:00 P.M. during a Chicago Cubs home day game. To provide a conservative (worst case) analysis, the counts performed during the Cubs game were used for the study. The results of the traffic counts indicated that the morning peak hour of traffic for the study area occurs between 7:45 A.M. and 8:45 A.M. and the evening peak hour occurs between 5:00 P.M. and 6:00 P.M. **Figure 5** illustrates the existing peak hour vehicle traffic volumes. **Figure 6** illustrates the existing peak hour pedestrian and bicycle volumes, showing the direction of travel. Summaries of the counts are located in the Appendix.



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EXISTING TRAFFIC VOLUMES

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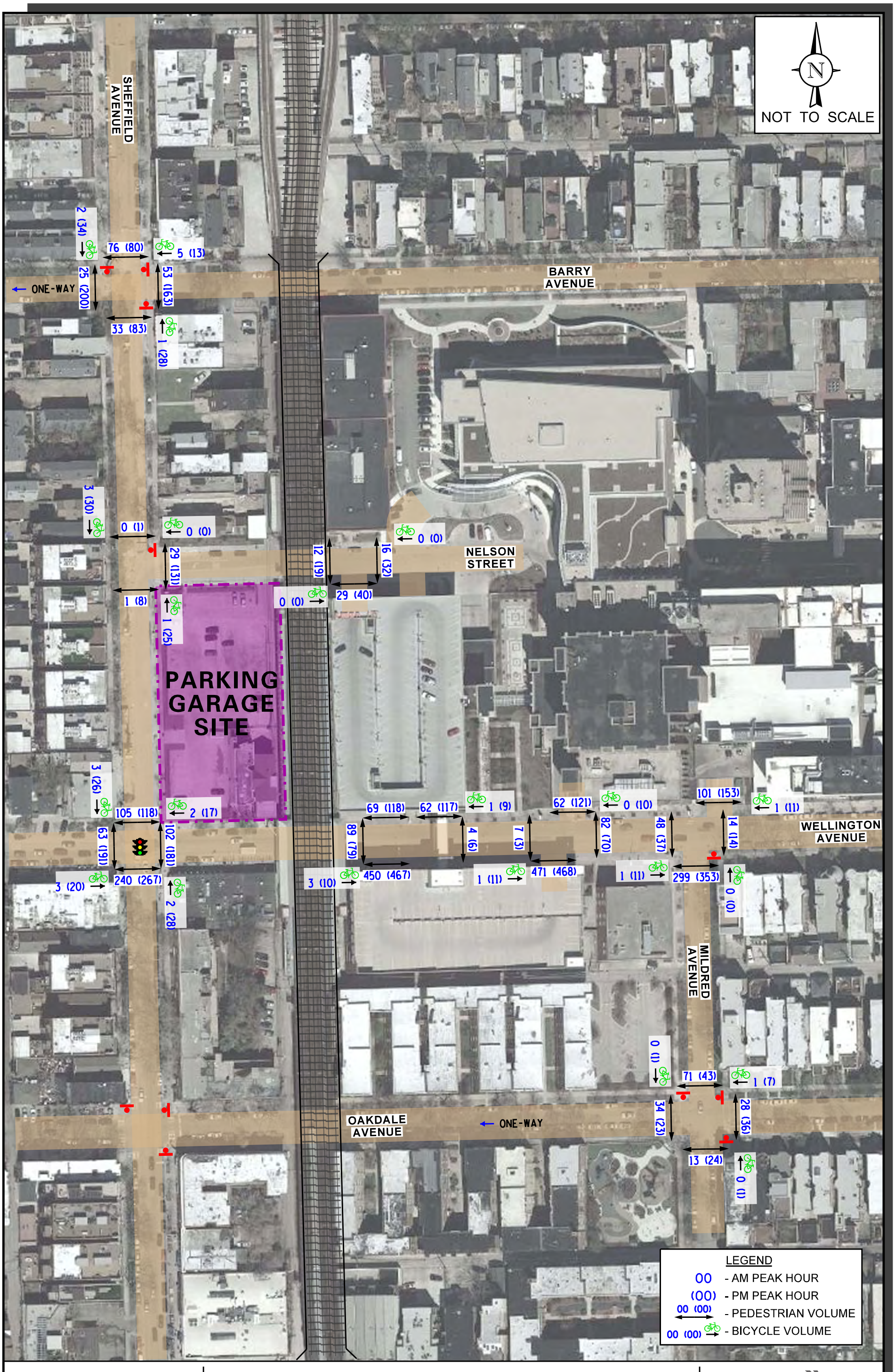

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EXISTING PEDESTRIAN AND BICYCLE TRAFFIC VOLUMES

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Job No: 19-036 Figure: 6

3. Traffic Characteristics of the New/Expanded Buildings

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed new/expanded buildings, including the directional distribution and estimated volume of traffic that will use the proposed parking garage.

Proposed New/Expanded Buildings

Current plans for the AIMMC campus include the addition of two new buildings and the expansion of the CAC, which are summarized below:

- *Wellington Pediatric Development and Counseling Center.* The existing 21,600 square-foot former Cancer Center building located in the southwest corner of Wellington Avenue with Mildred Avenue is proposed to be replaced with a new 56,000 square-foot building. As proposed, the new building will include outpatient exam rooms, consultation clinics for therapeutic counseling, and a pediatric development center.

- *Sheffield Parking Garage*. A parking garage is proposed to replace the existing 70-space gravel parking lot and a commercial building located on the east side of Sheffield Avenue bounded by Nelson Street on the north and Wellington Avenue on the south. As proposed, the parking garage is to contain approximately 408 parking spaces and an approximate 15,000 square-foot clinic for physical therapy. Vehicle access to the parking garage is proposed to be provided via a single access drive on Nelson Street.

- *The Center of Advanced Care (CAC) Westward Expansion.* Ultimately, the CAC is proposed to be expanded to the west by approximately 64,900 square feet and will replace the 26-space Wilton parking lot and the 27,000 square-foot Wilton building. As proposed, the three-level expansion will include new or additional facilities for the cancer center, a new heart center, and procedure, preparation, recovery, and surgical suites.

Figure 2 shows the locations of the two proposed new buildings and the CAC westward expansion.

Parking Garage Use

According to AIMMC officials, the proposed parking garage will primarily be used to accommodate faculty and staff. As proposed, the faculty and staff reserved parking in the Halsted and Wellington parking garages will be relocated to the proposed parking garage with the parking in the Halsted and Wellington garages generally reserved for patients and visitors. Further, the proposed parking garage will eliminate the need for AIMMC to lease the 125 off-campus parking spaces at the Century parking garage and 25 off-campus parking spaces at the Vic parking garage for faculty and staff. In addition, the garage will be used to accommodate the projected increase in parking demand with the proposed new/expanded buildings and general campus growth. In addition to accommodating the existing AIMMC campus parking demand, it is estimated that the proposed parking garage will be able to accommodate between 10 to 15 percent increase in the existing parking demand.

Parking Garage Access

Access to the proposed parking garage is proposed via a single access drive to be located on Nelson Street approximately 140 feet east of Sheffield Avenue and adjacent to the north-south alley. Given the limited traffic that uses the alley, the proximity of the access drive to the public alley should not pose any operational problems. The access drive will provide one inbound lane and one outbound lane with the outbound lane under stop sign control.

Directional Distribution

The directions from which traffic will approach and depart the AIMMC campus were estimated based on existing travel patterns, as determined from the traffic counts, and the operation of the existing street system. **Figure 7** illustrates the directional distribution of the campus-generated traffic.

Estimated Peak Hour Traffic Volumes

The estimated peak hour traffic that will be using the proposed parking garage was based on the existing traffic counts at the access drives to the employee parking garage and the Wellington parking garage. Both garages have a total of approximately 474 parking spaces and both had a peak occupancy of 90 percent or greater when the counts were conducted. **Table 1** shows the peak hour traffic volumes using the two parking garages and the trip rates per parking space. As indicated previously, the proposed parking garage will primarily be used by AIMMC faculty/staff. As such, to provide a worst-case analysis, the volume of peak hour traffic projected to be using the proposed parking garage was based on the average trip rates of the employee parking garage and the Wellington parking garage, which is primarily used for patients and visitors. **Table 2** shows the traffic estimated to use the proposed 408-space parking garage during the weekday morning and evening peak hours.

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ESTIMATED DIRECTIONAL DISTRIBUTION

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Table 1
AIMMC EXISTING PARKING GARAGES
PEAK HOUR VOLUMES AND TRIP RATES

	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total
Employee Garage						
Volume	64	26	90	8	52	60
Trip Rate	0.134	0.055	0.189	0.017	0.109	0.126
Wellington Garage						
Volume	110	47	157	30	96	126
Trip Rate	0.231	0.099	0.330	0.063	0.202	0.265

Trip rate equals trips per parking space.

Table 2
AIMMC PROPOSED PARKING GARAGE
ESTIMATED PEAK HOUR VOLUMES AND TRIP RATES

	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total
Proposed Parking Garage						
Volume	75	31	106	16	63	80
Trip Rate	0.183	0.077	0.259	0.040	0.155	0.195

Trip rate equals trips per parking space.

The potential impact of the new traffic generated by the new/expanded buildings will be reduced to the following:

- Approximately 40 to 50 percent of the parking spaces in the proposed parking garage will be used to accommodate the AIMMC faculty/staff that are currently parking in the Vic and Century parking garages and in other facilities. As such, a good portion of the traffic to be using the proposed parking garage is already generated by the AIMMC campus and is traversing the area streets.

- With the elimination of the use of the Vic and Century parking garages, AIMMC will be able to eliminate the use of the shuttle bus that currently transports faculty/staff between the campus and the off-campus parking facilities.

- The estimate of the traffic to use the proposed parking garage assumes a 10 to 15 percent increase in the existing AIMMC parking demand.

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 use the proposed parking garage.

Proposed Parking Garage Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that are estimated to use the proposed parking garage were assigned to the street system in accordance with the previously described directional distribution (Figure 7). The new traffic assignment for the proposed parking garage is illustrated in **Figure 8.**

Background Traffic Conditions

The existing traffic volumes (Figure 5) were increased by an ambient growth factor to account for the increase in existing traffic related to other growth in the area (i.e., not attributable to any particular planned development). To account for the other growth as well as the redistribution of some AIMMC generated traffic, a two percent per year growth factor was used for the study. As such, the two percent growth factor was applied for five years for a total growth rate of 10 percent.

Total Projected Traffic Volumes

The proposed parking garage traffic was added to the existing traffic volumes accounting for background growth to determine the projected Year 2024 total projected traffic volumes, shown in **Figure 9**.

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PROPOSED PARKING GARAGE TRAFFIC VOLUMES

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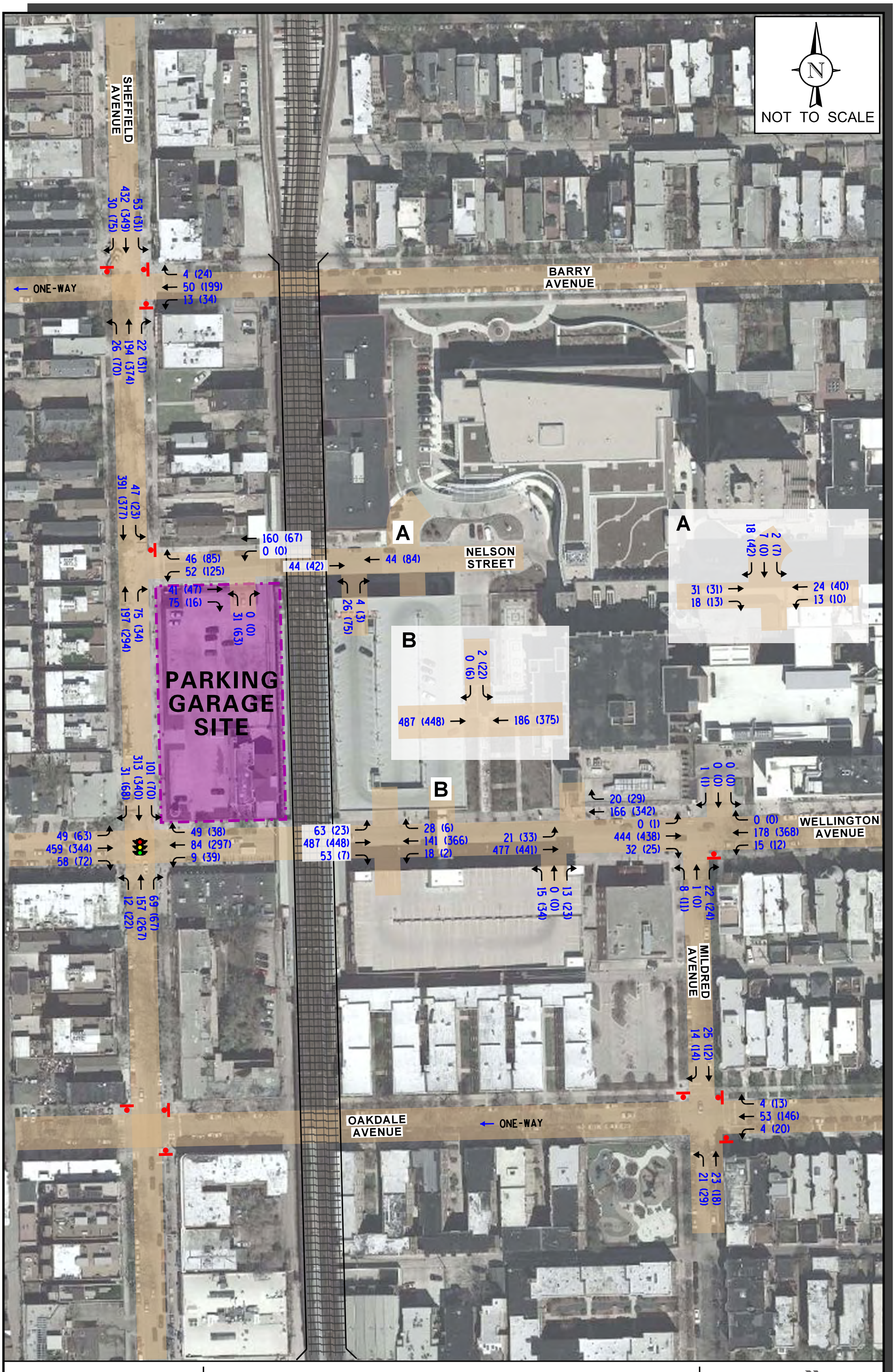

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TOTAL PROJECTED TRAFFIC VOLUMES

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Job No: 19-036 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 street system and access drive are projected to operate and whether any street improvements or modifications are required.

Traffic Analyses

Street and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing (Year 2019) and Year 2024 projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual* (HCM), 2010 and analyzed using the Synchro/SimTraffic 10 software. The analysis for the traffic-signal controlled intersections were accomplished using field measured cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and total projected conditions are presented in **Tables 3** through **5**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3
CAPACITY ANALYSIS RESULTS – SHEFFIELD AVENUE WITH WELLINGTON AVENUE – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning Peak Hour	C – 22.9		A – 9.0		B – 10.7		B – 14.8		B 16.9
	Weekday Evening Peak Hour	B – 16.0		B – 14.1		B – 12.7		B – 14.7		B 14.6
Projected Conditions	Weekday Morning Peak Hour	C – 27.5		A – 8.7		B – 12.1		B – 16.0		B 19.3
	Weekday Evening Peak Hour	B – 17.3		B – 14.9		B – 14.7		B – 16.7		B 16.0

LOS – Level of Service
Delay is measured in seconds.

Table 4
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Sheffield Avenue with Barry Avenue[1]				
• Intersection	B	11.5	B	13.5
• Westbound Approach	A	9.0	B	12.2
• Northbound Approach	A	9.3	B	12.9
• Southbound Approach	B	12.8	B	14.7
Sheffield Avenue with Nelson Street[2]				
• Westbound Left Turn	B	14.4	C	21.8
• Westbound Right Turn	A	9.7	B	12.2
• Southbound Left Turn	A	7.8	A	8.7
Wellington Avenue with Wellington Garage Outbound Drive[2]				
• Southbound Approach	B	13.2	C	15.8
Wellington Avenue with Employee Garage Outbound Drive/Hospital Drop-Off/Pick-Up Lane[3]				
• Eastbound Left Turn	A	7.7	A	8.4
• Northbound Approach	B	14.1	F	61.1
Wellington Avenue with Mildred Avenue and Ambulance Bay/Loading Dock[3]				
• Eastbound Left Turn	A	--	B	11.0
• Westbound Left Turn	B	11.0	B	11.6
• Northbound Approach	C	23.4	D	30.2
• Southbound Approach	B	10.7	C	16.2
Oakdale Avenue with Mildred Avenue[1]				
• Intersection	A	7.4	A	8.0
• Westbound Approach	A	7.6	A	8.2
• Northbound Approach	A	7.5	A	7.8
• Southbound Approach	A	7.1	A	7.2

LOS = Level of Service; Delay is measured in seconds.
1 – All-Way Stop Sign Control
2 – One-Way Stop Sign Control
3 – Two-Way Stop Sign Control

Table 5
CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Sheffield Avenue with Barry Avenue[1]				
• Intersection	B	13.5	C	19.8
• Westbound Approach	A	9.4	B	14.5
• Northbound Approach	A	10.0	C	22.5
• Southbound Approach	C	15.6	C	20.1
Sheffield Avenue with Nelson Street[2]				
• Westbound Left Turn	C	18.1	D	33.8
• Westbound Right Turn	B	12.1	B	13.4
• Southbound Left Turn	A	8.1	A	8.9
Wellington Avenue with Wellington Garage Outbound Drive[2]				
• Southbound Approach	B	14.1	C	17.4
Wellington Avenue with Employee Garage Outbound Drive/Hospital Drop-Off/Pick-Up Lane[3]				
• Eastbound Left Turn	A	7.9	A	8.5
• Northbound Approach	C	15.4	F	99+
Wellington Avenue with Mildred Avenue and Ambulance Bay/Loading Dock[3]				
• Eastbound Left Turn	A	--	B	11.5
• Westbound Left Turn	B	11.8	B	12.5
• Northbound Approach	D	28.6	E	39.7
• Southbound Approach	B	11.2	C	17.4
Oakdale Avenue with Mildred Avenue[1]				
• Intersection	A	7.5	A	8.7
• Westbound Approach	A	7.6	A	8.8
• Northbound Approach	A	7.6	A	8.7
• Southbound Approach	A	7.2	A	7.4

LOS = Level of Service; Delay is measured in seconds.
1 – All-Way Stop Sign Control
2 – One-Way Stop Sign Control
3 – Two-Way Stop Sign Control

Discussion and Recommendations

The following summarizes how the intersections within the study area currently operate and are projected to operate assuming the total projected traffic volumes. It will also identify any street and traffic control improvements and/or modifications necessary to accommodate the projected traffic volumes.

Sheffield Avenue with Wellington Avenue

The results of the capacity analyses indicate that this signalized intersection currently operates at Level of Service (LOS) B during both the weekday morning and weekday evening peak hours. Further, all of the intersection approaches operate at LOS C or better during both peak hours. It should be noted that this intersection can experience some congestion during peak periods. However, the congestions typically only last for a short period and clears quickly. Assuming the total projected traffic volumes, this intersection is projected to continue to operate at LOS B during the peak hours. In addition, all of the intersection approaches are projected to operate at LOS C or better. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Sheffield Avenue with Barry Avenue

The results of the capacity analyses indicate that this all-way stop sign controlled intersection currently operates at LOS B or better during the weekday morning and weekday day evening peak hours. Further, all of the intersection approaches operate at LOS B or better during both peak hours. Assuming the total projected traffic volumes, this intersection is projected to continue to operate at LOS B during the weekday morning peak hour and to operate at LOS C during the weekday evening peak hour. In addition, all of the intersection approaches are projected to operate at LOS C or better. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Sheffield Avenue with Nelson Street

The results of the capacity analyses indicate that all the critical movements at this one-way stop sign controlled intersection currently operate at LOS C or better during the weekday morning and weekday evening peak hours. Assuming the total projected traffic volumes, all of the critical movements are projected to continue to operate at LOS D or better during the peak hours. The Nelson Street left-turn and right-turn movements are projected to have a 95th percentile queue of one to two vehicles. It should be noted that during peak exiting periods from the proposed garage and the Wellington garage, it is anticipated that the Nelson Street movements will experience some additional delay and longer queues due to the surge of traffic. However, this is likely to only occur once or twice a day and will only last for a short period. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Wellington Avenue with Wellington Outbound Access Drive

The results of the capacity analyses indicate that the access drive approach at this one-way stop sign controlled intersection currently operates at LOS B during the weekday morning and weekday evening peak hours. Assuming the total projected traffic volumes, the access drive approach is projected to operate at LOS C or better during the peak hours. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Wellington Avenue with Employee Outbound Access Drive/Hospital Drop-Off/Pick-Up Lane

The results of the capacity analyses indicate that the employee garage access drive at this one-way stop sign controlled intersection currently operates at LOS B during the weekday morning peak hour and a LOS F during the weekday evening peak hour. The lower level of service is due to the surge of pedestrian traffic along Wellington Avenue, particularly in the afternoon, due to the proximity of the CTA Wellington station. This traffic is able to exit the employee parking garage, but the traffic can experience some additional delay after a train stops at the station and a surge of riders departs the station and travels down Wellington Avenue. Assuming the total projected traffic volumes, the employee garage access drive is projected to continue to operate at LOS B during the weekday morning peak hour and LOS F during the weekday evening peak hour. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Wellington Avenue with Mildred Avenue and Ambulance Bay/Loading Dock

The results of the capacity analyses indicate that all the critical movements at this two-way stop sign controlled intersection currently operate at a LOS D or better during the weekday morning and weekday evening peak hours. Assuming the total projected traffic volumes, all of the critical movements are projected to operate at similar levels of service during the peak hours. It should be noted that the access drive to the ambulance bay/loading dock is projected to operate on the threshold between LOS D and E. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Oakdale Avenue with Mildred Avenue

The results of the capacity analyses indicate that this all-way stop sign controlled intersection currently operates at LOS A during the weekday morning and weekday evening peak hours. Further, all of the intersection approaches operate at LOS A during both peak hours. Assuming the total projected traffic volumes, this intersection is projected to continue to operate at LOS A during the peak hours. In addition, all of the intersection approaches are projected to operate at LOS A. As such, this intersection has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed new/expanded buildings and no street improvements or traffic control modifications are required.

Nelson Street with Proposed Access Drive

Access to the proposed parking garage will be provided via one access drive located on the south side of Nelson Street approximately 140 feet east of Sheffield Avenue. The access drive will provide one inbound lane and one outbound lane that is under stop sign control. Given the low volume of traffic on Nelson Street, the access drive is projected to operate at a good level of service. Similar to other parking garages on the campus, during peak exiting times from the garage, some additional delay and queueing may occur due to the surge of traffic. In addition, the queueing along Nelson Street at its intersection with Sheffield Avenue may extend to or past the access drive. However, both conditions are likely to only occur once or twice a day and will only last for a short period. The operation of the access drive should be monitored in the future to determine how it is operating. If necessary, it is recommended that an AIMMC security person be located at this intersection to help control and manage the traffic at this intersection.

Patient Drop-off/Pick-up Zones

The following two patient drop-off/pick-up zones are proposed as part of the new/expanded buildings:

- The Wellington Pediatric Development and Counseling Center is proposed to have a patient drop-off/pick-up zone on the south side of Wellington Avenue along the frontage of the building. It is important to note that parking is currently prohibited along the south side of Wellington Avenue along the site frontage and, as such, will not result in the loss of any on-street parking. In addition, the development of the Wellington Pediatric Development and Counseling Center will eliminate the two existing access drives on the south side of Wellington Avenue currently serving the Cancer Center.

- The physical therapy center to be located on the first floor of the proposed parking garage is proposed to have a patient drop-off/pick-up zone on the east side of Sheffield Avenue along the north end of the building. Approximately two to three existing on-street parking spaces will need to be eliminated to accommodate the patient drop-off/pick-up zone. However, with the elimination of the existing access drive on Sheffield Avenue serving the site, one additional parking space can be accommodated on Sheffield Avenue.

Transportation Sustainability Conclusions and Recommendations

The following summarizes measures to be implemented by the development and/or recommendations to further minimize the impact of the development, foster alternative modes of transportation other than the automobile, and to enhance pedestrian/bicycle safety:

- High visibility, ladder style crosswalks should be installed at the following intersections within or adjacent to the AIMMC campus:
    - Sheffield Avenue with Barry Avenue (all legs)
    - Wellington Avenue with Dayton Street (north leg only)
    - Oakdale Avenue with Mildred Avenue (all legs)
- Several of the parking spaces in the garage should be reserved for electrical vehicle charging stations.
- Bicycle racks should be provided for visitors, faculty, and staff around the proposed new/expanded buildings.

6. Conclusion

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

- Current plans for the AIMMC campus include (1) the replacement of the existing 21,600 square-foot Cancer Center building with the 56,000 square-foot Wellington Pediatric Development and Counseling Center, (2) the replacement of the approximate 70-space Sheffield parking lot with a 408-space parking garage, and (3) the construction of the westward expansion of the Center of Advanced Care (CAC) building.

- The proposed parking garage will primarily be used to accommodate faculty and staff and will replace the parking lost in the Sheffield and Wilton parking lots and will eliminate the need for AIMMC to lease the 150 off-campus parking spaces at the Century and Vic parking garages. In addition, the proposed parking garage will be used to accommodate the projected increase in parking demand generated by the proposed new/expanded buildings and general campus growth.

- The potential impact of the new traffic generated by the new/expanded buildings will be reduced due to the following:

    - Approximately 40 to 50 percent of the parking spaces in the proposed parking garage will be used to accommodate the AIMMC faculty/staff that are currently parking in the Vic and Century parking garages and in other facilities. As such, a good portion of the traffic to be using the proposed parking garage is already generated by the AIMMC campus and is traversing the area streets.

    - With the elimination of the use of the Vic and Century parking garages, AIMMC will be able to eliminate the use of the shuttle bus that currently transports faculty/staff between the AIMMC campus and the off-campus parking facilities.

    - The estimate of the traffic to use the proposed parking garage assumes a 10 to 15 percent increase in the existing AIMMC parking demand.

- Access to the proposed parking garage will be provided via one access drive located on the south side of Nelson Street approximately 140 feet east of Sheffield Avenue. The existing access drive is sufficient to accommodate the traffic estimated to use the parking garage. Similar to other parking garages on the campus, during peak exiting times from the garage, some additional delay and queueing may occur on Nelson Street due to the surge of traffic. However, this is likely to only occur once or twice a day and will only last for a short period.

- The results of the capacity analyses have shown that the existing street system has sufficient reserve capacity to accommodate the additional traffic that will be generated by the new/expanded buildings, including during a Chicago Cubs home game.

Appendix

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

Traffic Count Summary Sheets

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

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

Count Name: Sheffield Avenue and Wellington
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Sheffield Avenue Northbound						Sheffield Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	4	50	12	6	66	0	6	14	2	11	22	0	1	13	17	22	31	0	9	34	0	9	43	162
7:15 AM	0	7	65	6	13	78	0	2	12	1	13	15	0	1	18	7	42	26	0	10	49	4	23	63	182
7:30 AM	0	13	73	23	21	109	0	10	24	3	28	37	0	4	24	6	55	34	0	21	71	8	21	100	280
7:45 AM	0	9	120	12	22	141	0	4	17	11	21	32	0	4	40	19	54	63	0	18	73	5	28	96	332
Hourly Total	0	33	308	53	62	394	0	22	67	17	73	106	0	10	95	49	173	154	0	58	227	17	81	302	956
8:00 AM	0	10	90	15	14	115	0	2	24	8	32	34	0	0	32	14	60	46	0	25	63	6	28	94	289
8:15 AM	0	7	116	14	15	137	0	1	20	10	24	31	0	2	27	19	75	48	0	26	77	9	28	112	328
8:30 AM	0	9	94	12	12	115	0	1	16	7	25	24	0	5	36	12	51	53	0	18	67	4	21	89	281
8:45 AM	0	10	92	24	11	126	0	6	14	8	13	28	0	4	28	6	26	38	0	14	74	5	19	93	285
Hourly Total	0	36	392	65	52	493	0	10	74	33	94	117	0	11	123	51	212	185	0	83	281	24	96	388	1183
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	13	46	10	13	69	0	6	60	9	18	75	0	1	43	10	23	54	0	16	51	17	13	84	282
4:15 PM	0	6	51	8	10	65	0	6	43	6	11	55	0	3	45	8	26	56	0	12	43	9	4	64	240
4:30 PM	0	7	67	12	18	86	0	3	45	16	17	64	0	2	49	10	42	61	0	8	50	6	18	64	275
4:45 PM	0	13	46	13	17	72	0	10	52	9	22	71	0	4	44	13	46	61	0	18	57	10	22	85	289
Hourly Total	0	39	210	43	58	292	0	25	200	40	68	265	0	10	181	41	137	232	0	54	201	42	57	297	1086
5:00 PM	0	9	67	5	22	81	0	3	63	11	27	77	0	3	49	4	44	56	0	17	66	16	22	99	313
5:15 PM	0	8	56	10	25	74	0	4	57	8	29	69	0	2	61	10	53	73	0	14	44	12	30	70	286
5:30 PM	0	12	63	23	20	98	0	12	52	17	29	81	0	6	46	14	59	66	0	15	63	7	27	85	330
5:45 PM	0	15	57	6	31	78	0	7	44	7	48	58	0	5	65	24	69	94	0	13	59	8	39	80	310
Hourly Total	0	44	243	44	98	331	0	26	216	43	133	285	0	16	221	52	225	289	0	59	232	43	118	334	1239
Grand Total	0	152	1153	205	270	1510	0	83	557	133	368	773	0	47	620	193	747	860	0	254	941	126	352	1321	4464
Approach %	0.0	10.1	76.4	13.6	-	-	0.0	10.7	72.1	17.2	-	-	0.0	5.5	72.1	22.4	-	-	0.0	19.2	71.2	9.5	-	-	-
Total %	0.0	3.4	25.8	4.6	-	33.8	0.0	1.9	12.5	3.0	-	17.3	0.0	1.1	13.9	4.3	-	19.3	0.0	5.7	21.1	2.8	-	29.6	-
Lights	0	148	1116	199	-	1463	0	80	540	125	-	745	0	46	596	185	-	827	0	249	900	124	-	1273	4308
% Lights	-	97.4	96.8	97.1	-	96.9	-	96.4	96.9	94.0	-	96.4	-	97.9	96.1	95.9	-	96.2	-	98.0	95.6	98.4	-	96.4	96.5
Buses	0	0	3	0	-	3	0	0	0	2	-	2	0	0	1	1	-	2	0	0	3	0	-	3	10
% Buses	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	1.5	-	0.3	-	0.0	0.2	0.5	-	0.2	-	0.0	0.3	0.0	-	0.2	0.2
Single-Unit Trucks	0	2	8	2	-	12	0	3	7	3	-	13	0	1	8	5	-	14	0	2	16	0	-	18	57
% Single-Unit Trucks	-	1.3	0.7	1.0	-	0.8	-	3.6	1.3	2.3	-	1.7	-	2.1	1.3	2.6	-	1.6	-	0.8	1.7	0.0	-	1.4	1.3
Articulated Trucks	0	1	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	5
% Articulated Trucks	-	0.7	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	0.1
Bicycles on Road	0	1	25	4	-	30	0	0	10	3	-	13	0	0	15	2	-	17	0	3	19	2	-	24	84
% Bicycles on Road	-	0.7	2.2	2.0	-	2.0	-	0.0	1.8	2.3	-	1.7	-	0.0	2.4	1.0	-	2.0	-	1.2	2.0	1.6	-	1.8	1.9
Pedestrians	-	-	-	-	270	-	-	-	-	-	368	-	-	-	-	-	747	-	-	-	-	-	352	-	-

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

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

Count Name: Sheffield Avenue and Wellington
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Sheffield Avenue Northbound						Sheffield Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	9	120	12	22	141	0	4	17	11	21	32	0	4	40	19	54	63	0	18	73	5	28	96	332
8:00 AM	0	10	90	15	14	115	0	2	24	8	32	34	0	0	32	14	60	46	0	25	63	6	28	94	289
8:15 AM	0	7	116	14	15	137	0	1	20	10	24	31	0	2	27	19	75	48	0	26	77	9	28	112	328
8:30 AM	0	9	94	12	12	115	0	1	16	7	25	24	0	5	36	12	51	53	0	18	67	4	21	89	281
Total	0	35	420	53	63	508	0	8	77	36	102	121	0	11	135	64	240	210	0	87	280	24	105	391	1230
Approach %	0.0	6.9	82.7	10.4	-	-	0.0	6.6	63.6	29.8	-	-	0.0	5.2	64.3	30.5	-	-	0.0	22.3	71.6	6.1	-	-	-
Total %	0.0	2.8	34.1	4.3	-	41.3	0.0	0.7	6.3	2.9	-	9.8	0.0	0.9	11.0	5.2	-	17.1	0.0	7.1	22.8	2.0	-	31.8	-
PHF	0.000	0.875	0.875	0.883	-	0.901	0.000	0.500	0.802	0.818	-	0.890	0.000	0.550	0.844	0.842	-	0.833	0.000	0.837	0.909	0.667	-	0.873	0.926
Lights	0	33	413	52	-	498	0	7	76	32	-	115	0	11	130	58	-	199	0	85	271	24	-	380	1192
% Lights	-	94.3	98.3	98.1	-	98.0	-	87.5	98.7	88.9	-	95.0	-	100.0	96.3	90.6	-	94.8	-	97.7	96.8	100.0	-	97.2	96.9
Buses	0	0	1	0	-	1	0	0	0	2	-	2	0	0	0	1	-	1	0	0	2	0	-	2	6
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	5.6	-	1.7	-	0.0	0.0	1.6	-	0.5	-	0.0	0.7	0.0	-	0.5	0.5
Single-Unit Trucks	0	1	3	1	-	5	0	1	0	1	-	2	0	0	4	4	-	8	0	2	3	0	-	5	20
% Single-Unit Trucks	-	2.9	0.7	1.9	-	1.0	-	12.5	0.0	2.8	-	1.7	-	0.0	3.0	6.3	-	3.8	-	2.3	1.1	0.0	-	1.3	1.6
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	2
% Articulated Trucks	-	2.9	0.0	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.3	0.2
Bicycles on Road	0	0	3	0	-	3	0	0	1	1	-	2	0	0	1	1	-	2	0	0	3	0	-	3	10
% Bicycles on Road	-	0.0	0.7	0.0	-	0.6	-	0.0	1.3	2.8	-	1.7	-	0.0	0.7	1.6	-	1.0	-	0.0	1.1	0.0	-	0.8	0.8
Pedestrians	-	-	-	-	63	-	-	-	-	-	102	-	-	-	-	-	240	-	-	-	-	-	105	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Sheffield Avenue and Wellington
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Sheffield Avenue Northbound						Sheffield Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	9	67	5	22	81	0	3	63	11	27	77	0	3	49	4	44	56	0	17	66	16	22	99	313
5:15 PM	0	8	56	10	25	74	0	4	57	8	29	69	0	2	61	10	53	73	0	14	44	12	30	70	286
5:30 PM	0	12	63	23	20	98	0	12	52	17	29	81	0	6	46	14	59	66	0	15	63	7	27	85	330
5:45 PM	0	15	57	6	31	78	0	7	44	7	48	58	0	5	65	24	69	94	0	13	59	8	39	80	310
Total	0	44	243	44	98	331	0	26	216	43	133	285	0	16	221	52	225	289	0	59	232	43	118	334	1239
Approach %	0.0	13.3	73.4	13.3	-	-	0.0	9.1	75.8	15.1	-	-	0.0	5.5	76.5	18.0	-	-	0.0	17.7	69.5	12.9	-	-	-
Total %	0.0	3.6	19.6	3.6	-	26.7	0.0	2.1	17.4	3.5	-	23.0	0.0	1.3	17.8	4.2	-	23.3	0.0	4.8	18.7	3.5	-	27.0	-
PHF	0.000	0.733	0.907	0.478	-	0.844	0.000	0.542	0.857	0.632	-	0.880	0.000	0.667	0.850	0.542	-	0.769	0.000	0.868	0.879	0.672	-	0.843	0.939
Lights	0	42	233	42	-	317	0	25	206	41	-	272	0	16	213	50	-	279	0	57	224	42	-	323	1191
% Lights	-	95.5	95.9	95.5	-	95.8	-	96.2	95.4	95.3	-	95.4	-	100.0	96.4	96.2	-	96.5	-	96.6	96.6	97.7	-	96.7	96.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	1	1	-	3	0	1	2	0	-	3	0	0	1	1	-	2	0	0	1	0	-	1	9
% Single-Unit Trucks	-	2.3	0.4	2.3	-	0.9	-	3.8	0.9	0.0	-	1.1	-	0.0	0.5	1.9	-	0.7	-	0.0	0.4	0.0	-	0.3	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	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	1	9	1	-	11	0	0	8	2	-	10	0	0	7	1	-	8	0	2	7	1	-	10	39
% Bicycles on Road	-	2.3	3.7	2.3	-	3.3	-	0.0	3.7	4.7	-	3.5	-	0.0	3.2	1.9	-	2.8	-	3.4	3.0	2.3	-	3.0	3.1
Pedestrians	-	-	-	-	98	-	-	-	-	-	133	-	-	-	-	-	225	-	-	-	-	-	118	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Barry Avenue and Sheffield Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Sheffield Avenue Eastbound						Sheffield Avenue Westbound						Barry Avenue Northbound						Barry Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	2	0	0	3	8	3	7	14	0	4	19	0	4	23	1	1	48	4	10	54	91
7:15 AM	0	0	0	0	6	0	0	2	9	0	7	11	0	3	24	2	6	29	0	4	67	5	17	76	116
7:30 AM	0	0	0	0	9	0	0	3	7	3	14	13	0	7	33	4	7	44	0	5	86	4	12	95	152
7:45 AM	0	0	1	0	9	1	0	4	13	0	23	17	0	6	54	5	8	65	0	11	89	10	15	110	193
Hourly Total	0	0	1	0	26	1	0	12	37	6	51	55	0	20	130	11	25	161	1	21	290	23	54	335	552
8:00 AM	0	0	0	0	3	0	0	2	13	1	11	16	0	7	35	6	8	48	0	12	98	7	20	117	181
8:15 AM	0	0	0	0	9	0	0	1	11	3	7	15	0	5	35	5	10	45	0	16	94	4	16	114	174
8:30 AM	0	0	0	0	4	0	0	2	12	1	12	15	0	4	45	3	7	52	0	9	92	6	25	107	174
8:45 AM	0	0	0	0	12	0	0	5	7	2	8	14	0	4	37	6	11	47	0	7	101	9	13	117	178
Hourly Total	0	0	0	0	28	0	0	10	43	7	38	60	0	20	152	20	36	192	0	44	385	26	74	455	707
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	1	0	13	1	0	4	34	1	18	39	0	14	63	3	6	80	0	6	58	10	13	74	194
4:15 PM	0	1	0	0	8	1	0	4	24	2	14	30	0	7	59	3	13	69	0	3	56	7	8	66	166
4:30 PM	0	0	1	0	12	1	0	5	24	3	18	32	0	8	76	6	11	90	0	5	60	12	8	77	200
4:45 PM	0	0	0	0	16	0	0	4	32	4	23	40	2	9	63	4	16	78	0	3	53	9	8	65	183
Hourly Total	0	1	2	0	49	3	0	17	114	10	73	141	2	38	261	16	46	317	0	17	227	38	37	282	743
5:00 PM	0	0	0	0	15	0	0	5	36	2	22	43	0	22	66	3	10	91	0	6	67	12	6	85	219
5:15 PM	0	0	0	0	16	0	0	3	43	6	30	52	0	9	81	2	16	92	1	5	62	11	16	79	223
5:30 PM	0	0	0	0	17	0	0	7	36	5	22	48	0	14	69	4	18	87	0	5	72	10	12	87	222
5:45 PM	0	0	0	0	23	0	0	2	33	9	29	44	0	12	70	5	15	87	1	9	64	7	17	81	212
Hourly Total	0	0	0	0	71	0	0	17	148	22	103	187	0	57	286	14	59	357	2	25	265	40	51	332	876
Grand Total	0	1	3	0	174	4	0	56	342	45	265	443	2	135	829	61	166	1027	3	107	1167	127	216	1404	2878
Approach %	0.0	25.0	75.0	0.0	-	-	0.0	12.6	77.2	10.2	-	-	0.2	13.1	80.7	5.9	-	-	0.2	7.6	83.1	9.0	-	-	-
Total %	0.0	0.0	0.1	0.0	-	0.1	0.0	1.9	11.9	1.6	-	15.4	0.1	4.7	28.8	2.1	-	35.7	0.1	3.7	40.5	4.4	-	48.8	-
Lights	0	0	0	0	-	0	0	56	330	44	-	430	2	134	797	61	-	994	3	104	1127	122	-	1356	2780
% Lights	-	0.0	0.0	-	-	0.0	-	100.0	96.5	97.8	-	97.1	100.0	99.3	96.1	100.0	-	96.8	100.0	97.2	96.6	96.1	-	96.6	96.6
Buses	0	0	0	0	-	0	0	0	2	0	-	2	0	0	1	0	-	1	0	0	2	0	-	2	5
% Buses	-	0.0	0.0	-	-	0.0	-	0.0	0.6	0.0	-	0.5	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.2	0.0	-	0.1	0.2
Single-Unit Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	1	12	0	-	13	0	3	20	2	-	25	40
% Single-Unit Trucks	-	0.0	0.0	-	-	0.0	-	0.0	0.6	0.0	-	0.5	0.0	0.7	1.4	0.0	-	1.3	0.0	2.8	1.7	1.6	-	1.8	1.4
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	0	0	3	1	-	4	6
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	0.0	0.3	0.0	-	0.2	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.3	0.8	-	0.3	0.2
Bicycles on Road	0	1	3	0	-	4	0	0	7	1	-	8	0	0	18	0	-	18	0	0	15	2	-	17	47
% Bicycles on Road	-	100.0	100.0	-	-	100.0	-	0.0	2.0	2.2	-	1.8	0.0	0.0	2.2	0.0	-	1.8	0.0	0.0	1.3	1.6	-	1.2	1.6
Pedestrians	-	-	-	-	174	-	-	-	-	-	265	-	-	-	-	-	166	-	-	-	-	-	216	-	-

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

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

Count Name: Barry Avenue and Sheffield Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Sheffield Avenue Eastbound						Sheffield Avenue Westbound						Barry Avenue Northbound						Barry Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	0	1	0	9	1	0	4	13	0	23	17	0	6	54	5	8	65	0	11	89	10	15	110	193
8:00 AM	0	0	0	0	3	0	0	2	13	1	11	16	0	7	35	6	8	48	0	12	98	7	20	117	181
8:15 AM	0	0	0	0	9	0	0	1	11	3	7	15	0	5	35	5	10	45	0	16	94	4	16	114	174
8:30 AM	0	0	0	0	4	0	0	2	12	1	12	15	0	4	45	3	7	52	0	9	92	6	25	107	174
Total	0	0	1	0	25	1	0	9	49	5	53	63	0	22	169	19	33	210	0	48	373	27	76	448	722
Approach %	0.0	0.0	100.0	0.0	-	-	0.0	14.3	77.8	7.9	-	-	0.0	10.5	80.5	9.0	-	-	0.0	10.7	83.3	6.0	-	-	-
Total %	0.0	0.0	0.1	0.0	-	0.1	0.0	1.2	6.8	0.7	-	8.7	0.0	3.0	23.4	2.6	-	29.1	0.0	6.6	51.7	3.7	-	62.0	-
PHF	0.000	0.000	0.250	0.000	-	0.250	0.000	0.563	0.942	0.417	-	0.926	0.000	0.786	0.782	0.792	-	0.808	0.000	0.750	0.952	0.675	-	0.957	0.935
Lights	0	0	0	0	-	0	0	9	44	4	-	57	0	22	165	19	-	206	0	48	361	26	-	435	698
% Lights	-	-	0.0	-	-	0.0	-	100.0	89.8	80.0	-	90.5	-	100.0	97.6	100.0	-	98.1	-	100.0	96.8	96.3	-	97.1	96.7
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	2
% Buses	-	-	0.0	-	-	0.0	-	0.0	2.0	0.0	-	1.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	0.3
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	6	1	-	7	9
% Single-Unit Trucks	-	-	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.2	0.0	-	1.0	-	0.0	1.6	3.7	-	1.6	1.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	3	0	-	3	4
% Articulated Trucks	-	-	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	0.8	0.0	-	0.7	0.6
Bicycles on Road	0	0	1	0	-	1	0	0	4	1	-	5	0	0	1	0	-	1	0	0	2	0	-	2	9
% Bicycles on Road	-	-	100.0	-	-	100.0	-	0.0	8.2	20.0	-	7.9	-	0.0	0.6	0.0	-	0.5	-	0.0	0.5	0.0	-	0.4	1.2
Pedestrians	-	-	-	-	25	-	-	-	-	-	53	-	-	-	-	-	33	-	-	-	-	-	76	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Barry Avenue and Sheffield Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Sheffield Avenue Eastbound						Sheffield Avenue Westbound						Barry Avenue Northbound						Barry Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	0	0	15	0	0	5	36	2	22	43	0	22	66	3	10	91	0	6	67	12	6	85	219
5:15 PM	0	0	0	0	16	0	0	3	43	6	30	52	0	9	81	2	16	92	1	5	62	11	16	79	223
5:30 PM	0	0	0	0	17	0	0	7	36	5	22	48	0	14	69	4	18	87	0	5	72	10	12	87	222
5:45 PM	0	0	0	0	23	0	0	2	33	9	29	44	0	12	70	5	15	87	1	9	64	7	17	81	212
Total	0	0	0	0	71	0	0	17	148	22	103	187	0	57	286	14	59	357	2	25	265	40	51	332	876
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	9.1	79.1	11.8	-	-	0.0	16.0	80.1	3.9	-	-	0.6	7.5	79.8	12.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	1.9	16.9	2.5	-	21.3	0.0	6.5	32.6	1.6	-	40.8	0.2	2.9	30.3	4.6	-	37.9	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.607	0.860	0.611	-	0.899	0.000	0.648	0.883	0.700	-	0.970	0.500	0.694	0.920	0.833	-	0.954	0.982
Lights	0	0	0	0	-	0	0	17	148	22	-	187	0	56	275	14	-	345	2	25	260	40	-	327	859
% Lights	-	-	-	-	-	-	-	100.0	100.0	100.0	-	100.0	-	98.2	96.2	100.0	-	96.6	100.0	100.0	98.1	100.0	-	98.5	98.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	1	1	0	-	2	0	0	1	0	-	1	3
% Single-Unit Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	1.8	0.3	0.0	-	0.6	0.0	0.0	0.4	0.0	-	0.3	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	10	0	-	10	0	0	4	0	-	4	14
% Bicycles on Road	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	3.5	0.0	-	2.8	0.0	0.0	1.5	0.0	-	1.2	1.6
Pedestrians	-	-	-	-	71	-	-	-	-	-	103	-	-	-	-	-	59	-	-	-	-	-	51	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Sheffield Avenue with Nelson Street
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Nelson Street Westbound					Sheffield Avenue Northbound					Sheffield Avenue Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:00 AM	0	4	6	8	10	0	13	6	0	19	1	7	41	0	49	78
7:15 AM	0	7	5	5	12	1	24	1	0	26	0	5	61	0	66	104
7:30 AM	0	10	11	8	21	0	36	3	0	39	0	7	85	0	92	152
7:45 AM	0	12	8	3	20	0	56	7	0	63	0	6	81	0	87	170
Hourly Total	0	33	30	24	63	1	129	17	0	147	1	25	268	0	294	504
8:00 AM	0	3	8	10	11	0	39	7	0	46	0	4	96	0	100	157
8:15 AM	0	10	6	7	16	0	40	5	0	45	1	3	96	0	100	161
8:30 AM	0	5	9	9	14	0	45	7	1	52	0	5	85	0	90	156
8:45 AM	0	6	5	6	11	0	42	6	0	48	0	8	97	0	105	164
Hourly Total	0	24	28	32	52	0	166	25	1	191	1	20	374	0	395	638
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	29	21	7	50	0	58	5	0	63	0	4	57	0	61	174
4:15 PM	0	12	15	7	27	0	54	2	0	56	0	9	51	2	60	143
4:30 PM	0	12	19	12	31	0	71	5	4	76	0	5	57	0	62	169
4:45 PM	0	29	11	17	40	0	66	4	0	70	0	2	57	1	59	169
Hourly Total	0	82	66	43	148	0	249	16	4	265	0	20	222	3	242	655
5:00 PM	0	22	24	11	46	0	65	6	0	71	1	1	69	0	71	188
5:15 PM	0	16	23	19	39	0	70	2	1	72	0	2	62	1	64	175
5:30 PM	0	11	14	20	25	1	70	4	2	75	1	6	67	0	74	174
5:45 PM	0	17	18	22	35	0	68	10	2	78	0	4	64	0	68	181
Hourly Total	0	66	79	72	145	1	273	22	5	296	2	13	262	1	277	718
Grand Total	0	205	203	171	408	2	817	80	10	899	4	78	1126	4	1208	2515
Approach %	0.0	50.2	49.8	-	-	0.2	90.9	8.9	-	-	0.3	6.5	93.2	-	-	-
Total %	0.0	8.2	8.1	-	16.2	0.1	32.5	3.2	-	35.7	0.2	3.1	44.8	-	48.0	-
Lights	0	203	202	-	405	2	787	76	-	865	4	76	1087	-	1167	2437
% Lights	-	99.0	99.5	-	99.3	100.0	96.3	95.0	-	96.2	100.0	97.4	96.5	-	96.6	96.9
Buses	0	0	0	-	0	0	1	0	-	1	0	0	2	-	2	3
% Buses	-	0.0	0.0	-	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.2	-	0.2	0.1
Single-Unit Trucks	0	2	1	-	3	0	10	4	-	14	0	2	17	-	19	36
% Single-Unit Trucks	-	1.0	0.5	-	0.7	0.0	1.2	5.0	-	1.6	0.0	2.6	1.5	-	1.6	1.4
Articulated Trucks	0	0	0	-	0	0	2	0	-	2	0	0	3	-	3	5
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.3	-	0.2	0.2
Bicycles on Road	0	0	0	-	0	0	17	0	-	17	0	0	17	-	17	34
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	2.1	0.0	-	1.9	0.0	0.0	1.5	-	1.4	1.4
Pedestrians	-	-	-	171	-	-	-	-	10	-	-	-	-	4	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

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

Count Name: Sheffield Avenue with Nelson Street
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Nelson Street Westbound					Sheffield Avenue Northbound					Sheffield Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:45 AM	0	12	8	3	20	0	56	7	0	63	0	6	81	0	87	170
8:00 AM	0	3	8	10	11	0	39	7	0	46	0	4	96	0	100	157
8:15 AM	0	10	6	7	16	0	40	5	0	45	1	3	96	0	100	161
8:30 AM	0	5	9	9	14	0	45	7	1	52	0	5	85	0	90	156
Total	0	30	31	29	61	0	180	26	1	206	1	18	358	0	377	644
Approach %	0.0	49.2	50.8	-	-	0.0	87.4	12.6	-	-	0.3	4.8	95.0	-	-	-
Total %	0.0	4.7	4.8	-	9.5	0.0	28.0	4.0	-	32.0	0.2	2.8	55.6	-	58.5	-
PHF	0.000	0.625	0.861	-	0.763	0.000	0.804	0.929	-	0.817	0.250	0.750	0.932	-	0.943	0.947
Lights	0	29	31	-	60	0	175	22	-	197	1	18	346	-	365	622
% Lights	-	96.7	100.0	-	98.4	-	97.2	84.6	-	95.6	100.0	100.0	96.6	-	96.8	96.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.3	-	0.3	0.2
Single-Unit Trucks	0	1	0	-	1	0	3	4	-	7	0	0	5	-	5	13
% Single-Unit Trucks	-	3.3	0.0	-	1.6	-	1.7	15.4	-	3.4	0.0	0.0	1.4	-	1.3	2.0
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	3	-	3	4
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.6	0.0	-	0.5	0.0	0.0	0.8	-	0.8	0.6
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	3	-	3	4
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.6	0.0	-	0.5	0.0	0.0	0.8	-	0.8	0.6
Pedestrians	-	-	-	29	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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

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

Count Name: Sheffield Avenue with Nelson Street
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Nelson Street Westbound					Sheffield Avenue Northbound					Sheffield Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
5:00 PM	0	22	24	11	46	0	65	6	0	71	1	1	69	0	71	188
5:15 PM	0	16	23	19	39	0	70	2	1	72	0	2	62	1	64	175
5:30 PM	0	11	14	20	25	1	70	4	2	75	1	6	67	0	74	174
5:45 PM	0	17	18	22	35	0	68	10	2	78	0	4	64	0	68	181
Total	0	66	79	72	145	1	273	22	5	296	2	13	262	1	277	718
Approach %	0.0	45.5	54.5	-	-	0.3	92.2	7.4	-	-	0.7	4.7	94.6	-	-	-
Total %	0.0	9.2	11.0	-	20.2	0.1	38.0	3.1	-	41.2	0.3	1.8	36.5	-	38.6	-
PHF	0.000	0.750	0.823	-	0.788	0.250	0.975	0.550	-	0.949	0.500	0.542	0.949	-	0.936	0.955
Lights	0	66	79	-	145	1	263	22	-	286	2	13	257	-	272	703
% Lights	-	100.0	100.0	-	100.0	100.0	96.3	100.0	-	96.6	100.0	100.0	98.1	-	98.2	97.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	2	0	-	2	0	0	1	-	1	3
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.7	0.0	-	0.7	0.0	0.0	0.4	-	0.4	0.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	8	0	-	8	0	0	4	-	4	12
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	2.9	0.0	-	2.7	0.0	0.0	1.5	-	1.4	1.7
Pedestrians	-	-	-	72	-	-	-	-	5	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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(847)518-9990

Count Name: Nelson Street Parking Garage
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Nelson Street Eastbound					Nelson Street Westbound					Parking Garage Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	11	0	0	11	0	0	8	3	8	0	2	0	6	2	21
7:15 AM	0	6	0	2	6	0	0	9	3	9	0	2	0	6	2	17
7:30 AM	0	7	0	2	7	0	0	4	8	4	0	20	0	9	20	31
7:45 AM	0	13	0	1	13	0	0	11	5	11	0	7	1	7	8	32
Hourly Total	0	37	0	5	37	0	0	32	19	32	0	31	1	28	32	101
8:00 AM	0	9	0	5	9	0	0	6	3	6	0	9	3	7	12	27
8:15 AM	0	9	0	3	9	0	0	11	6	11	0	5	0	9	5	25
8:30 AM	0	9	0	3	9	0	0	12	2	12	0	3	0	6	3	24
8:45 AM	1	14	0	4	15	0	0	5	1	5	0	5	0	4	5	25
Hourly Total	1	41	0	15	42	0	0	34	12	34	0	22	3	26	25	101
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	8	0	8	8	0	0	29	6	29	0	19	3	4	22	59
4:15 PM	0	12	0	8	12	0	0	14	0	14	0	10	0	5	10	36
4:30 PM	0	9	0	0	9	0	0	14	8	14	0	18	0	12	18	41
4:45 PM	0	11	0	3	11	0	0	24	2	24	0	16	0	11	16	51
Hourly Total	0	40	0	19	40	0	0	81	16	81	0	63	3	32	66	187
5:00 PM	0	8	0	3	8	0	0	14	6	14	0	30	2	9	32	54
5:15 PM	0	7	0	2	7	0	0	18	3	18	0	19	1	7	20	45
5:30 PM	0	7	0	6	7	0	0	18	6	18	0	10	0	11	10	35
5:45 PM	0	16	0	8	16	0	0	26	17	26	0	9	0	13	9	51
Hourly Total	0	38	0	19	38	0	0	76	32	76	0	68	3	40	71	185
Grand Total	1	156	0	58	157	0	0	223	79	223	0	184	10	126	194	574
Approach %	0.6	99.4	0.0	-	-	0.0	0.0	100.0	-	-	0.0	94.8	5.2	-	-	-
Total %	0.2	27.2	0.0	-	27.4	0.0	0.0	38.9	-	38.9	0.0	32.1	1.7	-	33.8	-
Lights	1	151	0	-	152	0	0	222	-	222	0	184	10	-	194	568
% Lights	100.0	96.8	-	-	96.8	-	-	99.6	-	99.6	-	100.0	100.0	-	100.0	99.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	5	0	-	5	0	0	1	-	1	0	0	0	-	0	6
% Single-Unit Trucks	0.0	3.2	-	-	3.2	-	-	0.4	-	0.4	-	0.0	0.0	-	0.0	1.0
Articulated Trucks	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
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	58	-	-	-	-	79	-	-	-	-	126	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Nelson Street Parking Garage
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Nelson Street Eastbound					Nelson Street Westbound					Parking Garage Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	0	13	0	1	13	0	0	11	5	11	0	7	1	7	8	32
8:00 AM	0	9	0	5	9	0	0	6	3	6	0	9	3	7	12	27
8:15 AM	0	9	0	3	9	0	0	11	6	11	0	5	0	9	5	25
8:30 AM	0	9	0	3	9	0	0	12	2	12	0	3	0	6	3	24
Total	0	40	0	12	40	0	0	40	16	40	0	24	4	29	28	108
Approach %	0.0	100.0	0.0	-	-	0.0	0.0	100.0	-	-	0.0	85.7	14.3	-	-	-
Total %	0.0	37.0	0.0	-	37.0	0.0	0.0	37.0	-	37.0	0.0	22.2	3.7	-	25.9	-
PHF	0.000	0.769	0.000	-	0.769	0.000	0.000	0.833	-	0.833	0.000	0.667	0.333	-	0.583	0.844
Lights	0	37	0	-	37	0	0	39	-	39	0	24	4	-	28	104
% Lights	-	92.5	-	-	92.5	-	-	97.5	-	97.5	-	100.0	100.0	-	100.0	96.3
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	3	0	-	3	0	0	1	-	1	0	0	0	-	0	4
% Single-Unit Trucks	-	7.5	-	-	7.5	-	-	2.5	-	2.5	-	0.0	0.0	-	0.0	3.7
Articulated Trucks	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
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	12	-	-	-	-	16	-	-	-	-	29	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Nelson Street Parking Garage
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Nelson Street Eastbound					Nelson Street Westbound					Parking Garage Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	8	0	3	8	0	0	14	6	14	0	30	2	9	32	54
5:15 PM	0	7	0	2	7	0	0	18	3	18	0	19	1	7	20	45
5:30 PM	0	7	0	6	7	0	0	18	6	18	0	10	0	11	10	35
5:45 PM	0	16	0	8	16	0	0	26	17	26	0	9	0	13	9	51
Total	0	38	0	19	38	0	0	76	32	76	0	68	3	40	71	185
Approach %	0.0	100.0	0.0	-	-	0.0	0.0	100.0	-	-	0.0	95.8	4.2	-	-	-
Total %	0.0	20.5	0.0	-	20.5	0.0	0.0	41.1	-	41.1	0.0	36.8	1.6	-	38.4	-
PHF	0.000	0.594	0.000	-	0.594	0.000	0.000	0.731	-	0.731	0.000	0.567	0.375	-	0.555	0.856
Lights	0	38	0	-	38	0	0	76	-	76	0	68	3	-	71	185
% Lights	-	100.0	-	-	100.0	-	-	100.0	-	100.0	-	100.0	100.0	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	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
Articulated Trucks	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
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	19	-	-	-	-	32	-	-	-	-	40	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Study Name Nelson Street and Valet Loop
Start Date Thursday, March 21, 2019 7:00 AM
End Date Thursday, March 21, 2019 6:00 PM
Site Code

Report Summary

		Eastbound							Northbound								Southbound							Northwestbound							Southwestbound							Crosswalk	
Time Period	**Class.**	**U**	**L**	**BL**	**BR**	**R**	**I**	**O**	**U**	**L**	**T**	**BR**	**HR**	**I**	**O**	**U**	**HL**	**BL**	**T**	**R**	**I**	**O**	**U**	**HL**	**BL**	**BR**	**R**	**I**	**O**	**U**	**L**	**BL**	**BR**	**HR**	**I**	**O**	**Total**		**destria**	**Total**
Peak 1	Lights	0	1	0	26	16	43	37	0	0	0	0	0	0	35	0	0	1	0	0	1	6	1	12	21	0	0	34	29	0	1	7	16	5	29	0	107	W	7	7
Specified Period	%	0%	100%	0%	93%	100%	96%	97%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	100%	100%	100%	95%	0%	0%	97%	94%	0%	100%	100%	100%	100%	100%	0%	97%		100%	
7:45 AM - 8:45 AM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	11	11
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
7:45 AM - 8:45 AM	ngle-Unit Truc	0	0	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0	3	N	13	13
	%	0%	0%	0%	7%	0%	4%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	3%	6%	0%	0%	0%	0%	0%	0%	0%	3%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SE	8	8
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NE	31	31
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	Total	**0**	**1**	**0**	**28**	**16**	**45**	**38**	**0**	**0**	**0**	**0**	**0**	**0**	**35**	**0**	**0**	**1**	**0**	**0**	**1**	**6**	**1**	**12**	**22**	**0**	**0**	**35**	**31**	**0**	**1**	**7**	**16**	**5**	**29**	**0**	**110**		**70**	**70**
	PHF	0	0.25	0	0.78	0.67	0.75	0.86	0	0	0	0	0	0	0.8	0	0	0.25	0	0	0.25	0.5	0.25	0.6	0.61	0	0	0.62	0.65	0	0.25	0.58	0.5	0.62	0.6	0	0.81			
	Approach %						41%	35%						0%	32%						1%	5%						32%	28%						26%	0%				
Peak 2	Lights	0	0	0	28	12	40	74	0	0	0	0	0	0	21	0	0	1	0	4	5	1	0	9	36	0	0	45	34	0	5	0	34	1	40	0	130	W	5	5
Specified Period	%	0%	0%	0%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	100%	100%	100%	0%	100%	100%	0%	0%	100%	100%	0%	100%	0%	100%	100%	100%	0%	100%		100%	
5:00 PM - 6:00 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	21	21
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
5:00 PM - 6:00 PM	ngle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	70	70
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SE	4	4
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NE	26	26
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	Total	**0**	**0**	**0**	**28**	**12**	**40**	**74**	**0**	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**1**	**0**	**4**	**5**	**1**	**0**	**9**	**36**	**0**	**0**	**45**	**34**	**0**	**5**	**0**	**34**	**1**	**40**	**0**	**130**		**126**	**126**
	PHF	0	0	0	0.58	0.6	0.59	0.71	0	0	0	0	0	0	0.75	0	0	0.25	0	0.5	0.62	0.25	0	0.56	0.75	0	0	0.7	0.57	0	0.42	0	0.5	0.25	0.5	0	0.68			
	Approach %						31%	57%						0%	16%						4%	1%						35%	26%						31%	0%				

Study Name Wellington Avenue and Parking Garages
Start Date Thursday, March 21, 2019 6:00 AM
End Date Thursday, March 21, 2019 5:00 PM
Site Code

Report Summary

		Eastbound							Westbound							Northbound							Southeastbound							Southwestbound							Crosswalk	
Time Period	Class.	U	HL	BL	T	R	I	O	U	L	T	BR	HR	I	O	U	L	BL	BR	R	I	O	U	L	BL	BR	HR	I	O	U	HL	BL	BR	R	I	O	Total		ıdestria	Total
Peak 1	Lights	1	56	0	428	48	533	116	0	16	115	25	0	156	430	0	0	0	0	0	0	64	0	0	0	0	0	0	81	0	2	0	0	0	2	0	691	W	84	84
Specified Period	%	100%	100%	0%	97%	100%	98%	97%	0%	94%	97%	100%	0%	97%	97%	0%	0%	0%	0%	0%	0%	98%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	100%	0%	97%		100%	
7:45 AM - 8:45 AM	Buses	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	E	4	4
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
7:45 AM - 8:45 AM	ıgle-Unit Truc	0	0	0	9	0	9	4	0	0	4	0	0	4	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	S	450	450
	%	0%	0%	0%	2%	0%	2%	3%	0%	0%	3%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NW	69	69
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	3	0	3	0	0	1	0	0	0	1	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	NE	62	62
	%	0%	0%	0%	1%	0%	1%	0%	0%	6%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
	Total	**1**	**56**	**0**	**441**	**48**	**546**	**120**	**0**	**17**	**119**	**25**	**0**	**161**	**443**	**0**	**0**	**0**	**0**	**0**	**0**	**65**	**0**	**0**	**0**	**0**	**0**	**0**	**81**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**709**		**669**	**669**
	PHF	0.25	0.88	0	0.91	0.63	0.95	0.94	0	0.61	0.93	0.69	0	0.89	0.91	0	0	0	0	0	0	0.62	0	0	0	0	0	0	0.81	0	0.5	0	0	0	0.5	0	0.94			
	Approach %						77%	17%						23%	62%						0%	9%						0%	11%						0%	0%				
Peak 2	Lights	0	21	0	311	6	338	271	1	2	266	5	0	274	332	0	0	0	0	0	0	8	0	0	0	0	0	0	26	0	20	0	5	0	25	0	637	W	79	79
Specified Period	%	0%	100%	0%	97%	100%	97%	96%	100%	100%	96%	100%	0%	96%	97%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	100%	0%	100%	0%	97%		100%	
5:00 PM - 6:00 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	E	6	6
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
5:00 PM - 6:00 PM	ıgle-Unit Truc	0	0	0	1	0	1	3	0	0	3	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	S	467	467
	%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NW	118	118
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	10	0	10	9	0	0	9	0	0	9	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	NE	117	117
	%	0%	0%	0%	3%	0%	3%	3%	0%	0%	3%	0%	0%	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%		100%	
	Total	**0**	**21**	**0**	**322**	**6**	**349**	**283**	**1**	**2**	**278**	**5**	**0**	**286**	**343**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**20**	**0**	**5**	**0**	**25**	**0**	**660**		**787**	**787**
	PHF	0	0.88	0	0.86	0.5	0.86	0.91	0.25	0.25	0.9	0.42	0	0.92	0.88	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0.72	0	0.83	0	0.31	0	0.78	0	0.93			
	Approach %						53%	43%						43%	52%						0%	1%						0%	4%						4%	0%				

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

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

Count Name: Wellington and Hospital Ramp
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Parking Garage Access Northbound						Hospital Ramp Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	2	52	0	0	54	1	0	29	1	18	31	0	5	0	3	44	8	0	0	0	0	4	0	93
7:15 AM	0	6	62	0	0	68	0	0	30	3	30	33	0	3	0	3	62	6	0	0	0	0	4	0	107
7:30 AM	0	3	81	0	0	84	1	0	39	3	24	43	0	17	0	9	75	26	0	0	0	0	0	0	153
7:45 AM	0	4	115	0	0	119	0	0	34	4	38	38	0	7	0	1	123	8	0	0	0	0	0	0	165
Hourly Total	0	15	310	0	0	325	2	0	132	11	110	145	0	32	0	16	304	48	0	0	0	0	8	0	518
8:00 AM	0	2	95	0	1	97	0	0	33	3	16	36	0	3	0	8	107	11	0	0	0	0	1	0	144
8:15 AM	0	8	124	0	1	132	0	0	41	5	12	46	0	3	0	1	129	4	0	0	0	0	0	0	182
8:30 AM	0	5	96	0	5	101	0	0	34	6	16	40	0	1	0	2	112	3	0	0	0	0	0	0	144
8:45 AM	0	7	83	0	2	90	0	0	34	6	15	40	0	2	0	0	86	2	0	0	0	0	8	0	132
Hourly Total	0	22	398	0	9	420	0	0	142	20	59	162	0	9	0	11	434	20	0	0	0	0	9	0	602
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	7	71	0	3	78	0	0	71	6	23	77	0	11	0	6	32	17	0	0	1	1	18	2	174
4:15 PM	0	7	67	0	0	74	0	0	46	1	12	47	0	7	0	3	48	10	0	0	0	0	18	0	131
4:30 PM	0	8	69	0	2	77	0	0	62	7	25	69	0	9	0	8	58	17	0	0	0	0	26	0	163
4:45 PM	0	7	75	0	2	82	0	0	62	1	25	63	0	14	0	10	60	24	0	0	0	0	31	0	169
Hourly Total	0	29	282	0	7	311	0	0	241	15	85	256	0	41	0	27	198	68	0	0	1	1	93	2	637
5:00 PM	0	5	83	1	3	89	0	0	64	6	13	70	0	8	0	2	88	10	0	0	0	0	31	0	169
5:15 PM	0	9	70	0	0	79	0	0	70	5	22	75	0	5	0	10	97	15	0	0	0	0	28	0	169
5:30 PM	0	9	82	0	0	91	0	0	65	8	19	73	0	12	0	4	154	16	0	0	0	0	40	0	180
5:45 PM	0	7	81	0	0	88	0	0	58	7	16	65	0	6	0	5	129	11	0	0	0	0	22	0	164
Hourly Total	0	30	316	1	3	347	0	0	257	26	70	283	0	31	0	21	468	52	0	0	0	0	121	0	682
Grand Total	0	96	1306	1	19	1403	2	0	772	72	324	846	0	113	0	75	1404	188	0	0	1	1	231	2	2439
Approach %	0.0	6.8	93.1	0.1	-	-	0.2	0.0	91.3	8.5	-	-	0.0	60.1	0.0	39.9	-	-	0.0	0.0	50.0	50.0	-	-	-
Total %	0.0	3.9	53.5	0.0	-	57.5	0.1	0.0	31.7	3.0	-	34.7	0.0	4.6	0.0	3.1	-	7.7	0.0	0.0	0.0	0.0	-	0.1	-
Lights	0	96	1260	1	-	1357	2	0	749	72	-	823	0	113	0	75	-	188	0	0	1	1	-	2	2370
% Lights	-	100.0	96.5	100.0	-	96.7	100.0	-	97.0	100.0	-	97.3	-	100.0	-	100.0	-	100.0	-	-	100.0	100.0	-	100.0	97.2
Buses	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	-	0.0	0.3	0.0	-	0.3	0.0	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	14	0	-	14	0	0	12	0	-	12	0	0	0	0	-	0	0	0	0	0	-	0	26
% Single-Unit Trucks	-	0.0	1.1	0.0	-	1.0	0.0	-	1.6	0.0	-	1.4	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	1.1
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.1	0.0	-	0.1	0.0	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	27	0	-	27	0	0	11	0	-	11	0	0	0	0	-	0	0	0	0	0	-	0	38
% Bicycles on Road	-	0.0	2.1	0.0	-	1.9	0.0	-	1.4	0.0	-	1.3	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	1.6
Pedestrians	-	-	-	-	19	-	-	-	-	-	324	-	-	-	-	-	1404	-	-	-	-	-	231	-	-

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

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

Count Name: Wellington and Hospital Ramp
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Parking Garage Access Northbound						Hospital Ramp Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	4	115	0	0	119	0	0	34	4	38	38	0	7	0	1	123	8	0	0	0	0	0	0	165
8:00 AM	0	2	95	0	1	97	0	0	33	3	16	36	0	3	0	8	107	11	0	0	0	0	1	0	144
8:15 AM	0	8	124	0	1	132	0	0	41	5	12	46	0	3	0	1	129	4	0	0	0	0	0	0	182
8:30 AM	0	5	96	0	5	101	0	0	34	6	16	40	0	1	0	2	112	3	0	0	0	0	0	0	144
Total	0	19	430	0	7	449	0	0	142	18	82	160	0	14	0	12	471	26	0	0	0	0	1	0	635
Approach %	0.0	4.2	95.8	0.0	-	-	0.0	0.0	88.8	11.3	-	-	0.0	53.8	0.0	46.2	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	3.0	67.7	0.0	-	70.7	0.0	0.0	22.4	2.8	-	25.2	0.0	2.2	0.0	1.9	-	4.1	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.594	0.867	0.000	-	0.850	0.000	0.000	0.866	0.750	-	0.870	0.000	0.500	0.000	0.375	-	0.591	0.000	0.000	0.000	0.000	-	0.000	0.872
Lights	0	19	419	0	-	438	0	0	139	18	-	157	0	14	0	12	-	26	0	0	0	0	-	0	621
% Lights	-	100.0	97.4	-	-	97.6	-	-	97.9	100.0	-	98.1	-	100.0	-	100.0	-	100.0	-	-	-	-	-	-	97.8
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.2	-	-	0.2	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.2
Single-Unit Trucks	0	0	9	0	-	9	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	12
% Single-Unit Trucks	-	0.0	2.1	-	-	2.0	-	-	2.1	0.0	-	1.9	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	1.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.2	-	-	0.2	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.2
Pedestrians	-	-	-	-	7	-	-	-	-	-	82	-	-	-	-	-	471	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Wellington and Hospital Ramp
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Parking Garage Access Northbound						Hospital Ramp Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	5	83	1	3	89	0	0	64	6	13	70	0	8	0	2	88	10	0	0	0	0	31	0	169
5:15 PM	0	9	70	0	0	79	0	0	70	5	22	75	0	5	0	10	97	15	0	0	0	0	28	0	169
5:30 PM	0	9	82	0	0	91	0	0	65	8	19	73	0	12	0	4	154	16	0	0	0	0	40	0	180
5:45 PM	0	7	81	0	0	88	0	0	58	7	16	65	0	6	0	5	129	11	0	0	0	0	22	0	164
Total	0	30	316	1	3	347	0	0	257	26	70	283	0	31	0	21	468	52	0	0	0	0	121	0	682
Approach %	0.0	8.6	91.1	0.3	-	-	0.0	0.0	90.8	9.2	-	-	0.0	59.6	0.0	40.4	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	4.4	46.3	0.1	-	50.9	0.0	0.0	37.7	3.8	-	41.5	0.0	4.5	0.0	3.1	-	7.6	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.833	0.952	0.250	-	0.953	0.000	0.000	0.918	0.813	-	0.943	0.000	0.646	0.000	0.525	-	0.813	0.000	0.000	0.000	0.000	-	0.000	0.947
Lights	0	30	303	1	-	334	0	0	244	26	-	270	0	31	0	21	-	52	0	0	0	0	-	0	656
% Lights	-	100.0	95.9	100.0	-	96.3	-	-	94.9	100.0	-	95.4	-	100.0	-	100.0	-	100.0	-	-	-	-	-	-	96.2
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.3	0.0	-	0.3	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.1
Single-Unit Trucks	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Single-Unit Trucks	-	0.0	0.3	0.0	-	0.3	-	-	1.2	0.0	-	1.1	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.6
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	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	11	0	-	11	0	0	10	0	-	10	0	0	0	0	-	0	0	0	0	0	-	0	21
% Bicycles on Road	-	0.0	3.5	0.0	-	3.2	-	-	3.9	0.0	-	3.5	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	3.1
Pedestrians	-	-	-	-	3	-	-	-	-	-	70	-	-	-	-	-	468	-	-	-	-	-	121	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Mildred Avenue and Wellington Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Mildred Avenue Northbound						Hospital Access Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	52	4	7	56	0	0	30	0	0	30	0	1	0	3	37	4	0	0	0	0	14	0	90
7:15 AM	0	0	59	5	7	64	1	3	30	2	2	36	0	1	0	4	34	5	0	0	0	1	20	1	106
7:30 AM	0	1	85	3	9	89	0	2	39	0	3	41	0	0	0	1	59	1	0	0	0	0	22	0	131
7:45 AM	0	0	102	4	9	106	0	6	37	0	4	43	0	2	0	8	66	10	0	0	0	0	21	0	159
Hourly Total	0	1	298	16	32	315	1	11	136	2	9	150	0	4	0	16	196	20	0	0	0	1	77	1	486
8:00 AM	0	0	96	8	17	104	0	5	35	0	4	40	0	0	1	5	73	6	0	0	0	0	32	0	150
8:15 AM	0	0	117	6	15	123	0	1	43	0	2	44	0	2	0	4	89	6	0	0	0	0	25	0	173
8:30 AM	0	0	85	11	7	96	0	2	39	0	4	41	0	3	0	3	71	6	0	0	0	1	23	1	144
8:45 AM	0	0	83	4	12	87	0	7	36	0	3	43	0	1	0	5	58	6	0	0	0	0	26	0	136
Hourly Total	0	0	381	29	51	410	0	15	153	0	13	168	0	6	1	17	291	24	0	0	0	1	106	1	603
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	67	7	3	74	0	3	72	0	1	75	1	4	0	3	28	8	0	0	0	1	23	1	158
4:15 PM	0	0	64	5	2	69	0	3	42	0	2	45	0	5	0	4	27	9	0	0	0	0	17	0	123
5:30 PM	0	0	72	7	3	79	0	3	61	0	5	64	0	6	0	3	42	9	0	0	0	0	24	0	152
5:45 PM	0	0	74	8	8	82	0	5	63	0	5	68	0	4	0	2	44	6	0	0	0	0	19	0	156
Hourly Total	0	0	277	27	16	304	0	14	238	0	13	252	1	19	0	12	141	32	0	0	0	1	83	1	589
5:00 PM	0	0	85	2	9	87	0	4	69	0	4	73	0	1	0	7	80	8	0	0	0	0	37	0	168
5:15 PM	0	0	72	6	9	78	0	1	73	0	4	74	0	2	0	3	66	5	0	0	0	0	32	0	157
5:30 PM	1	0	81	9	12	91	2	4	68	0	6	74	0	5	0	5	109	10	0	0	0	0	61	0	175
5:45 PM	0	1	80	6	7	87	0	1	70	0	0	71	0	2	0	7	98	9	0	0	0	1	23	1	168
Hourly Total	1	1	318	23	37	343	2	10	280	0	14	292	0	10	0	22	353	32	0	0	0	1	153	1	668
Grand Total	1	2	1274	95	136	1372	3	50	807	2	49	862	1	39	1	67	981	108	0	0	0	4	419	4	2346
Approach %	0.1	0.1	92.9	6.9	-	-	0.3	5.8	93.6	0.2	-	-	0.9	36.1	0.9	62.0	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.1	54.3	4.0	-	58.5	0.1	2.1	34.4	0.1	-	36.7	0.0	1.7	0.0	2.9	-	4.6	0.0	0.0	0.0	0.2	-	0.2	-
Lights	0	1	1231	94	-	1326	3	47	786	0	-	836	1	39	1	67	-	108	0	0	0	0	-	0	2270
% Lights	0.0	50.0	96.6	98.9	-	96.6	100.0	94.0	97.4	0.0	-	97.0	100.0	100.0	100.0	100.0	-	100.0	-	-	-	0.0	-	0.0	96.8
Buses	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	0.0	0.0	0.3	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	0.2
Single-Unit Trucks	0	1	12	0	-	13	0	1	10	2	-	13	0	0	0	0	-	0	0	0	0	4	-	4	30
% Single-Unit Trucks	0.0	50.0	0.9	0.0	-	0.9	0.0	2.0	1.2	100.0	-	1.5	0.0	0.0	0.0	0.0	-	0.0	-	-	-	100.0	-	100.0	1.3
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Bicycles on Road	1	0	26	1	-	28	0	2	11	0	-	13	0	0	0	0	-	0	0	0	0	0	-	0	41
% Bicycles on Road	100.0	0.0	2.0	1.1	-	2.0	0.0	4.0	1.4	0.0	-	1.5	0.0	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	1.7
Pedestrians	-	-	-	-	136	-	-	-	-	-	49	-	-	-	-	-	981	-	-	-	-	-	419	-	-

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

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

Count Name: Mildred Avenue and Wellington Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Mildred Avenue Northbound						Hospital Access Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	0	102	4	9	106	0	6	37	0	4	43	0	2	0	8	66	10	0	0	0	0	21	0	159
8:00 AM	0	0	96	8	17	104	0	5	35	0	4	40	0	0	1	5	73	6	0	0	0	0	32	0	150
8:15 AM	0	0	117	6	15	123	0	1	43	0	2	44	0	2	0	4	89	6	0	0	0	0	25	0	173
8:30 AM	0	0	85	11	7	96	0	2	39	0	4	41	0	3	0	3	71	6	0	0	0	1	23	1	144
Total	0	0	400	29	48	429	0	14	154	0	14	168	0	7	1	20	299	28	0	0	0	1	101	1	626
Approach %	0.0	0.0	93.2	6.8	-	-	0.0	8.3	91.7	0.0	-	-	0.0	25.0	3.6	71.4	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	63.9	4.6	-	68.5	0.0	2.2	24.6	0.0	-	26.8	0.0	1.1	0.2	3.2	-	4.5	0.0	0.0	0.0	0.2	-	0.2	-
PHF	0.000	0.000	0.855	0.659	-	0.872	0.000	0.583	0.895	0.000	-	0.955	0.000	0.583	0.250	0.625	-	0.700	0.000	0.000	0.000	0.250	-	0.250	0.905
Lights	0	0	391	29	-	420	0	14	151	0	-	165	0	7	1	20	-	28	0	0	0	0	-	0	613
% Lights	-	-	97.8	100.0	-	97.9	-	100.0	98.1	-	-	98.2	-	100.0	100.0	100.0	-	100.0	-	-	-	0.0	-	0.0	97.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	8	0	-	8	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	1	-	1	11
% Single-Unit Trucks	-	-	2.0	0.0	-	1.9	-	0.0	1.3	-	-	1.2	-	0.0	0.0	0.0	-	0.0	-	-	-	100.0	-	100.0	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	-	-	-	0.0	-	0.0	0.0
Bicycles on Road	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	-	0.3	0.0	-	0.2	-	0.0	0.6	-	-	0.6	-	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	0.3
Pedestrians	-	-	-	-	48	-	-	-	-	-	14	-	-	-	-	-	299	-	-	-	-	-	101	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Mildred Avenue and Wellington Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Wellington Avenue Eastbound						Wellington Avenue Westbound						Mildred Avenue Northbound						Hospital Access Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	0	85	2	9	87	0	4	69	0	4	73	0	1	0	7	80	8	0	0	0	0	37	0	168
5:15 PM	0	0	72	6	9	78	0	1	73	0	4	74	0	2	0	3	66	5	0	0	0	0	32	0	157
5:30 PM	1	0	81	9	12	91	2	4	68	0	6	74	0	5	0	5	109	10	0	0	0	0	61	0	175
5:45 PM	0	1	80	6	7	87	0	1	70	0	0	71	0	2	0	7	98	9	0	0	0	1	23	1	168
Total	1	1	318	23	37	343	2	10	280	0	14	292	0	10	0	22	353	32	0	0	0	1	153	1	668
Approach %	0.3	0.3	92.7	6.7	-	-	0.7	3.4	95.9	0.0	-	-	0.0	31.3	0.0	68.8	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.1	0.1	47.6	3.4	-	51.3	0.3	1.5	41.9	0.0	-	43.7	0.0	1.5	0.0	3.3	-	4.8	0.0	0.0	0.0	0.1	-	0.1	-
PHF	0.250	0.250	0.935	0.639	-	0.942	0.250	0.625	0.959	0.000	-	0.986	0.000	0.500	0.000	0.786	-	0.800	0.000	0.000	0.000	0.250	-	0.250	0.954
Lights	0	0	307	23	-	330	2	9	267	0	-	278	0	10	0	22	-	32	0	0	0	0	-	0	640
% Lights	0.0	0.0	96.5	100.0	-	96.2	100.0	90.0	95.4	-	-	95.2	-	100.0	-	100.0	-	100.0	-	-	-	0.0	-	0.0	95.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	0	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	1	-	1	5
% Single-Unit Trucks	0.0	100.0	0.0	0.0	-	0.3	0.0	0.0	1.1	-	-	1.0	-	0.0	-	0.0	-	0.0	-	-	-	100.0	-	100.0	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	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Bicycles on Road	1	0	11	0	-	12	0	1	10	0	-	11	0	0	0	0	-	0	0	0	0	0	-	0	23
% Bicycles on Road	100.0	0.0	3.5	0.0	-	3.5	0.0	10.0	3.6	-	-	3.8	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	3.4
Pedestrians	-	-	-	-	37	-	-	-	-	-	14	-	-	-	-	-	353	-	-	-	-	-	153	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Mildred Avenue and Oakdale Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Data

Start Time	Oakdale Avenue Eastbound						Oakdale Avenue Westbound						Mildred Avenue Northbound						Mildred Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	4	0	0	0	13	3	4	16	0	2	3	0	5	5	0	0	4	2	7	6	27
7:15 AM	0	0	0	0	9	0	0	2	8	2	6	12	0	4	1	0	2	5	0	0	3	5	15	8	25
7:30 AM	0	0	0	0	5	0	0	7	18	4	7	29	0	3	2	0	6	5	0	0	3	1	14	4	38
7:45 AM	0	0	0	0	9	0	0	3	15	0	5	18	0	4	10	0	5	14	1	0	5	2	24	8	40
Hourly Total	0	0	0	0	27	0	0	12	54	9	22	75	0	13	16	0	18	29	1	0	15	10	60	26	130
8:00 AM	0	0	0	0	8	0	0	1	12	0	5	13	0	3	6	0	4	9	1	0	7	2	16	10	32
8:15 AM	0	0	0	0	10	0	0	3	11	1	8	15	0	7	2	0	2	9	0	0	3	5	12	8	32
8:30 AM	0	0	0	0	7	0	0	2	11	3	10	16	0	5	3	0	2	8	0	0	8	4	19	12	36
8:45 AM	0	0	0	0	5	0	0	3	17	1	4	21	0	5	4	0	3	9	0	0	3	4	3	7	37
Hourly Total	0	0	0	0	30	0	0	9	51	5	27	65	0	20	15	0	11	35	1	0	21	15	50	37	137
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	2	0	0	5	27	0	5	32	0	6	5	0	2	11	0	0	5	4	4	9	52
4:15 PM	0	0	0	0	4	0	0	8	30	2	3	40	0	4	3	0	5	7	0	0	2	2	1	4	51
4:30 PM	0	0	0	0	5	0	0	7	31	2	5	40	0	4	6	0	0	10	0	0	7	3	2	10	60
4:45 PM	0	0	0	0	7	0	0	6	19	1	5	26	0	5	5	0	10	10	0	0	5	7	6	12	48
Hourly Total	0	0	0	0	18	0	0	26	107	5	18	138	0	19	19	0	17	38	0	0	19	16	13	35	211
5:00 PM	0	0	0	0	2	0	0	6	32	3	5	41	0	3	5	0	5	8	0	0	2	2	9	4	53
5:15 PM	0	0	0	0	5	0	0	3	37	2	9	42	0	5	4	0	6	9	0	0	1	4	12	5	56
5:30 PM	0	0	0	0	9	0	0	6	35	4	12	45	0	9	4	0	7	13	0	0	7	5	13	12	70
5:45 PM	0	0	0	0	7	0	0	3	36	3	10	42	0	9	4	0	6	13	0	0	2	2	9	4	59
Hourly Total	0	0	0	0	23	0	0	18	140	12	36	170	0	26	17	0	24	43	0	0	12	13	43	25	238
Grand Total	0	0	0	0	98	0	0	65	352	31	103	448	0	78	67	0	70	145	2	0	67	54	166	123	716
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	14.5	78.6	6.9	-	-	0.0	53.8	46.2	0.0	-	-	1.6	0.0	54.5	43.9	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	9.1	49.2	4.3	-	62.6	0.0	10.9	9.4	0.0	-	20.3	0.3	0.0	9.4	7.5	-	17.2	-
Lights	0	0	0	0	-	0	0	63	340	30	-	433	0	77	65	0	-	142	2	0	63	54	-	119	694
% Lights	-	-	-	-	-	-	-	96.9	96.6	96.8	-	96.7	-	98.7	97.0	-	-	97.9	100.0	-	94.0	100.0	-	96.7	96.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	1	4	1	-	6	0	1	1	0	-	2	0	0	3	0	-	3	11
% Single-Unit Trucks	-	-	-	-	-	-	-	1.5	1.1	3.2	-	1.3	-	1.3	1.5	-	-	1.4	0.0	-	4.5	0.0	-	2.4	1.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	1	8	0	-	9	0	0	1	0	-	1	0	0	1	0	-	1	11
% Bicycles on Road	-	-	-	-	-	-	-	1.5	2.3	0.0	-	2.0	-	0.0	1.5	-	-	0.7	0.0	-	1.5	0.0	-	0.8	1.5
Pedestrians	-	-	-	-	98	-	-	-	-	-	103	-	-	-	-	-	70	-	-	-	-	-	166	-	-

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

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

Count Name: Mildred Avenue and Oakdale Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Oakdale Avenue Eastbound						Oakdale Avenue Westbound						Mildred Avenue Northbound						Mildred Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	0	0	0	9	0	0	3	15	0	5	18	0	4	10	0	5	14	1	0	5	2	24	8	40
8:00 AM	0	0	0	0	8	0	0	1	12	0	5	13	0	3	6	0	4	9	1	0	7	2	16	10	32
8:15 AM	0	0	0	0	10	0	0	3	11	1	8	15	0	7	2	0	2	9	0	0	3	5	12	8	32
8:30 AM	0	0	0	0	7	0	0	2	11	3	10	16	0	5	3	0	2	8	0	0	8	4	19	12	36
Total	0	0	0	0	34	0	0	9	49	4	28	62	0	19	21	0	13	40	2	0	23	13	71	38	140
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	14.5	79.0	6.5	-	-	0.0	47.5	52.5	0.0	-	-	5.3	0.0	60.5	34.2	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	6.4	35.0	2.9	-	44.3	0.0	13.6	15.0	0.0	-	28.6	1.4	0.0	16.4	9.3	-	27.1	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.750	0.817	0.333	-	0.861	0.000	0.679	0.525	0.000	-	0.714	0.500	0.000	0.719	0.650	-	0.792	0.875
Lights	0	0	0	0	-	0	0	8	48	4	-	60	0	18	21	0	-	39	2	0	22	13	-	37	136
% Lights	-	-	-	-	-	-	-	88.9	98.0	100.0	-	96.8	-	94.7	100.0	-	-	97.5	100.0	-	95.7	100.0	-	97.4	97.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	1	0	0	-	1	0	0	1	0	-	1	3
% Single-Unit Trucks	-	-	-	-	-	-	-	11.1	0.0	0.0	-	1.6	-	5.3	0.0	-	-	2.5	0.0	-	4.3	0.0	-	2.6	2.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	-	-	-	-	-	-	0.0	2.0	0.0	-	1.6	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	0.7
Pedestrians	-	-	-	-	34	-	-	-	-	-	28	-	-	-	-	-	13	-	-	-	-	-	71	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Mildred Avenue and Oakdale Avenue
Site Code:
Start Date: 03/21/2019

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Oakdale Avenue Eastbound						Oakdale Avenue Westbound						Mildred Avenue Northbound						Mildred Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	0	0	2	0	0	6	32	3	5	41	0	3	5	0	5	8	0	0	2	2	9	4	53
5:15 PM	0	0	0	0	5	0	0	3	37	2	9	42	0	5	4	0	6	9	0	0	1	4	12	5	56
5:30 PM	0	0	0	0	9	0	0	6	35	4	12	45	0	9	4	0	7	13	0	0	7	5	13	12	70
5:45 PM	0	0	0	0	7	0	0	3	36	3	10	42	0	9	4	0	6	13	0	0	2	2	9	4	59
Total	0	0	0	0	23	0	0	18	140	12	36	170	0	26	17	0	24	43	0	0	12	13	43	25	238
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	10.6	82.4	7.1	-	-	0.0	60.5	39.5	0.0	-	-	0.0	0.0	48.0	52.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	7.6	58.8	5.0	-	71.4	0.0	10.9	7.1	0.0	-	18.1	0.0	0.0	5.0	5.5	-	10.5	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.750	0.946	0.750	-	0.944	0.000	0.722	0.850	0.000	-	0.827	0.000	0.000	0.429	0.650	-	0.521	0.850
Lights	0	0	0	0	-	0	0	18	132	12	-	162	0	26	16	0	-	42	0	0	11	13	-	24	228
% Lights	-	-	-	-	-	-	-	100.0	94.3	100.0	-	95.3	-	100.0	94.1	-	-	97.7	-	-	91.7	100.0	-	96.0	95.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Single-Unit Trucks	-	-	-	-	-	-	-	0.0	0.7	0.0	-	0.6	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	7	0	-	7	0	0	1	0	-	1	0	0	1	0	-	1	9
% Bicycles on Road	-	-	-	-	-	-	-	0.0	5.0	0.0	-	4.1	-	0.0	5.9	-	-	2.3	-	-	8.3	0.0	-	4.0	3.8
Pedestrians	-	-	-	-	23	-	-	-	-	-	36	-	-	-	-	-	24	-	-	-	-	-	43	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

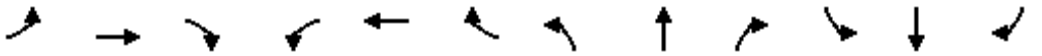
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of 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*, 2010.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour Conditions

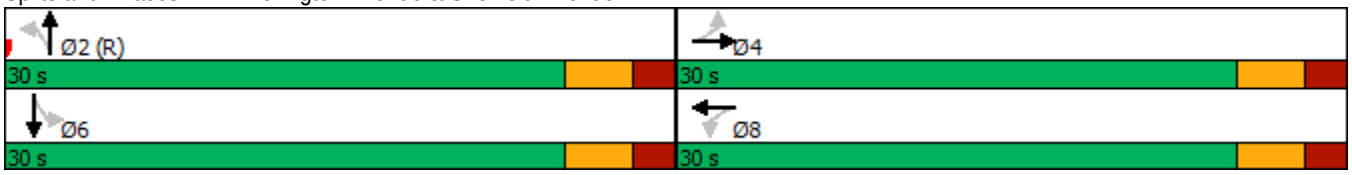


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	417	53	8	76	35	11	134	63	87	277	24
Future Volume (vph)	35	417	53	8	76	35	11	134	63	87	277	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		150	25		150	25		150	25		150
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.89	0.97		0.88	0.95		0.95	0.95		0.91	0.99	
Frt		0.983			0.952			0.952			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1533	1591	0	1450	1491	0	1624	1472	0	1593	1631	0
Flt Permitted	0.680			0.313			0.504			0.625		
Satd. Flow (perm)	980	1591	0	421	1491	0	823	1472	0	952	1631	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			38			49			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		312			241			516			345	
Travel Time (s)		7.1			5.5			11.7			7.8	
Confl. Peds. (#/hr)	105		240	240		105	63		102	102		63
Confl. Bikes (#/hr)			3			2			2			3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	2%	12%	1%	11%	0%	4%	9%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	505	0	9	120	0	12	212	0	94	324	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.75		0.05	0.19		0.04	0.33		0.24	0.47	
Control Delay	11.5	23.7		11.5	8.9		10.8	10.7		13.4	15.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.5	23.7		11.5	8.9		10.8	10.7		13.4	15.2	
LOS	B	C		B	A		B	B		B	B	
Approach Delay		22.9			9.0			10.7			14.8	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)	8	144		2	18		2	37		21	79	
Queue Length 95th (ft)	24	#291		9	46		11	80		50	142	
Internal Link Dist (ft)		232			161			436			265	
Turn Bay Length (ft)	25			25			25			25		
Base Capacity (vph)	408	670		175	643		342	641		396	684	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.75		0.05	0.19		0.04	0.33		0.24	0.47	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 8 (13%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 55			
Control Type: Pretimed			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Wellington Avenue & Sheffield Avenue



Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	45	4	22	168	19	48	372	27
Future Vol, veh/h	0	0	0	9	45	4	22	168	19	48	372	27
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, %	0	0	0	0	10	20	0	2	0	0	3	4
Mvmt Flow	0	0	0	10	48	4	23	179	20	51	396	29
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9	9.3	12.8
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	11%	16%	11%
Vol Thru, %	80%	78%	83%
Vol Right, %	9%	7%	6%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	209	58	447
LT Vol	22	9	48
Through Vol	168	45	372
RT Vol	19	4	27
Lane Flow Rate	222	62	476
Geometry Grp	1	1	1
Degree of Util (X)	0.279	0.092	0.566
Departure Headway (Hd)	4.514	5.386	4.288
Convergence, Y/N	Yes	Yes	Yes
Cap	796	664	842
Service Time	2.541	3.432	2.31
HCM Lane V/C Ratio	0.279	0.093	0.565
HCM Control Delay	9.3	9	12.8
HCM Lane LOS	A	A	B
HCM 95th-tile Q	1.1	0.3	3.6

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	31	179	26	19	355
Future Vol, veh/h	30	31	179	26	19	355
Conflicting Peds, #/hr	1	0	0	29	29	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	3	15	0	3
Mvmt Flow	32	33	188	27	20	374

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	646	231	0	0	244	0
Stage 1	231	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	435	813	-	-	1334	-
Stage 1	805	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	415	791	-	-	1297	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	663	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	415	791	1297	-
HCM Lane V/C Ratio	-	-	0.076	0.041	0.015	-
HCM Control Delay (s)	-	-	14.4	9.7	7.8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	0	0	40	24	4
Future Vol, veh/h	40	0	0	40	24	4
Conflicting Peds, #/hr	0	29	29	0	12	16
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	0	0	2	0	0
Mvmt Flow	48	0	0	48	29	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	108	64
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	894	1006
Stage 1	-	0	0	-	980	-
Stage 2	-	0	0	-	968	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	884	991
Mov Cap-2 Maneuver	-	-	-	-	884	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	957	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	898	-	-
HCM Lane V/C Ratio	0.037	-	-
HCM Control Delay (s)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	28	16	12	22	0	0	0	0	2	7	16
Future Vol, veh/h	0	28	16	12	22	0	0	0	0	2	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	7	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	35	20	15	27	0	0	0	0	2	9	20

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	0	55	0	0			102	112	27
Stage 1	-	-	-	-	-	-			57	57	-
Stage 2	-	-	-	-	-	-			45	55	-
Critical Hdwy	-	-	-	4.1	-	-			6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-			5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-			3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1563	-	0			901	782	1054
Stage 1	0	-	-	-	-	0			971	851	-
Stage 2	0	-	-	-	-	0			983	853	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	1563	-	-			892	0	1054
Mov Cap-2 Maneuver	-	-	-	-	-	-			892	0	-
Stage 1	-	-	-	-	-	-			961	0	-
Stage 2	-	-	-	-	-	-			983	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1563	-	1033
HCM Lane V/C Ratio	-	-	0.009	-	0.03
HCM Control Delay (s)	-	-	7.3	0	8.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	438	160	0	2	0
Future Vol, veh/h	0	438	160	0	2	0
Conflicting Peds, #/hr	62	0	0	62	4	89
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	0	466	170	0	2	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	640	259
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	470	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	443	785
Stage 1	0	-	-	0	865	-
Stage 2	0	-	-	0	633	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	443	718
Mov Cap-2 Maneuver	-	-	-	-	443	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	633	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	443
HCM Lane V/C Ratio	-	-	0.005
HCM Control Delay (s)	-	-	13.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

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	19	429	0	0	142	18	14	0	12	0	0	0
Future Vol, veh/h	19	429	0	0	142	18	14	0	12	0	0	0
Conflicting Peds, #/hr	62	0	471	471	0	0	7	0	82	82	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	22	493	0	0	163	21	16	0	14	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	246	0	-	-	-	0	718	783	575
Stage 1	-	-	-	-	-	-	537	537	-
Stage 2	-	-	-	-	-	-	181	246	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1332	-	0	0	-	-	399	328	521
Stage 1	-	-	0	0	-	-	590	526	-
Stage 2	-	-	0	0	-	-	855	706	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1332	-	-	-	-	-	387	0	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	387	0	-
Stage 1	-	-	-	-	-	-	576	0	-
Stage 2	-	-	-	-	-	-	849	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	425	1332	-	-	-
HCM Lane V/C Ratio	0.07	0.016	-	-	-
HCM Control Delay (s)	14.1	7.7	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	399	29	14	153	0	7	1	20	0	0	1
Future Vol, veh/h	0	399	29	14	153	0	7	1	20	0	0	1
Conflicting Peds, #/hr	101	0	299	299	0	101	48	0	14	14	0	48
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	438	32	15	168	0	8	1	22	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	269	0	0	769	0	0	1000	1052	767	779	1068	317
Stage 1	-	-	-	-	-	-	753	753	-	299	299	-
Stage 2	-	-	-	-	-	-	247	299	-	480	769	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1306	-	-	854	-	-	224	228	405	316	223	728
Stage 1	-	-	-	-	-	-	405	420	-	714	670	-
Stage 2	-	-	-	-	-	-	761	670	-	571	413	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1180	-	-	611	-	-	149	143	286	253	140	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	149	143	-	253	140	-
Stage 1	-	-	-	-	-	-	290	300	-	645	590	-
Stage 2	-	-	-	-	-	-	705	590	-	518	295	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	23.4	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	1180	-	-	611	-	-	628
HCM Lane V/C Ratio	0.136	-	-	-	0.025	-	-	0.002
HCM Control Delay (s)	23.4	0	-	-	11	0	-	10.7
HCM Lane LOS	C	A	-	-	B	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

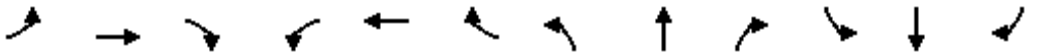
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	48	4	19	21	0	0	23	13
Future Vol, veh/h	0	0	0	4	48	4	19	21	0	0	23	13
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	11	2	0	5	0	0	0	4	0
Mvmt Flow	0	0	0	5	55	5	22	24	0	0	26	15
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.6	7.5	7.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	47%	7%	0%
Vol Thru, %	53%	86%	64%
Vol Right, %	0%	7%	36%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	40	56	36
LT Vol	19	4	0
Through Vol	21	48	23
RT Vol	0	4	13
Lane Flow Rate	45	64	41
Geometry Grp	1	1	1
Degree of Util (X)	0.053	0.074	0.044
Departure Headway (Hd)	4.224	4.206	3.898
Convergence, Y/N	Yes	Yes	Yes
Cap	845	849	913
Service Time	2.264	2.247	1.943
HCM Lane V/C Ratio	0.053	0.075	0.045
HCM Control Delay	7.5	7.6	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.2	0.1

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour Conditions (No Cubs Game)

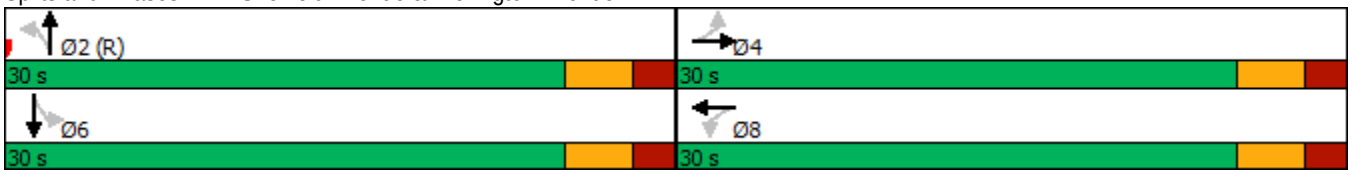


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	234	43	26	208	41	16	214	51	57	225	42
Future Volume (vph)	43	234	43	26	208	41	16	214	51	57	225	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		150	25		150	25		150	25		150
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.90	0.95		0.83	0.97		0.92	0.97		0.90	0.98	
Frt		0.977			0.975			0.971			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1704	0	1736	1716	0	1805	1712	0	1752	1762	0
Flt Permitted	0.571			0.537			0.549			0.551		
Satd. Flow (perm)	943	1704	0	812	1716	0	963	1712	0	910	1762	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			20			24			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		312			241			516			345	
Travel Time (s)		7.1			5.5			11.7			7.8	
Confl. Peds. (#/hr)	118		225	225		118	98		133	133		98
Confl. Bikes (#/hr)			11			10			8			10
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%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	5%	5%	0%	4%	4%	3%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	295	0	28	265	0	17	282	0	61	284	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.12	0.41		0.08	0.37		0.04	0.39		0.16	0.38	
Control Delay	11.8	13.6		11.5	12.9		10.9	13.0		12.4	13.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.8	13.6		11.5	12.9		10.9	13.0		12.4	13.1	
LOS	B	B		B	B		B	B		B	B	
Approach Delay		13.4			12.8			12.9			13.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	10	66		6	58		4	61		13	63	
Queue Length 95th (ft)	27	122		19	107		14	114		35	115	
Internal Link Dist (ft)		232			161			436			265	
Turn Bay Length (ft)	25			25			25			25		
Base Capacity (vph)	392	721		338	726		401	727		379	745	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.41		0.08	0.37		0.04	0.39		0.16	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 8 (13%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 89.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Sheffield Avenue & Wellington Avenue



Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	17	148	22	57	276	19	27	261	40
Future Vol, veh/h	0	0	0	17	148	22	57	276	19	27	261	40
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, %	0	0	0	0	0	0	2	1	0	0	1	0
Mvmt Flow	0	0	0	17	151	22	58	282	19	28	266	41
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10.8	12.5	11.8
HCM LOS	B	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	16%	9%	8%
Vol Thru, %	78%	79%	80%
Vol Right, %	5%	12%	12%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	352	187	328
LT Vol	57	17	27
Through Vol	276	148	261
RT Vol	19	22	40
Lane Flow Rate	359	191	335
Geometry Grp	1	1	1
Degree of Util (X)	0.484	0.292	0.446
Departure Headway (Hd)	4.847	5.516	4.792
Convergence, Y/N	Yes	Yes	Yes
Cap	736	656	743
Service Time	2.937	3.516	2.882
HCM Lane V/C Ratio	0.488	0.291	0.451
HCM Control Delay	12.5	10.8	11.8
HCM Lane LOS	B	B	B
HCM 95th-tile Q	2.7	1.2	2.3

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	79	265	22	15	258
Future Vol, veh/h	66	79	265	22	15	258
Conflicting Peds, #/hr	5	1	0	72	72	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	4	0	0	2
Mvmt Flow	69	82	276	23	16	269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	666	361	0	0	371	0
Stage 1	360	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	428	688	-	-	1199	-
Stage 1	710	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	390	640	-	-	1117	-
Mov Cap-2 Maneuver	390	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	747	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	390	640	1117	-
HCM Lane V/C Ratio	-	-	0.176	0.129	0.014	-
HCM Control Delay (s)	-	-	16.2	11.5	8.3	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.4	0	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	38	0	0	76	68	3
Future Vol, veh/h	38	0	0	76	68	3
Conflicting Peds, #/hr	0	40	40	0	19	32
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	44	0	0	88	79	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	151	76
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	107	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	846	991
Stage 1	-	0	0	-	984	-
Stage 2	-	0	0	-	922	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	831	961
Mov Cap-2 Maneuver	-	-	-	-	831	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	905	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	836	-	-
HCM Lane V/C Ratio	0.099	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	28	12	9	36	0	0	0	0	6	0	38
Future Vol, veh/h	0	28	12	9	36	0	0	0	0	6	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	41	18	13	53	0	0	0	0	9	0	56

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	53	0	0	59	0	0			129	138	53
Stage 1	-	-	-	-	-	-			79	79	-
Stage 2	-	-	-	-	-	-			50	59	-
Critical Hdwy	4.1	-	-	4.1	-	-			6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-			5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-			3.5	4	3.3
Pot Cap-1 Maneuver	1566	-	-	1558	-	-			870	757	1020
Stage 1	-	-	-	-	-	-			949	833	-
Stage 2	-	-	-	-	-	-			978	850	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1566	-	-	1558	-	-			862	0	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-			862	0	-
Stage 1	-	-	-	-	-	-			940	0	-
Stage 2	-	-	-	-	-	-			978	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	1.5	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	1558	-	-	995
HCM Lane V/C Ratio	-	-	-	0.008	-	-	0.065
HCM Control Delay (s)	0	-	-	7.3	0	-	8.9
HCM Lane LOS	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	312	276	0	20	5
Future Vol, veh/h	0	312	276	0	20	5
Conflicting Peds, #/hr	117	0	0	117	79	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	335	297	0	22	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	711	303
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	414	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	403	741
Stage 1	0	-	-	0	758	-
Stage 2	0	-	-	0	671	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	403	737
Mov Cap-2 Maneuver	-	-	-	-	403	-
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	671	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	443
HCM Lane V/C Ratio	-	-	0.061
HCM Control Delay (s)	-	-	13.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	30	305	0	0	247	26	31	0	21	0	0	0
Future Vol, veh/h	30	305	0	0	247	26	31	0	21	0	0	0
Conflicting Peds, #/hr	121	0	468	468	0	121	3	0	70	70	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	32	321	0	0	260	27	33	0	22	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	408	0	0	789	0	0	1130	1261	859
Stage 1	-	-	-	-	-	-	853	853	-
Stage 2	-	-	-	-	-	-	277	408	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1162	-	-	840	-	-	227	172	359
Stage 1	-	-	-	-	-	-	421	378	-
Stage 2	-	-	-	-	-	-	774	600	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1162	-	-	466	-	-	121	0	186
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	0	-
Stage 1	-	-	-	-	-	-	225	0	-
Stage 2	-	-	-	-	-	-	772	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	45.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	141	1162	-	-	466	-	-
HCM Lane V/C Ratio	0.388	0.027	-	-	-	-	-
HCM Control Delay (s)	45.9	8.2	0	-	0	-	-
HCM Lane LOS	E	A	A	-	A	-	-
HCM 95th %tile Q(veh)	1.7	0.1	-	-	0	-	-

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	1	207	23	11	270	0	10	0	22	0	0	1
Future Vol, veh/h	1	207	23	11	270	0	10	0	22	0	0	1
Conflicting Peds, #/hr	153	0	353	353	0	153	37	0	14	14	0	37
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	100	0	0	0	1	0	0	0	0	0	0	100
Mvmt Flow	1	218	24	12	284	0	11	0	23	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	437	0	0	595	0	0	931	1046	597	719	1058	474
Stage 1	-	-	-	-	-	-	585	585	-	461	461	-
Stage 2	-	-	-	-	-	-	346	461	-	258	597	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	4.2
Pot Cap-1 Maneuver	750	-	-	991	-	-	249	230	507	346	227	432
Stage 1	-	-	-	-	-	-	501	501	-	584	569	-
Stage 2	-	-	-	-	-	-	674	569	-	751	495	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	641	-	-	658	-	-	156	127	332	266	126	356
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	127	-	266	126	-
Stage 1	-	-	-	-	-	-	332	332	-	498	475	-
Stage 2	-	-	-	-	-	-	634	475	-	688	328	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	22	15.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	245	641	-	-	658	-	-	356
HCM Lane V/C Ratio	0.137	0.002	-	-	0.018	-	-	0.003
HCM Control Delay (s)	22	10.6	0	-	10.6	0	-	15.1
HCM Lane LOS	C	B	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	18	133	12	26	16	0	0	11	13
Future Vol, veh/h	0	0	0	18	133	12	26	16	0	0	11	13
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	21	156	14	31	19	0	0	13	15
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	7.8	7.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	62%	11%	0%
Vol Thru, %	38%	82%	46%
Vol Right, %	0%	7%	54%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	42	163	24
LT Vol	26	18	0
Through Vol	16	133	11
RT Vol	0	12	13
Lane Flow Rate	49	192	28
Geometry Grp	1	1	1
Degree of Util (X)	0.06	0.214	0.032
Departure Headway (Hd)	4.382	4.012	4.051
Convergence, Y/N	Yes	Yes	Yes
Cap	805	890	889
Service Time	2.476	2.056	2.051
HCM Lane V/C Ratio	0.061	0.216	0.031
HCM Control Delay	7.8	8.2	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.8	0.1

Capacity Analysis Summary Sheets

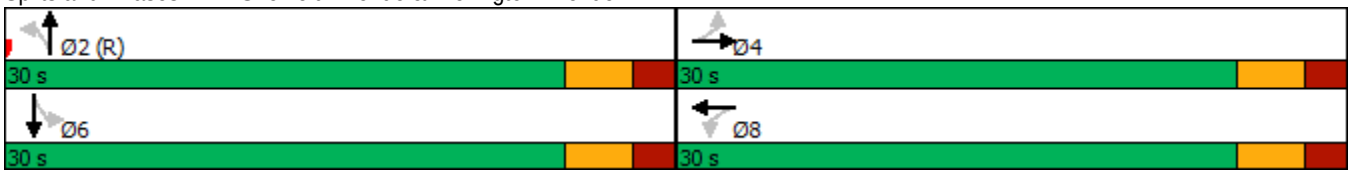
Existing Weekday Evening Peak Hour Conditions (Cubs Game)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	313	65	35	270	33	20	202	61	55	289	54
Future Volume (vph)	56	313	65	35	270	33	20	202	61	55	289	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		150	25		150	25		150	25		150
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.91	0.94		0.84	0.98		0.87	0.94		0.86	0.96	
Frt		0.974			0.984			0.965			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1674	0	1736	1747	0	1805	1662	0	1752	1731	0
Flt Permitted	0.506			0.419			0.460			0.554		
Satd. Flow (perm)	845	1674	0	639	1747	0	763	1662	0	876	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			13			31			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		312			241			516			345	
Travel Time (s)		7.1			5.5			11.7			7.8	
Confl. Peds. (#/hr)	118		267	267		118	191		181	181		191
Confl. Bikes (#/hr)			20			17			20			26
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%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	5%	5%	0%	4%	4%	3%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	402	0	37	322	0	21	280	0	59	364	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.17	0.57		0.14	0.44		0.07	0.39		0.16	0.50	
Control Delay	12.6	16.5		12.6	14.3		11.3	12.8		12.5	15.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.6	16.5		12.6	14.3		11.3	12.8		12.5	15.1	
LOS	B	B		B	B		B	B		B	B	
Approach Delay		16.0			14.1			12.7			14.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	100		8	76		4	59		13	87	
Queue Length 95th (ft)	35	176		25	135		16	112		34	154	
Internal Link Dist (ft)		232			161			436			265	
Turn Bay Length (ft)	25			25			25			25		
Base Capacity (vph)	352	709		266	735		317	710		365	732	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.57		0.14	0.44		0.07	0.39		0.16	0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 8 (13%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 100.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: Sheffield Avenue & Wellington Avenue



Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	30	181	22	61	235	25	28	313	68
Future Vol, veh/h	0	0	0	30	181	22	61	235	25	28	313	68
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, %	0	0	0	0	0	0	2	1	0	0	1	0
Mvmt Flow	0	0	0	31	185	22	62	240	26	29	319	69
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	12.2	12.9	14.7
HCM LOS	B	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	19%	13%	7%
Vol Thru, %	73%	78%	77%
Vol Right, %	8%	9%	17%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	321	233	409
LT Vol	61	30	28
Through Vol	235	181	313
RT Vol	25	22	68
Lane Flow Rate	328	238	417
Geometry Grp	1	1	1
Degree of Util (X)	0.474	0.377	0.579
Departure Headway (Hd)	5.212	5.702	4.998
Convergence, Y/N	Yes	Yes	Yes
Cap	691	630	722
Service Time	3.244	3.738	3.027
HCM Lane V/C Ratio	0.475	0.378	0.578
HCM Control Delay	12.9	12.2	14.7
HCM Lane LOS	B	B	B
HCM 95th-tile Q	2.6	1.8	3.8

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	79	54	267	22	15	343
Future Vol, veh/h	79	54	267	22	15	343
Conflicting Peds, #/hr	8	1	0	131	72	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	4	0	0	2
Mvmt Flow	82	56	278	23	16	357

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	818	422	0	0	432	0
Stage 1	421	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	348	636	-	-	1138	-
Stage 1	667	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	296	556	-	-	996	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	296	556	996	-
HCM Lane V/C Ratio	-	-	0.278	0.101	0.016	-
HCM Control Delay (s)	-	-	21.8	12.2	8.7	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0.3	0	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	38	0	0	76	68	3
Future Vol, veh/h	38	0	0	76	68	3
Conflicting Peds, #/hr	0	40	40	0	19	32
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	44	0	0	88	79	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	151	76
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	107	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	846	991
Stage 1	-	0	0	-	984	-
Stage 2	-	0	0	-	922	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	831	961
Mov Cap-2 Maneuver	-	-	-	-	831	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	905	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	836	-	-
HCM Lane V/C Ratio	0.099	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	28	12	9	36	0	0	0	0	6	0	38
Future Vol, veh/h	0	28	12	9	36	0	0	0	0	6	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	41	18	13	53	0	0	0	0	9	0	56

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	53	0	0	59	0	0			129	138	53
Stage 1	-	-	-	-	-	-			79	79	-
Stage 2	-	-	-	-	-	-			50	59	-
Critical Hdwy	4.1	-	-	4.1	-	-			6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-			5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-			3.5	4	3.3
Pot Cap-1 Maneuver	1566	-	-	1558	-	-			870	757	1020
Stage 1	-	-	-	-	-	-			949	833	-
Stage 2	-	-	-	-	-	-			978	850	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1566	-	-	1558	-	-			862	0	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-			862	0	-
Stage 1	-	-	-	-	-	-			940	0	-
Stage 2	-	-	-	-	-	-			978	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	1.5	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	1558	-	-	995
HCM Lane V/C Ratio	-	-	-	0.008	-	-	0.065
HCM Control Delay (s)	0	-	-	7.3	0	-	8.9
HCM Lane LOS	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↾	
Traffic Vol, veh/h	0	399	339	0	20	5
Future Vol, veh/h	0	399	339	0	20	5
Conflicting Peds, #/hr	117	0	0	117	79	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	429	365	0	22	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	873	371
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	508	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	323	679
Stage 1	0	-	-	0	707	-
Stage 2	0	-	-	0	608	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	323	675
Mov Cap-2 Maneuver	-	-	-	-	323	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	608	-

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	361
HCM Lane V/C Ratio	-	-	0.074
HCM Control Delay (s)	-	-	15.8
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	30	392	0	0	310	26	31	0	21	0	0	0
Future Vol, veh/h	30	392	0	0	310	26	31	0	21	0	0	0
Conflicting Peds, #/hr	121	0	468	468	0	121	3	0	70	70	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	32	413	0	0	326	27	33	0	22	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	474	0	0	881	0	0	1288	1419	951
Stage 1	-	-	-	-	-	-	945	945	-
Stage 2	-	-	-	-	-	-	343	474	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1099	-	-	776	-	-	183	138	318
Stage 1	-	-	-	-	-	-	381	343	-
Stage 2	-	-	-	-	-	-	723	561	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1099	-	-	430	-	-	97	0	165
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	0	-
Stage 1	-	-	-	-	-	-	203	0	-
Stage 2	-	-	-	-	-	-	721	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.6	0	61.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	116	1099	-	-	430	-	-
HCM Lane V/C Ratio	0.472	0.029	-	-	-	-	-
HCM Control Delay (s)	61.1	8.4	0	-	0	-	-
HCM Lane LOS	F	A	A	-	A	-	-
HCM 95th %tile Q(veh)	2.1	0.1	-	-	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	390	23	11	333	0	10	0	22	0	0	1
Future Vol, veh/h	1	390	23	11	333	0	10	0	22	0	0	1
Conflicting Peds, #/hr	153	0	353	353	0	153	37	0	14	14	0	37
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	100	0	0	0	1	0	0	0	0	0	0	100
Mvmt Flow	1	411	24	12	351	0	11	0	23	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	504	0	0	788	0	0	1191	1306	790	979	1318	541
Stage 1	-	-	-	-	-	-	778	778	-	528	528	-
Stage 2	-	-	-	-	-	-	413	528	-	451	790	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	4.2
Pot Cap-1 Maneuver	701	-	-	840	-	-	166	161	393	231	159	392
Stage 1	-	-	-	-	-	-	392	410	-	538	531	-
Stage 2	-	-	-	-	-	-	620	531	-	592	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	599	-	-	558	-	-	104	89	257	173	88	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	104	89	-	173	88	-
Stage 1	-	-	-	-	-	-	260	272	-	459	441	-
Stage 2	-	-	-	-	-	-	580	441	-	530	268	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	30.2	16.2
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	176	599	-	-	558	-	-	323
HCM Lane V/C Ratio	0.191	0.002	-	-	0.021	-	-	0.003
HCM Control Delay (s)	30.2	11	0	-	11.6	0	-	16.2
HCM Lane LOS	D	B	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

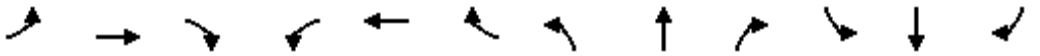
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	18	133	12	26	16	0	0	11	13
Future Vol, veh/h	0	0	0	18	133	12	26	16	0	0	11	13
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	21	156	14	31	19	0	0	13	15
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	7.8	7.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	62%	11%	0%
Vol Thru, %	38%	82%	46%
Vol Right, %	0%	7%	54%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	42	163	24
LT Vol	26	18	0
Through Vol	16	133	11
RT Vol	0	12	13
Lane Flow Rate	49	192	28
Geometry Grp	1	1	1
Degree of Util (X)	0.06	0.214	0.032
Departure Headway (Hd)	4.382	4.012	4.051
Convergence, Y/N	Yes	Yes	Yes
Cap	805	890	889
Service Time	2.476	2.056	2.051
HCM Lane V/C Ratio	0.061	0.216	0.031
HCM Control Delay	7.8	8.2	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.8	0.1

Capacity Analysis Summary Sheets

Projected Weekday Morning Peak Hour Condition

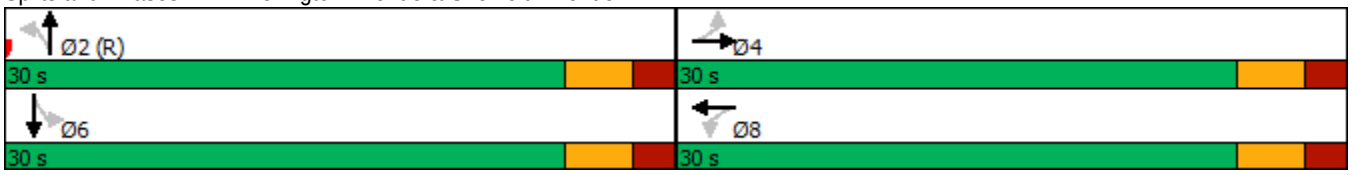


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	459	58	9	84	49	12	157	69	101	313	31
Future Volume (vph)	49	459	58	9	84	49	12	157	69	101	313	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		150	25		150	25		150	25		150
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.89	0.96		0.88	0.94		0.95	0.95		0.90	0.99	
Frt		0.983			0.944			0.954			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1533	1587	0	1450	1451	0	1624	1474	0	1593	1628	0
Flt Permitted	0.666			0.262			0.453			0.597		
Satd. Flow (perm)	952	1587	0	354	1451	0	739	1474	0	906	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			53			40			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		312			241			516			345	
Travel Time (s)		7.1			5.5			11.7			7.8	
Confl. Peds. (#/hr)	116		264	264		116	69		112	112		69
Confl. Bikes (#/hr)			3			2			2			3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	2%	2%	12%	1%	11%	0%	4%	9%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	556	0	10	143	0	13	243	0	109	370	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.13	0.83		0.07	0.23		0.04	0.38		0.29	0.54	
Control Delay	12.0	29.0		12.1	8.5		11.0	12.2		14.3	16.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.0	29.0		12.1	8.5		11.0	12.2		14.3	16.4	
LOS	B	C		B	A		B	B		B	B	
Approach Delay		27.5			8.7			12.1			16.0	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)	11	168		2	19		3	48		25	94	
Queue Length 95th (ft)	31	#339		10	50		12	97		58	166	
Internal Link Dist (ft)		232			161			436			265	
Turn Bay Length (ft)	25			25			25			25		
Base Capacity (vph)	396	668		147	635		307	637		377	684	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.83		0.07	0.23		0.04	0.38		0.29	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 8 (13%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 70.7%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Wellington Avenue & Sheffield Avenue



Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	50	4	26	194	22	53	432	30
Future Vol, veh/h	0	0	0	13	50	4	26	194	22	53	432	30
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, %	0	0	0	0	10	20	0	2	0	0	3	4
Mvmt Flow	0	0	0	14	53	4	28	206	23	56	460	32
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.4	10	15.6
HCM LOS	A	A	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	11%	19%	10%
Vol Thru, %	80%	75%	84%
Vol Right, %	9%	6%	6%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	242	67	515
LT Vol	26	13	53
Through Vol	194	50	432
RT Vol	22	4	30
Lane Flow Rate	257	71	548
Geometry Grp	1	1	1
Degree of Util (X)	0.331	0.111	0.664
Departure Headway (Hd)	4.631	5.63	4.365
Convergence, Y/N	Yes	Yes	Yes
Cap	775	633	827
Service Time	2.67	3.696	2.396
HCM Lane V/C Ratio	0.332	0.112	0.663
HCM Control Delay	10	9.4	15.6
HCM Lane LOS	A	A	C
HCM 95th-tile Q	1.5	0.4	5.2

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	46	197	75	47	391
Future Vol, veh/h	52	46	197	75	47	391
Conflicting Peds, #/hr	1	123	0	32	32	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	3	15	0	3
Mvmt Flow	55	48	207	79	49	412

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	790	402	0	0	318	0
Stage 1	279	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Critical Hdwy	6.43	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	358	653	-	-	1253	-
Stage 1	766	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	329	559	-	-	1215	-
Mov Cap-2 Maneuver	329	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	599	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	329	559	1215	-
HCM Lane V/C Ratio	-	-	0.166	0.087	0.041	-
HCM Control Delay (s)	-	-	18.1	12.1	8.1	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3	0.1	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	0	0	44	26	4
Future Vol, veh/h	44	0	0	44	26	4
Conflicting Peds, #/hr	0	32	32	0	13	18
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	0	0	2	0	0
Mvmt Flow	52	0	0	52	31	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	117	70
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	884	998
Stage 1	-	0	0	-	976	-
Stage 2	-	0	0	-	963	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	873	981
Mov Cap-2 Maneuver	-	-	-	-	873	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	951	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	886	-	-
HCM Lane V/C Ratio	0.04	-	-
HCM Control Delay (s)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	18	13	24	0	0	0	0	2	7	18
Future Vol, veh/h	0	31	18	13	24	0	0	0	0	2	7	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	7	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	38	22	16	30	0	0	0	0	2	9	22

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	60	0	0				111	122	30
Stage 1	-	-	-	-	-	-				62	62	-
Stage 2	-	-	-	-	-	-				49	60	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1556	-	0				891	772	1050
Stage 1	0	-	-	-	-	0				966	847	-
Stage 2	0	-	-	-	-	0				979	849	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1556	-	-				882	0	1050
Mov Cap-2 Maneuver	-	-	-	-	-	-				882	0	-
Stage 1	-	-	-	-	-	-				956	0	-
Stage 2	-	-	-	-	-	-				979	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1556	-	1030
HCM Lane V/C Ratio	-	-	0.01	-	0.032
HCM Control Delay (s)	-	-	7.3	0	8.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	487	186	0	2	0
Future Vol, veh/h	0	487	186	0	2	0
Conflicting Peds, #/hr	68	0	0	68	4	98
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	0	518	198	0	2	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	720	296
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	398	748
Stage 1	0	-	-	0	840	-
Stage 2	0	-	-	0	599	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	398	678
Mov Cap-2 Maneuver	-	-	-	-	398	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	599	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	398
HCM Lane V/C Ratio	-	-	0.005
HCM Control Delay (s)	-	-	14.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

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	21	477	0	0	166	20	15	0	13	0	0	0
Future Vol, veh/h	21	477	0	0	166	20	15	0	13	0	0	0
Conflicting Peds, #/hr	76	0	570	570	0	76	9	0	99	99	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	24	548	0	0	191	23	17	0	15	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	290	0	-	-	-	0	808	886	647
Stage 1	-	-	-	-	-	-	596	596	-
Stage 2	-	-	-	-	-	-	212	290	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1283	-	0	0	-	-	353	286	475
Stage 1	-	-	0	0	-	-	554	495	-
Stage 2	-	-	0	0	-	-	828	676	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1283	-	-	-	-	-	340	0	430
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	0	-
Stage 1	-	-	-	-	-	-	539	0	-
Stage 2	-	-	-	-	-	-	821	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	377	1283	-	-	-
HCM Lane V/C Ratio	0.085	0.019	-	-	-
HCM Control Delay (s)	15.4	7.9	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	-

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	0	444	32	14	178	15	8	1	22	0	0	1
Future Vol, veh/h	0	444	32	14	178	15	8	1	22	0	0	1
Conflicting Peds, #/hr	112	0	329	329	0	112	53	0	15	15	0	53
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	488	35	15	196	16	9	1	24	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	324	0	0	852	0	0	1123	1189	850	879	1198	369
Stage 1	-	-	-	-	-	-	835	835	-	346	346	-
Stage 2	-	-	-	-	-	-	288	354	-	533	852	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1247	-	-	795	-	-	185	190	363	270	187	681
Stage 1	-	-	-	-	-	-	365	386	-	674	639	-
Stage 2	-	-	-	-	-	-	724	634	-	534	379	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	546	-	-	117	113	246	208	111	578
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	113	-	208	111	-
Stage 1	-	-	-	-	-	-	251	265	-	602	553	-
Stage 2	-	-	-	-	-	-	665	548	-	473	260	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	28.6	11.2
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	186	1114	-	-	546	-	-	578
HCM Lane V/C Ratio	0.183	-	-	-	0.028	-	-	0.002
HCM Control Delay (s)	28.6	0	-	-	11.8	0	-	11.2
HCM Lane LOS	D	A	-	-	B	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	53	4	21	23	0	0	25	14
Future Vol, veh/h	0	0	0	4	53	4	21	23	0	0	25	14
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	0	0	11	2	0	5	0	0	0	4	0
Mvmt Flow	0	0	0	5	60	5	24	26	0	0	28	16
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.6	7.6	7.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	48%	7%	0%
Vol Thru, %	52%	87%	64%
Vol Right, %	0%	7%	36%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	44	61	39
LT Vol	21	4	0
Through Vol	23	53	25
RT Vol	0	4	14
Lane Flow Rate	50	69	44
Geometry Grp	1	1	1
Degree of Util (X)	0.059	0.081	0.048
Departure Headway (Hd)	4.237	4.222	3.912
Convergence, Y/N	Yes	Yes	Yes
Cap	842	844	909
Service Time	2.282	2.268	1.963
HCM Lane V/C Ratio	0.059	0.082	0.048
HCM Control Delay	7.6	7.6	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.3	0.2

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	75	0	67	31	0
Future Vol, veh/h	47	75	0	67	31	0
Conflicting Peds, #/hr	0	32	32	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	49	79	0	71	33	0

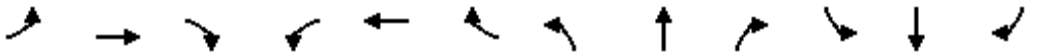
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	160	0	192	121
Stage 1	-	-	-	-	121	-
Stage 2	-	-	-	-	71	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1432	-	801	936
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1388	-	777	907
Mov Cap-2 Maneuver	-	-	-	-	777	-
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	957	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	777	-	-	1388	-
HCM Lane V/C Ratio	0.042	-	-	-	-
HCM Control Delay (s)	9.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Capacity Analysis Summary Sheets

Projected Weekday Evening Peak Hour Conditions (No Cubs Game)

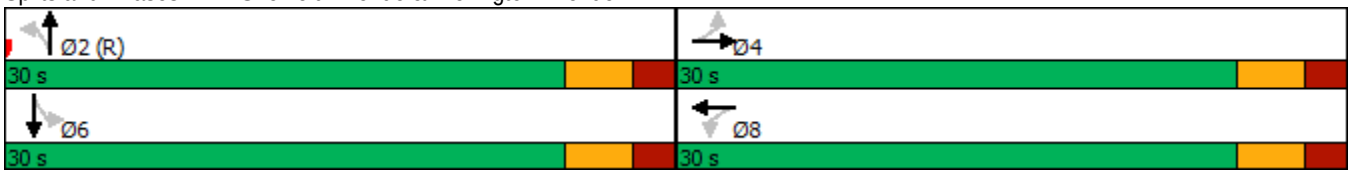


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	257	47	29	219	47	18	237	56	72	258	65
Future Volume (vph)	53	257	47	29	219	47	18	237	56	72	258	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		150	25		150	25		150	25		150
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.90	0.95		0.82	0.97		0.92	0.96		0.89	0.97	
Frt		0.977			0.973			0.971			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1697	0	1736	1704	0	1805	1706	0	1752	1737	0
Flt Permitted	0.550			0.505			0.483			0.517		
Satd. Flow (perm)	902	1697	0	757	1704	0	849	1706	0	850	1737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			22			24			26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		312			241			516			345	
Travel Time (s)		7.1			5.5			11.7			7.8	
Confl. Peds. (#/hr)	130		248	248		130	108		146	146		108
Confl. Bikes (#/hr)			12			11			9			11
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%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	5%	5%	0%	4%	4%	3%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	56	323	0	31	283	0	19	312	0	77	343	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.15	0.45		0.10	0.39		0.05	0.43		0.22	0.46	
Control Delay	12.2	14.3		11.8	13.2		11.1	13.7		13.3	14.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.2	14.3		11.8	13.2		11.1	13.7		13.3	14.2	
LOS	B	B		B	B		B	B		B	B	
Approach Delay		14.0			13.1			13.6			14.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	12	75		7	62		4	70		17	78	
Queue Length 95th (ft)	32	135		21	115		15	128		43	141	
Internal Link Dist (ft)		232			161			436			265	
Turn Bay Length (ft)	25			25			25			25		
Base Capacity (vph)	375	718		315	722		353	724		354	738	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.45		0.10	0.39		0.05	0.43		0.22	0.46	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 8 (13%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 98.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Sheffield Avenue & Wellington Avenue



Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	163	24	66	323	24	30	292	44
Future Vol, veh/h	0	0	0	20	163	24	66	323	24	30	292	44
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, %	0	0	0	0	0	0	2	1	0	0	1	0
Mvmt Flow	0	0	0	20	166	24	67	330	24	31	298	45
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	11.8	15.4	13.6
HCM LOS	B	C	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	16%	10%	8%
Vol Thru, %	78%	79%	80%
Vol Right, %	6%	12%	12%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	413	207	366
LT Vol	66	20	30
Through Vol	323	163	292
RT Vol	24	24	44
Lane Flow Rate	421	211	373
Geometry Grp	1	1	1
Degree of Util (X)	0.596	0.34	0.526
Departure Headway (Hd)	5.087	5.787	5.066
Convergence, Y/N	Yes	Yes	Yes
Cap	708	621	713
Service Time	3.116	3.826	3.097
HCM Lane V/C Ratio	0.595	0.34	0.523
HCM Control Delay	15.4	11.8	13.6
HCM Lane LOS	C	B	B
HCM 95th-tile Q	4	1.5	3.1

Intersection	
Int Delay, s/veh	4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	111	112	292	34	23	284
Future Vol, veh/h	111	112	292	34	23	284
Conflicting Peds, #/hr	6	1	0	79	79	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	4	0	0	2
Mvmt Flow	116	117	304	35	24	296

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	751	402	0	0	418	0
Stage 1	401	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	381	653	-	-	1152	-
Stage 1	681	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	341	603	-	-	1065	-
Mov Cap-2 Maneuver	341	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	341	603	1065	-
HCM Lane V/C Ratio	-	-	0.339	0.193	0.022	-
HCM Control Delay (s)	-	-	20.9	12.4	8.5	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.7	0.1	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	42	0	0	84	75	3
Future Vol, veh/h	42	0	0	84	75	3
Conflicting Peds, #/hr	0	44	44	0	21	35
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	49	0	0	98	87	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	168	84
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	827	981
Stage 1	-	0	0	-	979	-
Stage 2	-	0	0	-	911	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	810	948
Mov Cap-2 Maneuver	-	-	-	-	810	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	893	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	815	-	-
HCM Lane V/C Ratio	0.111	-	-
HCM Control Delay (s)	10	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	31	13	10	40	0	0	0	0	7	0	42
Future Vol, veh/h	0	31	13	10	40	0	0	0	0	7	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	46	19	15	59	0	0	0	0	10	0	62

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	59	0	0	65	0	0				145	154	59
Stage 1	-	-	-	-	-	-				89	89	-
Stage 2	-	-	-	-	-	-				56	65	-
Critical Hdwy	4.1	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1558	-	-	1550	-	-				852	741	1012
Stage 1	-	-	-	-	-	-				940	825	-
Stage 2	-	-	-	-	-	-				972	845	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1550	-	-				843	0	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-				843	0	-
Stage 1	-	-	-	-	-	-				931	0	-
Stage 2	-	-	-	-	-	-				972	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	1.5	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1558	-	-	1550	-	-	984
HCM Lane V/C Ratio	-	-	-	0.009	-	-	0.073
HCM Control Delay (s)	0	-	-	7.3	0	-	8.9
HCM Lane LOS	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	352	306	0	22	6
Future Vol, veh/h	0	352	306	0	22	6
Conflicting Peds, #/hr	129	0	0	129	87	7
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	378	329	0	24	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	794	336
Stage 1	-	-	-	-	329	-
Stage 2	-	-	-	-	465	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	360	711
Stage 1	0	-	-	0	734	-
Stage 2	0	-	-	0	636	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	360	706
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	402
HCM Lane V/C Ratio	-	-	0.075
HCM Control Delay (s)	-	-	14.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	33	345	0	0	274	29	34	0	23	0	0	0
Future Vol, veh/h	33	345	0	0	274	29	34	0	23	0	0	0
Conflicting Peds, #/hr	133	0	515	515	0	133	3	0	77	77	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	35	363	0	0	288	31	36	0	24	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	452	0	0	878	0	0	1255	1400	955
Stage 1	-	-	-	-	-	-	948	948	-
Stage 2	-	-	-	-	-	-	307	452	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1119	-	-	778	-	-	191	142	316
Stage 1	-	-	-	-	-	-	380	342	-
Stage 2	-	-	-	-	-	-	751	574	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1119	-	-	396	-	-	93	0	149
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	0	-
Stage 1	-	-	-	-	-	-	186	0	-
Stage 2	-	-	-	-	-	-	749	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	71.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	110	1119	-	-	396	-	-
HCM Lane V/C Ratio	0.545	0.031	-	-	-	-	-
HCM Control Delay (s)	71.4	8.3	0	-	0	-	-
HCM Lane LOS	F	A	A	-	A	-	-
HCM 95th %tile Q(veh)	2.6	0.1	-	-	0	-	-

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	237	25	12	299	0	11	0	24	0	0	1
Future Vol, veh/h	1	237	25	12	299	0	11	0	24	0	0	1
Conflicting Peds, #/hr	168	0	388	388	0	168	41	0	15	15	0	41
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	100	0	0	0	1	0	0	0	0	0	0	100
Mvmt Flow	1	249	26	13	315	0	12	0	25	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	483	0	0	663	0	0	1035	1161	665	801	1174	524
Stage 1	-	-	-	-	-	-	652	652	-	509	509	-
Stage 2	-	-	-	-	-	-	383	509	-	292	665	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	4.2
Pot Cap-1 Maneuver	716	-	-	935	-	-	212	197	464	305	193	402
Stage 1	-	-	-	-	-	-	460	467	-	550	541	-
Stage 2	-	-	-	-	-	-	644	541	-	720	461	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	601	-	-	589	-	-	125	101	288	225	99	324
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	101	-	225	99	-
Stage 1	-	-	-	-	-	-	289	294	-	461	442	-
Stage 2	-	-	-	-	-	-	600	442	-	646	290	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	26.5	16.1
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	204	601	-	-	589	-	-	324
HCM Lane V/C Ratio	0.181	0.002	-	-	0.021	-	-	0.003
HCM Control Delay (s)	26.5	11	0	-	11.2	0	-	16.1
HCM Lane LOS	D	B	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	146	13	29	118	0	0	12	14
Future Vol, veh/h	0	0	0	20	146	13	29	118	0	0	12	14
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	24	172	15	34	139	0	0	14	16
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.8	8.7	7.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	20%	11%	0%
Vol Thru, %	80%	82%	46%
Vol Right, %	0%	7%	54%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	147	179	26
LT Vol	29	20	0
Through Vol	118	146	12
RT Vol	0	13	14
Lane Flow Rate	173	211	31
Geometry Grp	1	1	1
Degree of Util (X)	0.214	0.254	0.036
Departure Headway (Hd)	4.46	4.348	4.257
Convergence, Y/N	Yes	Yes	Yes
Cap	808	828	842
Service Time	2.474	2.362	2.277
HCM Lane V/C Ratio	0.214	0.255	0.037
HCM Control Delay	8.7	8.8	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	1	0.1

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	41	16	0	160	63	0
Future Vol, veh/h	41	16	0	160	63	0
Conflicting Peds, #/hr	0	44	44	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	17	0	168	66	0

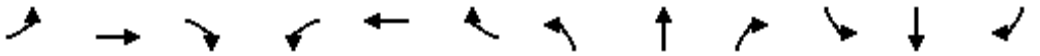
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	264	96
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1500	-	729	966
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1437	-	698	926
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	698	-	-	1437	-
HCM Lane V/C Ratio	0.095	-	-	-	-
HCM Control Delay (s)	10.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Capacity Analysis Summary Sheets

Projected Weekday Evening Peak Hour Conditions (Cubs Game)

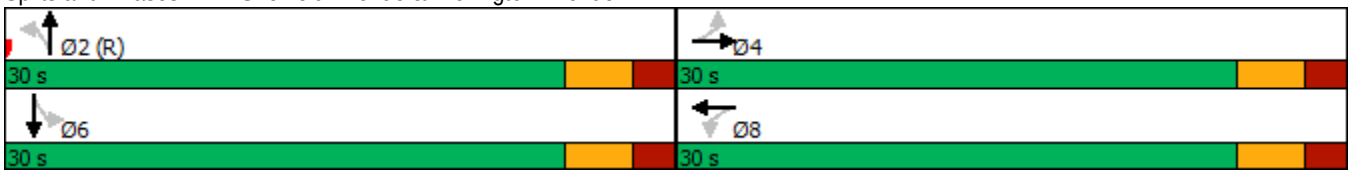


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	344	72	39	297	38	22	267	67	70	340	68
Future Volume (vph)	63	344	72	39	297	38	22	267	67	70	340	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		150	25		150	25		150	25		150
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.91	0.93		0.83	0.98		0.88	0.95		0.86	0.95	
Frt		0.974			0.983			0.970			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1662	0	1736	1741	0	1805	1675	0	1752	1716	0
Flt Permitted	0.469			0.376			0.385			0.470		
Satd. Flow (perm)	781	1662	0	573	1741	0	643	1675	0	750	1716	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			13			26			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		312			241			516			345	
Travel Time (s)		7.1			5.5			11.7			7.8	
Confl. Peds. (#/hr)	130		294	294		130	210		199	199		210
Confl. Bikes (#/hr)			22			19			31			29
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%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	5%	5%	0%	4%	4%	3%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	443	0	41	356	0	23	355	0	74	434	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.21	0.63		0.17	0.49		0.09	0.50		0.24	0.60	
Control Delay	13.3	18.0		13.4	15.1		11.8	14.9		13.9	17.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.3	18.0		13.4	15.1		11.8	14.9		13.9	17.1	
LOS	B	B		B	B		B	B		B	B	
Approach Delay		17.3			14.9			14.7			16.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	15	114		9	86		5	83		17	111	
Queue Length 95th (ft)	39	201		28	152		17	150		43	193	
Internal Link Dist (ft)		232			161			436			265	
Turn Bay Length (ft)	25			25			25			25		
Base Capacity (vph)	325	705		238	733		267	713		312	726	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.63		0.17	0.49		0.09	0.50		0.24	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 8 (13%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 16.0		Intersection LOS: B	
Intersection Capacity Utilization 105.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: Sheffield Avenue & Wellington Avenue



Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	34	199	24	70	374	31	31	349	75
Future Vol, veh/h	0	0	0	34	199	24	70	374	31	31	349	75
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, %	0	0	0	0	0	0	2	1	0	0	1	0
Mvmt Flow	0	0	0	35	203	24	71	382	32	32	356	77
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	14.5	22.5	20.1
HCM LOS	B	C	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	15%	13%	7%
Vol Thru, %	79%	77%	77%
Vol Right, %	7%	9%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	475	257	455
LT Vol	70	34	31
Through Vol	374	199	349
RT Vol	31	24	75
Lane Flow Rate	485	262	464
Geometry Grp	1	1	1
Degree of Util (X)	0.738	0.456	0.698
Departure Headway (Hd)	5.481	6.253	5.41
Convergence, Y/N	Yes	Yes	Yes
Cap	659	574	664
Service Time	3.541	4.322	3.471
HCM Lane V/C Ratio	0.736	0.456	0.699
HCM Control Delay	22.5	14.5	20.1
HCM Lane LOS	C	B	C
HCM 95th-tile Q	6.5	2.4	5.6

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	125	85	294	34	23	377
Future Vol, veh/h	125	85	294	34	23	377
Conflicting Peds, #/hr	9	1	0	144	144	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	4	0	0	2
Mvmt Flow	130	89	306	35	24	393

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	918	469	0	0	485	0
Stage 1	468	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	304	598	-	-	1088	-
Stage 1	634	-	-	-	-	-
Stage 2	647	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	251	515	-	-	939	-
Mov Cap-2 Maneuver	251	-	-	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	641	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.5	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	251	515	939	-
HCM Lane V/C Ratio	-	-	0.519	0.172	0.026	-
HCM Control Delay (s)	-	-	33.8	13.4	8.9	0
HCM Lane LOS	-	-	D	B	A	A
HCM 95th %tile Q(veh)	-	-	2.7	0.6	0.1	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	42	0	0	84	75	3
Future Vol, veh/h	42	0	0	84	75	3
Conflicting Peds, #/hr	0	44	44	0	21	35
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	49	0	0	98	87	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	168	84
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	-	0	0	-	827	981
Stage 1	-	0	0	-	979	-
Stage 2	-	0	0	-	911	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	810	948
Mov Cap-2 Maneuver	-	-	-	-	810	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	893	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	815	-	-
HCM Lane V/C Ratio	0.111	-	-
HCM Control Delay (s)	10	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	31	13	10	40	0	0	0	0	7	0	42
Future Vol, veh/h	0	31	13	10	40	0	0	0	0	7	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	46	19	15	59	0	0	0	0	10	0	62

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	59	0	0	65	0	0			145	154	59
Stage 1	-	-	-	-	-	-			89	89	-
Stage 2	-	-	-	-	-	-			56	65	-
Critical Hdwy	4.1	-	-	4.1	-	-			6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-			5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-			3.5	4	3.3
Pot Cap-1 Maneuver	1558	-	-	1550	-	-			852	741	1012
Stage 1	-	-	-	-	-	-			940	825	-
Stage 2	-	-	-	-	-	-			972	845	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1558	-	-	1550	-	-			843	0	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-			843	0	-
Stage 1	-	-	-	-	-	-			931	0	-
Stage 2	-	-	-	-	-	-			972	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	1.5	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1558	-	-	1550	-	-	984
HCM Lane V/C Ratio	-	-	-	0.009	-	-	0.073
HCM Control Delay (s)	0	-	-	7.3	0	-	8.9
HCM Lane LOS	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	448	375	0	22	6
Future Vol, veh/h	0	448	375	0	22	6
Conflicting Peds, #/hr	129	0	0	129	87	7
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	482	403	0	24	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	972	410
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	569	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	282	646
Stage 1	0	-	-	0	679	-
Stage 2	0	-	-	0	570	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	282	642
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	570	-

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	321
HCM Lane V/C Ratio	-	-	0.094
HCM Control Delay (s)	-	-	17.4
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕				
Traffic Vol, veh/h	33	441	0	0	342	29	34	0	23	0	0	0
Future Vol, veh/h	33	441	0	0	342	29	34	0	23	0	0	0
Conflicting Peds, #/hr	133	0	515	515	0	133	3	0	77	77	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	35	464	0	0	360	31	36	0	24	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	524	0	0	979	0	0	1428	1573	1056
Stage 1	-	-	-	-	-	-	1049	1049	-
Stage 2	-	-	-	-	-	-	379	524	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1053	-	-	713	-	-	150	111	276
Stage 1	-	-	-	-	-	-	340	307	-
Stage 2	-	-	-	-	-	-	696	533	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1053	-	-	363	-	-	73	0	130
Mov Cap-2 Maneuver	-	-	-	-	-	-	73	0	-
Stage 1	-	-	-	-	-	-	166	0	-
Stage 2	-	-	-	-	-	-	694	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.6	0	105
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	89	1053	-	-	363	-	-
HCM Lane V/C Ratio	0.674	0.033	-	-	-	-	-
HCM Control Delay (s)	105	8.5	0	-	0	-	-
HCM Lane LOS	F	A	A	-	A	-	-
HCM 95th %tile Q(veh)	3.3	0.1	-	-	0	-	-

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	438	25	12	368	0	11	0	24	0	0	1
Future Vol, veh/h	1	438	25	12	368	0	11	0	24	0	0	1
Conflicting Peds, #/hr	168	0	388	388	0	168	41	0	15	15	0	41
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	100	0	0	0	1	0	0	0	0	0	0	100
Mvmt Flow	1	461	26	13	387	0	12	0	25	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	555	0	0	875	0	0	1319	1445	877	1085	1458	596
Stage 1	-	-	-	-	-	-	864	864	-	581	581	-
Stage 2	-	-	-	-	-	-	455	581	-	504	877	-
Critical Hdwy	5.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	3.1	-	-	2.2	-	-	3.5	4	3.3	3.5	4	4.2
Pot Cap-1 Maneuver	665	-	-	780	-	-	135	133	351	196	131	361
Stage 1	-	-	-	-	-	-	352	374	-	503	503	-
Stage 2	-	-	-	-	-	-	589	503	-	554	369	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	559	-	-	492	-	-	79	68	218	140	67	291
Mov Cap-2 Maneuver	-	-	-	-	-	-	79	68	-	140	67	-
Stage 1	-	-	-	-	-	-	221	235	-	422	408	-
Stage 2	-	-	-	-	-	-	545	408	-	482	232	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	39.7	17.4
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	140	559	-	-	492	-	-	291
HCM Lane V/C Ratio	0.263	0.002	-	-	0.026	-	-	0.004
HCM Control Delay (s)	39.7	11.5	0	-	12.5	0	-	17.4
HCM Lane LOS	E	B	A	-	B	A	-	C
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	0

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	146	13	29	118	0	0	12	14
Future Vol, veh/h	0	0	0	20	146	13	29	118	0	0	12	14
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	24	172	15	34	139	0	0	14	16
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.8	8.7	7.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	20%	11%	0%
Vol Thru, %	80%	82%	46%
Vol Right, %	0%	7%	54%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	147	179	26
LT Vol	29	20	0
Through Vol	118	146	12
RT Vol	0	13	14
Lane Flow Rate	173	211	31
Geometry Grp	1	1	1
Degree of Util (X)	0.214	0.254	0.036
Departure Headway (Hd)	4.46	4.348	4.257
Convergence, Y/N	Yes	Yes	Yes
Cap	808	828	842
Service Time	2.474	2.362	2.277
HCM Lane V/C Ratio	0.214	0.255	0.037
HCM Control Delay	8.7	8.8	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	1	0.1

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	41	16	0	160	63	0
Future Vol, veh/h	41	16	0	160	63	0
Conflicting Peds, #/hr	0	44	44	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	17	0	168	66	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	264	96
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	168	-
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	-	-	1500	-	729	966
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1437	-	698	926
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	698	-	-	1437	-
HCM Lane V/C Ratio	0.095	-	-	-	-
HCM Control Delay (s)	10.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-