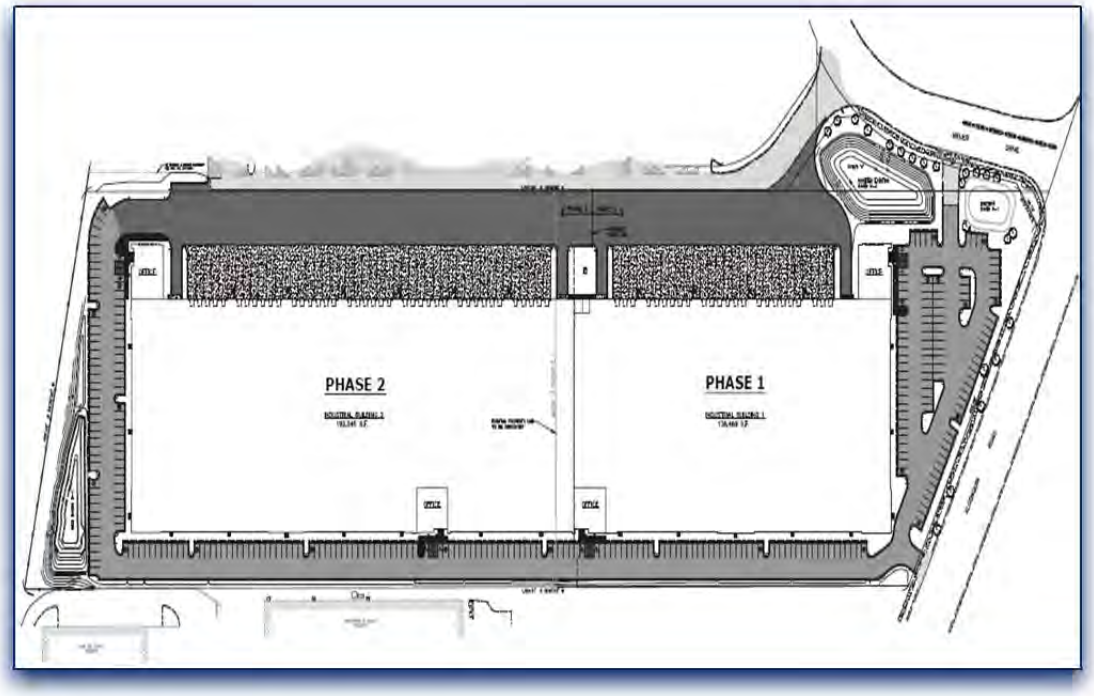
Traffic Impact Study

Proposed Arlington Heights Industrial

Arlington Heights, Illinois



Prepared for

HAMILTON PARTNERS

Prepared by

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October 25, 2017
Revised December 15, 2017

Executive Summary

A traffic impact study was conducted for the proposed Arlington Heights Industrial development to be located in the southeast quadrant of the signalized intersection of Algonquin Road (IL 62) and Meijer Drive in Arlington Heights, Illinois.

The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Truck access to the development will be from a proposed full access drive on Meijer Drive. Access to the development for passenger vehicles will be from a restricted access drive on Meijer Drive, as well as from an existing full access drive on Algonquin Road, east of Meijer Drive.

Traffic projections include the existing weekday morning and weekday afternoon peak hour traffic volumes, and the traffic estimated to be generated by the proposed ultimate buildout of the development.

Based on the proposed development and the related traffic capacity analyses, the findings and recommendations of this study are outlined below.

- Overall, the development will have a low impact on the surrounding roadway network.

- The traffic generated by the existing land uses on the site was retained in the projected traffic volumes, thereby providing for a conservative analysis.

- IL 62 (Algonquin Road), IL 58 (Golf Road), and Arlington Heights Road are all established truck routes and all are under the jurisdiction and maintained by IDOT. Truck traffic will primarily be oriented along IL 62 to the north of Golf Road (IL 58) and to the east of Arlington Heights Road. Further, truck traffic is anticipated to arrive to/from the west on IL 58 and to/from the south on Arlington Heights Road. This derived directional distribution is supported by existing truck traffic counts conducted as part of this study and further supported by IDOT truck traffic volume ADTs on surrounding roadways.

- The traffic signals along IL 62 that includes the intersections at IL 58, Meijer Drive, and Arlington Heights Road, are part of a traffic signal interconnect network that includes 21 traffic signals/intersections and is maintained by the Illinois Department of Transportation (IDOT). The IL 62/Arlington Heights Road traffic signal is the master controller of this system.

- The signalized intersections on IL 62 at IL 58 and Arlington Heights Road will continue to operate at the same level of service and delay under existing conditions. As such, no traffic control or roadway improvements are recommended or needed at these two intersections in conjunction with the proposed development.

- At the signalized intersection of IL 62 and Meijer Drive, it is recommended that three additional seconds of green time be given to Meijer Drive for both peak hour periods. The three seconds can be taken from the access drive located on the east side of IL 62 in alignment with Meijer Drive that operates under a split-phase condition and has a low volume of exiting traffic during the peak hours. Reallocation of greentime from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along IL 62. The three additional seconds of greentime is shown to improve the level of service and reduce the exiting queue for the dual left-turn lanes on Meijer Drive.

- Meijer Drive at IL 58 is restricted to right-turn only exiting movements onto eastbound IL 58; however, traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58, which is also restricted to right-out only turning movements. No improvements are recommended at this intersection in conjunction with the proposed development.

- The proposed full access drive on IL 62, east of Meijer Drive will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. No improvements are recommended on IL 62. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles. Based on the projected right-turn volumes, a right-turn lane on IL 62 is neither warranted nor needed.

- The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive. A northbound right-turn lane is not needed given the low volume of peak hour turning volumes anticipated.

- The proposed northerly access drive on Meijer Drive will be for passenger vehicles only. Further, the access should be designed to restrict turning movements to right-in/right-out only because of the access drive's close proximity to IL 62, in addition to the dual left-turn lanes on Meijer Drive at its approach to IL 62. The access drive should provide one lane inbound and one lane outbound under stop sign control. No improvements on Meijer Drive at this intersection are needed.

Introduction

A traffic impact study was conducted for the proposed Arlington Heights Industrial development to be located in the southeast quadrant of the signalized intersection of Algonquin Road (IL 62) and Meijer Drive in Arlington Heights, Illinois.

The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Truck access to the development will be from a proposed full access drive on Meijer Drive. Access to the development for passenger vehicles will be from a restricted access drive on Meijer Drive, as well as from an existing full access drive on Algonquin Road, east of Meijer Drive.

The following sections of this report present the following.

- Existing roadway conditions including vehicle, pedestrian, and bicycle traffic volumes for the weekday morning and weekday afternoon peak hours
- A detailed description of the proposed development
- Vehicle trip generation for the proposed development
- Directional distribution of development-generated traffic
- Future transportation conditions including access to and from the development

Traffic capacity analyses were conducted for the weekday morning and weekday afternoon peak hours for the following two conditions.

1. Existing Condition - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Future Condition – Traffic projections include the existing peak hour traffic volumes and the traffic estimated to be generated by the proposed development.

The purpose of this study is as follows:

- Determine the existing vehicular (passenger vehicle and heavy vehicle), pedestrian, and bicycle conditions in the study area to establish a base condition.
- Assess the impact that the proposed development will have on transportation conditions in the area.
- Determine any roadway, traffic control, or access improvements that may be necessary to effectively accommodate and mitigate future conditions.

Existing Conditions

Transportation conditions in the vicinity of the site were inventoried to obtain a basis for projecting future conditions. Three components of existing conditions were considered:

1. The geographic location of the site

2. The characteristics of the adjacent roadway system, including lane geometry and intersection traffic controls

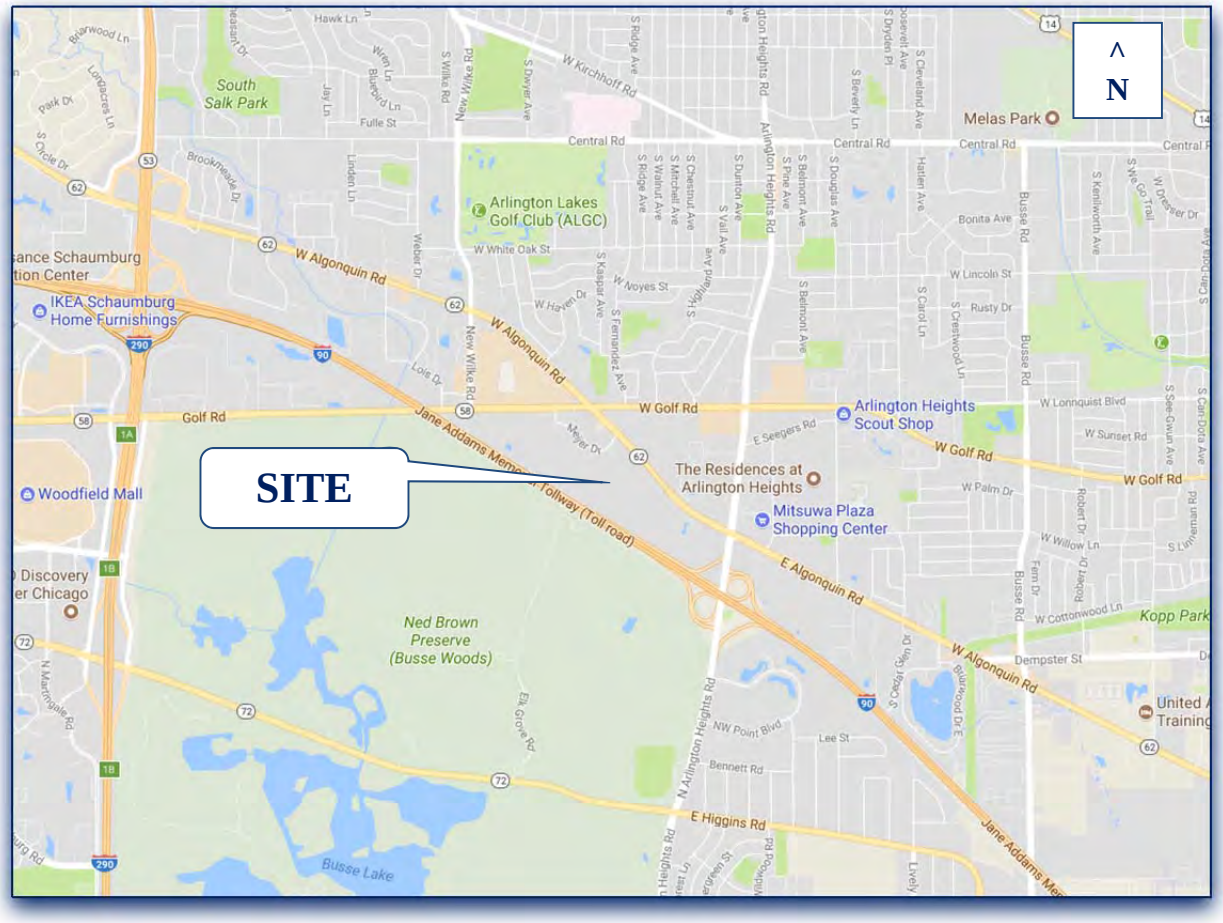
3. The weekday peak-hour vehicle (passenger vehicles and trucks), bicycle, and pedestrian traffic volumes at the study intersections

Site Location

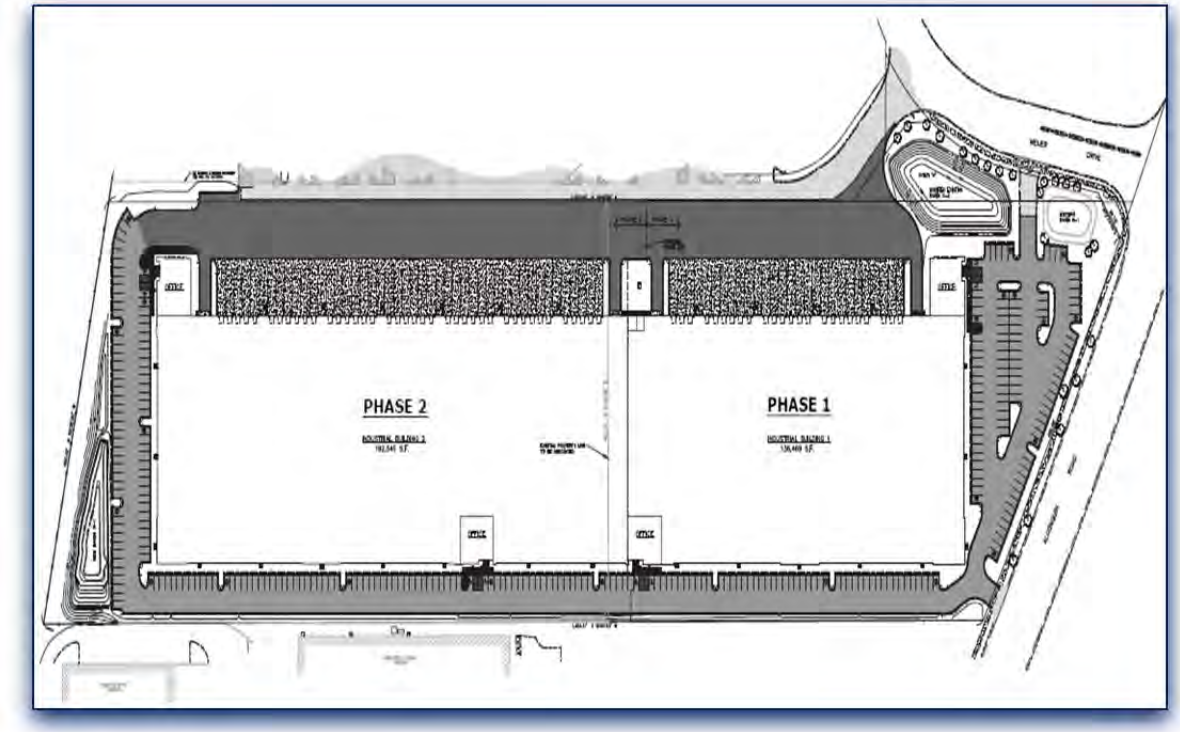
The development site is located in the southeast quadrant of the signalized intersection of Meijer Drive and IL 62 in Arlington Heights, Illinois. The site is currently developed as office/industrial space, and approximately half of the space is currently vacant. As noted, the phased development will result in an ultimate buildout of razing all of the existing structures on the site.

Figure 1 shows the site location on an aerial with respect to the surrounding roadway system.

Figure 2 shows the conceptual site plan for ultimate buildout. The site plan is also included in the Appendix of this report.



SITE LOCATION **Figure 1**



CONCEPTUAL SITE PLAN **Figure 2**

Existing Roadway System Characteristics

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

Algonquin Road (IL 62). IL 62 is a four-lane, northwest/southeast major arterial roadway that is under the jurisdiction of IDOT and is not classified as a Strategic Regional Arterial (SRA). The posted speed limit is 35 mph, and parking is restricted on both sides of the roadway. According to IDOT's website, IL 62 carries an average daily traffic (ADT) volume of 29,900 in the vicinity of Meijer Drive.

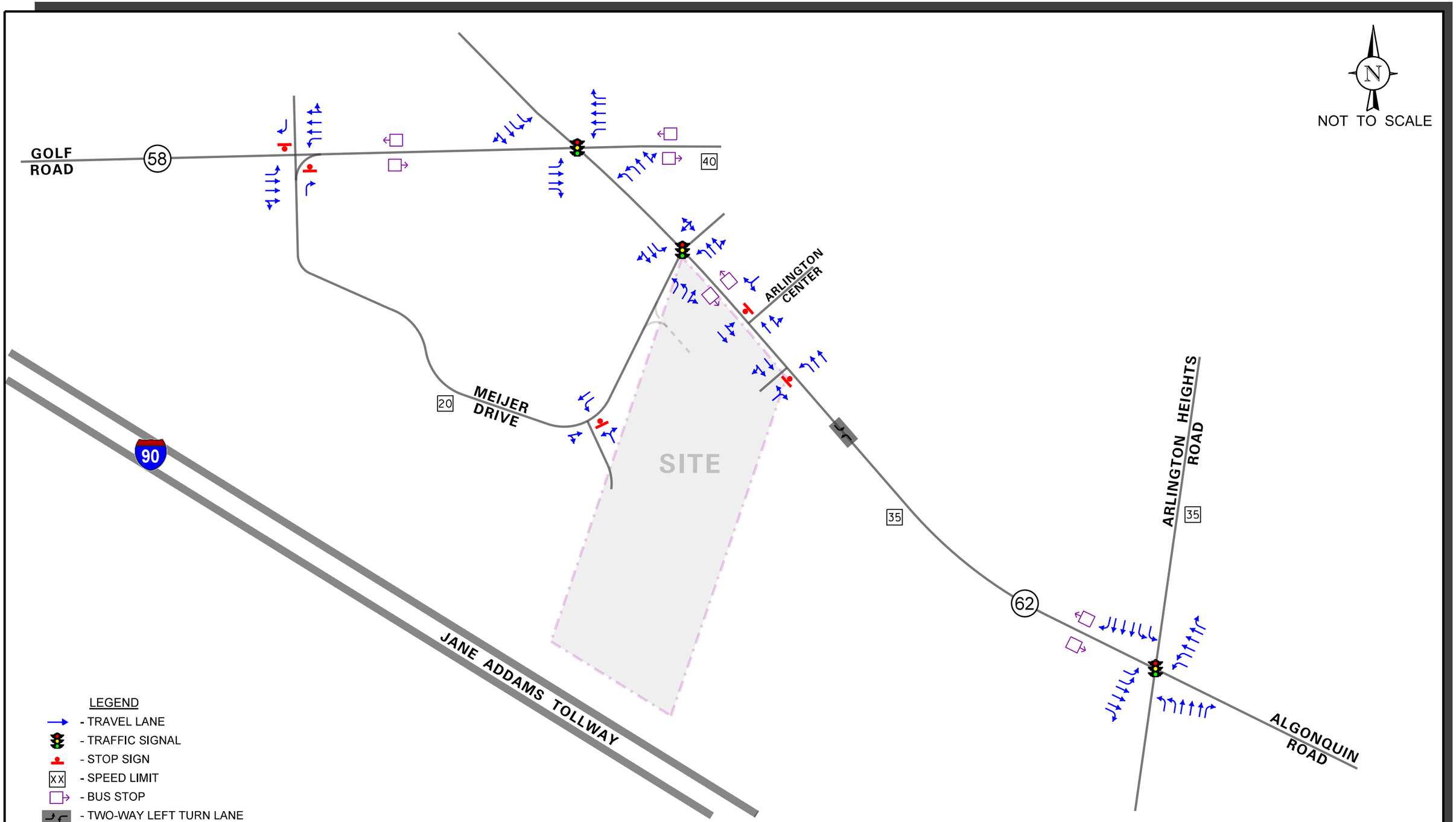
Golf Road (IL 58) is a six-lane, east-west major arterial that is under the jurisdiction of IDOT and is not classified as a SRA. The posted speed limit is 40 mph in the vicinity of IL 62, and parking is restricted on both sides of the roadway. According to IDOT's website, IL 58 carries an ADT volume of 30,900 vehicles in the vicinity of IL 62.

Arlington Heights Road is a six-lane north-south major arterial roadway that is a non-numbered route and is maintained by IDOT. It is not classified as a SRA. The posted speed limit is 35 mph, and parking is restricted on both sides of the roadway. According to IDOT's website, Arlington Heights Road carries an ADT volume of 25,700 vehicles in the vicinity of IL 62.

Meijer Drive is a three-lane boulevard that extends between IL 58 to the north/west to IL 62 to the east/south. The boulevard provides one lane in each direction with a center lane striped as a continuous two-way left-turn lane. Parking is restricted on both sides of the roadway and the posted speed limit is 20 mph. At its stop sign controlled intersection with Golf Road, vehicles are restricted to right-in/right-out/left-in turning movements only. Dual left-turn lanes and a right-turn lane are provided on its eastbound approach with its signalized intersection with IL 62. Meijer Drive and the access drive on the east side of IL 62 in alignment with Meijer Drive operate as a split-phase condition when the respective approaches receive greentime successively rather than concurrently. Meijer Drive provides access to the retail outlots fronting IL 58 and IL 62, the Meijer store, and the existing/remaining warehouse/industrial developments behind the Meijer store. Meijer Drive is under the jurisdiction of the Village of Arlington Heights.

Traffic Signal Interconnect

The traffic signals along IL 62 that includes the intersections at IL 58, Meijer Drive, and Arlington Heights Road, are part of a traffic signal interconnect network that includes 21 traffic signals/intersections and is maintained by IDOT. The IL 62/Arlington Heights Road traffic signal is the master controller of this system.



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EXISTING ROADWAY CHARACTERISTICS

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Job No: 17-173 Figure: 3

Existing Traffic Volumes

Turning movement vehicle (passenger, truck, and bus), pedestrian, and bicycle traffic counts were conducted during the morning (7:00 to 9:00 A.M.), and the afternoon (4:00 to 6:00 P.M.) on Tuesday, July 25, 2017 at the following five intersections.

1. Golf Road (IL 58) and Algonquin Road (IL 62) (signalized)
2. Meijer Drive and IL 62 (signalized)
3. Arlington Heights Road and IL 62 (signalized)
4. Meijer Drive and IL 58 (unsignalized)
5. Arlington Center Access Drive and IL 62 (unsignalized)

From the turning movement count data, it was determined that the weekday morning peak hour generally occurs between 7:30 and 8:30 A.M. and the weekday afternoon peak hour generally occurs between 4:30 and 5:30 P.M. These two respective peak hours will be used for the traffic capacity analyses and are presented later in this report. Pedestrian and bicycle activity was observed and was reported to be relatively low at the study intersections.

The existing peak hour vehicle traffic volumes (all vehicles) are shown in **Figure 4**.

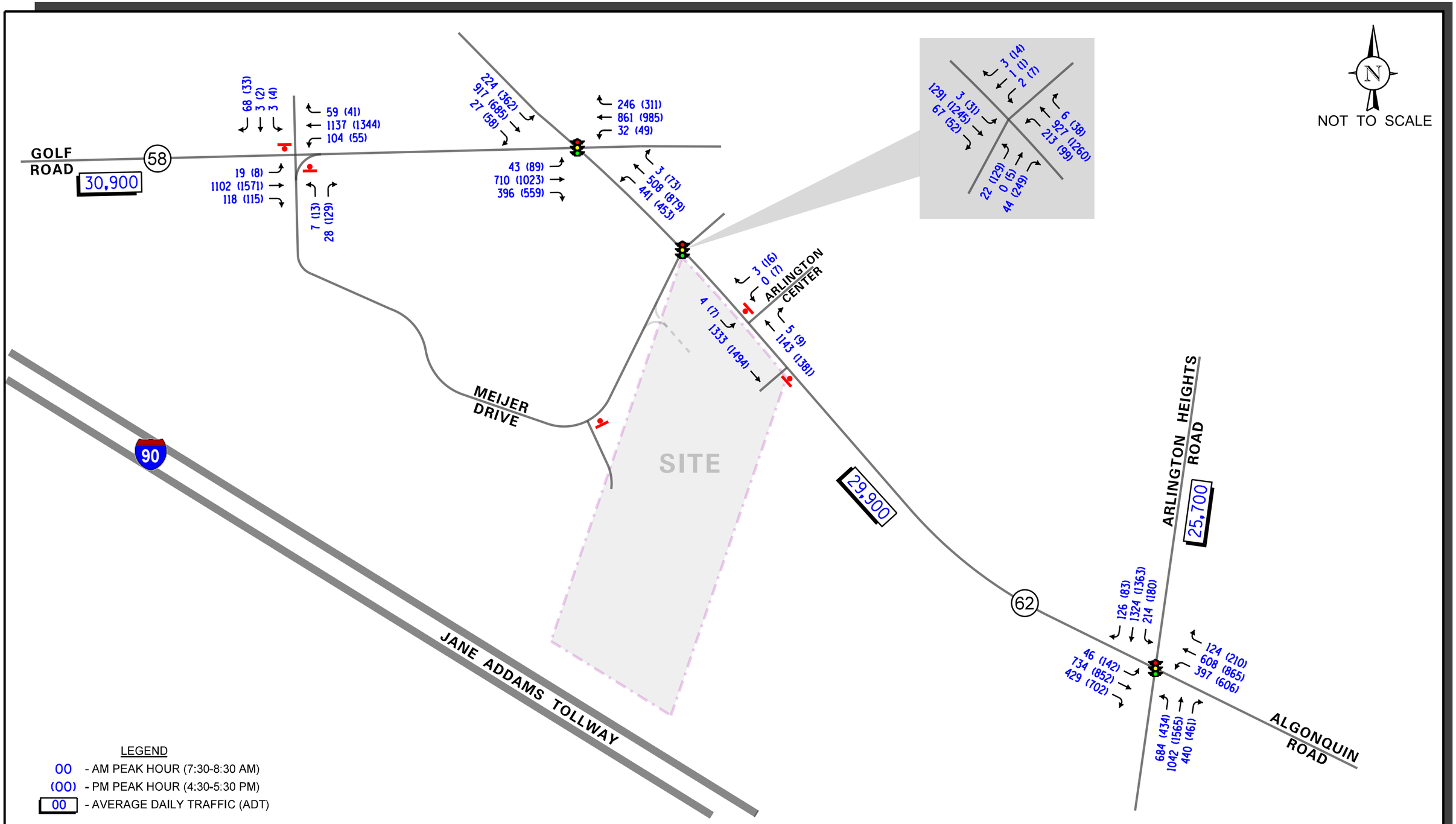
The existing peak hour truck traffic (heavy vehicles) volumes are shown in **Figure 5**.

Observations

Based on a review of the existing traffic volumes and field reconnaissance of the surrounding environs, the following observations are noted.

- Meijer Drive at IL 58 is restricted to right-turn only exiting movements onto eastbound IL 58; however, traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58, which is also restricted to right-out only turning movements.

- The access driveway to the PACE corporate building on IL 62, located approximately 635 feet southeast from the proposed access drive to the subject development and approximately one-fourth of a mile from Meijer Drive is under police officer traffic control to facilitate the exiting traffic during the weekday afternoon peak hours. Officers stop the through traffic on IL 62 in both directions to allow exiting traffic protected passage onto IL 62. Although stopping the vehicles on IL 62 results in a temporary queuing of vehicles, southeastbound through vehicles on IL 62 were not observed to extend to the proposed full access serving the subject development. Further, stopping the through traffic at this access drive results in additional gaps in through traffic along IL 62 at the proposed access drive.



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EXISTING TRAFFIC VOLUMES
(ALL VEHICLES)

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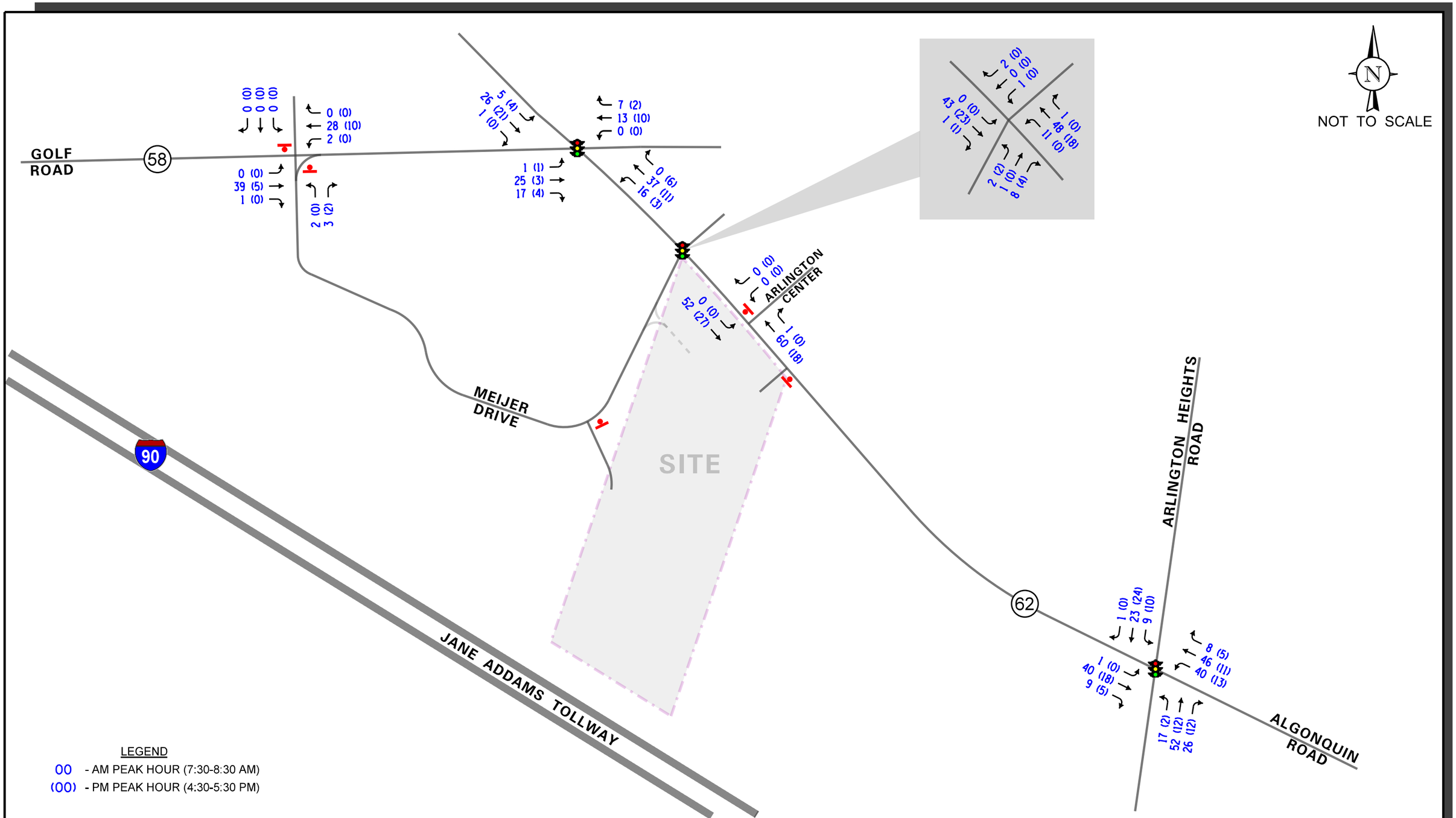
Job No: 17-173 Figure: 4



LEGEND

00 - AM PEAK HOUR (7:30-8:30 AM)

(00) - PM PEAK HOUR (4:30-5:30 PM)

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EXISTING TRAFFIC VOLUMES
(HEAVY VEHICLES)

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Job No: 17-173 Figure: 5

Traffic Characteristics of Proposed Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the overall site will generate during the weekday morning and weekday afternoon peak hours and then determine the directions from which this traffic will approach and depart the site.

Proposed Site and Development Plan

The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

Truck (Heavy Vehicle) Access

The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive.

Passenger Vehicle Access

Two access drives are proposed to serve passenger vehicles, as described below.

Full Access and IL 62. Located east of Meijer Drive, this access will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles.

Restricted Access and Meijer Drive. The proposed northerly access drive on Meijer Drive should be designed to restrict turning movements to right-in/right-out only because of its close proximity to IL 62, in addition to the dual left-turn lanes on Meijer Drive at its approach to IL 62. The access drive should provide one lane inbound and one lane outbound under stop sign control.

Directional Distribution of Development-Generated Traffic

Two separate directional distributions were prepared: one for the truck traffic, and one for the private passenger vehicle traffic. The respective directional distributions of how development traffic will approach and depart the site was estimated based on a combination of existing travel patterns (both passenger vehicle and truck traffic), the location of the site relative to arterial roadways in the area, and the orientation and physical restrictions of the surrounding roadway system.

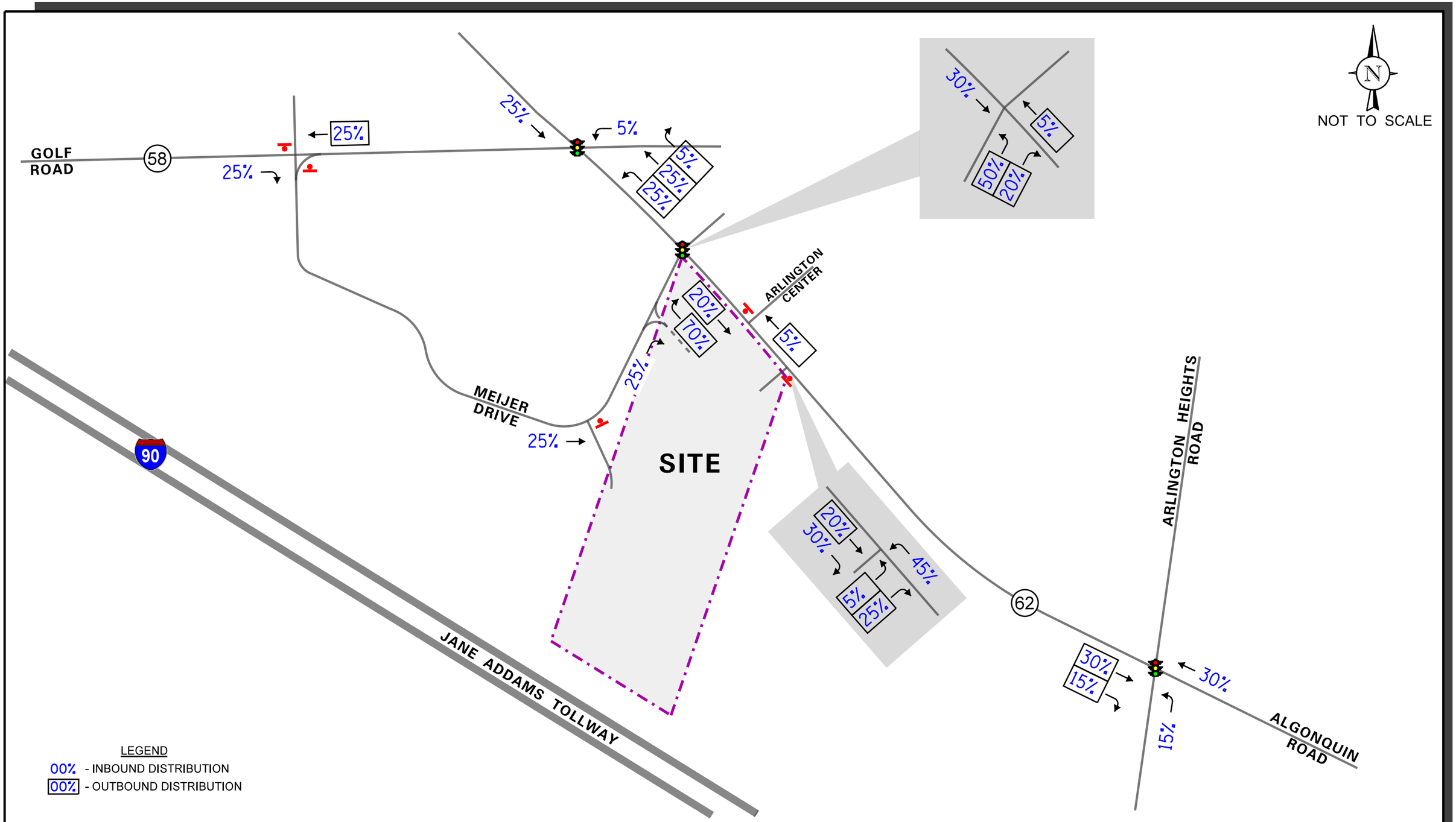
The passenger vehicle estimated directional distribution for the proposed development is illustrated in **Figure 6**.

The truck, or heavy vehicle, estimated directional distribution for the proposed development is illustrated in **Figure 7**.

Development Traffic Generation

The estimates of traffic to be generated by the development are based upon the proposed land use type and size using data published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. Further, based on other studies of warehouse/distribution centers, it is estimated that approximately 10 to 20 percent of the traffic approaching and departing the development during the peak hours of the day will be trucks, with the remaining 80 to 90 percent being passenger vehicles.

Table 1 shows the truck and passenger vehicle trips estimated to be generated for the proposed ultimate buildout of the development during the weekday morning and weekday afternoon peak hours, in addition to the weekday daily (two-way) volumes.



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ESTIMATED DIRECTIONAL DISTRIBUTION
(PASSENGER VEHICLES)

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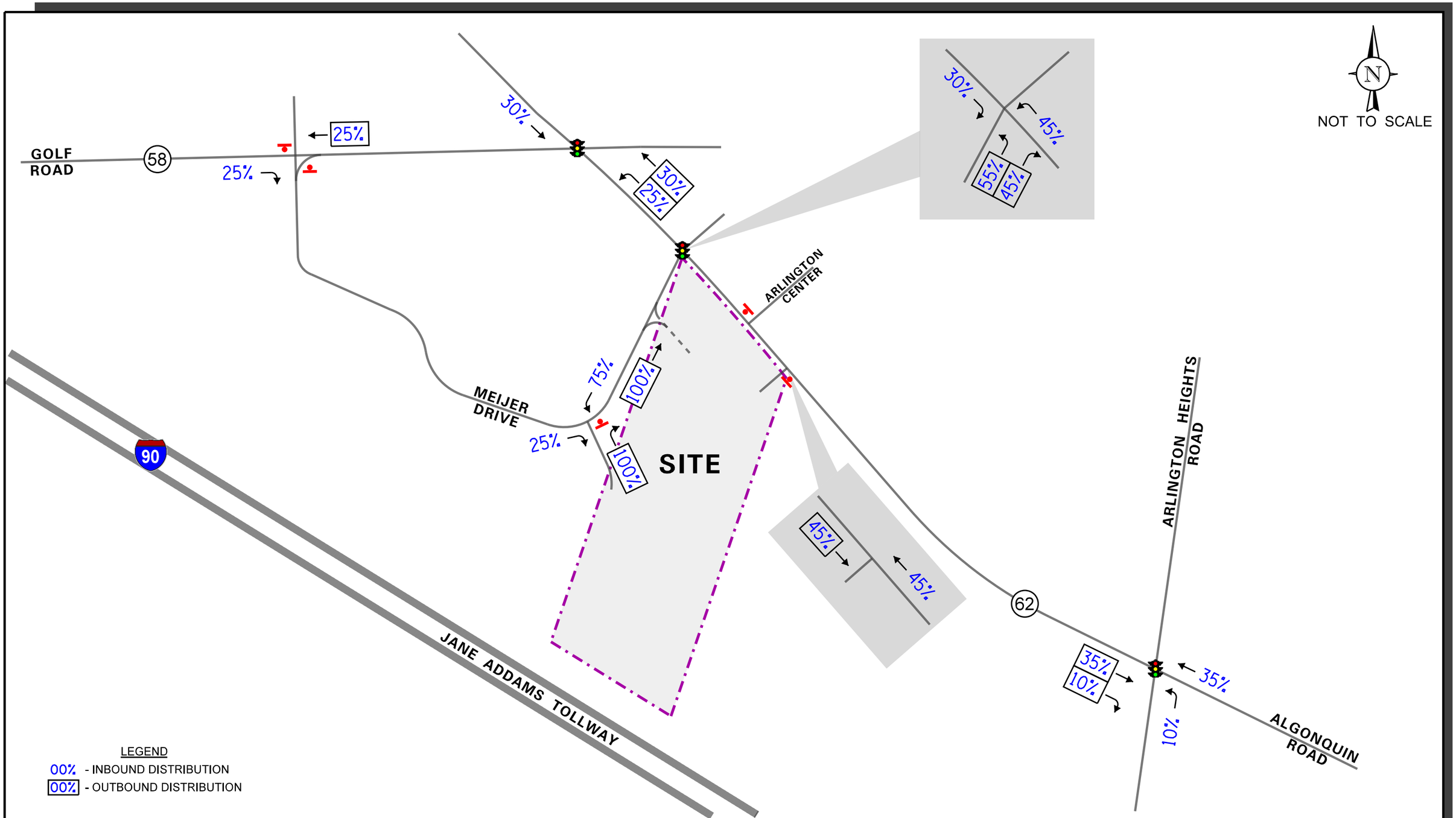
Job No: 17-173 Figure: 6



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ESTIMATED DIRECTIONAL DISTRIBUTION
(HEAVY VEHICLES)

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Job No: 17-173 Figure: 7

Table 1
ESTIMATED VEHICLE TRIP GENERATION FOR PROPOSED DEVELOPMENT

Development	Weekday A.M. Peak Hour In	Weekday A.M. Peak Hour Out	Weekday P.M. Peak Hour In	Weekday P.M. Peak Hour Out	Weekday Daily
Warehouse/Distribution 331,014 s.f. (LUC 150) TOTAL	**126**	**33**	**32**	**96**	**1,380**
Truck Traffic (20%)[1]	25	7	6	19	276
Passenger Vehicle Traffic (80%)	101	26	26	77	1,104

[1]Maximum 20 percent assumed in study for conservative analysis purposes.

Development Traffic Assignment

The peak hour traffic volumes projected to be generated by the proposed development (refer to Table 1) were assigned to the area roadways based on the directional distributions established (Figure 6).

Figure 8 shows the assignment of the development-generated passenger traffic volumes.

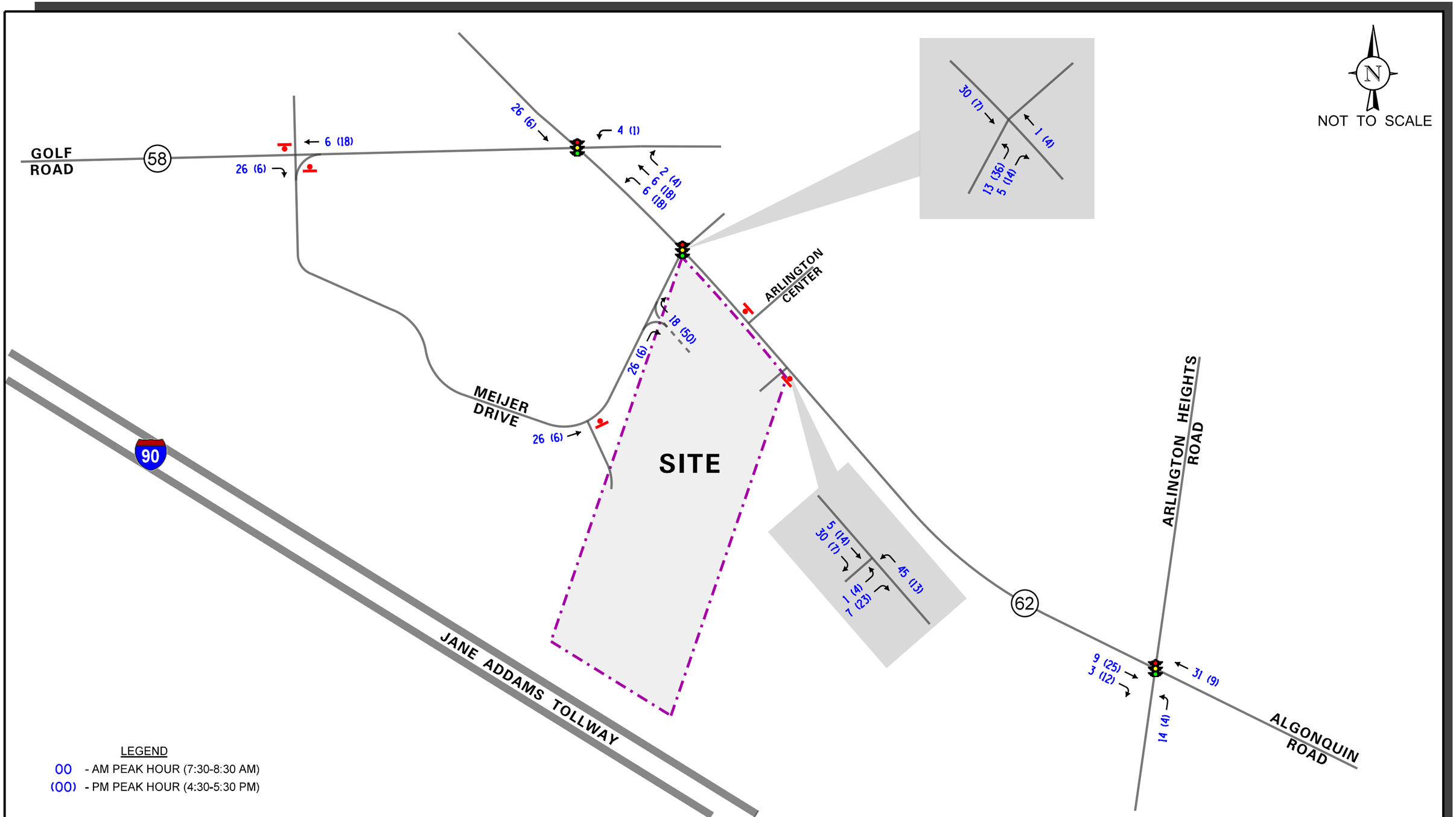
Figure 9 shows the assignment of the development-generated truck traffic volumes.

Total Projected Traffic Conditions

Traffic projections include the existing weekday morning and weekday afternoon peak hour traffic volumes (Figure 4), and the traffic estimated to be generated by the proposed ultimate buildout of the development (Figure 8 and Figure 9).

Based on Year 2040 traffic projections received by the Chicago Metropolitan Area for Planning (CMAP), the average daily traffic volumes (ADT) on the surrounding roadways are anticipated to see a slight decline from existing ADTs due to the resulting add-lanes on the Jane Addams Tollway (I-90). As such, no increase in regional growth was applied to the existing peak hour traffic volumes.

Figure 10 shows the total projected traffic volume conditions. As noted, the traffic currently generated by the existing land uses on the site was not redacted from the existing peak hour traffic volumes to provide for a conservative study.



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ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES
(PASSENGER VEHICLES)

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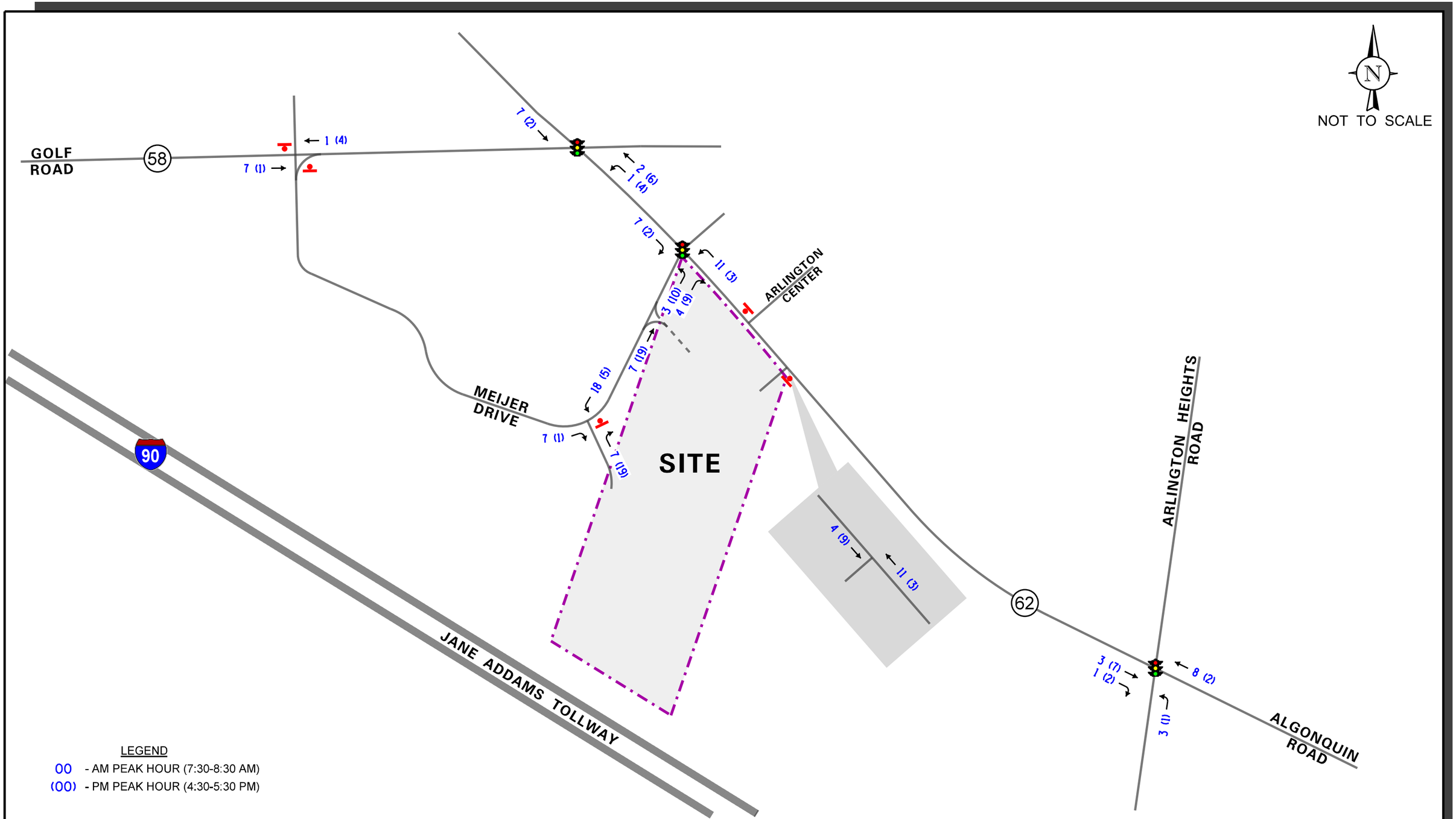
Job No: 17-173 Figure: 8



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ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES
(HEAVY VEHICLES)

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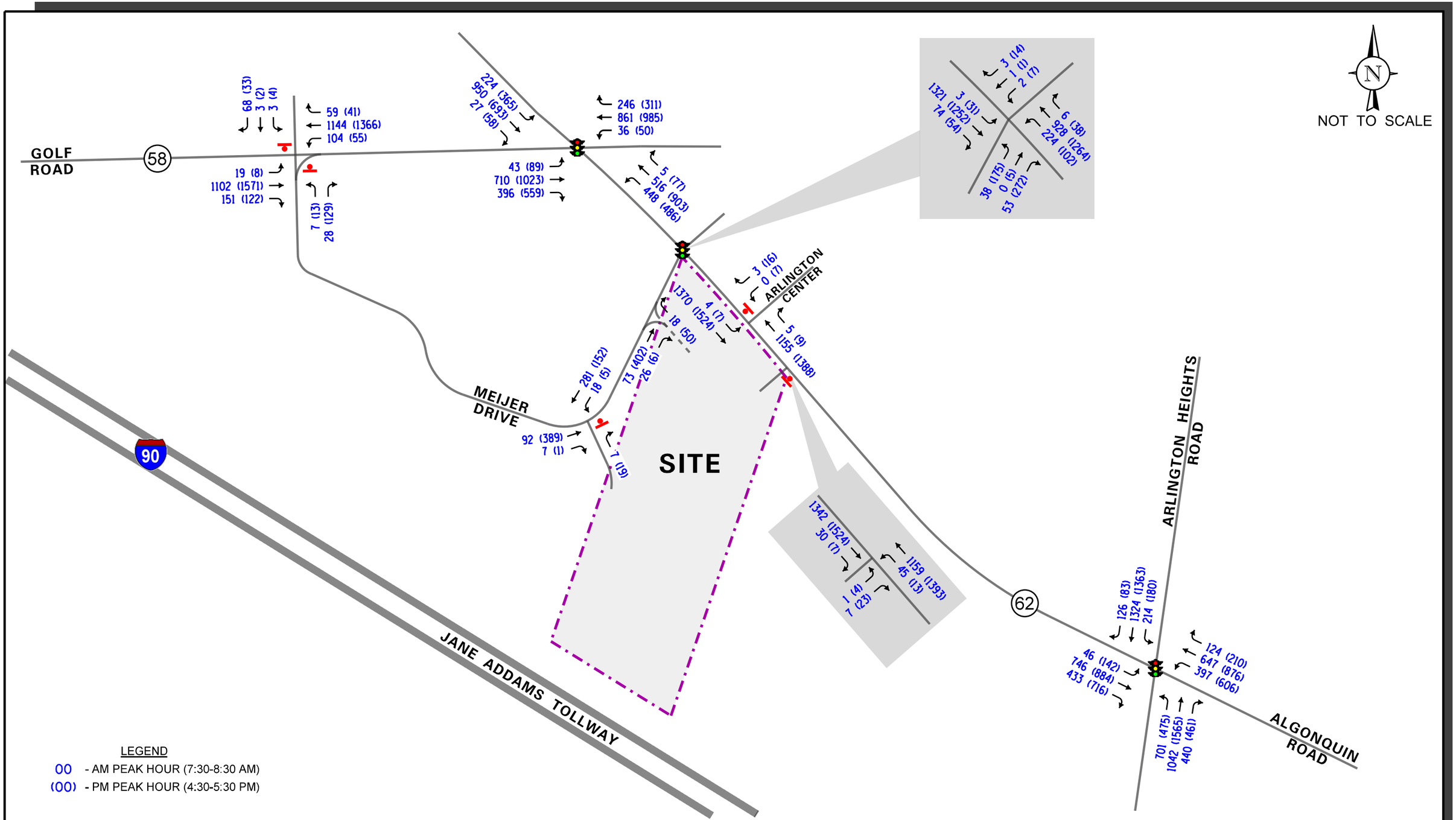
Job No: 17-173 Figure: 9



LEGEND

00 - AM PEAK HOUR (7:30-8:30 AM)

(00) - PM PEAK HOUR (4:30-5:30 PM)

ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS

TOTAL PROJECTED TRAFFIC VOLUMES

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Job No: 17-173 Figure: 10

Traffic Analysis and Recommendations

Capacity analyses were performed for the key intersections included in the study area to determine the ability of the existing roadway system to accommodate existing and future traffic demands. Analyses were performed for the weekday morning and weekday afternoon peak hours for both existing and future conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and using Synchro-SimTraffic analysis software.

The analysis for the traffic-signal controlled intersections along IL 62 were completed using existing cycle lengths (150 seconds for both weekday morning and weekday afternoon), phasings, and offsets to determine the average overall vehicle delay, volume-to-capacity ratios, 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.

A summary of the level of service/delay results for both existing and future conditions for each analyzed intersection are presented in **Tables 2 through 6**, respectively.

A discussion of the capacity analysis results and recommendations follows.

Table 2
CAPACITY ANALYSES RESULTS – MEIJER DRIVE AND ALGONQUIN ROAD (IL 62)

Peak Hour	Condition	Operating Conditions by Approach												Overall
		Eastbound Meijer Drive			Westbound Access Drive			Northbound IL 62			Southbound IL 62			
		L	T	R	L	T	R	L	T	R	L	T	R	
Wkdy AM	Existing	E 70.6	E 70.9	A 7.0	--	E 57.7	--	C 21.8	A 5.0	--	A 4.3	B 18.1	A 7.8	B – 13.7
		B – 17.5			E – 57.7			C – 28.2			A – 8.1			
	Future[1]	E 78.6	E 78.6	B 10.9	--	E 57.7	--	C 28.7	A 5.2	--	A 6.0	C 22.8	B 10.5	B – 17.4
		D – 39.1			E – 57.7			C – 22.1			A – 9.7			
Wkdy PM	Existing	F 96.5	F 95.3	C 28.0	--	D 44.3	--	A 7.9	B 11.8	--	A 5.7	B 16.7	A 6.7	B – 18.6
		D – 51.8			D – 44.3			B – 11.5			B – 16.0			
	Future[1]	F 94.1	F 94.3	D 42.7	--	D 45.9	--	A 9.8	B 12.6	--	A 6.6	B 18.3	A 6.3	C – 21.9
		E – 63.5			D – 45.9			B – 12.4			B – 17.5			

[1]Includes reallocation of greentime of 3 additional seconds for eastbound approach; 3 less seconds for westbound approach.

Table 3
CAPACITY ANALYSES RESULTS – GOLF ROAD (IL 58) AND ALGONQUIN ROAD (IL 62)

Peak Hour	Condition	Operating Conditions by Approach												Overall
		Eastbound IL 58			Westbound IL 58			Northbound IL 62			Southbound IL 62			
		L	T	R	L	T	R	L	T	R	L	T	R	
Wkdy AM	Existing	E 78.4	E 62.9	C 26.5	E 76.7	E 55.4	C 33.6	E 68.2	C 26.3	--	E 68.2	E 59.8	--	D – 52.7
		D – 50.2			D – 50.6			E – 61.4			D – 45.7			
	Future	E 78.4	E 62.0	C 26.1	E 77.2	D 54.6	C 33.0	E 67.9	C 26.7	--	E 68.1	E 67.8	--	D – 54.1
		D – 50.2			D – 50.6			E – 67.9			D – 45.8			
Wkdy PM	Existing	F 80.6	D 48.7	C 33.3	E 79.0	D 44.6	C 27.4	E 79.1	D 48.5	--	F 117.4	E 56.3	--	D – 54.9
		D – 45.3			D – 41.9			E – 58.5			E – 76.0			
	Future	F 80.6	D 48.8	C 33.4	E 78.9	D 44.6	C 27.4	E 79.4	D 48.8	--	F 137.1	E 57.1	--	E – 57.2
		D – 45.3			D – 41.9			E – 58.7			F – 83.6			

Table 4
CAPACITY ANALYSES RESULTS – ARLINGTON HEIGHTS ROAD AND ALGONQUIN ROAD (IL 62)

Peak Hour	Condition	Operating Conditions by Approach												Overall
		Eastbound IL 62			Westbound IL 62			Northbound Arlington Heights Rd			Southbound Arlington Heights Rd			
		L	T	R	L	T	R	L	T	R	L	T	R	
Wkdy AM	Existing	E 60.5	D 39.2	D 41.1	F 300.8	C 33.6	C 21.5	F 100.7	D 43.5	D 36.3	F 95.9	F 161.3	D 41.3	F – 91.0
		D – 38.2			F – 126.2			E – 60.1			F – 143.8			
	Future	E 60.9	C 34.6	D 42.1	F 300.8	C 34.0	C 21.5	F 108.6	D 43.5	D 36.3	F 95.9	F 161.3	D 41.3	F – 91.0
		D – 38.2			F – 126.4			E – 63.0			F – 143.8			
Wkdy PM	Existing	E 66.6	E 58.1	D 36.5	F 430.8	D 38.0	C 26.5	E 71.9	D 52.0	C 33.1	F 99.7	F 94.5	C 32.4	F – 88.6
		D – 49.9			F – 178.1			D – 51.9			F – 91.9			
	Future	E 66.5	E 58.5	D 37.6	F 430.8	D 38.1	C 26.5	E 75.2	D 52.0	C 33.1	F 99.7	F 101.9	C 32.7	F – 89.8
		D – 50.1			F – 178.5			D – 52.9			F – 98.1			

Table 5
CAPACITY ANALYSIS RESULTS FOR EXISTING CONDITIONS
UNSIGNALIZED INTERSECTIONS

Intersection	Weekday Morning Peak Hour		Weekday Afternoon Peak Hour	
	LOS	Delay	LOS	Delay
Meijer Drive and Golf Road (IL 58) (two-way stop)				
• Eastbound IL 58 Left-turn	A	9.7	B	10.8
• Westbound IL 58 Left-turn	B	13.3	C	17.7
• Northbound Meijer Right-turn	B	12.1	C	17.2
• Southbound Access Right-turn	A	9.2	A	9.0
Delay is measured in seconds.				

Table 6
CAPACITY ANALYSIS RESULTS FOR FUTURE CONDITIONS
UNSIGNALIZED INTERSECTIONS

Intersection	Weekday Morning Peak Hour		Weekday Afternoon Peak Hour	
	LOS	Delay	LOS	Delay
Meijer Drive and Golf Road (IL 58) (two-way stop)				
• Eastbound IL 58 Left-turn	A	9.8	B	10.9
• Westbound IL 58 Left-turn	B	13.6	C	17.8
• Northbound Meijer Right-turn	B	12.3	C	17.3
• Southbound Access Right-turn	A	9.2	A	9.0
Access and Algonquin Road (IL 62) (two-way stop)				
• Eastbound Access Approach	B	11.6	B	14.8
• Northbound IL 62 Left-turn	B	12.5	B	13.7
Truck Access and Meijer Drive (two-way stop)				
• Westbound Meijer Left-turn	A	8.5	A	8.2
• Northbound Truck Access Approach	A	9.9	B	10.9
Restricted Access and Meijer Drive (two-way stop)				
• Northbound Access Right-turn	A	8.8	B	11.3
Delay is measured in seconds.				

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 roadway and traffic control improvements and/or modifications necessary to accommodate the projected traffic volumes.

Meijer Drive and Algonquin Road (IL 62)

This intersection will continue to operate at an overall acceptable LOS and delay under future projected conditions. As noted, dual left-turn lanes and a right-turn lane are provided on its eastbound approach with its signalized intersection with IL 62. The capacity analysis shows that the outbound queue during the weekday evening peak hour extends to the existing/proposed access drive that will be restricted to right-in/right-out turning movements. The future capacity analysis takes into consideration the addition of the trucks from the proposed facility by having increased the heavy vehicle percentages for the turning movements at this signalized intersection.

Meijer Drive and the access drive opposite Meijer Drive operate as a split phase operation where each receives greentime successively, rather than concurrently. Further, the cycle length is 150 seconds during the weekday evening peak hour. As such, the combination of a long cycle length, split phase operation, and the limited greentime given to Meijer Drive all contribute to the less than desirable LOS/delay for the outbound movements on Meijer Drive, particularly during the weekday evening peak hour. It is recommended that three additional seconds of green time be given to Meijer Drive for both peak hour periods. The three seconds can be taken from the access drive greentime since the access drive has a low volume of exiting traffic during the peak hours. Reallocation of greentime from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along IL 62. The three additional seconds of greentime as shown in Table 2 above, is shown to improve the level of service and reduce the exiting queue for the dual left-turn lanes on Meijer Drive. Further, the traffic simulation shows that vehicles (a combination of both passenger vehicles and heavy vehicles) will be able to exit Meijer Drive without extensive queuing.

No further roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Golf Road (IL 58) and Algonquin Road (IL 62)

The signalized intersection of two major arterial highways results in a high volume of traffic traversing through this intersection. A comparison of the existing and future traffic capacity analysis results shows that this intersection will continue to operate at the same overall LOS and delay with the addition of the subject development. As such, no roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Arlington Heights Road and Algonquin Road (IL 62)

Similar to its intersection at Golf Road (IL 58), this signalized intersection of two major arterial highways results in a high volume of traffic traversing through this intersection. The intersection provides dual left-turn lanes, three through lanes, and a right-turn lane on all four approaches. The intersection currently operates at an undesirable LOS and delay during the peak hours, which can be attributed to the high cycle length (150 seconds), the high volume of vehicles traversing the intersection from all directions and therefore demanding equal greentime, and the protected-only left-turn movements, which receive limited greentime. A comparison of the existing and future traffic capacity analysis results shows that this intersection will continue to operate at the same overall LOS and delay with the addition of the subject development traffic. Further, the subject development traffic represents approximately one percent of the total traffic traversing this intersection during the peak hours and will have a low impact on the overall operations at this intersection. As such, no roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Meijer Drive and Golf Road (IL 58)

Meijer Drive and the access drive to the north, are restricted to right-in/right-out/left-in exiting movements only. Exiting left-turn movements onto Golf Road are restricted via a shallow raised median and posted signage. Traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58. The intersection will continue to operate at an acceptable LOS and delay under projected traffic conditions. No roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the proposed development.

Full Access and Algonquin Road (IL 62)

The proposed full access drive on IL 62, southeast of Meijer Drive will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. No improvements are recommended on IL 62. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles. Based on the projected right-turn volumes, a right-turn lane on IL 62 is neither warranted nor needed.

As noted, the police-controlled intersection at the PACE access drive during the weekday afternoon peak periods helps create additional gaps in through traffic on IL 62 in the vicinity of the proposed access drive. As such, between this traffic regulator and the traffic signal at Meijer Drive, effective gaps in traffic were observed at the location of this proposed access drive, which will allow left-turning movements to occur with minimal delay.

Truck Access and Meijer Drive

The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive. A northbound right-turn lane is not needed given the low volume of peak hour turning volumes anticipated.

Passenger Vehicle Access and Meijer Drive

The proposed northerly access drive on Meijer Drive will be for passenger vehicles only. The capacity analyses show that the eastbound queue on Meijer Drive at its signalized intersection with IL 62 will extend beyond the location of this proposed access drive during the weekday peak hours. Further, there are dual left-turn lanes on Meijer Drive, which are difficult to crossover. As such, the access should be designed to restrict turning movements to right-in/right-out only. The existing access drive that served the former development on the site was designed to also restrict turning movements to right-in/right-out only turning movements. The access drive should provide one lane inbound and one lane outbound under stop sign control. No improvements on Meijer Drive at this intersection are needed.

Truck Routes

IL 62 (Algonquin Road), IL 58 (Golf Road), and Arlington Heights Road are all established truck routes and all are under the jurisdiction and maintained by IDOT. Truck traffic will primarily be oriented along IL 62 to the north of Golf Road (IL 58) and to the east of Arlington Heights Road. Further, truck traffic is anticipated to arrive to/from the west on IL 58 and to/from the south on Arlington Heights Road. This derived directional distribution is supported by existing truck traffic counts conducted as part of this study and further supported by IDOT truck traffic volume ADTs on surrounding roadways.

Conclusion

A traffic impact study was conducted for the proposed Arlington Heights Industrial development to be located in the southeast quadrant of the signalized intersection of Meijer Drive and Algonquin Road (IL 62) in Arlington Heights, Illinois. The plans call for the site to be developed in two phases, with the ultimate/final phase to include an approximate 331,014 square-foot warehouse/distribution center. For the purposes of this study, only the final phase of the site development was analyzed.

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

- Overall, the development will have a low impact on the surrounding roadway network.

- The traffic generated by the existing land uses on the site was retained in the projected traffic volumes, thereby providing for a conservative analysis.

- IL 62 (Algonquin Road), IL 58 (Golf Road), and Arlington Heights Road are all established truck routes and all are under the jurisdiction and maintained by IDOT. Truck traffic will primarily be oriented along IL 62 to the north of Golf Road (IL 58) and to the east of Arlington Heights Road. Further, truck traffic is anticipated to arrive to/from the west on IL 58 and to/from the south on Arlington Heights Road. This derived directional distribution is supported by existing truck traffic counts conducted as part of this study and further supported by IDOT truck traffic volume ADTs on surrounding roadways.

- The traffic signals along IL 62 that includes the intersections at IL 58, Meijer Drive, and Arlington Heights Road, are part of a traffic signal interconnect network that includes 21 traffic signals/intersections and is maintained by the Illinois Department of Transportation (IDOT). The IL 62/Arlington Heights Road traffic signal is the master controller of this system.

- The signalized intersections on IL 62 at IL 58 and Arlington Heights Road will continue to operate at the same level of service and delay under existing conditions. As such, no traffic control or roadway improvements are recommended or needed at these two intersections in conjunction with the proposed development.

- At the signalized intersection of IL 62 and Meijer Drive, it is recommended that three additional seconds of green time be given to Meijer Drive for both peak hour periods. The three seconds can be taken from the access drive located on the east side of IL 62 in alignment with Meijer Drive that operates under a split-phase condition and has a low volume of exiting traffic during the peak hours. Reallocation of greentime from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along IL 62. The three additional seconds of greentime is shown to improve the level of service and reduce the exiting queue for the dual left-turn lanes on Meijer Drive.

- Meijer Drive at IL 58 is restricted to right-turn only exiting movements onto eastbound IL 58; however, traffic observations show that left-turn and through traffic movements are occurring during peak hours from both Meijer Drive and the access on the north side of IL 58, which is also restricted to right-out only turning movements. No improvements are recommended at this intersection in conjunction with the proposed development.

- The proposed full access drive on IL 62, east of Meijer Drive will serve passenger vehicles only. The access should provide one lane inbound and one lane outbound under stop sign control. No improvements are recommended on IL 62. On IL 62, there is an existing center lane striped as a continuous two-way left-turn lane to accommodate the proposed northbound left-turning vehicles. Based on the projected right-turn volumes, a right-turn lane on IL 62 is neither warranted nor needed.

- The proposed southerly access drive on Meijer Drive will be for truck usage and should provide one lane inbound and one lane outbound under stop sign control. There is an existing left-turn lane on Meijer Drive at the location of this proposed access drive. A northbound right-turn lane is not needed given the low volume of peak hour turning volumes anticipated.

- The proposed northerly access drive on Meijer Drive will be for passenger vehicles only. Further, the access should be designed to restrict turning movements to right-in/right-out only because of the access drive's close proximity to IL 62, in addition to the dual left-turn lanes on Meijer Drive at its approach to IL 62. The access drive should provide one lane inbound and one lane outbound under stop sign control. No improvements on Meijer Drive at this intersection are needed.

Appendix

Site Plan

TOTAL SITE (PHASE 1&2 BUILDOUT):	
TOTAL LOT SIZE	= 671,453 S.F. (15.41 AC)
PROPOSED SITE CONDITIONS:	
PROPOSED BUILDING 1&2 FOOTPRINT	= 331,014 S.F. (49.30%)
PROPOSED PAVT./SIDEWALK	= 263,778 S.F. (39.28%)
PROPOSED GREENSPACE	= 76,661 S.F. (11.42%)
PROPOSED CONDITION IMPERVIOUS AREA	= 594,792 S.F. (13.65 AC)
PROPOSED PARKING SUMMARY:	
REGULAR STALLS	= 300
PHASE 2 ADA ACCESSIBLE STALLS	= 8
TOTAL STALLS PROVIDED	= 308 (0.93/1,000 SF)

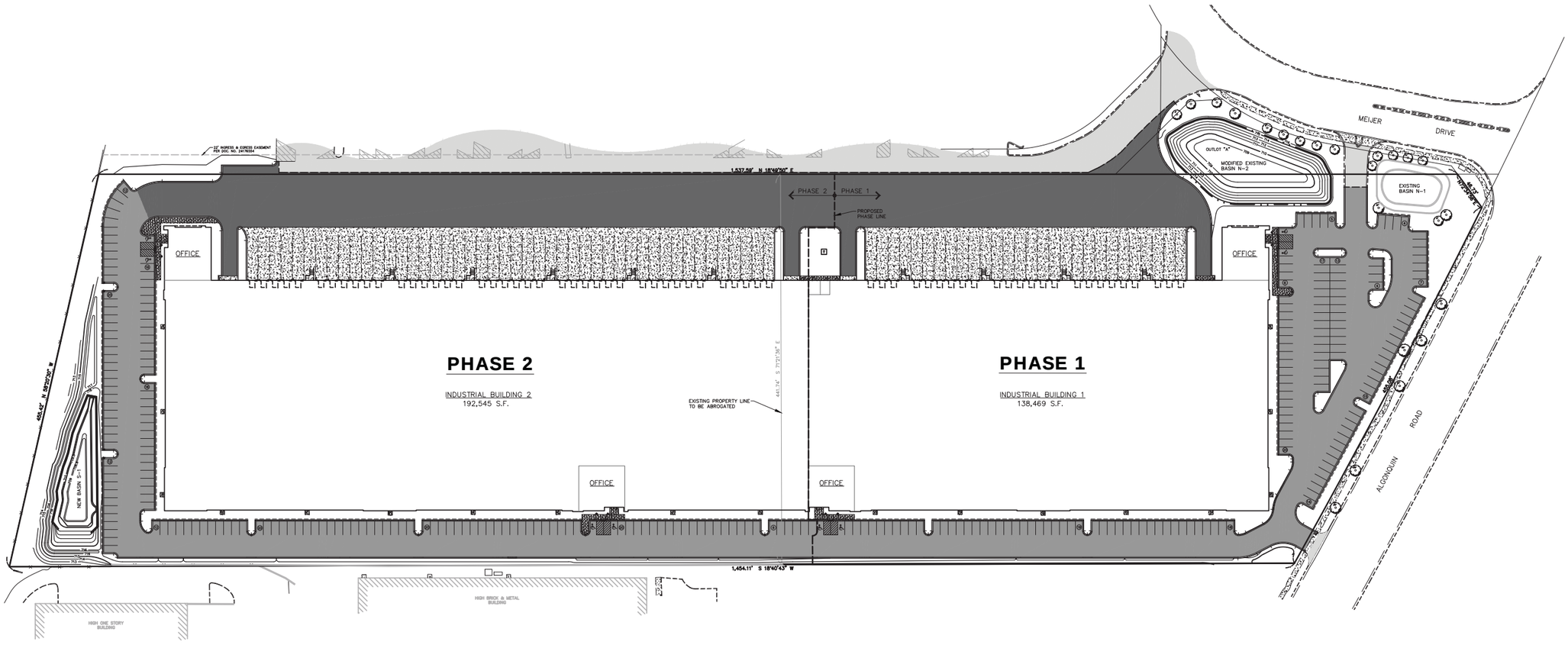
NORTH

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
1 inch = 60 ft.

MASTER DEVELOPMENT PLAN PROVIDED FOR GENERAL REFERENCE ONLY.
FOR DETAILS, SEE FOR RESPECTIVE PHASE.



ARLINGTON HEIGHTS INDUSTRIAL
ARLINGTON HEIGHTS, ILLINOIS
MASTER DEVELOPMENT PLAN - PHASE 1 & 2

DRAWN BY | REVISIONS | DATE

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Wheaton, IL 60189
630.460.7889
www.rwg-engineering.com

PROJECT NO. 32212717
DATE 10/17/17
SCALE 1"=60'
PROJ. MGR. PDL
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET
6 OF 20

October 17, 2017 4:29:12 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\32212717 – HP ARLINGTON HEIGHTS INDUSTRIAL\300_ENGINEERING\310_CADD\FINAL\322_BASE.DWG

Traffic Count Data

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

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

Count Name: Algonquin and Golf
Site Code:
Start Date: 07/25/2017

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound					Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	4	160	78	0	242	0	8	139	47	0	194	0	74	103	0	177	0	42	185	8	0	235	848
7:15 AM	2	7	179	99	0	287	0	6	187	48	0	241	0	102	112	0	214	0	54	223	7	0	284	1026
7:30 AM	0	11	170	95	0	276	0	5	216	65	0	286	0	111	141	0	252	0	58	223	6	0	287	1101
7:45 AM	1	10	165	124	0	300	0	8	238	64	0	310	0	104	124	0	228	0	61	251	8	0	320	1158
Hourly Total	3	32	674	396	0	1105	0	27	780	224	0	1031	0	391	480	0	871	0	215	882	29	0	1126	4133
8:00 AM	0	8	183	97	0	288	0	10	195	53	0	258	0	109	123	0	232	0	54	240	7	0	301	1079
8:15 AM	0	13	192	80	0	285	0	9	212	64	0	285	0	117	120	0	237	0	51	203	6	0	260	1067
8:30 AM	0	4	174	80	0	258	0	6	199	57	0	262	0	97	130	0	227	0	68	185	7	1	260	1007
8:45 AM	1	11	177	72	0	261	0	11	178	75	0	264	0	76	133	0	209	0	67	179	8	0	254	988
Hourly Total	1	36	726	329	0	1092	0	36	784	249	0	1069	0	399	506	0	905	0	240	807	28	1	1075	4141
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	15	221	148	0	386	0	6	234	91	0	331	0	132	216	0	348	2	95	163	13	0	273	1338
4:15 PM	0	27	281	126	0	434	0	14	267	105	0	386	0	142	211	0	353	0	77	152	16	0	245	1418
4:30 PM	2	28	217	157	0	404	0	16	232	86	0	334	0	127	197	0	324	2	78	159	15	0	254	1316
4:45 PM	1	21	272	150	0	444	0	15	262	76	1	353	0	101	218	1	319	1	85	167	16	0	269	1385
Hourly Total	5	91	991	581	0	1668	0	51	995	358	1	1404	0	502	842	1	1344	5	335	641	60	0	1041	5457
5:00 PM	4	17	252	148	0	421	0	5	236	71	0	312	0	114	229	0	343	0	101	179	12	0	292	1368
5:15 PM	3	13	282	104	0	402	0	13	255	78	0	346	0	111	235	0	346	0	95	180	15	0	290	1384
5:30 PM	2	21	226	101	0	350	0	14	268	85	0	367	0	110	209	0	319	0	94	181	15	0	290	1326
5:45 PM	0	20	204	100	1	324	1	6	270	92	0	369	0	105	214	0	319	0	108	161	11	1	280	1292
Hourly Total	9	71	964	453	1	1497	1	38	1029	326	0	1394	0	440	887	0	1327	0	398	701	53	1	1152	5370
Grand Total	18	230	3355	1759	1	5362	1	152	3588	1157	1	4898	0	1732	2715	1	4447	5	1188	3031	170	2	4394	19101
Approach %	0.3	4.3	62.6	32.8	-	-	0.0	3.1	73.3	23.6	-	-	0.0	38.9	61.1	-	-	0.1	27.0	69.0	3.9	-	-	-
Total %	0.1	1.2	17.6	9.2	-	28.1	0.0	0.8	18.8	6.1	-	25.6	0.0	9.1	14.2	-	23.3	0.0	6.2	15.9	0.9	-	23.0	-
Lights	18	226	3284	1698	-	5226	1	149	3526	1138	-	4814	0	1688	2612	-	4300	5	1171	2931	169	-	4276	18616
% Lights	100.0	98.3	97.9	96.5	-	97.5	100.0	98.0	98.3	98.4	-	98.3	-	97.5	96.2	-	96.7	100.0	98.6	96.7	99.4	-	97.3	97.5
Buses	0	0	15	19	-	34	0	1	12	0	-	13	0	16	13	-	29	0	1	4	0	-	5	81
% Buses	0.0	0.0	0.4	1.1	-	0.6	0.0	0.7	0.3	0.0	-	0.3	-	0.9	0.5	-	0.7	0.0	0.1	0.1	0.0	-	0.1	0.4
Single-Unit Trucks	0	2	44	32	-	78	0	1	35	16	-	52	0	19	60	-	79	0	5	67	0	-	72	281
% Single-Unit Trucks	0.0	0.9	1.3	1.8	-	1.5	0.0	0.7	1.0	1.4	-	1.1	-	1.1	2.2	-	1.8	0.0	0.4	2.2	0.0	-	1.6	1.5
Articulated Trucks	0	2	12	10	-	24	0	1	15	3	-	19	0	9	30	-	39	0	11	29	1	-	41	123
% Articulated Trucks	0.0	0.9	0.4	0.6	-	0.4	0.0	0.7	0.4	0.3	-	0.4	-	0.5	1.1	-	0.9	0.0	0.9	1.0	0.6	-	0.9	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	2	-	-
% 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: Algonquin and Golf
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound					Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	11	170	95	0	276	0	5	216	65	0	286	0	111	141	0	252	0	58	223	6	0	287	1101
7:45 AM	1	10	165	124	0	300	0	8	238	64	0	310	0	104	124	0	228	0	61	251	8	0	320	1158
8:00 AM	0	8	183	97	0	288	0	10	195	53	0	258	0	109	123	0	232	0	54	240	7	0	301	1079
8:15 AM	0	13	192	80	0	285	0	9	212	64	0	285	0	117	120	0	237	0	51	203	6	0	260	1067
Total	1	42	710	396	0	1149	0	32	861	246	0	1139	0	441	508	0	949	0	224	917	27	0	1168	4405
Approach %	0.1	3.7	61.8	34.5	-	-	0.0	2.8	75.6	21.6	-	-	0.0	46.5	53.5	-	-	0.0	19.2	78.5	2.3	-	-	-
Total %	0.0	1.0	16.1	9.0	-	26.1	0.0	0.7	19.5	5.6	-	25.9	0.0	10.0	11.5	-	21.5	0.0	5.1	20.8	0.6	-	26.5	-
PHF	0.250	0.808	0.924	0.798	-	0.958	0.000	0.800	0.904	0.946	-	0.919	0.000	0.942	0.901	-	0.941	0.000	0.918	0.913	0.844	-	0.913	0.951
Lights	1	41	681	376	-	1099	0	32	846	239	-	1117	0	419	468	-	887	0	219	890	26	-	1135	4238
% Lights	100.0	97.6	95.9	94.9	-	95.6	-	100.0	98.3	97.2	-	98.1	-	95.0	92.1	-	93.5	-	97.8	97.1	96.3	-	97.2	96.2
Buses	0	0	4	3	-	7	0	0	2	0	-	2	0	6	3	-	9	0	0	1	0	-	1	19
% Buses	0.0	0.0	0.6	0.8	-	0.6	-	0.0	0.2	0.0	-	0.2	-	1.4	0.6	-	0.9	-	0.0	0.1	0.0	-	0.1	0.4
Single-Unit Trucks	0	1	20	13	-	34	0	0	8	7	-	15	0	10	26	-	36	0	2	18	0	-	20	105
% Single-Unit Trucks	0.0	2.4	2.8	3.3	-	3.0	-	0.0	0.9	2.8	-	1.3	-	2.3	5.1	-	3.8	-	0.9	2.0	0.0	-	1.7	2.4
Articulated Trucks	0	0	5	4	-	9	0	0	5	0	-	5	0	6	11	-	17	0	3	8	1	-	12	43
% Articulated Trucks	0.0	0.0	0.7	1.0	-	0.8	-	0.0	0.6	0.0	-	0.4	-	1.4	2.2	-	1.8	-	1.3	0.9	3.7	-	1.0	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Algonquin and Golf
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound					Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:30 PM	2	28	217	157	0	404	0	16	232	86	0	334	0	127	197	0	324	2	78	159	15	0	254	1316
4:45 PM	1	21	272	150	0	444	0	15	262	76	1	353	0	101	218	1	319	1	85	167	16	0	269	1385
5:00 PM	4	17	252	148	0	421	0	5	236	71	0	312	0	114	229	0	343	0	101	179	12	0	292	1368
5:15 PM	3	13	282	104	0	402	0	13	255	78	0	346	0	111	235	0	346	0	95	180	15	0	290	1384
Total	10	79	1023	559	0	1671	0	49	985	311	1	1345	0	453	879	1	1332	3	359	685	58	0	1105	5453
Approach %	0.6	4.7	61.2	33.5	-	-	0.0	3.6	73.2	23.1	-	-	0.0	34.0	66.0	-	-	0.3	32.5	62.0	5.2	-	-	-
Total %	0.2	1.4	18.8	10.3	-	30.6	0.0	0.9	18.1	5.7	-	24.7	0.0	8.3	16.1	-	24.4	0.1	6.6	12.6	1.1	-	20.3	-
PHF	0.625	0.705	0.907	0.890	-	0.941	0.000	0.766	0.940	0.904	-	0.953	0.000	0.892	0.935	-	0.962	0.375	0.889	0.951	0.906	-	0.946	0.984
Lights	10	78	1019	548	-	1655	0	48	971	309	-	1328	0	445	864	-	1309	3	355	663	58	-	1079	5371
% Lights	100.0	98.7	99.6	98.0	-	99.0	-	98.0	98.6	99.4	-	98.7	-	98.2	98.3	-	98.3	100.0	98.9	96.8	100.0	-	97.6	98.5
Buses	0	0	1	7	-	8	0	1	4	0	-	5	0	5	4	-	9	0	0	1	0	-	1	23
% Buses	0.0	0.0	0.1	1.3	-	0.5	-	2.0	0.4	0.0	-	0.4	-	1.1	0.5	-	0.7	0.0	0.0	0.1	0.0	-	0.1	0.4
Single-Unit Trucks	0	0	1	3	-	4	0	0	8	1	-	9	0	2	5	-	7	0	2	13	0	-	15	35
% Single-Unit Trucks	0.0	0.0	0.1	0.5	-	0.2	-	0.0	0.8	0.3	-	0.7	-	0.4	0.6	-	0.5	0.0	0.6	1.9	0.0	-	1.4	0.6
Articulated Trucks	0	1	2	1	-	4	0	0	2	1	-	3	0	1	6	-	7	0	2	8	0	-	10	24
% Articulated Trucks	0.0	1.3	0.2	0.2	-	0.2	-	0.0	0.2	0.3	-	0.2	-	0.2	0.7	-	0.5	0.0	0.6	1.2	0.0	-	0.9	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	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: Meijer and Algonquin
Site Code:
Start Date: 07/25/2017

Turning Movement Data

Start Time	Meijer Drive Eastbound						Access Drive Westbound						Algonquin Road Northbound						Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	7	0	13	1	20	0	0	0	0	0	0	0	25	183	1	0	209	0	0	262	10	0	272	501
7:15 AM	0	1	0	16	0	17	0	0	0	0	0	0	0	41	212	1	0	254	0	0	314	9	0	323	594
7:30 AM	0	5	0	9	1	14	0	0	0	0	1	0	0	53	259	0	1	312	0	0	317	12	0	329	655
7:45 AM	0	6	1	9	0	16	0	1	1	1	0	3	0	59	234	4	0	297	1	1	355	9	0	366	682
Hourly Total	0	19	1	47	2	67	0	1	1	1	1	3	0	178	888	6	1	1072	1	1	1248	40	0	1290	2432
8:00 AM	0	5	0	13	0	18	0	0	0	1	0	1	0	48	207	0	0	255	1	0	323	20	0	344	618
8:15 AM	0	6	0	13	0	19	0	1	0	1	0	2	0	53	227	2	1	282	0	0	296	26	0	322	625
8:30 AM	0	4	0	17	0	21	0	0	0	1	0	1	0	34	220	0	0	254	0	1	263	11	0	275	551
8:45 AM	0	2	0	10	0	12	0	0	0	0	0	0	0	51	206	1	0	258	1	0	250	11	0	262	532
Hourly Total	0	17	0	53	0	70	0	1	0	3	0	4	0	186	860	3	1	1049	2	1	1132	68	0	1203	2326
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	25	2	54	2	81	0	2	0	6	0	8	0	34	345	5	0	384	1	5	303	18	0	327	800
4:15 PM	0	22	2	50	0	74	0	6	1	2	2	9	0	29	318	4	0	351	1	4	269	16	0	290	724
4:30 PM	0	28	2	60	0	90	0	2	0	7	0	9	0	24	297	6	0	327	1	2	307	17	0	327	753
4:45 PM	0	30	0	58	0	88	0	2	0	4	0	6	0	20	309	10	1	339	1	10	310	14	0	335	768
Hourly Total	0	105	6	222	2	333	0	12	1	19	2	32	0	107	1269	25	1	1401	4	21	1189	65	0	1279	3045
5:00 PM	0	44	3	76	0	123	0	1	1	2	1	4	0	27	313	6	0	346	0	8	333	9	0	350	823
5:15 PM	0	27	0	55	0	82	0	2	0	1	2	3	0	28	341	16	0	385	2	7	295	12	0	316	786
5:30 PM	0	15	0	47	0	62	0	1	1	4	2	6	0	23	321	12	0	356	0	8	286	12	0	306	730
5:45 PM	0	23	0	45	1	68	0	4	1	5	3	10	0	24	304	7	0	335	2	5	256	11	2	274	687
Hourly Total	0	109	3	223	1	335	0	8	3	12	8	23	0	102	1279	41	0	1422	4	28	1170	44	2	1246	3026
Grand Total	0	250	10	545	5	805	0	22	5	35	11	62	0	573	4296	75	3	4944	11	51	4739	217	2	5018	10829
Approach %	0.0	31.1	1.2	67.7	-	-	0.0	35.5	8.1	56.5	-	-	0.0	11.6	86.9	1.5	-	-	0.2	1.0	94.4	4.3	-	-	-
Total %	0.0	2.3	0.1	5.0	-	7.4	0.0	0.2	0.0	0.3	-	0.6	0.0	5.3	39.7	0.7	-	45.7	0.1	0.5	43.8	2.0	-	46.3	-
Lights	0	245	9	516	-	770	0	20	5	32	-	57	0	547	4137	71	-	4755	11	51	4581	212	-	4855	10437
% Lights	-	98.0	90.0	94.7	-	95.7	-	90.9	100.0	91.4	-	91.9	-	95.5	96.3	94.7	-	96.2	100.0	100.0	96.7	97.7	-	96.8	96.4
Buses	0	0	0	1	-	1	0	1	0	0	-	1	0	1	33	2	-	36	0	0	27	0	-	27	65
% Buses	-	0.0	0.0	0.2	-	0.1	-	4.5	0.0	0.0	-	1.6	-	0.2	0.8	2.7	-	0.7	0.0	0.0	0.6	0.0	-	0.5	0.6
Single-Unit Trucks	0	1	0	9	-	10	0	1	0	3	-	4	0	6	78	2	-	86	0	0	96	3	-	99	199
% Single-Unit Trucks	-	0.4	0.0	1.7	-	1.2	-	4.5	0.0	8.6	-	6.5	-	1.0	1.8	2.7	-	1.7	0.0	0.0	2.0	1.4	-	2.0	1.8
Articulated Trucks	0	4	1	18	-	23	0	0	0	0	-	0	0	19	48	0	-	67	0	0	35	2	-	37	127
% Articulated Trucks	-	1.6	10.0	3.3	-	2.9	-	0.0	0.0	0.0	-	0.0	-	3.3	1.1	0.0	-	1.4	0.0	0.0	0.7	0.9	-	0.7	1.2
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.2	-	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	0.0
Pedestrians	-	-	-	-	5	-	-	-	-	-	11	-	-	-	-	-	3	-	-	-	-	-	2	-	-

% 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: Meijer and Algonquin
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meijer Drive Eastbound						Access Drive Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	5	0	9	1	14	0	0	0	0	1	0	0	53	259	0	1	312	0	0	317	12	0	329	655
7:45 AM	0	6	1	9	0	16	0	1	1	1	0	3	0	59	234	4	0	297	1	1	355	9	0	366	682
8:00 AM	0	5	0	13	0	18	0	0	0	1	0	1	0	48	207	0	0	255	1	0	323	20	0	344	618
8:15 AM	0	6	0	13	0	19	0	1	0	1	0	2	0	53	227	2	1	282	0	0	296	26	0	322	625
Total	0	22	1	44	1	67	0	2	1	3	1	6	0	213	927	6	2	1146	2	1	1291	67	0	1361	2580
Approach %	0.0	32.8	1.5	65.7	-	-	0.0	33.3	16.7	50.0	-	-	0.0	18.6	80.9	0.5	-	-	0.1	0.1	94.9	4.9	-	-	-
Total %	0.0	0.9	0.0	1.7	-	2.6	0.0	0.1	0.0	0.1	-	0.2	0.0	8.3	35.9	0.2	-	44.4	0.1	0.0	50.0	2.6	-	52.8	-
PHF	0.000	0.917	0.250	0.846	-	0.882	0.000	0.500	0.250	0.750	-	0.500	0.000	0.903	0.895	0.375	-	0.918	0.500	0.250	0.909	0.644	-	0.930	0.946
Lights	0	20	0	34	-	54	0	1	1	1	-	3	0	202	866	4	-	1072	2	1	1244	66	-	1313	2442
% Lights	-	90.9	0.0	77.3	-	80.6	-	50.0	100.0	33.3	-	50.0	-	94.8	93.4	66.7	-	93.5	100.0	100.0	96.4	98.5	-	96.5	94.7
Buses	0	0	0	1	-	1	0	0	0	0	-	0	0	0	13	1	-	14	0	0	4	0	-	4	19
% Buses	-	0.0	0.0	2.3	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.0	1.4	16.7	-	1.2	0.0	0.0	0.3	0.0	-	0.3	0.7
Single-Unit Trucks	0	0	0	1	-	1	0	1	0	2	-	3	0	2	28	1	-	31	0	0	31	1	-	32	67
% Single-Unit Trucks	-	0.0	0.0	2.3	-	1.5	-	50.0	0.0	66.7	-	50.0	-	0.9	3.0	16.7	-	2.7	0.0	0.0	2.4	1.5	-	2.4	2.6
Articulated Trucks	0	2	1	7	-	10	0	0	0	0	-	0	0	9	20	0	-	29	0	0	12	0	-	12	51
% Articulated Trucks	-	9.1	100.0	15.9	-	14.9	-	0.0	0.0	0.0	-	0.0	-	4.2	2.2	0.0	-	2.5	0.0	0.0	0.9	0.0	-	0.9	2.0
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	2.3	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% 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: Meijer and Algonquin
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Meijer Drive Eastbound						Access Drive Westbound						Algonquin Road Northbound						Algonquin Road 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
4:30 PM	0	28	2	60	0	90	0	2	0	7	0	9	0	24	297	6	0	327	1	2	307	17	0	327	753
4:45 PM	0	30	0	58	0	88	0	2	0	4	0	6	0	20	309	10	1	339	1	10	310	14	0	335	768
5:00 PM	0	44	3	76	0	123	0	1	1	2	1	4	0	27	313	6	0	346	0	8	333	9	0	350	823
5:15 PM	0	27	0	55	0	82	0	2	0	1	2	3	0	28	341	16	0	385	2	7	295	12	0	316	786
Total	0	129	5	249	0	383	0	7	1	14	3	22	0	99	1260	38	1	1397	4	27	1245	52	0	1328	3130
Approach %	0.0	33.7	1.3	65.0	-	-	0.0	31.8	4.5	63.6	-	-	0.0	7.1	90.2	2.7	-	-	0.3	2.0	93.8	3.9	-	-	-
Total %	0.0	4.1	0.2	8.0	-	12.2	0.0	0.2	0.0	0.4	-	0.7	0.0	3.2	40.3	1.2	-	44.6	0.1	0.9	39.8	1.7	-	42.4	-
PHF	0.000	0.733	0.417	0.819	-	0.778	0.000	0.875	0.250	0.500	-	0.611	0.000	0.884	0.924	0.594	-	0.907	0.500	0.675	0.935	0.765	-	0.949	0.951
Lights	0	127	5	245	-	377	0	6	1	14	-	21	0	99	1235	37	-	1371	4	27	1214	51	-	1296	3065
% Lights	-	98.4	100.0	98.4	-	98.4	-	85.7	100.0	100.0	-	95.5	-	100.0	98.0	97.4	-	98.1	100.0	100.0	97.5	98.1	-	97.6	97.9
Buses	0	0	0	0	-	0	0	1	0	0	-	1	0	0	7	1	-	8	0	0	8	0	-	8	17
% Buses	-	0.0	0.0	0.0	-	0.0	-	14.3	0.0	0.0	-	4.5	-	0.0	0.6	2.6	-	0.6	0.0	0.0	0.6	0.0	-	0.6	0.5
Single-Unit Trucks	0	1	0	2	-	3	0	0	0	0	-	0	0	0	13	0	-	13	0	0	15	1	-	16	32
% Single-Unit Trucks	-	0.8	0.0	0.8	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.9	0.0	0.0	1.2	1.9	-	1.2	1.0
Articulated Trucks	0	1	0	2	-	3	0	0	0	0	-	0	0	0	5	0	-	5	0	0	8	0	-	8	16
% Articulated Trucks	-	0.8	0.0	0.8	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.4	0.0	0.0	0.6	0.0	-	0.6	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	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: Algonquin Road and Arlington Heights Road
Site Code:
Start Date: 07/25/2017

Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	8	139	86	0	234	0	88	108	27	0	223	3	112	220	111	0	446	0	41	262	30	1	333	1236
7:15 AM	0	8	212	103	0	323	0	91	131	36	0	258	0	160	207	123	0	490	0	35	322	17	0	374	1445
7:30 AM	0	13	189	108	0	310	0	137	157	33	0	327	0	167	251	101	0	519	0	51	317	32	0	400	1556
7:45 AM	1	10	194	112	1	317	0	86	151	29	0	266	2	189	279	126	0	596	0	67	356	37	1	460	1639
Hourly Total	2	39	734	409	1	1184	0	402	547	125	0	1074	5	628	957	461	0	2051	0	194	1257	116	2	1567	5876
8:00 AM	0	14	185	110	0	309	0	90	133	35	1	258	1	153	237	102	0	493	0	42	330	24	2	396	1456
8:15 AM	0	8	166	99	0	273	0	84	167	27	0	278	2	170	275	111	0	558	0	54	321	33	0	408	1517
8:30 AM	0	13	175	84	0	272	0	69	147	45	0	261	0	143	256	118	0	517	1	47	248	25	0	321	1371
8:45 AM	3	12	141	77	0	233	0	69	133	46	0	248	0	138	253	90	0	481	1	55	266	26	1	348	1310
Hourly Total	3	47	667	370	0	1087	0	312	580	153	1	1045	3	604	1021	421	0	2049	2	198	1165	108	3	1473	5654
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	31	194	191	1	420	0	154	225	45	1	424	0	114	280	107	1	501	0	40	333	23	1	396	1741
4:15 PM	2	26	191	156	1	375	0	150	222	43	1	415	3	97	358	89	2	547	0	49	388	30	0	467	1804
4:30 PM	3	36	200	184	0	423	0	147	198	54	0	399	0	106	345	104	0	555	0	46	374	25	1	445	1822
4:45 PM	2	34	229	165	2	430	0	142	210	42	0	394	1	102	431	106	0	640	0	45	300	18	1	363	1827
Hourly Total	11	127	814	696	4	1648	0	593	855	184	2	1632	4	419	1414	406	3	2243	0	180	1395	96	3	1671	7194
5:00 PM	1	38	219	181	0	439	0	174	242	62	0	478	2	105	386	121	2	614	0	39	357	18	0	414	1945
5:15 PM	1	27	204	172	1	404	0	143	215	52	0	410	0	118	403	130	0	651	0	50	332	22	0	404	1869
5:30 PM	2	31	188	140	0	361	0	126	212	59	0	397	1	109	368	110	1	588	0	38	303	16	1	357	1703
5:45 PM	3	26	174	121	2	324	0	106	182	60	0	348	3	112	377	113	1	605	0	46	283	21	0	350	1627
Hourly Total	7	122	785	614	3	1528	0	549	851	233	0	1633	6	444	1534	474	4	2458	0	173	1275	77	1	1525	7144
Grand Total	23	335	3000	2089	8	5447	0	1856	2833	695	3	5384	18	2095	4926	1762	7	8801	2	745	5092	397	9	6236	25868
Approach %	0.4	6.2	55.1	38.4	-	-	0.0	34.5	52.6	12.9	-	-	0.2	23.8	56.0	20.0	-	-	0.0	11.9	81.7	6.4	-	-	-
Total %	0.1	1.3	11.6	8.1	-	21.1	0.0	7.2	11.0	2.7	-	20.8	0.1	8.1	19.0	6.8	-	34.0	0.0	2.9	19.7	1.5	-	24.1	-
Lights	23	327	2855	2055	-	5260	0	1763	2695	653	-	5111	18	2049	4795	1685	-	8547	2	708	4995	388	-	6093	25011
% Lights	100.0	97.6	95.2	98.4	-	96.6	-	95.0	95.1	94.0	-	94.9	100.0	97.8	97.3	95.6	-	97.1	100.0	95.0	98.1	97.7	-	97.7	96.7
Buses	0	2	29	2	-	33	0	4	29	6	-	39	0	10	3	3	-	16	0	3	2	3	-	8	96
% Buses	0.0	0.6	1.0	0.1	-	0.6	-	0.2	1.0	0.9	-	0.7	0.0	0.5	0.1	0.2	-	0.2	0.0	0.4	0.0	0.8	-	0.1	0.4
Single-Unit Trucks	0	4	64	20	-	88	0	41	61	30	-	132	0	25	71	33	-	129	0	22	72	5	-	99	448
% Single-Unit Trucks	0.0	1.2	2.1	1.0	-	1.6	-	2.2	2.2	4.3	-	2.5	0.0	1.2	1.4	1.9	-	1.5	0.0	3.0	1.4	1.3	-	1.6	1.7
Articulated Trucks	0	1	49	12	-	62	0	46	48	6	-	100	0	11	57	41	-	109	0	12	22	1	-	35	306
% Articulated Trucks	0.0	0.3	1.6	0.6	-	1.1	-	2.5	1.7	0.9	-	1.9	0.0	0.5	1.2	2.3	-	1.2	0.0	1.6	0.4	0.3	-	0.6	1.2
Bicycles on Road	0	1	3	0	-	4	0	2	0	0	-	2	0	0	0	0	-	0	0	0	1	0	-	1	7
% Bicycles on Road	0.0	0.3	0.1	0.0	-	0.1	-	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	0.0
Pedestrians	-	-	-	-	8	-	-	-	-	-	3	-	-	-	-	-	7	-	-	-	-	-	9	-	-

% 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: Algonquin Road and Arlington Heights Road
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	13	189	108	0	310	0	137	157	33	0	327	0	167	251	101	0	519	0	51	317	32	0	400	1556
7:45 AM	1	10	194	112	1	317	0	86	151	29	0	266	2	189	279	126	0	596	0	67	356	37	1	460	1639
8:00 AM	0	14	185	110	0	309	0	90	133	35	1	258	1	153	237	102	0	493	0	42	330	24	2	396	1456
8:15 AM	0	8	166	99	0	273	0	84	167	27	0	278	2	170	275	111	0	558	0	54	321	33	0	408	1517
Total	1	45	734	429	1	1209	0	397	608	124	1	1129	5	679	1042	440	0	2166	0	214	1324	126	3	1664	6168
Approach %	0.1	3.7	60.7	35.5	-	-	0.0	35.2	53.9	11.0	-	-	0.2	31.3	48.1	20.3	-	-	0.0	12.9	79.6	7.6	-	-	-
Total %	0.0	0.7	11.9	7.0	-	19.6	0.0	6.4	9.9	2.0	-	18.3	0.1	11.0	16.9	7.1	-	35.1	0.0	3.5	21.5	2.0	-	27.0	-
PHF	0.250	0.804	0.946	0.958	-	0.953	0.000	0.724	0.910	0.886	-	0.863	0.625	0.898	0.934	0.873	-	0.909	0.000	0.799	0.930	0.851	-	0.904	0.941
Lights	1	43	688	420	-	1152	0	356	553	112	-	1021	5	660	988	413	-	2066	0	204	1301	124	-	1629	5868
% Lights	100.0	95.6	93.7	97.9	-	95.3	-	89.7	91.0	90.3	-	90.4	100.0	97.2	94.8	93.9	-	95.4	-	95.3	98.3	98.4	-	97.9	95.1
Buses	0	1	6	0	-	7	0	1	9	4	-	14	0	2	2	1	-	5	0	1	0	1	-	2	28
% Buses	0.0	2.2	0.8	0.0	-	0.6	-	0.3	1.5	3.2	-	1.2	0.0	0.3	0.2	0.2	-	0.2	-	0.5	0.0	0.8	-	0.1	0.5
Single-Unit Trucks	0	0	21	6	-	27	0	18	28	8	-	54	0	11	34	10	-	55	0	4	15	1	-	20	156
% Single-Unit Trucks	0.0	0.0	2.9	1.4	-	2.2	-	4.5	4.6	6.5	-	4.8	0.0	1.6	3.3	2.3	-	2.5	-	1.9	1.1	0.8	-	1.2	2.5
Articulated Trucks	0	1	19	3	-	23	0	22	18	0	-	40	0	6	18	16	-	40	0	5	8	0	-	13	116
% Articulated Trucks	0.0	2.2	2.6	0.7	-	1.9	-	5.5	3.0	0.0	-	3.5	0.0	0.9	1.7	3.6	-	1.8	-	2.3	0.6	0.0	-	0.8	1.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% 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: Algonquin Road and Arlington Heights Road
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road 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
4:30 PM	3	36	200	184	0	423	0	147	198	54	0	399	0	106	345	104	0	555	0	46	374	25	1	445	1822
4:45 PM	2	34	229	165	2	430	0	142	210	42	0	394	1	102	431	106	0	640	0	45	300	18	1	363	1827
5:00 PM	1	38	219	181	0	439	0	174	242	62	0	478	2	105	386	121	2	614	0	39	357	18	0	414	1945
5:15 PM	1	27	204	172	1	404	0	143	215	52	0	410	0	118	403	130	0	651	0	50	332	22	0	404	1869
Total	7	135	852	702	3	1696	0	606	865	210	0	1681	3	431	1565	461	2	2460	0	180	1363	83	2	1626	7463
Approach %	0.4	8.0	50.2	41.4	-	-	0.0	36.0	51.5	12.5	-	-	0.1	17.5	63.6	18.7	-	-	0.0	11.1	83.8	5.1	-	-	-
Total %	0.1	1.8	11.4	9.4	-	22.7	0.0	8.1	11.6	2.8	-	22.5	0.0	5.8	21.0	6.2	-	33.0	0.0	2.4	18.3	1.1	-	21.8	-
PHF	0.583	0.888	0.930	0.954	-	0.966	0.000	0.871	0.894	0.847	-	0.879	0.375	0.913	0.908	0.887	-	0.945	0.000	0.900	0.911	0.830	-	0.913	0.959
Lights	7	134	825	696	-	1662	0	590	849	205	-	1644	3	428	1553	448	-	2432	0	170	1339	81	-	1590	7328
% Lights	100.0	99.3	96.8	99.1	-	98.0	-	97.4	98.2	97.6	-	97.8	100.0	99.3	99.2	97.2	-	98.9	-	94.4	98.2	97.6	-	97.8	98.2
Buses	0	1	7	1	-	9	0	1	5	0	-	6	0	1	0	1	-	2	0	0	0	2	-	2	19
% Buses	0.0	0.7	0.8	0.1	-	0.5	-	0.2	0.6	0.0	-	0.4	0.0	0.2	0.0	0.2	-	0.1	-	0.0	0.0	2.4	-	0.1	0.3
Single-Unit Trucks	0	0	12	3	-	15	0	5	8	5	-	18	0	2	5	6	-	13	0	7	21	0	-	28	74
% Single-Unit Trucks	0.0	0.0	1.4	0.4	-	0.9	-	0.8	0.9	2.4	-	1.1	0.0	0.5	0.3	1.3	-	0.5	-	3.9	1.5	0.0	-	1.7	1.0
Articulated Trucks	0	0	6	2	-	8	0	8	3	0	-	11	0	0	7	6	-	13	0	3	3	0	-	6	38
% Articulated Trucks	0.0	0.0	0.7	0.3	-	0.5	-	1.3	0.3	0.0	-	0.7	0.0	0.0	0.4	1.3	-	0.5	-	1.7	0.2	0.0	-	0.4	0.5
Bicycles on Road	0	0	2	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.0	0.2	0.0	-	0.1	-	0.3	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% 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: Golf and Meijer
Site Code:
Start Date: 07/25/2017

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	9	238	19	0	266	0	16	195	14	0	225	0	0	0	4	1	4	0	0	5	9	0	14	509
7:15 AM	0	3	292	21	0	316	0	28	234	15	0	277	0	1	1	7	0	9	0	0	1	21	0	22	624
7:30 AM	0	6	297	30	0	333	0	23	293	15	0	331	0	1	0	6	0	7	0	0	0	19	0	19	690
7:45 AM	0	4	279	32	0	315	0	31	288	11	0	330	0	2	0	7	0	9	0	1	2	14	0	17	671
Hourly Total	0	22	1106	102	0	1230	0	98	1010	55	0	1163	0	4	1	24	1	29	0	1	8	63	0	72	2494
8:00 AM	0	4	267	31	0	302	0	24	266	18	0	308	0	0	0	6	0	6	0	0	0	17	0	17	633
8:15 AM	0	5	259	25	0	289	0	26	290	15	0	331	0	4	0	9	0	13	0	2	1	18	0	21	654
8:30 AM	0	9	254	18	1	281	0	23	245	15	0	283	0	2	1	10	0	13	0	1	1	12	0	14	591
8:45 AM	0	7	251	25	0	283	0	20	226	13	2	259	0	3	1	4	0	8	0	0	2	16	2	18	568
Hourly Total	0	25	1031	99	1	1155	0	93	1027	61	2	1181	0	9	2	29	0	40	0	3	4	63	2	70	2446
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	380	24	0	406	0	10	352	9	1	371	0	2	1	30	1	33	0	0	0	8	0	8	818
4:15 PM	0	0	380	21	0	401	0	18	401	7	0	426	0	2	0	36	1	38	0	1	0	6	1	7	872
4:30 PM	0	0	361	37	0	398	0	16	328	8	0	352	0	1	0	32	0	33	0	1	1	4	1	6	789
4:45 PM	0	4	406	25	0	435	1	9	336	13	0	359	0	1	3	29	0	33	0	1	0	8	2	9	836
Hourly Total	0	6	1527	107	0	1640	1	53	1417	37	1	1508	0	6	4	127	2	137	0	3	1	26	4	30	3315
5:00 PM	0	1	437	30	0	468	0	12	338	8	0	358	0	3	1	37	0	41	0	0	1	12	0	13	880
5:15 PM	0	3	367	23	0	393	0	17	342	12	0	371	0	4	0	31	0	35	0	2	0	9	0	11	810
5:30 PM	0	4	334	31	0	369	0	23	337	9	0	369	0	3	1	22	0	26	0	0	0	8	0	8	772
5:45 PM	0	2	342	30	0	374	2	21	334	16	0	373	0	1	1	24	1	26	0	0	1	4	0	5	778
Hourly Total	0	10	1480	114	0	1604	2	73	1351	45	0	1471	0	11	3	114	1	128	0	2	2	33	0	37	3240
Grand Total	0	63	5144	422	1	5629	3	317	4805	198	3	5323	0	30	10	294	4	334	0	9	15	185	6	209	11495
Approach %	0.0	1.1	91.4	7.5	-	-	0.1	6.0	90.3	3.7	-	-	0.0	9.0	3.0	88.0	-	-	0.0	4.3	7.2	88.5	-	-	-
Total %	0.0	0.5	44.7	3.7	-	49.0	0.0	2.8	41.8	1.7	-	46.3	0.0	0.3	0.1	2.6	-	2.9	0.0	0.1	0.1	1.6	-	1.8	-
Lights	0	62	5021	419	-	5502	3	309	4699	198	-	5209	0	27	8	286	-	321	0	9	15	185	-	209	11241
% Lights	-	98.4	97.6	99.3	-	97.7	100.0	97.5	97.8	100.0	-	97.9	-	90.0	80.0	97.3	-	96.1	-	100.0	100.0	100.0	-	100.0	97.8
Buses	0	0	31	0	-	31	0	1	24	0	-	25	0	1	0	0	-	1	0	0	0	0	-	0	57
% Buses	-	0.0	0.6	0.0	-	0.6	0.0	0.3	0.5	0.0	-	0.5	-	3.3	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	1	76	3	-	80	0	5	54	0	-	59	0	2	0	3	-	5	0	0	0	0	-	0	144
% Single-Unit Trucks	-	1.6	1.5	0.7	-	1.4	0.0	1.6	1.1	0.0	-	1.1	-	6.7	0.0	1.0	-	1.5	-	0.0	0.0	0.0	-	0.0	1.3
Articulated Trucks	0	0	16	0	-	16	0	1	27	0	-	28	0	0	0	5	-	5	0	0	0	0	-	0	49
% Articulated Trucks	-	0.0	0.3	0.0	-	0.3	0.0	0.3	0.6	0.0	-	0.5	-	0.0	0.0	1.7	-	1.5	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	1	1	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	4
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.3	0.0	0.0	-	0.0	-	0.0	20.0	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	6	-	-

% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	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: Golf and Meijer
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	6	297	30	0	333	0	23	293	15	0	331	0	1	0	6	0	7	0	0	0	19	0	19	690
7:45 AM	0	4	279	32	0	315	0	31	288	11	0	330	0	2	0	7	0	9	0	1	2	14	0	17	671
8:00 AM	0	4	267	31	0	302	0	24	266	18	0	308	0	0	0	6	0	6	0	0	0	17	0	17	633
8:15 AM	0	5	259	25	0	289	0	26	290	15	0	331	0	4	0	9	0	13	0	2	1	18	0	21	654
Total	0	19	1102	118	0	1239	0	104	1137	59	0	1300	0	7	0	28	0	35	0	3	3	68	0	74	2648
Approach %	0.0	1.5	88.9	9.5	-	-	0.0	8.0	87.5	4.5	-	-	0.0	20.0	0.0	80.0	-	-	0.0	4.1	4.1	91.9	-	-	-
Total %	0.0	0.7	41.6	4.5	-	46.8	0.0	3.9	42.9	2.2	-	49.1	0.0	0.3	0.0	1.1	-	1.3	0.0	0.1	0.1	2.6	-	2.8	-
PHF	0.000	0.792	0.928	0.922	-	0.930	0.000	0.839	0.970	0.819	-	0.982	0.000	0.438	0.000	0.778	-	0.673	0.000	0.375	0.375	0.895	-	0.881	0.959
Lights	0	19	1056	117	-	1192	0	102	1104	59	-	1265	0	5	0	25	-	30	0	3	3	68	-	74	2561
% Lights	-	100.0	95.8	99.2	-	96.2	-	98.1	97.1	100.0	-	97.3	-	71.4	-	89.3	-	85.7	-	100.0	100.0	100.0	-	100.0	96.7
Buses	0	0	7	0	-	7	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	12
% Buses	-	0.0	0.6	0.0	-	0.6	-	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	35	1	-	36	0	1	16	0	-	17	0	2	0	0	-	2	0	0	0	0	-	0	55
% Single-Unit Trucks	-	0.0	3.2	0.8	-	2.9	-	1.0	1.4	0.0	-	1.3	-	28.6	-	0.0	-	5.7	-	0.0	0.0	0.0	-	0.0	2.1
Articulated Trucks	0	0	4	0	-	4	0	1	12	0	-	13	0	0	0	3	-	3	0	0	0	0	-	0	20
% Articulated Trucks	-	0.0	0.4	0.0	-	0.3	-	1.0	1.1	0.0	-	1.0	-	0.0	-	10.7	-	8.6	-	0.0	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Golf and Meijer
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:30 PM	0	0	361	37	0	398	0	16	328	8	0	352	0	1	0	32	0	33	0	1	1	4	1	6	789
4:45 PM	0	4	406	25	0	435	1	9	336	13	0	359	0	1	3	29	0	33	0	1	0	8	2	9	836
5:00 PM	0	1	437	30	0	468	0	12	338	8	0	358	0	3	1	37	0	41	0	0	1	12	0	13	880
5:15 PM	0	3	367	23	0	393	0	17	342	12	0	371	0	4	0	31	0	35	0	2	0	9	0	11	810
Total	0	8	1571	115	0	1694	1	54	1344	41	0	1440	0	9	4	129	0	142	0	4	2	33	3	39	3315
Approach %	0.0	0.5	92.7	6.8	-	-	0.1	3.8	93.3	2.8	-	-	0.0	6.3	2.8	90.8	-	-	0.0	10.3	5.1	84.6	-	-	-
Total %	0.0	0.2	47.4	3.5	-	51.1	0.0	1.6	40.5	1.2	-	43.4	0.0	0.3	0.1	3.9	-	4.3	0.0	0.1	0.1	1.0	-	1.2	-
PHF	0.000	0.500	0.899	0.777	-	0.905	0.250	0.794	0.982	0.788	-	0.970	0.000	0.563	0.333	0.872	-	0.866	0.000	0.500	0.500	0.688	-	0.750	0.942
Lights	0	8	1557	115	-	1680	1	53	1326	41	-	1421	0	8	3	127	-	138	0	4	2	33	-	39	3278
% Lights	-	100.0	99.1	100.0	-	99.2	100.0	98.1	98.7	100.0	-	98.7	-	88.9	75.0	98.4	-	97.2	-	100.0	100.0	100.0	-	100.0	98.9
Buses	0	0	9	0	-	9	0	1	8	0	-	9	0	1	0	0	-	1	0	0	0	0	-	0	19
% Buses	-	0.0	0.6	0.0	-	0.5	0.0	1.9	0.6	0.0	-	0.6	-	11.1	0.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	2	0	-	2	0	0	7	0	-	7	0	0	0	2	-	2	0	0	0	0	-	0	11
% Single-Unit Trucks	-	0.0	0.1	0.0	-	0.1	0.0	0.0	0.5	0.0	-	0.5	-	0.0	0.0	1.6	-	1.4	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	3	0	-	3	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	-	0.0	0.2	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	25.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Algonquin and Divided Access
Site Code:
Start Date: 07/25/2017

Turning Movement Data

Start Time	Westbound Approach Westbound					Algonquin Northbound					Algonquin Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	0	0	0	0	0	214	1	0	215	0	1	270	0	271	486
7:15 AM	0	0	1	0	1	0	263	3	0	266	0	2	336	0	338	605
7:30 AM	0	0	0	0	0	0	322	1	2	323	0	0	360	0	360	683
7:45 AM	0	0	0	0	0	0	309	1	0	310	0	2	367	0	369	679
Hourly Total	0	0	1	0	1	0	1108	6	2	1114	0	5	1333	0	1338	2453
8:00 AM	0	0	1	2	1	0	247	0	0	247	0	1	307	0	308	556
8:15 AM	0	0	2	0	2	0	313	3	0	316	0	1	302	0	303	621
8:30 AM	0	1	2	1	3	0	265	5	0	270	0	2	275	0	277	550
8:45 AM	0	0	1	2	1	0	256	1	0	257	0	3	230	0	233	491
Hourly Total	0	1	6	5	7	0	1081	9	0	1090	0	7	1114	0	1121	2218
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	4	2	4	0	378	3	0	381	0	1	364	0	365	750
4:15 PM	0	1	6	2	7	0	342	2	0	344	0	3	329	0	332	683
4:30 PM	0	2	6	0	8	0	351	0	0	351	0	2	376	0	378	737
4:45 PM	0	4	1	1	5	0	344	2	0	346	0	0	365	0	365	716
Hourly Total	0	7	17	5	24	0	1415	7	0	1422	0	6	1434	0	1440	2886
5:00 PM	0	1	3	0	4	0	374	4	0	378	0	3	429	0	432	814
5:15 PM	0	0	6	5	6	0	348	3	0	351	0	2	339	0	341	698
5:30 PM	0	3	10	1	13	0	339	0	0	339	0	3	312	0	315	667
5:45 PM	0	2	1	1	3	0	319	1	0	320	0	0	300	0	300	623
Hourly Total	0	6	20	7	26	0	1380	8	0	1388	0	8	1380	0	1388	2802
Grand Total	0	14	44	17	58	0	4984	30	2	5014	0	26	5261	0	5287	10359
Approach %	0.0	24.1	75.9	-	-	0.0	99.4	0.6	-	-	0.0	0.5	99.5	-	-	-
Total %	0.0	0.1	0.4	-	0.6	0.0	48.1	0.3	-	48.4	0.0	0.3	50.8	-	51.0	-
Lights	0	13	44	-	57	0	4781	29	-	4810	0	26	5070	-	5096	9963
% Lights	-	92.9	100.0	-	98.3	-	95.9	96.7	-	95.9	-	100.0	96.4	-	96.4	96.2
Buses	0	0	0	-	0	0	39	0	-	39	0	0	28	-	28	67
% Buses	-	0.0	0.0	-	0.0	-	0.8	0.0	-	0.8	-	0.0	0.5	-	0.5	0.6
Single-Unit Trucks	0	0	0	-	0	0	99	1	-	100	0	0	117	-	117	217
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	2.0	3.3	-	2.0	-	0.0	2.2	-	2.2	2.1
Articulated Trucks	0	0	0	-	0	0	65	0	-	65	0	0	45	-	45	110
% Articulated Trucks	-	0.0	0.0	-	0.0	-	1.3	0.0	-	1.3	-	0.0	0.9	-	0.9	1.1
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	1	-	1	2
% Bicycles on Road	-	7.1	0.0	-	1.7	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	17	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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

Count Name: Algonquin and Divided Access
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Westbound Approach Westbound					Algonquin Northbound					Algonquin Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	0	0	0	0	0	322	1	2	323	0	0	360	0	360	683
7:45 AM	0	0	0	0	0	0	309	1	0	310	0	2	367	0	369	679
8:00 AM	0	0	1	2	1	0	247	0	0	247	0	1	307	0	308	556
8:15 AM	0	0	2	0	2	0	313	3	0	316	0	1	302	0	303	621
Total	0	0	3	2	3	0	1191	5	2	1196	0	4	1336	0	1340	2539
Approach %	0.0	0.0	100.0	-	-	0.0	99.6	0.4	-	-	0.0	0.3	99.7	-	-	-
Total %	0.0	0.0	0.1	-	0.1	0.0	46.9	0.2	-	47.1	0.0	0.2	52.6	-	52.8	-
PHF	0.000	0.000	0.375	-	0.375	0.000	0.925	0.417	-	0.926	0.000	0.500	0.910	-	0.908	0.929
Lights	0	0	3	-	3	0	1109	4	-	1113	0	4	1280	-	1284	2400
% Lights	-	-	100.0	-	100.0	-	93.1	80.0	-	93.1	-	100.0	95.8	-	95.8	94.5
Buses	0	0	0	-	0	0	10	0	-	10	0	0	4	-	4	14
% Buses	-	-	0.0	-	0.0	-	0.8	0.0	-	0.8	-	0.0	0.3	-	0.3	0.6
Single-Unit Trucks	0	0	0	-	0	0	44	1	-	45	0	0	39	-	39	84
% Single-Unit Trucks	-	-	0.0	-	0.0	-	3.7	20.0	-	3.8	-	0.0	2.9	-	2.9	3.3
Articulated Trucks	0	0	0	-	0	0	28	0	-	28	0	0	12	-	12	40
% Articulated Trucks	-	-	0.0	-	0.0	-	2.4	0.0	-	2.3	-	0.0	0.9	-	0.9	1.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	0.0
Pedestrians	-	-	-	2	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Algonquin and Divided Access
Site Code:
Start Date: 07/25/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Westbound Approach Westbound					Algonquin Northbound					Algonquin Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	2	6	0	8	0	351	0	0	351	0	2	376	0	378	737
4:45 PM	0	4	1	1	5	0	344	2	0	346	0	0	365	0	365	716
5:00 PM	0	1	3	0	4	0	374	4	0	378	0	3	429	0	432	814
5:15 PM	0	0	6	5	6	0	348	3	0	351	0	2	339	0	341	698
Total	0	7	16	6	23	0	1417	9	0	1426	0	7	1509	0	1516	2965
Approach %	0.0	30.4	69.6	-	-	0.0	99.4	0.6	-	-	0.0	0.5	99.5	-	-	-
Total %	0.0	0.2	0.5	-	0.8	0.0	47.8	0.3	-	48.1	0.0	0.2	50.9	-	51.1	-
PHF	0.000	0.438	0.667	-	0.719	0.000	0.947	0.563	-	0.943	0.000	0.583	0.879	-	0.877	0.911
Lights	0	7	16	-	23	0	1389	9	-	1398	0	7	1476	-	1483	2904
% Lights	-	100.0	100.0	-	100.0	-	98.0	100.0	-	98.0	-	100.0	97.8	-	97.8	97.9
Buses	0	0	0	-	0	0	10	0	-	10	0	0	8	-	8	18
% Buses	-	0.0	0.0	-	0.0	-	0.7	0.0	-	0.7	-	0.0	0.5	-	0.5	0.6
Single-Unit Trucks	0	0	0	-	0	0	13	0	-	13	0	0	14	-	14	27
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.9	0.0	-	0.9	-	0.0	0.9	-	0.9	0.9
Articulated Trucks	0	0	0	-	0	0	5	0	-	5	0	0	11	-	11	16
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.4	0.0	-	0.4	-	0.0	0.7	-	0.7	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Capacity Analyses – Existing Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	3	1291	67	213	927	6	22	0	44	2	1	3
Ideal Flow (vphpl)	1900	2000	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)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.999				0.850		0.932	
Flt Protected	0.950			0.950			0.950	0.950			0.984	
Satd. Flow (prot)	1805	3654	1583	1719	3365	0	1573	1573	1313	0	1158	0
Flt Permitted	0.292			0.153			0.950	0.950			0.984	
Satd. Flow (perm)	555	3654	1583	277	3365	0	1573	1573	1313	0	1158	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									91		3	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			215			250	
Travel Time (s)		15.5			7.0			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	2%	5%	7%	33%	9%	0%	23%	50%	2%	67%
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 (%)							50%					
Lane Group Flow (vph)	3	1359	71	224	982	0	11	12	46	0	6	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	90.0	26.0	16.0	93.0		26.0	26.0	26.0	18.0	18.0	
Total Split (%)	8.7%	60.0%	17.3%	10.7%	62.0%		17.3%	17.3%	17.3%	12.0%	12.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	119.7	111.6	124.4	131.0	126.7		6.8	6.8	6.8		6.2	
Actuated g/C Ratio	0.80	0.74	0.83	0.87	0.84		0.05	0.05	0.05		0.04	
v/c Ratio	0.01	0.50	0.05	0.61	0.35		0.16	0.17	0.32		0.12	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	4.3	17.6	7.8	21.8	5.0		70.6	70.9	7.0		57.7	
Queue Delay	0.0	0.4	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	4.3	18.1	7.8	21.8	5.0		70.6	70.9	7.0		57.7	
LOS	A	B	A	C	A		E	E	A		E	
Approach Delay		17.5			8.1			28.2			57.7	
Approach LOS		B			A			C			E	
Queue Length 50th (ft)	0	521	17	74	119		9	11	1		3	
Queue Length 95th (ft)	m1	674	m60	m113	m148		m23	m27	m4		19	
Internal Link Dist (ft)		714			281			135			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	536	2719	1452	384	2841		209	209	253		95	
Starvation Cap Reductn	0	770	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.01	0.70	0.05	0.58	0.35		0.05	0.06	0.18		0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 39 (26%), Referenced to phase 2:NWTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 62.4%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

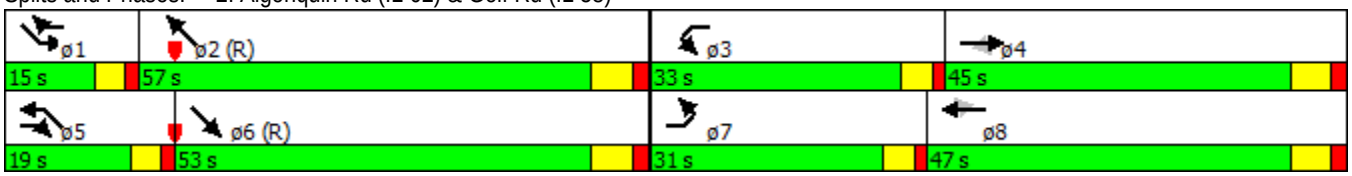
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	43	710	396	32	861	246	224	917	27	441	508	3
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3340	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3340	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	5%	0%	2%	3%	2%	3%	4%	5%	8%	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)	45	747	417	34	906	259	236	993	0	464	538	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	31.0	45.0	19.0	33.0	47.0	15.0	15.0	53.0		19.0	57.0	
Total Split (%)	20.7%	30.0%	12.7%	22.0%	31.3%	10.0%	10.0%	35.3%		12.7%	38.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	9.2	36.5	79.4	8.3	35.7	60.2	18.0	47.9		36.4	66.3	
Actuated g/C Ratio	0.06	0.24	0.53	0.06	0.24	0.40	0.12	0.32		0.24	0.44	
v/c Ratio	0.42	0.84	0.51	0.34	0.71	0.41	0.57	0.89		0.57	0.36	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	78.4	62.9	26.4	76.7	55.4	33.6	68.2	59.8		68.2	26.3	
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	78.4	62.9	26.5	76.7	55.4	33.6	68.2	59.8		68.2	26.3	
LOS	E	E	C	E	E	C	E	E		E	C	
Approach Delay		50.9			51.3			61.4			45.7	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	43	366	264	33	298	180	114	488		238	127	
Queue Length 95th (ft)	85	417	377	70	330	235	159	#620		#317	350	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	306	970	814	336	1460	629	411	1113		808	1475	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	24	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.77	0.53	0.10	0.62	0.41	0.57	0.89		0.57	0.36	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 127 (85%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 52.7 Intersection LOS: D
Intersection Capacity Utilization 79.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)



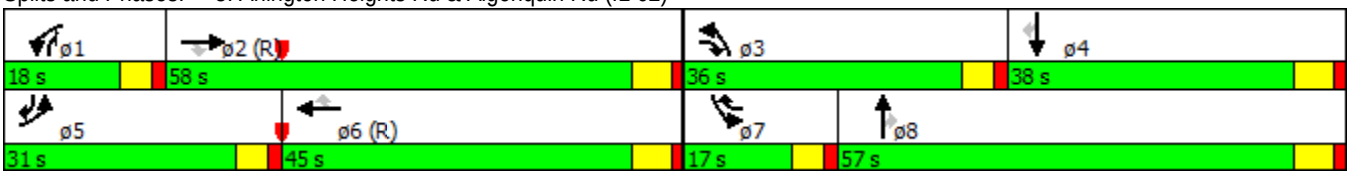
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	734	429	397	608	124	684	1042	440	214	1324	126
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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%	6%	2%	10%	9%	10%	3%	5%	6%	5%	2%	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)	49	781	456	422	647	132	728	1109	468	228	1409	134
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	31.0	58.0	36.0	18.0	45.0	17.0	36.0	57.0	18.0	17.0	38.0	31.0
Total Split (%)	20.7%	38.7%	24.0%	12.0%	30.0%	11.3%	24.0%	38.0%	12.0%	11.3%	25.3%	20.7%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	7.6	52.0	89.0	13.0	57.4	75.4	31.0	51.0	70.0	12.0	32.0	45.6
Actuated g/C Ratio	0.05	0.35	0.59	0.09	0.38	0.50	0.21	0.34	0.47	0.08	0.21	0.30
v/c Ratio	0.29	0.44	0.49	1.53	0.34	0.18	1.04	0.63	0.66	0.86	1.23	0.28

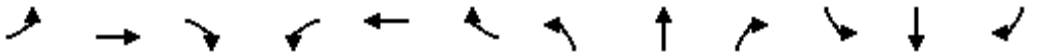
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	60.5	39.2	41.1	300.8	33.6	21.5	100.7	43.5	36.3	95.9	161.3	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	39.2	41.1	300.8	33.6	21.5	100.7	43.5	36.3	95.9	161.3	41.3
LOS	E	D	D	F	C	C	F	D	D	F	F	D
Approach Delay		40.7			126.2			60.1			143.8	
Approach LOS		D			F			E			F	
Queue Length 50th (ft)	25	273	413	~296	163	69	~393	333	347	115	~622	100
Queue Length 95th (ft)	41	302	571	#408	203	115	#522	384	479	#189	#720	157
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	583	1785	939	275	1916	737	702	1768	711	266	1141	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.44	0.49	1.53	0.34	0.18	1.04	0.63	0.66	0.86	1.23	0.20

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.53
Intersection Signal Delay: 91.0 Intersection LOS: F
Intersection Capacity Utilization 86.9% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	1102	118	104	1137	59	0	0	28	0	0	68
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	20	1148	123	108	1184	61	0	0	29	0	0	71
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1246			1271			1931	2711	444	1883	2742	426
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	692			1271			1494	2407	444	1437	2443	0
tC, single (s)	4.1			4.1			8.1	6.5	7.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.8	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			80			100	100	95	100	100	92
cM capacity (veh/h)	780			542			43	22	537	64	21	932

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	20	459	459	352	108	474	474	298	29	71
Volume Left	20	0	0	0	108	0	0	0	0	0
Volume Right	0	0	0	123	0	0	0	61	29	71
cSH	780	1700	1700	1700	542	1700	1700	1700	537	932
Volume to Capacity	0.03	0.27	0.27	0.21	0.20	0.28	0.28	0.18	0.05	0.08
Queue Length 95th (ft)	2	0	0	0	18	0	0	0	4	6
Control Delay (s)	9.7	0.0	0.0	0.0	13.3	0.0	0.0	0.0	12.1	9.2
Lane LOS	A				B				B	A
Approach Delay (s)	0.1				1.1				12.1	9.2
Approach LOS									B	A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	4	1333	1143	5	0	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	4	1433	1229	5	0	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.82	
vC, conflicting volume	1234				1957	617
vC1, stage 1 conf vol					1232	
vC2, stage 2 conf vol					725	
vCu, unblocked vol	1234				1731	617
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	99
cM capacity (veh/h)	571				225	438

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	482	956	819	415	3
Volume Left	4	0	0	0	0
Volume Right	0	0	0	5	3
cSH	571	1700	1700	1700	438
Volume to Capacity	0.01	0.56	0.48	0.24	0.01
Queue Length 95th (ft)	1	0	0	0	1
Control Delay (s)	0.2	0.0	0.0	0.0	13.3
Lane LOS	A				B
Approach Delay (s)	0.1		0.0		13.3
Approach LOS					B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	31	1245	52	99	1260	38	129	5	249	7	1	14
Ideal Flow (vphpl)	1900	2000	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)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996				0.850		0.912	
Flt Protected	0.950			0.950			0.950	0.956			0.985	
Satd. Flow (prot)	1805	3725	1583	1805	3524	0	1681	1694	1583	0	1637	0
Flt Permitted	0.164			0.166			0.950	0.956			0.985	
Satd. Flow (perm)	312	3725	1583	315	3524	0	1681	1694	1583	0	1637	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									242		15	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			215			250	
Travel Time (s)		15.5			7.0			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	2%	0%	2%	3%	2%	0%	2%	14%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)							48%					
Lane Group Flow (vph)	33	1311	55	104	1366	0	71	70	262	0	23	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	100.0	16.0	18.0	105.0		16.0	16.0	16.0	16.0	16.0	
Total Split (%)	8.7%	66.7%	10.7%	12.0%	70.0%		10.7%	10.7%	10.7%	10.7%	10.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	118.2	109.7	125.1	121.4	112.7		9.5	9.5	9.5		6.7	
Actuated g/C Ratio	0.79	0.73	0.83	0.81	0.75		0.06	0.06	0.06		0.04	
v/c Ratio	0.11	0.48	0.04	0.32	0.52		0.67	0.66	0.80		0.26	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	5.7	16.3	6.7	7.9	11.8		96.5	95.3	28.0		44.3	
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	5.7	16.7	6.7	7.9	11.8		96.5	95.3	28.0		44.3	
LOS	A	B	A	A	B		F	F	C		D	
Approach Delay		16.0			11.5			51.8			44.3	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	11	412	20	16	324		71	71	12		8	
Queue Length 95th (ft)	m16	457	m34	m43	375		m#138	m#135	m#135		39	
Internal Link Dist (ft)		714			281			135			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	347	2723	1326	402	2648		112	112	331		123	
Starvation Cap Reductn	0	722	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.10	0.66	0.04	0.26	0.52		0.63	0.63	0.79		0.19	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 59 (39%), Referenced to phase 2:NWTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

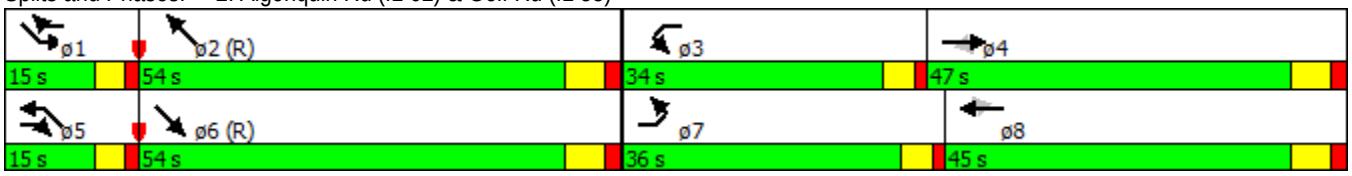
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	89	1023	559	49	985	311	362	685	58	453	879	73
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.988			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3474	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3474	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	2%	1%	1%	2%	2%	2%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	1044	570	50	1005	317	369	758	0	462	971	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	36.0	47.0	15.0	34.0	45.0	15.0	15.0	54.0		15.0	54.0	
Total Split (%)	24.0%	31.3%	10.0%	22.7%	30.0%	10.0%	10.0%	36.0%		10.0%	36.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	13.0	52.7	78.6	9.6	47.1	73.0	19.4	47.5		19.4	47.5	
Actuated g/C Ratio	0.09	0.35	0.52	0.06	0.31	0.49	0.13	0.32		0.13	0.32	
v/c Ratio	0.59	0.79	0.69	0.44	0.59	0.41	0.83	0.68		1.03	0.88	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	80.6	48.7	33.3	79.0	44.6	27.4	79.1	48.5		117.4	56.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.6	48.7	33.3	79.0	44.6	27.4	79.1	48.5		117.4	56.3	
LOS	F	D	C	E	D	C	E	D		F	E	
Approach Delay		45.3			41.9			58.5			76.0	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	87	486	419	48	300	195	186	341		~256	530	
Queue Length 95th (ft)	144	547	600	92	337	295	#373	415		#475	#600	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	369	1321	829	342	1698	778	443	1107		447	1100	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.25	0.79	0.69	0.15	0.59	0.41	0.83	0.68		1.03	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 54.9 Intersection LOS: D
Intersection Capacity Utilization 86.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)

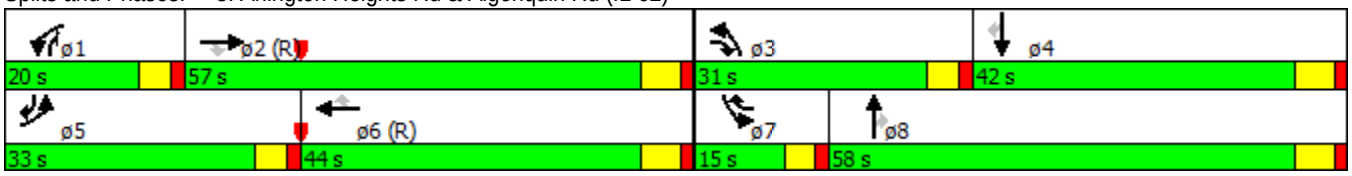


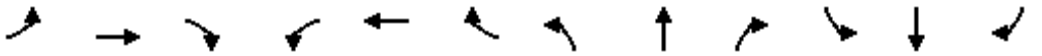
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	852	702	606	865	210	434	1565	461	180	1363	83
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	3%	1%	3%	2%	2%	1%	1%	3%	5%	2%	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)	148	888	731	631	901	219	452	1630	480	188	1420	86
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	33.0	57.0	31.0	20.0	44.0	15.0	31.0	58.0	20.0	15.0	42.0	33.0
Total Split (%)	22.0%	38.0%	20.7%	13.3%	29.3%	10.0%	20.7%	38.7%	13.3%	10.0%	28.0%	22.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	11.8	51.0	81.4	15.0	54.2	70.2	24.4	52.0	73.0	10.0	37.6	55.4
Actuated g/C Ratio	0.08	0.34	0.54	0.10	0.36	0.47	0.16	0.35	0.49	0.07	0.25	0.37
v/c Ratio	0.55	0.49	0.84	1.86	0.47	0.30	0.80	0.87	0.63	0.85	1.06	0.15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	66.6	58.1	36.5	430.8	38.0	26.5	71.9	52.0	33.1	99.7	94.5	32.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.6	58.1	36.5	430.8	38.0	26.5	71.9	52.0	33.1	99.7	94.5	32.4
LOS	E	E	D	F	D	C	E	D	C	F	F	C
Approach Delay		49.9			178.1			51.9			91.9	
Approach LOS		D			F			D			F	
Queue Length 50th (ft)	75	318	373	~481	247	130	219	546	341	95	~577	57
Queue Length 95th (ft)	m106	369	567	#606	301	201	282	610	468	#163	#675	96
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	647	1802	884	340	1935	741	600	1874	763	222	1341	755
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.49	0.83	1.86	0.47	0.30	0.75	0.87	0.63	0.85	1.06	0.11

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 77 (51%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.86			
Intersection Signal Delay: 88.6		Intersection LOS: F	
Intersection Capacity Utilization 99.1%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	1571	115	55	1344	41	0	0	129	0	0	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	9	1671	122	59	1430	44	0	0	137	0	0	35
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1473			1794			2378	3340	618	2280	3379	498
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	931			1794			1998	3132	618	1882	3178	0
tC, single (s)	4.1			4.1			7.7	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			83			100	100	68	100	100	96
cM capacity (veh/h)	630			341			22	8	432	22	7	925

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	9	669	669	457	59	572	572	330	137	35
Volume Left	9	0	0	0	59	0	0	0	0	0
Volume Right	0	0	0	122	0	0	0	44	137	35
cSH	630	1700	1700	1700	341	1700	1700	1700	432	925
Volume to Capacity	0.01	0.39	0.39	0.27	0.17	0.34	0.34	0.19	0.32	0.04
Queue Length 95th (ft)	1	0	0	0	15	0	0	0	34	3
Control Delay (s)	10.8	0.0	0.0	0.0	17.7	0.0	0.0	0.0	17.2	9.0
Lane LOS	B				C				C	A
Approach Delay (s)	0.1				0.7				17.2	9.0
Approach LOS									C	A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	7	1494	1381	9	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	8	1642	1518	10	8	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.84	
vC, conflicting volume	1527				2359	764
vC1, stage 1 conf vol					1523	
vC2, stage 2 conf vol					836	
vCu, unblocked vol	1527				2235	764
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				95	95
cM capacity (veh/h)	442				158	351

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	555	1095	1012	516	25
Volume Left	8	0	0	0	8
Volume Right	0	0	0	10	18
cSH	442	1700	1700	1700	256
Volume to Capacity	0.02	0.64	0.60	0.30	0.10
Queue Length 95th (ft)	1	0	0	0	8
Control Delay (s)	0.5	0.0	0.0	0.0	20.6
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		20.6
Approach LOS					C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

Capacity Analyses- Future Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	3	1321	74	224	928	6	38	0	53	2	1	3
Ideal Flow (vphpl)	1900	2000	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)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.999				0.850		0.932	
Flt Protected	0.950			0.950			0.950	0.950			0.984	
Satd. Flow (prot)	1805	3654	1538	1641	3365	0	1491	1491	1262	0	1158	0
Flt Permitted	0.291			0.135			0.950	0.950			0.984	
Satd. Flow (perm)	553	3654	1538	233	3365	0	1491	1491	1262	0	1158	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									91		3	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			194			250	
Travel Time (s)		15.5			7.0			6.6			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	5%	10%	7%	33%	15%	0%	28%	50%	2%	67%
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 (%)							50%					
Lane Group Flow (vph)	3	1391	78	236	983	0	20	20	56	0	6	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	90.0	29.0	16.0	93.0		29.0	29.0	29.0	15.0	15.0	
Total Split (%)	8.7%	60.0%	19.3%	10.7%	62.0%		19.3%	19.3%	19.3%	10.0%	10.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	113.4	105.3	118.9	130.2	125.8		7.6	7.6	7.6		6.2	
Actuated g/C Ratio	0.76	0.70	0.79	0.87	0.84		0.05	0.05	0.05		0.04	
v/c Ratio	0.01	0.54	0.06	0.62	0.35		0.27	0.27	0.37		0.12	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	6.0	22.3	10.5	28.7	5.2		78.6	78.6	10.9		57.7	
Queue Delay	0.0	0.6	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	6.0	22.8	10.5	28.7	5.2		78.6	78.6	10.9		57.7	
LOS	A	C	B	C	A		E	E	B		E	
Approach Delay		22.1			9.7			39.1			57.7	
Approach LOS		C			A			D			E	
Queue Length 50th (ft)	1	559	26	94	119		18	18	1		3	
Queue Length 95th (ft)	m1	m709	m0	m148	m146		m43	m43	m10		19	
Internal Link Dist (ft)		714			281			114			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	511	2566	1377	378	2822		228	228	270		72	
Starvation Cap Reductn	0	681	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.01	0.74	0.06	0.62	0.35		0.09	0.09	0.21		0.08	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 39 (26%), Referenced to phase 2:NWTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

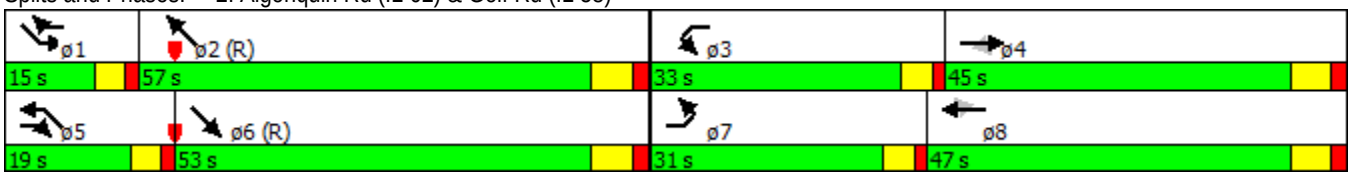
Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	43	710	396	36	861	246	224	950	27	448	516	5
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	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)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3341	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3654	1538	1805	5353	1568	3433	3490	0	3335	3341	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	5%	0%	2%	3%	2%	3%	4%	5%	8%	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)	45	747	417	38	906	259	236	1028	0	472	548	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	31.0	45.0	19.0	33.0	47.0	15.0	15.0	53.0		19.0	57.0	
Total Split (%)	20.7%	30.0%	12.7%	22.0%	31.3%	10.0%	10.0%	35.3%		12.7%	38.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	9.2	36.9	80.4	8.6	36.4	60.9	18.0	46.6		37.0	65.6	
Actuated g/C Ratio	0.06	0.25	0.54	0.06	0.24	0.41	0.12	0.31		0.25	0.44	
v/c Ratio	0.42	0.83	0.51	0.37	0.70	0.41	0.57	0.95		0.57	0.38	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	78.4	62.0	25.9	77.2	54.6	33.0	68.1	67.8		67.9	26.7	
Queue Delay	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	78.4	62.0	26.1	77.2	54.6	33.0	68.1	67.8		67.9	26.7	
LOS	E	E	C	E	D	C	E	E		E	C	
Approach Delay		50.2			50.6			67.9			45.8	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	43	366	261	37	298	179	114	519		242	132	
Queue Length 95th (ft)	85	417	380	76	328	234	159	#657		#329	349	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	306	970	824	336	1464	636	412	1084		821	1460	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	55	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.77	0.54	0.11	0.62	0.41	0.57	0.95		0.57	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 127 (85%), Referenced to phase 2:NWT and 6:SET, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 54.1		Intersection LOS: D	
Intersection Capacity Utilization 81.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)

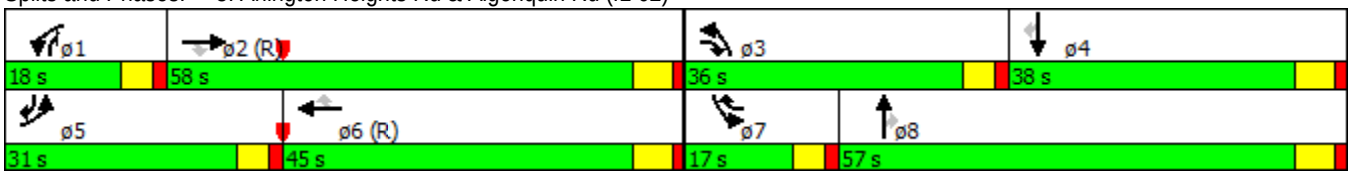


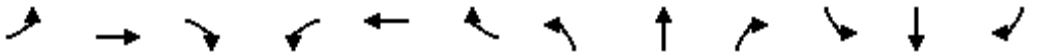
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	746	433	397	647	124	704	1042	440	214	1324	126
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	5151	1583	3183	5009	1468	3400	5200	1524	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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%	6%	2%	10%	9%	10%	3%	5%	6%	5%	2%	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)	49	794	461	422	688	132	749	1109	468	228	1409	134
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	31.0	58.0	36.0	18.0	45.0	17.0	36.0	57.0	18.0	17.0	38.0	31.0
Total Split (%)	20.7%	38.7%	24.0%	12.0%	30.0%	11.3%	24.0%	38.0%	12.0%	11.3%	25.3%	20.7%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	7.6	52.0	89.0	13.0	57.4	75.4	31.0	51.0	70.0	12.0	32.0	45.6
Actuated g/C Ratio	0.05	0.35	0.59	0.09	0.38	0.50	0.21	0.34	0.47	0.08	0.21	0.30
v/c Ratio	0.29	0.44	0.49	1.53	0.36	0.18	1.07	0.63	0.66	0.86	1.23	0.28

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	60.9	34.6	42.1	300.8	34.0	21.5	108.6	43.5	36.3	95.9	161.3	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	34.6	42.1	300.8	34.0	21.5	108.6	43.5	36.3	95.9	161.3	41.3
LOS	E	C	D	F	C	C	F	D	D	F	F	D
Approach Delay		38.2			123.3			63.0			143.8	
Approach LOS		D			F			E			F	
Queue Length 50th (ft)	22	279	455	~296	175	69	~415	333	347	115	~622	100
Queue Length 95th (ft)	m40	253	578	#408	217	115	#545	384	479	#189	#720	157
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	583	1785	939	275	1916	737	702	1768	711	266	1141	675
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.44	0.49	1.53	0.36	0.18	1.07	0.63	0.66	0.86	1.23	0.20

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.53			
Intersection Signal Delay: 91.0		Intersection LOS: F	
Intersection Capacity Utilization 87.7%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	1102	151	104	1144	59	0	0	28	0	0	68
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	20	1148	157	108	1192	61	0	0	29	0	0	71
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.86						0.86	0.86		0.86	0.86	0.86
vC, conflicting volume	1253			1305			1951	2736	461	1890	2784	428
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	704			1305			1520	2438	461	1449	2494	0
tC, single (s)	4.1			4.1			8.1	6.5	7.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.8	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			79			100	100	94	100	100	92
cM capacity (veh/h)	772			526			41	21	523	62	20	933

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	20	459	459	387	108	477	477	300	29	71
Volume Left	20	0	0	0	108	0	0	0	0	0
Volume Right	0	0	0	157	0	0	0	61	29	71
cSH	772	1700	1700	1700	526	1700	1700	1700	523	933
Volume to Capacity	0.03	0.27	0.27	0.23	0.21	0.28	0.28	0.18	0.06	0.08
Queue Length 95th (ft)	2	0	0	0	19	0	0	0	4	6
Control Delay (s)	9.8	0.0	0.0	0.0	13.6	0.0	0.0	0.0	12.3	9.2
Lane LOS	A				B				B	A
Approach Delay (s)	0.1				1.1				12.3	9.2
Approach LOS									B	A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	4	1370	1155	5	0	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	4	1473	1242	5	0	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.79	
vC, conflicting volume	1247				1990	624
vC1, stage 1 conf vol					1245	
vC2, stage 2 conf vol					745	
vCu, unblocked vol	1247				1721	624
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	99
cM capacity (veh/h)	565				223	433

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	495	982	828	419	3
Volume Left	4	0	0	0	0
Volume Right	0	0	0	5	3
cSH	565	1700	1700	1700	433
Volume to Capacity	0.01	0.58	0.49	0.25	0.01
Queue Length 95th (ft)	1	0	0	0	1
Control Delay (s)	0.2	0.0	0.0	0.0	13.4
Lane LOS	A				B
Approach Delay (s)	0.1		0.0		13.4
Approach LOS					B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	1342	30	45	1159	1	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1413	32	47	1220	1	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	550					
pX, platoon unblocked			0.79		0.79	0.79
vC, conflicting volume			1444		2133	722
vC1, stage 1 conf vol					1428	
vC2, stage 2 conf vol					705	
vCu, unblocked vol			1027		1901	111
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		99	99
cM capacity (veh/h)			530		209	726

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	NW 3	NE 1
Volume Total	942	502	47	610	610	8
Volume Left	0	0	47	0	0	1
Volume Right	0	32	0	0	0	7
cSH	1700	1700	530	1700	1700	554
Volume to Capacity	0.55	0.30	0.09	0.36	0.36	0.02
Queue Length 95th (ft)	0	0	7	0	0	1
Control Delay (s)	0.0	0.0	12.5	0.0	0.0	11.6
Lane LOS			B			B
Approach Delay (s)	0.0		0.5			11.6
Approach LOS						B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	7	92	8	18	281
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	7	97	8	19	296
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						374
pX, platoon unblocked	0.99					
vC, conflicting volume	435	101			105	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	423	101			105	
tC, single (s)	7.4	7.2			5.1	
tC, 2 stage (s)						
tF (s)	4.4	4.2			3.1	
p0 queue free %	100	99			98	
cM capacity (veh/h)	427	742			1046	

Direction, Lane #	NW 1	NE 1	SW 1	SW 2
Volume Total	7	105	19	296
Volume Left	0	0	19	0
Volume Right	7	8	0	0
cSH	742	1700	1046	1700
Volume to Capacity	0.01	0.06	0.02	0.17
Queue Length 95th (ft)	1	0	1	0
Control Delay (s)	9.9	0.0	8.5	0.0
Lane LOS	A		A	
Approach Delay (s)	9.9	0.0	0.5	
Approach LOS	A			

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	18	73	26	0	299
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	19	77	27	0	315
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						194
pX, platoon unblocked	0.97					
vC, conflicting volume	405	91			104	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	373	91			104	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	98			100	
cM capacity (veh/h)	610	967			1487	

Direction, Lane #	NW 1	NE 1	SW 1
Volume Total	19	104	315
Volume Left	0	0	0
Volume Right	19	27	0
cSH	967	1700	1700
Volume to Capacity	0.02	0.06	0.19
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.8	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.8	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	31	1252	54	102	1264	38	175	5	272	7	1	14
Ideal Flow (vphpl)	1900	2000	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)	85		140	275		0	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	130			185			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996				0.850		0.912	
Flt Protected	0.950			0.950			0.950	0.955			0.985	
Satd. Flow (prot)	1805	3725	1538	1719	3524	0	1633	1646	1538	0	1637	0
Flt Permitted	0.160			0.160			0.950	0.955			0.985	
Satd. Flow (perm)	304	3725	1538	290	3524	0	1633	1646	1538	0	1637	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									219		15	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			361			183			250	
Travel Time (s)		15.5			7.0			6.2			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	5%	5%	2%	3%	5%	0%	5%	14%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	33	1318	57	107	1371	0	94	95	286	0	23	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2					4			
Detector Phase	1	6	4	5	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	22.0	22.0	8.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	13.0	100.0	19.0	18.0	105.0		19.0	19.0	19.0	13.0	13.0	
Total Split (%)	8.7%	66.7%	12.7%	12.0%	70.0%		12.7%	12.7%	12.7%	8.7%	8.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0	6.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None	None	None	C-Max		None	None	None	None	None	
Act Effct Green (s)	115.7	107.1	125.2	119.3	110.4		12.2	12.2	12.2		6.2	
Actuated g/C Ratio	0.77	0.71	0.83	0.80	0.74		0.08	0.08	0.08		0.04	
v/c Ratio	0.11	0.50	0.04	0.35	0.53		0.71	0.71	0.88		0.28	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay	6.6	17.9	6.3	9.8	12.6		94.1	94.3	43.2		45.9	
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	6.6	18.3	6.3	9.8	12.6		94.1	94.3	43.2		45.9	
LOS	A	B	A	A	B		F	F	D		D	
Approach Delay		17.5			12.4			63.5			45.9	
Approach LOS		B			B			E			D	
Queue Length 50th (ft)	13	417	19	22	338		93	94	58		8	
Queue Length 95th (ft)	m17	461	m32	m53	382		m#173	m#176	m#215		40	
Internal Link Dist (ft)		714			281			103			170	
Turn Bay Length (ft)	85		140	275								
Base Capacity (vph)	336	2659	1292	371	2593		141	142	333		90	
Starvation Cap Reductn	0	682	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.10	0.67	0.04	0.29	0.53		0.67	0.67	0.86		0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 59 (39%), Referenced to phase 2:NWTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 68.1%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

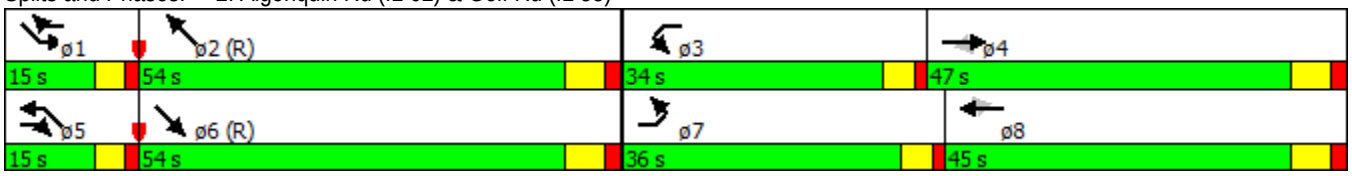
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	89	1023	559	50	985	311	362	693	58	486	903	77
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	270		115	420		0	335		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	185			105			240			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.988			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3471	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1770	5406	1599	3433	3497	0	3467	3471	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		707			953			921			794	
Travel Time (s)		12.1			16.2			17.9			15.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	2%	1%	1%	2%	2%	2%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	1044	570	51	1005	317	369	766	0	496	1000	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4	5	3	8	1	1	6		5	2	
Permitted Phases			4			8						
Detector Phase	7	4	5	3	8	1	1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5		9.0	22.5	
Total Split (s)	36.0	47.0	15.0	34.0	45.0	15.0	15.0	54.0		15.0	54.0	
Total Split (%)	24.0%	31.3%	10.0%	22.7%	30.0%	10.0%	10.0%	36.0%		10.0%	36.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	13.0	52.7	78.5	9.7	47.2	73.0	19.3	47.5		19.3	47.5	
Actuated g/C Ratio	0.09	0.35	0.52	0.06	0.31	0.49	0.13	0.32		0.13	0.32	
v/c Ratio	0.59	0.79	0.69	0.45	0.59	0.41	0.83	0.69		1.11	0.91	

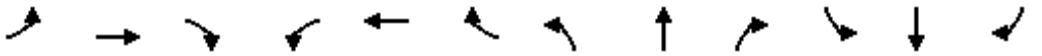
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Control Delay	80.6	48.8	33.4	78.9	44.6	27.4	79.4	48.8		137.1	57.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.6	48.8	33.4	78.9	44.6	27.4	79.4	48.8		137.1	57.0	
LOS	F	D	C	E	D	C	E	D		F	E	
Approach Delay		45.3			41.9			58.7			83.6	
Approach LOS		D			D			E			F	
Queue Length 50th (ft)	87	486	419	49	300	195	186	345		~294	546	
Queue Length 95th (ft)	144	548	602	94	337	295	#373	421		#512	#635	
Internal Link Dist (ft)		627			873			841			714	
Turn Bay Length (ft)	220			270		115	420			335		
Base Capacity (vph)	369	1320	828	342	1700	778	442	1107		446	1099	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.25	0.79	0.69	0.15	0.59	0.41	0.83	0.69		1.11	0.91	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 57.2 Intersection LOS: E
Intersection Capacity Utilization 87.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Algonquin Rd (IL 62) & Golf Rd (IL 58)





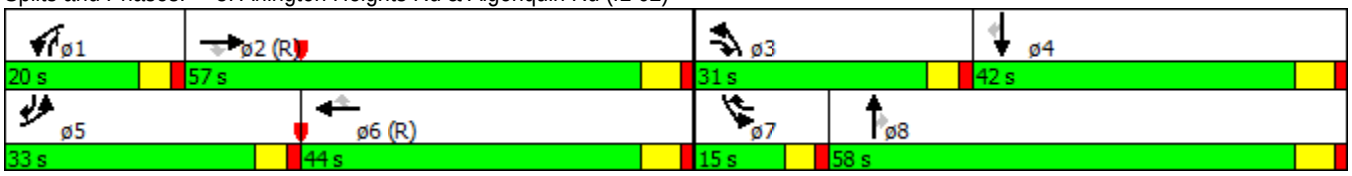
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	884	716	606	876	210	475	1565	461	180	1363	83
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	115		400	360		210	335		385	270		270
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	240			205			290			260		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	5301	1599	3400	5353	1583	3467	5406	1568	3335	5353	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1230			1043			925			1183	
Travel Time (s)		24.0			20.3			18.0			23.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	3%	1%	3%	2%	2%	1%	1%	3%	5%	2%	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)	148	921	746	631	912	219	495	1630	480	188	1420	86
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0	9.0	22.5	9.0
Total Split (s)	33.0	57.0	31.0	20.0	44.0	15.0	31.0	58.0	20.0	15.0	42.0	33.0
Total Split (%)	22.0%	38.0%	20.7%	13.3%	29.3%	10.0%	20.7%	38.7%	13.3%	10.0%	28.0%	22.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	None	Max	None
Act Effct Green (s)	11.8	51.0	82.2	15.0	54.2	70.2	25.2	52.0	73.0	10.0	36.8	54.6
Actuated g/C Ratio	0.08	0.34	0.55	0.10	0.36	0.47	0.17	0.35	0.49	0.07	0.25	0.36
v/c Ratio	0.55	0.51	0.85	1.86	0.47	0.30	0.85	0.87	0.63	0.85	1.08	0.15

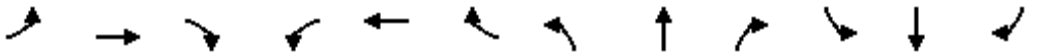
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	66.5	57.5	37.8	430.8	38.2	26.5	75.2	52.0	33.1	99.7	101.9	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	57.5	37.8	430.8	38.2	26.5	75.2	52.0	33.1	99.7	101.9	32.7
LOS	E	E	D	F	D	C	E	D	C	F	F	C
Approach Delay		50.1			177.3			52.9			98.1	
Approach LOS		D			F			D			F	
Queue Length 50th (ft)	75	329	427	~481	251	130	243	546	341	95	~577	57
Queue Length 95th (ft)	m106	376	601	#606	305	201	#314	610	468	#163	#675	96
Internal Link Dist (ft)		1150			963			845			1103	
Turn Bay Length (ft)	115		400	360		210	335		385	270		270
Base Capacity (vph)	647	1802	884	340	1935	741	600	1874	763	222	1314	747
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.51	0.84	1.86	0.47	0.30	0.82	0.87	0.63	0.85	1.08	0.12

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 77 (51%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.86
Intersection Signal Delay: 89.8 Intersection LOS: F
Intersection Capacity Utilization 100.0% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Arlington Heights Rd & Algonquin Rd (IL 62)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	1571	122	55	1366	41	0	0	129	0	0	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	9	1671	130	59	1453	44	0	0	137	0	0	35
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					707							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1497			1801			2390	3367	622	2303	3410	506
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	960			1801			2012	3164	622	1911	3215	0
tC, single (s)	4.1			4.1			7.7	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			83			100	100	68	100	100	96
cM capacity (veh/h)	615			338			22	7	430	21	7	925

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	9	669	669	464	59	581	581	334	137	35
Volume Left	9	0	0	0	59	0	0	0	0	0
Volume Right	0	0	0	130	0	0	0	44	137	35
cSH	615	1700	1700	1700	338	1700	1700	1700	430	925
Volume to Capacity	0.01	0.39	0.39	0.27	0.17	0.34	0.34	0.20	0.32	0.04
Queue Length 95th (ft)	1	0	0	0	15	0	0	0	34	3
Control Delay (s)	10.9	0.0	0.0	0.0	17.8	0.0	0.0	0.0	17.3	9.0
Lane LOS	B				C				C	A
Approach Delay (s)	0.1				0.7				17.3	9.0
Approach LOS									C	A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Volume (veh/h)	7	1524	1388	9	7	16
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	8	1675	1525	10	8	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)		361				
pX, platoon unblocked					0.83	
vC, conflicting volume	1535				2383	768
vC1, stage 1 conf vol					1530	
vC2, stage 2 conf vol					853	
vCu, unblocked vol	1535				2254	768
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				95	95
cM capacity (veh/h)	439				156	349

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	566	1116	1017	518	25
Volume Left	8	0	0	0	8
Volume Right	0	0	0	10	18
cSH	439	1700	1700	1700	254
Volume to Capacity	0.02	0.66	0.60	0.30	0.10
Queue Length 95th (ft)	1	0	0	0	8
Control Delay (s)	0.5	0.0	0.0	0.0	20.8
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		20.8
Approach LOS					C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	1524	7	13	1393	4	23
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1604	7	14	1466	4	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	550					
pX, platoon unblocked			0.83		0.83	0.83
vC, conflicting volume			1612		2368	806
vC1, stage 1 conf vol					1608	
vC2, stage 2 conf vol					761	
vCu, unblocked vol			1324		2237	351
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	95
cM capacity (veh/h)			429		159	535

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	NW 3	NE 1
Volume Total	1069	542	14	733	733	28
Volume Left	0	0	14	0	0	4
Volume Right	0	7	0	0	0	24
cSH	1700	1700	429	1700	1700	396
Volume to Capacity	0.63	0.32	0.03	0.43	0.43	0.07
Queue Length 95th (ft)	0	0	2	0	0	6
Control Delay (s)	0.0	0.0	13.7	0.0	0.0	14.8
Lane LOS			B			B
Approach Delay (s)	0.0		0.1			14.8
Approach LOS						B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	19	389	1	5	152
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	21	423	1	5	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						380
pX, platoon unblocked						
vC, conflicting volume	599	423			424	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	599	423			424	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	97			100	
cM capacity (veh/h)	462	631			1135	

Direction, Lane #	NW 1	NE 1	SW 1	SW 2
Volume Total	21	424	5	165
Volume Left	0	0	5	0
Volume Right	21	1	0	0
cSH	631	1700	1135	1700
Volume to Capacity	0.03	0.25	0.00	0.10
Queue Length 95th (ft)	3	0	0	0
Control Delay (s)	10.9	0.0	8.2	0.0
Lane LOS	B		A	
Approach Delay (s)	10.9	0.0	0.3	
Approach LOS	B			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (veh/h)	0	50	402	6	0	157
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	53	423	6	0	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						183
pX, platoon unblocked	0.99					
vC, conflicting volume	592	426			429	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	583	426			429	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			100	
cM capacity (veh/h)	470	628			1130	

Direction, Lane #	NW 1	NE 1	SW 1
Volume Total	53	429	165
Volume Left	0	0	0
Volume Right	53	6	0
cSH	628	1700	1700
Volume to Capacity	0.08	0.25	0.10
Queue Length 95th (ft)	7	0	0
Control Delay (s)	11.3	0.0	0.0
Lane LOS	B		
Approach Delay (s)	11.3	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization		31.5%	ICU Level of Service A
Analysis Period (min)		15	