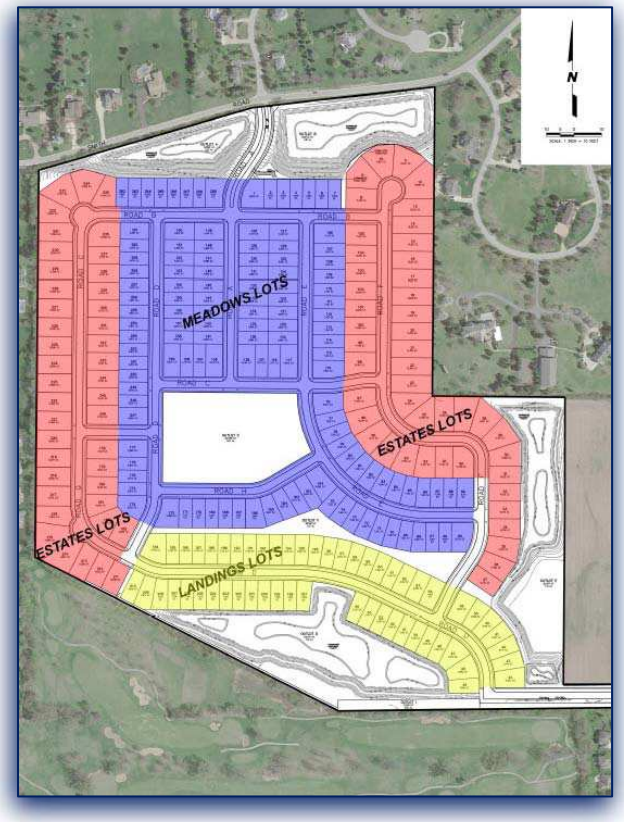
Traffic Impact Study
The Preserve at West Branch

West Chicago, Illinois



Prepared For:

PulteGroup®

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

November 3, 2021

Introduction

KLOA, Inc. conducted a traffic impact study for a proposed residential development to be located in West Chicago, Illinois. The site is located on the south side of Smith Road between IL 59 and Klein Road. The plans for the 111-acre site call for a residential subdivision with 269 single-family homes. Access to the subject site is proposed from a full access roadway off Smith Road opposite Trinity Lane and a full access roadway off Klein Road.

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

This report presents the following information.

- Existing roadway conditions including vehicle, pedestrian, and bicycle traffic volumes for the weekday morning and weekday evening peak hours
- Vehicle trip generation for the proposed development
- Directional distribution of development-generated traffic
- Regional growth in traffic and background development traffic for Year 2030 no-build conditions
- Future transportation conditions including access to and from the development

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

1. Existing Conditions – This condition analyzes the capacity of the existing roadway system using existing peak hour traffic volumes.

2. Year 2030 Base (No-Build) Traffic Conditions – Traffic was projected for design Year 2030 base (no-build) conditions, which includes the existing weekday morning and weekday afternoon peak hour traffic volumes increased by a regional growth factor, as provided by the Chicago Metropolitan Area for Planning (CMAP).

3. Year 2030 Total Traffic Conditions – Traffic for this condition includes the Year 2030 Base volumes and the traffic estimated to be generated by the proposed development.

Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

Site Location

The site for the planned residential development is located on the south side of Smith Road between IL 59 and Klein Road. Land uses in the vicinity of the site are primarily residential in all directions and include The Smythe Settlement subdivision to the north, the St. Andrews Trace subdivision to the east, the St. Andrews Golf Course and the Meadow Woods subdivision to the south, and the St. Andrews Hills subdivision to the west.

Figure 1 shows the location of the site in relation to the area roadway system.

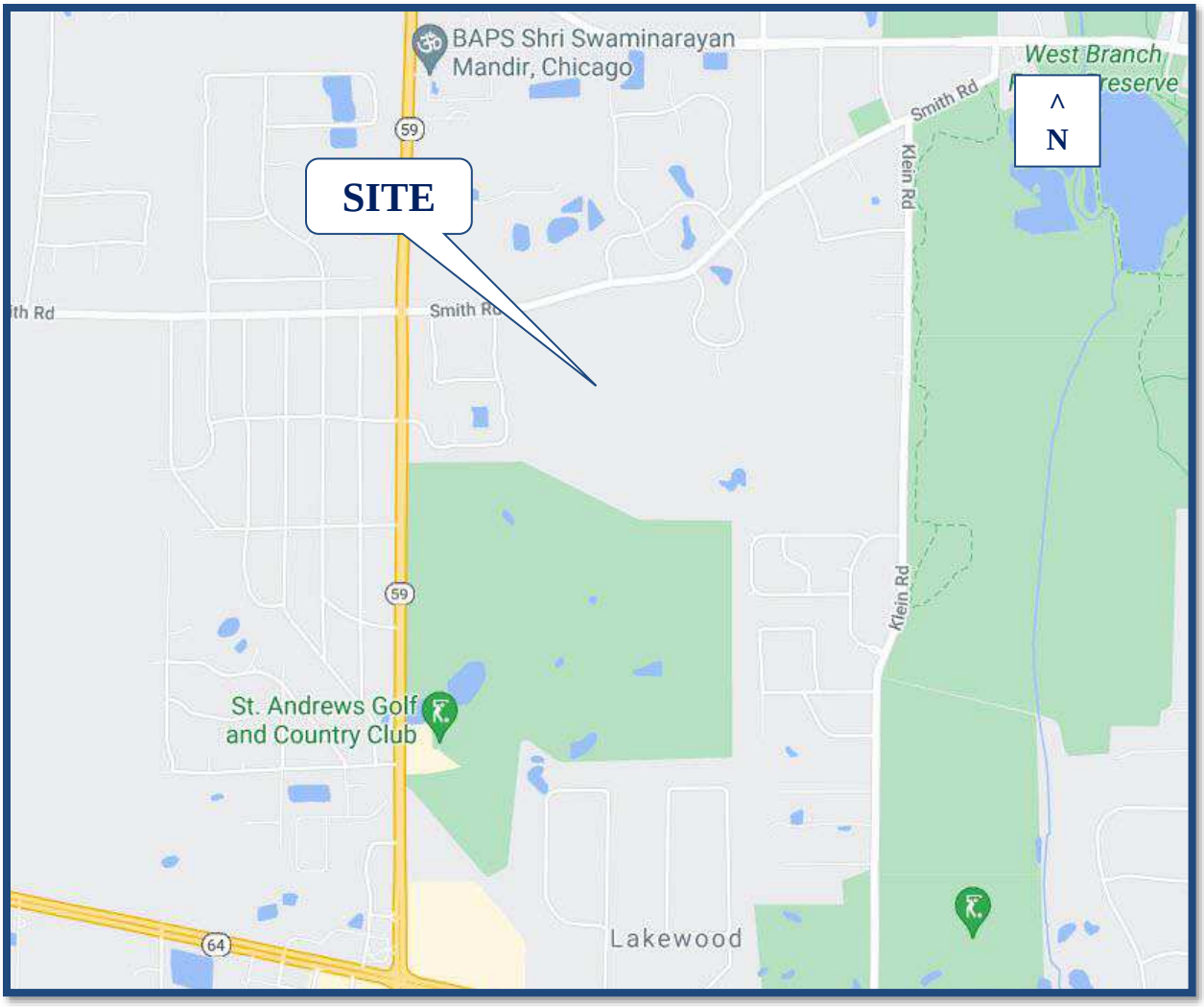
Figure 2 shows the conceptual site plan.

Existing Roadway System Characteristics

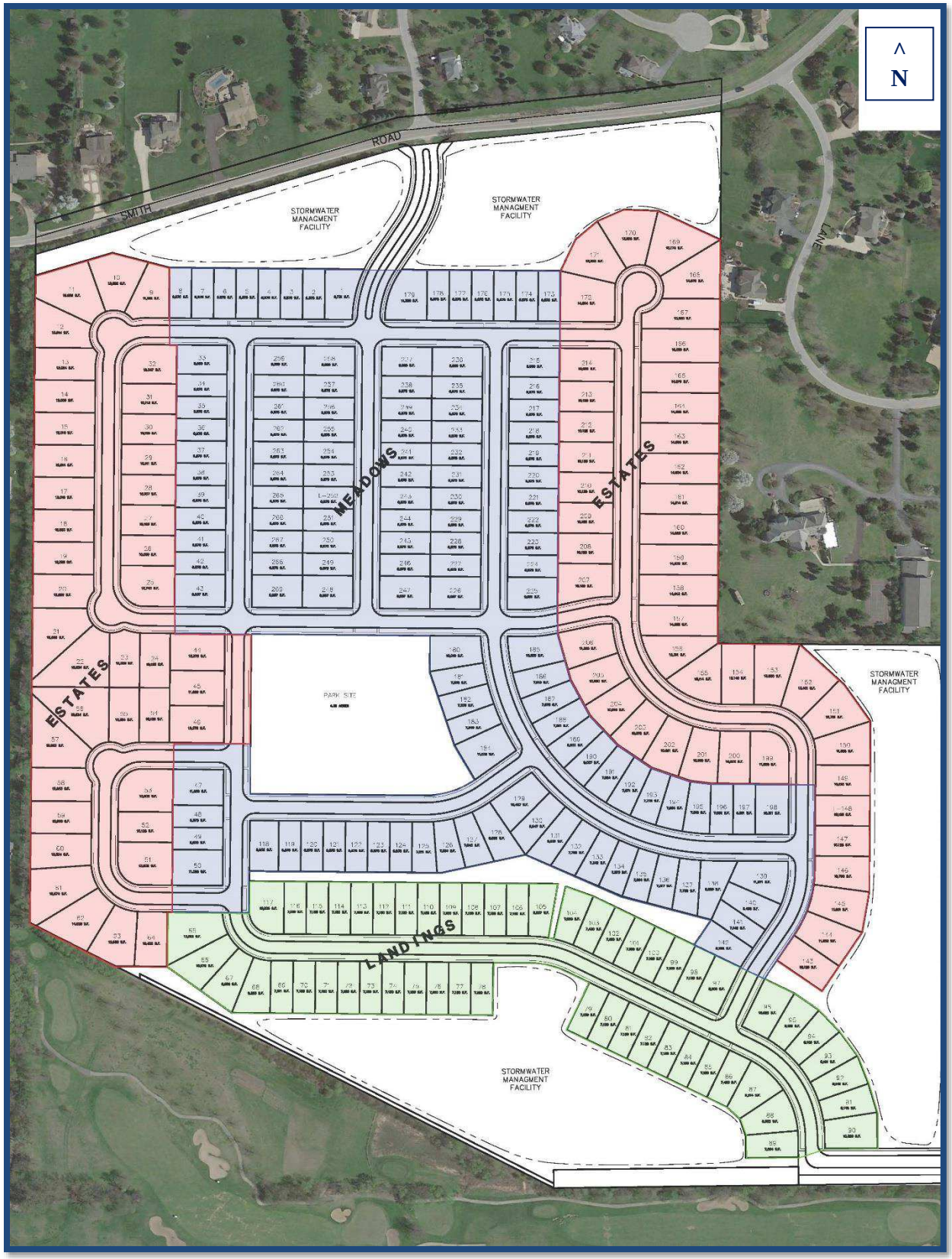
The characteristics of the roadways that surround the proposed development are illustrated in **Figure 3** and described below.

IL Route 59 is a north-south other principal arterial that generally provides two lanes in each direction divided by a mountable median. At its signalized intersection with Smith Road, IL 59 provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. IL 59 is under the jurisdiction of the Illinois Department of Transportation (IDOT), has a posted speed limit of 45 mph, is classified as a Strategic Regional Arterial (SRA), and carries an annual average daily traffic volume (AADT) of 33,000 vehicles north of Smith Road (IDOT 2019) and an AADT volume of 34,300 south of Smith Road (IDOT 2019).

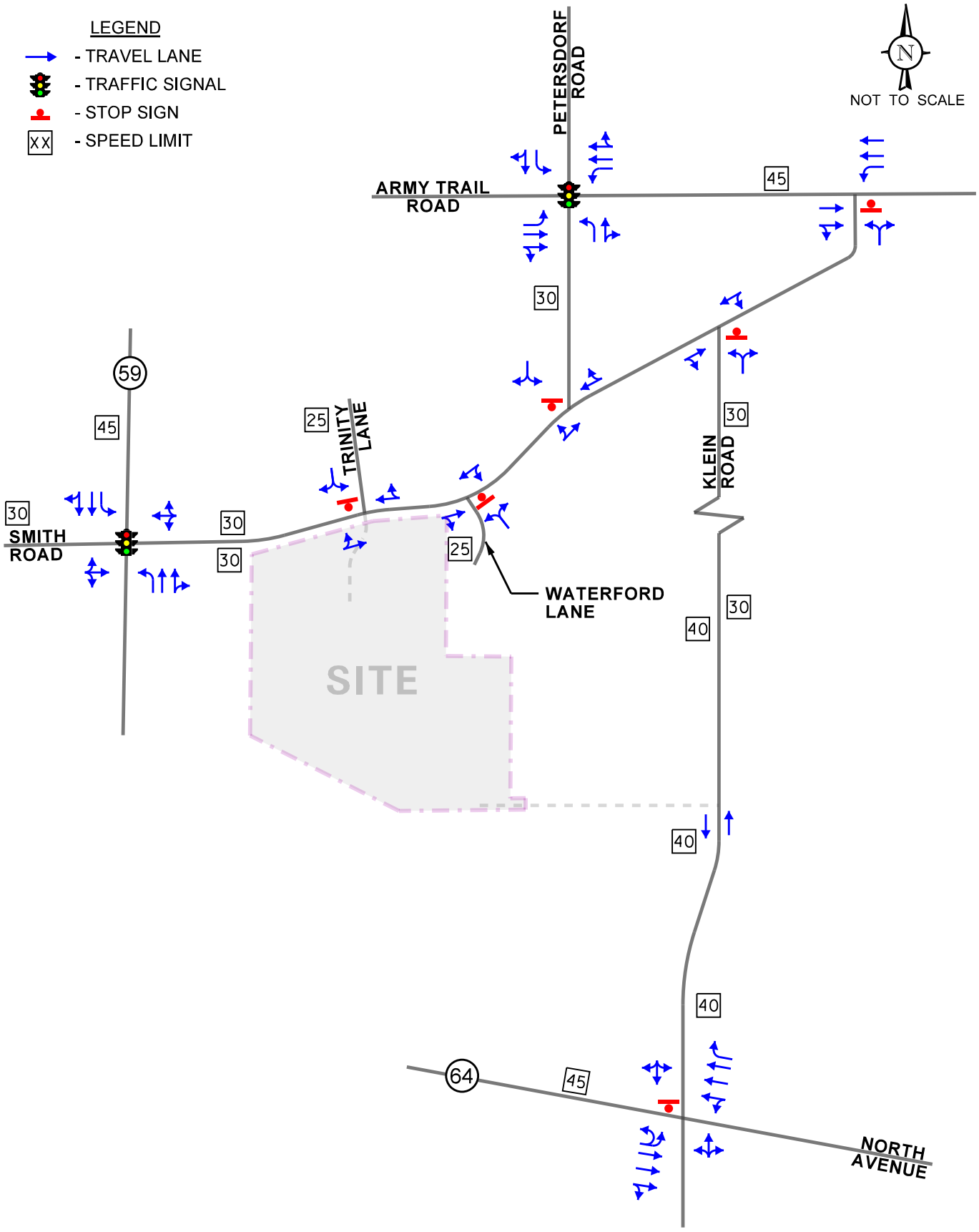
Army Trail Road is an east-west other principal arterial that generally provides two lanes in each direction. At its signalized intersection with Petersdorf Road, Army Trail Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. At its unsignalized intersection with Smith Road, Army Trail Road provides an exclusive left-turn lane and two through lanes on the westbound approach. The eastbound approach provides one through lane and one shared through/right-turn lane. Army Trail Road has a posted speed limit of 45 mph, carries an AADT volume of 9,500 vehicles (IDOT 2020), and is under the jurisdiction of the DuPage County Division of Transportation (DuDOT).



Site Location **Figure 1**



Conceptual Plan On Aerial **Figure 2**



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Existing Roadway Characteristics

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Petersdorf Road is a north-south minor collector roadway that provides one lane in each direction. At its signalized intersection with Army Trail Road, Petersdorf Road provides an exclusive left-turn lane and a shared through/right-turn lane on both approaches. At its unsignalized intersection with Smith Road, Petersdorf Road provides a shared left/right-turn lane under stop sign control. Petersdorf Road has a posted speed limit of 30 mph and carries an AADT of approximately 900 vehicles.

Smith Road is an east-west minor collector roadway that provides one lane in each direction. No exclusive turn lanes are provided at its unsignalized intersections with Trinity Lane, Waterford Lane, Petersdorf Road, or Klein Road. At its signalized intersection with IL 59, Smith Road flares up slightly to provide a shared left/through lane and enough room for one to two right-turning vehicles. At its unsignalized intersection with Army Trail Road, Smith Road provides a shared left/right-turn lane under stop sign control. Smith Road carries an AADT volume of 1,850 vehicles (IDOT 2020) east of IL 59 increasing to 3,500 vehicles west of IL 59. Smith Road has a posted speed limit of 30 mph and is under the jurisdiction of the City of West Chicago along the site's frontage and under the jurisdiction of Wayne Township to the east and west.

Klein Road south of Smith Road is a north-south minor collector roadway that provides one lane in each direction. At its T-intersection with Smith Road, Klein Road provides a shared left/right-turn lane under stop sign control. At its unsignalized intersection with North Avenue (IL 64), Klein Road provides a shared left/through/right-turn lane on the southbound approach. However, it is wide enough that it operates as a shared left/through lane and an exclusive right-turn lane. The northbound approach is an access drive for Midwest Power Automotive Repair and although not striped as such, the access drive is wide enough that it operates as a shared left/through lane and an exclusive right-turn lane. Klein Road south of Smith Road carries an AADT volume of 1,350 vehicles (IDOT 2020). Klein Road has a posted speed limit of 30 mph south of Smith Road increasing to 40 mph approximately 2,800 feet south of Smith Road and is under the jurisdiction of the City of West Chicago along the site's frontage and under the jurisdiction of Wayne Township to the north and south.

North Avenue (IL 64) is an east-west other principal arterial that in the vicinity of the site provides three through lanes in each direction divided by a raised landscaped median. At its unsignalized intersection with Klein Road, North Avenue provides an exclusive left-turn lane, two through lanes and a shared through/right-turn lane on the eastbound approach. The westbound approach provides a shared through/left-turn lane, two through lanes and an exclusive right-turn lane. North Avenue carries an AADT volume of 34,300 vehicles (IDOT 2019) west of Klein Road increasing to 37,400 vehicles east of Klein Road. North Avenue has a posted speed limit of 45 mph, is designated as an SRA route, and is under IDOT's jurisdiction.

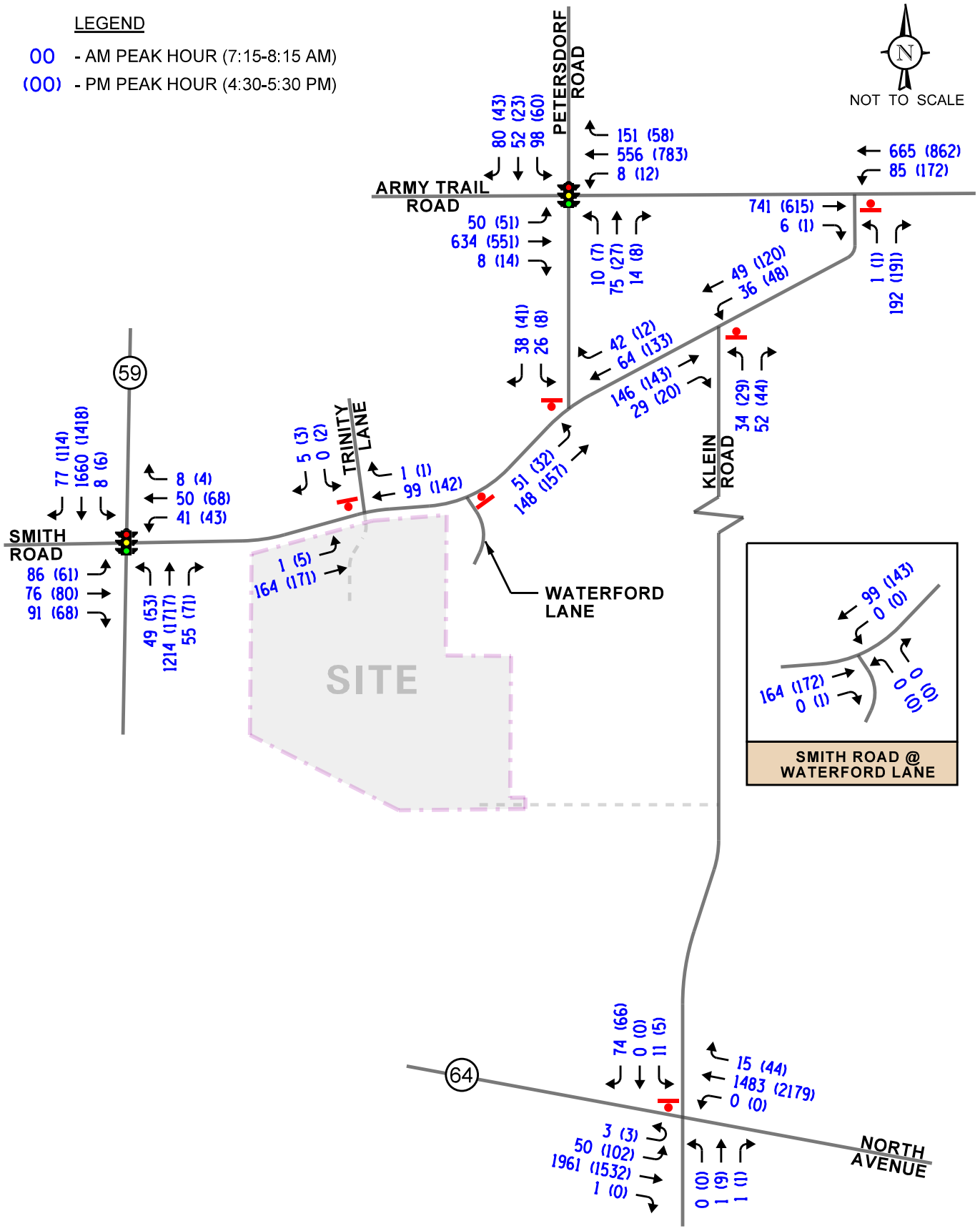
Trinity Lane and Waterford Lane are north-south two-lane residential roads with a posted speed limit of 25 mph. No exclusive turn lanes are provided at their intersections with Smith Road.

Existing Traffic Volumes

Turning movement vehicle, pedestrian, and bicycle traffic counts were conducted during the weekday morning (7:00 to 9:00 A.M.) and the evening (4:00 to 6:00 P.M.) peak periods on Monday, June 28, 2021 at the following eight intersections:

1. IL 59 and Smith Road (signalized)
2. Army Trail Road and Petersdorf Road (signalized)
3. Smith Road and Trinity Lane (stop sign)
4. Smith Road and Waterford Lane (stop sign)
5. Smith Road and Petersdorf Road (stop sign)
6. Smith Road and Klein Road (stop sign)
7. Army Trail Road and Smith Road (stop sign)
8. North Avenue and Klein Road (stop sign)

The results of the traffic counts show that the peak hours of traffic on the main intersections generally occur between 7:15 A.M. and 8:15 A.M. during the weekday morning peak period and between 4:30 P.M. and 5:30 P.M. during the weekday evening peak period. It should be noted that although the Covid 19 restrictions had already been lifted when the counts were conducted, based on a comparison with IDOT's two-way Year 2019 traffic counts on IL 59, the traffic volumes in the area generally do not reflect normal or typical conditions. As such, the 2021 traffic volumes were increased by approximately 40 percent during the morning peak hour and approximately 20 percent during the evening peak hour. In addition, given that the Bartlett High School was not in session when the counts were conducted, the traffic volumes were adjusted to reflect the school traffic based on the student population (approximately 2,400 students) and a review of the high school boundary map. The estimated trips to be generated by the High School were based on trip generation rates found in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition and assumed that approximately 25 percent of the trips generated during the peak hours would enter and exit the school via Petersdorf Road. **Figure A** in the Appendix shows the estimated site traffic assignment for the Bartlett High School. **Figure 4** illustrates the adjusted (base) existing peak hour vehicle traffic volumes. Copies of the traffic counts are located in the Appendix.



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Year 2021 Base Traffic Volumes

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Accident Data Analysis

KLOA, Inc. obtained currently available crash data[1] from IDOT for a five-year period (Years 2016 through 2020) for the intersections of Smith Road with IL 59, Trinity Lane, Waterford Lane, Petersdorf Road, Klein Road, and Army Trail Road and North Avenue with Klein Road. The crash data incidents are summarized by year and intersection in **Table 1**. As shown in Table 1, the intersections in the vicinity of the site have a low average accident frequency. Furthermore, there were no fatalities reported during the five-year period.

Table 1
ACCIDENT DATA SUMMARY

Intersection	Year						
	2016	2017	2018	2019	2020	Total	Avg./Year
IL 59/Smith Road	7	7	9	4	11	38	7.6
Smith Road/Trinity Lane	0	0	0	0	0	0	0
Smith Road/Waterford Lane	0	1	0	0	0	1	<1.0
Smith Road/Petersdorf Road	2	0	0	0	0	2	<1.0
Smith Road/Klein Road	2	0	1	0	1	4	<1.0
Army Trail Road/Smith Road	0	1	1	1	1	4	<1.0
North Avenue/Klein Road	3	2	3	2	3	13	2.6

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.

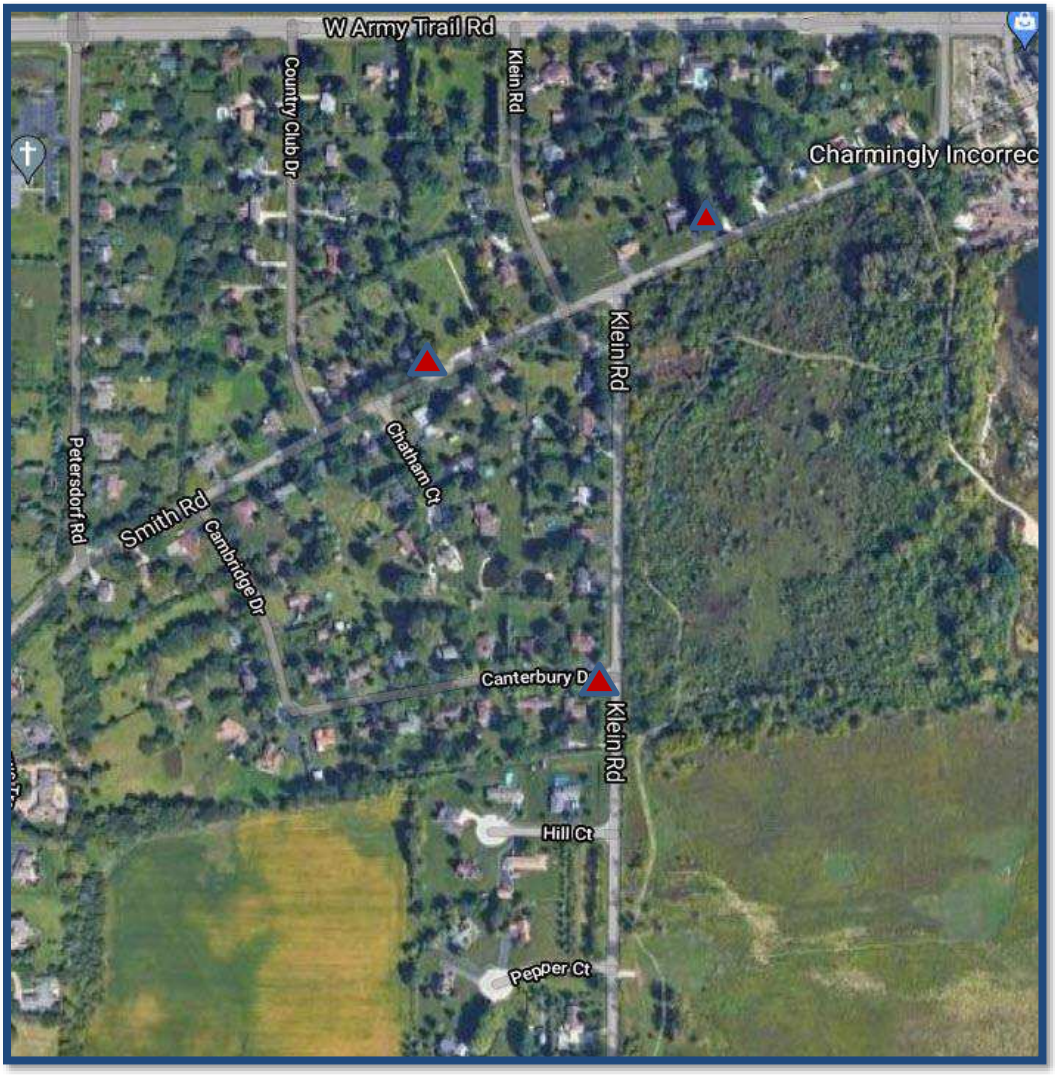
Adjacent Neighborhood Traffic Characteristics

In order to understand the traffic patterns and characteristics of the roadways that serve the neighborhoods to the west, east, and south of the site, daily traffic counts and speed data were collected at key mid-block locations. The data collected was evaluated to determine if there are any current issues related to cut-through traffic and speeding.

Daily Traffic Volumes and Speed Data

Automatic, 24-hour traffic counts were conducted on Thursday, June 17; Friday, June 18; and Saturday, June 19, 2021 at the following three mid-block locations (see map below):

- Klein Road south of Smith Road (approximately 1,200 feet south)
- Smith Road east of Klein Road (approximately 470 feet east of Klein Road's south leg)
- Smith Road west of Klein Road (approximately 400 feet west of Klein Road's north leg)



Location of Daily Traffic and Speed Collection Units

The travel speed data was summarized in two ways. First, the 85th percentile speed was calculated, which is the speed at which 85 percent of the motorists drive at or below and is the prevailing speed that is used to determine speed limits. Second, the average speed was calculated, which is the arithmetic mean of the speeds of all vehicles recorded. The differential between the 85th percentile speed and average speed is useful in addressing speeding issues. It is important to note that the 24-hour volumes were increased by 30 percent to reflect normal traffic conditions.

Tables 2 and **3** summarize the daily weekday and Saturday traffic volumes and speed for each of these roadway segments. A discussion of these findings follows.

Table 2
WEEKDAY DAILY TRAFFIC VOLUMES/SPEED DATA

	Klein Road South	Smith Road East	Smith Road West
24-Hour Average Traffic Volume	2,176	4,295	3,568
Average Speed (1)	35 mph	33 mph	34 mph
85th Percentile Speed (1)	42 mph	40 mph	40 mph
(1) Posted speed limit 30 mph			

Table 3
SATURDAY DAILY TRAFFIC VOLUMES/SPEED DATA

	Klein Road South	Smith Road East	Smith Road West
24-Hour Average Traffic Volume	1,929	3,663	3,170
Average Speed (1)	35 mph	33 mph	34 mph
85th Percentile Speed (1)	42 mph	40 mph	40 mph
(1) Posted speed limit 30 mph			

Klein Road South

- Klein Road south of Smith Road has the characteristics of a neighborhood collector street because it is continuous between a minor collector (Smith Road) and a principal arterial (North Avenue) and it provides access to other local streets that provide access to various neighborhoods along its stretch.

- Based on the *Residential Streets* publication, a neighborhood collector street carries an average daily traffic volume of 1,500 to 5,000 vehicles.

- The daily traffic volumes shown in Tables 2 and 3 are within this threshold.

- The posted speed limit is 30 mph at the location of the count recorder increasing to 40 mph approximately 1,300 feet further south. The data shows that the average speed is 35 mph while the 85th percentile speed is 42 mph, which indicates that a majority of the vehicles on Klein Road are travelling at speeds exceeding the posted speed limit.

    - Traffic calming measures such as a radar speed sign mounted below the posted speed limit should be considered.

Smith Road East and West of Klein Road

- Smith Road east and west of Klein Road has the characteristics of a neighborhood collector street because it is continuous between two principal arterials (Army Trail Road to the east and IL 59 to the west).

- Based on the *Residential Streets* publication, a neighborhood collector street carries an average daily traffic volume of 1,500 to 5,000 vehicles.

- The weekday daily traffic volume shown in Tables 2 and 3 are within this threshold.

- The posted speed limit is 30 mph. The collected data shows that the average speed east of Klein Road is 33 mph while the 85th percentile speed is 40 mph. The average speed west of Klein Road is 34 mph while the 85th percentile speed is 40 mph. This indicates that a majority of the vehicles on Smith Road are travelling at speeds exceeding the posted speed limit.

    - Traffic calming measures such as a radar speed sign mounted below the posted speed limit should be considered.

Traffic Characteristics of the 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 proposed development will generate during the weekday morning and weekday evening peak hours and then determine the directions from which the proposed traffic will approach and depart the site given the proposed access roadways that will serve the overall development.

Proposed Development Plan

The plans call for a residential subdivision with 269 single-family homes. Access to the subject site is proposed from a full access roadway off Smith Road opposite Trinity Lane and a full access roadway off Klein Road.

Vehicle Access

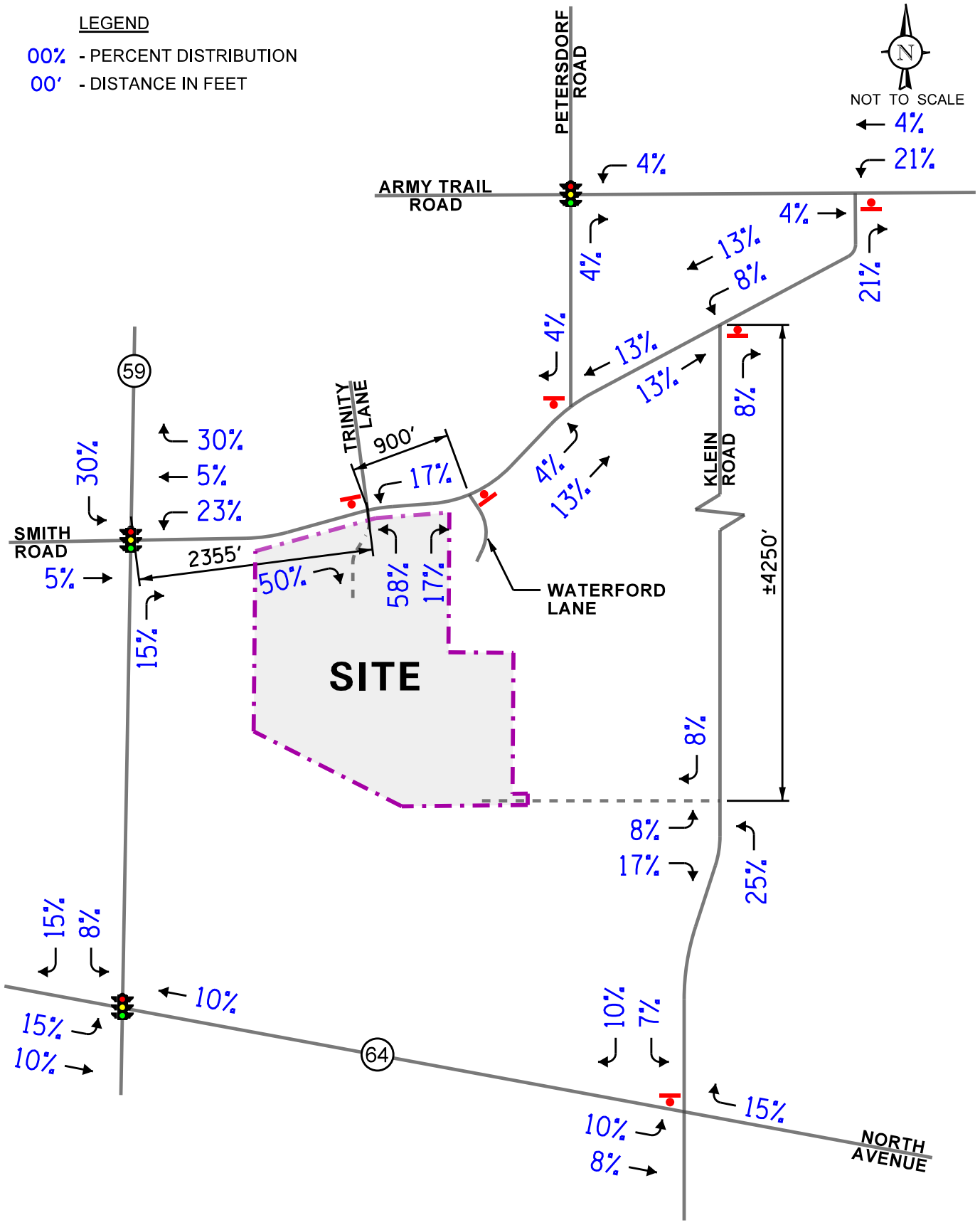
As previously indicated, access to the proposed development will be provided via two access points as described below:

Full Access Road and Smith Road. The access roadway will intersect Smith Road opposite Trinity Lane, becoming the fourth/south leg to this intersection. At its approach to Smith Road, the access roadway should provide one lane inbound and two lanes outbound under stop sign control. Roadway improvement recommendations for Smith Road at this proposed access roadway are detailed in the Discussion section of this report.

Full Access Road and Klein Road. The access road will intersect Klein Road approximately 250 feet north of Meadowlark Drive and should provide one inbound lane and one outbound lane under stop sign control. Roadway improvement recommendations for Klein Road at this proposed access roadway are detailed in the Discussion section of this report.

Directional Distribution of Development Traffic

The directional distribution of how traffic will approach and depart the site was estimated based on the general travel patterns through the study area derived from the peak hour traffic volumes. **Figure 5** shows the directional distribution established for this development.



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Estimated Directional Distribution

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Development Traffic Generation

The estimates of vehicle traffic to be generated by the development are based upon the proposed land use type and size, or number of units. The volume of traffic generated for the proposed development was estimated using data published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. Further, traffic counts of an existing active adult community were conducted.

Development Traffic Generation

The estimate of vehicle traffic to be generated by the proposed development is based upon the proposed land use types and sizes. The vehicle trip generation for the overall development was calculated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition.

Table 4 shows the estimated vehicle trip generation for the weekday morning and weekday evening peak hours and the daily trips. The ITE trip generation summary sheets are included in the Appendix.

Table 4
ESTIMATED PEAK HOUR VEHICLE TRIP GENERATION

ITE Land-Use Code (LUC)	Type/Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekday Daily	
		In	Out	In	Out	In	Out
210	Single-Family Homes (269 lots)	49	147	166	97	1,292	1,292

Projected Traffic Conditions

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

Development Traffic Assignment

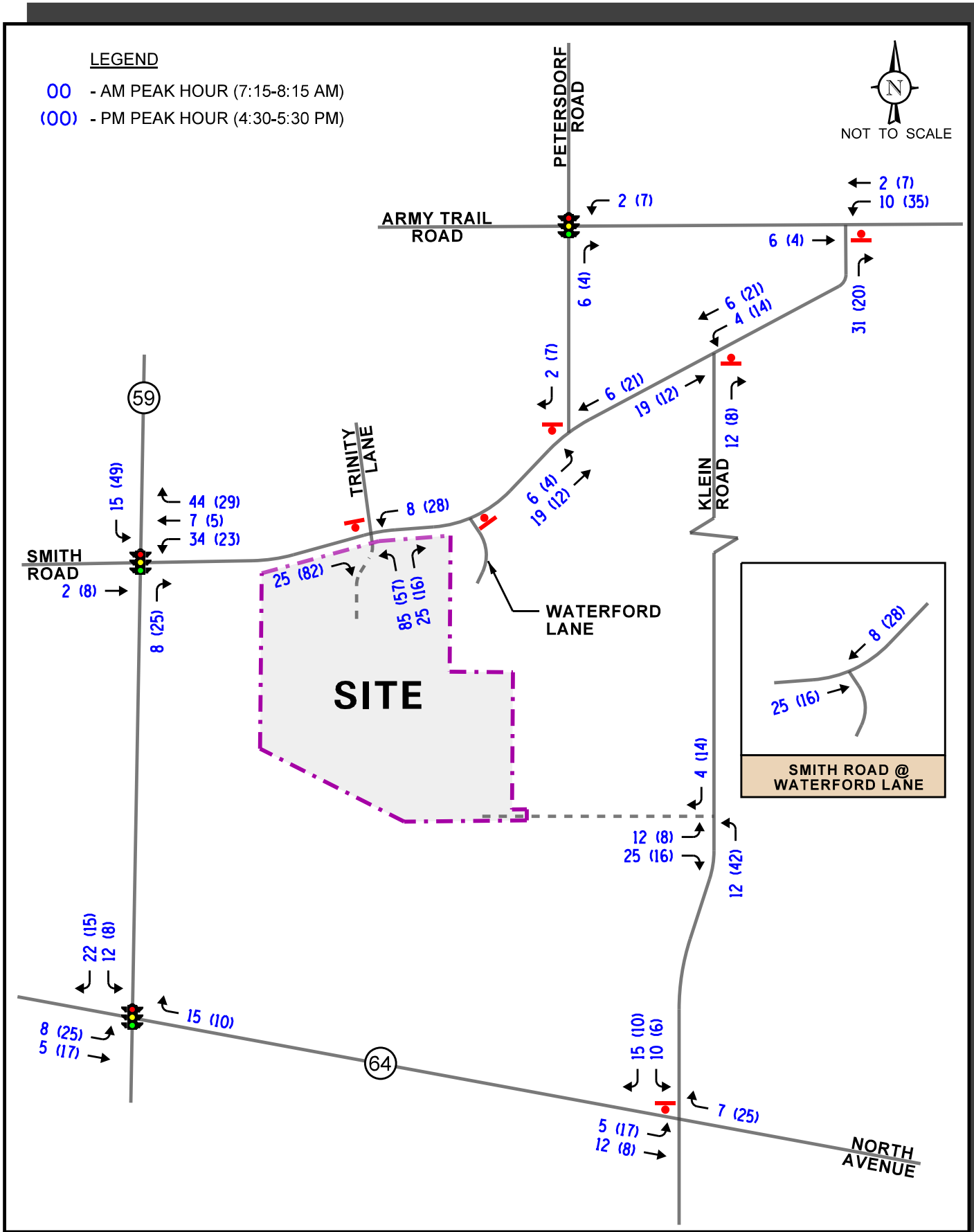
The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the site traffic assignment.

Year 2030 No-Build Traffic Conditions

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any planned development). Based on AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes are projected to increase by one percent per year. As such, traffic volumes were increased by nine percent total to represent Year 2030 no-build traffic conditions. A copy of the CMAP projections letter is included in the Appendix. **Figure 7** illustrates the Year 2030 no-build traffic volumes.

Year 2030 Total Projected Traffic Conditions

The new development-generated traffic (Figure 6) was added to the existing traffic volumes increased by the regional growth factor to determine the Year 2030 total projected traffic volumes. **Figure 8** illustrates the Year 2030 total projected traffic volumes.



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Estimated Site-Generated Traffic Volumes

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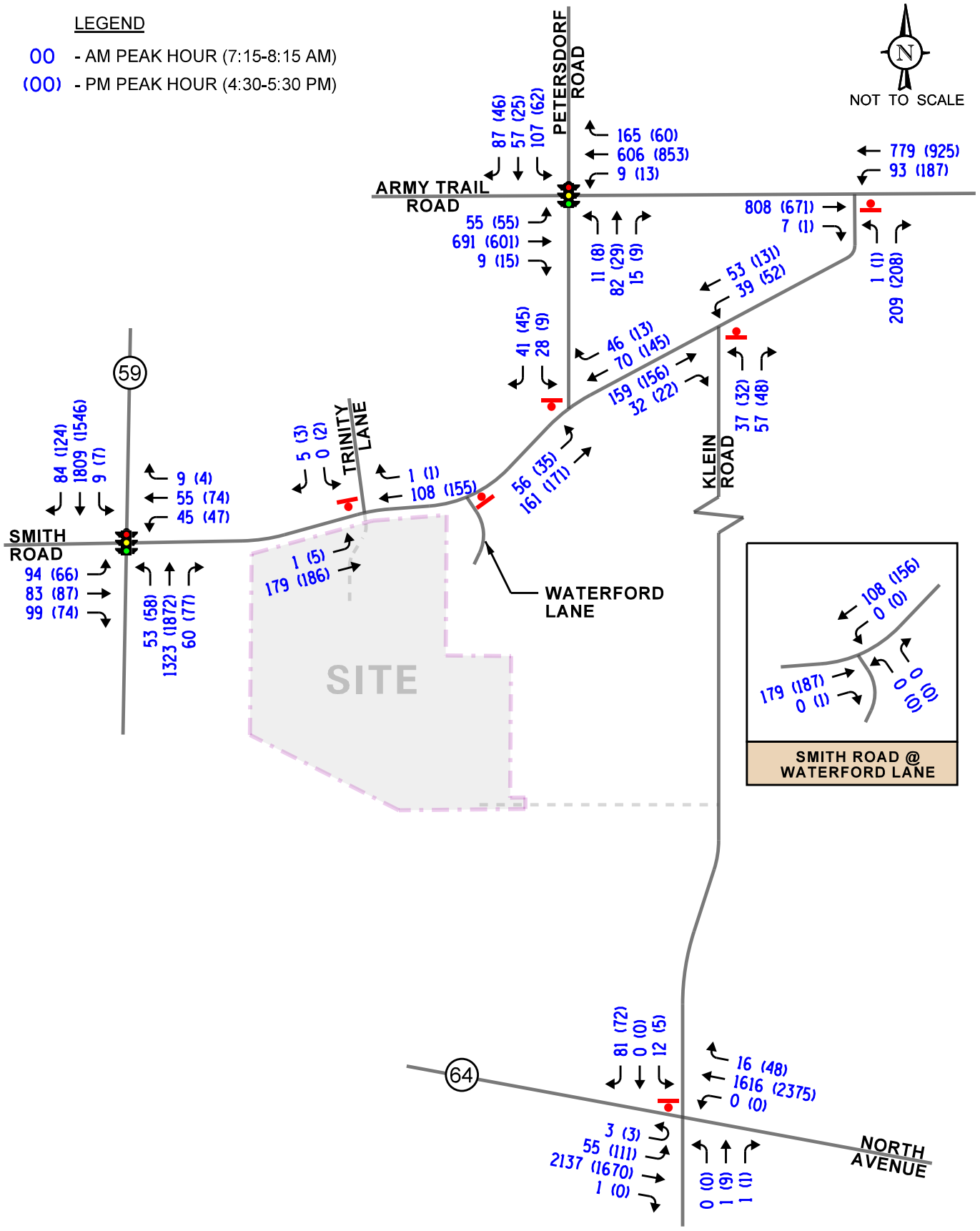

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Year 2030 No-Build Traffic Volumes

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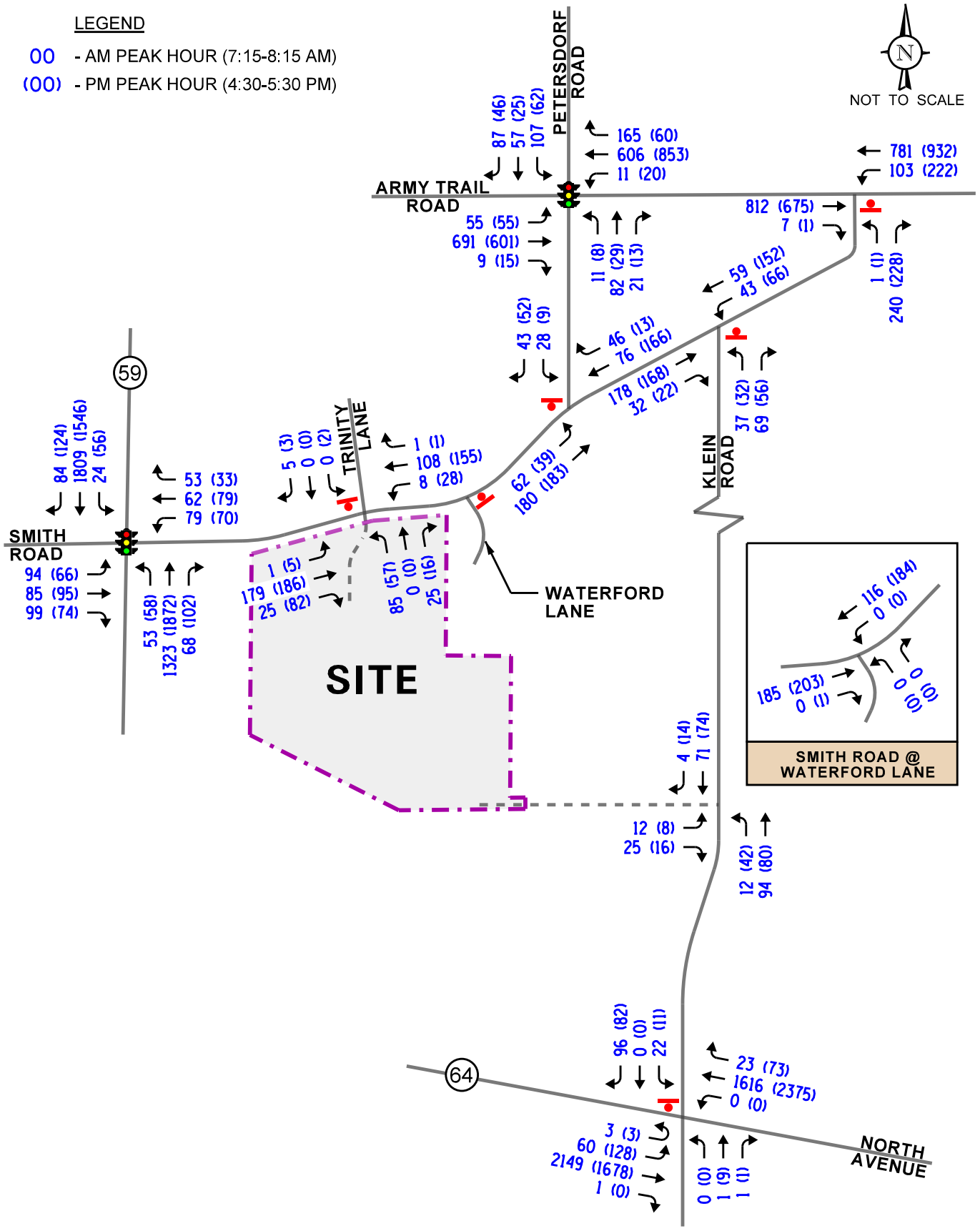

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Year 2030 Total Projected Traffic Volumes

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Traffic Analysis and Recommendations

Capacity analyses were performed for the key intersections included in the study area to determine the ability of the roadway system to accommodate existing and future traffic demands. Analyses were performed for the weekday morning and weekday evening peak hours for all four conditions, as noted earlier.

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 analyses for the traffic-signal controlled intersections were based on the existing cycle lengths and phasings 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.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the signalized intersections for all three analyzed conditions are presented in **Table 5** and **Table 6**. Capacity analyses for the unsignalized intersections for all three analyzed conditions are shown in **Table 7**, **Table 8**, and **Table 9**. A discussion of the intersections follows.

Table 5
CAPACITY ANALYSIS RESULTS – IL 59 AND SMITH ROAD

Peak Hour	Condition	Eastbound		Westbound		Northbound		Southbound		Overall
		L/T	R	L/T	R	L	T/R	L	T/R	
Weekday Morning	Existing	E 79.4	C 28.0	E 69.8	A 0.1	A 9.0	A 9.7	A 5.0	B 18.1	B – 19.3
		E – 61.0		E – 69.4		A – 9.6		B – 18.0		
	Year 2030 Base (No-Build)	F 80.3	C 28.5	E 69.8	A 0.2	B 19.6	B 11.5	A 5.7	C 23.0	C – 22.7
		E – 61.8		E – 64.3		B – 11.8		C – 22.9		
	Year 2030 Total	F 88.5	C 26.7	F 95.1	B 13.7	C 20.7	B 15.6	A 6.9	C 25.7	C – 27.2
		E – 66.5		E – 72.7		B – 15.8		C – 25.5		
Weekday Afternoon	Existing	F 90.3	C 22.2	F 86.5	A 0.0	A 6.2	B 11.9	A 4.5	B 13.3	B – 17.8
		E – 68.0		F – 83.7		B – 11.8		B – 13.3		
	Year 2030 Base (No-Build)	F 89.6	C 23.0	F 85.9	A 0.0	A 8.3	B 15.4	A 5.4	B 16.8	C – 20.9
		E – 67.9		F – 83.3		B – 15.2		B – 16.7		
	Year 2030 Total (Residential)	F 93.1	C 21.4	F 100.4	A 5.9	A 9.6	C 24.8	C 20.6	B 19.0	C – 27.3
		E – 70.5		F – 83.2		C – 24.4		B – 19.0		

L=Left-turn; T=Through; R=Right-turn.
[1]Includes the addition of a northbound right-turn lane.

Table 6
CAPACITY ANALYSES RESULTS – ARMY TRAIL ROAD AND PETERSDORF ROAD

Peak Hour	Condition	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Weekday Morning	Existing	B 15.6	C 22.6	B 13.4	C 29.2	B 14.7	C 22.6	B 14.5	B 11.3	C – 23.7
		C – 22.1		C – 29.0		C – 21.7		B – 12.6		
	Year 2030 Base (No-Build)	B 15.4	C 21.8	B 13.1	C 30.8	B 15.9	C 24.7	B 16.3	B 12.8	C – 24.4
		C – 21.4		C – 30.6		C – 23.8		B – 14.3		
	Year 2030 Total	B 15.5	C 21.9	B 13.2	C 30.8	B 15.9	C 24.2	B 16.3	B 12.8	C – 24.3
		C – 21.4		C – 30.5		C – 23.4		B – 14.3		
Weekday Afternoon	Existing	B 15.0	B 19.2	B 12.4	C 31.5	B 17.4	C 22.5	B 17.4	B 11.3	C – 25.0
		B – 18.8		C – 31.2		C – 21.7		B – 14.2		
	Year 2030 Base (No-Build)	B 14.8	B 19.0	B 12.1	C 31.8	B 18.9	C 23.8	B 18.8	B 11.9	C – 25.2
		B – 18.7		C – 31.5		C – 23.0		B – 15.2		
	Year 2030 Total	B 14.9	C 20.9	B 12.3	C 31.8	B 18.9	C 22.0	B 18.8	B 11.9	C – 25.8
		C – 20.4		C – 31.4		C – 21.5		B – 15.2		

L=Left-turn; T=Through; R=Right-turn.

Table 7
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Smith Road and Trinity Lane				
• Southbound Approach	A	8.8	A	9.8
• Eastbound Left/Though	A	7.4	A	7.5
Smith Road and Waterford Lane				
• Northbound Approach	A	0.0	A	0.0
• Westbound Left/Through	A	0.0	A	0.0
Smith Road and Petersdorf Road				
• Southbound Approach	B	10.1	A	9.6
• Eastbound Left/Through	A	7.5	A	7.6
Smith Road and Klein Road				
• Northbound Approach	B	10.3	B	10.5
• Westbound Left/Through	A	7.7	A	7.6
Army Trail Road and Smith Road				
• Northbound Approach	B	14.1	B	12.6
• Westbound Left Turn	A	9.9	A	9.5
North Avenue and Klein Road[1]				
• Northbound Approach	F	62.8	F	80+
• Southbound Approach	D	32.6	E	40.8
• Eastbound Left Turn	D	29.7	F	80+

LOS = Level of Service
Delay is measured in seconds.
1 – Given the existing width and based on field operations, the northbound and southbound approaches were analyzed as a shared left/through lane and an exclusive right-turn lane

Table 8
CAPACITY ANALYSIS RESULTS – YEAR 2030 BASE (NO-BUILD) CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Smith Road and Trinity Lane				
• Southbound Approach	A	8.8	A	9.9
• Eastbound Left/Though	A	7.4	A	7.5
Smith Road and Waterford Lane				
• Northbound Approach	A	0.0	A	0.0
• Westbound Left/Through	A	0.0	A	0.0
Smith Road and Petersdorf Road				
• Southbound Approach	B	10.3	A	9.7
• Eastbound Left/Through	A	7.5	A	7.6
Smith Road and Klein Road				
• Northbound Approach	B	10.6	B	10.8
• Westbound Left/Through	A	7.7	A	7.7
Army Trail Road and Smith Road				
• Northbound Approach	C	15.4	B	13.8
• Westbound Left Turn	B	10.3	B	10.1
North Avenue and Klein Road[1]				
• Northbound Approach	F	80+	F	80+
• Southbound Approach	E	43.6	F	80+
• Eastbound Left Turn	E	37.6	F	80+

LOS = Level of Service
Delay is measured in seconds.
1 – Given the existing width and based on field operations, the northbound and southbound approaches were analyzed as a shared left/through lane and an exclusive right-turn lane

Table 9
CAPACITY ANALYSIS RESULTS – YEAR 2030 TOTAL

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Smith Road and Trinity Lane				
• Northbound Approach	B	11.7	B	12.9
• Southbound Approach	A	8.8	B	10.5
• Eastbound Left/Though/Right	A	7.4	A	7.5
• Westbound Left/Through/Right	A	7.6	A	7.9
Smith Road and Waterford Lane				
• Northbound Approach	A	0.0	A	0.0
• Westbound Left/Through	A	0.0	A	0.0
Smith Road and Petersdorf Road				
• Southbound Approach	B	10.4	A	9.9
• Eastbound Left/Through	A	7.6	A	7.6
Smith Road and Klein Road				
• Northbound Approach	B	10.8	B	11.2
• Westbound Left/Through	A	7.8	A	7.7
Army Trail Road and Smith Road				
• Northbound Approach	C	16.5	B	13.9
• Westbound Left Turn	B	10.4	B	10.1
North Avenue and Klein Road				
• Northbound Approach	F	80+	F	80+
• Southbound Approach	F	70.5	F	80+
• Eastbound Left Turn	E	39.9	F	80+
Klein Road and Access Road[1]				
• Westbound Approach	A	9.1	A	9.3
• Northbound Left/Through	A	7.4	A	7.4

LOS = Level of Service
Delay is measured in seconds.
1 – Given the existing width and based on field operations, the northbound and southbound approaches were analyzed as a shared left/through lane and an exclusive right-turn lane

Discussion and Recommendations

The following is an evaluation of the analyzed intersections based on the projected traffic volumes and the capacity analyses performed.

Il 59/Smith Road

- The signalized intersection is operating at an overall acceptable level of service and will continue to do so under future conditions, which includes the residential development traffic.
- While the eastbound and westbound approaches operate at Level of Service (LOS) E and F during the peak hours, this is not due to a capacity deficiency but rather due to the long cycle length (140 seconds) and the long time the eastbound and westbound approaches need to wait for the green phase, given that the majority of the green time is allocated to IL 59.
- No roadway or traffic control improvements are recommended in conjunction with the proposed development.

Army Trail Road/Petersdorf Road

- This traffic signal is a standalone signal and is not interconnected with a traffic signal system.
- The signalized intersection is operating at an overall acceptable level of service and will continue to do so under future conditions, which includes the residential development traffic.
- No roadway or traffic control improvements are recommended in conjunction with the proposed development.

Smith Road/Waterford Lane, Smith Road/Petersdorf Road, Smith Road/Klein Road

- Based on the results of the capacity analyses, all of these intersections are operating at acceptable levels of service and will continue to do so under future conditions, which includes the residential development traffic.
- No roadway or traffic control improvements are recommended in conjunction with the proposed development.

Army Trail Road/Smith Road

- Inspection of the capacity analyses indicate that the westbound left-turn lane operates at LOS A during both peak hours and will operate at LOS B under future conditions.

- Furthermore, the northbound approach will continue operating at acceptable levels of service.

- No roadway or traffic control improvements are recommended in conjunction with the proposed development.

North Avenue/Klein Road

- Based on the results of the capacity analyses, the southbound approach currently operates at LOS D and E during the morning and evening peak hours, respectively.

- Under Year 2030 no build conditions, the southbound approach the southbound approach will operate at a LOS E and F during the morning and evening peak hours, respectively.

- Under future conditions, the southbound approach will operate at LOS F during both peak hours. This is normal and expected when a minor road intersects a major arterial like North Avenue.

- It is important to note that site traffic destined eastbound on North Avenue can travel eastbound on St. Charles Road, south on Prince Crossing Road, and make a left-turn movement at the signalized intersection of North Avenue with Prince Crossing Road.

- Similarly, the eastbound left-turn movement is projected to operate at LOS E and F during the weekday morning and evening peak hours, respectively. However, it is important to note that the traffic signal to the east at the intersection of North Avenue with Prince Crossing Road creates gaps in the through traffic stream that will allow left-turning vehicles to operate more efficiently than what the capacity analyses show.

- No roadway or traffic control improvements are recommended in conjunction with the proposed development.

Smith Road/Trinity Lane/Proposed Access Road

- Based on the results of the capacity analyses, this intersection is currently operating at acceptable levels of service.

- Under future conditions and with the addition of the access road as the fourth leg of this intersection, the intersection will continue operating at acceptable levels of service.

- The access road, as previously indicated, will provide one inbound lane and two outbound lanes under stop sign control striped for an exclusive left-turn lane and an exclusive right-turn lane.

- Based on a review of the projected traffic volumes and the warrants for the provision of auxiliary turn lanes found in IDOT's *Bureau of Design and Environment* (BDE) Manual, no exclusive turn lanes on Smith Road at its intersection with Trinity Lane/proposed access road will be warranted. (See Appendix)

- A sight distance study was conducted to determine the available sight distance at the proposed access drive (Exhibit A in the Appendix) and based on the study, there is adequate sight distance to meet the required stopping sight distance for a 30 mph speed limit.

- No roadway or traffic control improvements are recommended in conjunction with the proposed development.

Klein Road/Proposed Access Road

- Based on the results of the capacity analyses, this intersection will operate at acceptable levels of service.

- Based on the projected traffic volumes, the access road will provide one inbound lane and one outbound lane under stop sign control.

- Based on a review of the projected traffic volumes and the warrants for the provision of auxiliary turn lanes found in IDOT's *Bureau of Design and Environment* (BDE) Manual, no exclusive turn lanes on Klein Road at its intersection with the proposed access road will be warranted. (See Appendix)

- A sight distance study was conducted to determine the available sight distance at the proposed access drive (Exhibit B in the Appendix) and based on the study (using the posted speed limit of 40 mph), there is not adequate sight distance to the north to allow outbound traffic or the inbound left-turn movement to see incoming vehicles and provide them with adequate distance to come to a stop if needed.

- Klein Road has a posted speed limit of 30 mph from Smith Road for approximately 2,700 feet south where the speed increases to 40 mph and continues to be 40 mph to North Avenue.

- Based on a field visit, it was determined that the speed limit of 30 mph is appropriate for this segment given the numerous private driveways off Klein Road (approximately 10) and given that three local roads serving various subdivisions intersect Klein Road.

- It is recommended that the 30 mph speed limit be extended south of its current terminus by approximately another 2,000 feet to be consistent with the northern segment.

- When a sight distance study (Exhibit C in the Appendix) is prepared assuming a posted speed limit of 30 mph, adequate stopping sight distance is available to the north and to the south.

- No additional improvements are recommended in conjunction with the proposed development.

Conclusion

The proposed The Preserve at West Branch residential development is proposed to be located on the south side of Smith Road between IL 59 and Klein Road. The plans for the 111-acre site call for a residential subdivision with 269 single-family homes. Access to the subject site is proposed from a full access roadway off Smith Road opposite Trinity Lane and a full access roadway off Klein Road.

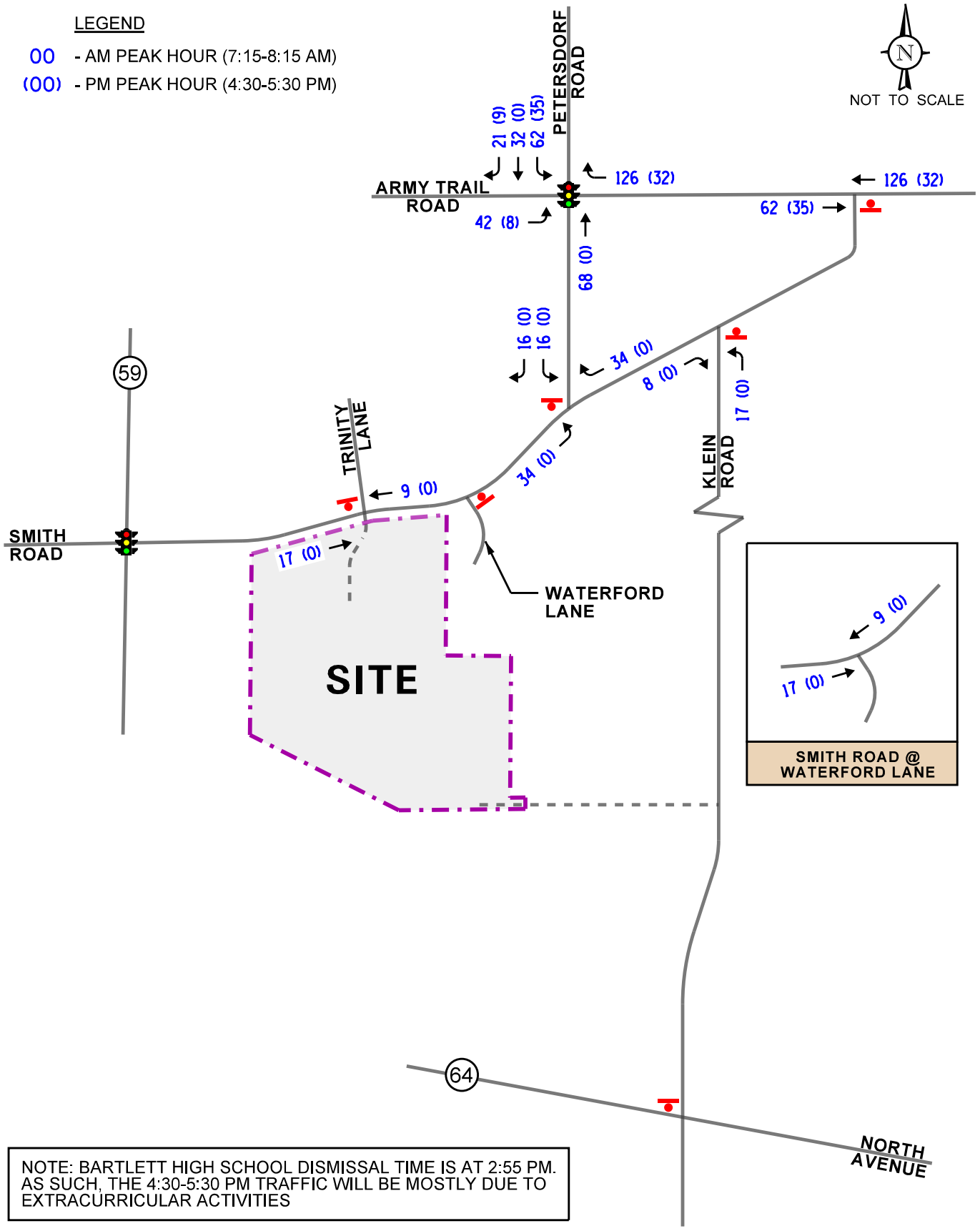
Based on the preceding analyses and recommendations, the following conclusions have been made:

- The proposed residential development-generated traffic will be consistent and compatible with traffic patterns and volumes in the area.
- The two access roads that will serve the proposed development will help disperse the development-generated traffic onto the surrounding roadway network and provide alternatives for the site traffic to enter and exit the development.
- All of the studied intersections are operating at overall acceptable levels of service and will continue operating at acceptable levels of service under future conditions.
- No auxiliary turn lanes will be necessary on Smith Road or Klein Road to accommodate future traffic volumes.
- There is adequate stopping sight distance to the east and west on Smith Road at its intersection with Trinity Lane/proposed access road.
- In order for the proposed access road off Klein Road to be accommodated, the 30 mph speed limit zone north of the site should be extended for approximately 2,000 feet south.
- By reducing the posted speed limit to 30 mph, adequate stopping sight distance to the north and south will be provided.
- The daily traffic counts conducted on the adjacent roadways along with the applicable roadway classifications is consistent with industry standards.
- Under future conditions, Smith Road and Klein Road will continue to function and operate as neighborhood collector streets.
- Traffic calming measures such as radar speed signs mounted below the posted speed limit should be considered on Smith Road and Klein Road.

Appendix

Bartlett High School Estimated Traffic Assignment
Traffic Count Summary Sheets
CMAP Traffic Projection Letter
Level of Service Criteria
Capacity Analysis – Year 2021 Existing Conditions
Capacity Analysis – Year 2030 Base (No-Build)
Capacity Analysis – Year 2030 Total Buildout
Sight Distance Exhibits
Auxiliary Lane Exhibits

Bartlett High School Estimated Traffic Assignment



The Preserve
at West Branch
West Chicago, Illinois

Estimated High School-Generated
Traffic Assignment

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

Job No: 21-175 Figure: A

Traffic Count Summary Sheets

Army Trial Road with Smith Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851809, Location: 41.943899, -88.184406

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

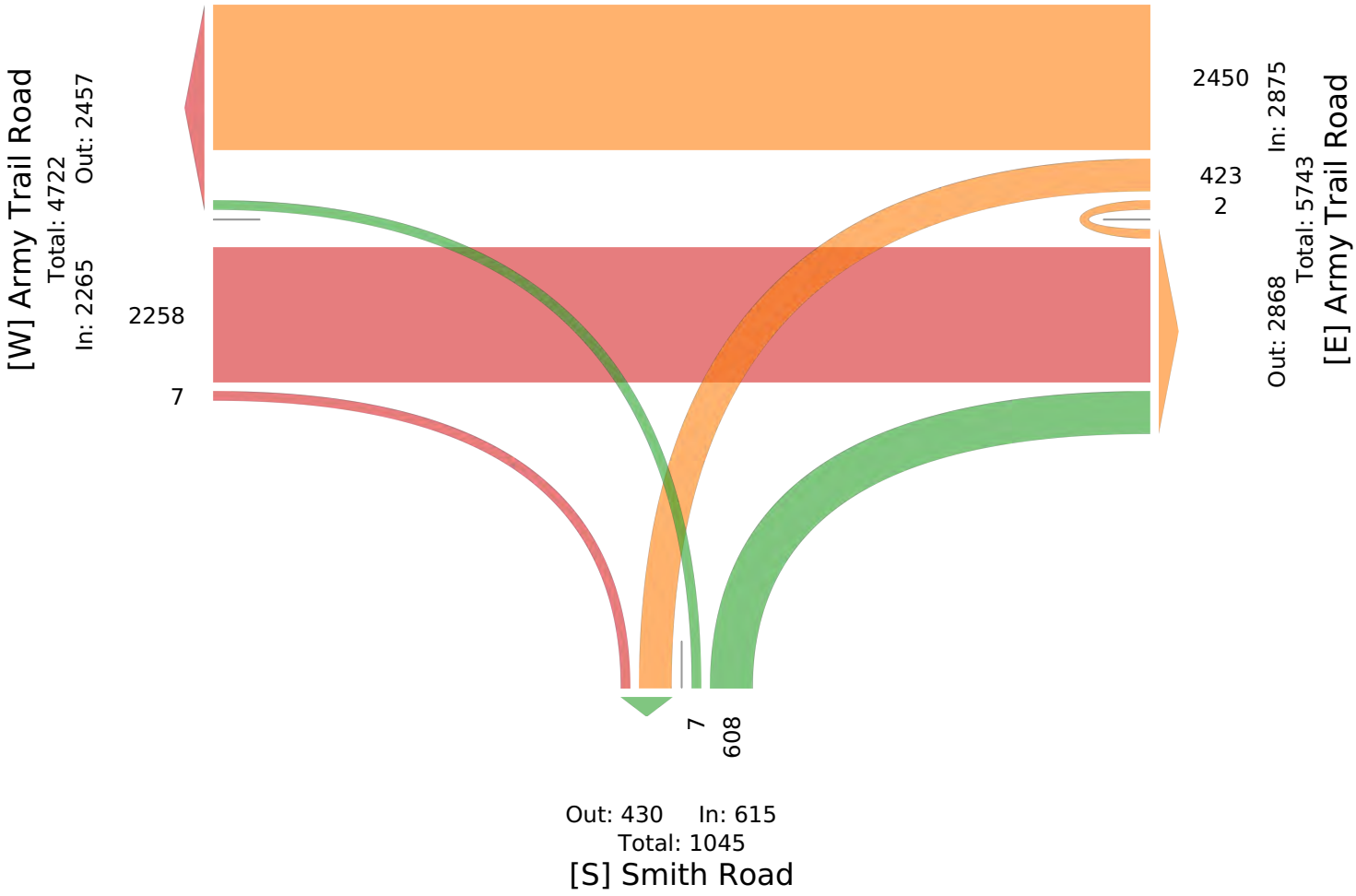
Leg	Army Trail Road					Smith Road					Army Trail Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	81	7	0	**88**	0	20	0	0	**20**	0	0	107	0	**107**	0	**215**
6:45AM	79	9	0	**88**	0	17	0	0	**17**	0	0	105	0	**105**	0	**210**
Hourly Total	160	16	0	**176**	0	37	0	0	**37**	0	0	212	0	**212**	0	**425**
7:00AM	77	21	0	**98**	0	36	0	0	**36**	0	1	108	0	**109**	0	**243**
7:15AM	102	14	0	**116**	0	32	0	0	**32**	0	0	104	0	**104**	0	**252**
7:30AM	97	12	0	**109**	0	35	0	0	**35**	0	2	114	0	**116**	0	**260**
7:45AM	109	14	0	**123**	0	34	1	0	**35**	0	1	159	0	**160**	0	**318**
Hourly Total	385	61	0	**446**	0	137	1	0	**138**	0	4	485	0	**489**	0	**1073**
8:00AM	95	13	0	**108**	0	38	0	0	**38**	0	0	97	0	**97**	0	**243**
8:15AM	70	11	0	**81**	0	24	0	0	**24**	0	0	97	0	**97**	0	**202**
8:30AM	96	21	1	**118**	0	31	1	0	**32**	0	0	99	0	**99**	0	**249**
8:45AM	85	15	0	**100**	0	25	0	0	**25**	0	0	99	0	**99**	0	**224**
Hourly Total	346	60	1	**407**	0	118	1	0	**119**	0	0	392	0	**392**	0	**918**
4:00PM	154	27	0	**181**	0	31	0	0	**31**	0	0	95	0	**95**	0	**307**
4:15PM	166	17	0	**183**	0	33	1	0	**34**	0	1	121	0	**122**	0	**339**
4:30PM	169	27	0	**196**	0	33	1	0	**34**	0	0	147	0	**147**	0	**377**
4:45PM	161	30	0	**191**	0	44	1	0	**45**	0	0	122	0	**122**	0	**358**
Hourly Total	650	101	0	**751**	0	141	3	0	**144**	0	1	485	0	**486**	0	**1381**
5:00PM	164	35	0	**199**	0	32	0	0	**32**	0	0	114	0	**114**	0	**345**
5:15PM	202	40	0	**242**	0	41	0	0	**41**	0	0	114	0	**114**	0	**397**
5:30PM	165	38	1	**204**	0	42	0	0	**42**	0	1	133	0	**134**	0	**380**
5:45PM	136	30	0	**166**	0	18	0	0	**18**	0	0	105	0	**105**	0	**289**
Hourly Total	667	143	1	**811**	0	133	0	0	**133**	0	1	466	0	**467**	0	**1411**
6:00PM	110	22	0	**132**	0	26	1	0	**27**	0	1	120	0	**121**	0	**280**
6:15PM	132	20	0	**152**	0	16	1	0	**17**	0	0	98	0	**98**	0	**267**
Hourly Total	242	42	0	**284**	0	42	2	0	**44**	0	1	218	0	**219**	0	**547**
Total	2450	423	2	**2875**	0	608	7	0	**615**	0	7	2258	0	**2265**	0	**5755**
% Approach	85.2%	14.7%	0.1%	**-**	-	98.9%	1.1%	0%	**-**	-	0.3%	99.7%	0%	**-**	-	-
% Total	42.6%	7.4%	0%	**50.0%**	-	10.6%	0.1%	0%	**10.7%**	-	0.1%	39.2%	0%	**39.4%**	-	-
Lights	2365	421	2	**2788**	-	606	7	0	**613**	-	7	2178	0	**2185**	-	5586
% Lights	96.5%	99.5%	100%	**97.0%**	-	99.7%	100%	0%	**99.7%**	-	100%	96.5%	0%	**96.5%**	-	97.1%
Single-Unit Trucks	42	2	0	**44**	-	1	0	0	**1**	-	0	44	0	**44**	-	89
% Single-Unit Trucks	1.7%	0.5%	0%	**1.5%**	-	0.2%	0%	0%	**0.2%**	-	0%	1.9%	0%	**1.9%**	-	1.5%
Articulated Trucks	32	0	0	**32**	-	0	0	0	**0**	-	0	23	0	**23**	-	55
% Articulated Trucks	1.3%	0%	0%	**1.1%**	-	0%	0%	0%	**0%**	-	0%	1.0%	0%	**1.0%**	-	1.0%
Buses	9	0	0	**9**	-	1	0	0	**1**	-	0	13	0	**13**	-	23
% Buses	0.4%	0%	0%	**0.3%**	-	0.2%	0%	0%	**0.2%**	-	0%	0.6%	0%	**0.6%**	-	0.4%
Bicycles on Road	2	0	0	**2**	-	0	0	0	**0**	-	0	0	0	**0**	-	2
% Bicycles on Road	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Army Trial Road with Smith Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851809, Location: 41.943899, -88.184406

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



Army Trial Road with Smith Road - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851809, Location: 41.943899, -88.184406

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

Leg	Army Trail Road					Smith Road					Army Trail Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 7:00AM	77	21	0	**98**	0	36	0	0	**36**	0	1	108	0	**109**	0	**243**
7:15AM	102	14	0	**116**	0	32	0	0	**32**	0	0	104	0	**104**	0	**252**
7:30AM	97	12	0	**109**	0	35	0	0	**35**	0	2	114	0	**116**	0	**260**
7:45AM	109	14	0	**123**	0	34	1	0	**35**	0	1	159	0	**160**	0	**318**
Total	385	61	0	**446**	0	137	1	0	**138**	0	4	485	0	**489**	0	**1073**
% Approach	86.3%	13.7%	0%	**-**	-	99.3%	0.7%	0%	**-**	-	0.8%	99.2%	0%	**-**	-	-
% Total	35.9%	5.7%	0%	**41.6%**	-	12.8%	0.1%	0%	**12.9%**	-	0.4%	45.2%	0%	**45.6%**	-	-
PHF	0.883	0.726	-	**0.907**	-	0.951	0.250	-	**0.958**	-	0.500	0.763	-	**0.764**	-	0.844
Lights	358	60	0	**418**	-	136	1	0	**137**	-	4	464	0	**468**	-	1023
% Lights	93.0%	98.4%	0%	**93.7%**	-	99.3%	100%	0%	**99.3%**	-	100%	95.7%	0%	**95.7%**	-	95.3%
Single-Unit Trucks	12	1	0	**13**	-	0	0	0	**0**	-	0	16	0	**16**	-	29
% Single-Unit Trucks	3.1%	1.6%	0%	**2.9%**	-	0%	0%	0%	**0%**	-	0%	3.3%	0%	**3.3%**	-	2.7%
Articulated Trucks	12	0	0	**12**	-	0	0	0	**0**	-	0	3	0	**3**	-	15
% Articulated Trucks	3.1%	0%	0%	**2.7%**	-	0%	0%	0%	**0%**	-	0%	0.6%	0%	**0.6%**	-	1.4%
Buses	3	0	0	**3**	-	1	0	0	**1**	-	0	2	0	**2**	-	6
% Buses	0.8%	0%	0%	**0.7%**	-	0.7%	0%	0%	**0.7%**	-	0%	0.4%	0%	**0.4%**	-	0.6%
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%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Army Trial Road with Smith Road - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851809, Location: 41.943899, -88.184406

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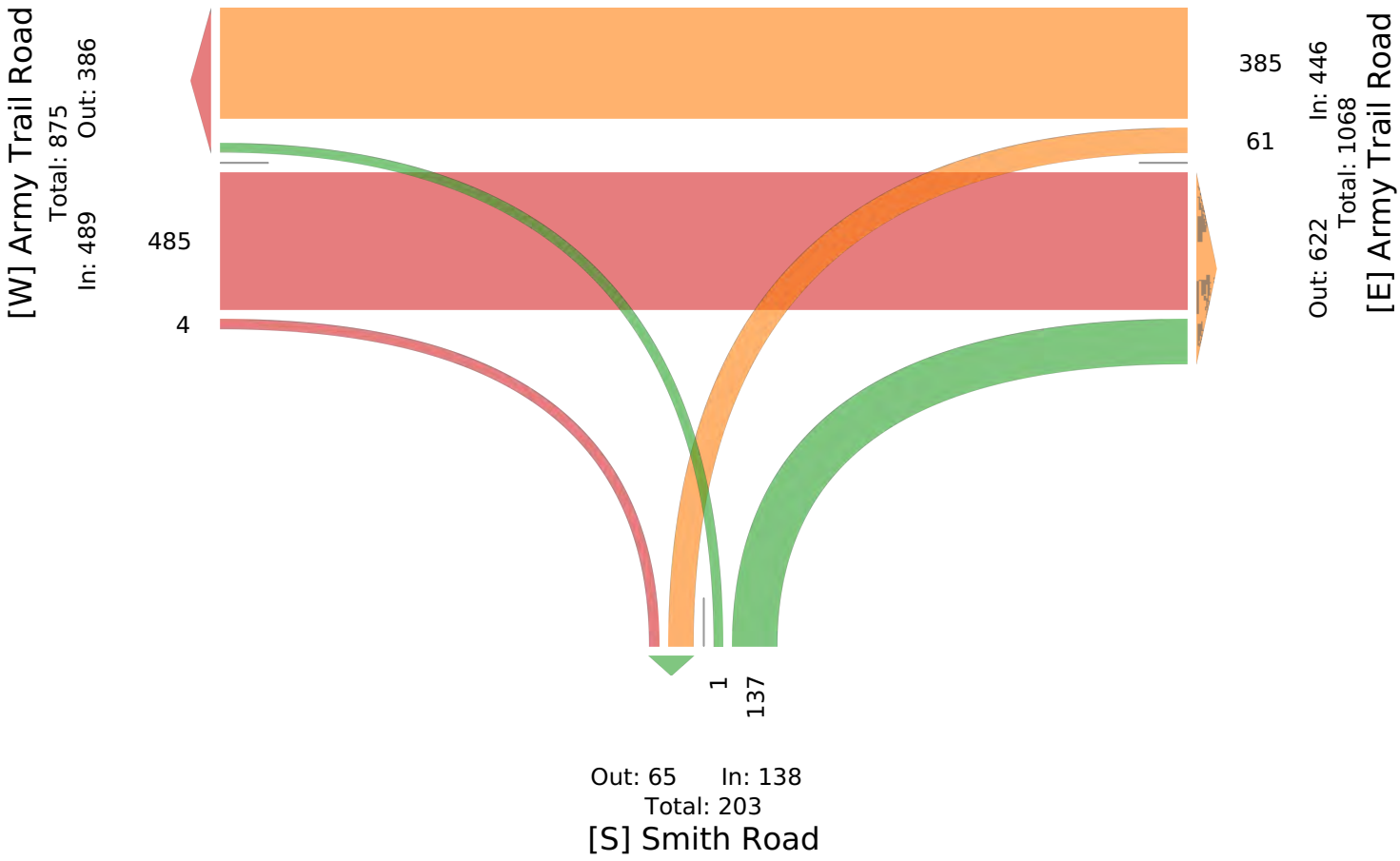


Army Trial Road with Smith Road - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851809, Location: 41.943899, -88.184406

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

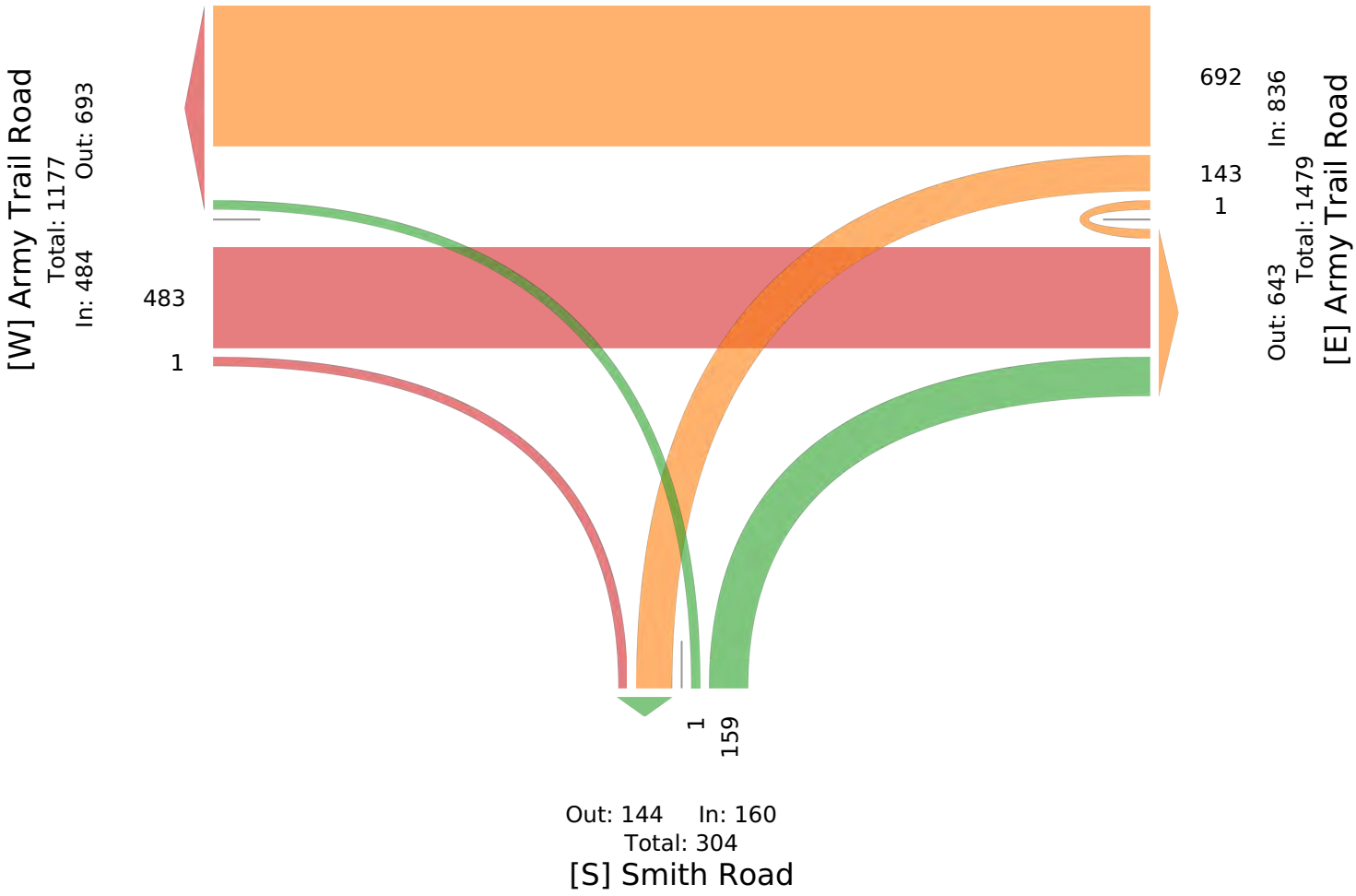
Leg	Army Trail Road					Smith Road					Army Trail Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 4:45PM	161	30	0	**191**	0	44	1	0	**45**	0	0	122	0	**122**	0	**358**
5:00PM	164	35	0	**199**	0	32	0	0	**32**	0	0	114	0	**114**	0	**345**
5:15PM	202	40	0	**242**	0	41	0	0	**41**	0	0	114	0	**114**	0	**397**
5:30PM	165	38	1	**204**	0	42	0	0	**42**	0	1	133	0	**134**	0	**380**
Total	692	143	1	**836**	0	159	1	0	**160**	0	1	483	0	**484**	0	**1480**
% Approach	82.8%	17.1%	0.1%	**-**	-	99.4%	0.6%	0%	**-**	-	0.2%	99.8%	0%	**-**	-	-
% Total	46.8%	9.7%	0.1%	**56.5%**	-	10.7%	0.1%	0%	**10.8%**	-	0.1%	32.6%	0%	**32.7%**	-	-
PHF	0.855	0.894	0.250	**0.863**	-	0.903	0.250	-	**0.889**	-	0.250	0.908	-	**0.903**	-	0.931
Lights	681	143	1	**825**	-	159	1	0	**160**	-	1	473	0	**474**	-	1459
% Lights	98.4%	100%	100%	**98.7%**	-	100%	100%	0%	**100%**	-	100%	97.9%	0%	**97.9%**	-	98.6%
Single-Unit Trucks	2	0	0	**2**	-	0	0	0	**0**	-	0	5	0	**5**	-	7
% Single-Unit Trucks	0.3%	0%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0%	1.0%	0%	**1.0%**	-	0.5%
Articulated Trucks	7	0	0	**7**	-	0	0	0	**0**	-	0	5	0	**5**	-	12
% Articulated Trucks	1.0%	0%	0%	**0.8%**	-	0%	0%	0%	**0%**	-	0%	1.0%	0%	**1.0%**	-	0.8%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Buses	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.1%
Bicycles on Road	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Bicycles on Road	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Army Trial Road with Smith Road - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851809, Location: 41.943899, -88.184406

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



IL Route 59 with Smith Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851806, Location: 41.9357, -88.20872

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

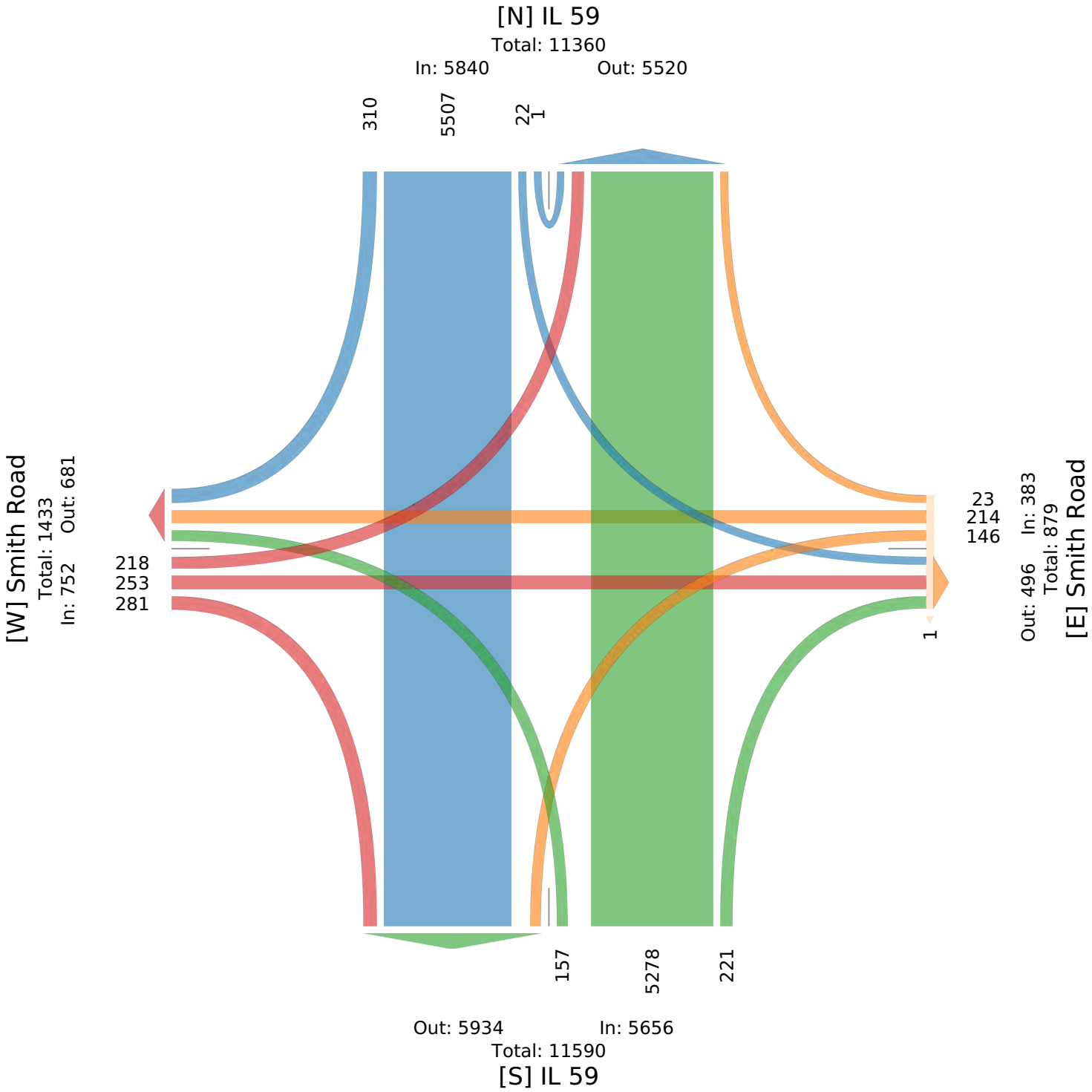
Leg	IL 59						Smith Road						IL 59						Smith Road						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	7	361	0	0	**368**	0	0	4	3	0	**7**	0	5	172	3	0	**180**	0	21	12	9	0	**42**	0	**597**
6:45AM	8	306	0	0	**314**	0	0	1	4	0	**5**	0	5	186	3	0	**194**	0	16	4	8	0	**28**	0	**541**
Hourly Total	15	667	0	0	**682**	0	0	5	7	0	**12**	0	10	358	6	0	**374**	0	37	16	17	0	**70**	0	**1138**
7:00AM	9	263	0	0	**272**	0	1	5	7	0	**13**	0	7	178	4	0	**189**	0	19	18	9	0	**46**	0	**520**
7:15AM	9	271	0	0	**280**	0	4	10	8	0	**22**	1	11	210	4	0	**225**	0	18	9	18	0	**45**	0	**572**
7:30AM	13	326	1	0	**340**	0	0	11	5	0	**16**	0	7	231	12	0	**250**	0	16	15	23	0	**54**	0	**660**
7:45AM	15	347	4	0	**366**	0	0	9	9	0	**18**	0	12	241	12	0	**265**	0	12	13	10	0	**35**	0	**684**
Hourly Total	46	1207	5	0	**1258**	0	5	35	29	0	**69**	1	37	860	32	0	**929**	0	65	55	60	0	**180**	0	**2436**
8:00AM	18	242	1	0	**261**	0	2	6	7	0	**15**	0	9	185	7	0	**201**	0	19	17	11	0	**47**	0	**524**
8:15AM	10	273	1	0	**284**	0	0	12	4	0	**16**	0	8	206	2	0	**216**	0	9	12	7	0	**28**	0	**544**
8:30AM	9	238	0	0	**247**	0	2	6	10	0	**18**	0	10	206	5	0	**221**	0	17	11	5	0	**33**	0	**519**
8:45AM	11	246	0	0	**257**	0	2	4	9	0	**15**	0	6	202	8	0	**216**	0	9	6	6	0	**21**	0	**509**
Hourly Total	48	999	2	0	**1049**	0	6	28	30	0	**64**	0	33	799	22	0	**854**	0	54	46	29	0	**129**	0	**2096**
4:00PM	12	241	0	0	**253**	0	1	13	10	0	**24**	0	19	359	5	0	**383**	0	9	11	8	0	**28**	0	**688**
4:15PM	23	283	2	0	**308**	0	1	11	6	0	**18**	0	12	357	14	0	**383**	0	13	16	10	0	**39**	0	**748**
4:30PM	12	324	1	0	**337**	0	1	9	12	0	**22**	0	17	318	7	0	**342**	0	15	13	4	0	**32**	0	**733**
4:45PM	26	263	0	0	**289**	0	1	9	9	0	**19**	0	16	372	12	0	**400**	0	20	21	12	0	**53**	0	**761**
Hourly Total	73	1111	3	0	**1187**	0	4	42	37	0	**83**	0	64	1406	38	0	**1508**	0	57	61	34	0	**152**	0	**2930**
5:00PM	27	276	1	0	**304**	0	1	14	11	0	**26**	0	12	387	16	0	**415**	0	9	19	15	0	**43**	0	**788**
5:15PM	30	319	3	0	**352**	0	0	25	5	0	**30**	0	14	354	9	0	**377**	0	14	15	20	0	**49**	0	**808**
5:30PM	24	249	4	0	**277**	0	1	26	9	0	**36**	0	19	298	12	0	**329**	0	9	17	8	0	**34**	0	**676**
5:45PM	25	233	1	1	**260**	0	3	11	6	0	**20**	0	11	311	6	0	**328**	0	16	7	6	0	**29**	0	**637**
Hourly Total	106	1077	9	1	**1193**	0	5	76	31	0	**112**	0	56	1350	43	0	**1449**	0	48	58	49	0	**155**	0	**2909**
6:00PM	9	224	1	0	**234**	0	1	13	7	0	**21**	0	11	262	10	0	**283**	0	7	11	19	0	**37**	0	**575**
6:15PM	13	222	2	0	**237**	0	2	15	5	0	**22**	0	10	243	6	0	**259**	0	13	6	10	0	**29**	0	**547**
Hourly Total	22	446	3	0	**471**	0	3	28	12	0	**43**	0	21	505	16	0	**542**	0	20	17	29	0	**66**	0	**1122**
Total	310	5507	22	1	**5840**	0	23	214	146	0	**383**	1	221	5278	157	0	**5656**	0	281	253	218	0	**752**	0	**12631**
% Approach	5.3%	94.3%	0.4%	0%	**-**	-	6.0%	55.9%	38.1%	0%	**-**	-	3.9%	93.3%	2.8%	0%	**-**	-	37.4%	33.6%	29.0%	0%	**-**	-	-
% Total	2.5%	43.6%	0.2%	0%	**46.2%**	-	0.2%	1.7%	1.2%	0%	**3.0%**	-	1.7%	41.8%	1.2%	0%	**44.8%**	-	2.2%	2.0%	1.7%	0%	**6.0%**	-	-
Lights	302	5137	21	1	**5461**	-	21	207	142	0	**370**	-	220	4955	156	0	**5331**	-	278	249	217	0	**744**	-	11906
% Lights	97.4%	93.3%	95.5%	100%	**93.5%**	-	91.3%	96.7%	97.3%	0%	**96.6%**	-	99.5%	93.9%	99.4%	0%	**94.3%**	-	98.9%	98.4%	99.5%	0%	**98.9%**	-	94.3%
Single-Unit Trucks	7	158	1	0	**166**	-	0	1	1	0	**2**	-	1	121	1	0	**123**	-	2	0	0	0	**2**	-	293
% Single-Unit Trucks	2.3%	2.9%	4.5%	0%	**2.8%**	-	0%	0.5%	0.7%	0%	**0.5%**	-	0.5%	2.3%	0.6%	0%	**2.2%**	-	0.7%	0%	0%	0%	**0.3%**	-	2.3%
Articulated Trucks	0	202	0	0	**202**	-	1	1	2	0	**4**	-	0	194	0	0	**194**	-	1	0	1	0	**2**	-	402
% Articulated Trucks	0%	3.7%	0%	0%	**3.5%**	-	4.3%	0.5%	1.4%	0%	**1.0%**	-	0%	3.7%	0%	0%	**3.4%**	-	0.4%	0%	0.5%	0%	**0.3%**	-	3.2%
Buses	1	10	0	0	**11**	-	1	0	1	0	**2**	-	0	8	0	0	**8**	-	0	1	0	0	**1**	-	22
% Buses	0.3%	0.2%	0%	0%	**0.2%**	-	4.3%	0%	0.7%	0%	**0.5%**	-	0%	0.2%	0%	0%	**0.1%**	-	0%	0.4%	0%	0%	**0.1%**	-	0.2%
Bicycles on Road	0	0	0	0	**0**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	0	3	0	0	**3**	-	8
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	2.3%	0%	0%	**1.3%**	-	0%	0%	0%	0%	**0%**	-	0%	1.2%	0%	0%	**0.4%**	-	0.1%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-

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

IL Route 59 with Smith Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851806, Location: 41.9357, -88.20872

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



IL Route 59 with Smith Road - TMC

Mon Jun 28, 2021
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851806, Location: 41.9357, -88.20872

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

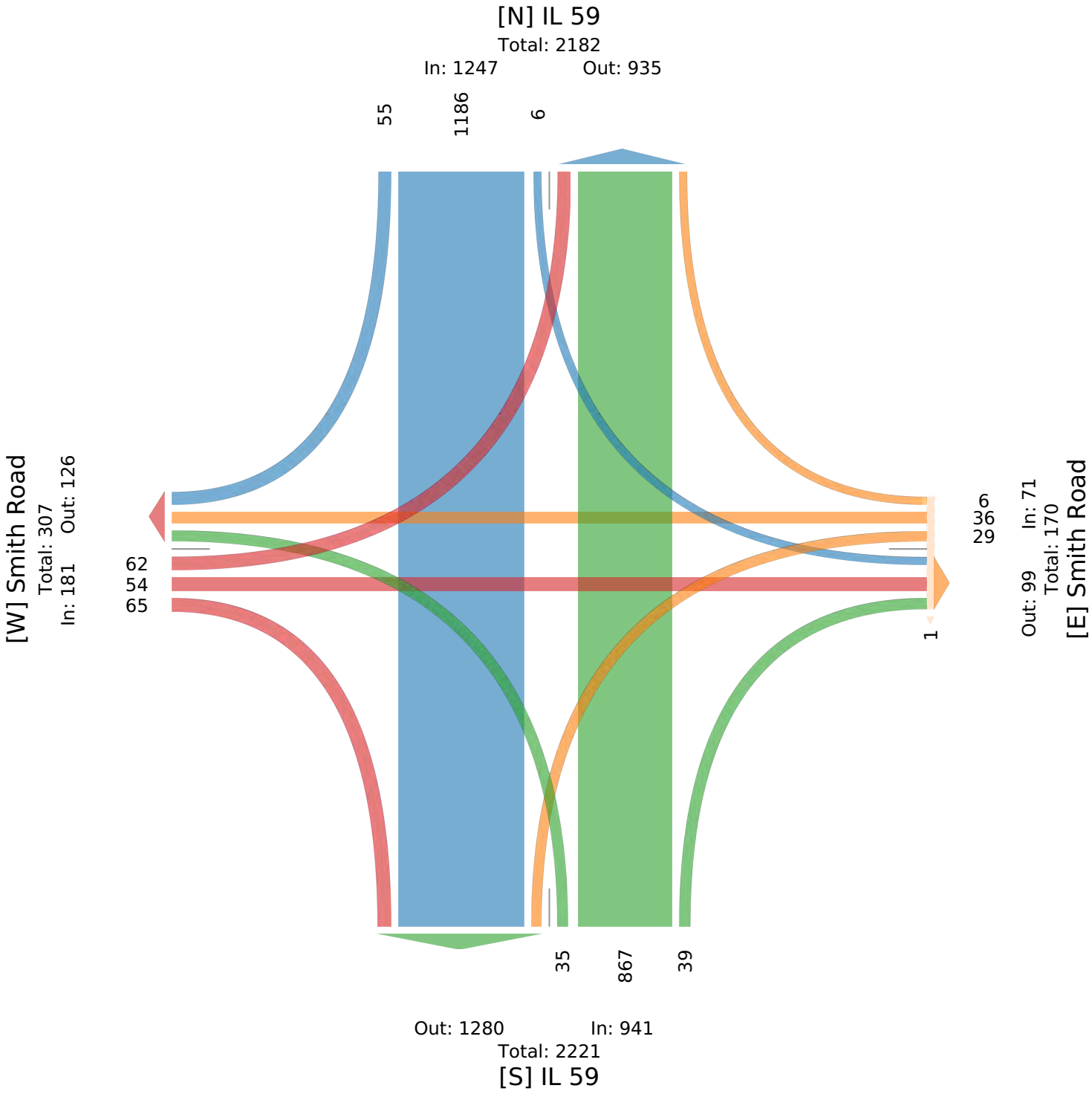
Leg	IL 59						Smith Road						IL 59						Smith Road						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2021-06-28 7:15AM	9	271	0	0	**280**	0	4	10	8	0	**22**	1	11	210	4	0	**225**	0	18	9	18	0	**45**	0	**572**
7:30AM	13	326	1	0	**340**	0	0	11	5	0	**16**	0	7	231	12	0	**250**	0	16	15	23	0	**54**	0	**660**
7:45AM	15	347	4	0	**366**	0	0	9	9	0	**18**	0	12	241	12	0	**265**	0	12	13	10	0	**35**	0	**684**
8:00AM	18	242	1	0	**261**	0	2	6	7	0	**15**	0	9	185	7	0	**201**	0	19	17	11	0	**47**	0	**524**
Total	55	1186	6	0	**1247**	0	6	36	29	0	**71**	1	39	867	35	0	**941**	0	65	54	62	0	**181**	0	**2440**
% Approach	4.4%	95.1%	0.5%	0%	**-**	-	8.5%	50.7%	40.8%	0%	**-**	-	4.1%	92.1%	3.7%	0%	**-**	-	35.9%	29.8%	34.3%	0%	**-**	-	-
% Total	2.3%	48.6%	0.2%	0%	**51.1%**	-	0.2%	1.5%	1.2%	0%	**2.9%**	-	1.6%	35.5%	1.4%	0%	**38.6%**	-	2.7%	2.2%	2.5%	0%	**7.4%**	-	-
PHF	0.764	0.854	0.375	-	**0.852**	-	0.375	0.818	0.806	-	**0.807**	-	0.813	0.899	0.729	-	**0.888**	-	0.855	0.794	0.674	-	**0.838**	-	0.892
Lights	54	1123	6	0	**1183**	-	6	35	27	0	**68**	-	39	794	34	0	**867**	-	64	54	61	0	**179**	-	2297
% Lights	98.2%	94.7%	100%	0%	**94.9%**	-	100%	97.2%	93.1%	0%	**95.8%**	-	100%	91.6%	97.1%	0%	**92.1%**	-	98.5%	100%	98.4%	0%	**98.9%**	-	94.1%
Single-Unit Trucks	1	23	0	0	**24**	-	0	1	0	0	**1**	-	0	31	1	0	**32**	-	0	0	0	0	**0**	-	57
% Single-Unit Trucks	1.8%	1.9%	0%	0%	**1.9%**	-	0%	2.8%	0%	0%	**1.4%**	-	0%	3.6%	2.9%	0%	**3.4%**	-	0%	0%	0%	0%	**0%**	-	2.3%
Articulated Trucks	0	38	0	0	**38**	-	0	0	1	0	**1**	-	0	42	0	0	**42**	-	1	0	1	0	**2**	-	83
% Articulated Trucks	0%	3.2%	0%	0%	**3.0%**	-	0%	0%	3.4%	0%	**1.4%**	-	0%	4.8%	0%	0%	**4.5%**	-	1.5%	0%	1.6%	0%	**1.1%**	-	3.4%
Buses	0	2	0	0	**2**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	3
% Buses	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	3.4%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-

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

IL Route 59 with Smith Road - TMC

Mon Jun 28, 2021
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851806, Location: 41.9357, -88.20872

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



IL Route 59 with Smith Road - TMC

Mon Jun 28, 2021
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851806, Location: 41.9357, -88.20872

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

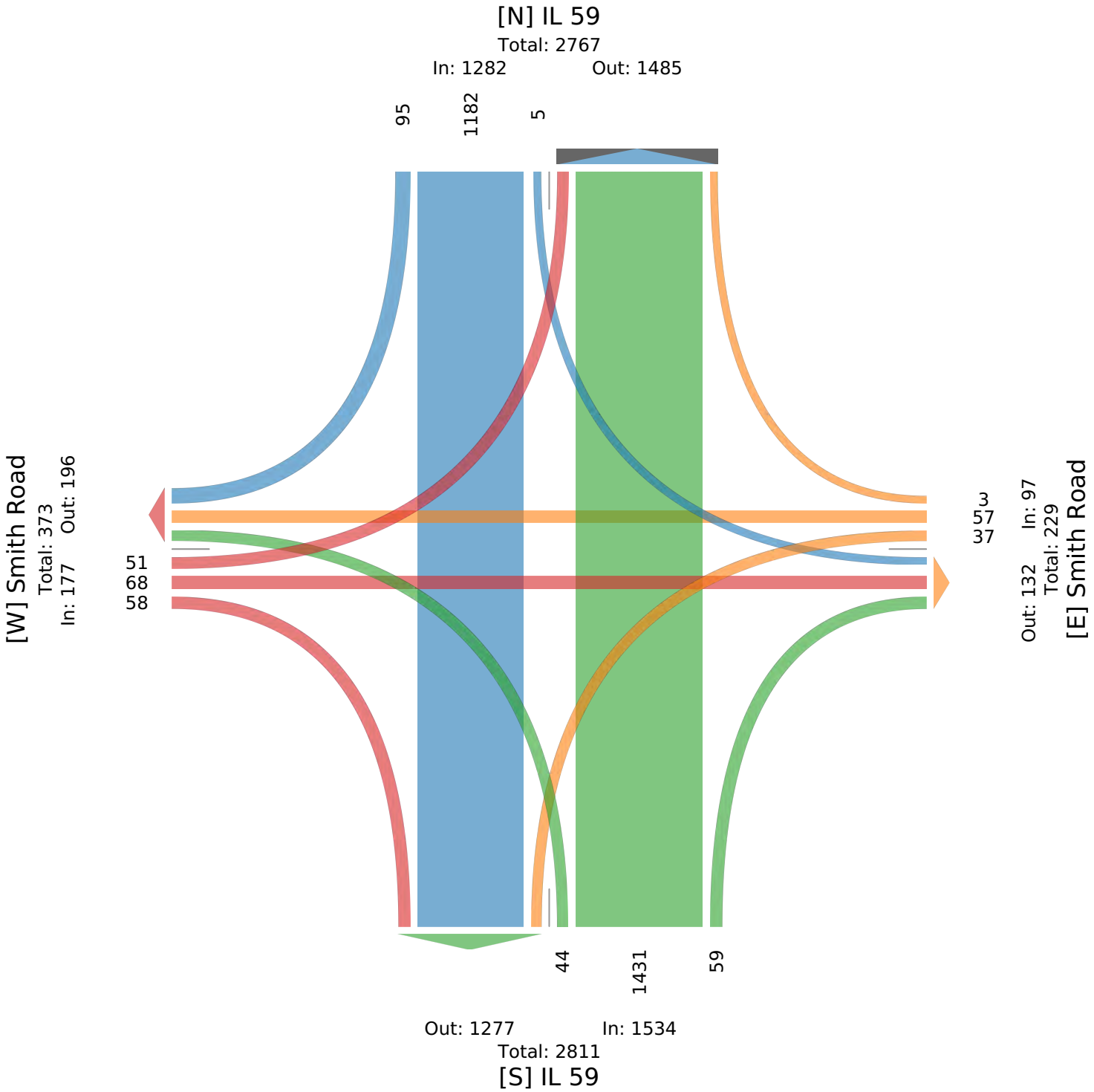
Leg	IL 59 Southbound						Smith Road Westbound						IL 59 Northbound						Smith Road Eastbound						
Direction																									
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2021-06-28 4:30PM	12	324	1	0	**337**	0	1	9	12	0	**22**	0	17	318	7	0	**342**	0	15	13	4	0	**32**	0	**733**
4:45PM	26	263	0	0	**289**	0	1	9	9	0	**19**	0	16	372	12	0	**400**	0	20	21	12	0	**53**	0	**761**
5:00PM	27	276	1	0	**304**	0	1	14	11	0	**26**	0	12	387	16	0	**415**	0	9	19	15	0	**43**	0	**788**
5:15PM	30	319	3	0	**352**	0	0	25	5	0	**30**	0	14	354	9	0	**377**	0	14	15	20	0	**49**	0	**808**
Total	95	1182	5	0	**1282**	0	3	57	37	0	**97**	0	59	1431	44	0	**1534**	0	58	68	51	0	**177**	0	**3090**
% Approach	7.4%	92.2%	0.4%	0%	**-**	-	3.1%	58.8%	38.1%	0%	**-**	-	3.8%	93.3%	2.9%	0%	**-**	-	32.8%	38.4%	28.8%	0%	**-**	-	-
% Total	3.1%	38.3%	0.2%	0%	**41.5%**	-	0.1%	1.8%	1.2%	0%	**3.1%**	-	1.9%	46.3%	1.4%	0%	**49.6%**	-	1.9%	2.2%	1.7%	0%	**5.7%**	-	-
PHF	0.792	0.912	0.417		**0.911**	-	0.750	0.570	0.771		**0.808**	-	0.868	0.924	0.688		**0.924**	-	0.725	0.798	0.638		**0.830**	-	0.956
Lights	94	1123	5	0	**1222**	-	3	57	36	0	**96**	-	59	1377	44	0	**1480**	-	57	67	51	0	**175**	-	2973
% Lights	98.9%	95.0%	100%	0%	**95.3%**	-	100%	100%	97.3%	0%	**99.0%**	-	100%	96.2%	100%	0%	**96.5%**	-	98.3%	98.5%	100%	0%	**98.9%**	-	96.2%
Single-Unit Trucks	1	18	0	0	**19**	-	0	0	1	0	**1**	-	0	23	0	0	**23**	-	1	0	0	0	**1**	-	44
% Single-Unit Trucks	1.1%	1.5%	0%	0%	**1.5%**	-	0%	0%	2.7%	0%	**1.0%**	-	0%	1.6%	0%	0%	**1.5%**	-	1.7%	0%	0%	0%	**0.6%**	-	1.4%
Articulated Trucks	0	39	0	0	**39**	-	0	0	0	0	**0**	-	0	31	0	0	**31**	-	0	0	0	0	**0**	-	70
% Articulated Trucks	0%	3.3%	0%	0%	**3.0%**	-	0%	0%	0%	0%	**0%**	-	0%	2.2%	0%	0%	**2.0%**	-	0%	0%	0%	0%	**0%**	-	2.3%
Buses	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	2
% Buses	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	1.5%	0%	0%	**0.6%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

IL Route 59 with Smith Road - TMC

Mon Jun 28, 2021
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851806, Location: 41.9357, -88.20872

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



North Avenue with Klein Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851805, Location: 41.912357, -88.189441

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

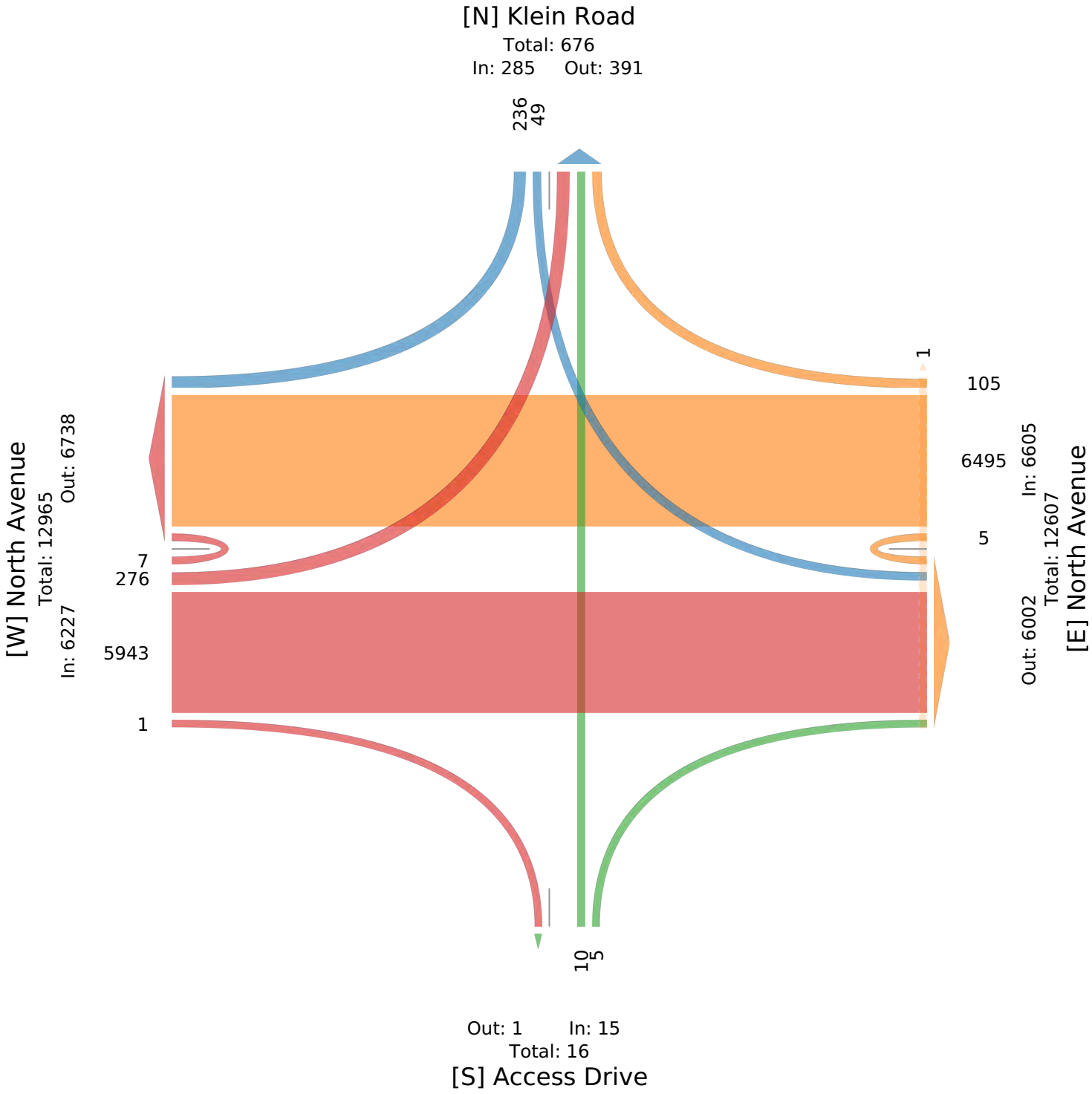
Leg	Klein Road						North Avenue						Access Drive						North Avenue						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	4	0	5	0	**9**	0	1	235	0	0	**236**	0	0	0	0	0	**0**	0	0	308	3	0	**311**	0	**556**
6:45AM	7	0	4	0	**11**	0	1	228	0	0	**229**	0	1	0	0	0	**1**	0	0	301	10	0	**311**	0	**552**
Hourly Total	11	0	9	0	**20**	0	2	463	0	0	**465**	0	1	0	0	0	**1**	0	0	609	13	0	**622**	0	**1108**
7:00AM	9	0	3	0	**12**	0	0	227	0	1	**228**	0	1	0	0	0	**1**	0	0	283	7	2	**292**	0	**533**
7:15AM	12	0	2	0	**14**	0	1	243	0	0	**244**	0	0	0	0	0	**0**	0	0	342	4	0	**346**	0	**604**
7:30AM	12	0	2	0	**14**	0	6	255	0	0	**261**	0	1	0	0	0	**1**	0	1	347	10	1	**359**	0	**635**
7:45AM	9	0	2	0	**11**	0	2	315	0	0	**317**	0	0	1	0	0	**1**	0	0	361	11	1	**373**	0	**702**
Hourly Total	42	0	9	0	**51**	0	9	1040	0	1	**1050**	0	2	1	0	0	**3**	0	1	1333	32	4	**1370**	0	**2474**
8:00AM	20	0	2	0	**22**	0	2	246	0	1	**249**	0	0	0	0	0	**0**	0	0	351	11	0	**362**	0	**633**
8:15AM	12	0	3	0	**15**	0	1	261	0	0	**262**	0	0	0	0	0	**0**	0	0	316	5	0	**321**	0	**598**
8:30AM	9	0	2	0	**11**	0	4	252	0	0	**256**	0	0	0	0	0	**0**	0	0	267	11	0	**278**	0	**545**
8:45AM	14	0	7	0	**21**	0	10	284	0	0	**294**	0	0	0	0	0	**0**	0	0	247	11	0	**258**	0	**573**
Hourly Total	55	0	14	0	**69**	0	17	1043	0	1	**1061**	0	0	0	0	0	**0**	0	0	1181	38	0	**1219**	0	**2349**
4:00PM	13	0	5	0	**18**	0	12	379	0	1	**392**	1	0	0	0	0	**0**	0	0	302	17	1	**320**	0	**730**
4:15PM	13	0	2	0	**15**	0	4	381	0	0	**385**	0	1	0	0	0	**1**	0	0	294	22	0	**316**	0	**717**
4:30PM	8	0	3	0	**11**	0	13	435	0	0	**448**	0	0	9	0	0	**9**	0	0	305	14	1	**320**	0	**788**
4:45PM	13	0	0	0	**13**	0	6	420	0	1	**427**	0	1	0	0	0	**1**	0	0	340	21	1	**362**	0	**803**
Hourly Total	47	0	10	0	**57**	0	35	1615	0	2	**1652**	1	2	9	0	0	**11**	0	0	1241	74	3	**1318**	0	**3038**
5:00PM	17	0	1	0	**18**	0	11	463	0	0	**474**	0	0	0	0	0	**0**	0	0	285	21	0	**306**	0	**798**
5:15PM	17	0	0	0	**17**	0	7	498	0	0	**505**	0	0	0	0	0	**0**	0	0	347	29	0	**376**	0	**898**
5:30PM	13	0	2	0	**15**	0	8	400	0	0	**408**	0	0	0	0	0	**0**	0	0	265	21	0	**286**	0	**709**
5:45PM	12	0	1	0	**13**	0	6	379	0	0	**385**	0	0	0	0	0	**0**	0	0	247	13	0	**260**	0	**658**
Hourly Total	59	0	4	0	**63**	0	32	1740	0	0	**1772**	0	0	0	0	0	**0**	0	0	1144	84	0	**1228**	0	**3063**
6:00PM	14	0	2	0	**16**	0	5	289	0	1	**295**	0	0	0	0	0	**0**	0	0	214	19	0	**233**	0	**544**
6:15PM	8	0	1	0	**9**	0	5	305	0	0	**310**	0	0	0	0	0	**0**	0	0	221	16	0	**237**	0	**556**
Hourly Total	22	0	3	0	**25**	0	10	594	0	1	**605**	0	0	0	0	0	**0**	0	0	435	35	0	**470**	0	**1100**
Total	236	0	49	0	**285**	0	105	6495	0	5	**6605**	1	5	10	0	0	**15**	0	1	5943	276	7	**6227**	0	**13132**
% Approach	82.8%	0%	17.2%	0%	**-**	-	1.6%	98.3%	0%	0.1%	**-**	-	33.3%	66.7%	0%	0%	**-**	-	0%	95.4%	4.4%	0.1%	**-**	-	-
% Total	1.8%	0%	0.4%	0%	**2.2%**	-	0.8%	49.5%	0%	0%	**50.3%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	45.3%	2.1%	0.1%	**47.4%**	-	-
Lights	231	0	48	0	**279**	-	103	5953	0	5	**6061**	-	4	9	0	0	**13**	-	1	5423	271	4	**5699**	-	12052
% Lights	97.9%	0%	98.0%	0%	**97.9%**	-	98.1%	91.7%	0%	100%	**91.8%**	-	80.0%	90.0%	0%	0%	**86.7%**	-	100%	91.3%	98.2%	57.1%	**91.5%**	-	91.8%
Single-Unit Trucks	4	0	0	0	**4**	-	2	225	0	0	**227**	-	0	0	0	0	**0**	-	0	233	4	3	**240**	-	471
% Single-Unit Trucks	1.7%	0%	0%	0%	**1.4%**	-	1.9%	3.5%	0%	0%	**3.4%**	-	0%	0%	0%	0%	**0%**	-	0%	3.9%	1.4%	42.9%	**3.9%**	-	3.6%
Articulated Trucks	0	0	0	0	**0**	-	0	303	0	0	**303**	-	1	1	0	0	**2**	-	0	280	0	0	**280**	-	585
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	4.7%	0%	0%	**4.6%**	-	20.0%	10.0%	0%	0%	**13.3%**	-	0%	4.7%	0%	0%	**4.5%**	-	4.5%
Buses	1	0	1	0	**2**	-	0	14	0	0	**14**	-	0	0	0	0	**0**	-	0	7	1	0	**8**	-	24
% Buses	0.4%	0%	2.0%	0%	**0.7%**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0.4%	0%	**0.1%**	-	0.2%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-

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

North Avenue with Klein Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851805, Location: 41.912357, -88.189441

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



North Avenue with Klein Road - TMC

Mon Jun 28, 2021
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851805, Location: 41.912357, -88.189441

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

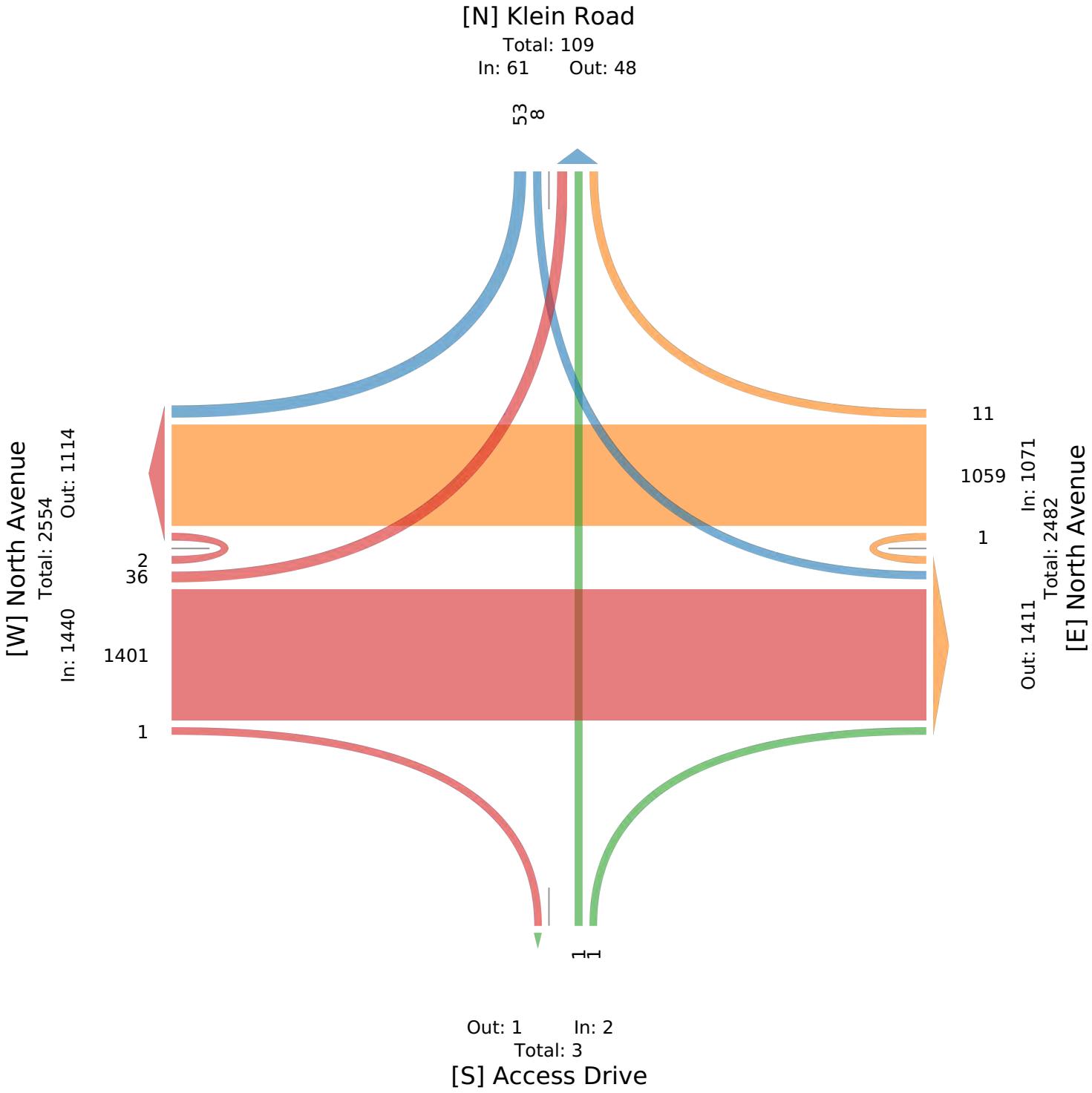
Leg	Klein Road						North Avenue						Access Drive						North Avenue						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2021-06-28 7:15AM	12	0	2	0	**14**	0	1	243	0	0	**244**	0	0	0	0	0	**0**	0	0	342	4	0	**346**	0	**604**
7:30AM	12	0	2	0	**14**	0	6	255	0	0	**261**	0	1	0	0	0	**1**	0	1	347	10	1	**359**	0	**635**
7:45AM	9	0	2	0	**11**	0	2	315	0	0	**317**	0	0	1	0	0	**1**	0	0	361	11	1	**373**	0	**702**
8:00AM	20	0	2	0	**22**	0	2	246	0	1	**249**	0	0	0	0	0	**0**	0	0	351	11	0	**362**	0	**633**
Total	53	0	8	0	**61**	0	11	1059	0	1	**1071**	0	1	1	0	0	**2**	0	1	1401	36	2	**1440**	0	**2574**
% Approach	86.9%	0%	13.1%	0%	**-**	-	1.0%	98.9%	0%	0.1%	**-**	-	50.0%	50.0%	0%	0%	**-**	-	0.1%	97.3%	2.5%	0.1%	**-**	-	-
% Total	2.1%	0%	0.3%	0%	**2.4%**	-	0.4%	41.1%	0%	0%	**41.6%**	-	0%	0%	0%	0%	**0.1%**	-	0%	54.4%	1.4%	0.1%	**55.9%**	-	-
PHF	0.663	-	1.000	-	**0.693**	-	0.458	0.840	-	0.250	**0.845**	-	0.250	0.250	-	-	**0.500**	-	0.250	0.970	0.818	0.500	**0.965**	-	0.917
Lights	51	0	8	0	**59**	-	10	929	0	1	**940**	-	1	1	0	0	**2**	-	1	1295	35	1	**1332**	-	2333
% Lights	96.2%	0%	100%	0%	**96.7%**	-	90.9%	87.7%	0%	100%	**87.8%**	-	100%	100%	0%	0%	**100%**	-	100%	92.4%	97.2%	50.0%	**92.5%**	-	90.6%
Single-Unit Trucks	1	0	0	0	**1**	-	1	60	0	0	**61**	-	0	0	0	0	**0**	-	0	45	1	1	**47**	-	109
% Single-Unit Trucks	1.9%	0%	0%	0%	**1.6%**	-	9.1%	5.7%	0%	0%	**5.7%**	-	0%	0%	0%	0%	**0%**	-	0%	3.2%	2.8%	50.0%	**3.3%**	-	4.2%
Articulated Trucks	0	0	0	0	**0**	-	0	68	0	0	**68**	-	0	0	0	0	**0**	-	0	58	0	0	**58**	-	126
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	6.4%	0%	0%	**6.3%**	-	0%	0%	0%	0%	**0%**	-	0%	4.1%	0%	0%	**4.0%**	-	4.9%
Buses	1	0	0	0	**1**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	3	0	0	**3**	-	6
% Buses	1.9%	0%	0%	0%	**1.6%**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0.2%	0%	0%	**0.2%**	-	0.2%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

North Avenue with Klein Road - TMC

Mon Jun 28, 2021
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851805, Location: 41.912357, -88.189441

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



North Avenue with Klein Road - TMC

Mon Jun 28, 2021
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851805, Location: 41.912357, -88.189441

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

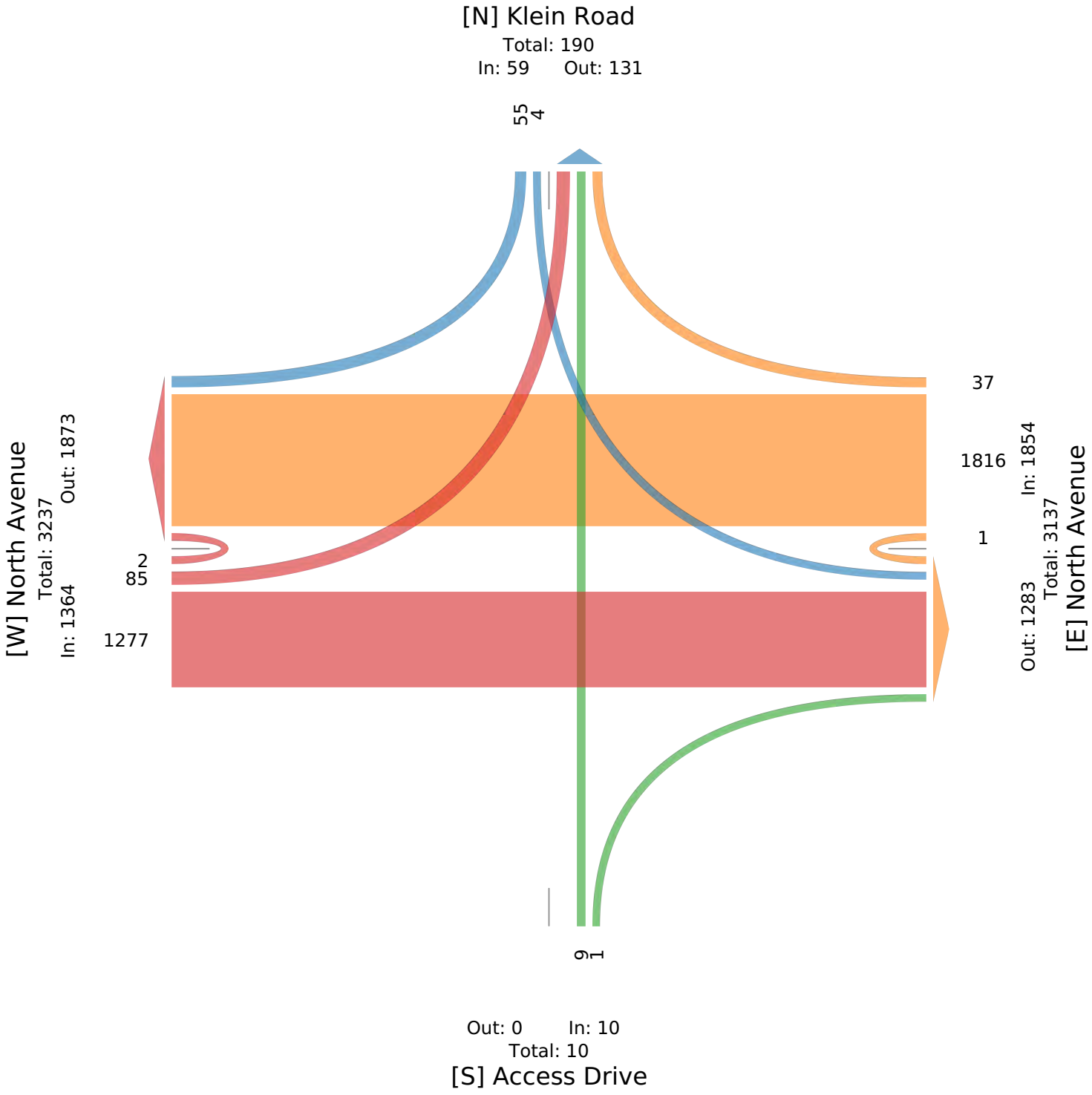
Leg / Direction	Klein Road Southbound						North Avenue Westbound						Access Drive Northbound						North Avenue Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2021-06-28 4:30PM	8	0	3	0	**11**	0	13	435	0	0	**448**	0	0	9	0	0	**9**	0	0	305	14	1	**320**	0	**788**
4:45PM	13	0	0	0	**13**	0	6	420	0	1	**427**	0	1	0	0	0	**1**	0	0	340	21	1	**362**	0	**803**
5:00PM	17	0	1	0	**18**	0	11	463	0	0	**474**	0	0	0	0	0	**0**	0	0	285	21	0	**306**	0	**798**
5:15PM	17	0	0	0	**17**	0	7	498	0	0	**505**	0	0	0	0	0	**0**	0	0	347	29	0	**376**	0	**898**
Total	55	0	4	0	**59**	0	37	1816	0	1	**1854**	0	1	9	0	0	**10**	0	0	1277	85	2	**1364**	0	**3287**
% Approach	93.2%	0%	6.8%	0%	**-**	-	2.0%	98.0%	0%	0.1%	**-**	-	10.0%	90.0%	0%	0%	**-**	-	0%	93.6%	6.2%	0.1%	**-**	-	-
% Total	1.7%	0%	0.1%	0%	**1.8%**	-	1.1%	55.2%	0%	0%	**56.4%**	-	0%	0.3%	0%	0%	**0.3%**	-	0%	38.9%	2.6%	0.1%	**41.5%**	-	-
PHF	0.809	-	0.333	-	**0.819**	-	0.712	0.912	-	0.250	**0.918**	-	0.250	0.250	-	-	**0.278**	-	-	0.920	0.733	0.500	**0.907**	-	0.915
Lights	55	0	4	0	**59**	-	36	1731	0	1	**1768**	-	1	8	0	0	**9**	-	0	1183	85	2	**1270**	-	3106
% Lights	100%	0%	100%	0%	**100%**	-	97.3%	95.3%	0%	100%	**95.4%**	-	100%	88.9%	0%	0%	**90.0%**	-	0%	92.6%	100%	100%	**93.1%**	-	94.5%
Single-Unit Trucks	0	0	0	0	**0**	-	1	33	0	0	**34**	-	0	0	0	0	**0**	-	0	43	0	0	**43**	-	77
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	2.7%	1.8%	0%	0%	**1.8%**	-	0%	0%	0%	0%	**0%**	-	0%	3.4%	0%	0%	**3.2%**	-	2.3%
Articulated Trucks	0	0	0	0	**0**	-	0	49	0	0	**49**	-	0	1	0	0	**1**	-	0	50	0	0	**50**	-	100
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	2.7%	0%	0%	**2.6%**	-	0%	11.1%	0%	0%	**10.0%**	-	0%	3.9%	0%	0%	**3.7%**	-	3.0%
Buses	0	0	0	0	**0**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	4
% Buses	0%	0%	0%	0%	**0%**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.1%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

North Avenue with Klein Road - TMC

Mon Jun 28, 2021
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851805, Location: 41.912357, -88.189441

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



Smith Road with Klein Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851810, Location: 41.941537, -88.188043

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

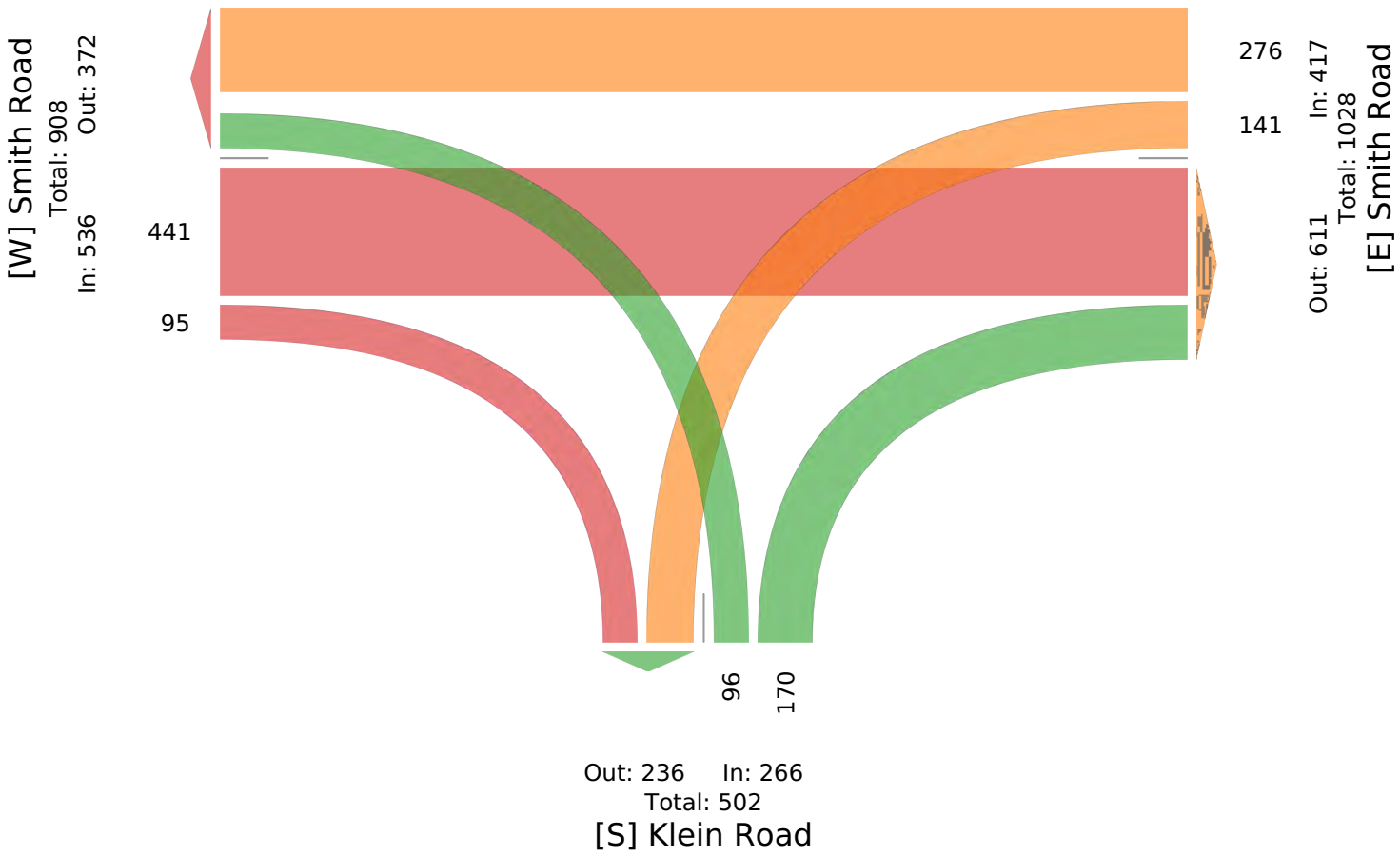
Leg	Smith Road					Klein Road					Smith Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	4	4	0	**8**	0	2	4	0	**6**	0	3	22	0	**25**	0	**39**
6:45AM	4	5	0	**9**	0	6	2	0	**8**	0	6	10	0	**16**	0	**33**
Hourly Total	8	9	0	**17**	0	8	6	0	**14**	0	9	32	0	**41**	0	**72**
7:00AM	14	2	0	**16**	0	9	0	0	**9**	0	3	21	0	**24**	0	**49**
7:15AM	9	9	0	**18**	0	13	2	0	**15**	0	4	24	0	**28**	0	**61**
7:30AM	12	1	0	**13**	0	7	4	0	**11**	0	2	27	0	**29**	0	**53**
7:45AM	8	8	0	**16**	0	8	0	0	**8**	0	7	28	0	**35**	0	**59**
Hourly Total	43	20	0	**63**	0	37	6	0	**43**	0	16	100	0	**116**	0	**222**
8:00AM	6	8	0	**14**	0	9	6	0	**15**	0	2	25	0	**27**	0	**56**
8:15AM	7	6	0	**13**	0	8	2	0	**10**	0	11	21	0	**32**	0	**55**
8:30AM	11	3	0	**14**	0	11	2	0	**13**	0	2	19	0	**21**	0	**48**
8:45AM	8	5	0	**13**	0	13	3	0	**16**	0	6	14	0	**20**	0	**49**
Hourly Total	32	22	0	**54**	0	41	13	0	**54**	0	21	79	0	**100**	0	**208**
4:00PM	17	10	0	**27**	0	9	9	0	**18**	0	6	22	0	**28**	0	**73**
4:15PM	10	7	0	**17**	0	10	5	0	**15**	0	3	23	0	**26**	0	**58**
4:30PM	18	6	0	**24**	0	9	7	0	**16**	0	4	23	0	**27**	0	**67**
4:45PM	15	13	0	**28**	0	13	4	0	**17**	0	5	35	0	**40**	0	**85**
Hourly Total	60	36	0	**96**	0	41	25	0	**66**	0	18	103	0	**121**	0	**283**
5:00PM	25	8	0	**33**	0	2	4	0	**6**	0	4	24	0	**28**	0	**67**
5:15PM	33	7	0	**40**	0	16	8	0	**24**	0	2	26	0	**28**	0	**92**
5:30PM	27	12	0	**39**	0	6	8	0	**14**	0	6	34	0	**40**	0	**93**
5:45PM	18	12	0	**30**	0	4	11	0	**15**	0	5	13	0	**18**	0	**63**
Hourly Total	103	39	0	**142**	0	28	31	0	**59**	0	17	97	0	**114**	0	**315**
6:00PM	14	7	0	**21**	0	10	5	0	**15**	0	8	17	0	**25**	0	**61**
6:15PM	16	8	0	**24**	0	5	10	0	**15**	0	6	13	0	**19**	0	**58**
Hourly Total	30	15	0	**45**	0	15	15	0	**30**	0	14	30	0	**44**	0	**119**
Total	276	141	0	**417**	0	170	96	0	**266**	0	95	441	0	**536**	0	**1219**
% Approach	66.2%	33.8%	0%	**-**	-	63.9%	36.1%	0%	**-**	-	17.7%	82.3%	0%	**-**	-	-
% Total	22.6%	11.6%	0%	**34.2%**	-	13.9%	7.9%	0%	**21.8%**	-	7.8%	36.2%	0%	**44.0%**	-	-
Lights	274	139	0	**413**	-	169	89	0	**258**	-	90	439	0	**529**	-	1200
% Lights	99.3%	98.6%	0%	**99.0%**	-	99.4%	92.7%	0%	**97.0%**	-	94.7%	99.5%	0%	**98.7%**	-	98.4%
Single-Unit Trucks	1	1	0	**2**	-	1	1	0	**2**	-	2	1	0	**3**	-	7
% Single-Unit Trucks	0.4%	0.7%	0%	**0.5%**	-	0.6%	1.0%	0%	**0.8%**	-	2.1%	0.2%	0%	**0.6%**	-	0.6%
Articulated Trucks	0	1	0	**1**	-	0	1	0	**1**	-	0	0	0	**0**	-	2
% Articulated Trucks	0%	0.7%	0%	**0.2%**	-	0%	1.0%	0%	**0.4%**	-	0%	0%	0%	**0%**	-	0.2%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	1	0	**1**	-	1
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0.2%	0%	**0.2%**	-	0.1%
Bicycles on Road	1	0	0	**1**	-	0	5	0	**5**	-	3	0	0	**3**	-	9
% Bicycles on Road	0.4%	0%	0%	**0.2%**	-	0%	5.2%	0%	**1.9%**	-	3.2%	0%	0%	**0.6%**	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Klein Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851810, Location: 41.941537, -88.188043

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



Smith Road with Klein Road - TMC

Mon Jun 28, 2021
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851810, Location: 41.941537, -88.188043

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

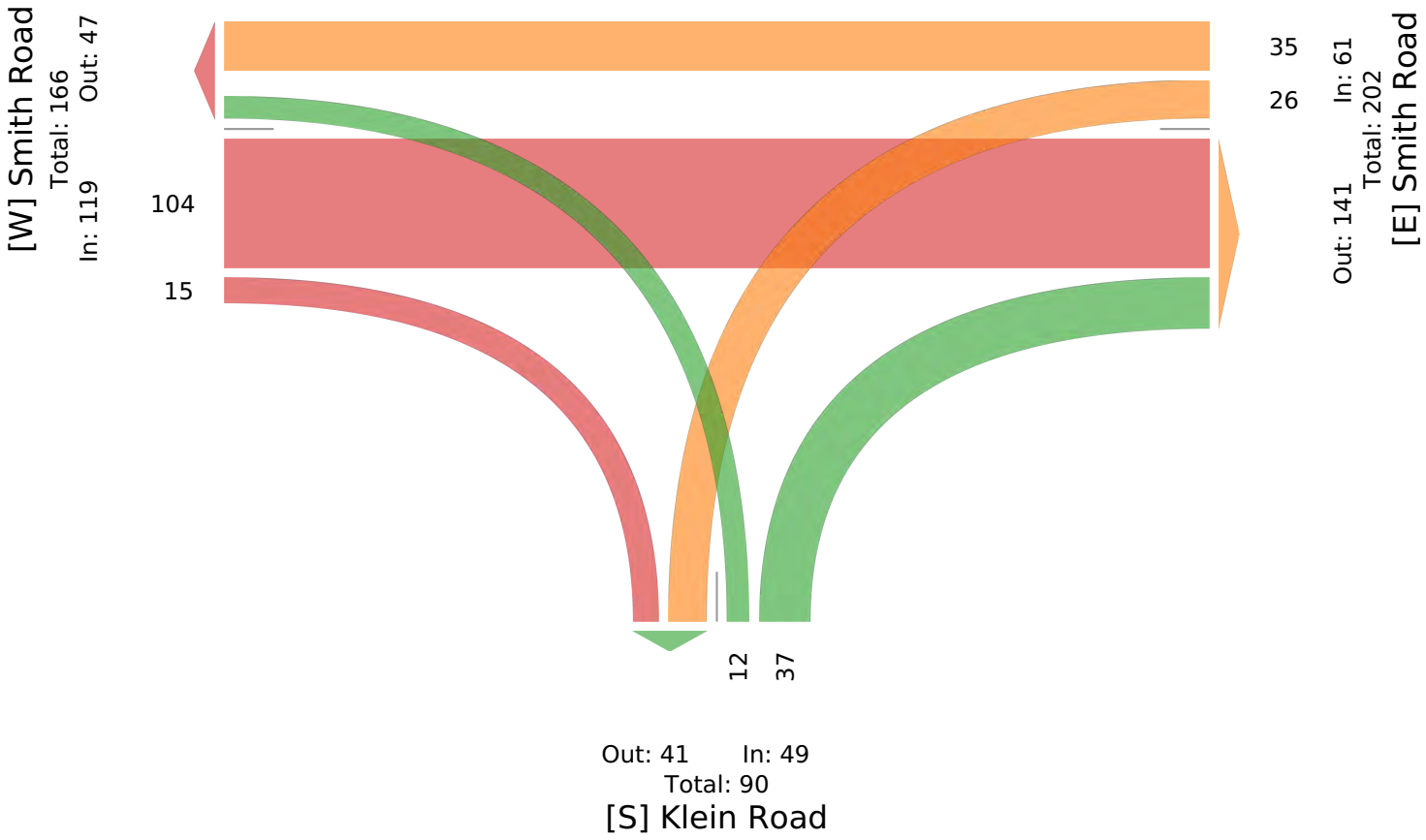
Leg	Smith Road					Klein Road					Smith Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 7:15AM	9	9	0	**18**	0	13	2	0	**15**	0	4	24	0	**28**	0	**61**
7:30AM	12	1	0	**13**	0	7	4	0	**11**	0	2	27	0	**29**	0	**53**
7:45AM	8	8	0	**16**	0	8	0	0	**8**	0	7	28	0	**35**	0	**59**
8:00AM	6	8	0	**14**	0	9	6	0	**15**	0	2	25	0	**27**	0	**56**
Total	35	26	0	**61**	0	37	12	0	**49**	0	15	104	0	**119**	0	**229**
% Approach	57.4%	42.6%	0%	**-**	-	75.5%	24.5%	0%	**-**	-	12.6%	87.4%	0%	**-**	-	-
% Total	15.3%	11.4%	0%	**26.6%**	-	16.2%	5.2%	0%	**21.4%**	-	6.6%	45.4%	0%	**52.0%**	-	-
PHF	0.729	0.722	-	**0.847**	-	0.712	0.458	-	**0.800**	-	0.536	0.929	-	**0.850**	-	0.950
Lights	34	25	0	**59**	-	36	10	0	**46**	-	15	104	0	**119**	-	224
% Lights	97.1%	96.2%	0%	**96.7%**	-	97.3%	83.3%	0%	**93.9%**	-	100%	100%	0%	**100%**	-	97.8%
Single-Unit Trucks	1	0	0	**1**	-	1	0	0	**1**	-	0	0	0	**0**	-	2
% Single-Unit Trucks	2.9%	0%	0%	**1.6%**	-	2.7%	0%	0%	**2.0%**	-	0%	0%	0%	**0%**	-	0.9%
Articulated Trucks	0	1	0	**1**	-	0	1	0	**1**	-	0	0	0	**0**	-	2
% Articulated Trucks	0%	3.8%	0%	**1.6%**	-	0%	8.3%	0%	**2.0%**	-	0%	0%	0%	**0%**	-	0.9%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	8.3%	0%	**2.0%**	-	0%	0%	0%	**0%**	-	0.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Klein Road - TMC

Mon Jun 28, 2021
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851810, Location: 41.941537, -88.188043

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



Smith Road with Klein Road - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851810, Location: 41.941537, -88.188043

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

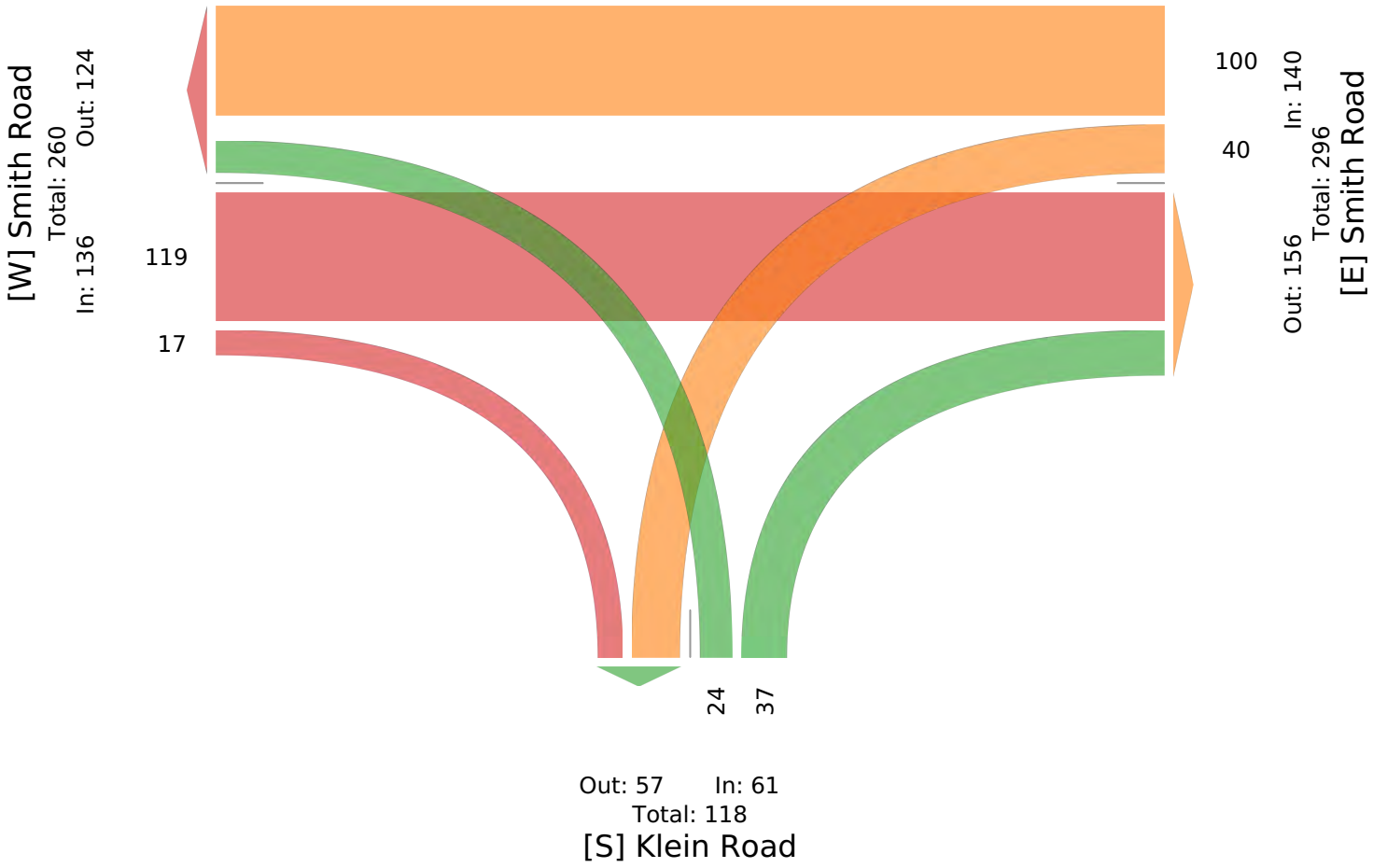
Leg Direction	Smith Road Westbound					Klein Road Northbound					Smith Road Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 4:45PM	15	13	0	**28**	0	13	4	0	**17**	0	5	35	0	**40**	0	**85**
5:00PM	25	8	0	**33**	0	2	4	0	**6**	0	4	24	0	**28**	0	**67**
5:15PM	33	7	0	**40**	0	16	8	0	**24**	0	2	26	0	**28**	0	**92**
5:30PM	27	12	0	**39**	0	6	8	0	**14**	0	6	34	0	**40**	0	**93**
Total	100	40	0	**140**	0	37	24	0	**61**	0	17	119	0	**136**	0	**337**
% Approach	71.4%	28.6%	0%	**-**	-	60.7%	39.3%	0%	**-**	-	12.5%	87.5%	0%	**-**	-	-
% Total	29.7%	11.9%	0%	**41.5%**	-	11.0%	7.1%	0%	**18.1%**	-	5.0%	35.3%	0%	**40.4%**	-	-
PHF	0.758	0.769	-	**0.875**	-	0.578	0.688	-	**0.615**	-	0.667	0.850	-	**0.844**	-	0.908
Lights	100	40	0	**140**	-	37	22	0	**59**	-	16	119	0	**135**	-	334
% Lights	100%	100%	0%	**100%**	-	100%	91.7%	0%	**96.7%**	-	94.1%	100%	0%	**99.3%**	-	99.1%
Single-Unit Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	**0**	-	0	2	0	**2**	-	1	0	0	**1**	-	3
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	8.3%	0%	**3.3%**	-	5.9%	0%	0%	**0.7%**	-	0.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Klein Road - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851810, Location: 41.941537, -88.188043

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



Smith Road with Petersdorf Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851811, Location: 41.939194, -88.193822

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

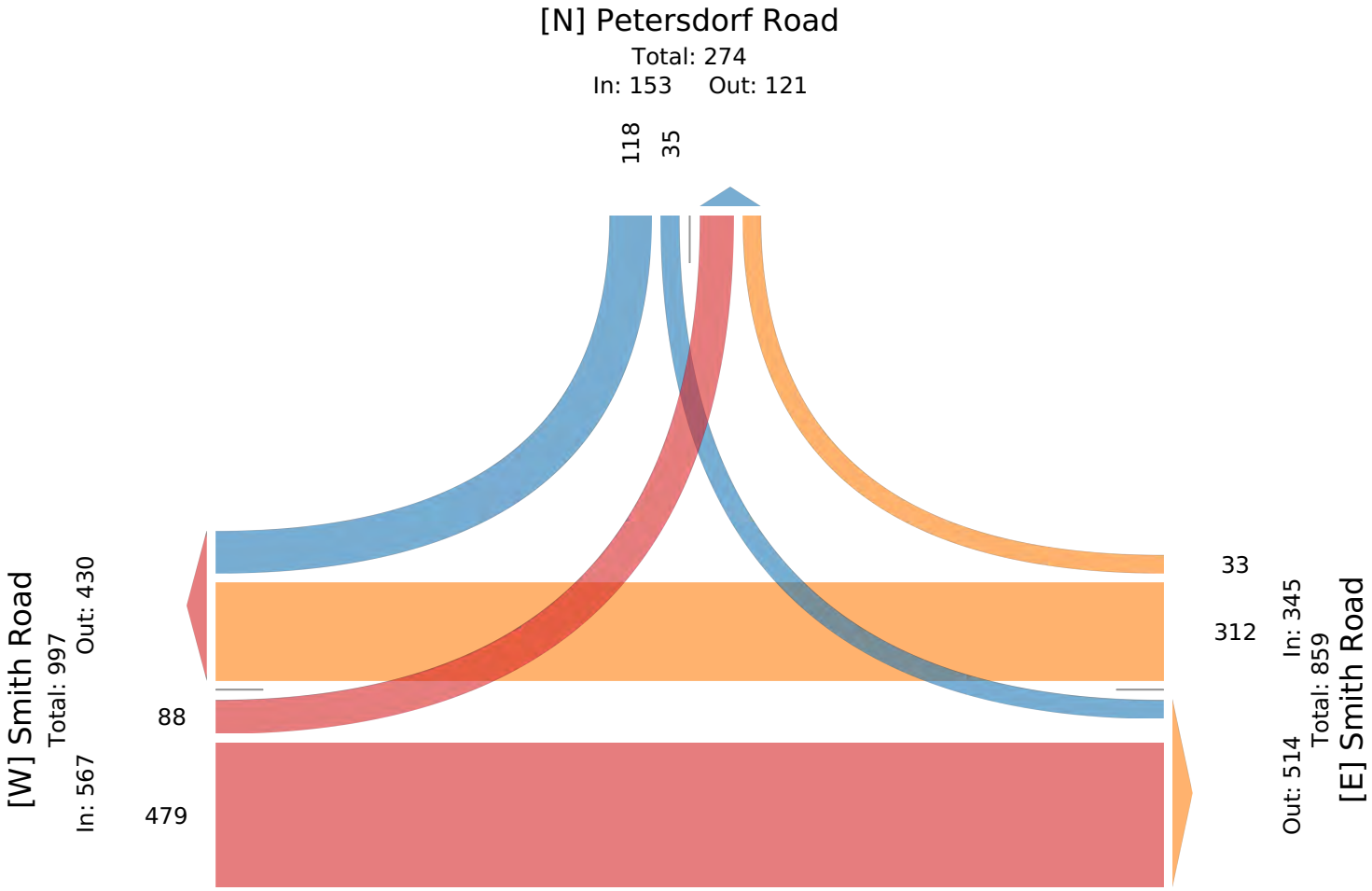
Leg	Petersdorf Road					Smith Road					Smith Road					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	1	2	0	**3**	0	1	5	0	**6**	0	19	2	0	**21**	0	**30**
6:45AM	5	2	0	**7**	0	0	5	0	**5**	0	11	1	0	**12**	0	**24**
Hourly Total	6	4	0	**10**	0	1	10	0	**11**	0	30	3	0	**33**	0	**54**
7:00AM	0	1	0	**1**	0	0	15	0	**15**	0	26	4	0	**30**	0	**46**
7:15AM	4	2	0	**6**	0	1	7	0	**8**	0	23	2	0	**25**	0	**39**
7:30AM	5	0	0	**5**	0	4	13	0	**17**	0	27	2	0	**29**	0	**51**
7:45AM	7	4	0	**11**	0	1	11	0	**12**	0	30	4	0	**34**	0	**57**
Hourly Total	16	7	0	**23**	0	6	46	0	**52**	0	106	12	0	**118**	0	**193**
8:00AM	1	0	0	**1**	0	1	9	0	**10**	0	29	3	0	**32**	0	**43**
8:15AM	6	1	0	**7**	0	1	7	0	**8**	0	24	1	0	**25**	0	**40**
8:30AM	2	0	0	**2**	0	0	13	0	**13**	0	23	2	0	**25**	0	**40**
8:45AM	7	2	0	**9**	0	0	10	0	**10**	0	12	3	0	**15**	0	**34**
Hourly Total	16	3	0	**19**	0	2	39	0	**41**	0	88	9	0	**97**	0	**157**
4:00PM	8	3	0	**11**	0	2	21	0	**23**	0	24	9	0	**33**	0	**67**
4:15PM	12	1	0	**13**	0	3	12	0	**15**	0	25	9	0	**34**	0	**62**
4:30PM	9	5	0	**14**	0	3	19	0	**22**	0	26	7	0	**33**	0	**69**
4:45PM	6	1	0	**7**	0	2	18	0	**20**	0	41	5	0	**46**	0	**73**
Hourly Total	35	10	0	**45**	0	10	70	0	**80**	0	116	30	0	**146**	0	**271**
5:00PM	11	0	0	**11**	0	2	26	0	**28**	0	26	9	0	**35**	0	**74**
5:15PM	9	0	0	**9**	0	3	31	0	**34**	0	31	6	0	**37**	0	**80**
5:30PM	8	6	0	**14**	0	3	36	0	**39**	0	33	7	0	**40**	0	**93**
5:45PM	3	0	0	**3**	0	5	19	0	**24**	0	15	2	0	**17**	0	**44**
Hourly Total	31	6	0	**37**	0	13	112	0	**125**	0	105	24	0	**129**	0	**291**
6:00PM	5	5	0	**10**	0	1	19	0	**20**	0	19	7	0	**26**	0	**56**
6:15PM	9	0	0	**9**	0	0	16	0	**16**	0	15	3	0	**18**	0	**43**
Hourly Total	14	5	0	**19**	0	1	35	0	**36**	0	34	10	0	**44**	0	**99**
Total	118	35	0	**153**	0	33	312	0	**345**	0	479	88	0	**567**	0	**1065**
% Approach	77.1%	22.9%	0%	**-**	-	9.6%	90.4%	0%	**-**	-	84.5%	15.5%	0%	**-**	-	-
% Total	11.1%	3.3%	0%	**14.4%**	-	3.1%	29.3%	0%	**32.4%**	-	45.0%	8.3%	0%	**53.2%**	-	-
Lights	115	33	0	**148**	-	33	305	0	**338**	-	474	88	0	**562**	-	1048
% Lights	97.5%	94.3%	0%	**96.7%**	-	100%	97.8%	0%	**98.0%**	-	99.0%	100%	0%	**99.1%**	-	98.4%
Single-Unit Trucks	0	0	0	**0**	-	0	2	0	**2**	-	1	0	0	**1**	-	3
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0.6%	0%	**0.6%**	-	0.2%	0%	0%	**0.2%**	-	0.3%
Articulated Trucks	1	0	0	**1**	-	0	1	0	**1**	-	0	0	0	**0**	-	2
% Articulated Trucks	0.8%	0%	0%	**0.7%**	-	0%	0.3%	0%	**0.3%**	-	0%	0%	0%	**0%**	-	0.2%
Buses	2	0	0	**2**	-	0	0	0	**0**	-	1	0	0	**1**	-	3
% Buses	1.7%	0%	0%	**1.3%**	-	0%	0%	0%	**0%**	-	0.2%	0%	0%	**0.2%**	-	0.3%
Bicycles on Road	0	2	0	**2**	-	0	4	0	**4**	-	3	0	0	**3**	-	9
% Bicycles on Road	0%	5.7%	0%	**1.3%**	-	0%	1.3%	0%	**1.2%**	-	0.6%	0%	0%	**0.5%**	-	0.8%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Petersdorf Road - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851811, Location: 41.939194, -88.193822

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



Smith Road with Petersdorf Road - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851811, Location: 41.939194, -88.193822

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

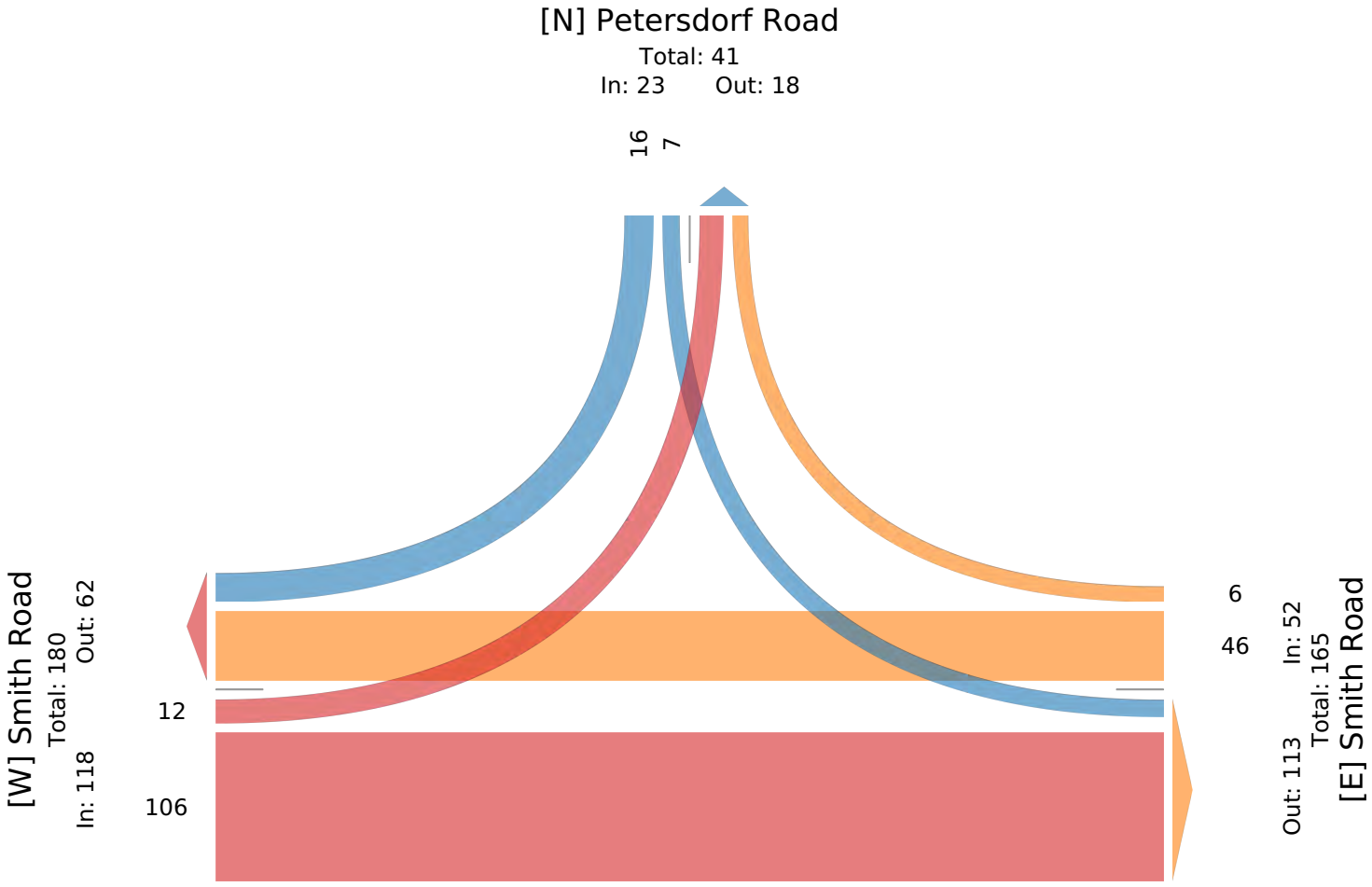
Leg Direction	Petersdorf Road Southbound					Smith Road Westbound					Smith Road Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2021-06-28 7:00AM	0	1	0	**1**	0	0	15	0	**15**	0	26	4	0	**30**	0	**46**
7:15AM	4	2	0	**6**	0	1	7	0	**8**	0	23	2	0	**25**	0	**39**
7:30AM	5	0	0	**5**	0	4	13	0	**17**	0	27	2	0	**29**	0	**51**
7:45AM	7	4	0	**11**	0	1	11	0	**12**	0	30	4	0	**34**	0	**57**
Total	16	7	0	**23**	0	6	46	0	**52**	0	106	12	0	**118**	0	**193**
% Approach	69.6%	30.4%	0%	**-**	-	11.5%	88.5%	0%	**-**	-	89.8%	10.2%	0%	**-**	-	-
% Total	8.3%	3.6%	0%	**11.9%**	-	3.1%	23.8%	0%	**26.9%**	-	54.9%	6.2%	0%	**61.1%**	-	-
PHF	0.571	0.438	-	**0.523**	-	0.375	0.767	-	**0.765**	-	0.875	0.750	-	**0.860**	-	0.842
Lights	14	7	0	**21**	-	6	45	0	**51**	-	104	12	0	**116**	-	188
% Lights	87.5%	100%	0%	**91.3%**	-	100%	97.8%	0%	**98.1%**	-	98.1%	100%	0%	**98.3%**	-	97.4%
Single-Unit Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	2.2%	0%	**1.9%**	-	0%	0%	0%	**0%**	-	0.5%
Articulated Trucks	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Articulated Trucks	6.3%	0%	0%	**4.3%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.5%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	1	0	0	**1**	-	2
% Buses	6.3%	0%	0%	**4.3%**	-	0%	0%	0%	**0%**	-	0.9%	0%	0%	**0.8%**	-	1.0%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.9%	0%	0%	**0.8%**	-	0.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Petersdorf Road - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851811, Location: 41.939194, -88.193822

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



Smith Road with Petersdorf Road - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851811, Location: 41.939194, -88.193822

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

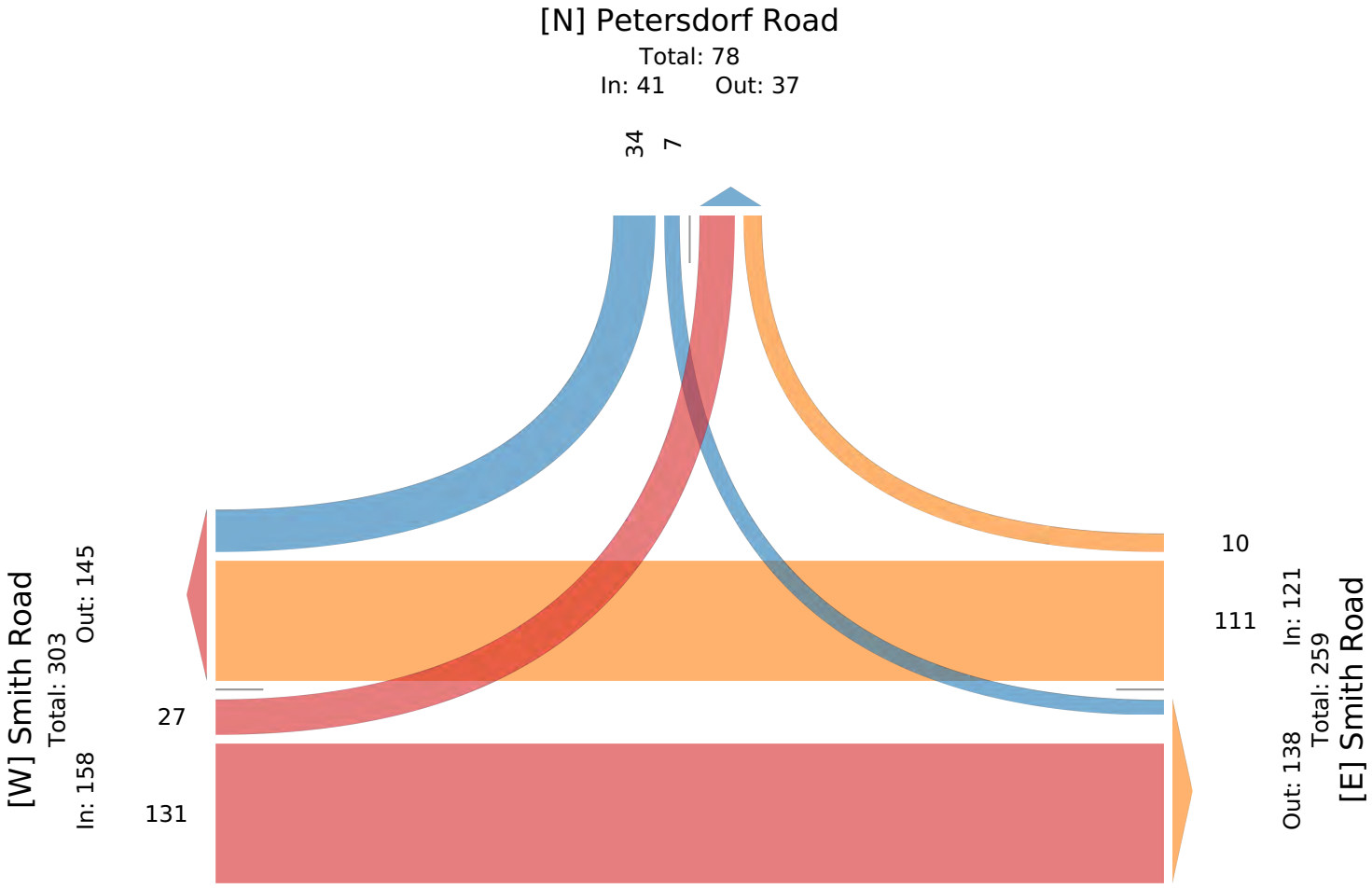
Leg	Petersdorf Road					Smith Road					Smith Road					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2021-06-28 4:45PM	6	1	0	**7**	0	2	18	0	**20**	0	41	5	0	**46**	0	**73**
5:00PM	11	0	0	**11**	0	2	26	0	**28**	0	26	9	0	**35**	0	**74**
5:15PM	9	0	0	**9**	0	3	31	0	**34**	0	31	6	0	**37**	0	**80**
5:30PM	8	6	0	**14**	0	3	36	0	**39**	0	33	7	0	**40**	0	**93**
Total	34	7	0	**41**	0	10	111	0	**121**	0	131	27	0	**158**	0	**320**
% Approach	82.9%	17.1%	0%	**-**	-	8.3%	91.7%	0%	**-**	-	82.9%	17.1%	0%	**-**	-	**-**
% Total	10.6%	2.2%	0%	**12.8%**	-	3.1%	34.7%	0%	**37.8%**	-	40.9%	8.4%	0%	**49.4%**	-	**-**
PHF	0.773	0.292	-	**0.732**	-	0.833	0.801	-	**0.804**	-	0.793	0.750	-	**0.853**	-	0.871
Lights	34	7	0	**41**	-	10	108	0	**118**	-	130	27	0	**157**	-	316
% Lights	100%	100%	0%	**100%**	-	100%	97.3%	0%	**97.5%**	-	99.2%	100%	0%	**99.4%**	-	98.8%
Single-Unit Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0.9%	0%	**0.8%**	-	0%	0%	0%	**0%**	-	0.3%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	**0**	-	0	2	0	**2**	-	1	0	0	**1**	-	3
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	1.8%	0%	**1.7%**	-	0.8%	0%	0%	**0.6%**	-	0.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Petersdorf Road - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851811, Location: 41.939194, -88.193822

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



Smith Road with Trinity Lane - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851807, Location: 41.936562, -88.20016

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

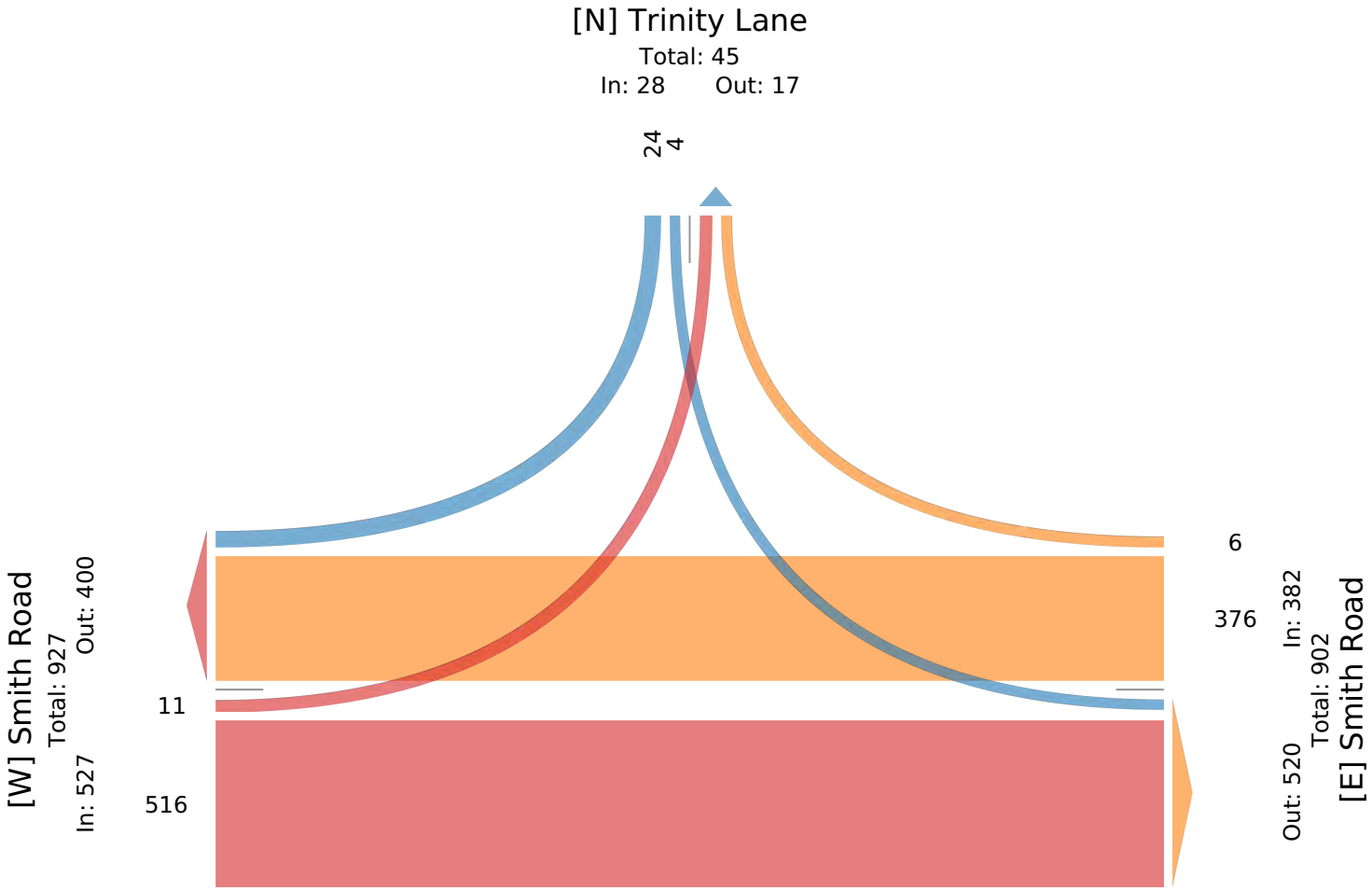
Leg	Trinity Lane					Smith Road					Smith Road					
Direction	Southbound					Westbound					Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	1	0	0	**1**	0	0	4	0	**4**	0	19	0	0	**19**	0	**24**
6:45AM	2	0	0	**2**	0	0	8	0	**8**	0	10	0	0	**10**	0	**20**
Hourly Total	3	0	0	**3**	0	0	12	0	**12**	0	29	0	0	**29**	0	**44**
7:00AM	1	0	0	**1**	0	0	13	0	**13**	0	28	0	0	**28**	0	**42**
7:15AM	1	0	0	**1**	0	0	14	0	**14**	0	20	0	0	**20**	0	**35**
7:30AM	1	0	0	**1**	0	1	16	0	**17**	0	26	0	0	**26**	0	**44**
7:45AM	2	0	0	**2**	0	0	19	0	**19**	0	33	1	0	**34**	0	**55**
Hourly Total	5	0	0	**5**	0	1	62	0	**63**	0	107	1	0	**108**	0	**176**
8:00AM	1	0	0	**1**	0	0	10	0	**10**	0	27	0	0	**27**	0	**38**
8:15AM	2	0	0	**2**	0	0	11	0	**11**	0	20	0	0	**20**	0	**33**
8:30AM	1	0	0	**1**	0	0	17	0	**17**	0	24	0	0	**24**	0	**42**
8:45AM	1	0	0	**1**	0	0	13	0	**13**	0	13	1	0	**14**	0	**28**
Hourly Total	5	0	0	**5**	0	0	51	0	**51**	0	84	1	0	**85**	0	**141**
4:00PM	1	0	0	**1**	0	0	22	0	**22**	0	33	1	0	**34**	0	**57**
4:15PM	1	1	0	**2**	0	0	20	0	**20**	0	38	0	0	**38**	0	**60**
4:30PM	2	0	0	**2**	0	0	26	0	**26**	0	28	0	0	**28**	0	**56**
4:45PM	1	0	0	**1**	0	0	20	0	**20**	0	41	0	0	**41**	0	**62**
Hourly Total	5	1	0	**6**	0	0	88	0	**88**	0	140	1	0	**141**	0	**235**
5:00PM	1	2	0	**3**	0	0	33	0	**33**	0	30	1	0	**31**	0	**67**
5:15PM	0	0	0	**0**	0	0	39	0	**39**	0	36	1	0	**37**	0	**76**
5:30PM	1	0	0	**1**	0	1	31	0	**32**	0	38	3	0	**41**	0	**74**
5:45PM	1	0	0	**1**	0	1	19	0	**20**	0	16	0	0	**16**	0	**37**
Hourly Total	3	2	0	**5**	0	2	122	0	**124**	0	120	5	0	**125**	0	**254**
6:00PM	1	0	0	**1**	0	1	16	0	**17**	0	23	1	0	**24**	0	**42**
6:15PM	2	1	0	**3**	0	2	25	0	**27**	0	13	2	0	**15**	0	**45**
Hourly Total	3	1	0	**4**	0	3	41	0	**44**	0	36	3	0	**39**	0	**87**
Total	24	4	0	**28**	0	6	376	0	**382**	0	516	11	0	**527**	0	**937**
% Approach	85.7%	14.3%	0%	**-**	-	1.6%	98.4%	0%	**-**	-	97.9%	2.1%	0%	**-**	-	-
% Total	2.6%	0.4%	0%	**3.0%**	-	0.6%	40.1%	0%	**40.8%**	-	55.1%	1.2%	0%	**56.2%**	-	-
Lights	23	4	0	**27**	-	6	366	0	**372**	-	510	11	0	**521**	-	920
% Lights	95.8%	100%	0%	**96.4%**	-	100%	97.3%	0%	**97.4%**	-	98.8%	100%	0%	**98.9%**	-	98.2%
Single-Unit Trucks	0	0	0	**0**	-	0	2	0	**2**	-	2	0	0	**2**	-	4
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0.5%	0%	**0.5%**	-	0.4%	0%	0%	**0.4%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	2	0	**2**	-	0	0	0	**0**	-	2
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0.5%	0%	**0.5%**	-	0%	0%	0%	**0%**	-	0.2%
Buses	1	0	0	**1**	-	0	1	0	**1**	-	1	0	0	**1**	-	3
% Buses	4.2%	0%	0%	**3.6%**	-	0%	0.3%	0%	**0.3%**	-	0.2%	0%	0%	**0.2%**	-	0.3%
Bicycles on Road	0	0	0	**0**	-	0	5	0	**5**	-	3	0	0	**3**	-	8
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	1.3%	0%	**1.3%**	-	0.6%	0%	0%	**0.6%**	-	0.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Trinity Lane - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6:30 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851807, Location: 41.936562, -88.20016

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



Smith Road with Trinity Lane - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851807, Location: 41.936562, -88.20016

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

Leg Direction	Trinity Lane Southbound					Smith Road Westbound					Smith Road Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2021-06-28 7:00AM	1	0	0	**1**	0	0	13	0	**13**	0	28	0	0	**28**	0	**42**
7:15AM	1	0	0	**1**	0	0	14	0	**14**	0	20	0	0	**20**	0	**35**
7:30AM	1	0	0	**1**	0	1	16	0	**17**	0	26	0	0	**26**	0	**44**
7:45AM	2	0	0	**2**	0	0	19	0	**19**	0	33	1	0	**34**	0	**55**
Total	5	0	0	**5**	0	1	62	0	**63**	0	107	1	0	**108**	0	**176**
% Approach	100%	0%	0%	**-**	-	1.6%	98.4%	0%	**-**	-	99.1%	0.9%	0%	**-**	-	-
% Total	2.8%	0%	0%	**2.8%**	-	0.6%	35.2%	0%	**35.8%**	-	60.8%	0.6%	0%	**61.4%**	-	-
PHF	0.625	-	-	**0.625**	-	0.250	0.816	-	**0.829**	-	0.803	0.250	-	**0.787**	-	0.795
Lights	5	0	0	**5**	-	1	60	0	**61**	-	104	1	0	**105**	-	171
% Lights	100%	0%	0%	**100%**	-	100%	96.8%	0%	**96.8%**	-	97.2%	100%	0%	**97.2%**	-	97.2%
Single-Unit Trucks	0	0	0	**0**	-	0	1	0	**1**	-	1	0	0	**1**	-	2
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	1.6%	0%	**1.6%**	-	0.9%	0%	0%	**0.9%**	-	1.1%
Articulated Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	1.6%	0%	**1.6%**	-	0%	0%	0%	**0%**	-	0.6%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	1
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.9%	0%	0%	**0.9%**	-	0.6%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.9%	0%	0%	**0.9%**	-	0.6%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Trinity Lane - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851807, Location: 41.936562, -88.20016

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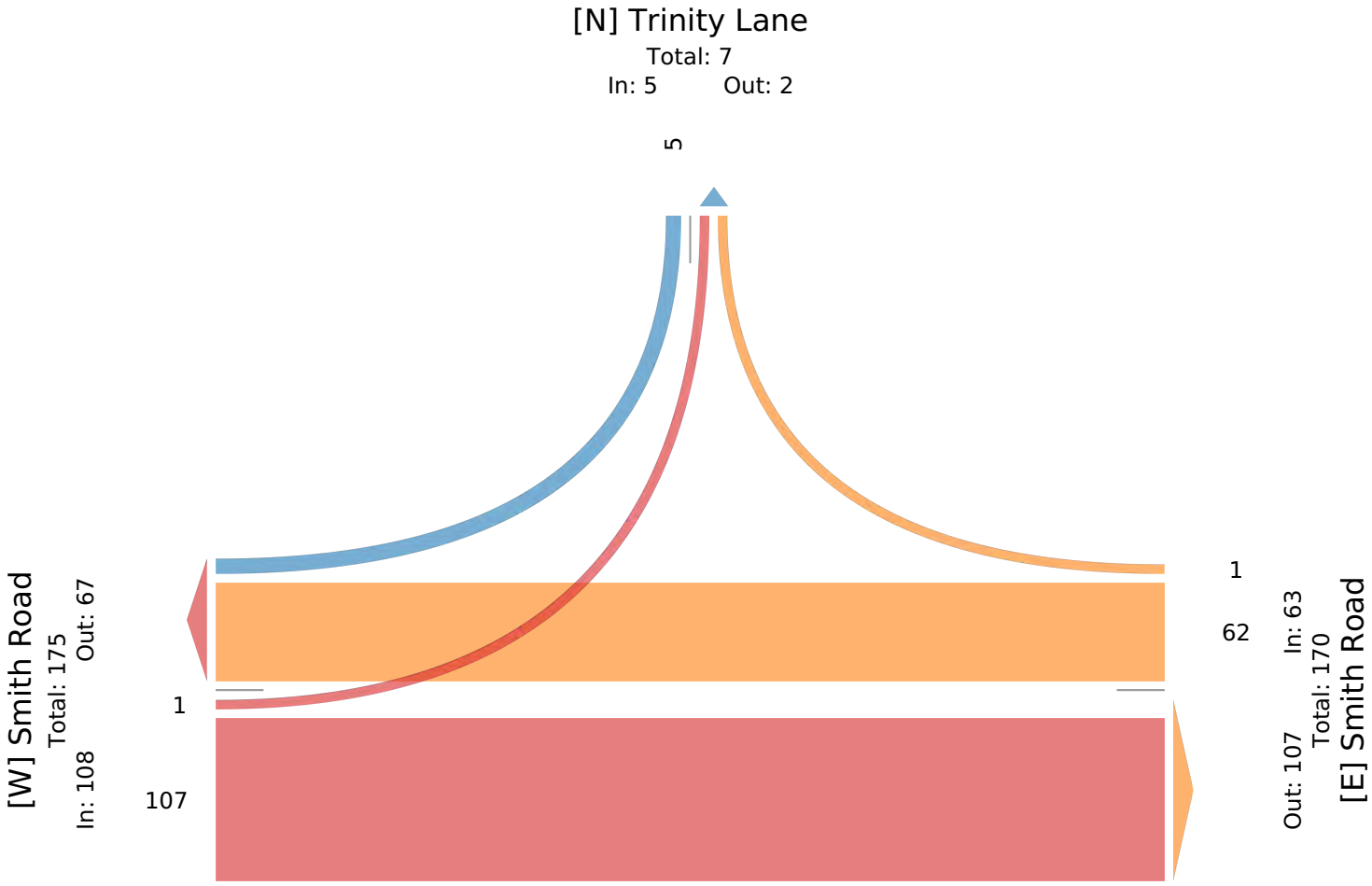


Smith Road with Trinity Lane - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851807, Location: 41.936562, -88.20016

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

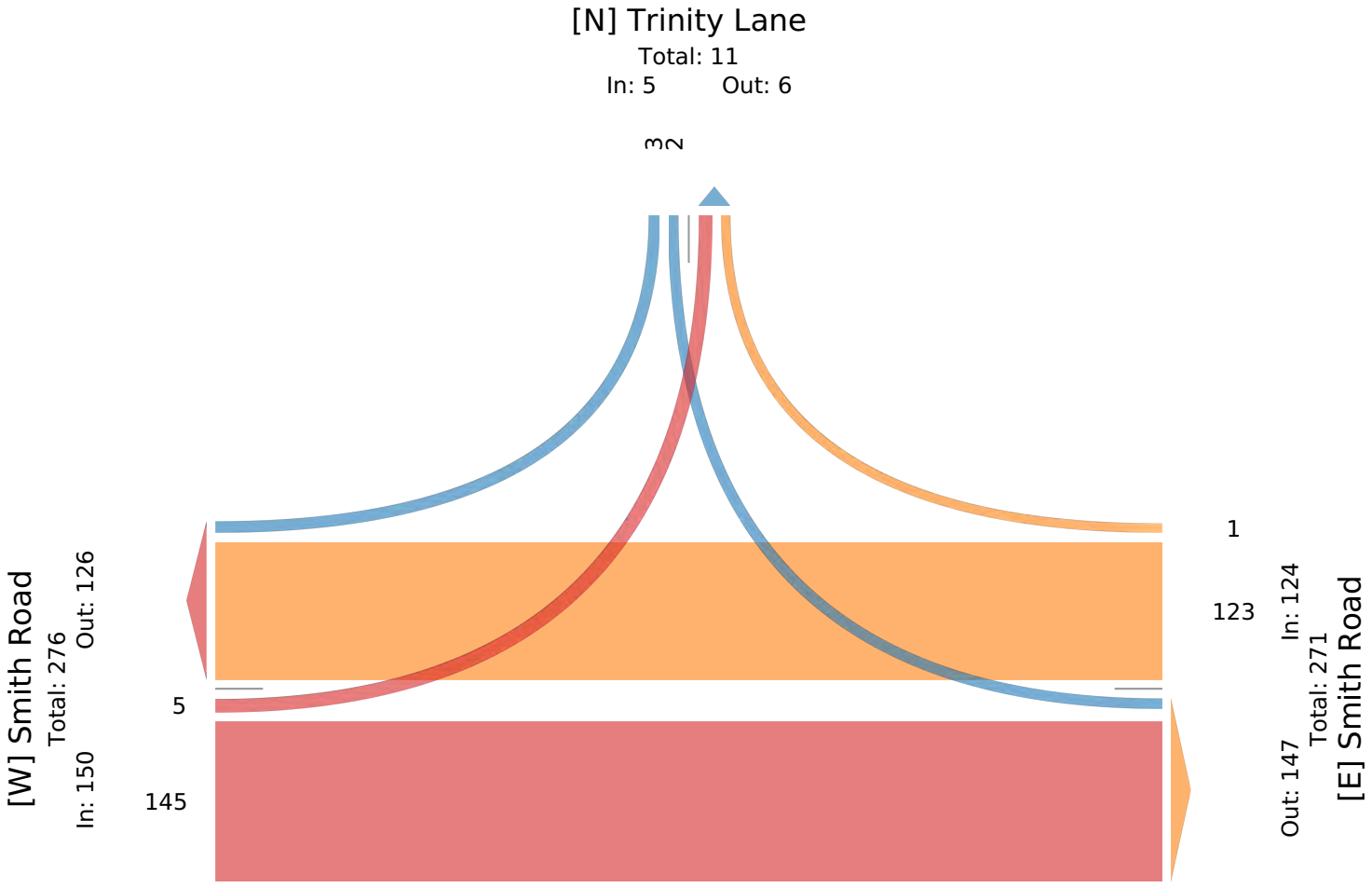
Leg Direction	Trinity Lane Southbound					Smith Road Westbound					Smith Road Eastbound					
Time	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	**Int**
2021-06-28 4:45PM	1	0	0	**1**	0	0	20	0	**20**	0	41	0	0	**41**	0	**62**
5:00PM	1	2	0	**3**	0	0	33	0	**33**	0	30	1	0	**31**	0	**67**
5:15PM	0	0	0	**0**	0	0	39	0	**39**	0	36	1	0	**37**	0	**76**
5:30PM	1	0	0	**1**	0	1	31	0	**32**	0	38	3	0	**41**	0	**74**
Total	3	2	0	**5**	0	1	123	0	**124**	0	145	5	0	**150**	0	**279**
% Approach	60.0%	40.0%	0%	**-**	-	0.8%	99.2%	0%	**-**	-	96.7%	3.3%	0%	**-**	-	**-**
% Total	1.1%	0.7%	0%	**1.8%**	-	0.4%	44.1%	0%	**44.4%**	-	52.0%	1.8%	0%	**53.8%**	-	**-**
PHF	0.750	0.250	-	**0.417**	-	0.250	0.776	-	**0.782**	-	0.878	0.417	-	**0.909**	-	0.908
Lights	3	2	0	**5**	-	1	120	0	**121**	-	144	5	0	**149**	-	275
% Lights	100%	100%	0%	**100%**	-	100%	97.6%	0%	**97.6%**	-	99.3%	100%	0%	**99.3%**	-	98.6%
Single-Unit Trucks	0	0	0	**0**	-	0	1	0	**1**	-	0	0	0	**0**	-	1
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0.8%	0%	**0.8%**	-	0%	0%	0%	**0%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	**0**	-	0	2	0	**2**	-	1	0	0	**1**	-	3
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	1.6%	0%	**1.6%**	-	0.7%	0%	0%	**0.7%**	-	1.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Trinity Lane - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851807, Location: 41.936562, -88.20016

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



Smith Road with Waterford Lane - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851808, Location: 41.936977, -88.196844

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

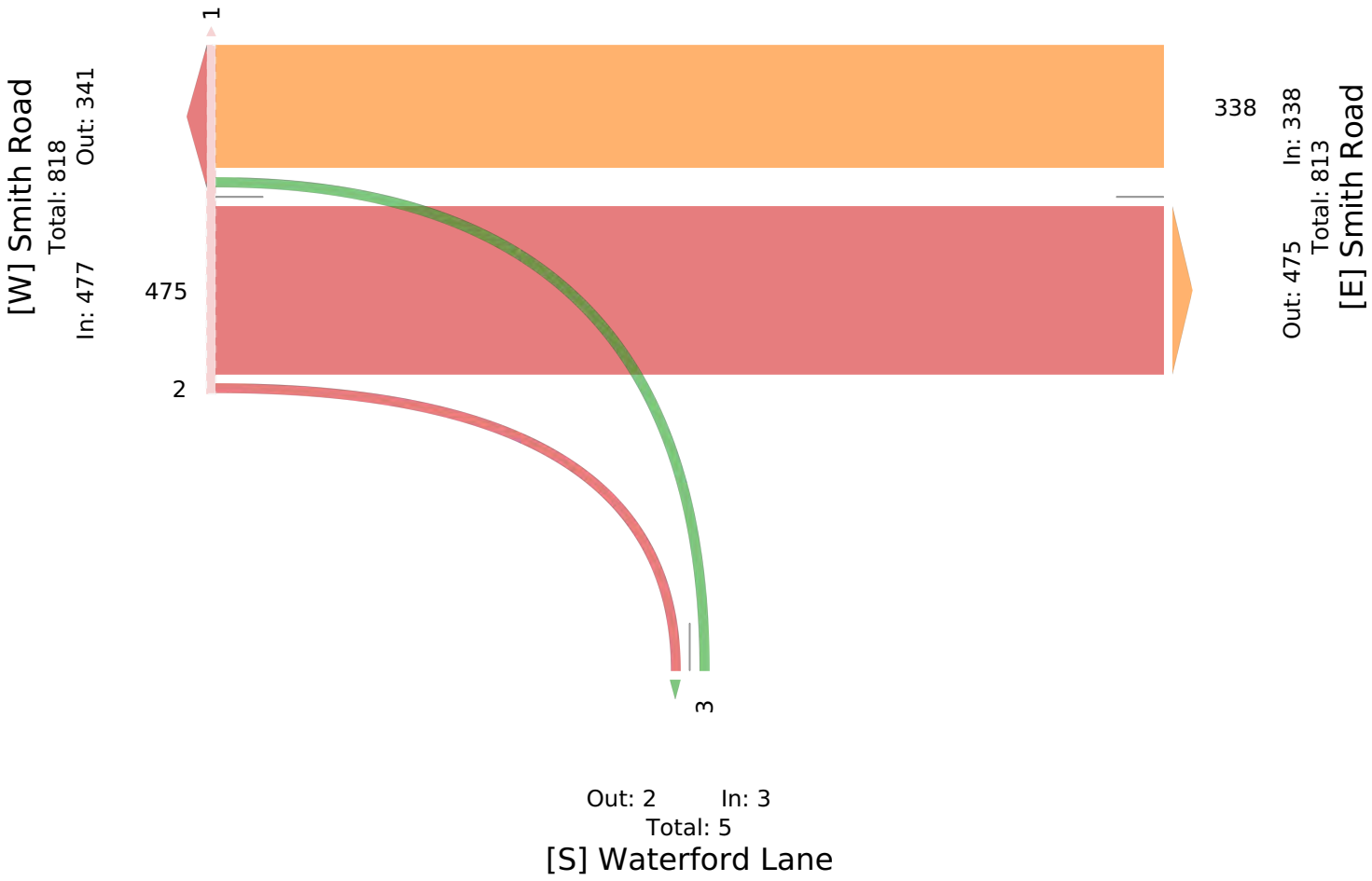
Leg	Smith Road					Waterford Lane					Smith Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 6:30AM	5	0	0	**5**	0	0	0	0	**0**	0	0	19	0	**19**	0	**24**
6:45AM	8	0	0	**8**	0	0	0	0	**0**	0	0	8	0	**8**	0	**16**
Hourly Total	13	0	0	**13**	0	0	0	0	**0**	0	0	27	0	**27**	0	**40**
7:00AM	16	0	0	**16**	0	0	0	0	**0**	0	0	30	0	**30**	0	**46**
7:15AM	13	0	0	**13**	0	0	0	0	**0**	0	0	22	0	**22**	0	**35**
7:30AM	15	0	0	**15**	0	0	0	0	**0**	0	0	25	0	**25**	0	**40**
7:45AM	18	0	0	**18**	0	0	0	0	**0**	0	0	33	0	**33**	0	**51**
Hourly Total	62	0	0	**62**	0	0	0	0	**0**	0	0	110	0	**110**	0	**172**
8:00AM	12	0	0	**12**	0	0	0	0	**0**	0	0	30	0	**30**	1	**42**
8:15AM	11	0	0	**11**	0	0	0	0	**0**	0	0	15	0	**15**	0	**26**
8:30AM	14	0	0	**14**	0	0	1	0	**1**	0	0	25	0	**25**	0	**40**
8:45AM	14	0	0	**14**	0	0	0	0	**0**	0	0	12	0	**12**	0	**26**
Hourly Total	51	0	0	**51**	0	0	1	0	**1**	0	0	82	0	**82**	1	**134**
4:00PM	24	0	0	**24**	0	0	1	0	**1**	0	0	34	0	**34**	0	**59**
4:15PM	19	0	0	**19**	0	0	0	0	**0**	0	1	36	0	**37**	0	**56**
4:30PM	25	0	0	**25**	0	0	0	0	**0**	0	0	27	0	**27**	0	**52**
4:45PM	24	0	0	**24**	0	0	0	0	**0**	0	0	42	0	**42**	0	**66**
Hourly Total	92	0	0	**92**	0	0	1	0	**1**	0	1	139	0	**140**	0	**233**
5:00PM	36	0	0	**36**	0	0	0	0	**0**	0	0	36	0	**36**	0	**72**
5:15PM	34	0	0	**34**	0	0	0	0	**0**	0	1	30	0	**31**	0	**65**
5:30PM	33	0	0	**33**	0	0	0	0	**0**	0	0	38	0	**38**	0	**71**
5:45PM	17	0	0	**17**	0	0	1	0	**1**	0	0	13	0	**13**	0	**31**
Hourly Total	120	0	0	**120**	0	0	1	0	**1**	0	1	117	0	**118**	0	**239**
Total	338	0	0	**338**	0	0	3	0	**3**	0	2	475	0	**477**	1	**818**
% Approach	100%	0%	0%	**-**	-	0%	100%	0%	**-**	-	0.4%	99.6%	0%	**-**	-	-
% Total	41.3%	0%	0%	**41.3%**	-	0%	0.4%	0%	**0.4%**	-	0.2%	58.1%	0%	**58.3%**	-	-
Lights	329	0	0	**329**	-	0	3	0	**3**	-	2	469	0	**471**	-	803
% Lights	97.3%	0%	0%	**97.3%**	-	0%	100%	0%	**100%**	-	100%	98.7%	0%	**98.7%**	-	98.2%
Single-Unit Trucks	2	0	0	**2**	-	0	0	0	**0**	-	0	2	0	**2**	-	4
% Single-Unit Trucks	0.6%	0%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0%	0.4%	0%	**0.4%**	-	0.5%
Articulated Trucks	2	0	0	**2**	-	0	0	0	**0**	-	0	0	0	**0**	-	2
% Articulated Trucks	0.6%	0%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.2%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	0	1	0	**1**	-	2
% Buses	0.3%	0%	0%	**0.3%**	-	0%	0%	0%	**0%**	-	0%	0.2%	0%	**0.2%**	-	0.2%
Bicycles on Road	4	0	0	**4**	-	0	0	0	**0**	-	0	3	0	**3**	-	7
% Bicycles on Road	1.2%	0%	0%	**1.2%**	-	0%	0%	0%	**0%**	-	0%	0.6%	0%	**0.6%**	-	0.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-

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

Smith Road with Waterford Lane - TMC

Mon Jun 28, 2021
Full Length (6:30 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851808, Location: 41.936977, -88.196844

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



Smith Road with Waterford Lane - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851808, Location: 41.936977, -88.196844

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

Leg	Smith Road					Waterford Lane					Smith Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 7:00AM	16	0	0	**16**	0	0	0	0	**0**	0	0	30	0	**30**	0	**46**
7:15AM	13	0	0	**13**	0	0	0	0	**0**	0	0	22	0	**22**	0	**35**
7:30AM	15	0	0	**15**	0	0	0	0	**0**	0	0	25	0	**25**	0	**40**
7:45AM	18	0	0	**18**	0	0	0	0	**0**	0	0	33	0	**33**	0	**51**
Total	62	0	0	**62**	0	0	0	0	**0**	0	0	110	0	**110**	0	**172**
% Approach	100%	0%	0%	**-**	-	0%	0%	0%	**-**	-	0%	100%	0%	**-**	-	-
% Total	36.0%	0%	0%	**36.0%**	-	0%	0%	0%	**0%**	-	0%	64.0%	0%	**64.0%**	-	-
PHF	0.861	-	-	**0.861**	-	-	-	-	**-**	-	-	0.826	-	**0.826**	-	0.838
Lights	59	0	0	**59**	-	0	0	0	**0**	-	0	107	0	**107**	-	166
% Lights	95.2%	0%	0%	**95.2%**	-	0%	0%	0%	**-**	-	0%	97.3%	0%	**97.3%**	-	96.5%
Single-Unit Trucks	1	0	0	**1**	-	0	0	0	**0**	-	0	1	0	**1**	-	2
% Single-Unit Trucks	1.6%	0%	0%	**1.6%**	-	0%	0%	0%	**-**	-	0%	0.9%	0%	**0.9%**	-	1.2%
Articulated Trucks	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Articulated Trucks	1.6%	0%	0%	**1.6%**	-	0%	0%	0%	**-**	-	0%	0%	0%	**0%**	-	0.6%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	0	1	0	**1**	-	2
% Buses	1.6%	0%	0%	**1.6%**	-	0%	0%	0%	**-**	-	0%	0.9%	0%	**0.9%**	-	1.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	1	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**-**	-	0%	0.9%	0%	**0.9%**	-	0.6%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Waterford Lane - TMC

Mon Jun 28, 2021
AM Peak (7 AM - 8 AM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851808, Location: 41.936977, -88.196844

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

Smith Road with Waterford Lane - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851808, Location: 41.936977, -88.196844

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

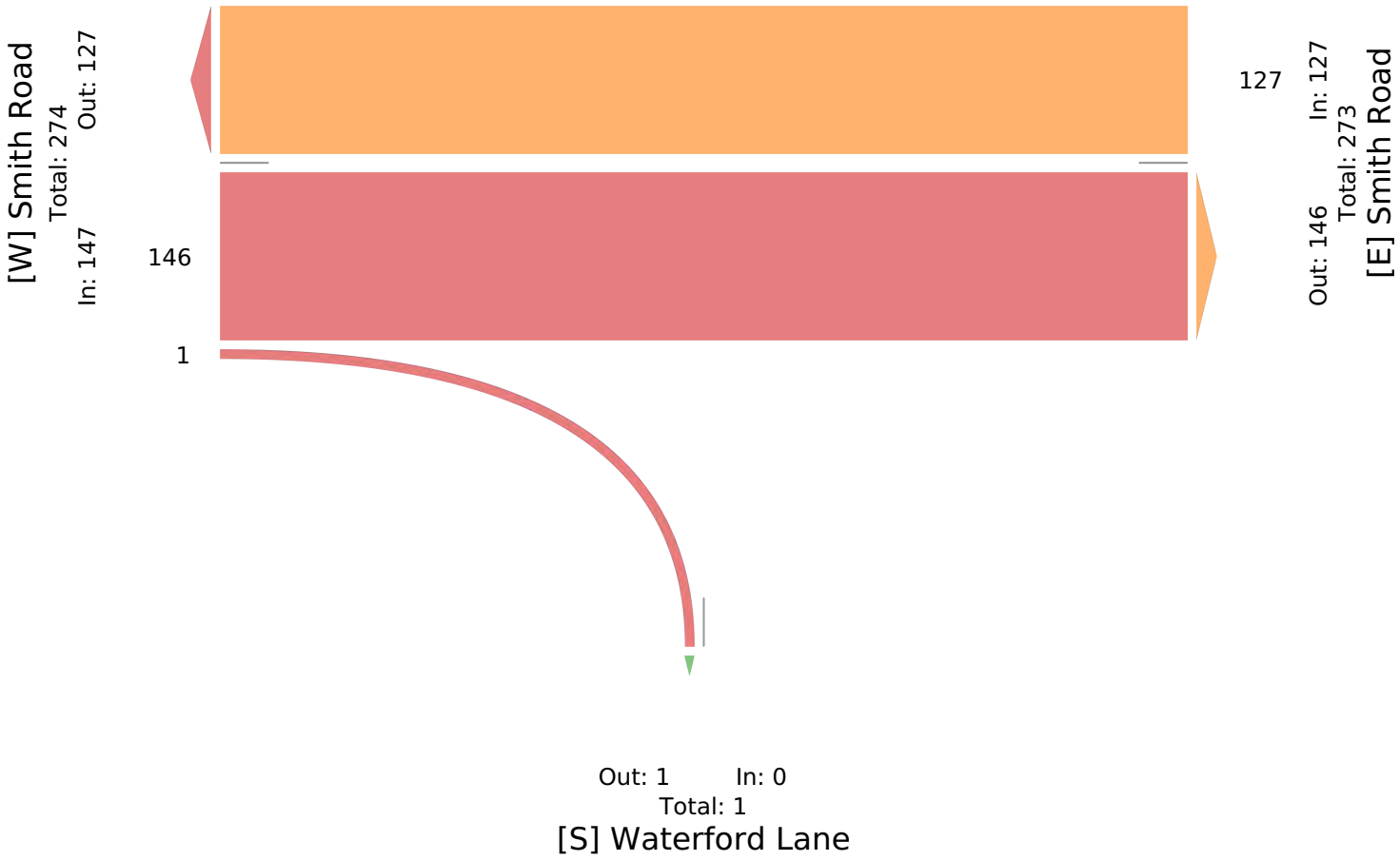
Leg	Smith Road					Waterford Lane					Smith Road					
Direction	Westbound					Northbound					Eastbound					
Time	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	R	T	U	**App**	Ped*	**Int**
2021-06-28 4:45PM	24	0	0	**24**	0	0	0	0	**0**	0	0	42	0	**42**	0	**66**
5:00PM	36	0	0	**36**	0	0	0	0	**0**	0	0	36	0	**36**	0	**72**
5:15PM	34	0	0	**34**	0	0	0	0	**0**	0	1	30	0	**31**	0	**65**
5:30PM	33	0	0	**33**	0	0	0	0	**0**	0	0	38	0	**38**	0	**71**
Total	127	0	0	**127**	0	0	0	0	**0**	0	1	146	0	**147**	0	**274**
% Approach	100%	0%	0%	**-**	-	0%	0%	0%	**-**	-	0.7%	99.3%	0%	**-**	-	-
% Total	46.4%	0%	0%	**46.4%**	-	0%	0%	0%	**0%**	-	0.4%	53.3%	0%	**53.6%**	-	-
PHF	0.868	-	-	**0.868**	-	-	-	-	**-**	-	0.250	0.863	-	**0.869**	-	0.954
Lights	124	0	0	**124**	-	0	0	0	**0**	-	1	145	0	**146**	-	270
% Lights	97.6%	0%	0%	**97.6%**	-	0%	0%	0%	**-**	-	100%	99.3%	0%	**99.3%**	-	98.5%
Single-Unit Trucks	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Single-Unit Trucks	0.8%	0%	0%	**0.8%**	-	0%	0%	0%	**-**	-	0%	0%	0%	**0%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**-**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**-**	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	2	0	0	**2**	-	0	0	0	**0**	-	0	1	0	**1**	-	3
% Bicycles on Road	1.6%	0%	0%	**1.6%**	-	0%	0%	0%	**-**	-	0%	0.7%	0%	**0.7%**	-	1.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Smith Road with Waterford Lane - TMC

Mon Jun 28, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)
All Movements
ID: 851808, Location: 41.936977, -88.196844

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



Bartlett, IL Weather: Cool and Dry 07/09/21
Army Trail Rd and Petersdorf Rd 09:45:26
Thursday July 8, 2021

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

Intersection # 8 armytrail/petersdorf

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	9	3	3	2	88	1	1	1	0	0	103	1	212
715	11	7	8	3	98	0	0	1	1	0	90	5	224
730	9	2	8	3	111	4	3	1	1	2	144	2	290
745	13	7	6	3	109	0	5	2	0	2	111	1	259
800	6	1	3	1	86	2	1	0	2	1	95	0	198
815	14	4	9	11	91	0	1	2	4	1	103	3	243
830	9	2	7	6	74	2	1	3	0	1	95	5	205
845	10	4	15	14	78	2	1	5	0	0	96	1	226
1600	5	4	3	3	145	4	1	4	0	2	115	6	292
1615	8	4	5	7	143	2	0	5	4	1	116	3	298
1630	12	9	4	4	147	5	1	8	0	2	134	8	334
1645	7	7	7	7	187	4	4	8	3	7	122	12	375
1700	5	6	2	5	159	4	2	8	1	3	133	7	335
1715	13	2	6	5	184	2	2	3	3	3	134	10	367
1730	9	8	6	5	172	0	0	8	0	1	103	14	326
1745	9	3	4	6	155	5	2	7	2	4	103	15	315
Total	149	73	96	85	2027	37	25	66	21	30	1797	93	4499

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

Intersection # 8 armytrail/petersdorf

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
700	15	91	2	104	4	107	4	97	212
715	26	101	2	95	9	98	7	110	224
730	19	118	5	148	6	155	8	121	290
745	26	112	7	114	6	122	9	122	259
800	10	89	3	96	1	99	4	94	198
815	27	102	7	107	16	113	5	109	243
830	18	82	4	101	14	103	5	83	205
845	29	94	6	97	20	112	6	88	226
1600	12	152	5	123	13	119	10	150	292
1615	17	152	9	120	15	121	7	155	298
1630	25	156	9	144	20	139	16	159	334
1645	21	198	15	141	27	133	18	197	375
1700	13	168	11	143	20	137	13	165	335
1715	21	191	8	147	18	142	7	200	367
1730	23	177	8	118	27	109	9	181	326
1745	16	166	11	122	28	109	12	166	315
Total	318	2149	112	1920	244	1918	140	2197	4499

Bartlett, IL Weather: Cool and Dry 07/09/21
Army Trail Rd and Petersdorf Rd 09:45:26
Thursday July 8, 2021

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Flow Rates: by Movement

Intersection # 8 armytrail/petersdorf

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	36	12	12	8	352	4	4	4	0	0	412	4	848
715	44	28	32	12	392	0	0	4	4	0	360	20	896
730	36	8	32	12	444	16	12	4	4	8	576	8	1160
745	52	28	24	12	436	0	20	8	0	8	444	4	1036
800	24	4	12	4	344	8	4	0	8	4	380	0	792
815	56	16	36	44	364	0	4	8	16	4	412	12	972
830	36	8	28	24	296	8	4	12	0	4	380	20	820
845	40	16	60	56	312	8	4	20	0	0	384	4	904
1600	20	16	12	12	580	16	4	16	0	8	460	24	1168
1615	32	16	20	28	572	8	0	20	16	4	464	12	1192
1630	48	36	16	16	588	20	4	32	0	8	536	32	1336
1645	28	28	28	28	748	16	16	32	12	28	488	48	1500
1700	20	24	8	20	636	16	8	32	4	12	532	28	1340
1715	52	8	24	20	736	8	8	12	12	12	536	40	1468
1730	36	32	24	20	688	0	0	32	0	4	412	56	1304
1745	36	12	16	24	620	20	8	28	8	16	412	60	1260

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Flow Rates: Appr/Exit Totals

Intersection # 8 armytrail/petersdorf

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
700	60	364	8	416	16	428	16	388	848
715	104	404	8	380	36	392	28	440	896
730	76	472	20	592	24	620	32	484	1160
745	104	448	28	456	24	488	36	488	1036
800	40	356	12	384	4	396	16	376	792
815	108	408	28	428	64	452	20	436	972
830	72	328	16	404	56	412	20	332	820
845	116	376	24	388	80	448	24	352	904
1600	48	608	20	492	52	476	40	600	1168
1615	68	608	36	480	60	484	28	620	1192
1630	100	624	36	576	80	556	64	636	1336
1645	84	792	60	564	108	532	72	788	1500
1700	52	672	44	572	80	548	52	660	1340
1715	84	764	32	588	72	568	28	800	1468
1730	92	708	32	472	108	436	36	724	1304
1745	64	664	44	488	112	436	48	664	1260

Bartlett, IL Weather: Cool and Dry 07/09/21
Army Trail Rd and Petersdorf Rd 09:45:26
Thursday July 8, 2021

TURNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: by Movement

Intersection # 8 armytrail/petersdorf

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
700	42	19	25	11	406	5	9	5	2	4	448	9	985
715	39	17	25	10	404	6	9	4	4	5	440	8	971
730	42	14	26	18	397	6	10	5	7	6	453	6	990
745	42	14	25	21	360	4	8	7	6	5	404	9	905
800	39	11	34	32	329	6	4	10	6	3	389	9	872
815	33	10	31	31	243	4	3	10	4	2	294	9	674*
830	19	6	22	20	152	4	2	8	0	1	191	6	431*
845	10	4	15	14	78	2	1	5	0	0	96	1	226*
1600	32	24	19	21	622	15	6	25	7	12	487	29	1299
1615	32	26	18	23	636	15	7	29	8	13	505	30	1342
1630	37	24	19	21	677	15	9	27	7	15	523	37	1411
1645	34	23	21	22	702	10	8	27	7	14	492	43	1403
1700	36	19	18	21	670	11	6	26	6	11	473	46	1343
1715	31	13	16	16	511	7	4	18	5	8	340	39	1008*
1730	18	11	10	11	327	5	2	15	2	5	206	29	641*
1745	9	3	4	6	155	5	2	7	2	4	103	15	315*

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

Intersection # 8 armytrail/petersdorf

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
700	86	422	16	461	25	482	28	450	985
715	81	420	17	453	22	474	28	447	971
730	82	421	22	465	29	489	26	446	990
745	81	385	21	418	37	437	23	408	905
800	84	367	20	401	51	427	20	374	872
815	74	278	17	305	50	328	16	280	674*
830	47	176	10	198	34	215	11	171	431*
845	29	94	6	97	20	112	6	88	226*
1600	75	658	38	528	75	512	51	661	1299
1615	76	674	44	548	82	530	54	676	1342
1630	80	713	43	575	85	551	54	721	1411
1645	78	734	42	549	92	521	47	743	1403
1700	73	702	38	530	93	497	41	712	1343
1715	60	534	27	387	73	360	28	547	1008*
1730	39	343	19	240	55	218	21	347	641*
1745	16	166	11	122	28	109	12	166	315*

CMAP Traffic Projection Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

July 8, 2021

Javier Millan
Senior Consultant
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: Smith Road east of IL 59
IDOT

Dear Mr. Millan:

In response to a request made on your behalf and dated July 6, 2021, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
IL 59 north of Smith Rd	33,000	35,400
IL 59 south of Smith Rd	34,300	37,100
Smith Rd east of IL 59	1,850	3,600
Smith Rd west of IL 59	3,500	5,300
Klein Rd south of Smith Rd	1,350	2,600
Army Trail Rd east of Smith Rd	9,500	14,200
North Ave (IL 64) east of Klein Rd	37,400	47,700
North Ave (IL 64) west of Klein Rd	34,300	43,700

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2021 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

PrivateInformation

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
\2021_CY_TrafficForecast\WestChicago\du-27-21\du-27-21.docx

Level of Service Criteria

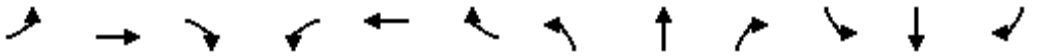
LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0

Unsignalized Intersections	
Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis – Year 2021 Existing Conditions

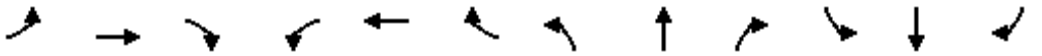


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	76	91	41	50	8	49	1214	55	8	1660	77
Future Volume (vph)	86	76	91	41	50	8	49	1214	55	8	1660	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		25	200		0	135		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			175			225		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.993			0.993	
Flt Protected		0.974			0.978		0.950			0.950		
Satd. Flow (prot)	0	1831	1583	0	1773	1615	1752	3330	0	1805	3418	0
Flt Permitted		0.758			0.571		0.067			0.175		
Satd. Flow (perm)	0	1425	1583	0	1035	1615	124	3330	0	332	3418	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			51		5			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		948			1245			2012			2057	
Travel Time (s)		21.5			28.3			30.5			31.2	
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
Heavy Vehicles (%)	2%	0%	2%	7%	3%	0%	3%	8%	0%	0%	5%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	96	0	96	8	52	1336	0	8	1828	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0		9.5	24.0	
Total Split (s)	41.0	41.0	41.0	41.0	41.0	41.0	15.0	84.0		15.0	84.0	
Total Split (%)	29.3%	29.3%	29.3%	29.3%	29.3%	29.3%	10.7%	60.0%		10.7%	60.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)		21.6	21.6		21.6	21.6	108.7	104.5		105.2	98.1	
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.78	0.75		0.75	0.70	
v/c Ratio		0.78	0.33		0.60	0.03	0.30	0.54		0.03	0.76	
Control Delay		79.4	28.0		69.8	0.1	9.0	9.7		5.0	18.1	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		79.4	28.0		69.8	0.1	9.0	9.7		5.0	18.1	
LOS		E	C		E	A	A	A		A	B	
Approach Delay		61.0			64.4			9.6			18.0	
Approach LOS		E			E			A			B	
Queue Length 50th (ft)		152	36		83	0	9	224		1	537	
Queue Length 95th (ft)		222	86		137	0	25	436		7	801	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			1165			1932			1977	
Turn Bay Length (ft)			25			25	200			135		
Base Capacity (vph)		356	434		258	442	230	2487		379	2395	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.48	0.22		0.37	0.02	0.23	0.54		0.02	0.76	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 73.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: IL 59 & Smith Road



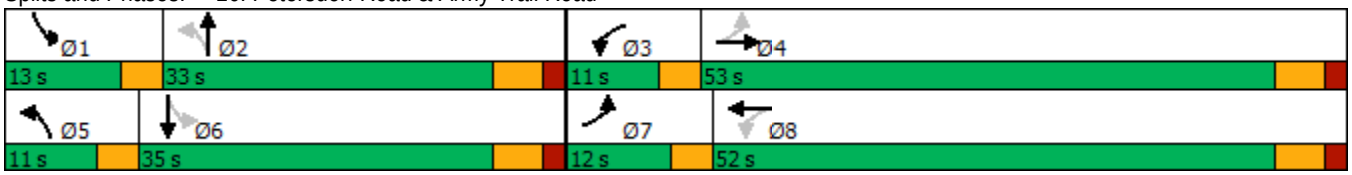
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	634	8	8	556	151	10	75	14	98	52	80
Future Volume (vph)	50	634	8	8	556	151	10	75	14	98	52	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	145		0	95		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			155			140			115		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.968			0.976			0.909	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3466	0	1805	3360	0	1805	1824	0	1770	1693	0
Flt Permitted	0.186			0.320			0.668			0.625		
Satd. Flow (perm)	340	3466	0	608	3360	0	1269	1824	0	1164	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			38			8			68	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		948			2599			1702			1435	
Travel Time (s)		14.4			39.4			38.7			32.6	
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
Heavy Vehicles (%)	4%	4%	0%	0%	4%	4%	0%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	675	0	8	744	0	11	94	0	103	139	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	12.0	53.0		11.0	52.0		11.0	33.0		13.0	35.0	
Total Split (%)	10.9%	48.2%		10.0%	47.3%		10.0%	30.0%		11.8%	31.8%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	32.4	28.4		29.7	23.9		35.8	28.7		40.3	36.1	
Actuated g/C Ratio	0.40	0.35		0.37	0.30		0.45	0.36		0.50	0.45	
v/c Ratio	0.20	0.55		0.03	0.72		0.02	0.14		0.16	0.17	
Control Delay	15.6	22.6		13.4	29.2		14.7	22.6		14.5	11.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.6	22.6		13.4	29.2		14.7	22.6		14.5	11.3	
LOS	B	C		B	C		B	C		B	B	
Approach Delay		22.1			29.0			21.7			12.6	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	16	136		2	183		3	33		29	21	
Queue Length 95th (ft)	37	226		10	254		m14	80		70	77	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			2519			1622			1355	
Turn Bay Length (ft)	160			145			95			125		
Base Capacity (vph)	291	2115		347	2022		636	657		658	798	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.32		0.02	0.37		0.02	0.14		0.16	0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 80.3			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 49.8%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 16: Petersdorf Road & Army Trail Road



Intersection	
Int Delay, s/veh	0

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	0	164	0	0	99
Future Vol, veh/h	0	0	164	0	0	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	5
Mvmt Flow	0	0	173	0	0	104

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	277	173	0	0	173	0
Stage 1	173	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	717	876	-	-	1416	-
Stage 1	862	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	717	876	-	-	1416	-
Mov Cap-2 Maneuver	717	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	925	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	-	1416	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	26	38	51	148	64	42
Future Vol, veh/h	26	38	51	148	64	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	12	0	2	2	0
Mvmt Flow	27	40	54	156	67	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	353	89	111	0	-	0
Stage 1	89	-	-	-	-	-
Stage 2	264	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.2	-	-	-
Pot Cap-1 Maneuver	649	942	1492	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	942	1492	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	785	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.1	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1492	-	780	-	-
HCM Lane V/C Ratio	0.036	-	0.086	-	-
HCM Control Delay (s)	7.5	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	164	0	0	99	1	0	0	0	0	0	5
Future Vol, veh/h	1	164	0	0	99	1	0	0	0	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	2	2	3	0	2	2	2	0	2	0
Mvmt Flow	1	173	0	0	104	1	0	0	0	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	173	0	0	282	280	173	280	280	105
Stage 1	-	-	-	-	-	-	175	175	-	105	105	-
Stage 2	-	-	-	-	-	-	107	105	-	175	175	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1499	-	-	1404	-	-	670	628	871	676	628	955
Stage 1	-	-	-	-	-	-	827	754	-	906	808	-
Stage 2	-	-	-	-	-	-	898	808	-	832	754	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1499	-	-	1404	-	-	666	627	871	675	627	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	627	-	675	627	-
Stage 1	-	-	-	-	-	-	826	753	-	905	808	-
Stage 2	-	-	-	-	-	-	893	808	-	831	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1499	-	-	1404	-	-	955
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	0.006
HCM Control Delay (s)	0	7.4	0	-	0	-	-	8.8
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	146	29	36	49	34	52
Future Vol, veh/h	146	29	36	49	34	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	4	17	3
Mvmt Flow	154	31	38	52	36	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	185	0	298	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	128	-
Critical Hdwy	-	-	4.13	-	6.57	6.23
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.227	-	3.653	3.327
Pot Cap-1 Maneuver	-	-	1384	-	663	871
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	862	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1384	-	644	871
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	764	-	-	1384	-
HCM Lane V/C Ratio	0.118	-	-	0.027	-
HCM Control Delay (s)	10.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	741	6	85	665	1	192
Future Vol, veh/h	741	6	85	665	1	192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	230	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	2	7	0	1
Mvmt Flow	780	6	89	700	1	202

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	786	0	1311	393
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	528	-
Critical Hdwy	-	-	4.14	-	6.8	6.92
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.22	-	3.5	3.31
Pot Cap-1 Maneuver	-	-	829	-	153	609
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	562	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	829	-	137	609
Mov Cap-2 Maneuver	-	-	-	-	137	-
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	502	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	598	-	-	829	-
HCM Lane V/C Ratio	0.34	-	-	0.108	-
HCM Control Delay (s)	14.1	-	-	9.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.5	-	-	0.4	-

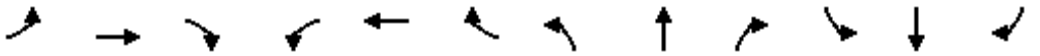
Intersection	
Int Delay, s/veh	1.3

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	50	1961	1	0	1483	15	0	1	1	11	0	74
Future Vol, veh/h	3	50	1961	1	0	1483	15	0	1	1	11	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	295	-	-	-	-	240	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	50	3	8	0	0	12	9	0	0	0	0	0	4
Mvmt Flow	3	53	2064	1	0	1561	16	0	1	1	12	0	78

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	1140	1577	0	0	2065	0	0	2801	3754	1033	2499	3738	781
Stage 1	-	-	-	-	-	-	-	2177	2177	-	1561	1561	-
Stage 2	-	-	-	-	-	-	-	624	1577	-	938	2177	-
Critical Hdwy	6.6	5.36	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.8	3.13	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.94
Pot Cap-1 Maneuver	240	202	-	-	119	-	-	20	4	200	32	4	286
Stage 1	-	-	-	-	-	-	-	29	86	-	82	175	-
Stage 2	-	-	-	-	-	-	-	405	171	-	260	86	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	200	200	-	-	119	-	-	11	3	200	24	3	286
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	19	38	-	48	43	-
Stage 1	-	-	-	-	-	-	-	21	62	-	59	175	-
Stage 2	-	-	-	-	-	-	-	295	171	-	183	62	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	62.8	32.6
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	38	200	200	-	-	119	-	-	48	286
HCM Lane V/C Ratio	0.028	0.005	0.279	-	-	-	-	-	0.241	0.272
HCM Control Delay (s)	102.4	23.1	29.7	-	-	0	-	-	102.4	22.2
HCM Lane LOS	F	C	D	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.1	0	1.1	-	-	0	-	-	0.8	1.1

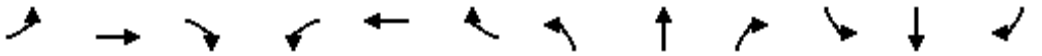


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	80	68	43	68	4	53	1717	71	6	1418	114
Future Volume (vph)	61	80	68	43	68	4	53	1717	71	6	1418	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		25	200		0	135		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			175			225		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.994			0.989	
Flt Protected		0.979			0.981		0.950			0.950		
Satd. Flow (prot)	0	1850	1583	0	1843	1615	1805	3456	0	1805	3410	0
Flt Permitted		0.704			0.605		0.105			0.078		
Satd. Flow (perm)	0	1330	1583	0	1136	1615	200	3456	0	148	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			51		5			10	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		948			1245			2012			2057	
Travel Time (s)		21.5			28.3			30.5			31.2	
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
Heavy Vehicles (%)	0%	1%	2%	3%	0%	0%	0%	4%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	72	0	117	4	56	1882	0	6	1613	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0		9.5	24.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.0	89.0		13.0	86.0	
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	11.4%	63.6%		9.3%	61.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)		19.1	19.1		19.1	19.1	111.1	107.1		107.8	100.8	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.79	0.76		0.77	0.72	
v/c Ratio		0.82	0.28		0.76	0.02	0.24	0.71		0.03	0.66	
Control Delay		90.3	22.2		86.5	0.0	6.2	11.9		4.5	13.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		90.3	22.2		86.5	0.0	6.2	11.9		4.5	13.3	
LOS		F	C		F	A	A	B		A	B	
Approach Delay		68.0			83.7			11.8			13.3	
Approach LOS		E			F			B			B	
Queue Length 50th (ft)		133	17		104	0	9	377		1	388	
Queue Length 95th (ft)		202	61		166	0	23	740		5	570	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			1165			1932			1977	
Turn Bay Length (ft)			25			25	200			135		
Base Capacity (vph)		304	401		259	408	302	2644		229	2457	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.49	0.18		0.45	0.01	0.19	0.71		0.03	0.66	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 76.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: IL 59 & Smith Road

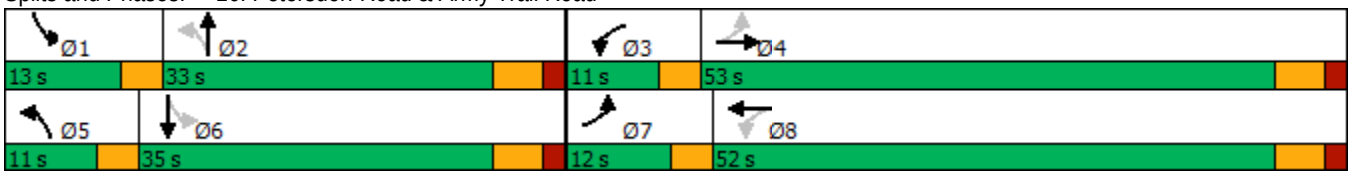


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	551	14	12	783	58	7	27	8	60	23	43
Future Volume (vph)	57	551	14	12	783	58	7	27	8	60	23	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	145		0	95		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			155			140			115		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.990			0.967			0.902	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3461	0	1805	3436	0	1805	1809	0	1770	1680	0
Flt Permitted	0.144			0.411			0.712			0.659		
Satd. Flow (perm)	263	3461	0	781	3436	0	1353	1809	0	1228	1680	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			8			8			45	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		948			2599			1702			1435	
Travel Time (s)		14.4			39.4			38.7			32.6	
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
Heavy Vehicles (%)	4%	4%	0%	0%	4%	4%	0%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	595	0	13	885	0	7	36	0	63	69	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	12.0	53.0		11.0	52.0		11.0	33.0		13.0	35.0	
Total Split (%)	10.9%	48.2%		10.0%	47.3%		10.0%	30.0%		11.8%	31.8%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	39.8	35.7		35.9	28.9		35.7	28.8		39.7	35.5	
Actuated g/C Ratio	0.46	0.41		0.41	0.33		0.41	0.33		0.46	0.41	
v/c Ratio	0.24	0.42		0.03	0.77		0.01	0.06		0.10	0.10	
Control Delay	15.0	19.2		12.4	31.5		17.4	22.5		17.4	11.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	19.2		12.4	31.5		17.4	22.5		17.4	11.3	
LOS	B	B		B	C		B	C		B	B	
Approach Delay		18.8			31.2			21.7			14.2	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	18	114		4	238		2	11		20	8	
Queue Length 95th (ft)	40	194		13	320		12	40		53	45	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			2519			1622			1355	
Turn Bay Length (ft)	160			145			95			125		
Base Capacity (vph)	270	1950		424	1897		614	602		621	712	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.31		0.03	0.47		0.01	0.06		0.10	0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 87.1			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 51.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Petersdorf Road & Army Trail Road



Intersection	
Int Delay, s/veh	0

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	0	172	1	0	143
Future Vol, veh/h	0	0	172	1	0	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	0	0	181	1	0	151

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	333	182	0	0	182	0
Stage 1	182	-	-	-	-	-
Stage 2	151	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	666	866	-	-	1405	-
Stage 1	854	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	666	866	-	-	1405	-
Mov Cap-2 Maneuver	666	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	-	1405	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	8	41	32	157	133	12
Future Vol, veh/h	8	41	32	157	133	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	3	0
Mvmt Flow	8	43	34	165	140	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	380	147	153	0	-	0
Stage 1	147	-	-	-	-	-
Stage 2	233	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	626	905	1440	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	610	905	1440	-	-	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	9.6	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1440	-	839	-	-
HCM Lane V/C Ratio	0.023	-	0.061	-	-
HCM Control Delay (s)	7.6	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	171	0	0	142	1	0	0	0	2	0	3
Future Vol, veh/h	5	171	0	0	142	1	0	0	0	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	2	2	0	2	2	2	0	2	0
Mvmt Flow	5	180	0	0	149	1	0	0	0	2	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	180	0	0	341	340	180	340	340	150
Stage 1	-	-	-	-	-	-	190	190	-	150	150	-
Stage 2	-	-	-	-	-	-	151	150	-	190	190	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1444	-	-	1396	-	-	613	582	863	618	582	902
Stage 1	-	-	-	-	-	-	812	743	-	857	773	-
Stage 2	-	-	-	-	-	-	851	773	-	816	743	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1444	-	-	1396	-	-	609	580	863	616	580	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	609	580	-	616	580	-
Stage 1	-	-	-	-	-	-	809	740	-	854	773	-
Stage 2	-	-	-	-	-	-	848	773	-	813	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	0	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1444	-	-	1396	-	-	761
HCM Lane V/C Ratio	-	0.004	-	-	-	-	-	0.007
HCM Control Delay (s)	0	7.5	0	-	0	-	-	9.8
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	143	20	48	120	29	44
Future Vol, veh/h	143	20	48	120	29	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	6	0	0	8	0
Mvmt Flow	151	21	51	126	31	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	172	0	390	162
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.1	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.2	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1417	-	602	888
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	796	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1417	-	579	888
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	733	-	-	1417	-
HCM Lane V/C Ratio	0.105	-	-	0.036	-
HCM Control Delay (s)	10.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	615	1	172	862	1	191
Future Vol, veh/h	615	1	172	862	1	191
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	230	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	647	1	181	907	1	201

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	648	0	1464	324
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	816	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	947	-	121	678
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	400	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	947	-	98	678
Mov Cap-2 Maneuver	-	-	-	-	98	-
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	324	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	947	-
HCM Lane V/C Ratio	0.307	-	-	0.191	-
HCM Control Delay (s)	12.9	-	-	9.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.3	-	-	0.7	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	102	1532	0	0	2179	44	0	9	1	5	0	66
Future Vol, veh/h	3	102	1532	0	0	2179	44	0	9	1	5	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	295	-	-	-	-	240	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	7	0	0	5	3	0	10	0	0	0	0
Mvmt Flow	3	107	1613	0	0	2294	46	0	9	1	5	0	69

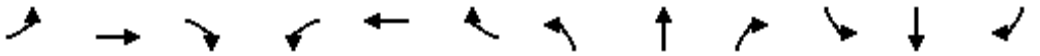
Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	1674	2340	0	0	1613	0	0	2751	4173	807	3164	4127	1147
Stage 1	-	-	-	-	-	-	-	1833	1833	-	2294	2294	-
Stage 2	-	-	-	-	-	-	-	918	2340	-	870	1833	-
Critical Hdwy	5.6	5.3	-	-	5.3	-	-	6.4	6.7	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.7	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.7	-	6.7	5.5	-
Follow-up Hdwy	2.3	3.1	-	-	3.1	-	-	3.8	4.1	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	189	~ 86	-	-	200	-	-	22	~ 2	282	12	2	168
Stage 1	-	-	-	-	-	-	-	52	115	-	24	75	-
Stage 2	-	-	-	-	-	-	-	268	62	-	287	128	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	87	~ 87	-	-	200	-	-	-	0	282	-	0	168
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	22	0	-	-	-	-
Stage 1	-	-	-	-	-	-	-	52	0	-	24	75	-
Stage 2	-	-	-	-	-	-	-	157	62	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.6	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	282	~ 87	-	-	200	-	-	-	168
HCM Lane V/C Ratio	-	0.004	1.27	-	-	-	-	-	-	0.414
HCM Control Delay (s)	-	17.8	275.1	-	-	0	-	-	-	40.8
HCM Lane LOS	-	C	F	-	-	A	-	-	-	E
HCM 95th %tile Q(veh)	-	0	8.1	-	-	0	-	-	-	1.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis – Year 2030 Base (No-Build)

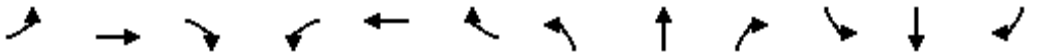


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	83	99	45	55	9	53	1323	60	9	1809	84
Future Volume (vph)	94	83	99	45	55	9	53	1323	60	9	1809	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		25	200		0	135		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			175			225		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.994			0.993	
Flt Protected		0.974			0.978		0.950			0.950		
Satd. Flow (prot)	0	1831	1583	0	1773	1615	1752	3333	0	1805	3418	0
Flt Permitted		0.737			0.552		0.041			0.145		
Satd. Flow (perm)	0	1386	1583	0	1001	1615	76	3333	0	276	3418	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			51		5			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		948			1245			2012			2057	
Travel Time (s)		21.5			28.3			30.5			31.2	
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
Heavy Vehicles (%)	2%	0%	2%	7%	3%	0%	3%	8%	0%	0%	5%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	104	0	105	9	56	1456	0	9	1992	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0		9.5	24.0	
Total Split (s)	41.0	41.0	41.0	41.0	41.0	41.0	15.0	84.0		15.0	84.0	
Total Split (%)	29.3%	29.3%	29.3%	29.3%	29.3%	29.3%	10.7%	60.0%		10.7%	60.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)		23.4	23.4		23.4	23.4	107.0	102.7		103.2	96.1	
Actuated g/C Ratio		0.17	0.17		0.17	0.17	0.76	0.73		0.74	0.69	
v/c Ratio		0.81	0.34		0.63	0.03	0.40	0.60		0.03	0.85	
Control Delay		80.3	28.5		69.8	0.2	19.6	11.5		5.7	23.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		80.3	28.5		69.8	0.2	19.6	11.5		5.7	23.0	
LOS		F	C		E	A	B	B		A	C	
Approach Delay		61.8			64.3			11.8			22.9	
Approach LOS		E			E			B			C	
Queue Length 50th (ft)		165	42		90	0	11	276		2	686	
Queue Length 95th (ft)		238	92		146	0	48	529		8	#1097	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			1165			1932			1977	
Turn Bay Length (ft)			25			25	200			135		
Base Capacity (vph)		346	434		250	442	195	2446		336	2348	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.24		0.42	0.02	0.29	0.60		0.03	0.85	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 79.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: IL 59 & Smith Road



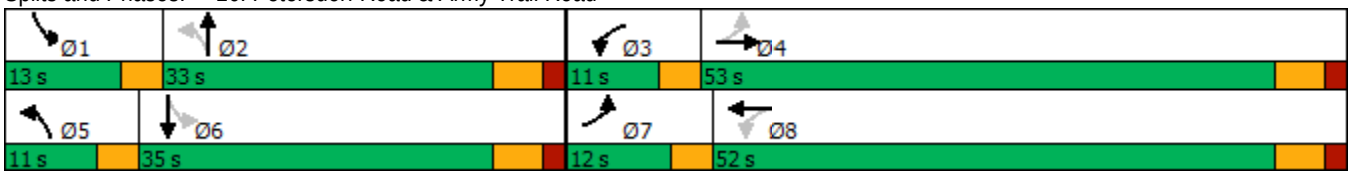
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	691	9	9	606	165	11	82	15	107	57	87
Future Volume (vph)	55	691	9	9	606	165	11	82	15	107	57	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	145		0	95		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			155			140			115		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.968			0.976			0.909	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3466	0	1805	3360	0	1805	1824	0	1770	1693	0
Flt Permitted	0.165			0.307			0.660			0.620		
Satd. Flow (perm)	301	3466	0	583	3360	0	1254	1824	0	1155	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			39			8			68	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		948			2599			1702			1435	
Travel Time (s)		14.4			39.4			38.7			32.6	
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
Heavy Vehicles (%)	4%	4%	0%	0%	4%	4%	0%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	736	0	9	812	0	12	102	0	113	152	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	12.0	53.0		11.0	52.0		11.0	33.0		13.0	35.0	
Total Split (%)	10.9%	48.2%		10.0%	47.3%		10.0%	30.0%		11.8%	31.8%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	37.4	33.3		33.5	26.5		35.7	28.6		40.2	36.0	
Actuated g/C Ratio	0.44	0.39		0.39	0.31		0.42	0.34		0.47	0.42	
v/c Ratio	0.23	0.54		0.03	0.76		0.02	0.17		0.19	0.20	
Control Delay	15.4	21.8		13.1	30.8		15.9	24.7		16.3	12.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.4	21.8		13.1	30.8		15.9	24.7		16.3	12.8	
LOS	B	C		B	C		B	C		B	B	
Approach Delay		21.4			30.6			23.8			14.3	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	18	154		3	209		4	39		35	27	
Queue Length 95th (ft)	39	248		11	282		m15	89		80	90	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			2519			1622			1355	
Turn Bay Length (ft)	160			145			95			125		
Base Capacity (vph)	280	1985		349	1900		592	618		616	754	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.37		0.03	0.43		0.02	0.17		0.18	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 85.2			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.4		Intersection LOS: C	
Intersection Capacity Utilization 52.1%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 16: Petersdorf Road & Army Trail Road



Intersection	
Int Delay, s/veh	0

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	0	179	0	0	109
Future Vol, veh/h	0	0	179	0	0	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	5
Mvmt Flow	0	0	188	0	0	115

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	303	188	0	0	188	0
Stage 1	188	-	-	-	-	-
Stage 2	115	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	693	859	-	-	1398	-
Stage 1	849	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	693	859	-	-	1398	-
Mov Cap-2 Maneuver	693	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	-	1398	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	28	41	56	161	70	46
Future Vol, veh/h	28	41	56	161	70	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	12	0	2	2	0
Mvmt Flow	29	43	59	169	74	48

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	385	98	122	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.2	-	-	-
Pot Cap-1 Maneuver	622	931	1478	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	595	931	1478	-	-	-
Mov Cap-2 Maneuver	595	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1478	-	757	-	-
HCM Lane V/C Ratio	0.04	-	0.096	-	-
HCM Control Delay (s)	7.5	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	179	0	0	108	1	0	0	0	0	0	5
Future Vol, veh/h	1	179	0	0	108	1	0	0	0	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	2	2	3	0	2	2	2	0	2	0
Mvmt Flow	1	188	0	0	114	1	0	0	0	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	188	0	0	307	305	188	305	305	115
Stage 1	-	-	-	-	-	-	190	190	-	115	115	-
Stage 2	-	-	-	-	-	-	117	115	-	190	190	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1487	-	-	1386	-	-	645	608	854	651	608	943
Stage 1	-	-	-	-	-	-	812	743	-	895	800	-
Stage 2	-	-	-	-	-	-	888	800	-	816	743	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1487	-	-	1386	-	-	641	607	854	650	607	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	641	607	-	650	607	-
Stage 1	-	-	-	-	-	-	811	742	-	894	800	-
Stage 2	-	-	-	-	-	-	883	800	-	815	742	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1487	-	-	1386	-	-	943
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	0.006
HCM Control Delay (s)	0	7.4	0	-	0	-	-	8.8
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	159	32	39	53	37	57
Future Vol, veh/h	159	32	39	53	37	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	4	17	3
Mvmt Flow	167	34	41	56	39	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	201	0	322	184
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.13	-	6.57	6.23
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.227	-	3.653	3.327
Pot Cap-1 Maneuver	-	-	1365	-	642	856
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1365	-	622	856
Mov Cap-2 Maneuver	-	-	-	-	622	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	746	-	-	1365	-
HCM Lane V/C Ratio	0.133	-	-	0.03	-
HCM Control Delay (s)	10.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	808	7	93	779	1	209
Future Vol, veh/h	808	7	93	779	1	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	230	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	2	7	0	1
Mvmt Flow	851	7	98	820	1	220

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	858	0	1461	429
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	606	-
Critical Hdwy	-	-	4.14	-	6.8	6.92
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.22	-	3.5	3.31
Pot Cap-1 Maneuver	-	-	779	-	122	577
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	779	-	107	577
Mov Cap-2 Maneuver	-	-	-	-	107	-
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	448	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	565	-	-	779	-
HCM Lane V/C Ratio	0.391	-	-	0.126	-
HCM Control Delay (s)	15.4	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.8	-	-	0.4	-

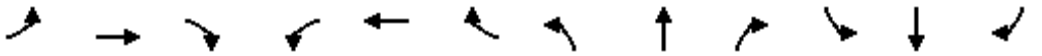
Intersection	
Int Delay, s/veh	1.6

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	55	2137	1	0	1616	16	0	1	1	12	0	81
Future Vol, veh/h	3	55	2137	1	0	1616	16	0	1	1	12	0	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	295	-	-	-	-	240	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	50	3	8	0	0	12	9	0	0	0	0	0	4
Mvmt Flow	3	58	2249	1	0	1701	17	0	1	1	13	0	85

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	1242	1718	0	0	2250	0	0	3052	4090	1125	2723	4073	851
Stage 1	-	-	-	-	-	-	-	2372	2372	-	1701	1701	-
Stage 2	-	-	-	-	-	-	-	680	1718	-	1022	2372	-
Critical Hdwy	6.6	5.36	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.8	3.13	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.94
Pot Cap-1 Maneuver	206	172	-	-	96	-	-	14	3	174	23	3	257
Stage 1	-	-	-	-	-	-	-	21	68	-	65	149	-
Stage 2	-	-	-	-	-	-	-	375	146	-	231	68	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	170	170	-	-	96	-	-	7	2	174	16	2	257
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	12	27	-	34	32	-
Stage 1	-	-	-	-	-	-	-	13	44	-	42	149	-
Stage 2	-	-	-	-	-	-	-	251	146	-	144	44	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0	84.8	43.6
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	27	174	170	-	-	96	-	-	34	257
HCM Lane V/C Ratio	0.039	0.006	0.359	-	-	-	-	-	0.372	0.332
HCM Control Delay (s)	143.7	25.8	37.6	-	-	0	-	-	163.6	25.8
HCM Lane LOS	F	D	E	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	0.1	0	1.5	-	-	0	-	-	1.2	1.4

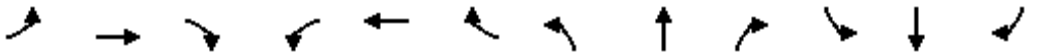


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	87	74	47	74	4	58	1872	77	7	1546	124
Future Volume (vph)	66	87	74	47	74	4	58	1872	77	7	1546	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		25	200		0	135		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			175			225		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.994			0.989	
Flt Protected		0.979			0.981		0.950			0.950		
Satd. Flow (prot)	0	1850	1583	0	1843	1615	1805	3456	0	1805	3410	0
Flt Permitted		0.686			0.585		0.078			0.052		
Satd. Flow (perm)	0	1296	1583	0	1099	1615	148	3456	0	99	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			51		5			10	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		948			1245			2012			2057	
Travel Time (s)		21.5			28.3			30.5			31.2	
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
Heavy Vehicles (%)	0%	1%	2%	3%	0%	0%	0%	4%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	78	0	127	4	61	2052	0	7	1758	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0		9.5	24.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.0	89.0		13.0	86.0	
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	11.4%	63.6%		9.3%	61.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)		20.9	20.9		20.9	20.9	109.6	105.2		105.6	98.5	
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.78	0.75		0.75	0.70	
v/c Ratio		0.83	0.28		0.77	0.01	0.31	0.79		0.05	0.73	
Control Delay		89.6	23.0		85.9	0.0	8.3	15.4		5.4	16.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		89.6	23.0		85.9	0.0	8.3	15.4		5.4	16.8	
LOS		F	C		F	A	A	B		A	B	
Approach Delay		67.9			83.3			15.2			16.7	
Approach LOS		E			F			B			B	
Queue Length 50th (ft)		144	22		113	0	11	495		1	486	
Queue Length 95th (ft)		215	67		178	0	27	961		6	738	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			1165			1932			1977	
Turn Bay Length (ft)			25			25	200			135		
Base Capacity (vph)		296	401		251	408	263	2598		192	2402	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.54	0.19		0.51	0.01	0.23	0.79		0.04	0.73	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 20.9		Intersection LOS: C	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: IL 59 & Smith Road

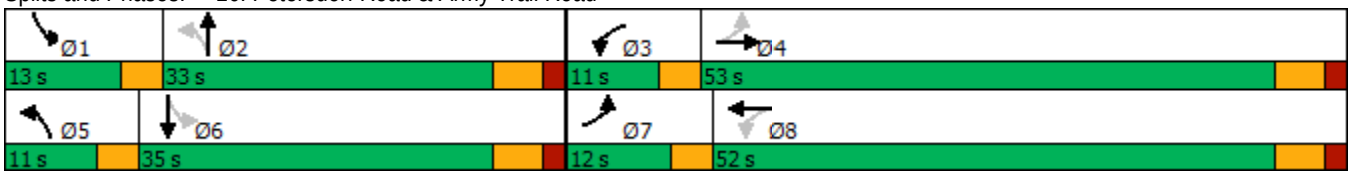


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	601	15	13	853	60	8	29	9	62	25	46
Future Volume (vph)	55	601	15	13	853	60	8	29	9	62	25	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	145		0	95		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			155			140			115		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.990			0.966			0.903	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3461	0	1805	3436	0	1805	1807	0	1770	1682	0
Flt Permitted	0.124			0.375			0.709			0.657		
Satd. Flow (perm)	227	3461	0	712	3436	0	1347	1807	0	1224	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			8			9			48	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		948			2599			1702			1435	
Travel Time (s)		14.4			39.4			38.7			32.6	
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
Heavy Vehicles (%)	4%	4%	0%	0%	4%	4%	0%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	649	0	14	961	0	8	40	0	65	74	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	12.0	53.0		11.0	52.0		11.0	33.0		13.0	35.0	
Total Split (%)	10.9%	48.2%		10.0%	47.3%		10.0%	30.0%		11.8%	31.8%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	42.4	38.4		38.6	31.6		35.8	28.8		39.8	35.6	
Actuated g/C Ratio	0.47	0.43		0.43	0.35		0.40	0.32		0.44	0.40	
v/c Ratio	0.25	0.44		0.04	0.79		0.01	0.07		0.11	0.11	
Control Delay	14.8	19.0		12.1	31.8		18.9	23.8		18.8	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.8	19.0		12.1	31.8		18.9	23.8		18.8	11.9	
LOS	B	B		B	C		B	C		B	B	
Approach Delay		18.7			31.5			23.0			15.2	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	17	127		4	267		3	13		23	9	
Queue Length 95th (ft)	38	213		14	354		14	44		57	49	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			2519			1622			1355	
Turn Bay Length (ft)	160			145			95			125		
Base Capacity (vph)	256	1907		409	1841		594	585		602	695	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.23	0.34		0.03	0.52		0.01	0.07		0.11	0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 89.9			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 25.2		Intersection LOS: C	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Petersdorf Road & Army Trail Road



Intersection	
Int Delay, s/veh	0

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	0	187	1	0	156
Future Vol, veh/h	0	0	187	1	0	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	0	0	197	1	0	164

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	362	198	0	0	198	0
Stage 1	198	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	641	848	-	-	1387	-
Stage 1	840	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	641	848	-	-	1387	-
Mov Cap-2 Maneuver	641	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	-	1387	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	9	45	35	171	145	13
Future Vol, veh/h	9	45	35	171	145	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	3	0
Mvmt Flow	9	47	37	180	153	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	414	160	167	0	-	0
Stage 1	160	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	599	890	1423	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	582	890	1423	-	-	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	9.7	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1423	-	818	-	-
HCM Lane V/C Ratio	0.026	-	0.069	-	-
HCM Control Delay (s)	7.6	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	186	0	0	155	1	0	0	0	2	0	3
Future Vol, veh/h	5	186	0	0	155	1	0	0	0	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	2	2	0	2	2	2	0	2	0
Mvmt Flow	5	196	0	0	163	1	0	0	0	2	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	164	0	0	196	0	0	371	370	196	370	370	164
Stage 1	-	-	-	-	-	-	206	206	-	164	164	-
Stage 2	-	-	-	-	-	-	165	164	-	206	206	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1427	-	-	1377	-	-	586	560	845	590	560	886
Stage 1	-	-	-	-	-	-	796	731	-	843	762	-
Stage 2	-	-	-	-	-	-	837	762	-	801	731	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1377	-	-	582	558	845	588	558	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	558	-	588	558	-
Stage 1	-	-	-	-	-	-	793	728	-	840	762	-
Stage 2	-	-	-	-	-	-	834	762	-	798	728	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	0	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1427	-	-	1377	-	-	737
HCM Lane V/C Ratio	-	0.004	-	-	-	-	-	0.007
HCM Control Delay (s)	0	7.5	0	-	0	-	-	9.9
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	156	22	52	131	32	48
Future Vol, veh/h	156	22	52	131	32	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	6	0	0	8	0
Mvmt Flow	164	23	55	138	34	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	187	0	424	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	248	-
Critical Hdwy	-	-	4.1	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.2	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1399	-	576	872
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1399	-	551	872
Mov Cap-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	746	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	707	-	-	1399	-
HCM Lane V/C Ratio	0.119	-	-	0.039	-
HCM Control Delay (s)	10.8	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	671	1	187	925	1	208
Future Vol, veh/h	671	1	187	925	1	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	230	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	706	1	197	974	1	219

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	707	0	1588	354
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	881	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	901	-	101	648
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	370	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	901	-	79	648
Mov Cap-2 Maneuver	-	-	-	-	79	-
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	289	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	626	-	-	901	-
HCM Lane V/C Ratio	0.351	-	-	0.218	-
HCM Control Delay (s)	13.8	-	-	10.1	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.8	-

Intersection	
Int Delay, s/veh	13.5

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	111	1670	0	0	2375	48	0	9	1	5	0	72
Future Vol, veh/h	3	111	1670	0	0	2375	48	0	9	1	5	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	295	-	-	-	-	240	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	7	0	0	5	3	0	10	0	0	0	0
Mvmt Flow	3	117	1758	0	0	2500	51	0	9	1	5	0	76

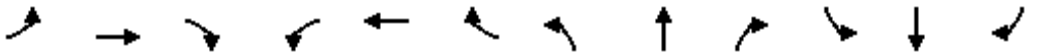
Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	1825	2551	0	0	1758	0	0	2998	4549	879	3448	4498	1250
Stage 1	-	-	-	-	-	-	-	1998	1998	-	2500	2500	-
Stage 2	-	-	-	-	-	-	-	1000	2551	-	948	1998	-
Critical Hdwy	5.6	5.3	-	-	5.3	-	-	6.4	6.7	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.7	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.7	-	6.7	5.5	-
Follow-up Hdwy	2.3	3.1	-	-	3.1	-	-	3.8	4.1	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	155	~ 67	-	-	169	-	-	15	~ 1	253	8	1	143
Stage 1	-	-	-	-	-	-	-	40	94	-	17	58	-
Stage 2	-	-	-	-	-	-	-	238	48	-	257	106	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	67	~ 67	-	-	169	-	-	-	0	253	-	0	143
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ -9	0	-	-	-	-
Stage 1	-	-	-	-	-	-	-	40	0	-	17	58	-
Stage 2	-	-	-	-	-	-	-	112	48	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.4	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	253	~ 67	-	-	169	-	-	-	143
HCM Lane V/C Ratio	-	0.004	1.791	-	-	-	-	-	-	0.53
HCM Control Delay (s)	-	19.3	$ 507.6	-	-	0	-	-	-	55.5
HCM Lane LOS	-	C	F	-	-	A	-	-	-	F
HCM 95th %tile Q(veh)	-	0	10.8	-	-	0	-	-	-	2.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis – Year 2030 Total Buildout

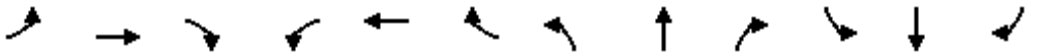


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	85	99	79	62	53	53	1323	68	24	1809	84
Future Volume (vph)	94	85	99	79	62	53	53	1323	68	24	1809	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		25	200		0	135		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			175			225		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.993			0.993	
Flt Protected		0.974			0.973		0.950			0.950		
Satd. Flow (prot)	0	1831	1583	0	1757	1615	1752	3331	0	1805	3418	0
Flt Permitted		0.632			0.518		0.042			0.130		
Satd. Flow (perm)	0	1188	1583	0	935	1615	77	3331	0	247	3418	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			51		6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		948			1245			2012			2057	
Travel Time (s)		21.5			28.3			30.5			31.2	
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
Heavy Vehicles (%)	2%	0%	2%	7%	3%	0%	3%	8%	0%	0%	5%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	104	0	148	56	56	1465	0	25	1992	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0		9.5	24.0	
Total Split (s)	41.0	41.0	41.0	41.0	41.0	41.0	15.0	84.0		15.0	84.0	
Total Split (%)	29.3%	29.3%	29.3%	29.3%	29.3%	29.3%	10.7%	60.0%		10.7%	60.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)		25.7	25.7		25.7	25.7	103.5	96.4		101.2	93.7	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.74	0.69		0.72	0.67	
v/c Ratio		0.87	0.31		0.87	0.17	0.40	0.64		0.10	0.87	
Control Delay		88.5	26.7		95.1	13.7	20.7	15.6		6.9	25.7	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		88.5	26.7		95.1	13.7	20.7	15.6		6.9	25.7	
LOS		F	C		F	B	C	B		A	C	
Approach Delay		66.5			72.7			15.8			25.5	
Approach LOS		E			E			B			C	
Queue Length 50th (ft)		168	41		132	4	12	392		5	730	
Queue Length 95th (ft)		242	89		203	39	49	580		17	#1140	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			1165			1932			1977	
Turn Bay Length (ft)			25			25	200			135		
Base Capacity (vph)		297	434		233	442	195	2295		312	2289	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.63	0.24		0.64	0.13	0.29	0.64		0.08	0.87	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: IL 59 & Smith Road

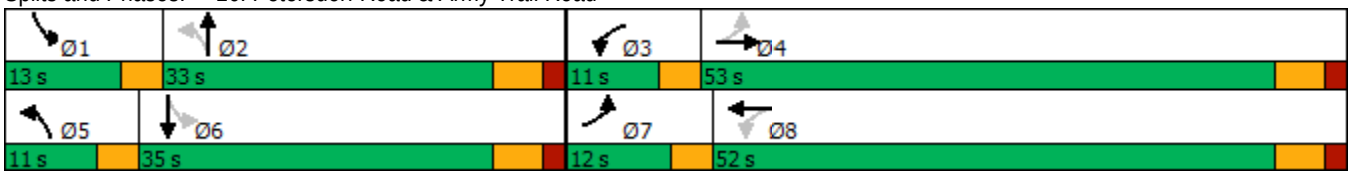


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	691	9	11	606	165	11	82	21	107	57	87
Future Volume (vph)	55	691	9	11	606	165	11	82	21	107	57	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	145		0	95		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			155			140			115		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.968			0.969			0.909	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3466	0	1805	3360	0	1805	1812	0	1770	1693	0
Flt Permitted	0.165			0.307			0.660			0.617		
Satd. Flow (perm)	301	3466	0	583	3360	0	1254	1812	0	1149	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			39			11			68	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		948			2599			1702			1435	
Travel Time (s)		14.4			39.4			38.7			32.6	
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
Heavy Vehicles (%)	4%	4%	0%	0%	4%	4%	0%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	736	0	12	812	0	12	108	0	113	152	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	12.0	53.0		11.0	52.0		11.0	33.0		13.0	35.0	
Total Split (%)	10.9%	48.2%		10.0%	47.3%		10.0%	30.0%		11.8%	31.8%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	37.3	33.3		33.6	26.5		35.7	28.6		40.2	36.0	
Actuated g/C Ratio	0.44	0.39		0.39	0.31		0.42	0.34		0.47	0.42	
v/c Ratio	0.23	0.54		0.04	0.76		0.02	0.18		0.19	0.20	
Control Delay	15.5	21.9		13.2	30.8		15.9	24.2		16.3	12.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.5	21.9		13.2	30.8		15.9	24.2		16.3	12.8	
LOS	B	C		B	C		B	C		B	B	
Approach Delay		21.4			30.5			23.4			14.3	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	18	154		4	209		4	40		35	27	
Queue Length 95th (ft)	39	250		13	282		15	93		80	90	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			2519			1622			1355	
Turn Bay Length (ft)	160			145			95			125		
Base Capacity (vph)	280	1985		349	1900		592	616		614	754	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.37		0.03	0.43		0.02	0.18		0.18	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 85.2			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.3		Intersection LOS: C	
Intersection Capacity Utilization 52.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Petersdorf Road & Army Trail Road



Intersection	
Int Delay, s/veh	0

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	0	185	0	0	116
Future Vol, veh/h	0	0	185	0	0	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	5
Mvmt Flow	0	0	195	0	0	122

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	317	195	0	0	195	0
Stage 1	195	-	-	-	-	-
Stage 2	122	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	680	851	-	-	1390	-
Stage 1	843	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	680	851	-	-	1390	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	908	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	-	1390	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	28	43	62	180	76	46
Future Vol, veh/h	28	43	62	180	76	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	12	0	2	2	0
Mvmt Flow	29	45	65	189	80	48

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	423	104	128	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.4	6.32	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.408	2.2	-	-	-
Pot Cap-1 Maneuver	591	924	1470	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	562	924	1470	-	-	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1470	-	737	-	-
HCM Lane V/C Ratio	0.044	-	0.101	-	-
HCM Control Delay (s)	7.6	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	179	25	8	108	1	85	0	25	0	0	5
Future Vol, veh/h	1	179	25	8	108	1	85	0	25	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	188	26	8	114	1	89	0	26	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	214	0	0	336	334	201	347	347	115
Stage 1	-	-	-	-	-	-	203	203	-	131	131	-
Stage 2	-	-	-	-	-	-	133	131	-	216	216	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1487	-	-	1368	-	-	622	589	845	611	580	943
Stage 1	-	-	-	-	-	-	804	737	-	877	792	-
Stage 2	-	-	-	-	-	-	875	792	-	791	728	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1487	-	-	1368	-	-	615	585	845	589	576	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	615	585	-	589	576	-
Stage 1	-	-	-	-	-	-	803	736	-	876	787	-
Stage 2	-	-	-	-	-	-	865	787	-	766	727	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	11.7	8.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	656	1487	-	-	1368	-	-	943
HCM Lane V/C Ratio	0.177	0.001	-	-	0.006	-	-	0.006
HCM Control Delay (s)	11.7	7.4	0	-	7.6	0	-	8.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	178	32	43	59	37	69
Future Vol, veh/h	178	32	43	59	37	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	4	17	3
Mvmt Flow	187	34	45	62	39	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	221	0	356	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	152	-
Critical Hdwy	-	-	4.13	-	6.57	6.23
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.227	-	3.653	3.327
Pot Cap-1 Maneuver	-	-	1342	-	613	834
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1342	-	592	834
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	730	-	-	1342	-
HCM Lane V/C Ratio	0.153	-	-	0.034	-
HCM Control Delay (s)	10.8	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	812	7	103	781	1	240
Future Vol, veh/h	812	7	103	781	1	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	230	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	2	7	0	1
Mvmt Flow	855	7	108	822	1	253

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	862	0	1486	431
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	627	-
Critical Hdwy	-	-	4.14	-	6.8	6.92
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.22	-	3.5	3.31
Pot Cap-1 Maneuver	-	-	776	-	117	575
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	776	-	101	575
Mov Cap-2 Maneuver	-	-	-	-	101	-
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	431	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	564	-	-	776	-
HCM Lane V/C Ratio	0.45	-	-	0.14	-
HCM Control Delay (s)	16.5	-	-	10.4	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	2.3	-	-	0.5	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	60	2149	1	0	1616	23	0	1	1	22	0	96
Future Vol, veh/h	3	60	2149	1	0	1616	23	0	1	1	22	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	295	-	-	-	-	240	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	50	3	8	0	0	12	9	0	0	0	0	0	4
Mvmt Flow	3	63	2262	1	0	1701	24	0	1	1	23	0	101

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	1242	1725	0	0	2263	0	0	3075	4120	1132	2738	4096	851
Stage 1	-	-	-	-	-	-	-	2395	2395	-	1701	1701	-
Stage 2	-	-	-	-	-	-	-	680	1725	-	1037	2395	-
Critical Hdwy	6.6	5.36	-	-	5.3	-	-	6.4	6.5	7.1	6.4	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.8	3.13	-	-	3.1	-	-	3.8	4	3.9	3.8	4	3.94
Pot Cap-1 Maneuver	206	170	-	-	94	-	-	14	2	172	~ 22	3	257
Stage 1	-	-	-	-	-	-	-	20	66	-	65	149	-
Stage 2	-	-	-	-	-	-	-	375	145	-	226	66	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	167	167	-	-	94	-	-	6	~ 1	172	~ 15	2	257
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	11	25	-	32	29	-
Stage 1	-	-	-	-	-	-	-	12	40	-	39	149	-
Stage 2	-	-	-	-	-	-	-	228	145	-	133	40	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0	90.6	70.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	25	172	167	-	-	94	-	-	32	257
HCM Lane V/C Ratio	0.042	0.006	0.397	-	-	-	-	-	0.724	0.393
HCM Control Delay (s)	155.2	26.1	39.9	-	-	0	-	-	256.6	27.8
HCM Lane LOS	F	D	E	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	0.1	0	1.7	-	-	0	-	-	2.4	1.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

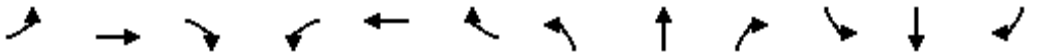
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	25	12	94	71	4
Future Vol, veh/h	12	25	12	94	71	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	26	13	99	75	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	202	77	79	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	125	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	787	984	1519	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	901	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	780	984	1519	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	901	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1519	-	907	-	-
HCM Lane V/C Ratio	0.008	-	0.043	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

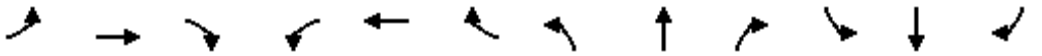


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	95	74	70	79	33	58	1872	102	56	1546	124
Future Volume (vph)	66	95	74	70	79	33	58	1872	102	56	1546	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		25	200		0	135		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	25			25			175			225		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850			0.850		0.992			0.989	
Flt Protected		0.980			0.977		0.950			0.950		
Satd. Flow (prot)	0	1851	1583	0	1830	1615	1805	3450	0	1805	3410	0
Flt Permitted		0.621			0.566		0.075			0.042		
Satd. Flow (perm)	0	1173	1583	0	1060	1615	142	3450	0	80	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			51		7			10	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		948			1245			2012			2057	
Travel Time (s)		21.5			28.3			30.5			31.2	
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
Heavy Vehicles (%)	0%	1%	2%	3%	0%	0%	0%	4%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	169	78	0	157	35	61	2078	0	59	1758	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	9.5	24.0		9.5	24.0	
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	16.0	89.0		13.0	86.0	
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%	27.1%	11.4%	63.6%		9.3%	61.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0		6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)		23.3	23.3		23.3	23.3	104.4	96.0		104.3	96.0	
Actuated g/C Ratio		0.17	0.17		0.17	0.17	0.75	0.69		0.74	0.69	
v/c Ratio		0.87	0.25		0.89	0.11	0.32	0.88		0.41	0.75	
Control Delay		93.1	21.4		100.4	5.9	9.6	24.8		20.6	19.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		93.1	21.4		100.4	5.9	9.6	24.8		20.6	19.0	
LOS		F	C		F	A	A	C		C	B	
Approach Delay		70.5			83.2			24.4			19.0	
Approach LOS		E			F			C			B	
Queue Length 50th (ft)		152	21		141	0	12	754		11	522	
Queue Length 95th (ft)		224	64		215	18	30	#1181		52	794	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			1165			1932			1977	
Turn Bay Length (ft)			25			25	200			135		
Base Capacity (vph)		268	401		242	408	257	2368		177	2341	
Starvation Cap Reductn		0	0		0	0	0	0		0	0	
Spillback Cap Reductn		0	0		0	0	0	0		0	0	
Storage Cap Reductn		0	0		0	0	0	0		0	0	
Reduced v/c Ratio		0.63	0.19		0.65	0.09	0.24	0.88		0.33	0.75	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 27.3		Intersection LOS: C	
Intersection Capacity Utilization 82.8%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: IL 59 & Smith Road

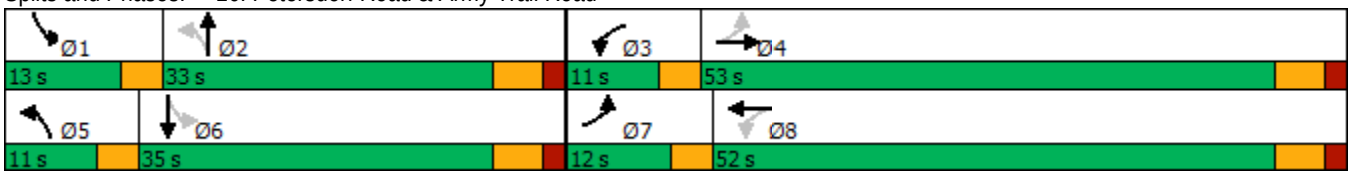


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	601	15	20	853	60	8	29	13	62	25	46
Future Volume (vph)	55	601	15	20	853	60	8	29	13	62	25	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	145		0	95		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			155			140			115		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.990			0.953			0.903	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3461	0	1805	3436	0	1805	1786	0	1770	1682	0
Flt Permitted	0.121			0.356			0.709			0.654		
Satd. Flow (perm)	221	3461	0	676	3436	0	1347	1786	0	1218	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			8			14			48	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		948			2599			1702			1435	
Travel Time (s)		14.4			39.4			38.7			32.6	
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
Heavy Vehicles (%)	4%	4%	0%	0%	4%	4%	0%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	649	0	21	961	0	8	45	0	65	74	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0		9.5	24.0		9.5	24.0		9.5	24.0	
Total Split (s)	12.0	53.0		11.0	52.0		11.0	33.0		13.0	35.0	
Total Split (%)	10.9%	48.2%		10.0%	47.3%		10.0%	30.0%		11.8%	31.8%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Max		None	Max	
Act Effct Green (s)	42.1	36.5		38.8	31.6		35.8	28.8		39.8	35.6	
Actuated g/C Ratio	0.47	0.41		0.43	0.35		0.40	0.32		0.44	0.40	
v/c Ratio	0.25	0.46		0.06	0.79		0.01	0.08		0.11	0.11	
Control Delay	14.9	20.9		12.3	31.8		18.9	22.0		18.8	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.9	20.9		12.3	31.8		18.9	22.0		18.8	11.9	
LOS	B	C		B	C		B	C		B	B	
Approach Delay		20.4			31.4			21.5			15.2	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	17	127		6	267		3	13		23	9	
Queue Length 95th (ft)	38	214		18	354		14	46		57	49	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		868			2519			1622			1355	
Turn Bay Length (ft)	160			145			95			125		
Base Capacity (vph)	253	1892		397	1841		594	582		600	695	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.23	0.34		0.05	0.52		0.01	0.08		0.11	0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 89.9			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 25.8		Intersection LOS: C	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Petersdorf Road & Army Trail Road



Intersection	
Int Delay, s/veh	0

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	0	203	1	0	184
Future Vol, veh/h	0	0	203	1	0	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	0	0	214	1	0	194

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	409	215	0	0	215	0
Stage 1	215	-	-	-	-	-
Stage 2	194	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	602	830	-	-	1367	-
Stage 1	826	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	602	830	-	-	1367	-
Mov Cap-2 Maneuver	602	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	844	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	-	1367	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	9	52	39	183	166	13
Future Vol, veh/h	9	52	39	183	166	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	3	0
Mvmt Flow	9	55	41	193	175	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	457	182	189	0	-	0
Stage 1	182	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	565	866	1397	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	546	866	1397	-	-	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	776	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	9.9	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1397	-	797	-	-
HCM Lane V/C Ratio	0.029	-	0.081	-	-
HCM Control Delay (s)	7.7	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	186	82	28	155	1	57	0	16	2	0	3
Future Vol, veh/h	5	186	82	28	155	1	57	0	16	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	2	2	0	2	2	2	0	2	0
Mvmt Flow	5	196	86	29	163	1	60	0	17	2	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	164	0	0	282	0	0	472	471	239	480	514	164
Stage 1	-	-	-	-	-	-	249	249	-	222	222	-
Stage 2	-	-	-	-	-	-	223	222	-	258	292	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.3
Pot Cap-1 Maneuver	1427	-	-	1280	-	-	502	491	800	499	464	886
Stage 1	-	-	-	-	-	-	755	701	-	785	720	-
Stage 2	-	-	-	-	-	-	780	720	-	751	671	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1280	-	-	489	477	800	478	451	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	489	477	-	478	451	-
Stage 1	-	-	-	-	-	-	752	698	-	782	702	-
Stage 2	-	-	-	-	-	-	758	702	-	732	668	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.2	12.9	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	535	1427	-	-	1280	-	-	660
HCM Lane V/C Ratio	0.144	0.004	-	-	0.023	-	-	0.008
HCM Control Delay (s)	12.9	7.5	0	-	7.9	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	168	22	66	152	32	56
Future Vol, veh/h	168	22	66	152	32	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	6	0	0	8	0
Mvmt Flow	177	23	69	160	34	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	487	189
Stage 1	-	-	-	-	189	-
Stage 2	-	-	-	-	298	-
Critical Hdwy	-	-	4.1	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.2	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1384	-	529	858
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1384	-	500	858
Mov Cap-2 Maneuver	-	-	-	-	500	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	699	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	681	-	-	1384	-
HCM Lane V/C Ratio	0.136	-	-	0.05	-
HCM Control Delay (s)	11.1	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	675	1	222	932	1	228
Future Vol, veh/h	675	1	222	932	1	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	230	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	711	1	234	981	1	240

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	712	0	1671	356
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	959	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	897	-	89	646
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	337	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	897	-	66	646
Mov Cap-2 Maneuver	-	-	-	-	66	-
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	249	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	622	-	-	897	-
HCM Lane V/C Ratio	0.388	-	-	0.261	-
HCM Control Delay (s)	14.4	-	-	10.4	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.8	-	-	1	-

Intersection	
Int Delay, s/veh	19.6

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	128	1678	0	0	2375	73	0	9	1	11	0	82
Future Vol, veh/h	3	128	1678	0	0	2375	73	0	9	1	11	0	82
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	295	-	-	-	-	240	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	7	0	0	5	3	0	10	0	0	0	0
Mvmt Flow	3	135	1766	0	0	2500	77	0	9	1	12	0	86

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	1825	2577	0	0	1766	0	0	3042	4619	883	3487	4542	1250
Stage 1	-	-	-	-	-	-	-	2042	2042	-	2500	2500	-
Stage 2	-	-	-	-	-	-	-	1000	2577	-	987	2042	-
Critical Hdwy	5.6	5.3	-	-	5.3	-	-	6.4	6.7	7.1	6.4	6.5	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.7	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.7	-	6.7	5.5	-
Follow-up Hdwy	2.3	3.1	-	-	3.1	-	-	3.8	4.1	3.9	3.8	4	3.9
Pot Cap-1 Maneuver	155	~ 65	-	-	168	-	-	14	~ 1	251	~ 7	1	143
Stage 1	-	-	-	-	-	-	-	37	89	-	17	58	-
Stage 2	-	-	-	-	-	-	-	238	46	-	243	101	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	65	~ 65	-	-	168	-	-	-	0	251	-	0	143
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	297	0	-	-	-	-
Stage 1	-	-	-	-	-	-	-	37	0	-	17	58	-
Stage 2	-	-	-	-	-	-	-	94	46	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	47.3	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	251	~ 65	-	-	168	-	-	-	143
HCM Lane V/C Ratio	-	0.004	2.121	-	-	-	-	-	-	0.604
HCM Control Delay (s)	-	19.4	$ 653.7	-	-	0	-	-	-	62.6
HCM Lane LOS	-	C	F	-	-	A	-	-	-	F
HCM 95th %tile Q(veh)	-	0	13.1	-	-	0	-	-	-	3.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.3

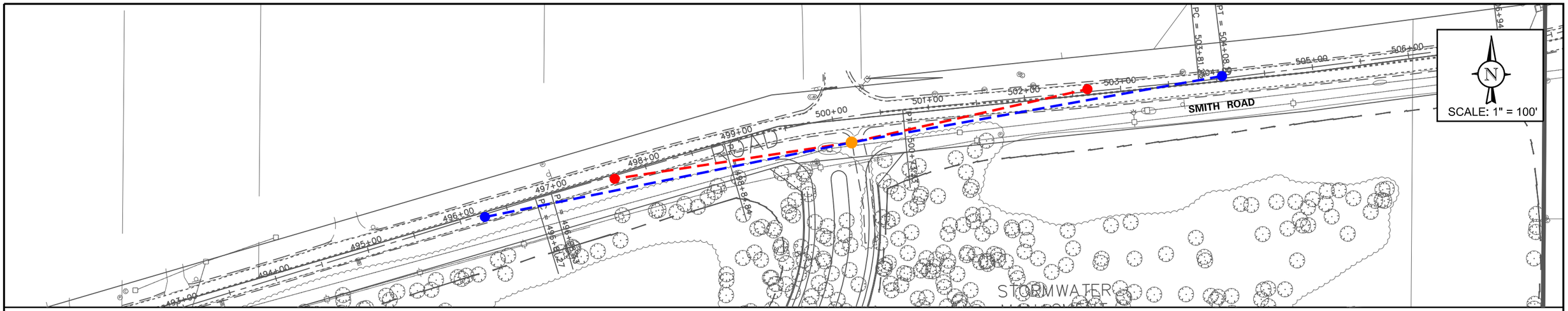
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	16	42	80	74	14
Future Vol, veh/h	8	16	42	80	74	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	8	17	44	84	78	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	258	86	93	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	735	978	1514	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	713	978	1514	-	-	-
Mov Cap-2 Maneuver	713	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	863	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	2.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1514	-	870	-	-
HCM Lane V/C Ratio	0.029	-	0.029	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Sight Distance Exhibits



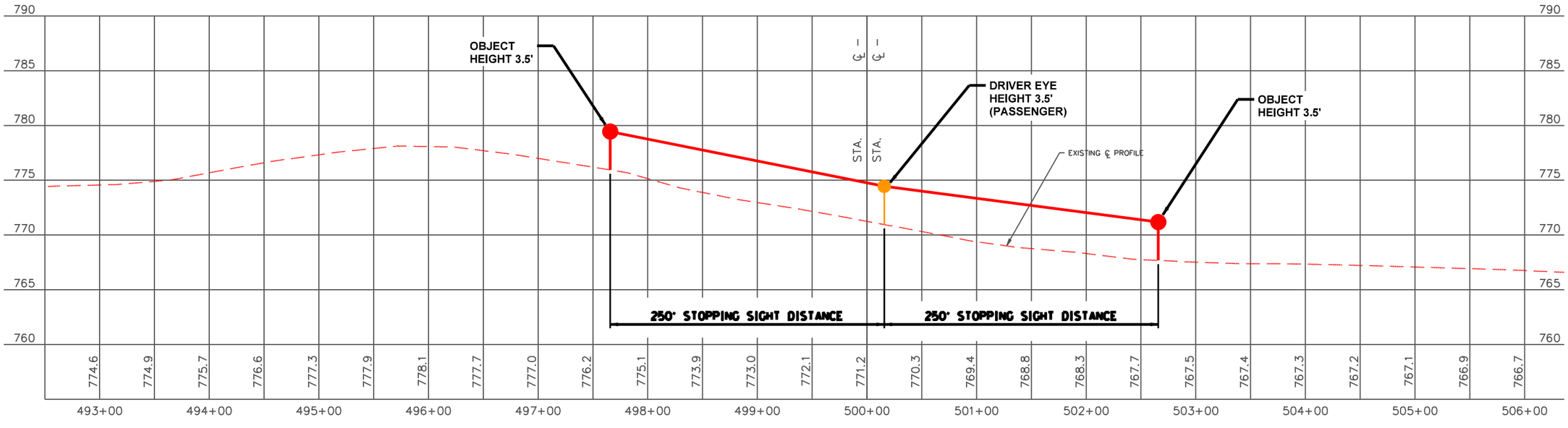
IDOT BDE MANUAL - CHAPTER 31

$SSD = 1.47\ Vt + 1.075\ \frac{V^2}{a}$

where: SSD = Stopping Sight Distance, ft (m)
V = design speed, mph (km/h)
t = brake time, 2.5 seconds
a = driver deceleration, ft/s²(m/s²)

$250 = 1.47\ 35(2.5) + 1.075\ (\frac{1225}{11.2})$

POSTED SPEED LIMIT = 30 MPH
DESIGN SPEED = 35 MPH

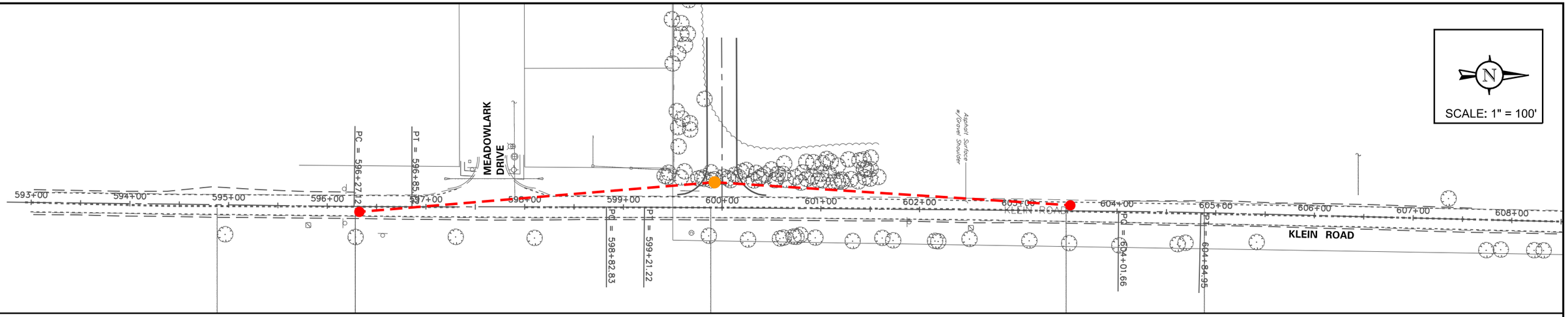


ST. ANDREWS
SUBDIVISION
WEST CHICAGO, ILLINOIS

SIGHT DISTANCE STUDY
SMITH ROAD

DRAWN: MD CHECKED: JM
DATE: 07-13-21 REV:
PROJECT # 21-175
EXHIBIT: A

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



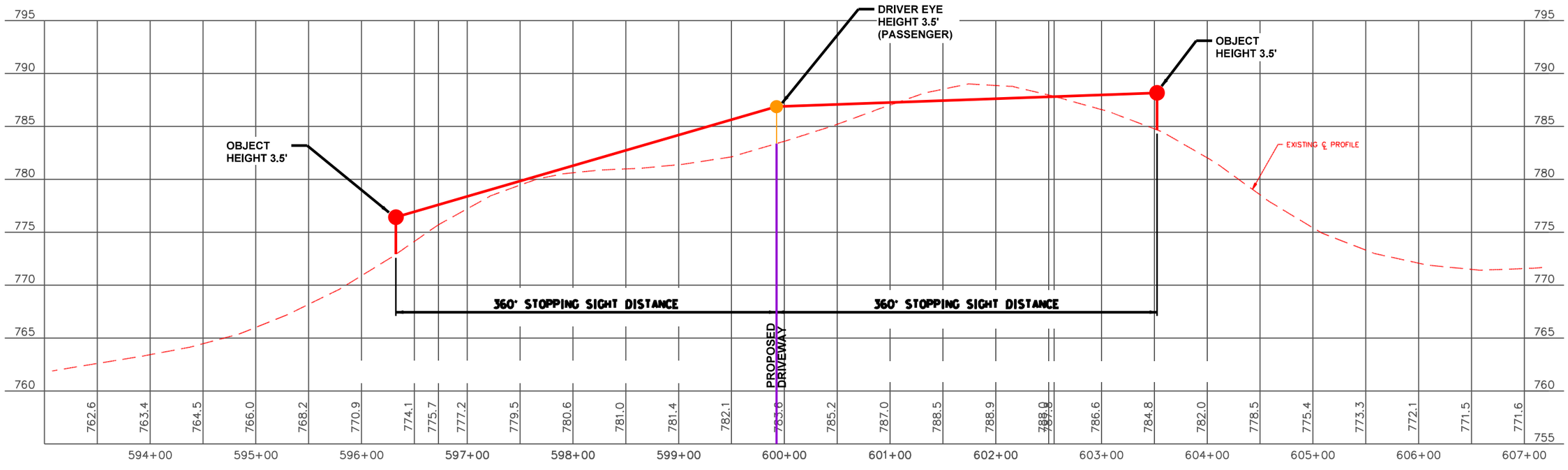
IDOT BDE MANUAL - CHAPTER 31

$SSD = 1.47\ Vt + 1.075\ \frac{V^2}{a}$

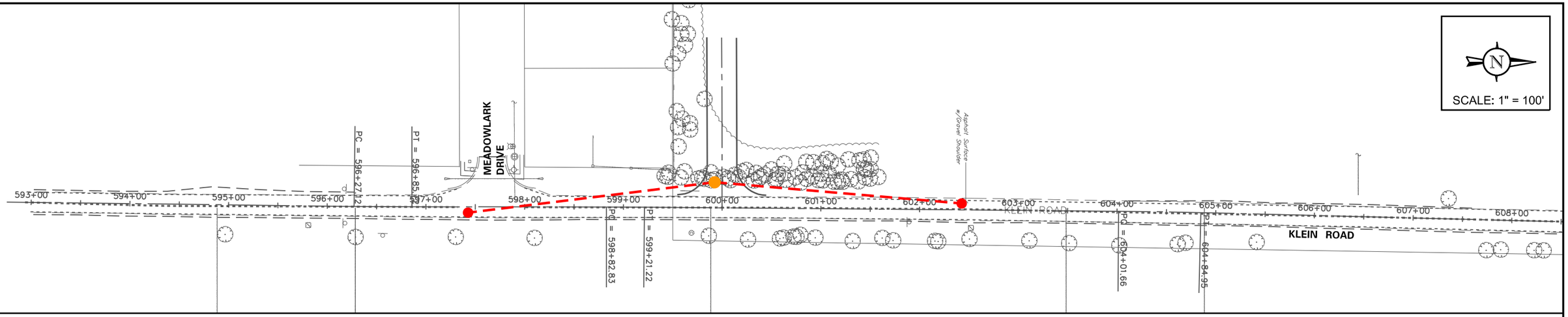
where: SSD = Stopping Sight Distance, ft (m)
V = design speed, mph (km/h)
t = brake time, 2.5 seconds
a = driver deceleration, $ft/s^2 (m/s^2)$

$360 = 1.47\ 45(2.5) + 1.075\ (\frac{2025}{11.2})$

POSTED SPEED LIMIT = 40 MPH
DESIGN SPEED = 45 MPH



ST. ANDREWS SUBDIVISION WEST CHICAGO, ILLINOIS	**SIGHT DISTANCE STUDY KLEIN ROAD**	DRAWN: MD CHECKED: JM DATE: 07-13-21 REV: PROJECT # 21-175 EXHIBIT: B KLOA Kenig,Lindgren,O'Hara,Aboona,Inc.



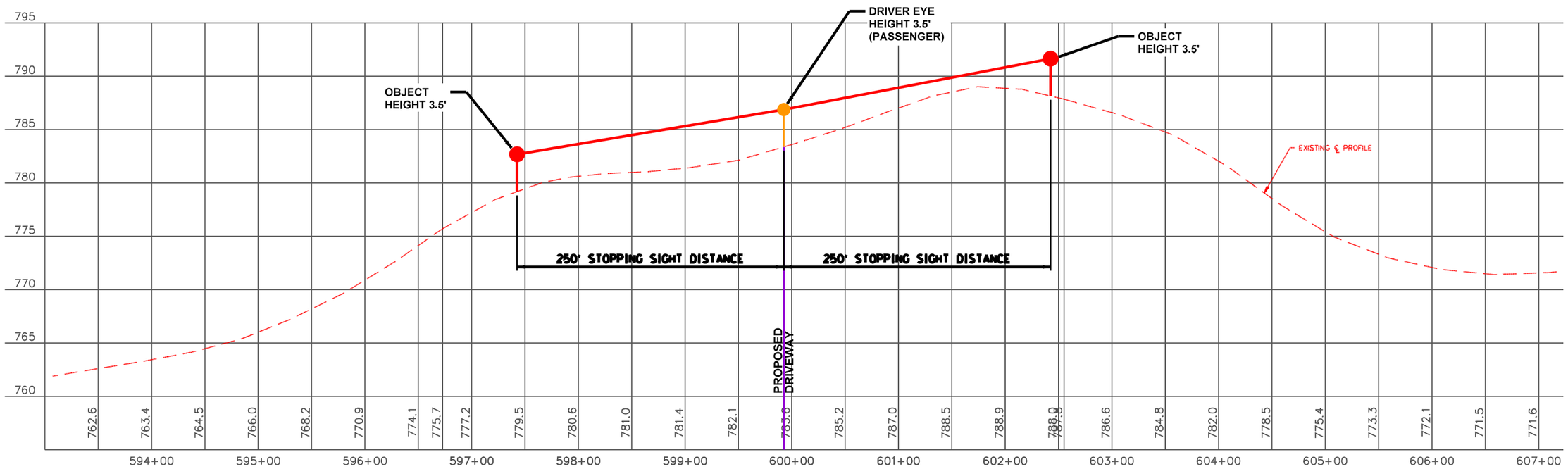
IDOT BDE MANUAL - CHAPTER 31

$SSD = 1.47\ Vt + 1.075\ \frac{V^2}{a}$

where: SSD = Stopping Sight Distance, ft (m)
V = design speed, mph (km/h)
t = brake time, 2.5 seconds
a = driver deceleration, ft/s^2 (m/s^2)

$250 = 1.47\ 35(2.5) + 1.075\ (\frac{1225}{11.2})$

PROPOSED POSTED SPEED LIMIT = 30 MPH
PROPOSED DESIGN SPEED = 35 MPH



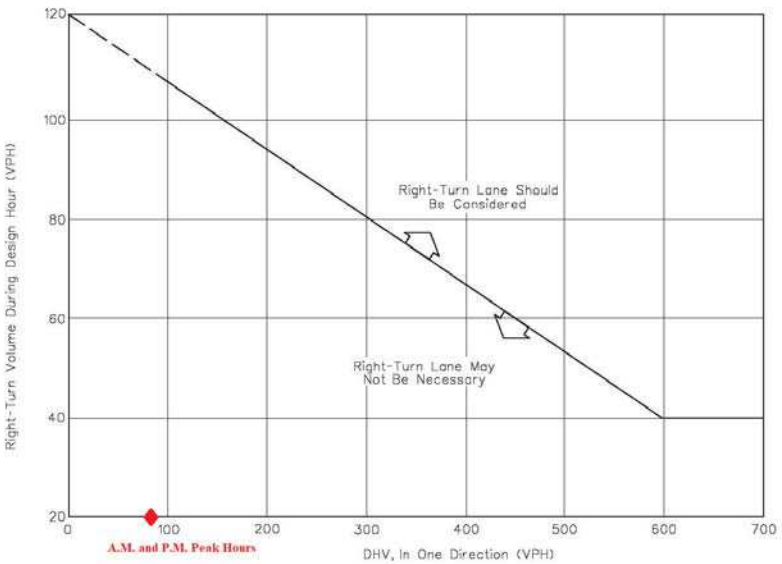
ST. ANDREWS
SUBDIVISION
WEST CHICAGO, ILLINOIS

SIGHT DISTANCE STUDY
KLEIN ROAD - REDUCED SPEED LIMIT

DRAWN: MD CHECKED: JM
DATE: 07-13-21 REV:
PROJECT # 21-175
EXHIBIT: C

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

Auxiliary Lane Exhibits



Note: For highways with a design speed below 50 mph (80 km/hr), with a DHV in one direction of less than 300, and where right turns are greater than 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given:	Design Speed	=	35 mph (60 km/hr)
	DHV (in one direction)	=	250 vph
	Right Turns	=	100 vph

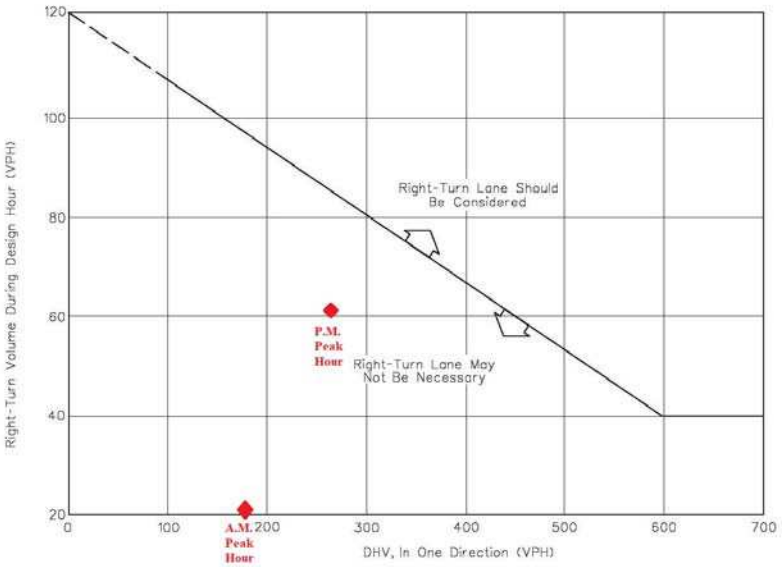
Problem: Determine if a right-turn lane is warranted.

Solution: To read the vertical axis, use 100 - 20 = 80 vph. The figure indicates that right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS

Figure 36-3.A

Klein Road and Proposed Access Road



Note: For highways with a design speed below 50 mph (80 km/hr), with a DHV in one direction of less than 300, and where right turns are greater than 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

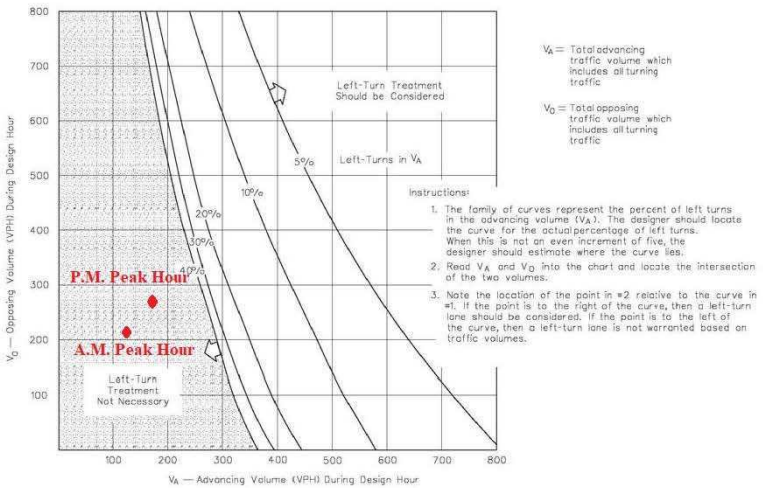
Given:	Design Speed	=	35 mph (60 km/hr)
	DHV (in one direction)	=	250 vph
	Right Turns	=	100 vph

Problem: Determine if a right-turn lane is warranted.

Solution: To read the vertical axis, use 100 - 20 = 80 vph. The figure indicates that right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS

Figure 36-3.A



V_A = Total advancing traffic volume which includes all turning traffic

V_O = Total opposing traffic volume which includes all turning traffic

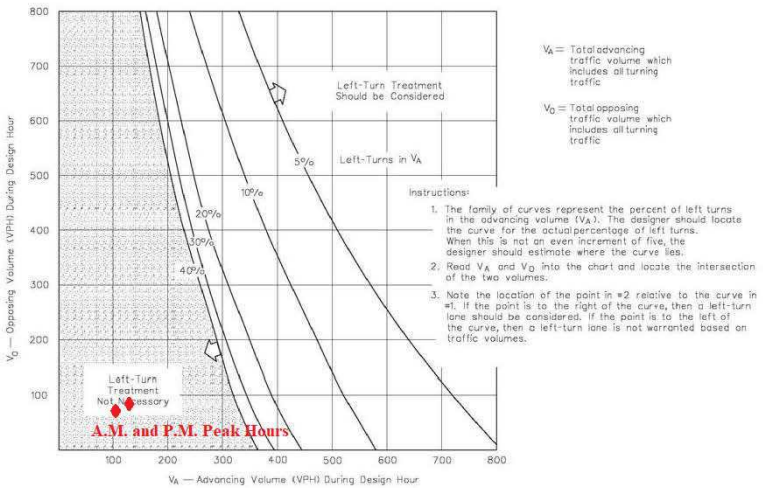
Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of five, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the curve in #1. If the point is to the right of the curve, then a left-turn lane should be considered. If the point is to the left of the curve, then a left-turn lane is not warranted based on traffic volumes.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS
(40 mph Design Speed)

Figure 36-3.G

Smith Road and Proposed Access Drive



VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph Design Speed)

Figure 36-3.G

Klein Road and Proposed Access Road

Redaction Date: 11/15/2021 10:38:39 AM

Redaction Log

Total Number of Redactions in Document: 1

Redaction Reasons by Page

Page	Reason	Description	Occurrences
82	PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	1

Redaction Log

Redaction Reasons by Exemption

Reason	Description	Pages (Count)
PrivateInformation	(5 ILCS 140/7) sec. 7 (1) (b): Information provided would disclose private information. Signatures have been blacked out (redacted). Page 12 of the Illinois Attorney General's "Frequently Asked Questions By Public Bodies" packet states private information is exempt from disclosure.	82(1)