Traffic Impact Study
Proposed 7-Eleven Gas Station

Arlington Heights, Illinois

Prepared For:

vequity

Prepared By:

KLOA

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

December 6, 2018

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed 7-Eleven gas station to be located in Arlington Heights, Illinois. The site, which is currently occupied by a former Citgo 7-Eleven gas station, is located in the northeast quadrant of the intersection of Algonquin Road (IL 62) with New Wilke Road. As proposed, the site will be developed with an approximately 3,000 square-foot 7-Eleven convenience store with eight fueling positions. Access to the 7-Eleven gas station will be provided via the existing easterly right-in/right-out access drive off Algonquin Road and via the existing northerly full access drive off New Willke Road

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed 7-Eleven gas station 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 7-Eleven gas station.

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

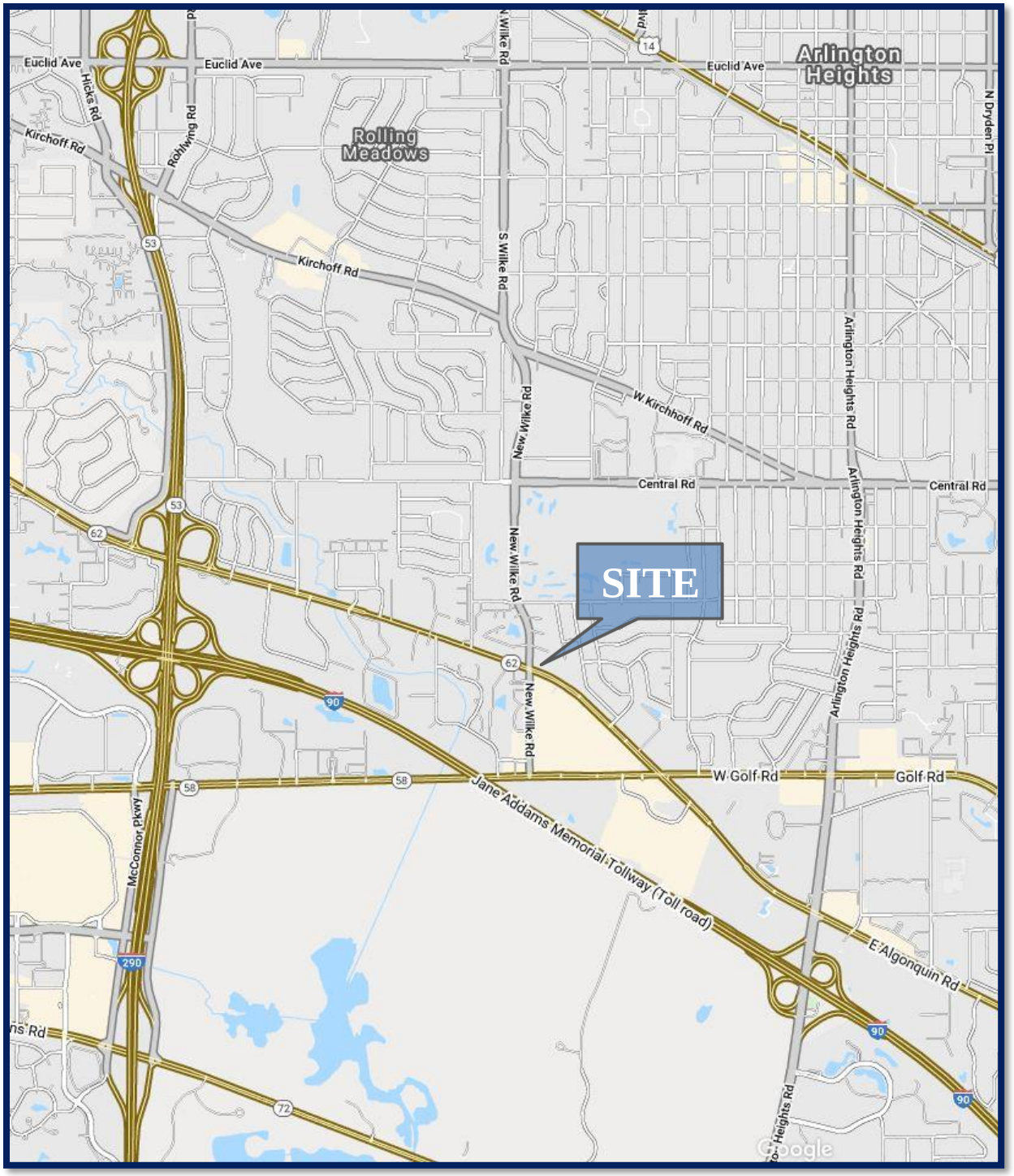
The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed 7-Eleven gas station
- Directional distribution of the 7-Eleven gas station traffic
- Vehicle trip generation for the 7-Eleven gas station
- Future traffic conditions including access to the 7-Eleven gas station
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system

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

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

2. Projected Conditions – Analyze the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, and the traffic estimated to be generated by the full buildout of the proposed 7-Eleven gas station.



Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing Conditions

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

Site Location

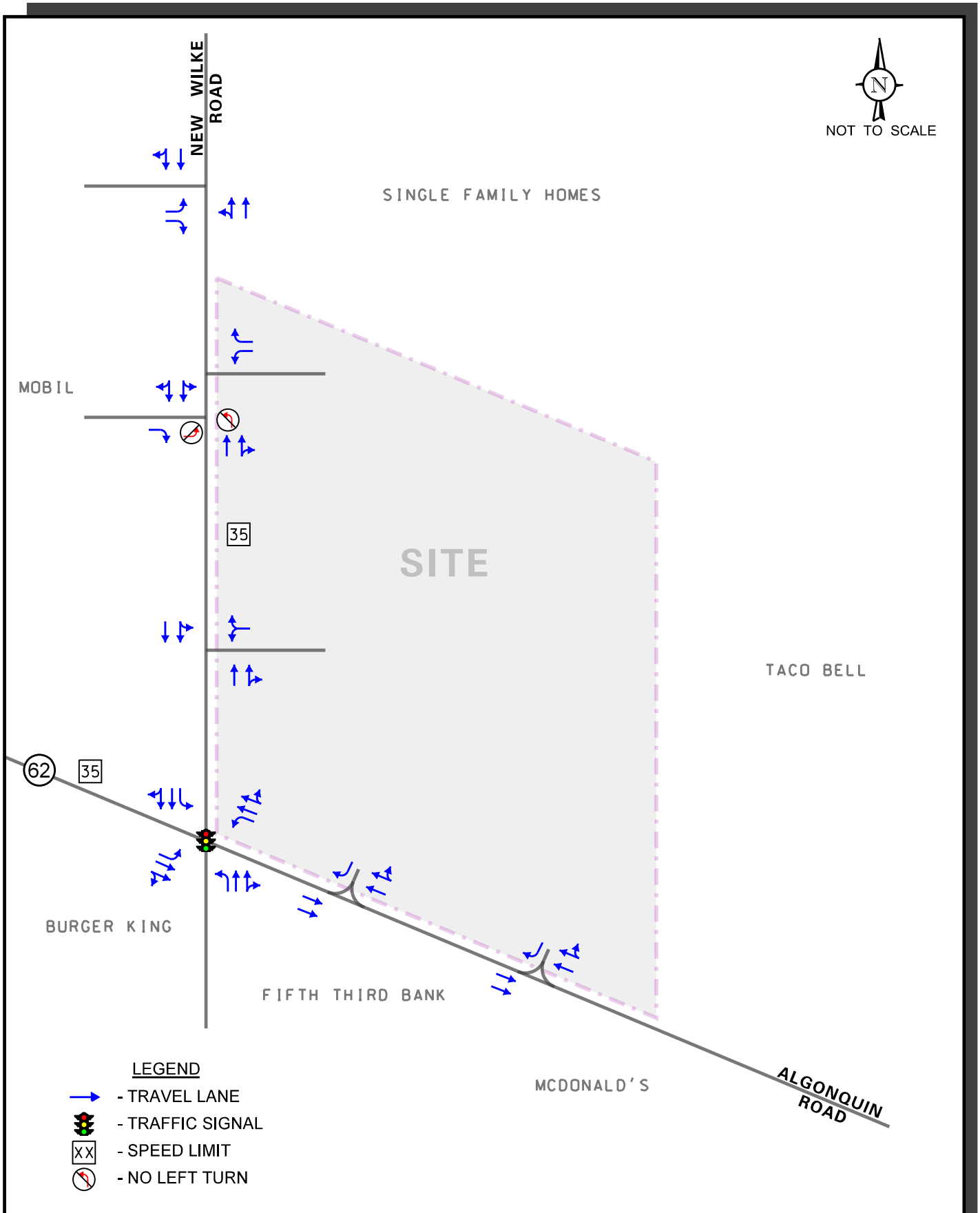
The site, which is currently occupied by a former Citgo 7-Eleven gas station, is located in the northeast quadrant of the intersection of Algonquin Road with New Wilke Road and is bounded by single-family homes to the north and Taco Bell to the east. Land uses in the area include McDonalds and Fifth Third Bank to the south and Burger King and a Mobil 7-Eleven gas station to the west.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the 7-Eleven gas station are described below and illustrated in **Figure 3**.

Algonquin Road (IL 62) is an east-west other principal arterial roadway that provides two lanes in each direction generally divided by a two-way left-turn lane. At its signalized intersection with New Wilke Road, Algonquin Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Both legs provide high visibility crosswalks with pedestrian countdown signals. Algonquin Road is under the jurisdiction of the Illinois Department of Transportation (IDOT) and is designated as a Strategic Regional Arterial (SRA). Algonquin Road carries an Annual Average Daily Traffic (AADT) volume of 29,400 vehicles (IDOT AADT 2017) west of New Wilke Road and 29,200 vehicles (IDOT AADT 2017) east of New Wilke Road. Algonquin Road has a posted speed limit of 35 mph.

New Wilke Road is a north-south major collector roadway that provides two through lanes in each direction. At its signalized intersection with Algonquin Road, New Wilke Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Both legs provide high visibility crosswalks with pedestrian countdown signals. New Wilke Road is under the jurisdiction of the Village of Arlington Heights north of Algonquin Road and the City of Rolling Meadows south of Algonquin Road. New Wilke Road avenue carries an AADT volume of 18,600 vehicles (IDOT AADT 2014) and has a posted speed limit of 35 miles per hour.



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Existing Roadway Characteristics

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Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts utilizing Miovision Scout Collection Units during the weekday morning (7:00 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.) peak periods at the intersection of Algonquin Road with New Wilke Road and New Wilke Road with the Mobil access drives. The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:15 A.M. to 8:15 A.M. and the weekday evening peak hour of traffic occurs from 4:30 P.M. to 5:30 P.M. **Figure 4** illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.

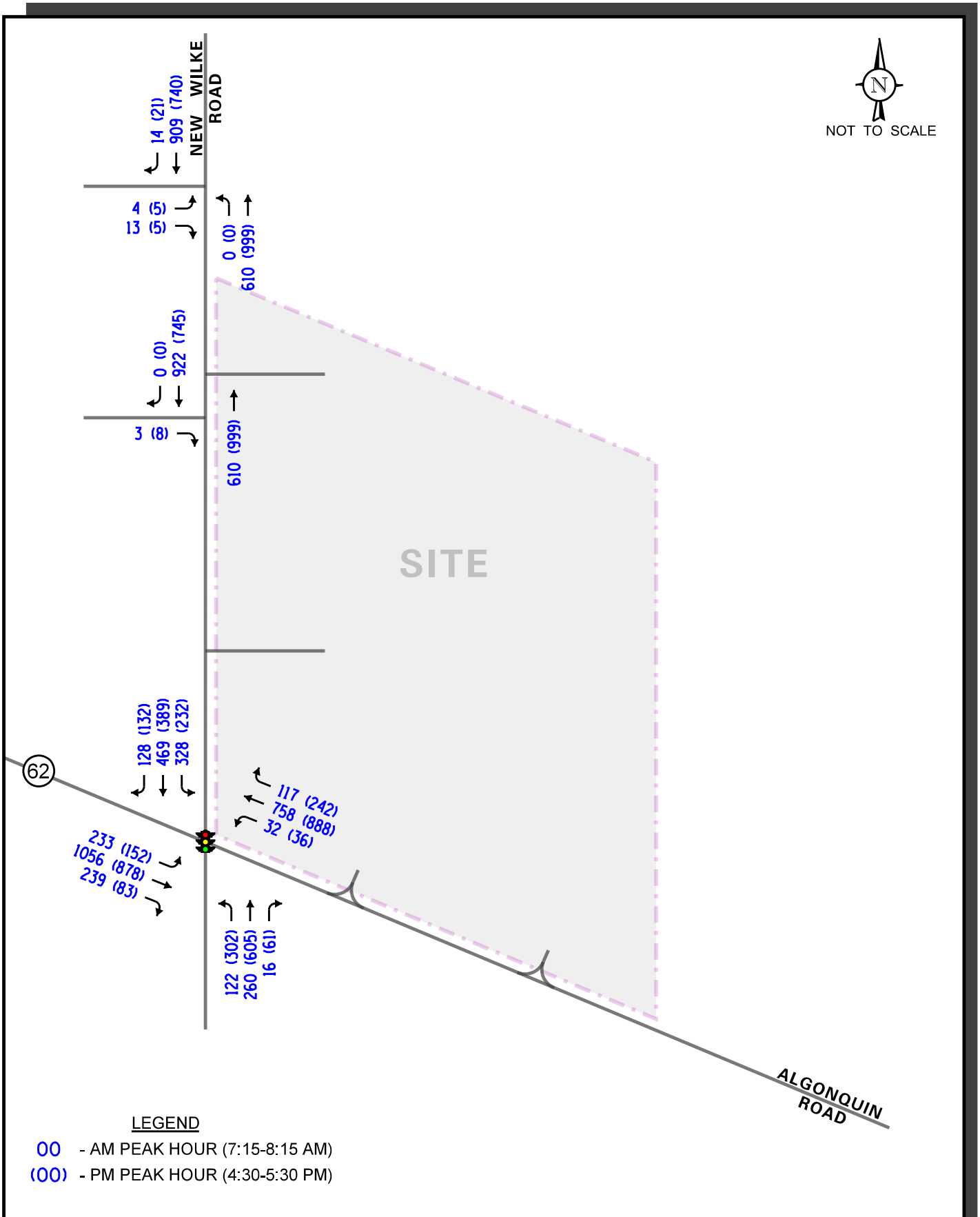
Crash Analysis

KLOA, Inc. obtained crash data[1] for the most recent available past five years (2012 to 2016) for the intersection of Algonquin Road with New Wilke Road as summarized in **Table 1.** A review of the crash data indicated that no fatalities were reported.

Table 1
ALGONQUIN ROAD WITH NEW WILKE ROAD - CRASH SUMMARY

	Type of Accident Frequency						
Year	**Angle**	**Object**	**Rear End**	**Sideswipe**	**Turning**	**Other**	**Total**
2012	3	0	17	1	3	0	24
2013	2	2	8	4	4	0	20
2014	2	0	10	3	7	2	24
2015	2	1	18	1	14	1	37
2016	3	2	19	1	12	0	37
Total	**12**	**5**	**72**	**10**	**40**	**3**	**142**
Average/Year	**2.3**	**1.0**	**14.4**	**2.0**	**8.0**	**<1.0**	**28.4**

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. The author is responsible for any data analyses and conclusions drawn.



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Existing Traffic Volumes

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3. Traffic Characteristics of the Proposed 7-Eleven Gas Station

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed 7-Eleven gas station, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

As proposed, the site will be developed with a 7-Eleven gas station with an approximately 3,000 square-foot convenience store and eight fueling positions. Access to the 7-Eleven gas station will be provided via the following existing access drives:

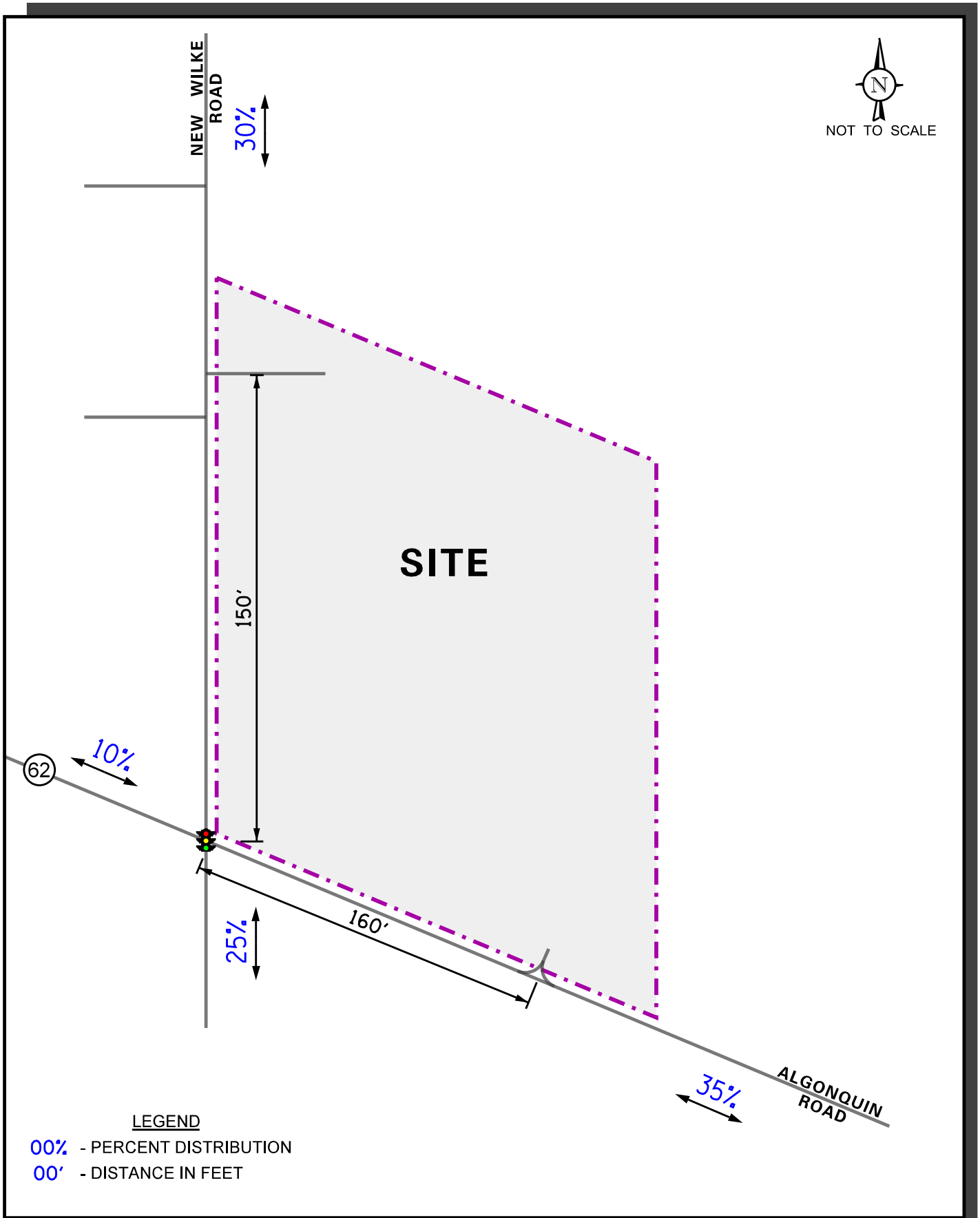
- A right-in/right-out access drive off Algonquin Road approximately at the existing location of the access drive located 160 feet east of New Wilke Road. This access drive will provide one inbound and one outbound lane restricted to right-turning movements only via the raised median along Algonquin Road. Outbound movements will be under stop sign control.

- A full access drive off New Wilke Road at the existing location of the access drive located approximately 150 feet north of Algonquin Road. The access drive will provide one inbound lane and two outbound lanes striped to provide an exclusive left-turn and an exclusive right-turn lane. Outbound movements will be under stop sign control.

It should be noted that both access drives will replace existing access drives that previously served the Citgo 7-Eleven gas station. Further, as part of the development, two existing access drives (one on each roadway) serving the site will be removed. This will improve the traffic flow on Algonquin Road and New Wilke Road and reduce traffic conflicts. A site plan depicting the proposed 7-Eleven gas station layout and access is included in the Appendix.

Directional Distribution

The directions from which patrons and employees will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the 7-Eleven gas station-generated traffic.



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Estimated Directional Distribution

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Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed 7-Eleven gas station was based on vehicle trip generation rates contained in *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE). The "Convenience Market/Gas Station" (Land-Use Code 960) rate was utilized. In addition, it is important to note that surveys conducted by ITE have shown that approximately 60 percent of trips made to gas stations are diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. **Table 2** summarizes the trips projected to be generated by the proposed 7-Eleven gas station.

Table 2
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		In	Out	Total	In	Out	Total
960	Convenience Market/Gas Station (3,000 s.f.)	124	125	249	104	104	208
	60% Pass-By Reduction	*-75*	*-75*	*-150*	*-62*	*-62*	*-124*
	Total New Trips	**49**	**50**	**99**	**42**	**42**	**84**

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject 7-Eleven gas station.

Development Traffic Assignment

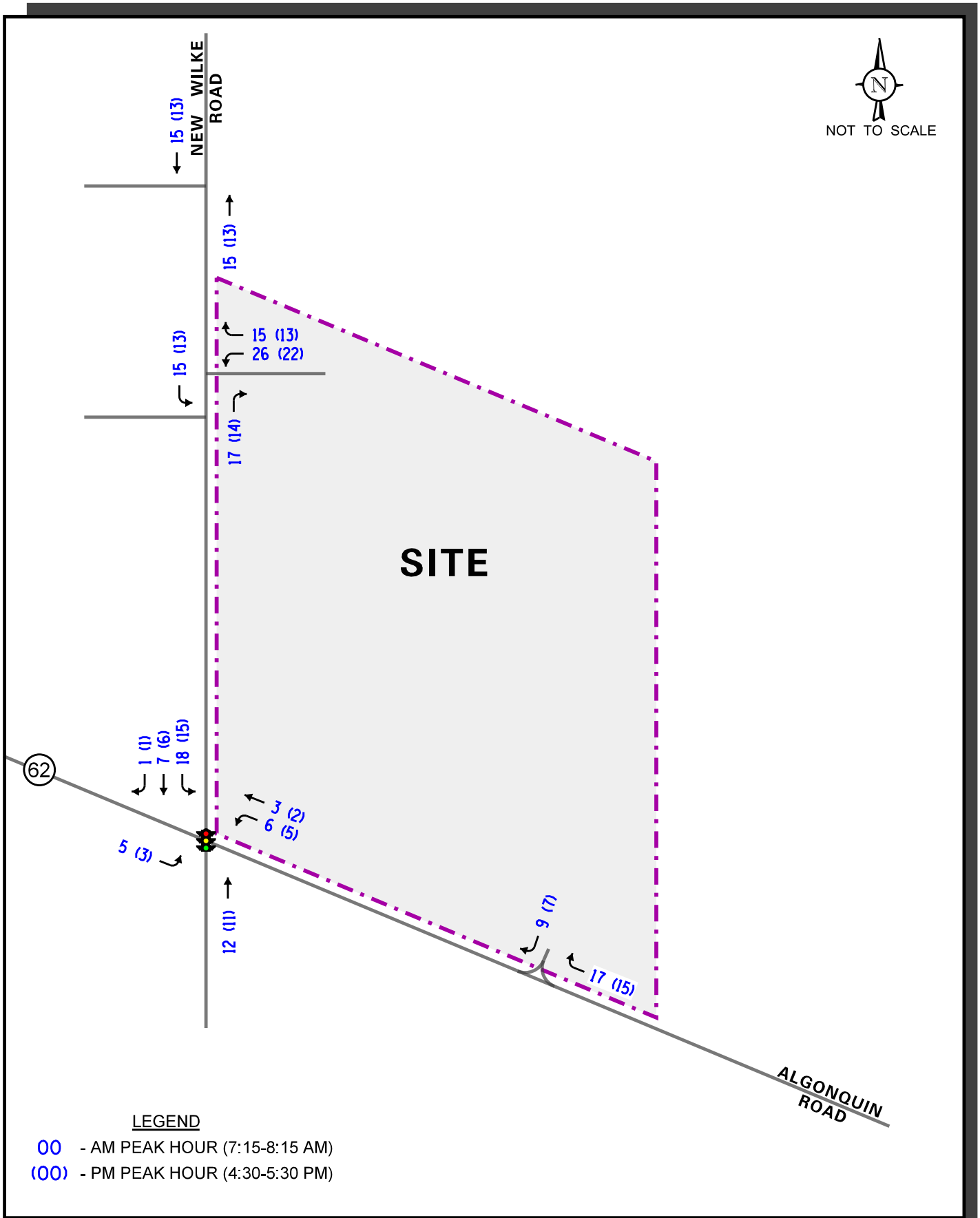
The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed 7-Eleven gas station were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the new passenger vehicle trips. As previously indicated, a 60 percent pass-by reduction was applied. **Figure 7** illustrates the traffic assignment of the pass-by trips.

Background 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 particular planned development). Based on Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes are projected to increase by a total of 0.24 percent (compounded annually) to represent Year 2024 total projected conditions (one-year buildout plus five years). A copy of the CMAP projections letter is included in the Appendix.

Total Projected Traffic Volumes

The 7-Eleven gas station-generated traffic (Figures 6 and 7) was added to the existing traffic volumes increased by the regional growth factor to determine the Year 2024 total projected traffic volumes, shown in **Figure 8**.



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Estimated Site-Generated
Traffic Volumes

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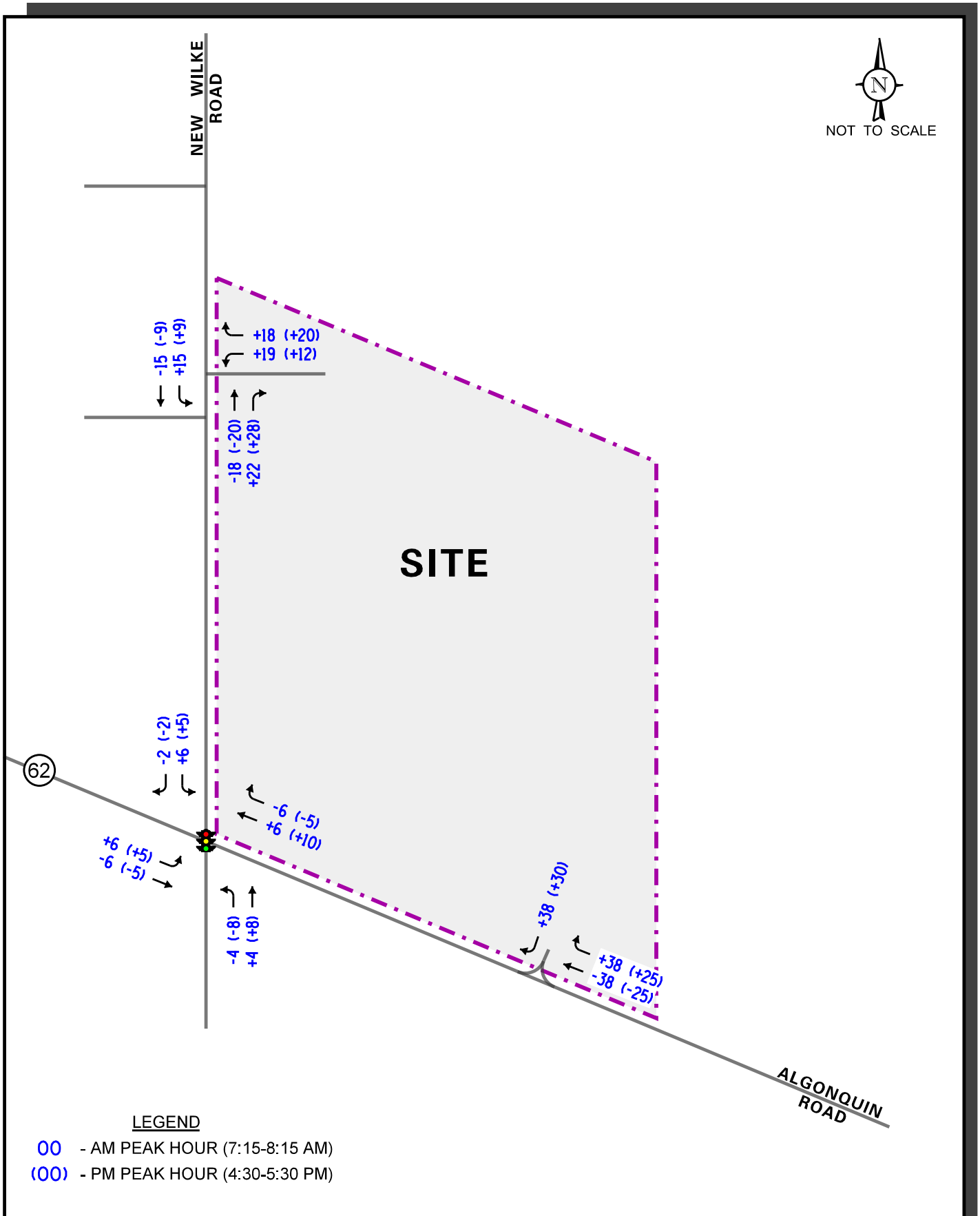

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Pass-By Site-Generated
Traffic Volumes

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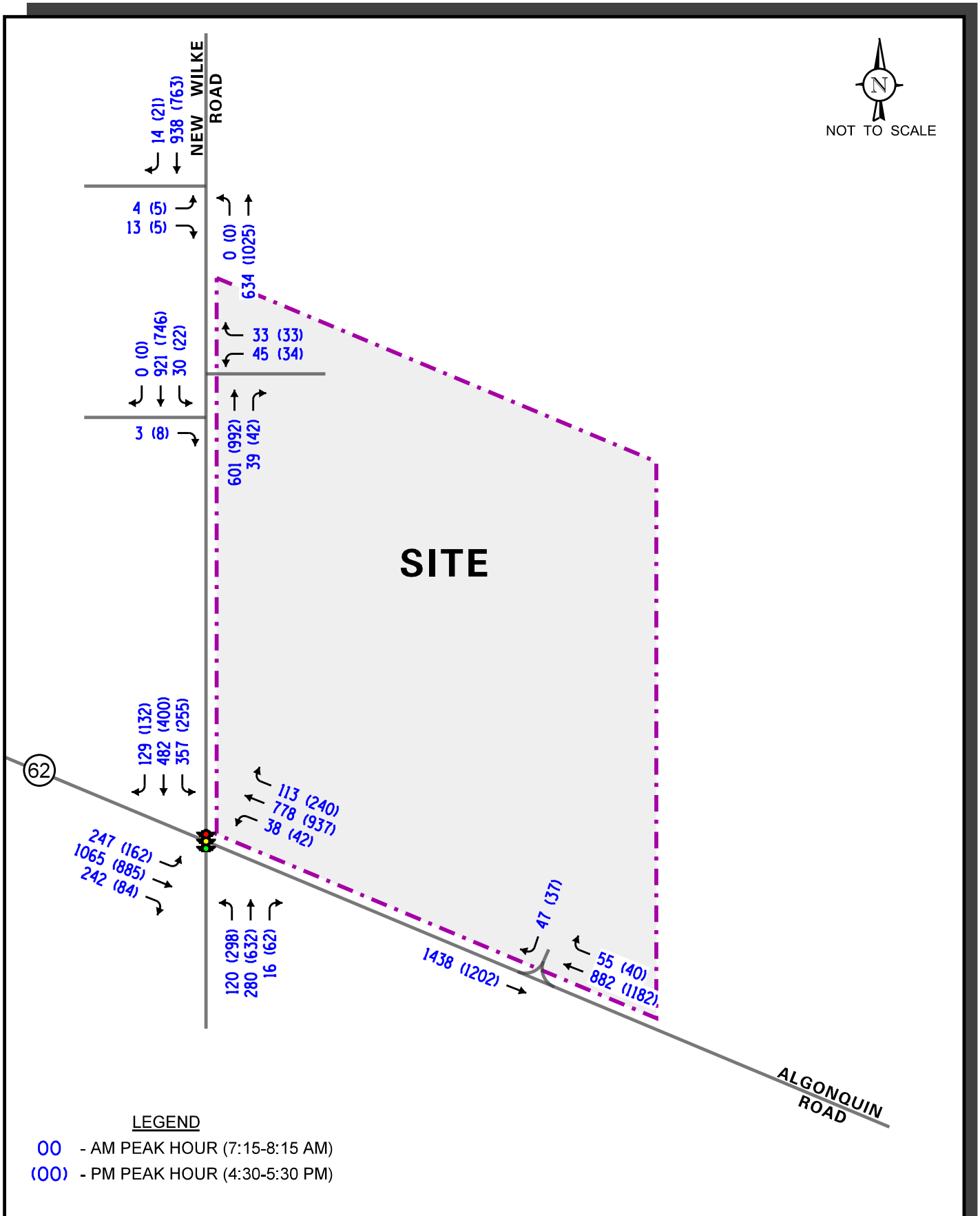

Proposed 7-Eleven
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Total Projected Traffic Volumes

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5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and evening peak hours for the existing (Year 2018) and Year 2024 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 6th Edition* and analyzed using the Synchro/SimTraffic 10 software. The analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

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

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

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

Table 3
CAPACITY ANALYSIS RESULTS – ALGONQUIN ROAD WITH NEW WILKE ROAD – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound		Southbound		Overall
		L	T	R	L	T	R	L	T/R	L	T/R	
Year 2018 Existing Conditions	Weekday Morning Peak Hour	D 38.5	D 37.0		B 19.3	D 38.5		D 50.0	D 54.1	E 77.0	E 62.9	D 46.6
		D – 37.3			D – 37.8			D – 52.8		E 67.9		
	Weekday Evening Peak Hour	D 47.8	C 32.9		B 18.8	D 47.5		D 52.4	E 60.0	E 60.1	E 60.8	D 48.7
		C – 35.0			D - 46.6			E – 57.7		E – 60.6		
Year 2024 Total Projected Conditions	Weekday Morning Peak Hour	D 46.9	D 38.3		C 20.6	D 40.3		D 50.6	D 54.6	F 99+	E 63.8	D 51.0
		D – 39.6			D – 39.5			D – 53.4		E 79.2		
	Weekday Evening Peak Hour	D 49.9	C 34.4		B 19.5	D 55.7		D 49.2	E 61.2	E 73.3	E 58.2	D 52.0
		C – 36.6			D – 54.4			E – 57.6		E – 63.1		

Delay is measured in seconds.
L – Left T – Through R – Right

Table 4
CAPACITY ANALYSIS RESULTS - EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
New Wilke Road with Mobil Northerly Access Drive				
• Eastbound Left Turn	D	34.7	D	26.0
• Eastbound Right Turn	B	13.8	B	12.1
New Wilke Road with Mobil Southerly Access Drive				
• Eastbound Approach	B	13.6	B	12.1

LOS = Level of Service
Delay is measured in seconds.

Table 5
CAPACITY ANALYSIS RESULTS - TOTAL PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
New Wilke Road with Mobil Northerly Access Drive				
• Eastbound Left Turn	E	36.8	D	27.1
• Eastbound Right Turn	B	14.1	B	12.3
New Wilke Road with Mobil Southerly Access Drive and the Proposed Full Access Drive				
• Eastbound Approach	B	13.6	B	12.1
• Westbound Left Turn	E	41.7	F	54.3
• Westbound Right Turn	B	11.1	B	13.0
• Southbound Left Turn	A	9.3	B	10.8
Algonquin Road with the Proposed Right-in/Right-out Access Drive				
• Southbound Approach	B	12.9	B	14.2

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the 7-Eleven gas station-generated traffic.

Algonquin Road with New Wilke Road

The results of the capacity analysis indicate that overall this intersection currently operates at Level of Service (LOS) D during the weekday morning and weekday evening peak hours. Under Year 2024 projected conditions, this intersection overall is projected to continue operating at existing levels of service during the peak hours with increases in delay of less than four seconds. Additionally, all of the approaches are projected to continue operating at existing levels of service during the peak hours. It should be noted that the proposed development is only projected to increase the traffic traversing this intersection by less than two percent during the peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no roadway or traffic control improvements will be required.

New Wilke Road with Mobil Northerly Access Drive

The results of the capacity analysis indicate that the eastbound left-turn movement currently operates at LOS D during the weekday morning and weekday evening peak hours. Under Year 2024 projected conditions, the eastbound left turn is projected to operate at LOS E during the weekday morning peak hour and LOS D during the weekday evening peak hour with an increase in delay of less than two seconds. As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed 7-Eleven gas station and no roadway or traffic control improvements will be required.

New Wilke Road with Mobil Southerly Access Drive and the Proposed Full Access Drive

The results of the capacity analysis indicate that the eastbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours. Under Year 2024 projected conditions, the eastbound approach is projected to continue to operate at the same LOS with an increase in delay of less than one second.

The results of the capacity analysis further indicate that the outbound left turn movements from the proposed full access drive serving the site onto New Wilke Road are projected to operate at LOS E during the weekday morning peak hour and at LOS F during the weekday evening peak hour with 95th percentile queues of one to two vehicles. This is typical and expected at the intersection of an access drive with a major collector roadway such as New Wilke Road. It should be noted that southbound queues at the intersection of Algonquin Road with New Wilke Road currently extend past the location of the proposed access drive and are projected to continue to do so. However, observations indicate that the queues clear with every green cycle and are projected to continue to do so. As such, the proposed access drive will be adequate in accommodating the traffic projected to be generated by the proposed 7-Eleven gas station.

Algonquin Road with the Proposed Full Access Drive

The results of the capacity analysis indicate that the access drive is projected to operate at LOS B during the weekday morning and weekday evening peak hours with 95th percentile queues of one to two vehicles. As such, the proposed access drive will be adequate in accommodating the traffic projected to be generated by the proposed 7-Eleven gas station.

6. Conclusion

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

- The traffic projected to be generated by the proposed 7-Eleven gas station will be reduced due to the volume of pass-by traffic generated by the 7-Eleven gas station.

- The intersection of Algonquin Road with New Wilke Road has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed 7-Eleven gas station and no roadway or traffic improvements are required.

- The proposed access system will be adequate in accommodating the traffic projected to be generated by the proposed 7-Eleven gas station with limited impact on the external roadway system.

- The proposed 7-Eleven gas station will eliminate the two existing access drives on Algonquin Road and New Wilke Road which will improve traffic flow on both roads.

Appendix

Traffic Count Summary Sheets
Preliminary Site Plan
CMAP Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

Study Name	Mobil Access Drives
Start Date	Thursday, November 15, 2018 7:00 AM
End Date	Thursday, November 15, 2018 6:00 PM
Site Code	

Report Summary

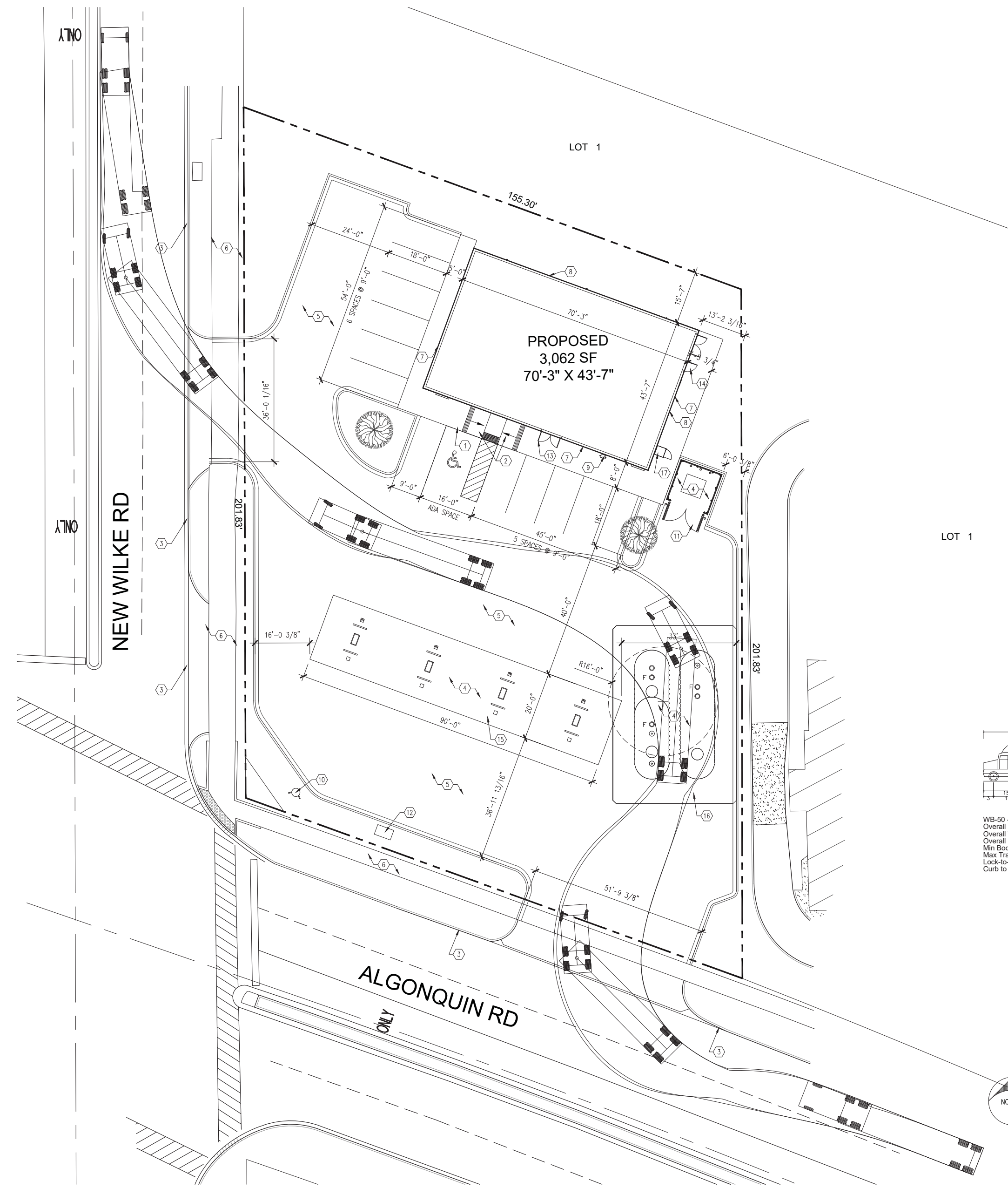
		Northbound				Southbound				Southeastbound				Northeastbound									Crosswalk	
Time Period	**Class.**	**HL**	**BL**	**I**	**O**	**BR**	**HR**	**I**	**O**	**U**	**HL**	**BR**	**R**	**I**	**O**	**U**	**L**	**BL**	**HR**	**I**	**O**	**Total**		**destria**	**Total**
Peak 1	Lights	0	0	0	13	0	13	13	3	0	3	10	0	13	13	0	0	0	3	3	0	29	S	0	0
Specified Period	%	0%	0%	0%	81%	0%	93%	93%	75%	0%	75%	77%	0%	76%	93%	0%	0%	0%	100%	100%	0%	85%		0%	
7:15 AM - 8:15 AM	Buses	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	N	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	7%	7%	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%	0%	3%		0%	
7:15 AM - 8:15 AM	ıgle-Unit Truc	0	0	0	3	0	0	0	1	0	1	3	0	4	0	0	0	0	0	0	0	4	NW	0	0
	%	0%	0%	0%	19%	0%	0%	0%	25%	0%	25%	23%	0%	24%	0%	0%	0%	0%	0%	0%	0%	12%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SW	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		**0**	**0**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**0**	**0**	**16**	**0**	**14**	**14**	**4**	**0**	**4**	**13**	**0**	**17**	**14**	**0**	**0**	**0**	**3**	**3**	**0**	**34**			
	PHF	0	0	0	0.67	0	0.7	0.7	0.5	0	0.5	0.65	0	0.71	0.7	0	0	0	0.75	0.75	0	0.77			
	Approach %			0%	47%			41%	12%					50%	41%					9%	0%				
Peak 2	Lights	0	0	0	13	0	21	21	5	0	5	5	0	10	21	0	0	0	8	8	0	39	S	0	0
Specified Period	%	0%	0%	0%	100%	0%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	0%	0%	100%	100%	0%	100%		0%	
4:30 PM - 5:30 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
4:30 PM - 5:30 PM	ıgle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NW	3	3
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SW	3	3
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		**6**	**6**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**0**	**0**	**13**	**0**	**21**	**21**	**5**	**0**	**5**	**5**	**0**	**10**	**21**	**0**	**0**	**0**	**8**	**8**	**0**	**39**			
	PHF	0	0	0	0.65	0	0.75	0.75	0.62	0	0.62	0.62	0	0.83	0.75	0	0	0	0.5	0.5	0	0.75			
	Approach %			0%	33%			54%	13%					26%	54%					21%	0%				

Study Name	Mobil Access Drives
Start Date	Thursday, November 15, 2018 7:00 AM
End Date	Thursday, November 15, 2018 6:00 PM
Site Code	

Report Summary

		Northbound				Southbound				Southeastbound				Northeastbound									Crosswalk	
Time Period	**Class.**	**HL**	**BL**	**I**	**O**	**BR**	**HR**	**I**	**O**	**U**	**HL**	**BR**	**R**	**I**	**O**	**U**	**L**	**BL**	**HR**	**I**	**O**	**Total**		**destria**	**Total**
Peak 1	Lights	0	0	0	13	0	13	13	3	0	3	10	0	13	13	0	0	0	3	3	0	29	S	0	0
Specified Period	%	0%	0%	0%	81%	0%	93%	93%	75%	0%	75%	77%	0%	76%	93%	0%	0%	0%	100%	100%	0%	85%		0%	
7:15 AM - 8:15 AM	Buses	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	N	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	7%	7%	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%	0%	3%		0%	
7:15 AM - 8:15 AM	ıgle-Unit Truc	0	0	0	3	0	0	0	1	0	1	3	0	4	0	0	0	0	0	0	0	4	NW	0	0
	%	0%	0%	0%	19%	0%	0%	0%	25%	0%	25%	23%	0%	24%	0%	0%	0%	0%	0%	0%	0%	12%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SW	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		**0**	**0**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**0**	**0**	**16**	**0**	**14**	**14**	**4**	**0**	**4**	**13**	**0**	**17**	**14**	**0**	**0**	**0**	**3**	**3**	**0**	**34**			
	PHF	0	0	0	0.67	0	0.7	0.7	0.5	0	0.5	0.65	0	0.71	0.7	0	0	0	0.75	0.75	0	0.77			
	Approach %			0%	47%			41%	12%					50%	41%					9%	0%				
Peak 2	Lights	0	0	0	13	0	21	21	5	0	5	5	0	10	21	0	0	0	8	8	0	39	S	0	0
Specified Period	%	0%	0%	0%	100%	0%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	0%	0%	100%	100%	0%	100%		0%	
4:30 PM - 5:30 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
4:30 PM - 5:30 PM	ıgle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NW	3	3
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SW	3	3
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		**6**	**6**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**0**	**0**	**13**	**0**	**21**	**21**	**5**	**0**	**5**	**5**	**0**	**10**	**21**	**0**	**0**	**0**	**8**	**8**	**0**	**39**			
	PHF	0	0	0	0.65	0	0.75	0.75	0.62	0	0.62	0.62	0	0.83	0.75	0	0	0	0.5	0.5	0	0.75			
	Approach %			0%	33%			54%	13%					26%	54%					21%	0%				

Preliminary Site Plan



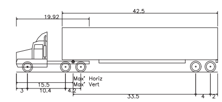
NORTH

1 SITE PLAN
SCALE: 1/16"=1'-0"
0 4' 8' 16' 32'

SITE-BUILDING ANALYSIS				
ZONE:	B-2	GENERAL BUSINESS DISTRICT		
LOT AREA SF:	29,406	SF		
BUILDING AREA SF:	**3,062**	SF		
BUILDING AREA SF:	**3,062**	SF		
BUILDING SETBACKS:		REQUIRED	PROVIDED	VARIANCE
FRONT YARD		**0**		
REAR YARD		**0**		
SIDE YARD		**0**		
SIDE YARD		**0**		
NOTES:				

PARKING CALCULATION					
TENANT	**OCCUPANCY**	**AREA**	**PARKING/SF**	**PARKING REQUIRED**	
BLDG A	RETAIL USE	3,062	1/300	10.00	
			1 PER EMPLOYEE	1.00	
TOTAL BUILDING AREA		**3,062**	TOTAL REQUIRED	**11**	
			TOTAL PROVIDED	13	
	90 Degree	60 D	SURPLUS/(DEFICIT)	2	
STALL :	*9' X 18'*	*9' x 21'*			
ADA STALL:	*11' & 5'*				
DRIVE AISLE:	*24'*	*ONE WAY*			
	24'	*TWO WAY*		REQUIRED	PROVIDED
ADA PARKING SPACES :			5%	1	1
LOADING BERTH:					
BIKE PARKING :					
STACKING PARKING:					

NOTE : SPRINKLER ROOM REQUIRED.



WB-50 - Intermediate Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	45.000ft

GENERAL NOTES:

A. SEE CIVIL FOR GRADING PLAN. SEE CIVIL DRAWING FOR SITE DEMOLITION, NEW PAVEMENT, SITE UTILITIES, SIGNAGE AND FINAL SITE DIMENSIONS.
B. SEE AS1.02 FOR ADDITIONAL SITE DETAILS.
C. VERIFY THE EXISTENCE OF AND PROTECT ALL EXISTING UTILITY LINES. EXCAVATE WITH CARE.
D. INSTALL ADDRESS ON BUILDING AS REQUIRED BY LOCAL CODE.
E. PROVIDE KNOX BOX , PER FIRE DEPARTMENT REQUIREMENTS.
F. SEE CIVIL DRAWINGS FOR ADDITIONAL SITE SIGNAGE REQUIREMENTS.
G. CLEAN LOT AFTER SITE WORK AND AFTER CONSTRUCTION COMPLETION.
H. PROTECT ADJACENT PROPERTY. ANY DAMAGE IS TO BE REPAIRED AT CONTRACTOR EXPENSE WITH PERMISSION OF ADJACENT BUILDING OWNER. FOR EXAMPLE, IF SOD IS DAMAGED IT WILL BE REPLACED AND WATERED REGULARLY UNTIL ESTABLISHED.
I. PROVIDE EXPANSION JOINTS IN CONCRETE PAVING AND CURBS AS REQUIRED BY MFGR SPECS, OR 30FT SPACING WHICHEVER IS LESS. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION AND DETAILS.

KEY NOTES:

1. ADA PARKING SIGN MOUNTED ON POST. SEE CIVIL FOR DETAILS.
2. ADA SIDEWALK RAMP TYP. SEE CIVIL.
3. EXISTING CONCRETE CURB AND GUTTER TO REMAIN.
4. NEW CONCRETE PAVEMENT TYP. SEE CIVIL.
5. PROVIDE ASPHALT PAVEMENT. SEE CIVIL PLANS FOR PAVING AND GRADING DETAILS.
6. EXISTING CONCRETE SIDEWALK TO REMAIN. GC TO REPAIR AS NECESSARY.
7. 1/2" ISOLATION JOINT ALONG PROFILE OF BUILDING AND WHERE INDICATED, USE BITUMINOUS FILLER AND SEALANT ALONG EDGE.
8. CONCEALED LOCKABLE HOSE BIB.
9. FD CONNECTION, SEE CIVIL
10. EXISTING FIRE HYDRANT
11. PROVIDE TRASH ENCLOSURE. REFER TO AS1.02 FOR DETAILS.
12. AIR / VAC REFER TO CIVIL SHEETS FOR LOCATION.
13. MAIN DOOR
14. EXIT DOOR
15. PROPOSED FUEL CANOPY. REFER TO CIVIL.
16. PROPOSED UNDERGROUND FUEL TANKS. REFER TO CIVIL.
17. CO2 TANK/ CAGE INSTALLED / ANCHOR PER MANUFACTURER SPECS BY GC.
18. NEW DIRECTIONAL SIGANGE UNDER SEPARATE PERMIT.
19. NEW MONUMENT SIGN
20. NEW LIGHT POLES REFER TO PHOTOMETRIC SHEET

LEGEND:

NEW CONCRETE
HB HOSE BIB
LIGHT POLE
EJ 1/2" BITUMINOUS EXPANSION JOINT
SIGNAGE, SEE CIVIL
FDC FIRE DEPARTMENT CONNECTION

SEE CIVIL FOR SITE LAYOUT, DIMENSIONS, AND DETAILS.

CITY APPROVAL

CLIENT:
vequity real estate. redefined.
Vequity
400 N. State
Suite 400
Chicago, IL 60654
312-985-0987
Email info@vequity.com
www.vequity.com

PROJECT TEAM:
ILEKIS architects + planners
ILEKIS ASSOCIATES
223 W. JACKSON BLVD.
SUITE 1000
CHICAGO, IL 60606
312-419-0009 www.ILEKIS.com

THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND, TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE APPLICABLE CODES AND BUILDING REGULATIONS.
ALPHONSE A. ILEKIS, AIA

NOTE:

RETAIL BUILDING
PROJECT # 1814-14
1650 ALGONQUIN RD
ARLINGTON HEIGHTS, IL 60005

THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND, TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE ALL APPLICABLE CODES.

DATE:	ISSUED FOR:
11/08/18	ISSUED FOR CITY REVIEW

SITE PLAN

AS1.01

CMAP Projections Letter

Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

November 16, 2018

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

Subject: Algonquin Road (IL 62) @ New Wilke Road
IDOT

Dear Mr. Bowen:

In response to a request made on your behalf and dated November 15, 2018, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2040 ADT
Algonquin Rd (IL 62) east of New Wilke Rd	29,400	30,000
Algonquin Rd (IL 62) east of New Wilke Rd	29,200	30,500
New Wilke Rd, @ Algonquin Rd (IL 62)	18,600	21,000

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2018 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 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,

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

cc: Quigley (IDOT)
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Level of Service Criteria

LEVEL OF SERVICE CRITERIA

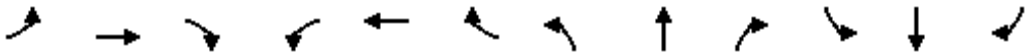
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of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

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

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	1056	239	32	758	117	122	260	16	328	469	128
Future Volume (vph)	233	1056	239	32	758	117	122	260	16	328	469	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	100		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			230			230			245		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.972			0.980			0.991			0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3440	0	1752	3302	0	1719	3487	0	1752	3404	0
Flt Permitted	0.140			0.067			0.182			0.378		
Satd. Flow (perm)	261	3440	0	124	3302	0	329	3487	0	697	3404	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		405			564			216			136	
Travel Time (s)		6.9			9.6			3.7			2.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	7%	8%	5%	2%	12%	3%	2%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	271	1506	0	37	1017	0	142	321	0	381	694	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	23.8	71.4		12.6	60.2		15.4	33.6		22.4	40.6	
Total Split (%)	17.0%	51.0%		9.0%	43.0%		11.0%	24.0%		16.0%	29.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
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	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	82.5	71.5		68.6	59.3		39.4	25.6		50.5	33.2	
Actuated g/C Ratio	0.59	0.51		0.49	0.42		0.28	0.18		0.36	0.24	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.80	0.86		0.27	0.73		0.70	0.50		0.97	0.86	
Control Delay	38.5	37.0		19.3	38.5		50.0	54.1		77.0	62.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.5	37.0		19.3	38.5		50.0	54.1		77.0	62.9	
LOS	D	D		B	D		D	D		E	E	
Approach Delay		37.3			37.8			52.8			67.9	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	124	648		14	422		88	137		276	316	
Queue Length 95th (ft)	210	718		30	483		133	177		#441	371	
Internal Link Dist (ft)		325			484			136			56	
Turn Bay Length (ft)	90			200			100					
Base Capacity (vph)	372	1757		168	1399		211	687		393	841	
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	0.73	0.86		0.22	0.73		0.67	0.47		0.97	0.83	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 22.5 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 46.6		Intersection LOS: D	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: New Wilke Road & Il 62

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	13	0	610	909	14
Future Vol, veh/h	4	13	0	610	909	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	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	25	0	0	2	2	7
Mvmt Flow	5	15	0	709	1057	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1420	537	1073	0	-	0
Stage 1	1065	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Critical Hdwy	6.75	7.1	5.3	-	-	-
Critical Hdwy Stg 1	7.1	-	-	-	-	-
Critical Hdwy Stg 2	6.3	-	-	-	-	-
Follow-up Hdwy	3.9	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	126	422	367	-	-	-
Stage 1	190	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	126	422	367	-	-	-
Mov Cap-2 Maneuver	126	-	-	-	-	-
Stage 1	190	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	367	-	126	422	-	-
HCM Lane V/C Ratio	-	-	0.037	0.036	-	-
HCM Control Delay (s)	0	-	34.7	13.8	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	610	922	0
Future Vol, veh/h	0	3	0	610	922	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	3	0	709	1072	0

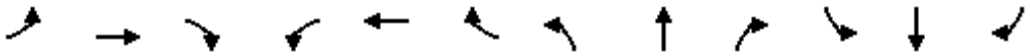
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	536	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	423	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	423	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	423	-	-
HCM Lane V/C Ratio	-	0.008	-	-
HCM Control Delay (s)	-	13.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour Conditions



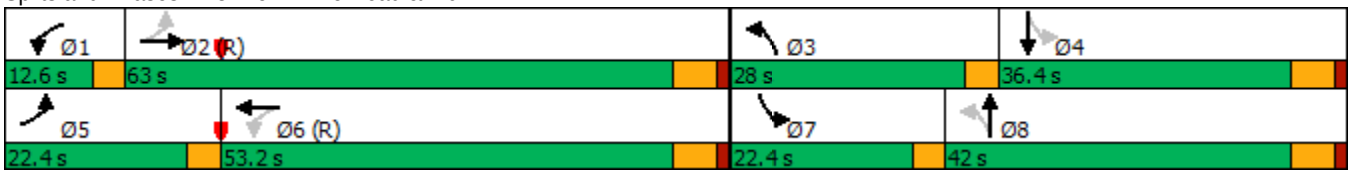
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	878	83	36	888	242	302	605	61	232	389	132
Future Volume (vph)	152	878	83	36	888	242	302	605	61	232	389	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	100		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			230			230			245		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		1.00	1.00		1.00	0.99	
Frt		0.987			0.968			0.986			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3432	0	1805	3419	0	1805	3523	0	1770	3412	0
Flt Permitted	0.067			0.185			0.186			0.156		
Satd. Flow (perm)	126	3432	0	352	3419	0	353	3523	0	291	3412	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		405			564			216			136	
Travel Time (s)		6.9			9.6			3.7			2.3	
Confl. Peds. (#/hr)			8			8	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	4%	0%	0%	2%	1%	0%	1%	0%	2%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	162	1022	0	38	1202	0	321	709	0	247	554	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	22.4	63.0		12.6	53.2		28.0	42.0		22.4	36.4	
Total Split (%)	16.0%	45.0%		9.0%	38.0%		20.0%	30.0%		16.0%	26.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
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	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	75.6	64.5		65.9	56.5		57.4	33.7		49.3	29.1	
Actuated g/C Ratio	0.54	0.46		0.47	0.40		0.41	0.24		0.35	0.21	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.73	0.65		0.16	0.87		0.86	0.84		0.85	0.78	
Control Delay	47.8	32.9		18.8	47.5		52.4	60.0		60.1	60.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	47.8	32.9		18.8	47.5		52.4	60.0		60.1	60.8	
LOS	D	C		B	D		D	E		E	E	
Approach Delay		35.0			46.6			57.7			60.6	
Approach LOS		C			D			E			E	
Queue Length 50th (ft)	92	395		17	542		200	319		150	248	
Queue Length 95th (ft)	169	489		36	#761		#325	394		#287	318	
Internal Link Dist (ft)		325			484			136			56	
Turn Bay Length (ft)	90			200			100					
Base Capacity (vph)	292	1580		265	1379		398	905		304	743	
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	0.55	0.65		0.14	0.87		0.81	0.78		0.81	0.75	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 22.5 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 48.7 Intersection LOS: D
Intersection Capacity Utilization 89.4% 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: New Wilke Road & Il 62



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	0	999	740	21
Future Vol, veh/h	5	5	0	999	740	21
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	5	5	0	1063	787	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1333	408	812	0	-	0
Stage 1	801	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	178	511	488	-	-	-
Stage 1	332	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	177	510	487	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	331	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	487	-	177	510	-	-
HCM Lane V/C Ratio	-	-	0.03	0.01	-	-
HCM Control Delay (s)	0	-	26	12.1	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	8	0	999	745	0
Future Vol, veh/h	0	8	0	999	745	0
Conflicting Peds, #/hr	0	0	3	0	0	3
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	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	9	0	1063	793	0

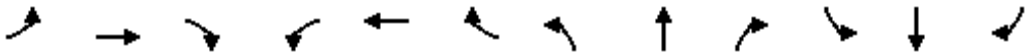
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	400	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	517	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	516	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	516	-	-
HCM Lane V/C Ratio	-	0.016	-	-
HCM Control Delay (s)	-	12.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Capacity Analysis Summary Sheets

Projected Weekday Morning Peak Hour Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	1065	242	38	778	113	120	280	16	357	483	129
Future Volume (vph)	247	1065	242	38	778	113	120	280	16	357	483	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	100		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			230			230			245		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.972			0.981			0.992			0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3440	0	1752	3306	0	1719	3492	0	1752	3405	0
Flt Permitted	0.128			0.069			0.169			0.354		
Satd. Flow (perm)	238	3440	0	127	3306	0	306	3492	0	653	3405	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		405			209			216			136	
Travel Time (s)		6.9			3.6			3.7			2.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	3%	7%	8%	5%	2%	12%	3%	2%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	1519	0	44	1036	0	140	345	0	415	712	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	23.8	71.4		12.6	60.2		15.4	33.6		22.4	40.6	
Total Split (%)	17.0%	51.0%		9.0%	43.0%		11.0%	24.0%		16.0%	29.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
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	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	82.2	71.0		67.5	58.0		39.7	25.9		50.8	33.5	
Actuated g/C Ratio	0.59	0.51		0.48	0.41		0.28	0.18		0.36	0.24	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.85	0.87		0.31	0.76		0.70	0.53		1.08	0.87	
Control Delay	46.9	38.3		20.6	40.3		50.6	54.6		105.6	63.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	46.9	38.3		20.6	40.3		50.6	54.6		105.6	63.8	
LOS	D	D		C	D		D	D		F	E	
Approach Delay		39.6			39.5			53.4			79.2	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	152	661		17	440		86	148		~334	326	
Queue Length 95th (ft)	#257	732		33	495		133	190		#539	382	
Internal Link Dist (ft)		325			129			136			56	
Turn Bay Length (ft)	90			200			100					
Base Capacity (vph)	361	1745		168	1370		207	688		385	841	
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	0.80	0.87		0.26	0.76		0.68	0.50		1.08	0.85	

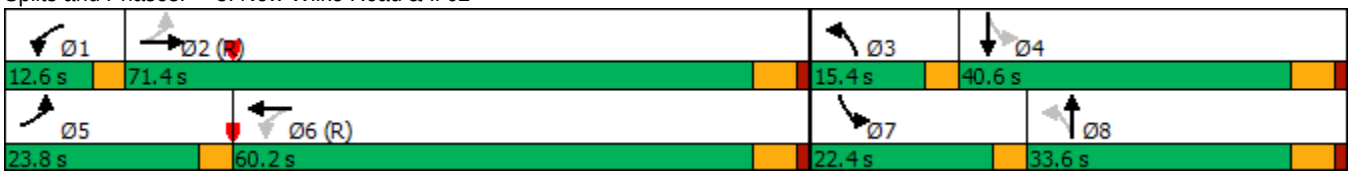
Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 22.5 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 51.0 Intersection LOS: D
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Wilke Road & Il 62



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	13	0	634	938	14
Future Vol, veh/h	4	13	0	634	938	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	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	25	0	0	2	2	7
Mvmt Flow	5	15	0	737	1091	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1468	554	1107	0	-	0
Stage 1	1099	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.75	7.1	5.3	-	-	-
Critical Hdwy Stg 1	7.1	-	-	-	-	-
Critical Hdwy Stg 2	6.3	-	-	-	-	-
Follow-up Hdwy	3.9	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	118	412	353	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	118	412	353	-	-	-
Mov Cap-2 Maneuver	118	-	-	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	587	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	353	-	118	412	-	-
HCM Lane V/C Ratio	-	-	0.039	0.037	-	-
HCM Control Delay (s)	0	-	36.8	14.1	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	3	45	0	33	0	601	39	30	921	0
Future Vol, veh/h	0	0	3	45	0	33	0	601	39	30	921	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	3	52	0	38	0	699	45	35	1071	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	536	1220	-	372	-	0	0	744	0	0
Stage 1	-	-	-	722	-	-	-	-	-	-	-	-
Stage 2	-	-	-	498	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	6.95	-	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.7	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.9	3.65	-	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	423	163	0	631	0	-	-	873	-	-
Stage 1	0	0	-	378	0	-	0	-	-	-	-	-
Stage 2	0	0	-	497	0	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	423	149	-	631	-	-	-	873	-	-
Mov Cap-2 Maneuver	-	-	-	149	-	-	-	-	-	-	-	-
Stage 1	-	-	-	378	-	-	-	-	-	-	-	-
Stage 2	-	-	-	444	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	28.8	0	0.6
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	423	149	631	873	-	-
HCM Lane V/C Ratio	-	-	0.008	0.351	0.061	0.04	-	-
HCM Control Delay (s)	-	-	13.6	41.7	11.1	9.3	0.3	-
HCM Lane LOS	-	-	B	E	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	1.4	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1438	882	55	0	47
Future Vol, veh/h	0	1438	882	55	0	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	2	7	0	0	0
Mvmt Flow	0	1672	1026	64	0	55

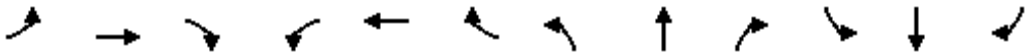
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	513
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	0	512
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	512
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	512
HCM Lane V/C Ratio	-	-	0.107
HCM Control Delay (s)	-	-	12.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.4

Capacity Analysis Summary Sheets

Projected Weekday Evening Peak Hour Conditions



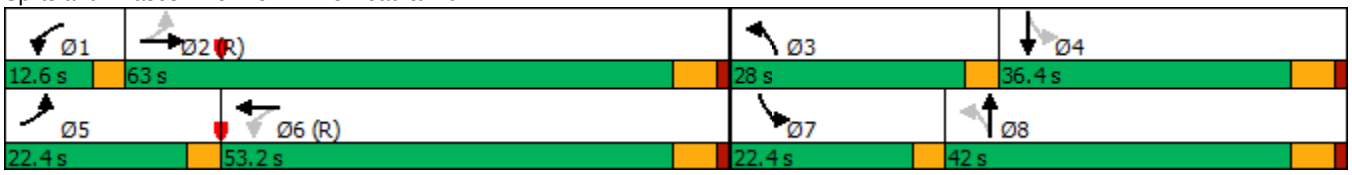
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	885	84	42	937	240	298	632	62	255	400	133
Future Volume (vph)	162	885	84	42	937	240	298	632	62	255	400	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	100		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	160			230			230			245		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		1.00			1.00		1.00	1.00		1.00	0.99	
Frt		0.987			0.969			0.987			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3432	0	1805	3423	0	1805	3527	0	1770	3416	0
Flt Permitted	0.069			0.176			0.196			0.134		
Satd. Flow (perm)	130	3432	0	334	3423	0	372	3527	0	250	3416	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		405			200			216			136	
Travel Time (s)		6.9			3.4			3.7			2.3	
Confl. Peds. (#/hr)			8			8	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	4%	0%	0%	2%	1%	0%	1%	0%	2%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	1030	0	45	1252	0	317	738	0	271	567	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	14.0	
Total Split (s)	22.4	63.0		12.6	53.2		28.0	42.0		22.4	36.4	
Total Split (%)	16.0%	45.0%		9.0%	38.0%		20.0%	30.0%		16.0%	26.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
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	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	74.2	62.8		64.2	54.5		57.7	34.3		52.0	30.9	
Actuated g/C Ratio	0.53	0.45		0.46	0.39		0.41	0.24		0.37	0.22	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.75	0.67		0.20	0.94		0.84	0.86		0.92	0.75	
Control Delay	49.9	34.4		19.5	55.7		49.2	61.2		73.3	58.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	49.9	34.4		19.5	55.7		49.2	61.2		73.3	58.2	
LOS	D	C		B	E		D	E		E	E	
Approach Delay		36.6			54.4			57.6			63.1	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	101	403		20	588		195	334		185	253	
Queue Length 95th (ft)	180	497		41	#810		#301	413		#357	326	
Internal Link Dist (ft)		325			120			136			56	
Turn Bay Length (ft)	90			200			100					
Base Capacity (vph)	292	1538		253	1332		407	906		298	759	
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	0.59	0.67		0.18	0.94		0.78	0.81		0.91	0.75	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 22.5 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 52.0 Intersection LOS: D
Intersection Capacity Utilization 93.0% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Wilke Road & Il 62



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	0	1025	763	21
Future Vol, veh/h	5	5	0	1025	763	21
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	5	5	0	1090	812	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1371	420	837	0	-	0
Stage 1	826	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	169	502	475	-	-	-
Stage 1	320	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	168	501	474	-	-	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	319	-	-	-	-	-
Stage 2	532	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	474	-	168	501	-	-
HCM Lane V/C Ratio	-	-	0.032	0.011	-	-
HCM Control Delay (s)	0	-	27.1	12.3	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	34	0	33	0	992	42	22	746	0
Future Vol, veh/h	0	0	8	34	0	33	0	992	42	22	746	0
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	0	0	9	36	0	35	0	1055	45	23	794	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	400	1442	-	550	-	0	0	1100	0	0
Stage 1	-	-	-	1078	-	-	-	-	-	-	-	-
Stage 2	-	-	-	364	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	6.95	-	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.7	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.9	3.65	-	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	517	116	0	484	0	-	-	642	-	-
Stage 1	0	0	-	232	0	-	0	-	-	-	-	-
Stage 2	0	0	-	599	0	-	0	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	516	108	-	484	-	-	-	642	-	-
Mov Cap-2 Maneuver	-	-	-	108	-	-	-	-	-	-	-	-
Stage 1	-	-	-	232	-	-	-	-	-	-	-	-
Stage 2	-	-	-	551	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	34	0	0.5
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	-	-	516	108	484	642	-	-
HCM Lane V/C Ratio	-	-	0.016	0.335	0.073	0.036	-	-
HCM Control Delay (s)	-	-	12.1	54.3	13	10.8	0.2	-
HCM Lane LOS	-	-	B	F	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	1.3	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1202	1182	40	0	37
Future Vol, veh/h	0	1202	1182	40	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	4	2	0	0	0
Mvmt Flow	0	1279	1257	43	0	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	629
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	0	430
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	430
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	430
HCM Lane V/C Ratio	-	-	0.092
HCM Control Delay (s)	-	-	14.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3