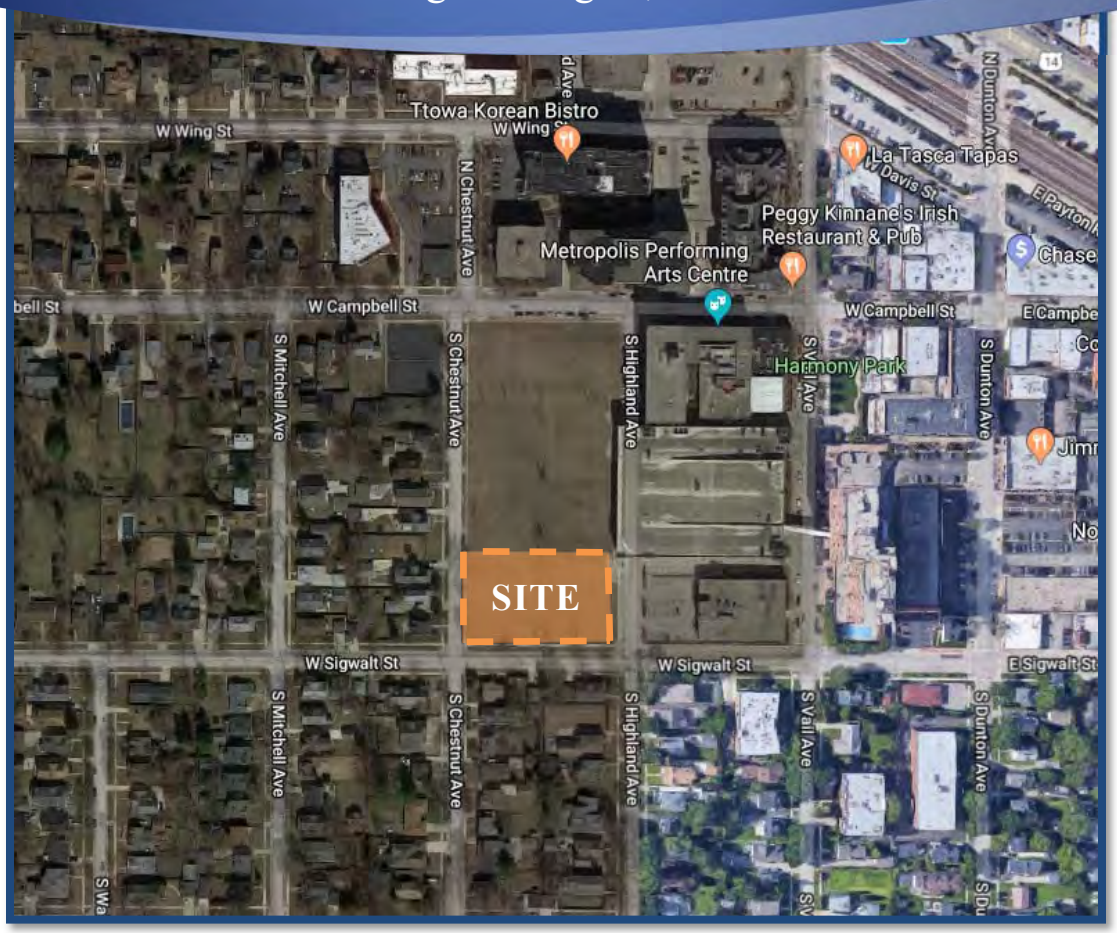
Traffic Impact Study
Proposed Row Home Residential Development

Arlington Heights, Illinois



Prepared For:

TaylorMorrison

KLOA

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

April 9, 2019

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 the proposed residential row home development to be located in Arlington Heights, Illinois. The site is located on the north side of Sigwalt Street and is bounded by Highland Avenue on the east and Chestnut Avenue on the west.

The concept plans call for 16 row homes that will front Sigwalt Street, Chestnut Street, and Highland Avenue. Eight guest parking spaces are proposed on-site. Access to the individual row home garages and guest parking will be from a single access drive off Highland Avenue, north of Sigwalt Street.

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

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

The sections of this report present the following.

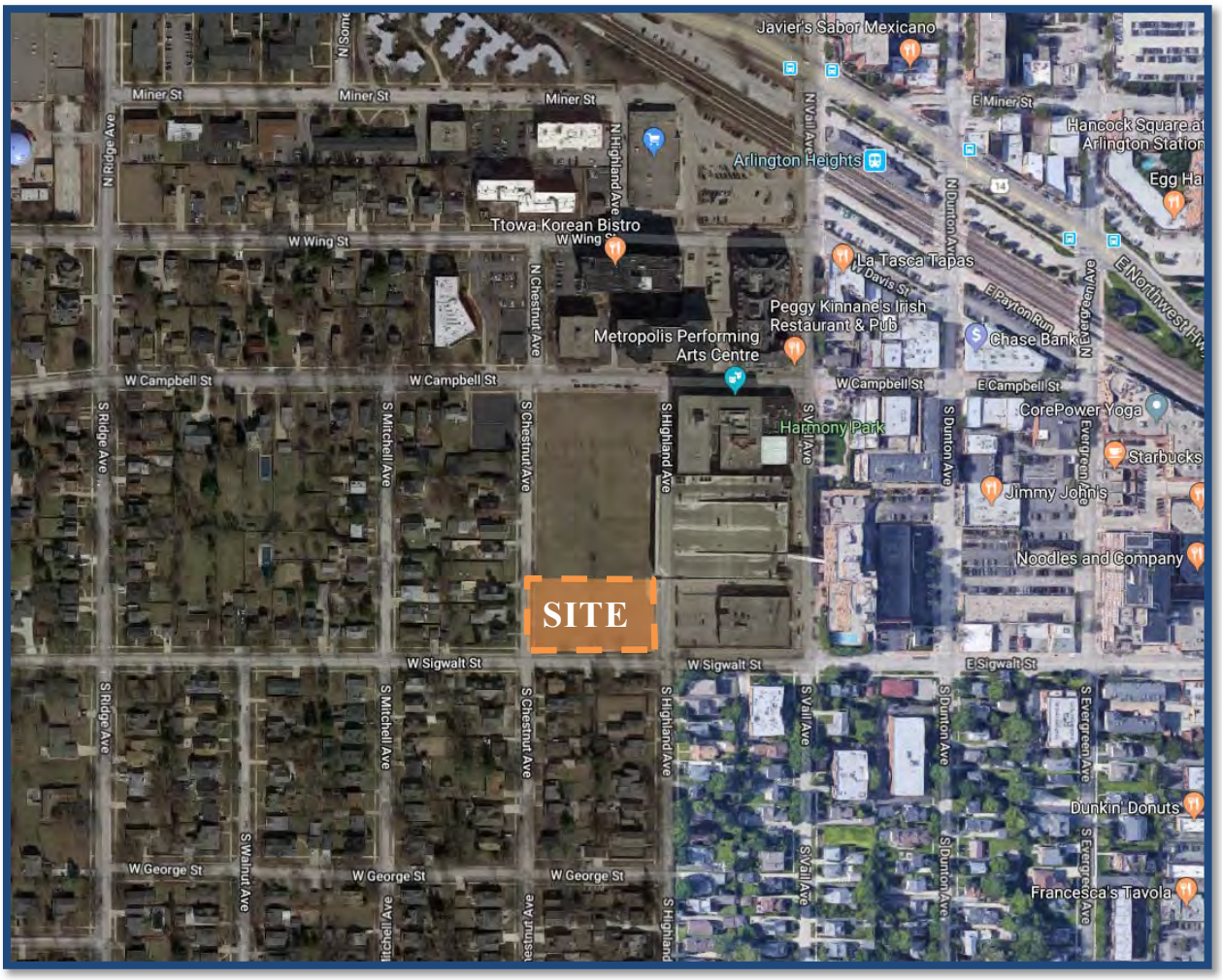
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Projected base traffic conditions that includes regional growth and background developments
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and 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 (Year 2018/2019) Conditions - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

2. Future (Year 2024) Conditions - The future projected traffic volumes include the existing traffic volumes, ambient area growth not attributable to any particular development, traffic estimated to be generated by the proposed Arlington 425 residential development, and the traffic estimated to be generated by the proposed subject development.

Site Location **Figure 1**



Aerial View of Site Location **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

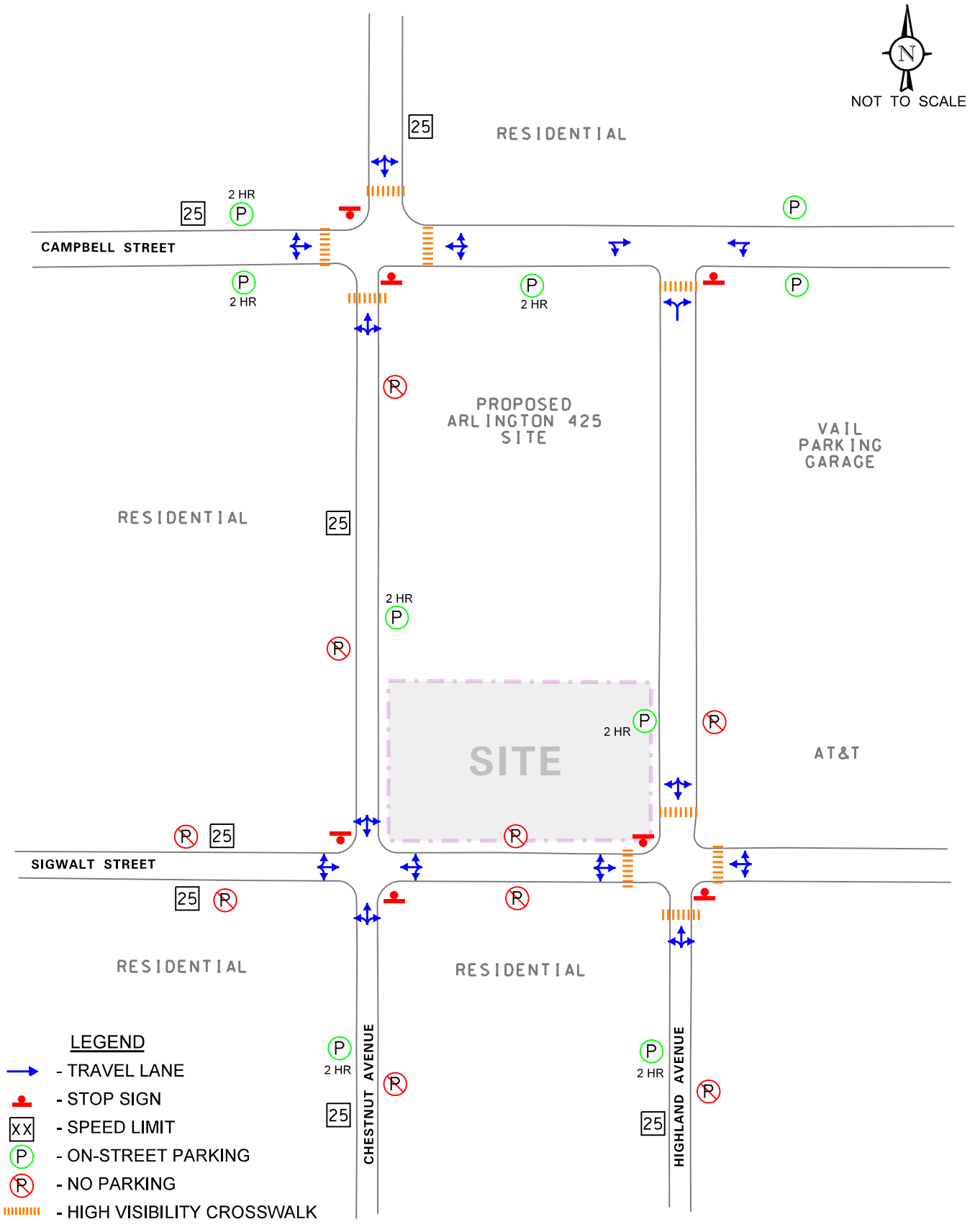
The site is located to the west of downtown Arlington Heights and is bounded by Sigwalt Street to the south, Chestnut Avenue to the west, and Highland Avenue to the east. The proposed Arlington 425 residential development borders the site to the north. The site is currently undeveloped and is within walking distance to the Arlington Heights Metra Station. Land uses in the vicinity of the site are residential to the north, west, and south and include the Arlington Heights Vail Street public parking garage and the Dunton Tower Luxury Apartments and the former AT&T development to the east.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below. **Figure 3** illustrates the existing roadway characteristics. All roadways have a posted speed limit of 25 mph and are under the jurisdiction of the Village of Arlington Heights, unless otherwise noted.

Campbell Street is an east west local roadway that provides one lane in each direction and extends from Rohlwing Road to Evergreen Avenue. At its unsignalized intersection with Highland Avenue, Campbell Street provides a shared through/right-turn lane on the eastbound approach and a shared through/left-turn lane on the westbound approach. A high visibility crosswalk is planned across Campbell Street on the east leg. Parking is generally provided on both sides of the roadway and is restricted to two-hours. Campbell Street is a designated bicycle route (signage only).

Highland Avenue is a north-south local roadway that provides one lane in each direction and extends from Campbell Street south to Central Road. At its unsignalized intersection with Sigwalt Street, Highland Avenue provides a single lane approach under stop-sign control and a high visibility crosswalk on both legs. At its unsignalized intersection with Campbell Street, Highland Avenue provides a shared left/right-turn lane under stop-sign control and a high visibility crosswalk on the south leg. It should be noted that between Campbell Street and Sigwalt Street, Highland Avenue traverses through the Arlington Heights Public Parking Garage, which provides parking on the west side of Highland Avenue and has two ramp access drives off Highland Avenue. South of the garage, there is a one-way exit only alley, and two full access drives serving the former AT&T development. Parking is prohibited on the east side of the roadway and is restricted to two-hours on the west side of the roadway. There are approximately five on-street parking spaces on the west side of Highland Avenue between Sigwalt Street and the Vail parking garage.



Proposed Row Home Development
Arlington Heights, Illinois

Existing Roadway Characteristics

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Sigwalt Street is an east-west local roadway that in the vicinity of the site provides one lane in each direction. Parking is prohibited on both sides of the roadway between Highland Avenue and Chestnut Avenue.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted manual peak period vehicle, pedestrian, and bicycle traffic counts using Miovision Scout Collection Units during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods at the following four (4) intersections:

1. Highland Avenue and Campbell Street (AM – June 26, 2018; PM – February 7, 2019)
2. Highland Avenue and Sigwalt Street (AM – June 26, 2018; PM – February 7, 2019)
3. Highland Avenue and North Garage Ramp (June 27, 2018)
4. Highland Avenue and South Garage Ramp (June 27, 2018)

The results of the traffic counts showed that the weekday morning peak hour of traffic generally occurs from 8:00 A.M. to 9:00 A.M. and the weekday evening peak hour of traffic generally occurs from 5:00 P.M. to 6:00 P.M.

Figure 4 illustrates the existing peak hour vehicle traffic volumes.

Figure 5 illustrates the existing peak hour pedestrian and bicycle traffic volumes.

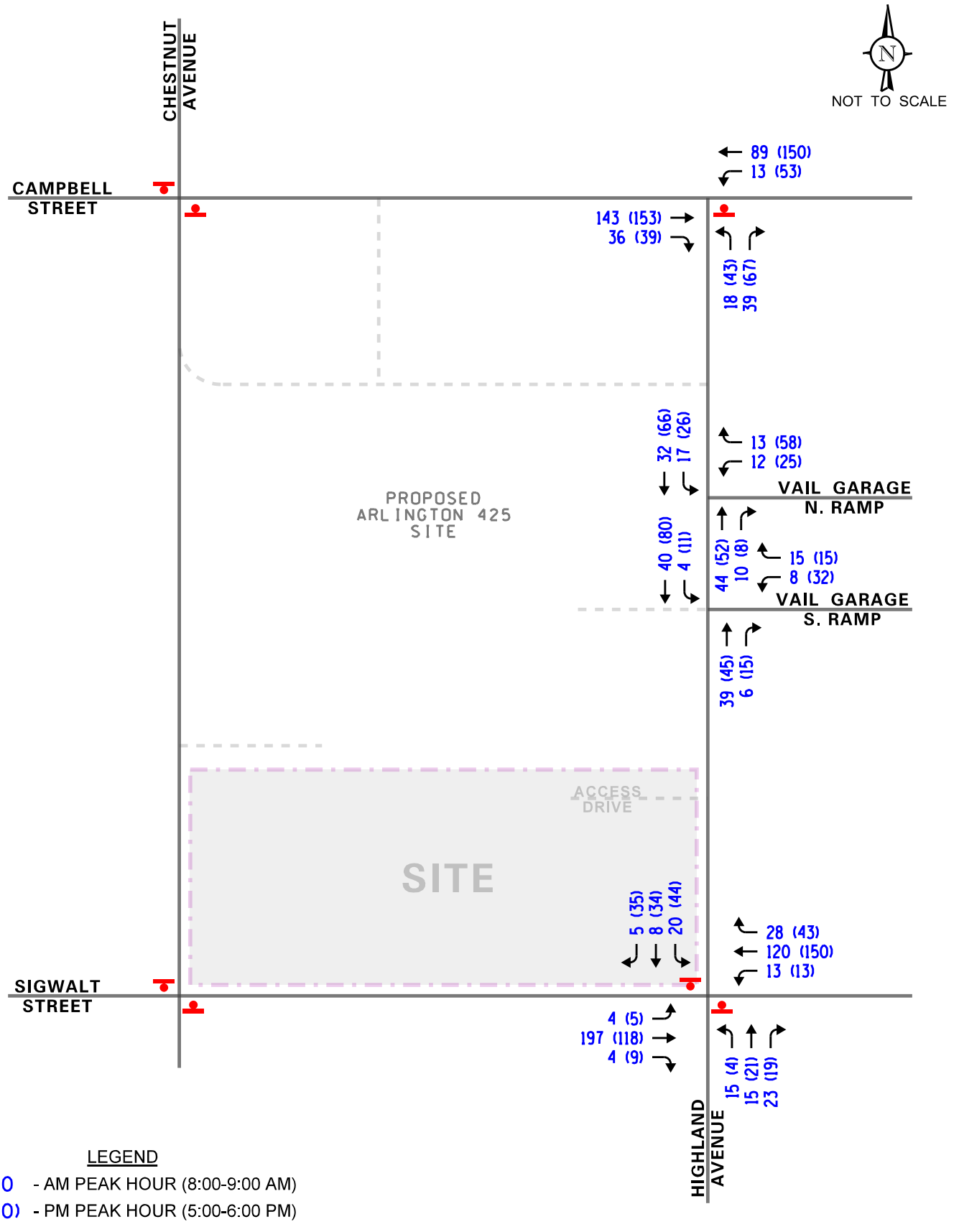
Accident Analysis

KLOA, Inc. obtained accident data from the Village of Arlington Heights and IDOT for the most recent available five years (2012 to 2016) for the studied intersections. **Table 1** summarizes the accident data for the intersections[1]. A review of the data showed that the intersections are not high accident locations and that no fatalities were reported.

Table 1
ACCIDENT DATA SUMMARY

Intersection	Year				
	2012	2013	2014	2015	2016
Highland Avenue with Campbell Street	0	4	1	0	2
Highland Avenue with Sigwalt Street	1	1	1	0	1

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



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Arlington Heights, Illinois

Existing Traffic Volumes

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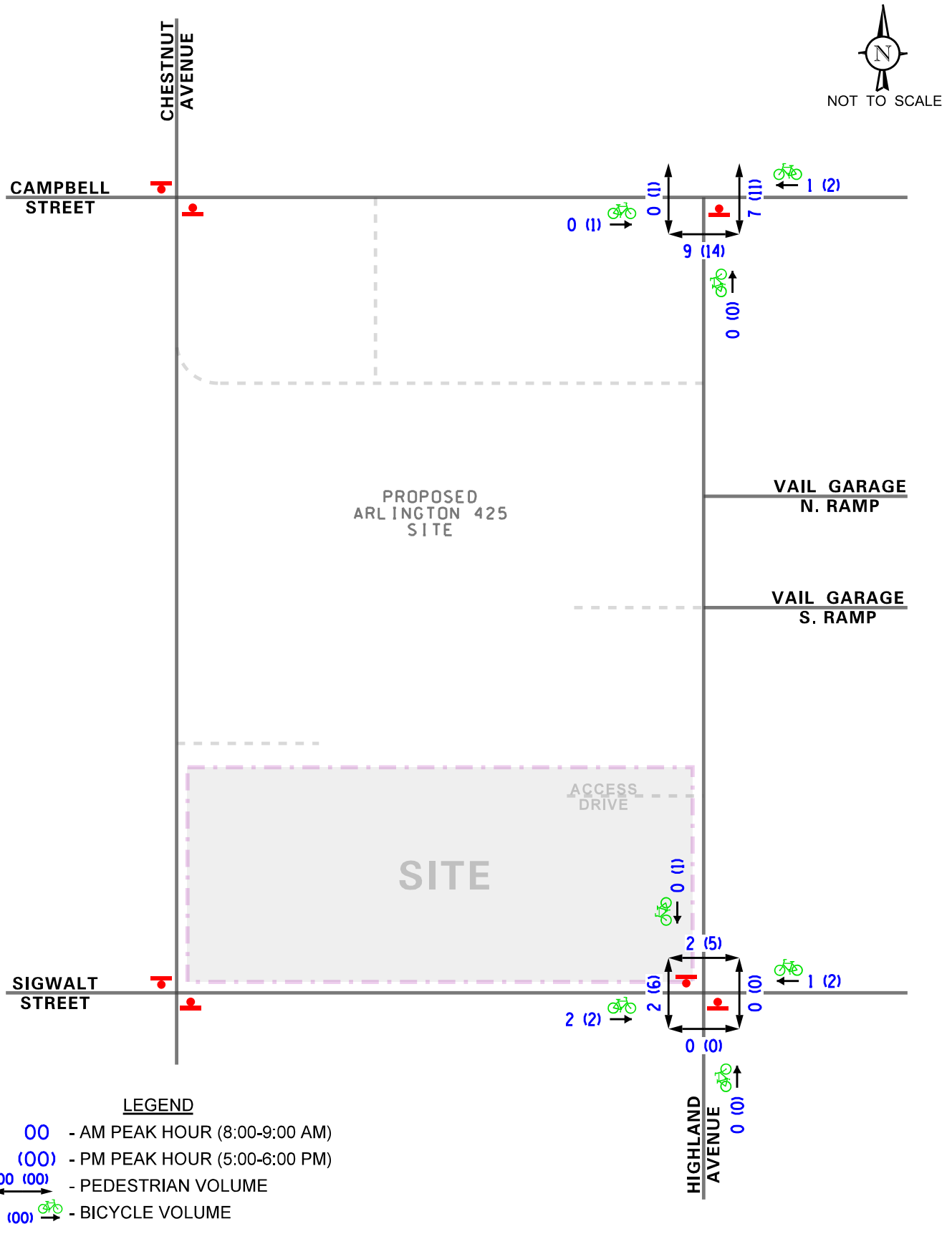
Job No: 19-063 Figure: 4



Proposed Row Home Development
Arlington Heights, Illinois

Existing Pedestrian and Bicycle Traffic Volumes

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Public Transportation

Sidewalks are provided on the surrounding roadway network and high-visibility or standard crosswalks are generally provided, as noted above. The intersection of Chestnut Avenue with Sigwalt Street does not provide crosswalks. Furthermore, the site is located approximately one-third of a mile walking distance from the Arlington Heights UP-NW Metra Station which offers daily service between Harvard/McHenry and Chicago.

The site is also within the vicinity of Pace Bus Route 696 (Randhurst/Woodfield/Harper College) which provides weekday service from Mt. Prospect to Palatine. Service operates from Randhurst Mall to Harper College. Rush hour service runs every 30 minutes and mid-day service runs every hour. This bus route serves the following major destinations: Randhurst Mall, Prospect H.S., Metra Union Pacific Northwest Line (Arlington Heights), Cook County Courthouse, Rolling Meadows Shopping Center, East Park, Mallard Cove, Woodfield Gardens, Motorola Headquarters, Schaumburg Convention Center, IKEA, Roosevelt University, Woodfield Mall, Pace Northwest Transportation Center, and Harper College.

3. 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 overall development will generate during the weekday morning and the weekday evening peak hours and then determine the directions from which this traffic will approach and depart the individual sites.

Proposed Development Plan

The concept plans call for 16 row homes that will front Sigwalt Street, Chestnut Street, and Highland Avenue.

Vehicle Access

Access to the individual row home garages and guest parking will be from a single access drive off Highland Avenue, located approximately 125 feet north of Sigwalt Street and approximately 155 feet south of the southerly ramp serving the Vail garage. The access will provide one lane inbound and one lane outbound allowing both left- and right-turning exiting movements. The outbound lane will be under stop sign control.

Parking

Each row home will provide individual garages and approximately eight guest parking spaces are proposed on-site.

Refuse

Refuse vehicles will serve the site from the proposed internal surface parking lot accessed from the proposed drive off Highland Avenue.

Directional Distribution

The directions from which vehicles will approach and depart the overall site were estimated based on existing travel patterns, as determined from the traffic counts, as well as the type and location of the access drives proposed to serve the development. **Figure 6** illustrates the directional distribution of the development generated traffic. Figure 6 also shows the distance, in feet, between existing and proposed roadways.

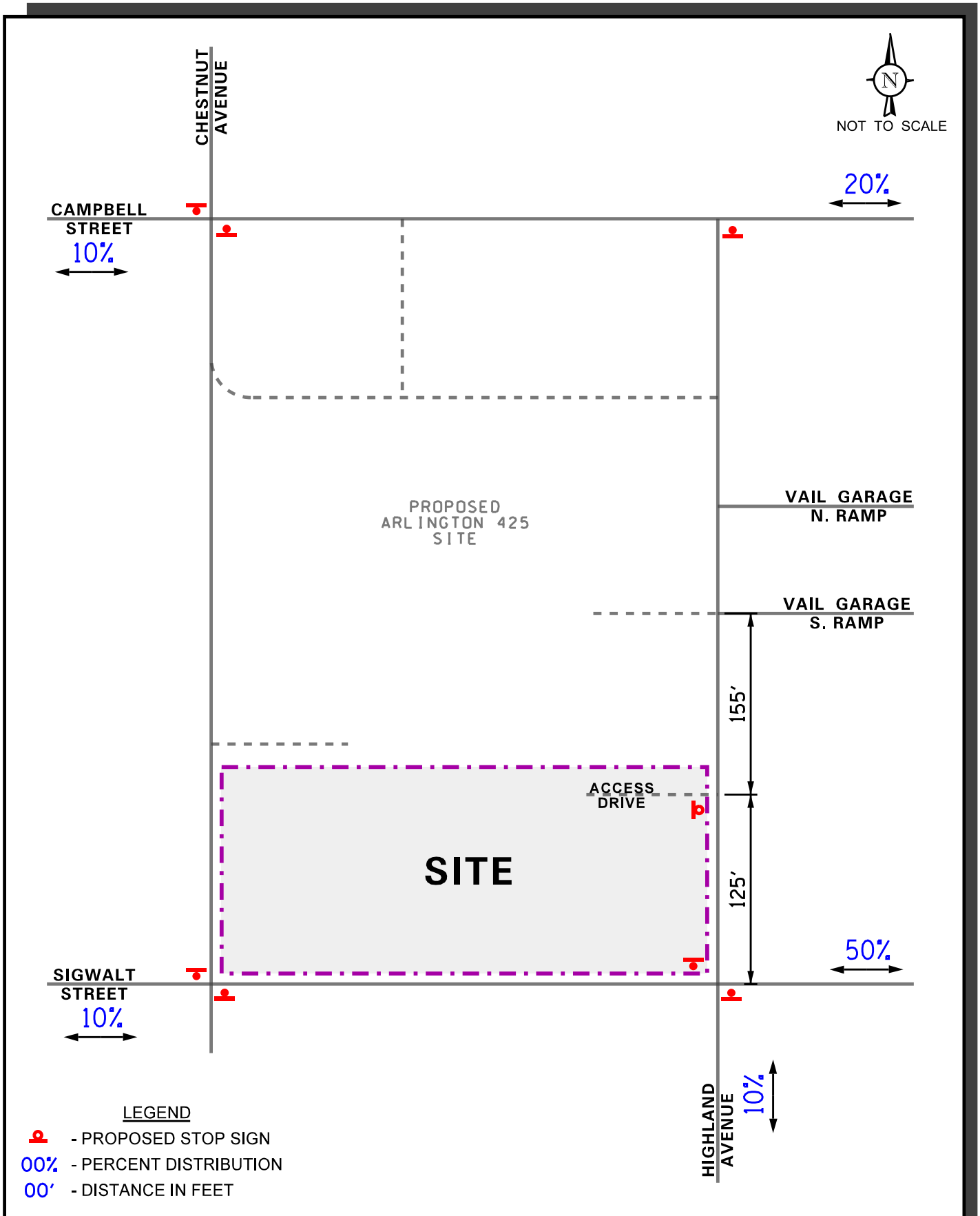
Estimated Site Traffic Generation

The estimates of vehicle traffic to be generated by the development are based upon the proposed land use types and sizes. The volume of traffic generated was estimated using data published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition.

Table 2 tabulates the total trips anticipated from this proposed development for the weekday morning and weekday evening peak hours, as well as the daily (two-way) traffic volumes. As shown, the development is estimated to generate a low volume of vehicle trips during peak commuting hours. It is further important to note that based on a review of the census data, approximately 15 percent of the residents located within one-quarter mile of the Metra station utilize alternative modes of transportation to get to work. As a result, the estimated number of generated trips may be further reduced. However, no reductions were applied to the trip generation shown in Table 2 to provide for a conservative study.

Table 2
ESTIMATED VEHICLE TRIP GENERATION FOR THE PROPOSED DEVELOPMENT

Development/Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekday Daily Trips
	In	Out	In	Out	
LUC 220 – 16 row home units	2	6	7	5	80



Proposed Row Home Development Arlington Heights, Illinois

Estimated Directional Distribution

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4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes increased by ambient growth, background traffic estimated to be generated by the proposed Arlington 425 residential development, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 6). The traffic assignment is illustrated in **Figure 7**.

Background Traffic Conditions

The background traffic volumes include regional growth in traffic and traffic estimated to be generated by planned developments in the area, as described below.

Regional Growth

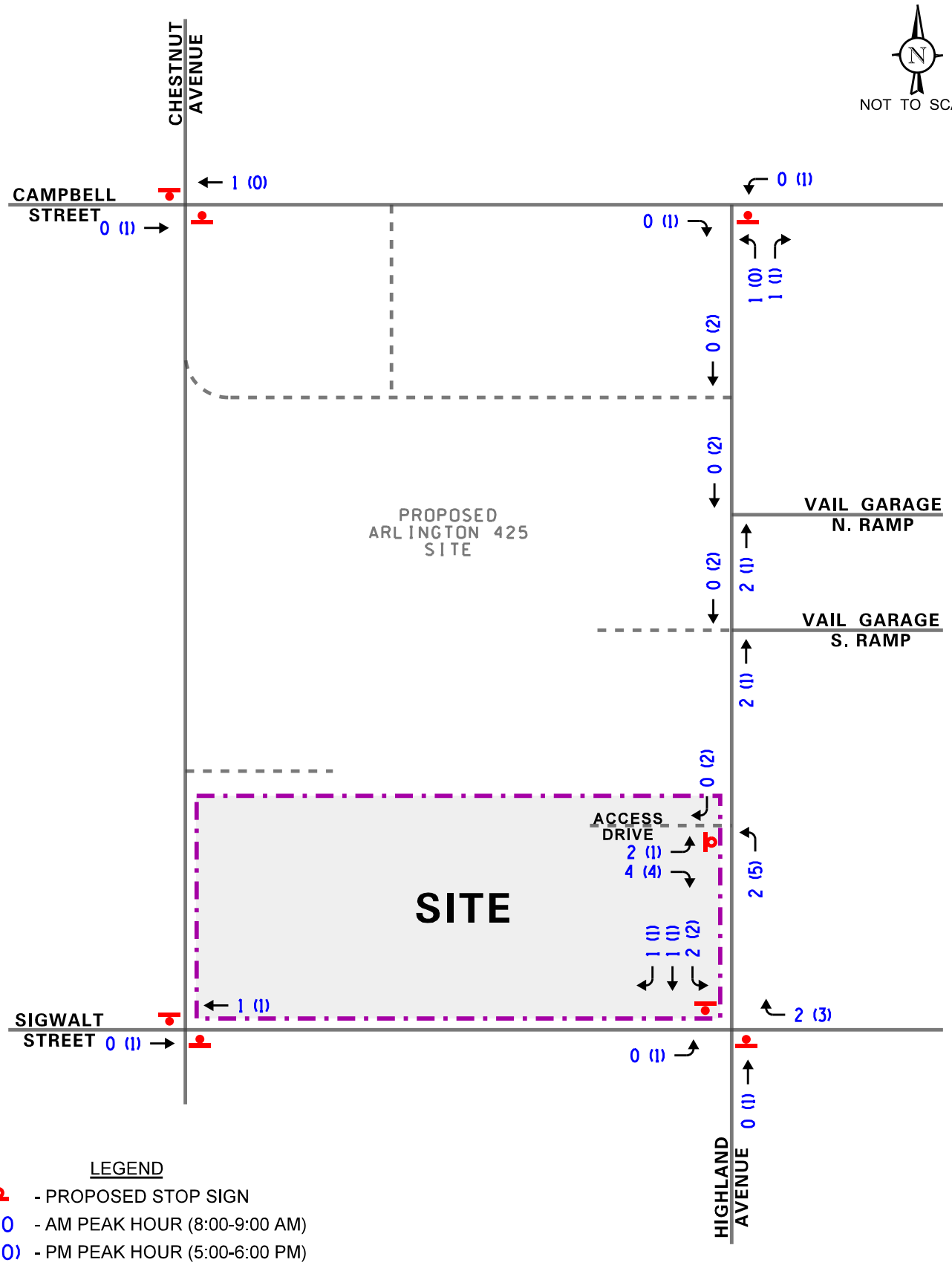
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on the Village of Arlington Heights 2015 Comprehensive Plan, an increase of one-half percent per year over six years (three percent total) was applied to the existing peak hour traffic volumes to project Year 2024 conditions.

Planned Background Development

The traffic from the proposed Arlington 425 residential development was included in the Year 2024 base condition. The Arlington 425 residential development proposes an inbound only access drive and a residential access drive off Highland Avenue, located north of the access drive serving the proposed row home development. Further, access is proposed from Campbell Street and two access drives off Chestnut Avenue. Traffic assignment for the overall Arlington 425 development is included as **Figure A** and is located in the Appendix of this report. **Figure 8** shows the Year 2024 Base (No-Build) traffic volumes, which includes the regional growth in traffic and the traffic estimated to be generated by the proposed Arlington 425 residential development.

Total Projected Traffic Volumes

Total projected traffic volumes include the Year 2024 Base traffic volumes (Figure 8) and the traffic estimated to be generated by the proposed development (Figure 7). It is important to note that the existing pedestrian and bicycle traffic volumes (Figure 5) were increased to account for projected pedestrian activity in this area. **Figure 9** shows the total projected vehicle traffic volumes.



Proposed Row Home Development
Arlington Heights, Illinois

Estimated Site-Generated Traffic Volumes

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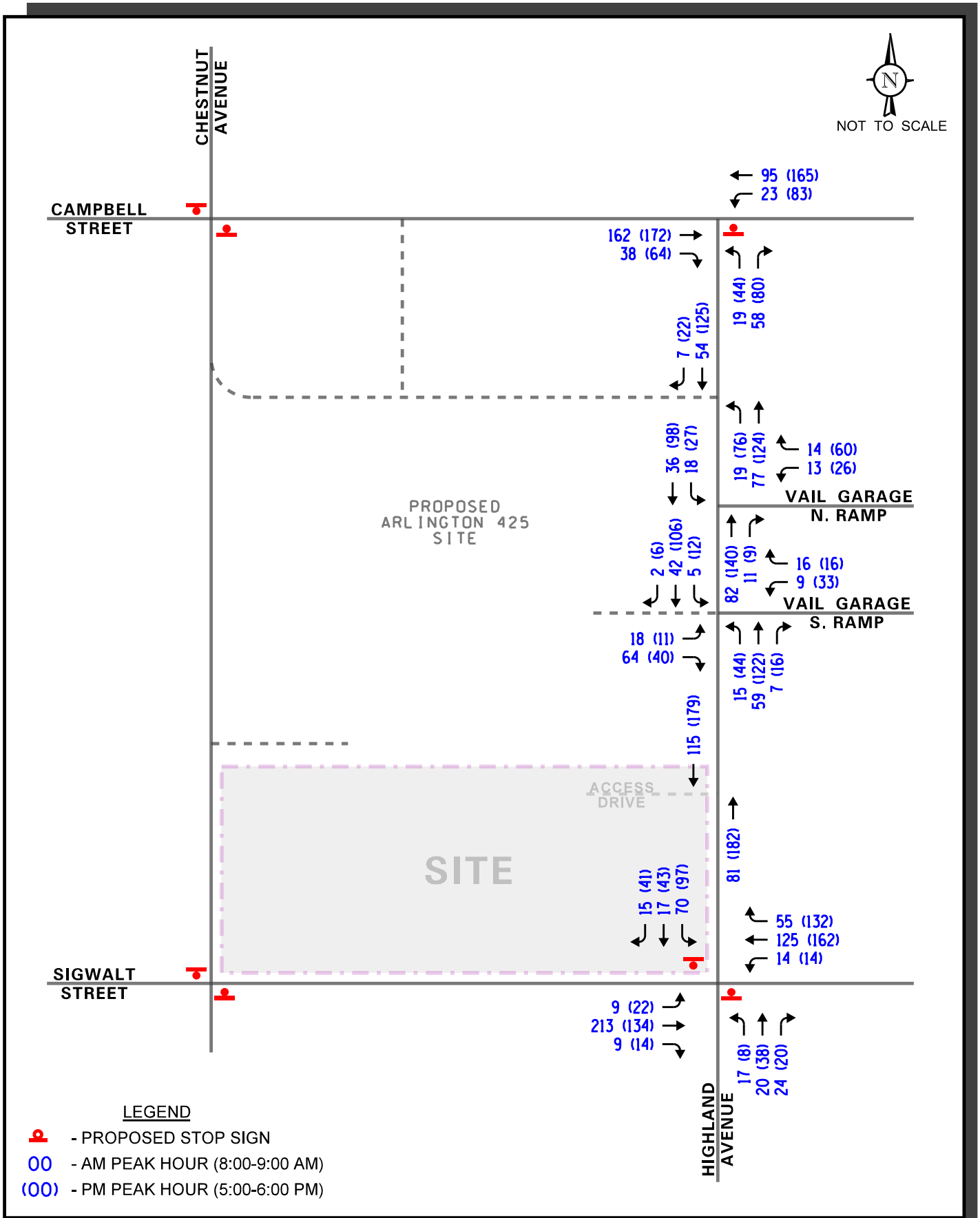
Job No: 19-063 Figure: 7



Proposed Row Home Development
Arlington Heights, Illinois

Year 2024 Base (No Build) Traffic Volumes

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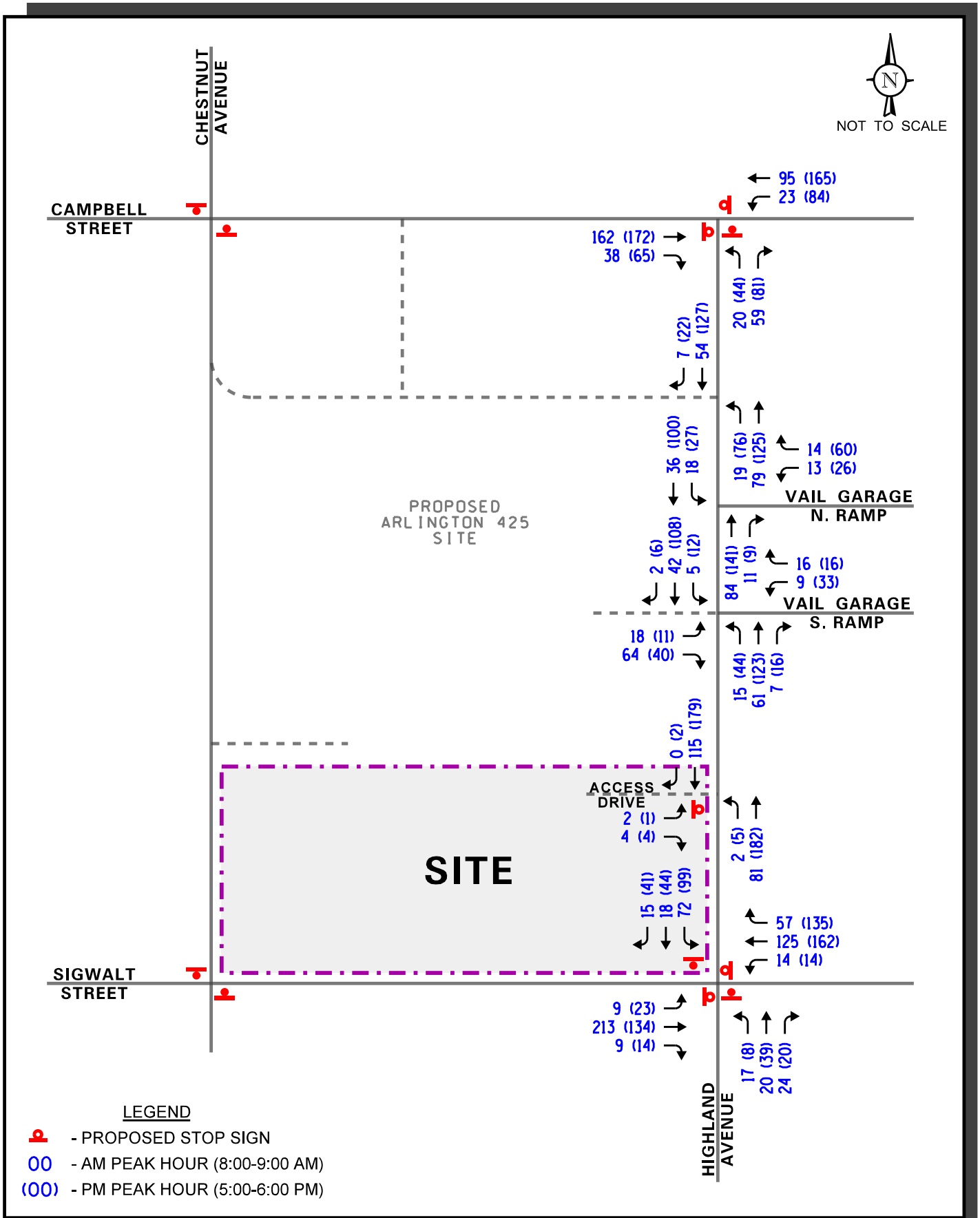
Job No: 19-063 Figure: 8



Proposed Row Home Development
Arlington Heights, Illinois

Total Projected Traffic Volumes

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Job No: 19-063 Figure: 9

5. Traffic Analysis and Recommendations

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

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hour periods for the existing (Year 2018/2019) and future projected (Year 2024) traffic volumes.

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

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.

Pedestrian and bicycle impacts are factored into the resulting levels of service and delay for each respective intersection. As noted, the existing pedestrian volumes were increased under projected traffic conditions to account for increased pedestrian activity in the area resulting from the proposed development. Further, the Village has plans to modify the traffic control at the intersections of Highland Avenue with Campbell Street and Sigwalt Street to be under all way stop sign control. As such, analyses for future conditions included these improvements.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing (Year 2018/2019) and Year 2024 total projected conditions are presented in **Tables 3** and **4**, respectively. A discussion of the intersections follows.

Table 3
CAPACITY ANALYSIS RESULTS – EXISTING TRAFFIC CONDITIONS

Intersection/Approach	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Highland Avenue and Campbell Street				
• Northbound Approach	B	10.1	B	12.3
Highland Avenue and Sigwalt Street				
• Northbound Approach	B	12.8	B	11.9
• Southbound Approach	B	14.3	B	14.1
Highland Avenue and North Garage Ramp				
• Westbound Approach	A	9.0	A	9.3
Highland Avenue and South Garage Ramp				
• Westbound Approach	A	8.8	A	9.5

LOS = Level of Service
Delay is measured in seconds.

Table 4
CAPACITY ANALYSIS RESULTS – FUTURE TRAFFIC CONDITIONS

Intersection/Approach	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Highland and Campbell (All-Way Stop)				
• Overall	A	8.4	A	9.6
• Eastbound Approach	A	8.6	A	9.5
• Westbound Approach	A	8.4	B	10.1
• Northbound Approach	A	7.8	A	8.9
Highland Ave and Sigwalt St (All-Way Stop)				
• Overall	B	11.1	B	10.9
• Eastbound Approach	B	12.1	B	10.2
• Westbound Approach	B	10.9	B	11.8
• Northbound Approach	A	9.4	A	9.2
• Southbound Approach	B	10.4	B	10.8
Highland Avenue and North Garage Ramp				
• Westbound Approach	B	10.4	B	12.0
Highland Avenue and South Garage Ramp/425 Access				
• Eastbound Approach	B	10.6	B	11.8
• Westbound Approach	B	10.9	C	15.5
Highland Avenue and Proposed Access				
• Eastbound Approach	A	9.2	A	9.6

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identify any roadway and traffic control improvements to accommodate the development traffic.

Highland Avenue and Campbell Street

The northbound approach currently operates at a LOS B or better during the peak hours. For future conditions, the intersection was analyzed as an all way stop sign-control. The analyses show that northbound approach will continue to operate at acceptable levels of service during the peak hours with minimal increases in overall delay. The queue analysis shows that the northbound queue on Highland Avenue will not exceed one to two vehicles during peak hours. Furthermore, westbound left-turn movements from Campbell Street onto Highland Avenue are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. The proposed development traffic will have a limited impact on the operations of this intersection. High-visibility crosswalks should be provided on the east and south legs of the intersection.

Highland Avenue and Sigwalt Street

This intersection was analyzed as an all way stop sign control. The analyses show that the overall intersection, as well as the individual approaches, will operate at an LOS B or better for both peak hours under projected conditions. The queue analysis shows that the queues on all four approaches will not exceed one to two vehicles during peak hours. The existing high-visibility crosswalks on all four legs should be restriped due to weathering/fading.

Highland Avenue and Proposed Access Drive

All of the independent row home garages and the guest parking will be accessed from a single, full access drive off Highland Avenue. The access will provide one lane inbound and one lane outbound. The outbound lane should be under stop sign control. A minimum of two on-street parking spaces on the west side of Highland Avenue will need to be removed to accommodate the access intersection. The capacity analyses show that this access intersection will operate at acceptable levels of service with minimal queuing and delay. The access drive is located south of the existing one-way westbound (exit) alley to the north, and north of the two access drives on the east side of Highland Avenue serving the former AT&T development, and therefore will not have turning movement conflicts with these existing access drives. Further, the proposed development is estimated to generate a low volume of traffic during peak commuting hours. As such, the introduction of this access drive will have a minimal impact on the projected traffic operations along Highland Avenue. A high-visibility crosswalk is recommended across the driveway approach.

Pedestrian Mobility

The development proposes a pedestrian network system both within the development, as well as along the site frontage of the surrounding roadways (Sigwalt Street, Chestnut Avenue, and Highland Avenue). Further, high-visibility crosswalks should be provided on surrounding intersections, as identified earlier in this study.

6. Conclusion

The plan for a 16-row home residential development is proposed to be located north of Sigwalt Street between Chestnut Avenue and Highland Avenue. Access to the individual row home unit garages and guest parking will be from a single, full access drive off Highland Avenue. Based on the preceding analyses and recommendations, the following conclusions have been made:

- The proposed overall development is located on the west portion of the Village of Arlington Height's downtown district, which provides retail, entertainment, and commercial uses, and experiences high pedestrian mobility and interactivity. A residential development in this area is considered a complementary land use to further support these convenient and nearby goods and services without requiring the use of an automobile.

- Accessibility to and from the proposed development and surrounding area is enhanced by the various alternative modes of transportation serving the area, including bus transit and pedestrian and bicycle amenities.

- The low volume of traffic estimated to be generated by the proposed development will be further reduced due to the alternative modes of transportation serving the area and the convenience and accessibility of nearby goods and services.

- The development-generated traffic can be accommodated without significant impact to the external roadway system. All of the intersections within the study limits are projected to operate at acceptable levels of service with the addition of the proposed development-generated traffic, regional growth in existing traffic, and the traffic estimated to be generated by the proposed Arlington 425 development.

- The capacity analyses show that the intersections of Highland Avenue with Campbell Street and Sigwalt Street will operate at acceptable levels of service under all way stop sign control. Both Sigwalt Street traffic and Campbell Street traffic are currently under freeflow conditions.

- The proposed full access off Highland Avenue serving the proposed development will provide one lane inbound and one lane outbound under stop sign control. A high-visibility crosswalk is recommended across the driveway approach.

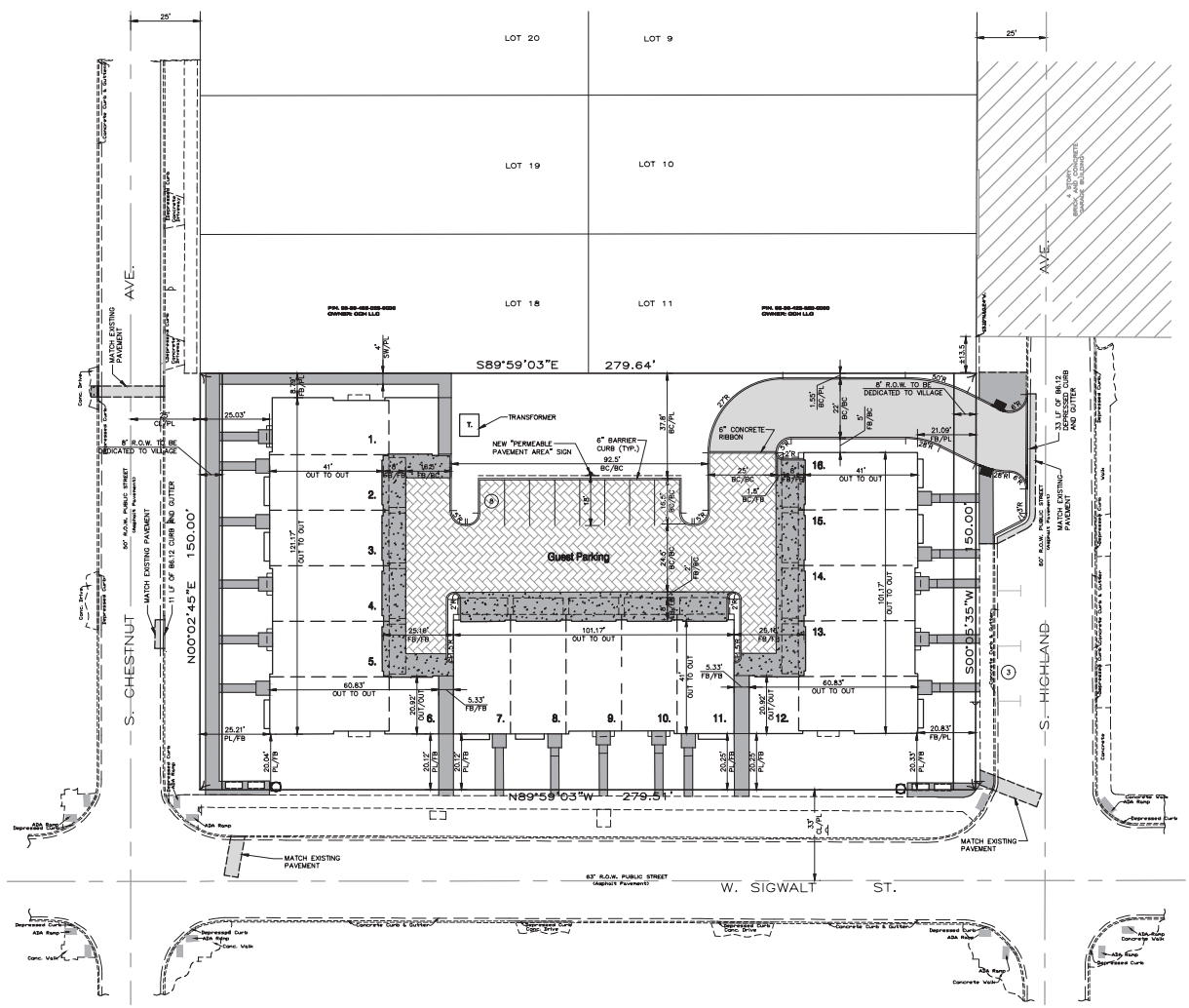
- The projected low vehicle turning movements at the proposed access drive will have a low impact on the projected traffic operations along Highland Avenue between Sigwalt Street and Campbell Street that include the Vail garage ramps and the one-way westbound (exit) alley to the north and the two access drives serving the former AT&T development to the south.

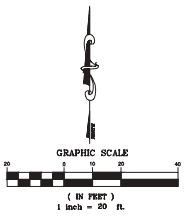
- A minimum of two on-street parking spaces on the west side of Highland Avenue will need to be removed to accommodate the access intersection.

Appendix

Site Plan
Background Traffic Assignment Figure
Traffic Counts
Capacity Analysis

Site Plan





SITE DATA:

EXISTING ZONING:
VC-PD (VILLAGE CENTER – PLANNED DEVELOPMENT)
TOTAL PROPERTY SIZE BEFORE DEDICATED ROW= 41,939 S.F. (0.963 AC)
TOTAL PROPERTY SIZE AFTER DEDICATED ROW= 39,539 S.F. (0.908 AC)

PROPOSED SITE CONDITIONS:

IMPERVIOUS:

PROPOSED BUILDING IMPERVIOUS FOOTPRINT	= 14,356 S.F.
SIDEWALK/CURB/PAVED AREAS	= 7,000 S.F.
TOTAL IMPERVIOUS AREA	= 21,356 S.F. (54%)

PERVIOUS:

PERMEABLE PAVER AREA	= 5,920 S.F.
PROPOSED GREENSPACE	= 12,263 S.F.
TOTAL PERVIOUS AREA	= 18,183 S.F. (46%)

PROPOSED PARKING SUMMARY: (ONSITE AND ADJACENT ROW)

REGULAR STALLS (ON-SITE)	= 8
REGULAR STALLS (ADJACENT ROW)	= 3
TOTAL STALLS PROVIDED	= 11

SITE GEOMETRIC AND PAVING NOTES:

1. SIDEWALK RAMPS WITH DETECTABLE WARNINGS AND DEPRESSED CURBS SHALL BE INSTALLED AT ALL SIDEWALK CROSSINGS. SEE CONSTRUCTION STANDARDS FOR SPECIFIC DETAILS.
2. UNLESS OTHERWISE NOTED ON THE PLAN, ALL DIMENSIONS ARE TO THE BACK OF CURB, FACE OF CURB, FACE OF BUILDING, OR PROPERTY LINES.
3. UNLESS OTHERWISE NOTED, ALL CURB AND GUTTER SHALL BE B6.12 CONCRETE CURB AND GUTTER.
4. UNLESS OTHERWISE NOTED, ALL CURB RADII ARE 4' TO BACK OF CURB.
5. ALL BOUNDARY AND LOT DIMENSIONS ARE SHOWN PER THE SUBDIVISION (OR SITE) PLAT PREPARED BY PROFESSIONAL ASSOCIATES SURVEY, INC. AND DATED 02/13/17.
6. BUILDING DIMENSIONS HAVE BEEN INDICATED HEREON BASED UPON ARCHITECTURAL INFORMATION CURRENT AS OF THE BASE DATE OF THIS PLAN PREPARATION. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND ADVISE THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. IMPROVEMENTS ADJACENT TO BUILDINGS, IF SHOWN (SUCH AS TRUCK DOCKS, RETAINING WALLS, SIDEWALKS, CURBING, FENCING, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, TRANSFORMERS, BOLLARDS, ETC) HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY– REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
8. THE LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAYS. CONTRACTOR TO VERIFY ACTUAL DOORWAY LOCATION WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTING SIDEWALKS.
9. UPON COMPLETION OF PAVING OPERATIONS, THE CONTRACTOR SHALL INSTALL PAVEMENT MARKINGS AND STRIPES AND ALL DIRECTIONAL SIGNAGE, ETC AS SHOWN HEREON AND ON SIGNAGE AND STRIPING PLAN. PARKING STALL (EXCEPT FOR HC) MARKING COLOR IS WHITE. ALL ONSITE PAVEMENT MARKINGS AND STRIPES SHALL BE PAINTED WITH IDOT SPECIFICATION PAVEMENT PAINT. PARKING STALL STRIPES SHALL BE 4" WIDE. HANDICAP STALLS SHALL BE PAINTED YELLOW AND SIGNED PER FEDERAL, STATE AND LOCAL REQUIREMENTS.
10. PRIOR TO OPENING TO THE PUBLIC, ALL TRAFFIC CONTROL SIGNAGE SHALL BE INSTALLED AS INDICATED, SIGNS SHALL BE INSTALL WITH 3" SQUARE ALUMINUM POSTS WITH A BAKED ON ENAMEL FINISH, SET 1' INTO CONCRETE PIER AND SHALL INCLUDE A POST CAP.
11. ALL ROADWAY PATCHES SHALL HAVE SURFACE ASPHALT LAYER EXTEND 2.0' BEYOND EDGE OF TRENCH.
12. ANY STAIRWAYS LEADING TO PUBLIC SIDEWALK SHALL NOT AFFECT THE ADA COMPLIANCE OF THE PUBLIC WALK.

SURFACE IMPROVEMENT LEGEND:

PERMEABLE PAVERS
SEE DETAIL

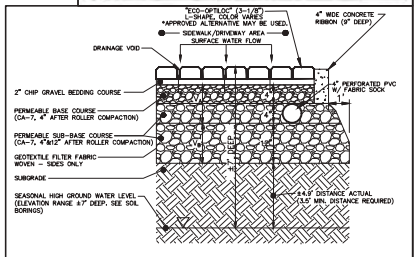
CONCRETE DRIVEWAY APRONS (GARAGE ENTRY)
6"- PCC PAVEMENT WITH 6"x6" No. 6 WELDED WIRE MESH
6"- AGGREGATE BASE COURSE CA-6, TYPE B

CONCRETE SIDEWALKS (PUBLIC AND/OR PRIVATE)
5"- PCC SIDEWALK
4"- AGGREGATE BASE COURSE TYPE B, CA-6

EX. CURB AND GUTTER
CURB AND GUTTER (B6.12) SEE DETAIL SHEET
REVERSED PITCH CURB AND GUTTER
DEPRESSED CURB AND GUTTER
ADA CURB RAMP WITH DETECTABLE WARNING

ABBREVIATIONS LEGEND
(IN ADDITION TO TITLE SHEET LEGEND)

EX	=	EXISTING
PR	=	PROPOSED
BC	=	BACK OF CURB
FC	=	FACE OF CURB
EP	=	EDGE OF PAVEMENT
PL	=	PROPERTY LINE
FB	=	FACE OF BUILDING
FW	=	FACE OF WALK (SIDEWALK)
ROW	=	RIGHT OF WAY
BC/BC	=	BACK OF CURB TO BACK OF CURB
SW	=	SIDEWALK
R	=	RADIUS
RW	=	RETAINING WALL
(TYP)	=	TYPICAL



*GEOTEXTILE FILTER FABRIC TO MEET REQUIREMENTS OF IUM MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1, CLASS 1, WITH AN OPENING SIZE OF 0.50 mm

PERMEABLE PAVER SECTION

NOTES:
1. OFFSET A MINIMUM OF 10 FEET FROM FOUNDATIONS UNLESS WATERPROOFED, 20 FEET FROM SANITARY SEWERS, 20 FEET FROM ROADWAY GRAVEL SHOULDERS AND 100 FEET FROM POTABLE WATER WELLS OR SEPTIC TANKS.
2. AVOID INSTALLATION ON FILL SLOPES UNLESS FILL IS PROPERLY KEYED AND COMPACTED FILL.
3. AVOID INSTALLATION IN AREAS SHALL POST-RETAINING SOIL MATERIALS SPECIFICATION 592 GEOTEXTILE, TABLE 1, CLASS 1, WITH AN APPARENT OPENING SIZE OF 0.50 MM.
4. STONE STORAGE OPTIONS ARE CA-7, DISTINCT VULCAN #30, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
5. MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF BMP AND SEASONALLY HIGH GROUNDWATER LEVEL.
6. UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. MAXIMUM OF 1 UNDERDRAIN PER 10 FEET. PROVIDE A SOILS REPORT DOCUMENTING NATIVE INFILTRATION RATE TO FORGO UNDERDRAINS.
7. MINIMUM UNDERDRAIN BEDDING OF TWO INCHES, MAXIMUM OF 12 INCHES.
8. ONE OBSERVATION WELL REQUIRED PER 40,000 SQUARE FEET OF SURFACE AREA.
9. SEE PLAN FOR REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.
10. MAINTENANCE REQUIREMENTS INCLUDE ANNUAL VACUUMING AND LOW-PRESSURE POWER WASHING OF PAVEMENT SURFACE. ADJACENT VEGETATED AREAS SHALL BE WELL-MAINTAINED. BARE SPOTS AND ERODED AREAS SHALL BE REPLANTED AND STABILIZED IMMEDIATELY. DO NOT SEAL COAT.
11. APPROPRIATE SIGNAGE REQUIRED FOR FACILITY. REFER TO THE SIGNAGE FOR PERMEABLE PAVEMENT DETAIL.

Apr 09, 2019 2:55:39 p.m. AcadVer:22.0s (LMS Tech)
Drawing: S:\42905219 – SIGWALT TOWNHOMES\00_ENGINEERING\PD_CAD\PVMNT\VSK_BASE.DWG

SIGWALT TOWNHOMES
ARLINGTON HEIGHTS, ILLINOIS
SITE GEOMETRIC AND PAVING PLAN

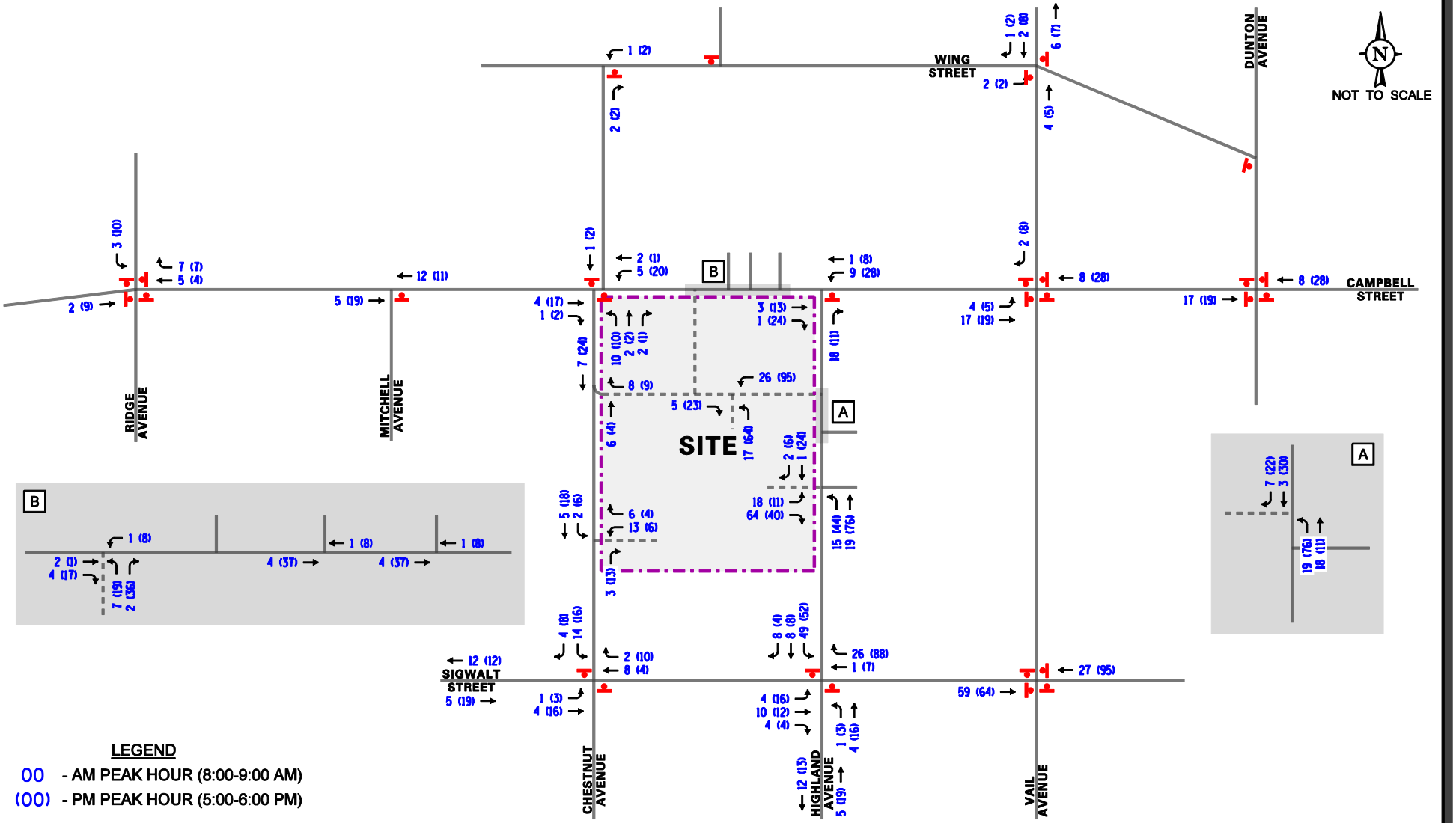
DRAWN BY | REVISIONS | DATE

RWG Engineering, LLC
Civil Engineering ◆ Real Estate Consulting ◆ Project Management
975 E. 22nd St. Suite 400
Winston, IL 60189
630.480.7889
www.rwg-engineering.com

PROJECT NO. 42905219
DATE 04/05/19
SCALE 1"=20'
PROJ. MGR. RWG
PROJ. ASSOC. MRM
DRAWN BY TLM

SHEET
4 OF 10

Background Traffic Assignment Figure



PROPOSED ROW HOME DEVELOPMENT
ARLINGTON HEIGHTS, ILLINOIS

BACKGROUND DEVELOPMENT-GENERATED TRAFFIC VOLUMES

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
Job No: 19-063 Figure: A

Traffic Counts

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

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

Count Name: Campbell Street and Highland Avenue
Site Code:
Start Date: 06/26/2018

Turning Movement Data

Start Time	Campbell Street Eastbound					Campbell Street Westbound					Highland Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	9	11	0	20	0	0	15	1	15	0	8	5	4	13	48
7:15 AM	0	17	8	0	25	0	0	14	3	14	0	7	8	3	15	54
7:30 AM	0	20	13	0	33	0	2	16	5	18	0	7	4	1	11	62
7:45 AM	0	27	17	0	44	0	3	18	4	21	0	6	4	2	10	75
Hourly Total	0	73	49	0	122	0	5	63	13	68	0	28	21	10	49	239
8:00 AM	0	22	8	0	30	1	1	16	3	18	0	3	5	1	8	56
8:15 AM	0	39	13	0	52	0	4	18	1	22	0	8	8	0	16	90
8:30 AM	0	38	5	0	43	0	4	17	1	21	0	6	12	3	18	82
8:45 AM	0	41	10	0	51	0	3	16	2	19	0	1	14	5	15	85
Hourly Total	0	140	36	0	176	1	12	67	7	80	0	18	39	9	57	313
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	37	5	1	42	0	6	30	3	36	0	5	9	6	14	92
4:15 PM	0	40	5	2	45	4	1	22	2	27	0	2	5	5	7	79
4:30 PM	0	38	6	0	44	0	3	40	0	43	0	2	9	6	11	98
4:45 PM	0	36	12	3	48	3	3	24	0	30	0	2	7	3	9	87
Hourly Total	0	151	28	6	179	7	13	116	5	136	0	11	30	20	41	356
5:00 PM	0	36	7	0	43	0	10	38	3	48	0	8	17	5	25	116
5:15 PM	0	23	7	0	30	0	10	35	2	45	0	6	16	0	22	97
5:30 PM	0	36	6	0	42	0	9	31	1	40	0	10	18	1	28	110
5:45 PM	0	43	8	1	51	1	18	16	5	35	0	7	9	8	16	102
Hourly Total	0	138	28	1	166	1	47	120	11	168	0	31	60	14	91	425
Grand Total	0	502	141	7	643	9	77	366	36	452	0	88	150	53	238	1333
Approach %	0.0	78.1	21.9	-	-	2.0	17.0	81.0	-	-	0.0	37.0	63.0	-	-	-
Total %	0.0	37.7	10.6	-	48.2	0.7	5.8	27.5	-	33.9	0.0	6.6	11.3	-	17.9	-
Lights	0	500	140	-	640	9	75	356	-	440	0	87	147	-	234	1314
% Lights	-	99.6	99.3	-	99.5	100.0	97.4	97.3	-	97.3	-	98.9	98.0	-	98.3	98.6
Buses	0	0	0	-	0	0	0	1	-	1	0	1	0	-	1	2
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.3	-	0.2	-	1.1	0.0	-	0.4	0.2
Single-Unit Trucks	0	0	1	-	1	0	0	4	-	4	0	0	0	-	0	5
% Single-Unit Trucks	-	0.0	0.7	-	0.2	0.0	0.0	1.1	-	0.9	-	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.3	-	0.2	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	2	0	-	2	0	2	4	-	6	0	0	3	-	3	11
% Bicycles on Road	-	0.4	0.0	-	0.3	0.0	2.6	1.1	-	1.3	-	0.0	2.0	-	1.3	0.8
Pedestrians	-	-	-	7	-	-	-	-	36	-	-	-	-	53	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

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

Count Name: Campbell Street and Highland Avenue
Site Code:
Start Date: 06/26/2018

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Campbell Street Eastbound					Campbell Street Westbound					Highland Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
8:00 AM	0	22	8	0	30	1	1	16	3	18	0	3	5	1	8	56
8:15 AM	0	39	13	0	52	0	4	18	1	22	0	8	8	0	16	90
8:30 AM	0	38	5	0	43	0	4	17	1	21	0	6	12	3	18	82
8:45 AM	0	41	10	0	51	0	3	16	2	19	0	1	14	5	15	85
Total	0	140	36	0	176	1	12	67	7	80	0	18	39	9	57	313
Approach %	0.0	79.5	20.5	-	-	1.3	15.0	83.8	-	-	0.0	31.6	68.4	-	-	-
Total %	0.0	44.7	11.5	-	56.2	0.3	3.8	21.4	-	25.6	0.0	5.8	12.5	-	18.2	-
PHF	0.000	0.854	0.692	-	0.846	0.250	0.750	0.931	-	0.909	0.000	0.563	0.696	-	0.792	0.869
Lights	0	140	35	-	175	1	12	63	-	76	0	18	39	-	57	308
% Lights	-	100.0	97.2	-	99.4	100.0	100.0	94.0	-	95.0	-	100.0	100.0	-	100.0	98.4
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	1.5	-	1.3	-	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	1	-	1	0	0	2	-	2	0	0	0	-	0	3
% Single-Unit Trucks	-	0.0	2.8	-	0.6	0.0	0.0	3.0	-	2.5	-	0.0	0.0	-	0.0	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	1.5	-	1.3	-	0.0	0.0	-	0.0	0.3
Pedestrians	-	-	-	0	-	-	-	-	7	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

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

Count Name: Campbell Street and Highland Avenue
Site Code:
Start Date: 06/26/2018

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Campbell Street Eastbound					Campbell Street Westbound					Highland Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	36	7	0	43	0	10	38	3	48	0	8	17	5	25	116
5:15 PM	0	23	7	0	30	0	10	35	2	45	0	6	16	0	22	97
5:30 PM	0	36	6	0	42	0	9	31	1	40	0	10	18	1	28	110
5:45 PM	0	43	8	1	51	1	18	16	5	35	0	7	9	8	16	102
Total	0	138	28	1	166	1	47	120	11	168	0	31	60	14	91	425
Approach %	0.0	83.1	16.9	-	-	0.6	28.0	71.4	-	-	0.0	34.1	65.9	-	-	-
Total %	0.0	32.5	6.6	-	39.1	0.2	11.1	28.2	-	39.5	0.0	7.3	14.1	-	21.4	-
PHF	0.000	0.802	0.875	-	0.814	0.250	0.653	0.789	-	0.875	0.000	0.775	0.833	-	0.813	0.916
Lights	0	137	28	-	165	1	45	120	-	166	0	31	60	-	91	422
% Lights	-	99.3	100.0	-	99.4	100.0	95.7	100.0	-	98.8	-	100.0	100.0	-	100.0	99.3
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	1	0	-	1	0	2	0	-	2	0	0	0	-	0	3
% Bicycles on Road	-	0.7	0.0	-	0.6	0.0	4.3	0.0	-	1.2	-	0.0	0.0	-	0.0	0.7
Pedestrians	-	-	-	1	-	-	-	-	11	-	-	-	-	14	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

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

Count Name: Campbell St and Chestnut Ave
Site Code:
Start Date: 08/08/2017

Turning Movement Data

Start Time	Campbell Ave Eastbound						Campbell St Westbound						Chestnut Ave Northbound						Chestnut Ave Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	4	24	0	0	28	0	0	24	2	3	26	0	0	1	2	3	3	0	0	5	2	2	7	64
7:15 AM	0	2	24	1	0	27	0	0	18	3	2	21	0	0	2	0	3	2	0	2	4	1	3	7	57
7:30 AM	0	5	26	0	1	31	0	0	22	2	1	24	0	1	1	0	0	2	0	1	3	2	5	6	63
7:45 AM	0	0	43	5	3	48	0	1	25	2	4	28	0	2	4	0	2	6	0	0	4	1	5	5	87
Hourly Total	0	11	117	6	4	134	0	1	89	9	10	99	0	3	8	2	8	13	0	3	16	6	15	25	271
8:00 AM	0	2	34	1	1	37	0	1	25	1	1	27	0	0	1	0	2	1	0	2	1	2	1	5	70
8:15 AM	0	3	38	1	1	42	0	0	28	2	3	30	0	2	0	0	1	2	0	2	2	2	3	6	80
8:30 AM	0	6	38	1	1	45	0	1	28	1	0	30	0	1	1	0	2	2	0	1	2	2	1	5	82
8:45 AM	0	2	43	3	1	48	0	0	26	2	2	28	0	1	2	2	2	5	0	1	0	2	2	3	84
Hourly Total	0	13	153	6	4	172	0	2	107	6	6	115	0	4	4	2	7	10	0	6	5	8	7	19	316
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	7	53	0	2	60	0	0	29	1	1	30	0	3	0	0	5	3	0	1	2	6	0	9	102
4:15 PM	0	4	35	0	1	39	0	0	38	2	1	40	0	6	1	0	0	7	0	0	2	7	2	9	95
4:30 PM	0	6	24	0	1	30	1	2	30	5	0	38	0	2	2	0	2	4	0	3	1	6	0	10	82
4:45 PM	0	3	33	4	0	40	0	0	31	2	0	33	0	2	2	3	2	7	0	1	3	3	2	7	87
Hourly Total	0	20	145	4	4	169	1	2	128	10	2	141	0	13	5	3	9	21	0	5	8	22	4	35	366
5:00 PM	0	2	40	3	0	45	0	0	34	0	0	34	0	4	2	2	2	8	0	1	1	9	2	11	98
5:15 PM	0	7	41	2	0	50	2	2	26	3	0	33	0	4	2	0	0	6	0	1	1	5	0	7	96
5:30 PM	0	5	29	4	0	38	1	5	35	6	2	47	0	4	1	2	4	7	0	5	2	3	4	10	102
5:45 PM	0	6	50	3	1	59	2	1	31	3	4	37	0	2	8	3	6	13	0	3	4	2	10	9	118
Hourly Total	0	20	160	12	1	192	5	8	126	12	6	151	0	14	13	7	12	34	0	10	8	19	16	37	414
Grand Total	0	64	575	28	13	667	6	13	450	37	24	506	0	34	30	14	36	78	0	24	37	55	42	116	1367
Approach %	0.0	9.6	86.2	4.2	-	-	1.2	2.6	88.9	7.3	-	-	0.0	43.6	38.5	17.9	-	-	0.0	20.7	31.9	47.4	-	-	-
Total %	0.0	4.7	42.1	2.0	-	48.8	0.4	1.0	32.9	2.7	-	37.0	0.0	2.5	2.2	1.0	-	5.7	0.0	1.8	2.7	4.0	-	8.5	-
Lights	0	60	564	27	-	651	6	13	440	35	-	494	0	34	27	13	-	74	0	24	34	53	-	111	1330
% Lights	-	93.8	98.1	96.4	-	97.6	100.0	100.0	97.8	94.6	-	97.6	-	100.0	90.0	92.9	-	94.9	-	100.0	91.9	96.4	-	95.7	97.3
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	2
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	6.7	0.0	-	2.6	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	7	0	-	7	0	0	5	2	-	7	0	0	1	1	-	2	0	0	1	2	-	3	19
% Single-Unit Trucks	-	0.0	1.2	0.0	-	1.0	0.0	0.0	1.1	5.4	-	1.4	-	0.0	3.3	7.1	-	2.6	-	0.0	2.7	3.6	-	2.6	1.4
Articulated Trucks	0	1	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	1.6	0.2	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	3	3	1	-	7	0	0	5	0	-	5	0	0	0	0	-	0	0	0	2	0	-	2	14
% Bicycles on Road	-	4.7	0.5	3.6	-	1.0	0.0	0.0	1.1	0.0	-	1.0	-	0.0	0.0	0.0	-	0.0	-	0.0	5.4	0.0	-	1.7	1.0
Pedestrians	-	-	-	-	13	-	-	-	-	-	24	-	-	-	-	-	36	-	-	-	-	-	42	-	-

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

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

Count Name: Campbell St and Chestnut Ave
Site Code:
Start Date: 08/08/2017
Page No: 3

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Campbell Ave Eastbound						Campbell St Westbound						Chestnut Ave Northbound						Chestnut Ave Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	2	34	1	1	37	0	1	25	1	1	27	0	0	1	0	2	1	0	2	1	2	1	5	70
8:15 AM	0	3	38	1	1	42	0	0	28	2	3	30	0	2	0	0	1	2	0	2	2	2	3	6	80
8:30 AM	0	6	38	1	1	45	0	1	28	1	0	30	0	1	1	0	2	2	0	1	2	2	1	5	82
8:45 AM	0	2	43	3	1	48	0	0	26	2	2	28	0	1	2	2	2	5	0	1	0	2	2	3	84
Total	0	13	153	6	4	172	0	2	107	6	6	115	0	4	4	2	7	10	0	6	5	8	7	19	316
Approach %	0.0	7.6	89.0	3.5	-	-	0.0	1.7	93.0	5.2	-	-	0.0	40.0	40.0	20.0	-	-	0.0	31.6	26.3	42.1	-	-	-
Total %	0.0	4.1	48.4	1.9	-	54.4	0.0	0.6	33.9	1.9	-	36.4	0.0	1.3	1.3	0.6	-	3.2	0.0	1.9	1.6	2.5	-	6.0	-
PHF	0.000	0.542	0.890	0.500	-	0.896	0.000	0.500	0.955	0.750	-	0.958	0.000	0.500	0.500	0.250	-	0.500	0.000	0.750	0.625	1.000	-	0.792	0.940
Lights	0	13	151	6	-	170	0	2	104	5	-	111	0	4	4	2	-	10	0	6	5	7	-	18	309
% Lights	-	100.0	98.7	100.0	-	98.8	-	100.0	97.2	83.3	-	96.5	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	87.5	-	94.7	97.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	2	0	-	2	0	0	3	1	-	4	0	0	0	0	-	0	0	0	0	1	-	1	7
% Single-Unit Trucks	-	0.0	1.3	0.0	-	1.2	-	0.0	2.8	16.7	-	3.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	12.5	-	5.3	2.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	6	-	-	-	-	-	7	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Campbell St and Chestnut Ave
Site Code:
Start Date: 08/08/2017
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Campbell Ave Eastbound						Campbell St Westbound						Chestnut Ave Northbound						Chestnut Ave Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	2	40	3	0	45	0	0	34	0	0	34	0	4	2	2	2	8	0	1	1	9	2	11	98
5:15 PM	0	7	41	2	0	50	2	2	26	3	0	33	0	4	2	0	0	6	0	1	1	5	0	7	96
5:30 PM	0	5	29	4	0	38	1	5	35	6	2	47	0	4	1	2	4	7	0	5	2	3	4	10	102
5:45 PM	0	6	50	3	1	59	2	1	31	3	4	37	0	2	8	3	6	13	0	3	4	2	10	9	118
Total	0	20	160	12	1	192	5	8	126	12	6	151	0	14	13	7	12	34	0	10	8	19	16	37	414
Approach %	0.0	10.4	83.3	6.3	-	-	3.3	5.3	83.4	7.9	-	-	0.0	41.2	38.2	20.6	-	-	0.0	27.0	21.6	51.4	-	-	-
Total %	0.0	4.8	38.6	2.9	-	46.4	1.2	1.9	30.4	2.9	-	36.5	0.0	3.4	3.1	1.7	-	8.2	0.0	2.4	1.9	4.6	-	8.9	-
PHF	0.000	0.714	0.800	0.750	-	0.814	0.625	0.400	0.900	0.500	-	0.803	0.000	0.875	0.406	0.583	-	0.654	0.000	0.500	0.500	0.528	-	0.841	0.877
Lights	0	20	157	11	-	188	5	8	123	12	-	148	0	14	13	7	-	34	0	10	6	19	-	35	405
% Lights	-	100.0	98.1	91.7	-	97.9	100.0	100.0	97.6	100.0	-	98.0	-	100.0	100.0	100.0	-	100.0	-	100.0	75.0	100.0	-	94.6	97.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Single-Unit Trucks	-	0.0	1.3	0.0	-	1.0	0.0	0.0	0.8	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	1	1	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	2	0	-	2	6
% Bicycles on Road	-	0.0	0.6	8.3	-	1.0	0.0	0.0	1.6	0.0	-	1.3	-	0.0	0.0	0.0	-	0.0	-	0.0	25.0	0.0	-	5.4	1.4
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	12	-	-	-	-	-	16	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Sigwalt Street and Highland Avenue
Site Code:
Start Date: 06/26/2018

Turning Movement Data

Start Time	Sigwalt Street Eastbound						Sigwalt Street Westbound						Highland Avenue Northbound						Highland Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	9	30	1	4	40	0	4	35	5	1	44	0	0	6	3	0	9	0	3	1	2	4	6	99
7:15 AM	0	5	28	0	0	33	0	1	21	2	0	24	0	0	2	2	0	4	0	6	0	2	1	8	69
7:30 AM	0	7	31	0	1	38	0	2	20	7	0	29	0	1	2	2	0	5	0	7	2	3	0	12	84
7:45 AM	0	10	16	1	2	27	0	2	29	3	2	34	0	1	8	3	0	12	0	7	0	1	0	8	81
Hourly Total	0	31	105	2	7	138	0	9	105	17	3	131	0	2	18	10	0	30	0	23	3	8	5	34	333
8:00 AM	0	0	25	2	1	27	0	1	14	3	0	18	0	3	3	3	0	9	0	3	1	2	2	6	60
8:15 AM	0	2	23	0	0	25	0	3	28	7	0	38	0	2	5	1	0	8	0	4	2	1	0	7	78
8:30 AM	0	2	26	0	0	28	0	1	26	9	0	36	0	2	2	4	0	8	0	8	2	1	0	11	83
8:45 AM	0	0	32	2	1	34	0	8	36	9	0	53	0	8	5	15	0	28	0	5	3	1	0	9	124
Hourly Total	0	4	106	4	2	114	0	13	104	28	0	145	0	15	15	23	0	53	0	20	8	5	2	33	345
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	25	1	2	26	0	3	41	4	0	48	0	0	5	3	0	8	0	5	3	0	0	8	90
4:15 PM	0	1	25	1	3	27	0	2	30	3	0	35	0	0	1	2	0	3	0	2	2	0	2	4	69
4:30 PM	0	0	32	0	0	32	0	0	38	3	2	41	0	1	1	5	0	7	0	6	2	4	2	12	92
4:45 PM	0	2	29	1	2	32	0	0	42	6	0	48	0	0	5	7	0	12	0	2	0	2	0	4	96
Hourly Total	0	3	111	3	7	117	0	5	151	16	2	172	0	1	12	17	0	30	0	15	7	6	4	28	347
5:00 PM	0	0	28	2	2	30	0	2	48	4	0	54	0	1	3	1	0	5	0	6	6	5	2	17	106
5:15 PM	0	2	29	3	1	34	0	1	28	3	0	32	0	1	7	2	0	10	0	7	4	5	0	16	92
5:30 PM	0	3	25	0	2	28	0	2	48	4	0	54	0	0	4	1	0	5	0	13	8	13	1	34	121
5:45 PM	0	5	26	1	1	32	0	2	43	5	0	50	0	2	2	7	0	11	0	7	7	3	2	17	110
Hourly Total	0	10	108	6	6	124	0	7	167	16	0	190	0	4	16	11	0	31	0	33	25	26	5	84	429
Grand Total	0	48	430	15	22	493	0	34	527	77	5	638	0	22	61	61	0	144	0	91	43	45	16	179	1454
Approach %	0.0	9.7	87.2	3.0	-	-	0.0	5.3	82.6	12.1	-	-	0.0	15.3	42.4	42.4	-	-	0.0	50.8	24.0	25.1	-	-	-
Total %	0.0	3.3	29.6	1.0	-	33.9	0.0	2.3	36.2	5.3	-	43.9	0.0	1.5	4.2	4.2	-	9.9	0.0	6.3	3.0	3.1	-	12.3	-
Lights	0	48	421	14	-	483	0	31	516	77	-	624	0	22	57	60	-	139	0	90	40	45	-	175	1421
% Lights	-	100.0	97.9	93.3	-	98.0	-	91.2	97.9	100.0	-	97.8	-	100.0	93.4	98.4	-	96.5	-	98.9	93.0	100.0	-	97.8	97.7
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	2
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	1.6	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	6	0	-	6	0	0	7	0	-	7	0	0	0	1	-	1	0	1	0	0	-	1	15
% Single-Unit Trucks	-	0.0	1.4	0.0	-	1.2	-	0.0	1.3	0.0	-	1.1	-	0.0	0.0	1.6	-	0.7	-	1.1	0.0	0.0	-	0.6	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	2	1	-	3	0	3	1	0	-	4	0	0	3	0	-	3	0	0	3	0	-	3	13
% Bicycles on Road	-	0.0	0.5	6.7	-	0.6	-	8.8	0.2	0.0	-	0.6	-	0.0	4.9	0.0	-	2.1	-	0.0	7.0	0.0	-	1.7	0.9
Pedestrians	-	-	-	-	22	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	16	-	-

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

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

Count Name: Sigwalt Street and Highland Avenue
Site Code:
Start Date: 06/26/2018

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Sigwalt Street Eastbound						Sigwalt Street Westbound						Highland Avenue Northbound						Highland Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	0	25	2	1	27	0	1	14	3	0	18	0	3	3	3	0	9	0	3	1	2	2	6	60
8:15 AM	0	2	23	0	0	25	0	3	28	7	0	38	0	2	5	1	0	8	0	4	2	1	0	7	78
8:30 AM	0	2	26	0	0	28	0	1	26	9	0	36	0	2	2	4	0	8	0	8	2	1	0	11	83
8:45 AM	0	0	32	2	1	34	0	8	36	9	0	53	0	8	5	15	0	28	0	5	3	1	0	9	124
Total	0	4	106	4	2	114	0	13	104	28	0	145	0	15	15	23	0	53	0	20	8	5	2	33	345
Approach %	0.0	3.5	93.0	3.5	-	-	0.0	9.0	71.7	19.3	-	-	0.0	28.3	28.3	43.4	-	-	0.0	60.6	24.2	15.2	-	-	-
Total %	0.0	1.2	30.7	1.2	-	33.0	0.0	3.8	30.1	8.1	-	42.0	0.0	4.3	4.3	6.7	-	15.4	0.0	5.8	2.3	1.4	-	9.6	-
PHF	0.000	0.500	0.828	0.500	-	0.838	0.000	0.406	0.722	0.778	-	0.684	0.000	0.469	0.750	0.383	-	0.473	0.000	0.625	0.667	0.625	-	0.750	0.696
Lights	0	4	104	4	-	112	0	13	103	28	-	144	0	15	15	22	-	52	0	19	8	5	-	32	340
% Lights	-	100.0	98.1	100.0	-	98.2	-	100.0	99.0	100.0	-	99.3	-	100.0	100.0	95.7	-	98.1	-	95.0	100.0	100.0	-	97.0	98.6
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.9	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	0	1	0	0	-	1	3
% Single-Unit Trucks	-	0.0	0.9	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	4.3	-	1.9	-	5.0	0.0	0.0	-	3.0	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Sigwalt Street and Highland Avenue
Site Code:
Start Date: 06/26/2018

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Sigwalt Street Eastbound						Sigwalt Street Westbound						Highland Avenue Northbound						Highland Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	0	28	2	2	30	0	2	48	4	0	54	0	1	3	1	0	5	0	6	6	5	2	17	106
5:15 PM	0	2	29	3	1	34	0	1	28	3	0	32	0	1	7	2	0	10	0	7	4	5	0	16	92
5:30 PM	0	3	25	0	2	28	0	2	48	4	0	54	0	0	4	1	0	5	0	13	8	13	1	34	121
5:45 PM	0	5	26	1	1	32	0	2	43	5	0	50	0	2	2	7	0	11	0	7	7	3	2	17	110
Total	0	10	108	6	6	124	0	7	167	16	0	190	0	4	16	11	0	31	0	33	25	26	5	84	429
Approach %	0.0	8.1	87.1	4.8	-	-	0.0	3.7	87.9	8.4	-	-	0.0	12.9	51.6	35.5	-	-	0.0	39.3	29.8	31.0	-	-	-
Total %	0.0	2.3	25.2	1.4	-	28.9	0.0	1.6	38.9	3.7	-	44.3	0.0	0.9	3.7	2.6	-	7.2	0.0	7.7	5.8	6.1	-	19.6	-
PHF	0.000	0.500	0.931	0.500	-	0.912	0.000	0.875	0.870	0.800	-	0.880	0.000	0.500	0.571	0.393	-	0.705	0.000	0.635	0.781	0.500	-	0.618	0.886
Lights	0	10	105	6	-	121	0	7	163	16	-	186	0	4	16	11	-	31	0	33	24	26	-	83	421
% Lights	-	100.0	97.2	100.0	-	97.6	-	100.0	97.6	100.0	-	97.9	-	100.0	100.0	100.0	-	100.0	-	100.0	96.0	100.0	-	98.8	98.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	3	0	-	3	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	6
% Single-Unit Trucks	-	0.0	2.8	0.0	-	2.4	-	0.0	1.8	0.0	-	1.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	4.0	0.0	-	1.2	0.5
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Arlington Heights, IL Weather: Warm and Dry 07/02/18
Highland Ave and Lower Level Garage Access 11:39:45
Wednesday June 27, 2018

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

Intersection # 1 highland/lowerlevelgar

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	0	59	38	25	0	5	25	52	0	0	0	0	204
715	0	56	38	20	0	7	20	45	0	0	0	0	186
730	0	53	37	13	0	8	21	35	0	0	0	0	167
745	0	52	32	14	0	11	12	42	0	0	0	0	163
800	0	35	17	13	0	12	10	52	0	0	0	0	139
815	0	25	9	12	0	8	7	46	0	0	0	0	107*
830	0	15	3	10	0	6	5	41	0	0	0	0	80*
845	0	9	2	4	0	3	3	22	0	0	0	0	43*
1600	0	45	18	18	0	17	2	53	0	0	0	0	153
1615	0	51	22	23	0	19	3	68	0	0	0	0	186
1630	0	54	23	19	0	20	7	67	0	0	0	0	190
1645	0	61	25	24	0	19	6	74	0	0	0	0	209
1700	0	65	26	39	0	25	8	97	0	0	0	0	260
1715	0	52	20	31	0	21	7	73	0	0	0	0	204*
1730	0	42	15	28	0	18	3	58	0	0	0	0	164*
1745	0	21	7	16	0	9	3	32	0	0	0	0	88*

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

Intersection # 1 highland/lowerlevelgar

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
700	97	30	77	0	77	63	64	0	204
715	94	27	65	0	65	58	63	0	186
730	90	21	56	0	48	58	61	0	167
745	84	25	54	0	56	44	63	0	163
800	52	25	62	0	65	27	47	0	139
815	34	20	53	0	58	16	33	0	107*
830	18	16	46	0	51	8	21	0	80*
845	11	7	25	0	26	5	12	0	43*
1600	63	35	55	0	71	20	62	0	153
1615	73	42	71	0	91	25	70	0	186
1630	77	39	74	0	86	30	74	0	190
1645	86	43	80	0	98	31	80	0	209
1700	91	64	105	0	136	34	90	0	260
1715	72	52	80	0	104	27	73	0	204*
1730	57	46	61	0	86	18	60	0	164*
1745	28	25	35	0	48	10	30	0	88*

Arlington Heights, IL Weather: Warm and Dry 07/02/18
Highland Ave and Garage Ramp Access 11:42:01
Wednesday June 27, 2018

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

Intersection # 2 highland/garageramp

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	0	0	9	19	0	22	25	0	0	0	0	0	75
715	0	0	7	17	0	18	20	0	0	0	0	0	62
730	0	0	7	12	0	14	22	0	0	0	0	0	55
745	0	0	8	13	0	10	17	0	0	0	0	0	48
800	0	0	4	15	0	8	6	0	0	0	0	0	33
815	0	0	3	12	0	5	6	0	0	0	0	0	26*
830	0	0	1	12	0	3	2	0	0	0	0	0	18*
845	0	0	0	6	0	1	2	0	0	0	0	0	9*
1600	0	0	9	7	0	13	8	0	0	0	0	0	37
1615	0	0	9	10	0	18	10	0	0	0	0	0	47
1630	0	0	10	9	0	18	14	0	0	0	0	0	51
1645	0	0	11	10	0	25	10	0	0	0	0	0	56
1700	0	0	11	15	0	32	15	0	0	0	0	0	73
1715	0	0	10	10	0	26	13	0	0	0	0	0	59*
1730	0	0	8	9	0	22	8	0	0	0	0	0	47*
1745	0	0	3	6	0	11	7	0	0	0	0	0	27*

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

Intersection # 2 highland/garageramp

Begin	Approach Totals				Exit Totals				Int
Time	N	E	S	W	N	E	S	W	Total
700	9	41	25	0	19	34	22	0	75
715	7	35	20	0	17	27	18	0	62
730	7	26	22	0	12	29	14	0	55
745	8	23	17	0	13	25	10	0	48
800	4	23	6	0	15	10	8	0	33
815	3	17	6	0	12	9	5	0	26*
830	1	15	2	0	12	3	3	0	18*
845	0	7	2	0	6	2	1	0	9*
1600	9	20	8	0	7	17	13	0	37
1615	9	28	10	0	10	19	18	0	47
1630	10	27	14	0	9	24	18	0	51
1645	11	35	10	0	10	21	25	0	56
1700	11	47	15	0	15	26	32	0	73
1715	10	36	13	0	10	23	26	0	59*
1730	8	31	8	0	9	16	22	0	47*
1745	3	17	7	0	6	10	11	0	27*

Capacity Analysis – Existing Conditions

LEVEL OF SERVICE CRITERIA

Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
A	0 - 10
B	> 10 - 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

Signalized Intersections

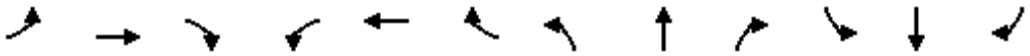
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10
B	Good progression, with more vehicles stopping than for Level of Service A.	> 10 - 20
C	Individual 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

Source: *Highway Capacity Manual, 2010.*

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	143	36	13	89	18	39
Future Volume (Veh/h)	143	36	13	89	18	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	164	41	15	102	21	45
Pedestrians				7	9	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				3.5	3.5	
Percent Blockage				1	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			214		326	200
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			214		326	200
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	95
cM capacity (veh/h)			1356		660	833

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	205	117	66
Volume Left	0	15	21
Volume Right	41	0	45
cSH	1700	1356	769
Volume to Capacity	0.12	0.01	0.09
Queue Length 95th (ft)	0	1	7
Control Delay (s)	0.0	1.1	10.1
Lane LOS		A	B
Approach Delay (s)	0.0	1.1	10.1
Approach LOS			B

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	197	4	13	120	28	15	15	23	20	8	5
Future Volume (Veh/h)	4	197	4	13	120	28	15	15	23	20	8	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Hourly flow rate (vph)	6	281	6	19	171	40	21	21	33	29	11	7
Pedestrians		2									2	
Lane Width (ft)		12.0									12.0	
Walking Speed (ft/s)		3.5									3.5	
Percent Blockage		0									0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	213			287			540	547	284	570	530	195
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	213			287			540	547	284	570	530	195
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	95	96	93	98	99
cM capacity (veh/h)	1367			1287			436	438	750	387	448	848

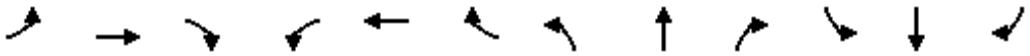
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	293	230	75	47
Volume Left	6	19	21	29
Volume Right	6	40	33	7
cSH	1367	1287	535	436
Volume to Capacity	0.00	0.01	0.14	0.11
Queue Length 95th (ft)	0	1	12	9
Control Delay (s)	0.2	0.8	12.8	14.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	0.8	12.8	14.3
Approach LOS			B	B

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	26.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	13	44	10	17	32
Future Volume (Veh/h)	12	13	44	10	17	32
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	14	48	11	18	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	124	54			59	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	124	54			59	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	860	1014			1545	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	27	59	53
Volume Left	13	0	18
Volume Right	14	11	0
cSH	934	1700	1545
Volume to Capacity	0.03	0.03	0.01
Queue Length 95th (ft)	2	0	1
Control Delay (s)	9.0	0.0	2.6
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	2.6
Approach LOS	A		

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	8	0	15	0	39	6	4	40	0
Future Volume (Veh/h)	0	0	0	8	0	15	0	39	6	4	40	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	9	0	16	0	42	7	4	43	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	112	100	43	96	96	46	43			49		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	112	100	43	96	96	46	43			49		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	98	100			100		
cM capacity (veh/h)	850	788	1027	884	792	1024	1566			1558		

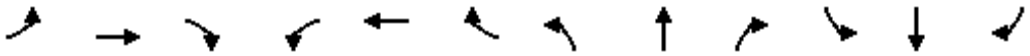
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	25	49	47
Volume Left	9	0	4
Volume Right	16	7	0
cSH	969	1700	1558
Volume to Capacity	0.03	0.03	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.8	0.0	0.6
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	0.6
Approach LOS	A		

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	15.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	153	39	53	150	43	67
Future Volume (Veh/h)	153	39	53	150	43	67
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	166	42	58	163	47	73
Pedestrians	25			25	25	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			233		516	237
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			233		516	237
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		90	90
cM capacity (veh/h)			1303		473	764

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	208	221	120
Volume Left	0	58	47
Volume Right	42	0	73
cSH	1700	1303	616
Volume to Capacity	0.12	0.04	0.19
Queue Length 95th (ft)	0	3	18
Control Delay (s)	0.0	2.4	12.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.4	12.3
Approach LOS			B

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization		44.1%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	118	9	13	150	43	4	21	19	44	34	35
Future Volume (Veh/h)	5	118	9	13	150	43	4	21	19	44	34	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	133	10	15	169	48	4	24	21	49	38	39
Pedestrians		25			25			25			25	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	242			168			481	447	188	456	428	243
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	242			168			481	447	188	456	428	243
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	95	97	89	92	95
cM capacity (veh/h)	1293			1376			401	475	814	438	487	758

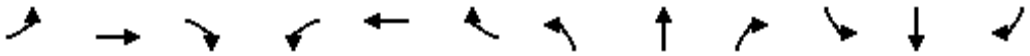
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	149	232	49	126
Volume Left	6	15	4	49
Volume Right	10	48	21	39
cSH	1293	1376	568	522
Volume to Capacity	0.00	0.01	0.09	0.24
Queue Length 95th (ft)	0	1	7	23
Control Delay (s)	0.4	0.6	11.9	14.1
Lane LOS	A	A	B	B
Approach Delay (s)	0.4	0.6	11.9	14.1
Approach LOS			B	B

Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	36.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	58	52	8	26	66
Future Volume (Veh/h)	25	58	52	8	26	66
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	63	57	9	28	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	190	62			66	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	190	62			66	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	94			98	
cM capacity (veh/h)	785	1004			1536	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	90	66	100
Volume Left	27	0	28
Volume Right	63	9	0
cSH	926	1700	1536
Volume to Capacity	0.10	0.04	0.02
Queue Length 95th (ft)	8	0	1
Control Delay (s)	9.3	0.0	2.2
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	2.2
Approach LOS	A		

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	23.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	32	0	15	0	45	15	11	80	0
Future Volume (Veh/h)	0	0	0	32	0	15	0	45	15	11	80	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	35	0	16	0	49	16	12	87	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	184	176	87	168	168	57	87			65		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	184	176	87	168	168	57	87			65		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	98	100			99		
cM capacity (veh/h)	760	712	971	791	719	1009	1509			1537		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	51	65	99
Volume Left	0	35	0	12
Volume Right	0	16	16	0
cSH	1700	849	1509	1537
Volume to Capacity	0.00	0.06	0.00	0.01
Queue Length 95th (ft)	0	5	0	1
Control Delay (s)	0.0	9.5	0.0	0.9
Lane LOS	A	A		A
Approach Delay (s)	0.0	9.5	0.0	0.9
Approach LOS	A	A		

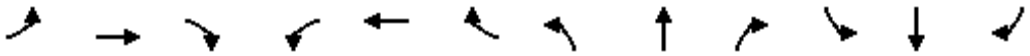
Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	21.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Capacity Analysis – Future Conditions

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	162	38	23	95	20	59
Future Volume (vph)	162	38	23	95	20	59
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	186	44	26	109	23	68

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	230	135	91
Volume Left (vph)	0	26	23
Volume Right (vph)	44	0	68
Hadj (s)	-0.11	0.12	-0.40
Departure Headway (s)	4.2	4.5	4.3
Degree Utilization, x	0.27	0.17	0.11
Capacity (veh/h)	845	774	772
Control Delay (s)	8.6	8.4	7.8
Approach Delay (s)	8.6	8.4	7.8
Approach LOS	A	A	A

Intersection Summary			
Delay	8.4		
Level of Service	A		
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	213	9	14	125	57	17	20	24	70	18	15
Future Volume (vph)	9	213	9	14	125	57	17	20	24	70	18	15
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Hourly flow rate (vph)	13	304	13	20	179	81	24	29	34	100	26	21

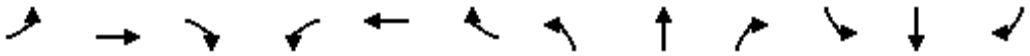
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	330	280	87	147
Volume Left (vph)	13	20	24	100
Volume Right (vph)	13	81	34	21
Hadj (s)	0.02	-0.15	-0.15	0.11
Departure Headway (s)	5.0	4.9	5.6	5.7
Degree Utilization, x	0.46	0.38	0.13	0.23
Capacity (veh/h)	686	693	557	565
Control Delay (s)	12.1	10.9	9.4	10.4
Approach Delay (s)	12.1	10.9	9.4	10.4
Approach LOS	B	B	A	B

Intersection Summary				
Delay	11.1			
Level of Service	B			
Intersection Capacity Utilization	37.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	14	84	11	18	36
Future Volume (Veh/h)	13	14	84	11	18	36
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	15	91	12	20	39
Pedestrians	50		50			50
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	5		5			5
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	276	197			153	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	276	197			153	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			99	
cM capacity (veh/h)	638	766			1360	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	29	103	59
Volume Left	14	0	20
Volume Right	15	12	0
cSH	698	1700	1360
Volume to Capacity	0.04	0.06	0.01
Queue Length 95th (ft)	3	0	1
Control Delay (s)	10.4	0.0	2.7
Lane LOS	B		A
Approach Delay (s)	10.4	0.0	2.7
Approach LOS	B		

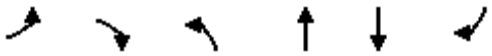
Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	64	9	0	16	15	61	7	5	42	2
Future Volume (Veh/h)	18	0	64	9	0	16	15	61	7	5	42	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	0	70	10	0	17	16	66	8	5	46	2
Pedestrians		50			50			50			50	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		5			5			5			5	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	276	263	147	329	260	170	98			124		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276	263	147	329	260	170	98			124		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	91	98	100	98	99			100		
cM capacity (veh/h)	551	574	816	475	576	793	1424			1393		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	90	27	90	53
Volume Left	20	10	16	5
Volume Right	70	17	8	2
cSH	738	636	1424	1393
Volume to Capacity	0.12	0.04	0.01	0.00
Queue Length 95th (ft)	10	3	1	0
Control Delay (s)	10.6	10.9	1.4	0.7
Lane LOS	B	B	A	A
Approach Delay (s)	10.6	10.9	1.4	0.7
Approach LOS	B	B		

Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	31.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	4	2	81	115	0
Future Volume (Veh/h)	2	4	2	81	115	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	4	2	88	125	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	217	125	125			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	217	125	125			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	770	926	1462			

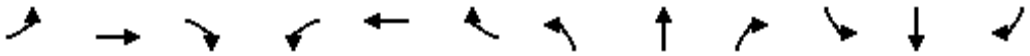
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	6	90	125
Volume Left	2	2	0
Volume Right	4	0	0
cSH	867	1462	1700
Volume to Capacity	0.01	0.00	0.07
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.2	0.2	0.0
Lane LOS	A	A	
Approach Delay (s)	9.2	0.2	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	16.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	172	65	84	165	44	81
Future Volume (vph)	172	65	84	165	44	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	187	71	91	179	48	88

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	258	270	136
Volume Left (vph)	0	91	48
Volume Right (vph)	71	0	88
Hadj (s)	-0.13	0.10	-0.28
Departure Headway (s)	4.4	4.6	4.8
Degree Utilization, x	0.32	0.35	0.18
Capacity (veh/h)	782	744	682
Control Delay (s)	9.5	10.1	8.9
Approach Delay (s)	9.5	10.1	8.9
Approach LOS	A	B	A

Intersection Summary			
Delay	9.6		
Level of Service	A		
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	23	134	14	14	162	135	8	39	20	99	44	41
Future Volume (vph)	23	134	14	14	162	135	8	39	20	99	44	41
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	26	151	16	16	182	152	9	44	22	111	49	46

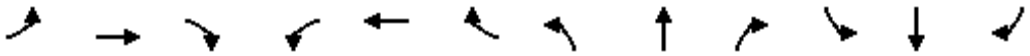
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	193	350	75	206
Volume Left (vph)	26	16	9	111
Volume Right (vph)	16	152	22	46
Hadj (s)	0.01	-0.22	-0.12	0.01
Departure Headway (s)	5.2	4.8	5.5	5.4
Degree Utilization, x	0.28	0.46	0.12	0.31
Capacity (veh/h)	643	719	562	609
Control Delay (s)	10.2	11.8	9.2	10.8
Approach Delay (s)	10.2	11.8	9.2	10.8
Approach LOS	B	B	A	B

Intersection Summary			
Delay	10.9		
Level of Service	B		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	26	60	141	9	27	100
Future Volume (Veh/h)	26	60	141	9	27	100
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	65	153	10	29	109
Pedestrians	60		60			60
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	3.5		3.5			3.5
Percent Blockage	6		6			6
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	445	278			223	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	445	278			223	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	90			98	
cM capacity (veh/h)	496	676			1269	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	93	163	138
Volume Left	28	0	29
Volume Right	65	10	0
cSH	609	1700	1269
Volume to Capacity	0.15	0.10	0.02
Queue Length 95th (ft)	13	0	2
Control Delay (s)	12.0	0.0	1.8
Lane LOS	B		A
Approach Delay (s)	12.0	0.0	1.8
Approach LOS	B		

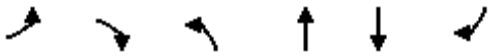
Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	40	33	0	16	44	123	16	12	108	6
Future Volume (Veh/h)	11	0	40	33	0	16	44	123	16	12	108	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	0	43	36	0	17	48	134	17	13	117	7
Pedestrians		60			60			60			60	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		6			6			6			6	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	522	514	240	548	508	262	184			211		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	522	514	240	548	508	262	184			211		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	94	89	100	98	96			99		
cM capacity (veh/h)	356	394	710	330	396	690	1311			1282		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	55	53	199	137
Volume Left	12	36	48	13
Volume Right	43	17	17	7
cSH	583	396	1311	1282
Volume to Capacity	0.09	0.13	0.04	0.01
Queue Length 95th (ft)	8	11	3	1
Control Delay (s)	11.8	15.5	2.1	0.8
Lane LOS	B	C	A	A
Approach Delay (s)	11.8	15.5	2.1	0.8
Approach LOS	B	C		

Intersection Summary				
Average Delay	4.5			
Intersection Capacity Utilization	36.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	4	5	182	179	2
Future Volume (Veh/h)	1	4	5	182	179	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	4	5	198	195	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	404	196	197			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	404	196	197			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	600	845	1376			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	5	203	197
Volume Left	1	5	0
Volume Right	4	0	2
cSH	782	1376	1700
Volume to Capacity	0.01	0.00	0.12
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.6	0.2	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	0.2	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		