Traffic Impact Study
Proposed Residential Development
Aurora, Illinois

Prepared For:

GDS COMPANIES

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

September 21, 2021

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 residential development to be located in Aurora, Illinois. The site, which is currently vacant, is located in the northwest quadrant of the intersection of Constitution Drive with Nelson Street. As proposed, the development will consist of approximately 102 units and 337 parking spaces (204-space parking garage, 114 on-site surface parking spaces, and 19 parallel parking spaces on Nelson Street). Access to the development will be provided via Independence Drive and Nelson 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 the 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.

The sections of this report present the following:

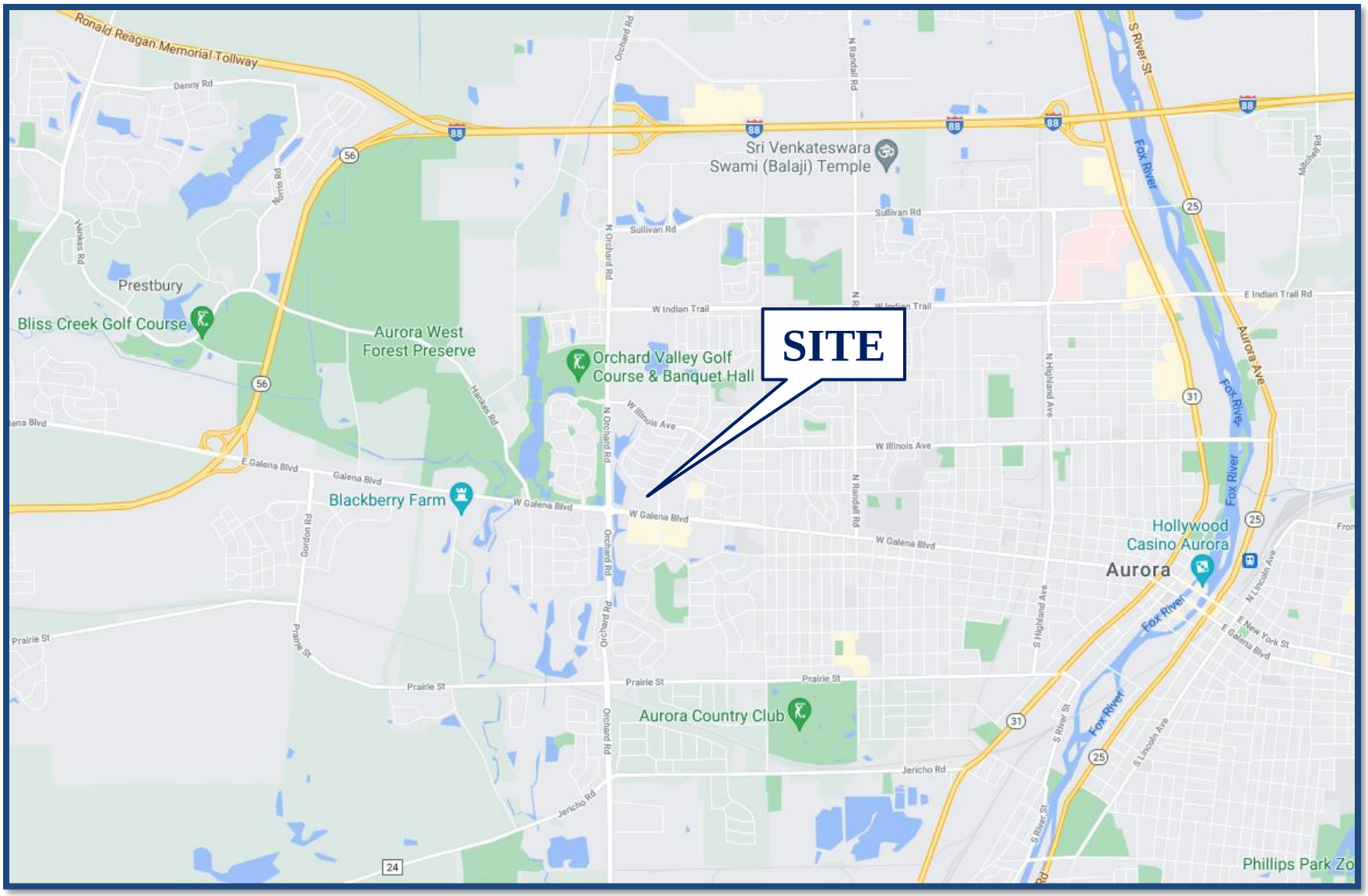
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development-generated traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system
- Evaluation of the adequacy of the parking supply

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

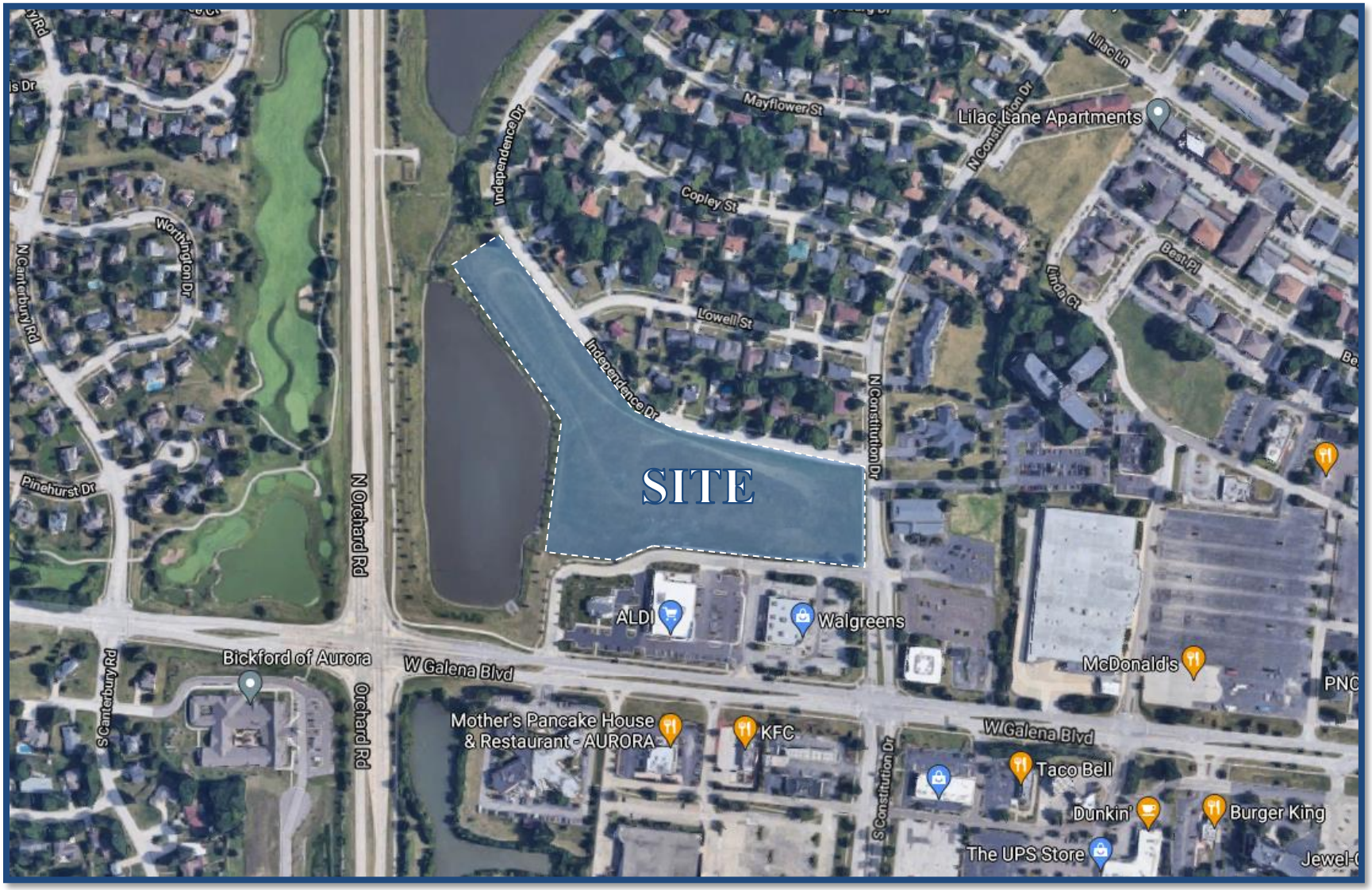
1. Year 2021 Base Conditions – Analyze the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area, adjusted to reflect typical traffic conditions.

2. Year 2027 No- Build Conditions – Analyze the capacity of the future roadway system using the projected traffic volumes that include the Year 2021 base traffic volumes and the ambient traffic growth.

3. Year 2027 Projected Conditions – Analyze the capacity of the future roadway system using the projected traffic volumes that include the Year 2021 base traffic volumes, ambient traffic growth, and the traffic estimated to be generated by the full buildout of the proposed residential development.



Site Location **Figure 1**



Aerial View of Site Location **Figure 2**

2. Existing Conditions

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

Site Location

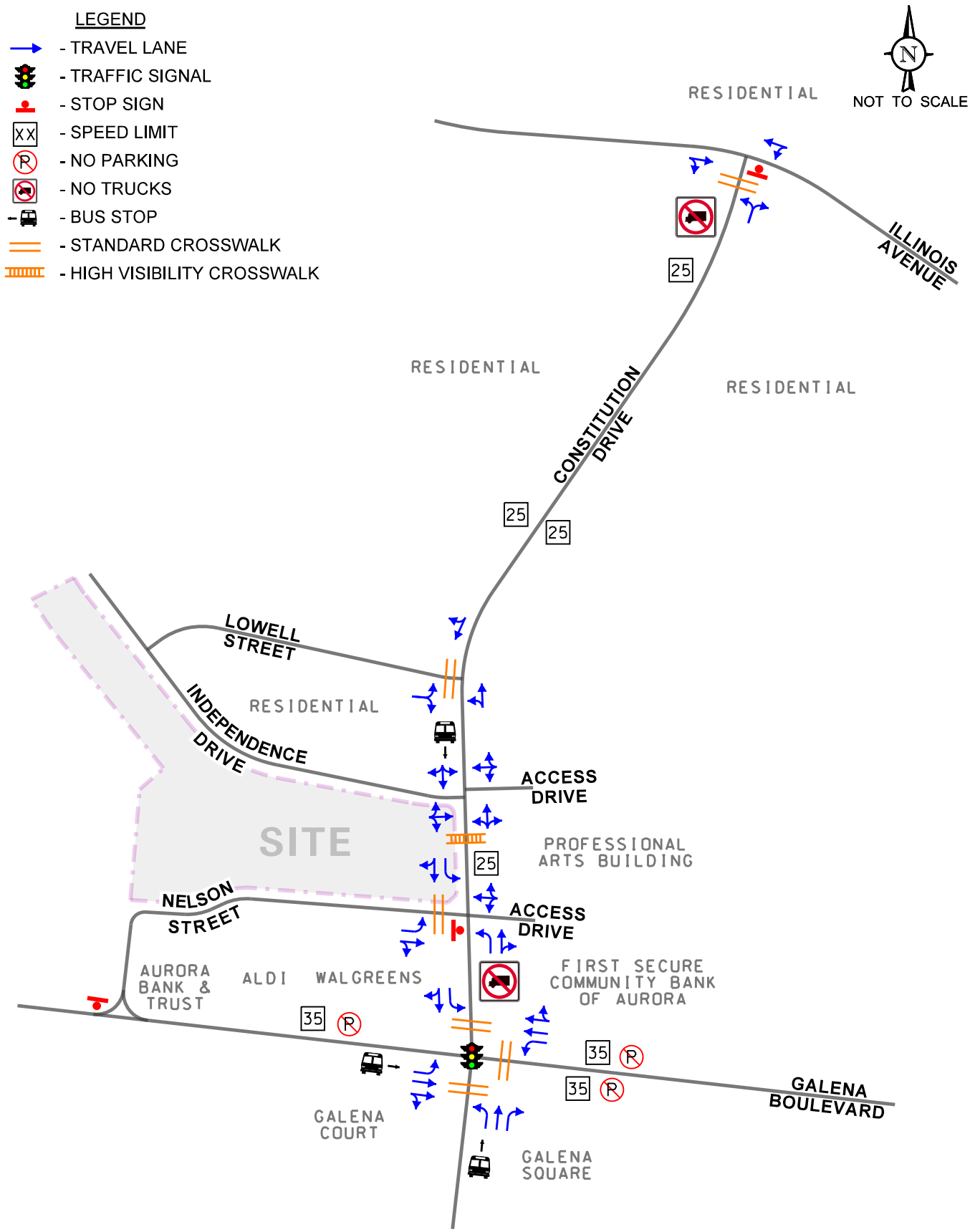
The site, which is currently vacant, is located in the northwest quadrant of the intersection of Constitution Drive with Nelson Street. Land uses in the vicinity of the site are primarily residential and commercial and include Walgreens, ALDI and Aurora Bank & Trust to the south, and Professional Arts Building to the east.

Existing Roadway System Characteristics

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

Galena Boulevard is an east-west, minor arterial roadway that generally provides two lanes in each direction separated by a landscaped median in the vicinity of the site. At its signalized intersection with Constitution Drive, Galena Boulevard provides an exclusive left-turn lane, a through lane and a combined through/right-turn lane on both approaches. A standard style crosswalk is provided on the east leg of this intersection. Galena Boulevard is under the jurisdiction of the City of Aurora, carries an Annual Average Daily Traffic (ADDT) volume of 14,600 vehicles (IDOT 2018), and has a posted speed limit of 35 miles per hour.

Constitution Drive is a north-south, local roadway that generally provides one lane in each direction in the vicinity of the site. At its signalized intersection with Galena Boulevard, Constitution Drive provides an exclusive left-turn lane, a through lane and an exclusive right-turn lane on the northbound approach. The southbound approach provides an exclusive left-turn lane and a combined through/right-turn lane. In addition, standard style crosswalks are provided on the north and south legs of this intersection. At its unsignalized intersection with Nelson Street, Constitution Drive provides an exclusive left-turn lane and a combined through/right-turn lane on both approaches. At its unsignalized intersection with Independence Drive, Constitution Drive provides a combined left/through/right-turn lane on both approaches. At its unsignalized intersection with Lowell Street, Constitution Drive provides a combined through/left-turn lane on the northbound approach and a combined through/right-turn lane on the southbound approach. At its unsignalized intersection with Illinois Avenue, Constitution Drive provides a combined left/right-turn lane on the northbound approach under stop sign control. Constitution Drive is under the jurisdiction of the City of Aurora, and has a posted speed limit of 25 miles per hour.



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Existing Roadway Characteristics

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Illinois Avenue is an east-west local roadway that provides one lane in each direction in the vicinity of the site. At its unsignalized intersection with Constitution Drive, Illinois Avenue provides a combined through/right-turn lane on the eastbound approach and a combined through/left-turn lane on the westbound approach. Illinois Avenue is under the jurisdiction of the City of Aurora.

Lowell Street is an east-west local roadway that provides one lane in each direction in the vicinity of the site. At its unsignalized intersection with Constitution Drive, Lowell Street provides a combined left/right-turn lane on the eastbound approach. In addition, a standard style crosswalk is provided on the west leg of this intersection. Lowell Street is under the jurisdiction of the City of Aurora.

Independence Drive is an east-west local roadway that provides one lane in each direction in the vicinity of the site. At its unsignalized intersection with Constitution Drive, Independence Drive provides a combined left/through/right-turn on both approaches. Independence Drive is under the jurisdiction of the City of Aurora.

Nelson Street is an east-west local roadway that provides one lane in each direction in the vicinity of the site. At its unsignalized intersection with Constitution Drive and the access drive serving the Professional Arts building, Nelson Street provides an exclusive left-turn lane and a combined through/right-turn lane on the eastbound approach. The westbound approach provides a combined left/through/right-turn lane. Nelson Street is under the jurisdiction of the City of Aurora.

Existing Traffic Volumes

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

- Constitution Drive with Galena Boulevard
- Constitution Drive with Nelson Street
- Constitution Drive with Independence Drive
- Constitution Drive with Lowell Street
- Constitution Drive with Illinois Avenue

The counts were conducted on Thursday, August 12, 2021, 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. The results of the traffic counts show that the weekday morning peak hour generally occurs between 8:00 A.M. and 9:00 A.M. and the weekday evening peak hour generally occurs between 5:00 P.M. to 6:00 P.M.

Due to the ongoing COVID-19 pandemic and the schools not being in session, the traffic volumes within the area are not reflective of typical conditions. As such, the Year 2021 traffic counts were compared to hourly two-way traffic volumes available for Galena Boulevard on the IDOT Traffic Count Database System (TCDS) website.

The results of the comparison showed that the weekday morning peak hour traffic volumes along Galena Boulevard were approximately 20 percent lower than the IDOT traffic counts and the weekday evening peak hour traffic volumes were consistent with the IDOT traffic counts. As such, the weekday morning peak hour traffic volumes were increased accordingly.

Figure 4 illustrates the Year 2021 base traffic volumes.

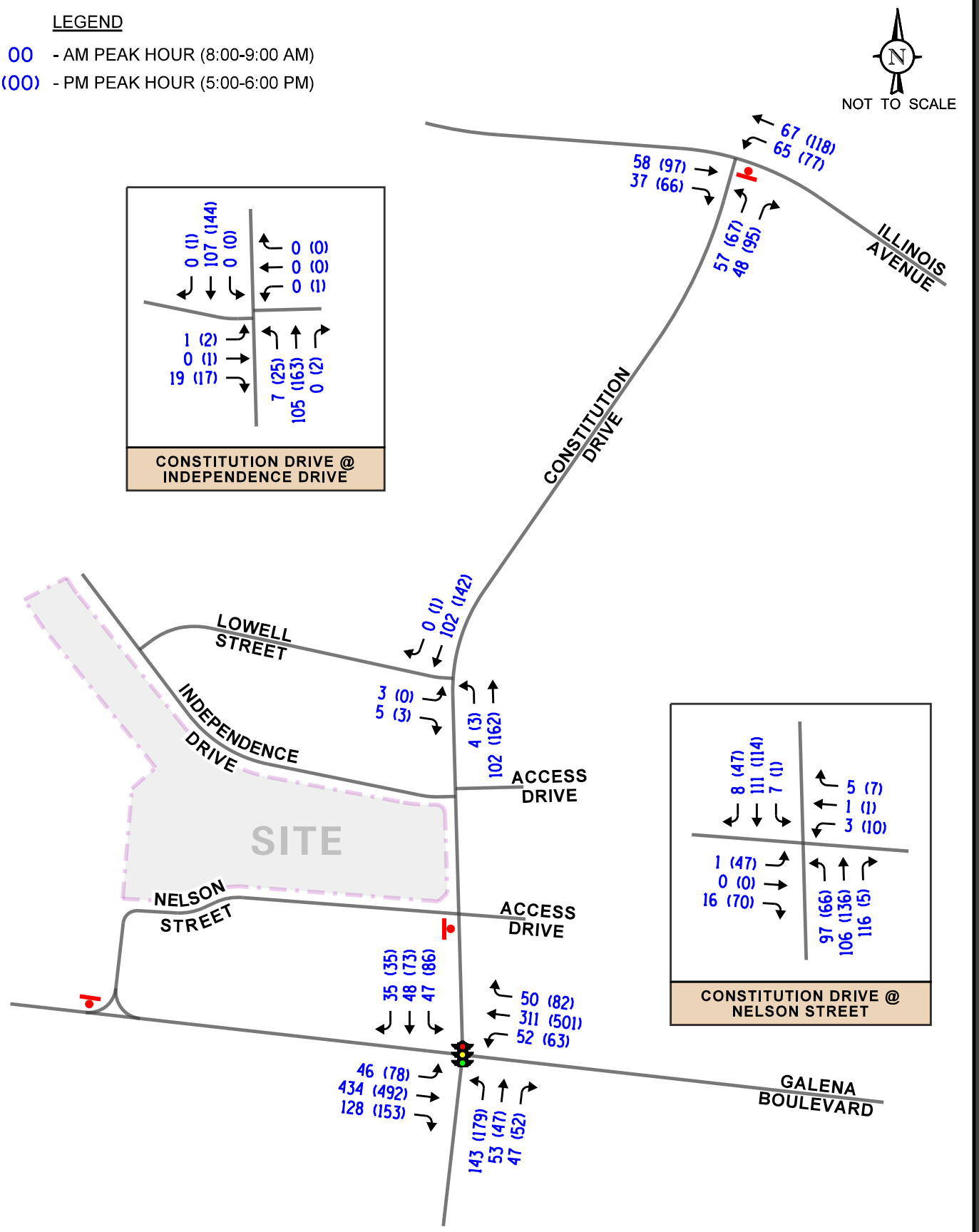
Crash Data Analysis

KLOA, Inc. obtained crash data[1] for the most recent available five years (2016 to 2020) for the intersections of Constitution Drive with Galena Boulevard, Illinois Avenue, Independence Drive, Lowell Street and Nelson Street. The crash data for the intersections of Constitution Drive with Galena Boulevard, Illinois Avenue and Independence Drive are summarized in **Tables 1 through 3**, respectively. No crashes were reported at the intersections of Constitution Drive with Independence Drive, and one crash was reported at the intersection with Constitution Drive with Lowell Street over the five-year period. Additionally, no fatalities were reported at any of the study area intersections between 2016 and 2020.

Table 1
CONSTITUTION DRIVE WITH GALENA BOULEVARD – CRASH SUMMARY

	Type of Crash Frequency							
Year	**Angle**	**Head On**	**Object**	**Rear End**	**Sideswipe**	**Turning**	**Other**	**Total**
2016	1	0	1	0	0	0	0	2
2017	0	0	0	4	0	5	0	9
2018	1	0	2	3	0	4	0	10
2019	0	0	0	2	0	5	0	7
2020	1	0	2	0	0	3	0	6
Total	**3**	**0**	**5**	**9**	**0**	**17**	**0**	**34**
Average	**<1.0**	**0**	**1.0**	**1.8**	**0**	**3.4**	**0**	**6.8**

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).



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Year 2021 Base Traffic Volumes

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Table 2
CONSTITUTION DRIVE WITH ILLINOIS AVENUE – CRASH SUMMARY

	Type of Crash Frequency							
Year	**Angle**	**Head On**	**Object**	**Rear End**	**Sideswipe**	**Turning**	**Other**	**Total**
2016	0	0	0	1	2	0	0	3
2017	0	0	1	0	0	0	0	1
2018	0	0	0	0	0	1	0	1
2019	0	0	0	1	0	0	0	1
2020	0	0	0	0	0	0	0	0
Total	**0**	**0**	**1**	**2**	**2**	**1**	**0**	**6**
Average	**0**	**0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**0**	**1.2**

Table 3
CONSTITUTION DRIVE WITH INDEPENDENCE DRIVE – CRASH SUMMARY

	Type of Crash Frequency							
Year	**Angle**	**Head On**	**Object**	**Rear End**	**Sideswipe**	**Turning**	**Other**	**Total**
2016	0	0	0	1	2	0	0	3
2017	0	0	1	0	0	0	0	1
2018	0	0	0	0	0	1	0	1
2019	0	0	0	1	0	0	0	1
2020	0	0	0	0	0	0	0	0
Total	**0**	**0**	**1**	**2**	**2**	**1**	**0**	**6**
Average	**0**	**0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**0**	**1.2**

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 site will generate during the peak hours and determine the directions from which the proposed traffic will approach and depart the site.

Proposed Site and Development Plan

As proposed, the development will consist of approximately 102 units and 337 parking spaces. Access to the development will be provided at multiple locations on the south side of Independence Drive and at multiple locations on the north side of Nelson Street. Nelson Street extends from Constitution Drive to the east, to Galena Boulevard to the south, and serves Walgreens, ALDI, and Aurora Bank & Trust. In addition, Independence Drive extends from Constitution Drive to Illinois Avenue and serves multiple single-family homes. All the access drives serving the site will provide one inbound lane and outbound lane. Outbound movements from all the access drives off Nelson Street and Independence Drive should be under stop sign control.

A site plan illustrating the proposed development is included in the Appendix.

Directional Distribution

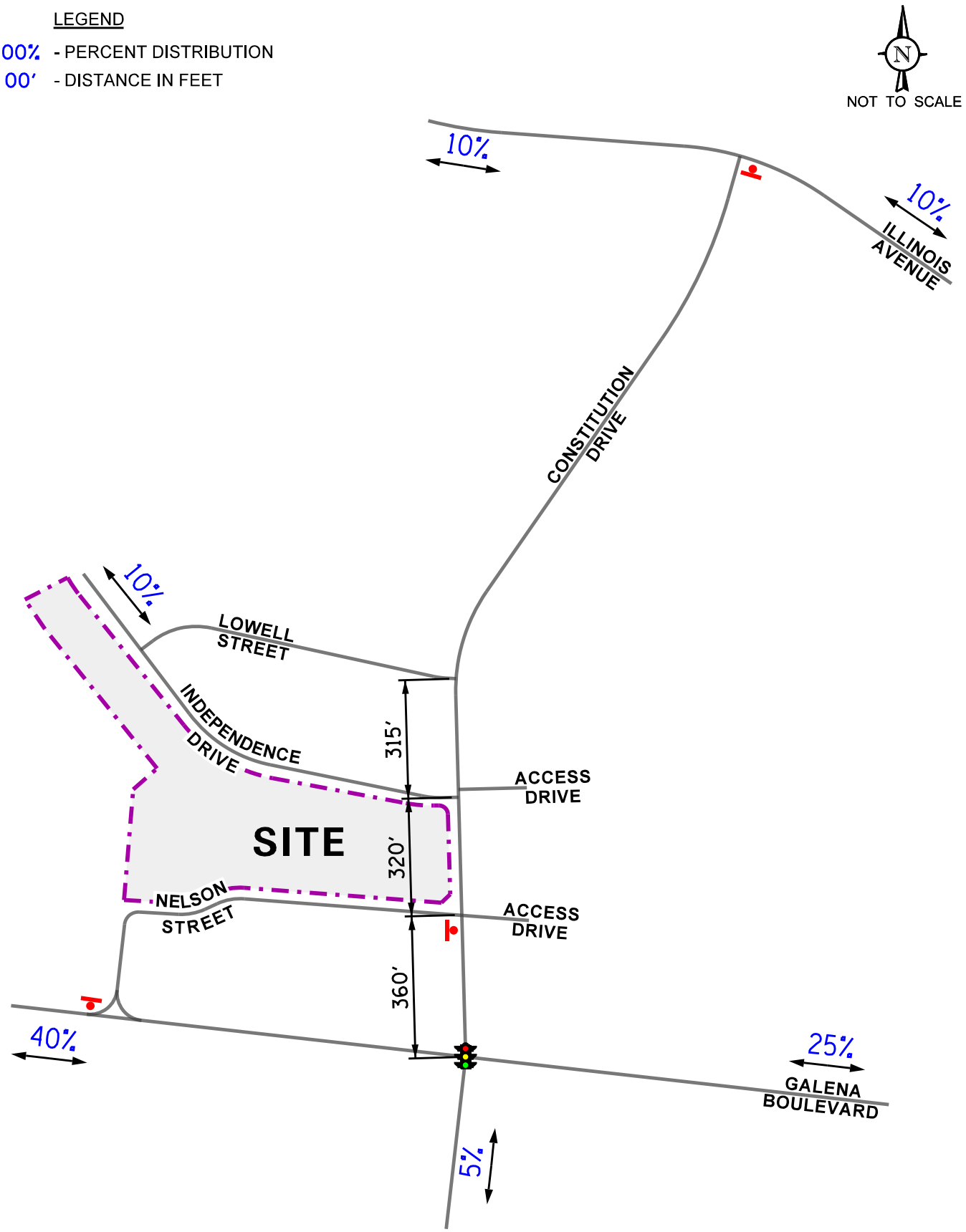
The directional distribution of how traffic will approach and depart the site was estimated based on the general travel patterns through the study area derived from the peak hour traffic volumes. **Figure 5** shows the established directional distribution for the site in addition to the distances, measured in feet, between the study area intersections.

Development Traffic Generation

The estimate of vehicle traffic to be generated by the proposed development is based upon the proposed land use types and sizes. Trip generation data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual,* 10th Edition was utilized for the proposed residential development. **Table 4** summarizes the estimated vehicle trip generation for the proposed residential development.

Table 4
ESTIMATED PEAK HOUR VEHICLE TRIP GENERATION

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Trips
		In	Out	Total	In	Out	Total	
220	Multifamily Housing (102 Units)	11	38	49	38	22	60	730



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Estimated Directional Distribution

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4. Projected Traffic Conditions

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

Development Traffic Assignment

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

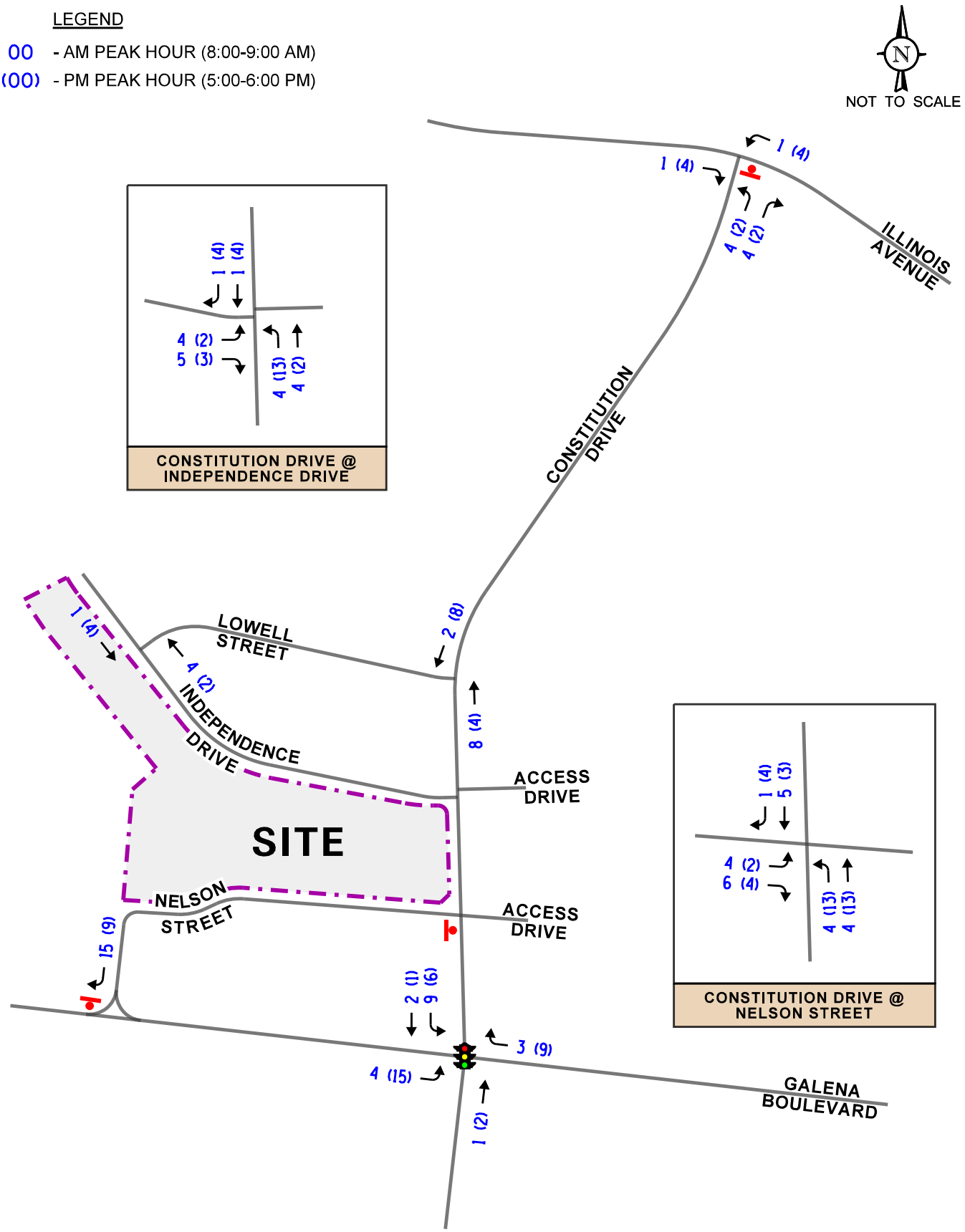
Background Traffic Conditions

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 AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes are projected to increase by a compound annual growth rate of approximately 1.2 percent per year. As such, traffic volumes were increased by seven percent to represent Year 2027 (buildout plus five years) conditions. A copy of the CMAP projections letter is included in the Appendix.

Figure 7 illustrates the Year 2027 no-build traffic volumes.

Year 2027 Projected Traffic Volumes

The new development-generated traffic (Figures 6) was added to the Year 2027 no-build traffic volumes to determine the Year 2027 total projected traffic volumes as illustrated in **Figure 8.**



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Estimated Site-Generated
Traffic Volumes

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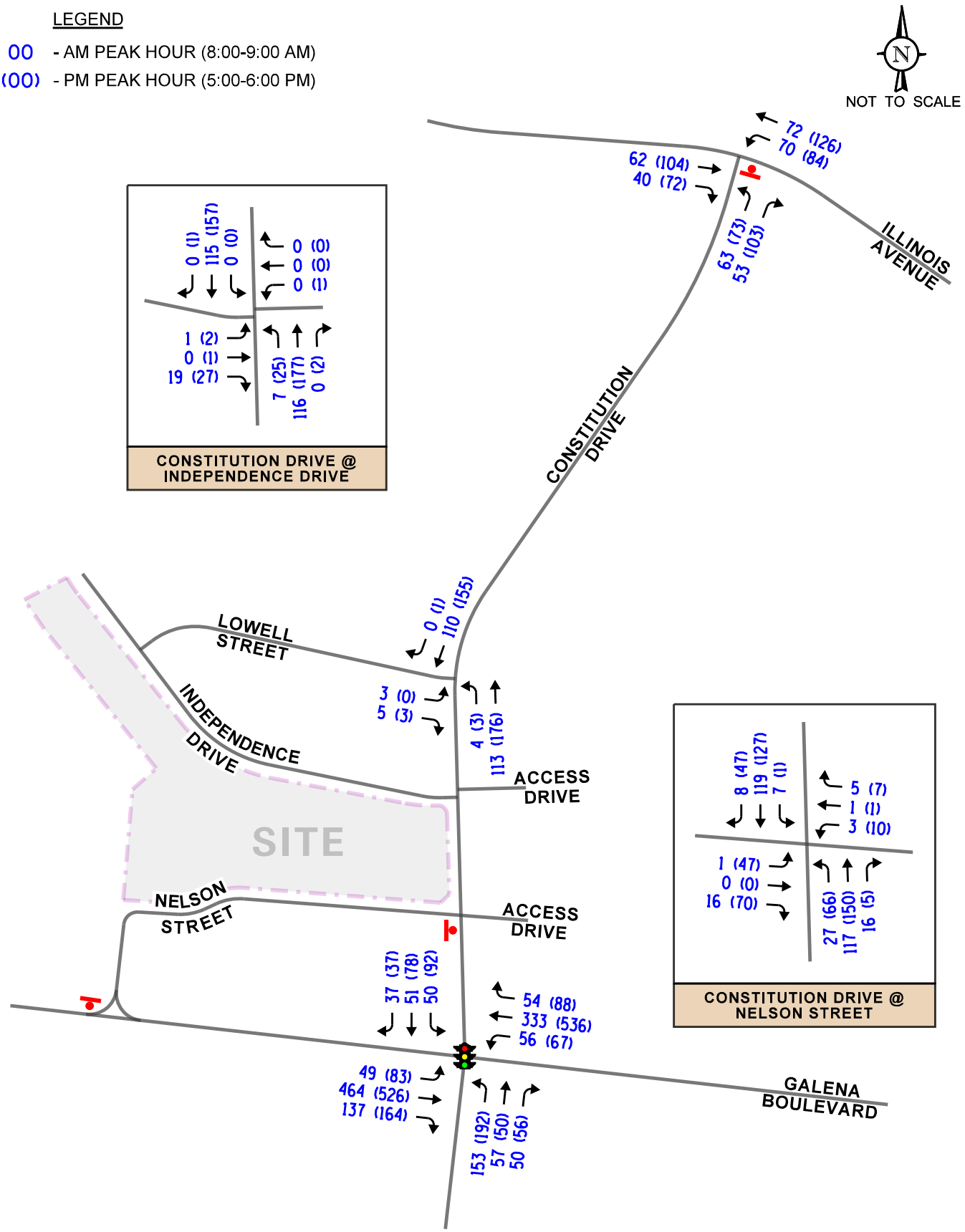

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Year 2027 No-Build Traffic Volumes

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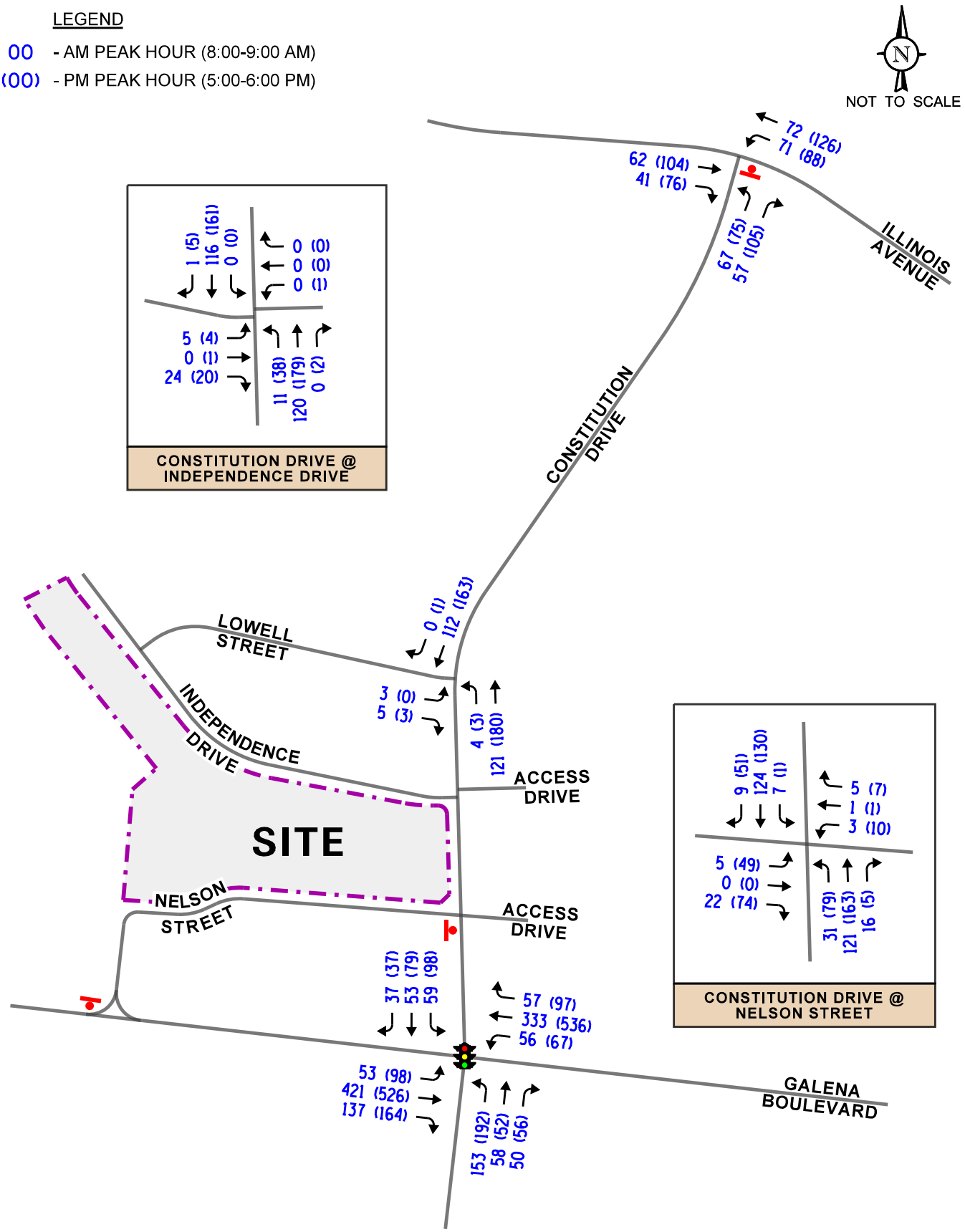

Constitution Drive
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Year 2027 Total Projected Traffic Volumes

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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 weekday evening peak hours for the base (Year 2021), Year 2027 no-build, and Year 2027 total projected conditions.

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 intersection were accomplished using field measured cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the Year 2021 base, Year 2027 no-build, and Year 2027 total projected conditions are presented in **Tables 5** through **8**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
CAPACITY ANALYSIS RESULTS – CONSTITUTION DRIVE WITH GALENA BOULEVARD – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound			Southbound		Overall
		L	T/R	L	T/R	L	T	R	L	T/R	
Year 2021 Base Traffic Volumes	Weekday Morning Peak Hour	A 8.2	B 13.8	A 8.3	B 13.0	C 33.8	D 38.7	D 4.7	C 26.8	D 37.2	B 17.7
		B – 13.4		B – 12.4		C – 29.2			C – 33.5		
	Weekday Evening Peak Hour	A 8.4	B 14.3	A 8.4	B 14.6	D 53.2	D 54.1	A 6.4	C 31.6	D 50.0	C 21.4
		B – 13.7		B – 14.0		D – 44.5			D – 41.8		
Year 2027 No-Build Traffic Volumes	Weekday Morning Peak Hour	A 8.1	B 14.2	A 8.3	B 13.2	C 34.7	D 39.2	A 5.4	C 26.9	D 37.9	B 18.1
		B – 13.8		B – 12.6		C – 30.0			C – 33.9		
	Weekday Evening Peak Hour	A 9.0	B 15.4	A 9.0	B 15.8	D 47.5	D 50.5	A 6.0	C 32.0	D 50.4	C 21.6
		B – 14.7		B – 15.1		D – 40.2			D – 42.3		
Year 2027 Projected Traffic Volumes	Weekday Morning Peak Hour	A 8.3	B 14.4	A 8.4	B 13.5	C 34.5	D 39.6	A 5.4	C 27.4	D 38.9	B 18.4
		B – 13.9		B – 12.8		C – 30.0			C – 34.3		
	Weekday Evening Peak Hour	A 9.3	B 15.5	A 9.1	B 16.7	E 55.1	D 54.4	A 6.6	C 31.2	D 50.9	C 22.7
		B – 14.7		B – 16.0		D – 45.9			D – 41.9		

Letter denotes Level of Service
Delay is measured in seconds.
L – Left Turns
T – Through
R – Right Turns

Table 6
CAPACITY ANALYSIS RESULTS – YEAR 2021 BASE CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Constitution Drive with Illinois Avenue				
• Northbound Approach	B	10.5	B	13.2
• Westbound Left Turns	A	7.6	A	7.9
Constitution Drive with Lowell Street				
• Northbound Left Turns	A	7.7	A	7.6
• Eastbound Approach	A	9.6	A	9.6
Constitution Drive with Independence Drive/Access Drive				
• Northbound Left Turns	A	7.6	A	7.6
• Eastbound Approach	A	9.0	A	9.8
• Westbound Approach	A	0.1	B	12.2
Constitution Drive with Nelson Street/Access Drive				
• Northbound Left Turns	A	7.7	A	7.8
• Eastbound Left Turns	B	10.8	B	12.8
• Eastbound Through/Right	B	9.0	A	9.6
• Westbound Approach	A	9.9	B	11.8
• Southbound Left Turns	A	7.5	A	7.5

LOS = Level of Service
Delay is measured in seconds.

Table 7
CAPACITY ANALYSIS RESULTS
YEAR 2027 NO-BUILD CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Constitution Drive with Illinois Avenue				
• Northbound Approach	B	10.8	B	14.2
• Westbound Left Turns	A	7.6	A	7.9
Constitution Drive with Lowell Street				
• Northbound Left Turns	A	7.7	A	7.6
• Eastbound Approach	A	9.7	A	9.8
Constitution Drive with Independence Drive/Access Drive				
• Northbound Left Turns	A	7.6	A	7.7
• Eastbound Approach	A	9.0	A	9.9
• Westbound Approach	A	0.1	B	12.6
Constitution Drive with Nelson Street/Access Drive				
• Northbound Left Turns	A	7.7	A	7.8
• Eastbound Left Turns	B	10.9	B	13.1
• Eastbound Through/Right	B	9.1	A	9.7
• Westbound Approach	B	10.0	B	12.0
• Southbound Left Turns	A	7.5	A	7.6

LOS = Level of Service
Delay is measured in seconds.

Table 8
CAPACITY ANALYSIS RESULTS
YEAR 2027 PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Constitution Drive with Illinois Avenue				
• Northbound Approach	B	10.9	B	14.6
• Westbound Left Turns	A	7.6	A	8.0
Constitution Drive with Lowell Street				
• Northbound Left Turns	A	7.7	A	7.6
• Eastbound Approach	A	9.8	A	9.8
Constitution Drive with Independence Drive/Access Drive				
• Northbound Left Turns	A	7.6	A	7.7
• Eastbound Approach	A	9.2	B	10.2
• Westbound Approach	A	0.1	B	13.2
Constitution Drive with Nelson Street/Access Drive				
• Northbound Left Turns	A	7.7	A	7.9
• Eastbound Left Turns	B	11.1	B	13.9
• Eastbound Through/Right	B	9.2	A	9.7
• Westbound Approach	B	10.1	B	12.5
• Southbound Left Turns	A	7.5	A	7.6

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

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

Constitution Drive with Galena Boulevard

The results of the capacity analysis indicate that this intersection currently operates at an overall Level of Service (LOS) B during the weekday morning peak hour and LOS C during the weekday evening peak hour. The eastbound and westbound approaches are operating at LOS B during the weekday morning and evening peak hours. In addition, the northbound and southbound approaches currently operate at LOS C during the weekday morning peak hour and LOS D during the weekday evening peak hour. Based on field observations, the southbound approach will generally not extend past or beyond Nelson Street during both peak hours.

Under Year 2027 no-build conditions, this intersection is projected to continue to operate at the same overall levels of service during the weekday morning and evening peak hours with increases in delay of less than one second over existing conditions. All approaches will continue to operate at the same existing levels of service during both peak hours with increases in delay of approximately one second over existing conditions.

Under Year 2027 total projected conditions, this intersection is projected to continue to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour with increases in delay of approximately one second over no-build conditions. Based on a review of the simulation, the southbound left turning movements will experience 95th percentile queues of approximately 80 feet during the weekday morning peak hour and 120 feet during the weekday evening peak hour. In addition, the southbound through/right-turn movements will experience 95th percentile queues of approximately 105 feet during the weekday morning peak hour and 145 feet during the weekday evening peak hour, and as such, the southbound queues will generally not extend past or beyond Nelson Street during both peak hours. When comparing the projected traffic volumes, the site-generated traffic volumes will only increase the traffic projected to travel through this intersection by less than two percent during the weekday morning and evening peak hours. Overall, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or signal modifications will be required.

Constitution Drive with Illinois Avenue

The results of the capacity analysis indicate that the northbound approach is operating at LOS B during the weekday morning and evening peak hours. In addition, the westbound left turning movements currently operate at LOS A during both peak hours.

Under Year 2027 no-build conditions, all movements will continue to operate at the same existing levels of service during the weekday morning and evening peak hours with increases in delay of less than one second over existing conditions.

Under Year 2027 total projected conditions, all movements will continue to operate at the same existing levels of service during the weekday morning and evening peak hours with increases in delay of less than one second over no-build conditions. Overall, this intersection generally has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Constitution Drive with Lowell Street

The results of the capacity analysis indicate that the northbound left turning movements and the eastbound approach are operating at LOS A during the weekday morning and evening peak hours.

Under Year 2027 no-build conditions, all movements will continue to operate at the same levels of service during the weekday morning and weekday evening peak hours with increases in delay of less than one second over existing conditions.

Under Year 2027 total projected conditions, all movements will continue to operate at the same levels of service during the weekday morning and weekday evening peak hours with increases in delay of less than one second over no-build conditions. Due to the lack of traffic control at this intersection, it should be noted that a stop sign should be placed on the west leg of this intersection. Overall, this intersection generally has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Constitution Drive with Independence Drive/Access Drive

The results of the capacity analysis indicate that the northbound left turning movements currently operate at LOS A during the weekday morning and evening peak hours. In addition, the eastbound approach is operating at LOS A during both peak hours. The westbound approach currently operates at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour.

Under Year 2027 no-build conditions, all movements will continue to operate at the same levels of service during the weekday morning and weekday evening peak hours with increases in delay of less than one second over existing conditions.

Under Year 2027 total projected conditions, all movements will operate at the same levels of service during both peak hours except for the eastbound approach which will operate at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour with increases in delay of less than one second. Based on a review of the simulation, the eastbound approach will experience 95th percentile queues of approximately 40 feet (approximately two vehicle lengths) during both peak hours. Due to the lack of traffic control at this intersection, it should be noted that a stop sign should be placed on the west leg of this intersection. Overall, this intersection generally has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Constitution Drive with Nelson Street/Access Drive

The results of the capacity analysis indicate that the northbound and southbound left turning movements are operating at LOS A during the weekday morning and evening peak hours. In addition, the eastbound left turning movements currently operate at LOS B during both peak hours, and the eastbound through/right-turning movements currently operate at LOS B during the weekday morning peak hour and LOS A during the weekday evening peak hour. The westbound approach currently operates at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour.

Under Year 2027 no-build conditions, all movements will continue to operate at the same levels of service during both peak hours except for the westbound approach which will operate at LOS B during both peak hours with increases in delay of less than one second over existing conditions.

Under Year 2027 total projected conditions, all movements will operate at the same levels of service during both peak hours with increases in delay of less than one second over no-build conditions. Based on a review of the simulation, the eastbound left turning movements will experience 95th percentile queues of approximately 20 feet (approximately one vehicle length) during the weekday morning peak hour and 55 feet during the weekday evening peak hour (two to three vehicle lengths). In addition, the eastbound through/right-turning movements will experience 95th percentile queues of approximately 40 feet (approximately two vehicle lengths) during the weekday morning peak hour and 50 feet during the weekday evening peak hour (approximately two vehicle lengths). Overall, this intersection generally has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Parking Evaluation

As previously indicated, the proposed development will have approximately 102 units and will provide a total of 337 parking spaces (204-space parking garage, 114 on-site surface parking spaces, and 19 parallel parking spaces on Nelson Street). Therefore, the proposed development will provide parking at a ratio of 3.3 spaces per unit. In order to determine the projected parking demand of the proposed development, the parking demand was estimated based on the City of Aurora Zoning Ordinance, the rates published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 5th Edition, and parking occupancy surveys conducted by KLOA, Inc at two similar developments in Aurora, IL. Based on the three methodologies, the parking demand for the proposed development is as follows:

Parking Requirements of Proposed Development per City of Aurora Zoning Ordinance

- Residential units (102 units)
    - 204 parking spaces (ratio of two parking spaces per dwelling unit)

Based on the above and the requirements of the City of Aurora, this translates into 204 parking spaces, which results in a surplus of 133 parking spaces.

ITE Parking Generation Manual

- Residential Use (Multifamily Housing Low-Rise – Land Use Code 220):
    - 123 parking spaces (ratio of 1.21 spaces per dwelling unit)

Based on the above and the rates published in the ITE *Parking Generation Manual*, this translates into 123 parking spaces, which results in a surplus of 214 parking spaces. Therefore, the proposed parking supply of 337 parking spaces exceeds ITE's requirements of 123 parking spaces.

Parking Ratios of Similar Developments

KLOA, Inc conducted parking occupancy surveys at two similar developments in Aurora, IL: The Apartments at Kirkland Crossing, and Aurora at Summerfield Apartments, on Friday, September 10th, 2021, and on Saturday, September 18th, 2021, at 7:00 A.M., 11:00 A.M., 3:00 P.M., 7:00 P.M., and 10:00 P.M. The results of the parking occupancy surveys for both developments are summarized in **Tables A and B** in the Appendix. Based on the results of the occupancy surveys, the following has been determined:

The Apartments at Kirkland Crossing:

- The Apartments at Kirkland Crossing (which contains 266 units) has 259 occupied units (97 percent occupied) and provides a total of 625 parking spaces (ratio of 2.35 spaces per unit).

- On Friday, the peak parking occupancy was 423 parking spaces, resulting in a parking demand of 1.63 parking spaces per occupied unit.

- On Saturday, the peak parking occupancy was 472 parking spaces, resulting in a parking demand of 1.82 parking spaces per occupied unit.

Aurora at Summerfield Apartments:

- Aurora at Summerfield Apartments (which contains 368 units) has 359 occupied units (98 percent occupied) and provides a total of 738 parking spaces (ratio of 2.0 parking space per unit).

- On Friday, the peak parking occupancy was 556 parking spaces, resulting in a parking demand of 1.55 parking spaces per occupied unit.

- On Saturday, the peak parking occupancy was 632 parking spaces, resulting in a parking demand of 1.76 parking spaces per occupied unit.

As previously indicated, the proposed development will have approximately 102 units and will provide a total of 337 parking spaces, resulting in a ratio of 3.3 spaces per unit. As such, the proposed parking supply of 3.3 parking spaces will be sufficient in accommodating the proposed parking demand.

6. Conclusion

Based on existing conditions and the traffic capacity analyses for the full buildout of the development, the findings and recommendations of this study are outlined below:

- The roadway system has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed residential development and no additional roadway improvements or traffic control modifications are required.

- The signalized intersection of Constitution Drive with Galena Boulevard is projected to continue operating at acceptable levels of service during the peak hours and no roadway improvements or signal modifications will be required.

- The new traffic generated by the proposed residential development will have a limited impact on the signalized intersection of Constitution Drive with Galena Boulevard as it will account for less than two percent of the traffic traversing it during both peak hours.

- The traffic that will be generated by the proposed residential development will be accommodated by the roadway system.

- The proposed access system will be adequate in accommodating the traffic projected to be generated by the proposed residential development and will provide efficient and flexible access.

- Stop signs should be placed on the west leg of the intersections of Constitution Drive with Independence Drive and Lowell Street.

- The proposed parking supply of 3.3 parking spaces will be sufficient in accommodating the proposed parking demand.

Appendix

Traffic Count Summary Sheets
Preliminary Site Plan
ITE Trip Generation Worksheets
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets
Parking Occupancy Surveys

Traffic Count Summary Sheets

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

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

Count Name: Constitution Drive with Galena Boulevard
Site Code:
Start Date: 08/12/2021

Turning Movement Data

Start Time	Galena Boulevard Eastbound						Galena Boulevard Westbound						Constitution Drive Northbound						Constitution Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	3	81	8	0	92	0	8	61	3	0	72	0	19	3	5	0	27	0	6	4	6	0	16	207
7:15 AM	0	4	81	13	0	98	0	9	52	6	0	67	0	20	3	7	1	30	0	4	4	7	0	15	210
7:30 AM	0	6	106	19	0	131	0	7	65	3	0	75	0	35	5	9	0	49	0	12	3	8	0	23	278
7:45 AM	0	7	122	36	0	165	0	13	62	7	0	82	0	38	5	10	1	53	0	13	10	8	0	31	331
Hourly Total	0	20	390	76	0	486	0	37	240	19	0	296	0	112	16	31	2	159	0	35	21	29	0	85	1026
8:00 AM	0	5	92	29	0	126	0	10	63	8	0	81	0	22	11	9	0	42	0	11	7	10	0	28	277
8:15 AM	1	5	87	22	0	115	0	6	69	10	0	85	0	24	9	6	0	39	0	11	8	9	1	28	267
8:30 AM	1	8	77	20	0	106	0	15	59	10	1	84	0	37	13	11	0	61	0	7	15	6	0	28	279
8:45 AM	2	16	106	36	0	160	0	12	68	14	0	94	0	36	11	13	0	60	0	10	10	4	0	24	338
Hourly Total	4	34	362	107	0	507	0	43	259	42	1	344	0	119	44	39	0	202	0	39	40	29	1	108	1161
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	24	113	30	0	167	0	12	117	23	0	152	0	41	9	5	1	55	0	21	28	11	0	60	434
4:15 PM	1	14	105	24	1	144	0	15	128	22	1	165	0	27	11	8	0	46	0	22	21	13	0	56	411
4:30 PM	4	21	90	31	0	146	0	8	137	10	2	155	0	48	16	10	3	74	0	15	16	13	0	44	419
4:45 PM	1	24	81	45	0	151	1	8	135	13	0	157	0	29	15	15	0	59	0	24	16	15	0	55	422
Hourly Total	6	83	389	130	1	608	1	43	517	68	3	629	0	145	51	38	4	234	0	82	81	52	0	215	1686
5:00 PM	3	29	110	38	0	180	0	8	118	25	0	151	0	44	9	8	0	61	0	34	20	9	0	63	455
5:15 PM	2	15	120	30	0	167	0	14	117	21	0	152	0	42	17	17	0	76	0	21	21	3	0	45	440
5:30 PM	0	17	145	48	0	210	0	17	138	18	0	173	0	50	12	16	0	78	0	19	20	10	0	49	510
5:45 PM	0	12	117	37	0	166	0	24	128	16	0	168	0	43	9	11	0	63	0	12	12	13	0	37	434
Hourly Total	5	73	492	153	0	723	0	63	501	80	0	644	0	179	47	52	0	278	0	86	73	35	0	194	1839
Grand Total	15	210	1633	466	1	2324	1	186	1517	209	4	1913	0	555	158	160	6	873	0	242	215	145	1	602	5712
Approach %	0.6	9.0	70.3	20.1	-	-	0.1	9.7	79.3	10.9	-	-	0.0	63.6	18.1	18.3	-	-	0.0	40.2	35.7	24.1	-	-	-
Total %	0.3	3.7	28.6	8.2	-	40.7	0.0	3.3	26.6	3.7	-	33.5	0.0	9.7	2.8	2.8	-	15.3	0.0	4.2	3.8	2.5	-	10.5	-
Lights	15	203	1595	457	-	2270	1	183	1489	206	-	1879	0	536	154	159	-	849	0	240	205	144	-	589	5587
% Lights	100.0	96.7	97.7	98.1	-	97.7	100.0	98.4	98.2	98.6	-	98.2	-	96.6	97.5	99.4	-	97.3	-	99.2	95.3	99.3	-	97.8	97.8
Buses	0	3	8	1	-	12	0	0	3	3	-	6	0	0	2	0	-	2	0	1	9	0	-	10	30
% Buses	0.0	1.4	0.5	0.2	-	0.5	0.0	0.0	0.2	1.4	-	0.3	-	0.0	1.3	0.0	-	0.2	-	0.4	4.2	0.0	-	1.7	0.5
Single-Unit Trucks	0	1	20	6	-	27	0	2	18	0	-	20	0	13	1	1	-	15	0	1	1	1	-	3	65
% Single-Unit Trucks	0.0	0.5	1.2	1.3	-	1.2	0.0	1.1	1.2	0.0	-	1.0	-	2.3	0.6	0.6	-	1.7	-	0.4	0.5	0.7	-	0.5	1.1
Articulated Trucks	0	3	10	1	-	14	0	1	7	0	-	8	0	5	1	0	-	6	0	0	0	0	-	0	28
% Articulated Trucks	0.0	1.4	0.6	0.2	-	0.6	0.0	0.5	0.5	0.0	-	0.4	-	0.9	0.6	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2

% Bicycles on Road	0.0	0.0	0.0	0.2	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.2	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	6	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Constitution Drive with Galena Boulevard
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Galena Boulevard Eastbound						Galena Boulevard Westbound						Constitution Drive Northbound						Constitution Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	5	92	29	0	126	0	10	63	8	0	81	0	22	11	9	0	42	0	11	7	10	0	28	277
8:15 AM	1	5	87	22	0	115	0	6	69	10	0	85	0	24	9	6	0	39	0	11	8	9	1	28	267
8:30 AM	1	8	77	20	0	106	0	15	59	10	1	84	0	37	13	11	0	61	0	7	15	6	0	28	279
8:45 AM	2	16	106	36	0	160	0	12	68	14	0	94	0	36	11	13	0	60	0	10	10	4	0	24	338
Total	4	34	362	107	0	507	0	43	259	42	1	344	0	119	44	39	0	202	0	39	40	29	1	108	1161
Approach %	0.8	6.7	71.4	21.1	-	-	0.0	12.5	75.3	12.2	-	-	0.0	58.9	21.8	19.3	-	-	0.0	36.1	37.0	26.9	-	-	-
Total %	0.3	2.9	31.2	9.2	-	43.7	0.0	3.7	22.3	3.6	-	29.6	0.0	10.2	3.8	3.4	-	17.4	0.0	3.4	3.4	2.5	-	9.3	-
PHF	0.500	0.531	0.854	0.743	-	0.792	0.000	0.717	0.938	0.750	-	0.915	0.000	0.804	0.846	0.750	-	0.828	0.000	0.886	0.667	0.725	-	0.964	0.859
Lights	4	30	351	104	-	489	0	41	246	41	-	328	0	114	42	39	-	195	0	39	37	29	-	105	1117
% Lights	100.0	88.2	97.0	97.2	-	96.4	-	95.3	95.0	97.6	-	95.3	-	95.8	95.5	100.0	-	96.5	-	100.0	92.5	100.0	-	97.2	96.2
Buses	0	2	2	0	-	4	0	0	1	1	-	2	0	0	1	0	-	1	0	0	3	0	-	3	10
% Buses	0.0	5.9	0.6	0.0	-	0.8	-	0.0	0.4	2.4	-	0.6	-	0.0	2.3	0.0	-	0.5	-	0.0	7.5	0.0	-	2.8	0.9
Single-Unit Trucks	0	0	5	2	-	7	0	1	6	0	-	7	0	3	0	0	-	3	0	0	0	0	-	0	17
% Single-Unit Trucks	0.0	0.0	1.4	1.9	-	1.4	-	2.3	2.3	0.0	-	2.0	-	2.5	0.0	0.0	-	1.5	-	0.0	0.0	0.0	-	0.0	1.5
Articulated Trucks	0	2	4	1	-	7	0	1	6	0	-	7	0	2	1	0	-	3	0	0	0	0	-	0	17
% Articulated Trucks	0.0	5.9	1.1	0.9	-	1.4	-	2.3	2.3	0.0	-	2.0	-	1.7	2.3	0.0	-	1.5	-	0.0	0.0	0.0	-	0.0	1.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% 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: Constitution Drive with Galena Boulevard
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Galena Boulevard Eastbound						Galena Boulevard Westbound						Constitution Drive Northbound						Constitution Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	3	29	110	38	0	180	0	8	118	25	0	151	0	44	9	8	0	61	0	34	20	9	0	63	455
5:15 PM	2	15	120	30	0	167	0	14	117	21	0	152	0	42	17	17	0	76	0	21	21	3	0	45	440
5:30 PM	0	17	145	48	0	210	0	17	138	18	0	173	0	50	12	16	0	78	0	19	20	10	0	49	510
5:45 PM	0	12	117	37	0	166	0	24	128	16	0	168	0	43	9	11	0	63	0	12	12	13	0	37	434
Total	5	73	492	153	0	723	0	63	501	80	0	644	0	179	47	52	0	278	0	86	73	35	0	194	1839
Approach %	0.7	10.1	68.0	21.2	-	-	0.0	9.8	77.8	12.4	-	-	0.0	64.4	16.9	18.7	-	-	0.0	44.3	37.6	18.0	-	-	-
Total %	0.3	4.0	26.8	8.3	-	39.3	0.0	3.4	27.2	4.4	-	35.0	0.0	9.7	2.6	2.8	-	15.1	0.0	4.7	4.0	1.9	-	10.5	-
PHF	0.417	0.629	0.848	0.797	-	0.861	0.000	0.656	0.908	0.800	-	0.931	0.000	0.895	0.691	0.765	-	0.891	0.000	0.632	0.869	0.673	-	0.770	0.901
Lights	5	72	488	152	-	717	0	63	498	78	-	639	0	177	46	52	-	275	0	84	71	35	-	190	1821
% Lights	100.0	98.6	99.2	99.3	-	99.2	-	100.0	99.4	97.5	-	99.2	-	98.9	97.9	100.0	-	98.9	-	97.7	97.3	100.0	-	97.9	99.0
Buses	0	1	0	0	-	1	0	0	0	2	-	2	0	0	1	0	-	1	0	1	2	0	-	3	7
% Buses	0.0	1.4	0.0	0.0	-	0.1	-	0.0	0.0	2.5	-	0.3	-	0.0	2.1	0.0	-	0.4	-	1.2	2.7	0.0	-	1.5	0.4
Single-Unit Trucks	0	0	4	1	-	5	0	0	3	0	-	3	0	2	0	0	-	2	0	1	0	0	-	1	11
% Single-Unit Trucks	0.0	0.0	0.8	0.7	-	0.7	-	0.0	0.6	0.0	-	0.5	-	1.1	0.0	0.0	-	0.7	-	1.2	0.0	0.0	-	0.5	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	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	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Illinois Avenue
Site Code:
Start Date: 08/12/2021

Turning Movement Data

Start Time	Illinois Avenue Eastbound					Illinois Avenue Westbound					Constitution Drive 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	12	7	0	19	0	3	16	0	19	0	9	5	0	14	52
7:15 AM	0	12	6	0	18	0	5	15	0	20	0	11	6	0	17	55
7:30 AM	0	18	7	0	25	0	6	13	0	19	0	4	2	2	6	50
7:45 AM	0	15	11	0	26	0	15	17	0	32	0	8	8	0	16	74
Hourly Total	0	57	31	0	88	0	29	61	0	90	0	32	21	2	53	231
8:00 AM	0	10	3	0	13	0	12	11	0	23	0	9	9	0	18	54
8:15 AM	0	17	4	0	21	0	6	12	0	18	0	6	13	0	19	58
8:30 AM	0	14	9	0	23	0	10	13	0	23	0	13	6	2	19	65
8:45 AM	0	7	5	0	12	0	9	20	0	29	0	14	8	0	22	63
Hourly Total	0	48	21	0	69	0	37	56	0	93	0	42	36	2	78	240
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	37	17	0	54	0	16	34	0	50	0	9	13	0	22	126
4:15 PM	0	29	12	0	41	0	18	23	0	41	0	13	17	0	30	112
4:30 PM	0	24	10	0	34	0	9	34	0	43	0	18	21	0	39	116
4:45 PM	0	20	15	0	35	0	10	25	0	35	0	14	12	0	26	96
Hourly Total	0	110	54	0	164	0	53	116	0	169	0	54	63	0	117	450
5:00 PM	0	18	17	0	35	0	17	27	0	44	0	18	23	0	41	120
5:15 PM	0	26	15	0	41	0	21	43	0	64	0	17	26	2	43	148
5:30 PM	0	29	11	0	40	0	10	29	0	39	0	7	16	0	23	102
5:45 PM	0	24	11	0	35	0	15	19	0	34	0	9	10	0	19	88
Hourly Total	0	97	54	0	151	0	63	118	0	181	0	51	75	2	126	458
Grand Total	0	312	160	0	472	0	182	351	0	533	0	179	195	6	374	1379
Approach %	0.0	66.1	33.9	-	-	0.0	34.1	65.9	-	-	0.0	47.9	52.1	-	-	-
Total %	0.0	22.6	11.6	-	34.2	0.0	13.2	25.5	-	38.7	0.0	13.0	14.1	-	27.1	-
Lights	0	310	157	-	467	0	178	342	-	520	0	177	189	-	366	1353
% Lights	-	99.4	98.1	-	98.9	-	97.8	97.4	-	97.6	-	98.9	96.9	-	97.9	98.1
Buses	0	1	0	-	1	0	4	0	-	4	0	0	4	-	4	9
% Buses	-	0.3	0.0	-	0.2	-	2.2	0.0	-	0.8	-	0.0	2.1	-	1.1	0.7
Single-Unit Trucks	0	0	3	-	3	0	0	7	-	7	0	2	2	-	4	14
% Single-Unit Trucks	-	0.0	1.9	-	0.6	-	0.0	2.0	-	1.3	-	1.1	1.0	-	1.1	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
Bicycles on Road	0	1	0	-	1	0	0	2	-	2	0	0	0	-	0	3
% Bicycles on Road	-	0.3	0.0	-	0.2	-	0.0	0.6	-	0.4	-	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Constitution Drive with Illinois Avenue
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Illinois Avenue Eastbound					Illinois Avenue Westbound					Constitution Drive 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	10	3	0	13	0	12	11	0	23	0	9	9	0	18	54
8:15 AM	0	17	4	0	21	0	6	12	0	18	0	6	13	0	19	58
8:30 AM	0	14	9	0	23	0	10	13	0	23	0	13	6	2	19	65
8:45 AM	0	7	5	0	12	0	9	20	0	29	0	14	8	0	22	63
Total	0	48	21	0	69	0	37	56	0	93	0	42	36	2	78	240
Approach %	0.0	69.6	30.4	-	-	0.0	39.8	60.2	-	-	0.0	53.8	46.2	-	-	-
Total %	0.0	20.0	8.8	-	28.8	0.0	15.4	23.3	-	38.8	0.0	17.5	15.0	-	32.5	-
PHF	0.000	0.706	0.583	-	0.750	0.000	0.771	0.700	-	0.802	0.000	0.750	0.692	-	0.886	0.923
Lights	0	47	21	-	68	0	35	51	-	86	0	41	34	-	75	229
% Lights	-	97.9	100.0	-	98.6	-	94.6	91.1	-	92.5	-	97.6	94.4	-	96.2	95.4
Buses	0	1	0	-	1	0	2	0	-	2	0	0	2	-	2	5
% Buses	-	2.1	0.0	-	1.4	-	5.4	0.0	-	2.2	-	0.0	5.6	-	2.6	2.1
Single-Unit Trucks	0	0	0	-	0	0	0	4	-	4	0	1	0	-	1	5
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	7.1	-	4.3	-	2.4	0.0	-	1.3	2.1
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
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	1.8	-	1.1	-	0.0	0.0	-	0.0	0.4
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Constitution Drive with Illinois Avenue
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Illinois Avenue Eastbound					Illinois Avenue Westbound					Constitution Drive 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	18	17	0	35	0	17	27	0	44	0	18	23	0	41	120
5:15 PM	0	26	15	0	41	0	21	43	0	64	0	17	26	2	43	148
5:30 PM	0	29	11	0	40	0	10	29	0	39	0	7	16	0	23	102
5:45 PM	0	24	11	0	35	0	15	19	0	34	0	9	10	0	19	88
Total	0	97	54	0	151	0	63	118	0	181	0	51	75	2	126	458
Approach %	0.0	64.2	35.8	-	-	0.0	34.8	65.2	-	-	0.0	40.5	59.5	-	-	-
Total %	0.0	21.2	11.8	-	33.0	0.0	13.8	25.8	-	39.5	0.0	11.1	16.4	-	27.5	-
PHF	0.000	0.836	0.794	-	0.921	0.000	0.750	0.686	-	0.707	0.000	0.708	0.721	-	0.733	0.774
Lights	0	97	54	-	151	0	62	116	-	178	0	51	73	-	124	453
% Lights	-	100.0	100.0	-	100.0	-	98.4	98.3	-	98.3	-	100.0	97.3	-	98.4	98.9
Buses	0	0	0	-	0	0	1	0	-	1	0	0	2	-	2	3
% Buses	-	0.0	0.0	-	0.0	-	1.6	0.0	-	0.6	-	0.0	2.7	-	1.6	0.7
Single-Unit Trucks	0	0	0	-	0	0	0	2	-	2	0	0	0	-	0	2
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	1.7	-	1.1	-	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Constitution Drive with Lowell Street
Site Code:
Start Date: 08/12/2021

Turning Movement Data

Start Time	Lowell Street Eastbound					Constitution Drive Northbound					Constitution Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	1	1	0	2	0	1	7	0	8	0	13	0	0	13	23
7:15 AM	0	0	0	0	0	0	1	12	0	13	0	18	0	0	18	31
7:30 AM	0	0	1	1	1	0	0	4	0	4	0	23	0	0	23	28
7:45 AM	0	0	1	3	1	0	0	7	0	7	0	28	0	0	28	36
Hourly Total	0	1	3	4	4	0	2	30	0	32	0	82	0	0	82	118
8:00 AM	0	1	1	0	2	0	1	17	0	18	0	18	0	0	18	38
8:15 AM	0	0	2	1	2	0	1	17	0	18	0	24	0	0	24	44
8:30 AM	0	1	1	1	2	0	1	13	0	14	0	17	0	0	17	33
8:45 AM	0	1	1	0	2	0	1	21	0	22	0	16	0	0	16	40
Hourly Total	0	3	5	2	8	0	4	68	0	72	0	75	0	0	75	155
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	0	0	1	32	0	33	0	38	0	0	38	71
4:15 PM	0	0	1	0	1	0	1	42	0	43	0	30	0	0	30	74
4:30 PM	0	0	0	0	0	0	2	35	0	37	0	19	0	0	19	56
4:45 PM	0	1	1	0	2	0	2	42	0	44	0	32	0	0	32	78
Hourly Total	0	1	2	0	3	0	6	151	0	157	0	119	0	0	119	279
5:00 PM	0	0	1	2	1	0	0	41	0	41	0	39	0	0	39	81
5:15 PM	0	0	0	1	0	0	2	52	0	54	0	38	1	0	39	93
5:30 PM	0	0	2	1	2	0	0	30	0	30	0	26	0	0	26	58
5:45 PM	0	0	0	0	0	0	1	24	0	25	0	33	0	0	33	58
Hourly Total	0	0	3	4	3	0	3	147	0	150	0	136	1	0	137	290
Grand Total	0	5	13	10	18	0	15	396	0	411	0	412	1	0	413	842
Approach %	0.0	27.8	72.2	-	-	0.0	3.6	96.4	-	-	0.0	99.8	0.2	-	-	-
Total %	0.0	0.6	1.5	-	2.1	0.0	1.8	47.0	-	48.8	0.0	48.9	0.1	-	49.0	-
Lights	0	3	12	-	15	0	14	392	-	406	0	403	1	-	404	825
% Lights	-	60.0	92.3	-	83.3	-	93.3	99.0	-	98.8	-	97.8	100.0	-	97.8	98.0
Buses	0	1	0	-	1	0	1	3	-	4	0	6	0	-	6	11
% Buses	-	20.0	0.0	-	5.6	-	6.7	0.8	-	1.0	-	1.5	0.0	-	1.5	1.3
Single-Unit Trucks	0	0	1	-	1	0	0	1	-	1	0	2	0	-	2	4
% Single-Unit Trucks	-	0.0	7.7	-	5.6	-	0.0	0.3	-	0.2	-	0.5	0.0	-	0.5	0.5
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	1	0	-	1	2
% Articulated Trucks	-	20.0	0.0	-	5.6	-	0.0	0.0	-	0.0	-	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	10	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Lowell Street
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Lowell Street Eastbound					Constitution Drive Northbound					Constitution Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
8:00 AM	0	1	1	0	2	0	1	17	0	18	0	18	0	0	18	38
8:15 AM	0	0	2	1	2	0	1	17	0	18	0	24	0	0	24	44
8:30 AM	0	1	1	1	2	0	1	13	0	14	0	17	0	0	17	33
8:45 AM	0	1	1	0	2	0	1	21	0	22	0	16	0	0	16	40
Total	0	3	5	2	8	0	4	68	0	72	0	75	0	0	75	155
Approach %	0.0	37.5	62.5	-	-	0.0	5.6	94.4	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	1.9	3.2	-	5.2	0.0	2.6	43.9	-	46.5	0.0	48.4	0.0	-	48.4	-
PHF	0.000	0.750	0.625	-	1.000	0.000	1.000	0.810	-	0.818	0.000	0.781	0.000	-	0.781	0.881
Lights	0	1	5	-	6	0	3	66	-	69	0	72	0	-	72	147
% Lights	-	33.3	100.0	-	75.0	-	75.0	97.1	-	95.8	-	96.0	-	-	96.0	94.8
Buses	0	1	0	-	1	0	1	2	-	3	0	2	0	-	2	6
% Buses	-	33.3	0.0	-	12.5	-	25.0	2.9	-	4.2	-	2.7	-	-	2.7	3.9
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
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	1	0	-	1	2
% Articulated Trucks	-	33.3	0.0	-	12.5	-	0.0	0.0	-	0.0	-	1.3	-	-	1.3	1.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Lowell Street
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Lowell Street Eastbound					Constitution Drive Northbound					Constitution Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	1	2	1	0	0	41	0	41	0	39	0	0	39	81
5:15 PM	0	0	0	1	0	0	2	52	0	54	0	38	1	0	39	93
5:30 PM	0	0	2	1	2	0	0	30	0	30	0	26	0	0	26	58
5:45 PM	0	0	0	0	0	0	1	24	0	25	0	33	0	0	33	58
Total	0	0	3	4	3	0	3	147	0	150	0	136	1	0	137	290
Approach %	0.0	0.0	100.0	-	-	0.0	2.0	98.0	-	-	0.0	99.3	0.7	-	-	-
Total %	0.0	0.0	1.0	-	1.0	0.0	1.0	50.7	-	51.7	0.0	46.9	0.3	-	47.2	-
PHF	0.000	0.000	0.375	-	0.375	0.000	0.375	0.707	-	0.694	0.000	0.872	0.250	-	0.878	0.780
Lights	0	0	2	-	2	0	3	146	-	149	0	134	1	-	135	286
% Lights	-	-	66.7	-	66.7	-	100.0	99.3	-	99.3	-	98.5	100.0	-	98.5	98.6
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Buses	-	-	0.0	-	0.0	-	0.0	0.7	-	0.7	-	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	1	-	1	0	0	0	-	0	0	2	0	-	2	3
% Single-Unit Trucks	-	-	33.3	-	33.3	-	0.0	0.0	-	0.0	-	1.5	0.0	-	1.5	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Independence Drive
Site Code:
Start Date: 08/12/2021

Turning Movement Data

Start Time	Independence Drive Eastbound					Constitution Drive Northbound					Constitution Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	0	0	0	0	0	1	4	0	5	0	16	0	0	16	21
7:15 AM	0	1	1	0	2	0	0	10	0	10	0	17	0	0	17	29
7:30 AM	0	0	1	0	1	0	0	8	0	8	0	21	1	0	22	31
7:45 AM	0	0	5	2	5	0	2	7	0	9	0	29	0	0	29	43
Hourly Total	0	1	7	2	8	0	3	29	0	32	0	83	1	0	84	124
8:00 AM	0	0	4	0	4	0	3	15	0	18	0	22	0	0	22	44
8:15 AM	0	1	5	1	6	0	2	17	0	19	0	21	0	0	21	46
8:30 AM	0	0	5	1	5	0	1	19	0	20	0	22	0	0	22	47
8:45 AM	0	0	6	1	6	0	1	21	0	22	0	19	0	0	19	47
Hourly Total	0	1	20	3	21	0	7	72	0	79	0	84	0	0	84	184
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	5	0	5	0	3	36	0	39	0	39	1	0	40	84
4:15 PM	0	0	4	4	4	1	5	41	0	47	0	30	0	0	30	81
4:30 PM	0	1	9	0	10	0	7	38	0	45	0	22	1	0	23	78
4:45 PM	0	0	8	0	8	0	6	38	0	44	0	29	0	0	29	81
Hourly Total	0	1	26	4	27	1	21	153	0	175	0	120	2	0	122	324
5:00 PM	0	0	7	1	7	0	5	49	0	54	0	41	0	0	41	102
5:15 PM	0	0	4	1	4	0	6	49	0	55	0	39	0	0	39	98
5:30 PM	0	1	6	2	7	0	10	32	0	42	0	25	1	0	26	75
5:45 PM	0	1	0	1	1	0	4	23	0	27	1	31	0	0	32	60
Hourly Total	0	2	17	5	19	0	25	153	0	178	1	136	1	0	138	335
Grand Total	0	5	70	14	75	1	56	407	0	464	1	423	4	0	428	967
Approach %	0.0	6.7	93.3	-	-	0.2	12.1	87.7	-	-	0.2	98.8	0.9	-	-	-
Total %	0.0	0.5	7.2	-	7.8	0.1	5.8	42.1	-	48.0	0.1	43.7	0.4	-	44.3	-
Lights	0	5	68	-	73	1	54	400	-	455	1	411	4	-	416	944
% Lights	-	100.0	97.1	-	97.3	100.0	96.4	98.3	-	98.1	100.0	97.2	100.0	-	97.2	97.6
Buses	0	0	1	-	1	0	0	6	-	6	0	10	0	-	10	17
% Buses	-	0.0	1.4	-	1.3	0.0	0.0	1.5	-	1.3	0.0	2.4	0.0	-	2.3	1.8
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	1	0	-	1	2
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.2	0.0	0.2	0.0	-	0.2	0.2
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	1.8	0.0	-	0.2	0.0	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	0	1	-	1	0	1	0	-	1	0	0	0	-	0	2
% Bicycles on Road	-	0.0	1.4	-	1.3	0.0	1.8	0.0	-	0.2	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	14	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Independence Drive
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Independence Drive Eastbound					Constitution Drive Northbound					Constitution Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
8:00 AM	0	0	4	0	4	0	3	15	0	18	0	22	0	0	22	44
8:15 AM	0	1	5	1	6	0	2	17	0	19	0	21	0	0	21	46
8:30 AM	0	0	5	1	5	0	1	19	0	20	0	22	0	0	22	47
8:45 AM	0	0	6	1	6	0	1	21	0	22	0	19	0	0	19	47
Total	0	1	20	3	21	0	7	72	0	79	0	84	0	0	84	184
Approach %	0.0	4.8	95.2	-	-	0.0	8.9	91.1	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	0.5	10.9	-	11.4	0.0	3.8	39.1	-	42.9	0.0	45.7	0.0	-	45.7	-
PHF	0.000	0.250	0.833	-	0.875	0.000	0.583	0.857	-	0.898	0.000	0.955	0.000	-	0.955	0.979
Lights	0	1	18	-	19	0	6	69	-	75	0	81	0	-	81	175
% Lights	-	100.0	90.0	-	90.5	-	85.7	95.8	-	94.9	-	96.4	-	-	96.4	95.1
Buses	0	0	1	-	1	0	0	3	-	3	0	2	0	-	2	6
% Buses	-	0.0	5.0	-	4.8	-	0.0	4.2	-	3.8	-	2.4	-	-	2.4	3.3
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
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	-	0.0	-	14.3	0.0	-	1.3	-	1.2	-	-	1.2	1.1
Bicycles on Road	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	5.0	-	4.8	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	0.5
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Independence Drive
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Independence Drive Eastbound					Constitution Drive Northbound					Constitution Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	7	1	7	0	5	49	0	54	0	41	0	0	41	102
5:15 PM	0	0	4	1	4	0	6	49	0	55	0	39	0	0	39	98
5:30 PM	0	1	6	2	7	0	10	32	0	42	0	25	1	0	26	75
5:45 PM	0	1	0	1	1	0	4	23	0	27	1	31	0	0	32	60
Total	0	2	17	5	19	0	25	153	0	178	1	136	1	0	138	335
Approach %	0.0	10.5	89.5	-	-	0.0	14.0	86.0	-	-	0.7	98.6	0.7	-	-	-
Total %	0.0	0.6	5.1	-	5.7	0.0	7.5	45.7	-	53.1	0.3	40.6	0.3	-	41.2	-
PHF	0.000	0.500	0.607	-	0.679	0.000	0.625	0.781	-	0.809	0.250	0.829	0.250	-	0.841	0.821
Lights	0	2	17	-	19	0	25	150	-	175	1	132	1	-	134	328
% Lights	-	100.0	100.0	-	100.0	-	100.0	98.0	-	98.3	100.0	97.1	100.0	-	97.1	97.9
Buses	0	0	0	-	0	0	0	3	-	3	0	4	0	-	4	7
% Buses	-	0.0	0.0	-	0.0	-	0.0	2.0	-	1.7	0.0	2.9	0.0	-	2.9	2.1
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	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	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
Pedestrians	-	-	-	5	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Constitution Drive with Nelson Drive
Site Code:
Start Date: 08/12/2021

Turning Movement Data

Start Time	Nelson Drive Eastbound						Access Drive Westbound						Constitution Drive Northbound						Constitution Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	2	16	1	0	19	27
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	1	0	14	0	0	15	1	0	16	30
7:30 AM	0	0	1	0	0	1	0	0	0	1	0	1	0	0	7	6	0	13	0	0	24	1	0	25	40
7:45 AM	0	1	0	2	0	3	0	0	0	0	0	0	0	7	10	3	0	20	0	5	30	1	0	36	59
Hourly Total	0	1	1	2	0	4	0	0	0	1	0	1	0	8	36	11	0	55	0	7	85	4	0	96	156
8:00 AM	0	0	0	2	0	2	0	1	0	1	1	2	1	1	19	2	0	23	0	1	25	0	0	26	53
8:15 AM	0	0	0	4	1	4	0	1	1	0	2	2	0	4	21	1	0	26	0	1	23	2	0	26	58
8:30 AM	0	0	0	6	0	6	0	1	0	2	1	3	0	8	18	4	0	30	0	3	17	4	1	24	63
8:45 AM	0	1	0	4	0	5	0	0	0	2	0	2	1	12	20	9	0	42	0	2	23	2	0	27	76
Hourly Total	0	1	0	16	1	17	0	3	1	5	4	9	2	25	78	16	0	121	0	7	88	8	1	103	250
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	13	0	27	0	40	0	4	2	0	0	6	1	20	31	3	0	55	0	1	31	10	2	42	143
4:15 PM	0	20	0	18	0	38	0	5	0	2	0	7	0	14	28	1	0	43	0	0	32	12	0	44	132
4:30 PM	0	14	0	15	0	29	0	5	0	2	2	7	0	16	32	0	0	48	0	0	23	10	0	33	117
4:45 PM	0	10	0	22	0	32	0	4	0	0	0	4	0	17	30	0	0	47	0	0	31	5	0	36	119
Hourly Total	0	57	0	82	0	139	0	18	2	4	2	24	1	67	121	4	0	193	0	1	117	37	2	155	511
5:00 PM	0	14	0	19	0	33	0	3	0	1	0	4	0	20	43	1	0	64	0	0	41	13	0	54	155
5:15 PM	0	15	0	18	0	33	0	3	0	5	0	8	0	12	43	1	0	56	0	1	26	18	0	45	142
5:30 PM	0	7	0	17	1	24	0	4	0	1	0	5	0	16	30	0	0	46	0	0	25	9	0	34	109
5:45 PM	0	11	0	16	1	27	0	0	1	0	0	1	0	18	20	3	0	41	0	0	22	7	1	29	98
Hourly Total	0	47	0	70	2	117	0	10	1	7	0	18	0	66	136	5	0	207	0	1	114	47	1	162	504
Grand Total	0	106	1	170	3	277	0	31	4	17	6	52	3	166	371	36	0	576	0	16	404	96	4	516	1421
Approach %	0.0	38.3	0.4	61.4	-	-	0.0	59.6	7.7	32.7	-	-	0.5	28.8	64.4	6.3	-	-	0.0	3.1	78.3	18.6	-	-	-
Total %	0.0	7.5	0.1	12.0	-	19.5	0.0	2.2	0.3	1.2	-	3.7	0.2	11.7	26.1	2.5	-	40.5	0.0	1.1	28.4	6.8	-	36.3	-
Lights	0	105	1	170	-	276	0	29	4	16	-	49	3	161	361	35	-	560	0	15	390	95	-	500	1385
% Lights	-	99.1	100.0	100.0	-	99.6	-	93.5	100.0	94.1	-	94.2	100.0	97.0	97.3	97.2	-	97.2	-	93.8	96.5	99.0	-	96.9	97.5
Buses	0	0	0	0	-	0	0	1	0	1	-	2	0	1	6	1	-	8	0	1	11	0	-	12	22
% Buses	-	0.0	0.0	0.0	-	0.0	-	3.2	0.0	5.9	-	3.8	0.0	0.6	1.6	2.8	-	1.4	-	6.3	2.7	0.0	-	2.3	1.5
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	1	1	0	-	2	0	0	2	0	-	2	5
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	3.2	0.0	0.0	-	1.9	0.0	0.6	0.3	0.0	-	0.3	-	0.0	0.5	0.0	-	0.4	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	3	2	0	-	5	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	1.8	0.5	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	1	-	2	4

% Bicycles on Road	-	0.9	0.0	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.3	0.0	-	0.2	-	0.0	0.2	1.0	-	0.4	0.3
Pedestrians	-	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Constitution Drive with Nelson Drive
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Nelson Drive Eastbound						Access Drive Westbound						Constitution Drive Northbound						Constitution Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
8:00 AM	0	0	0	2	0	2	0	1	0	1	1	2	1	1	19	2	0	23	0	1	25	0	0	26	53
8:15 AM	0	0	0	4	1	4	0	1	1	0	2	2	0	4	21	1	0	26	0	1	23	2	0	26	58
8:30 AM	0	0	0	6	0	6	0	1	0	2	1	3	0	8	18	4	0	30	0	3	17	4	1	24	63
8:45 AM	0	1	0	4	0	5	0	0	0	2	0	2	1	12	20	9	0	42	0	2	23	2	0	27	76
Total	0	1	0	16	1	17	0	3	1	5	4	9	2	25	78	16	0	121	0	7	88	8	1	103	250
Approach %	0.0	5.9	0.0	94.1	-	-	0.0	33.3	11.1	55.6	-	-	1.7	20.7	64.5	13.2	-	-	0.0	6.8	85.4	7.8	-	-	-
Total %	0.0	0.4	0.0	6.4	-	6.8	0.0	1.2	0.4	2.0	-	3.6	0.8	10.0	31.2	6.4	-	48.4	0.0	2.8	35.2	3.2	-	41.2	-
PHF	0.000	0.250	0.000	0.667	-	0.708	0.000	0.750	0.250	0.625	-	0.750	0.500	0.521	0.929	0.444	-	0.720	0.000	0.583	0.880	0.500	-	0.954	0.822
Lights	0	1	0	16	-	17	0	3	1	5	-	9	2	22	73	16	-	113	0	7	83	8	-	98	237
% Lights	-	100.0	-	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	88.0	93.6	100.0	-	93.4	-	100.0	94.3	100.0	-	95.1	94.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	1	3	0	-	4	0	0	3	0	-	3	7
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	4.0	3.8	0.0	-	3.3	-	0.0	3.4	0.0	-	2.9	2.8
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% 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	-	0.0	-	0.0	1.1	0.0	-	1.0	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	2	2	0	-	4	0	0	0	0	-	0	4
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	8.0	2.6	0.0	-	3.3	-	0.0	0.0	0.0	-	0.0	1.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	1.1	0.0	-	1.0	0.4
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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(847)518-9990

Count Name: Constitution Drive with Nelson Drive
Site Code:
Start Date: 08/12/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Nelson Drive Eastbound						Access Drive Westbound						Constitution Drive Northbound						Constitution Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	14	0	19	0	33	0	3	0	1	0	4	0	20	43	1	0	64	0	0	41	13	0	54	155
5:15 PM	0	15	0	18	0	33	0	3	0	5	0	8	0	12	43	1	0	56	0	1	26	18	0	45	142
5:30 PM	0	7	0	17	1	24	0	4	0	1	0	5	0	16	30	0	0	46	0	0	25	9	0	34	109
5:45 PM	0	11	0	16	1	27	0	0	1	0	0	1	0	18	20	3	0	41	0	0	22	7	1	29	98
Total	0	47	0	70	2	117	0	10	1	7	0	18	0	66	136	5	0	207	0	1	114	47	1	162	504
Approach %	0.0	40.2	0.0	59.8	-	-	0.0	55.6	5.6	38.9	-	-	0.0	31.9	65.7	2.4	-	-	0.0	0.6	70.4	29.0	-	-	-
Total %	0.0	9.3	0.0	13.9	-	23.2	0.0	2.0	0.2	1.4	-	3.6	0.0	13.1	27.0	1.0	-	41.1	0.0	0.2	22.6	9.3	-	32.1	-
PHF	0.000	0.783	0.000	0.921	-	0.886	0.000	0.625	0.250	0.350	-	0.563	0.000	0.825	0.791	0.417	-	0.809	0.000	0.250	0.695	0.653	-	0.750	0.813
Lights	0	47	0	70	-	117	0	9	1	6	-	16	0	66	133	4	-	203	0	0	110	47	-	157	493
% Lights	-	100.0	-	100.0	-	100.0	-	90.0	100.0	85.7	-	88.9	-	100.0	97.8	80.0	-	98.1	-	0.0	96.5	100.0	-	96.9	97.8
Buses	0	0	0	0	-	0	0	1	0	1	-	2	0	0	3	1	-	4	0	1	4	0	-	5	11
% Buses	-	0.0	-	0.0	-	0.0	-	10.0	0.0	14.3	-	11.1	-	0.0	2.2	20.0	-	1.9	-	100.0	3.5	0.0	-	3.1	2.2
Single-Unit Trucks	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	-	0.0	-	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
% 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
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Preliminary Site Plan

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

SITE DATA:

15 BUILDINGS @ 6 UNITS =	90	DWELLING UNITS
3 BUILDINGS @ 4 UNITS =	12	DWELLING UNITS
TOTAL DWELLING UNITS =	102	DWELLING UNITS

PARKING SUMMARY:

ONSITE (ENCLOSED) PARKING =	204	STALLS
ONSITE (OPEN AIR) PARKING =	114	STALLS
NELSON PARALLEL PARKING =	19	STALLS
TOTAL PARKING =	337	STALLS

DRAWN BY | REVISIONS | DATE

ORCHARD LAKES CONCEPTUAL DEVELOPMENT

AURORA, ILLINOIS

SITE CONCEPT PLAN

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

PROJECT NO. 61316521
DATE 06/21/21
SCALE 1"=50'
PROJ. MGR. RWG
PROJ. ASSOC. RWG
DRAWN BY TLM

SHEET 1 OF 1

June 21, 2021 4:00:47 p.m. AcadVer: 22.0s (LMS Tech)
Drawing: S:\61316521 – ORCHARD LAKE TOWNHOMES\300_ENGINEERING\310_CADD\PRELIM\613_PRELIM.DWG

ITE Trip Generation Worksheets

Multifamily Housing (Low-Rise)
(220)

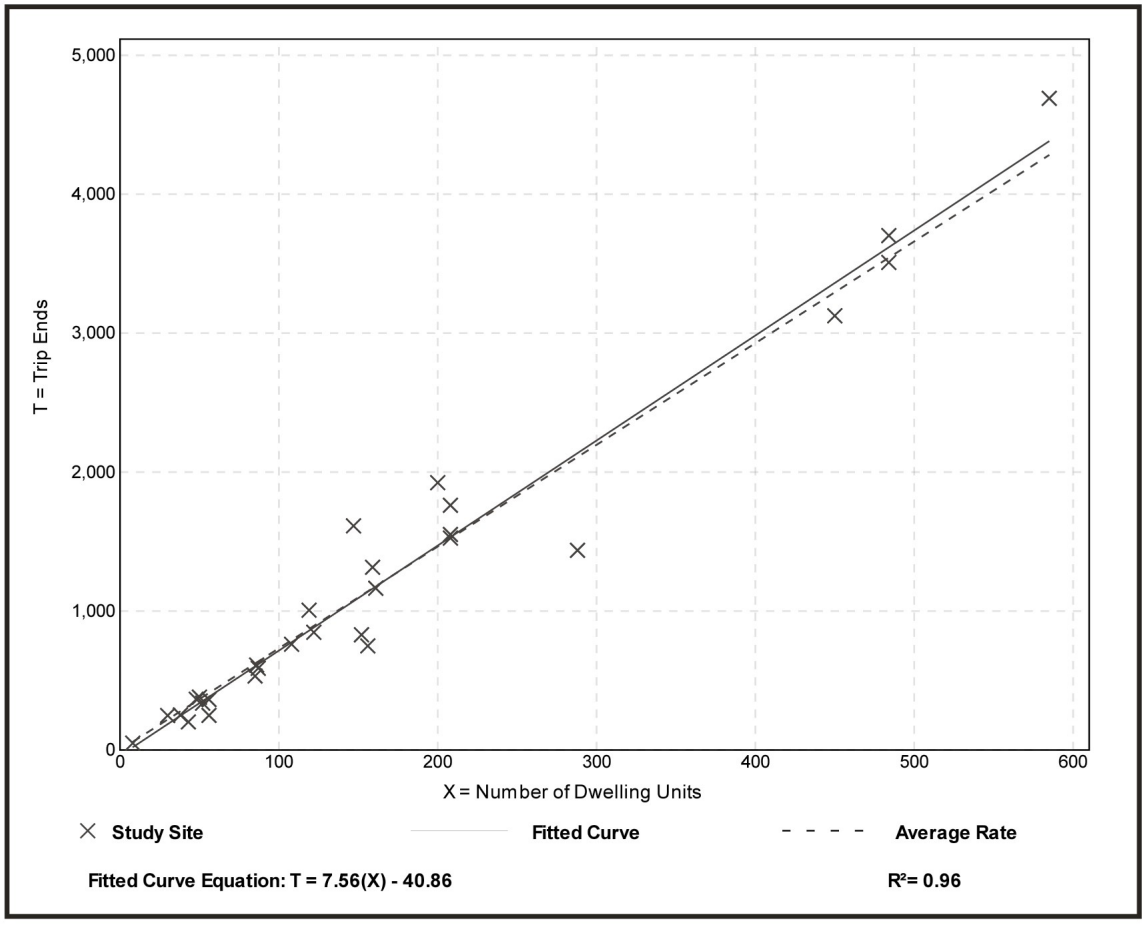
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 29
Avg. Num. of Dwelling Units: 168
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31

Data Plot and Equation



Fitted Curve Equation: T = 7.56(X) - 40.86

R^2= 0.96

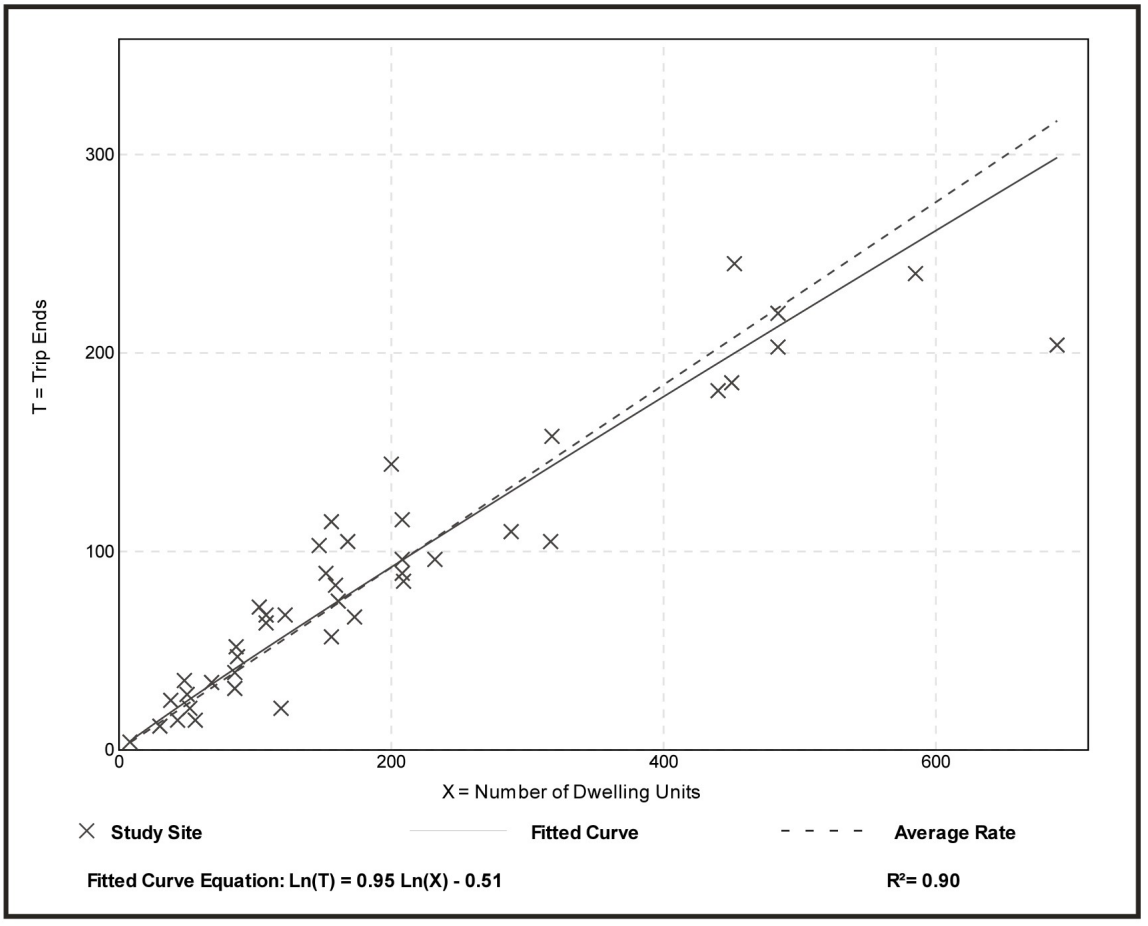
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 42
Avg. Num. of Dwelling Units: 199
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



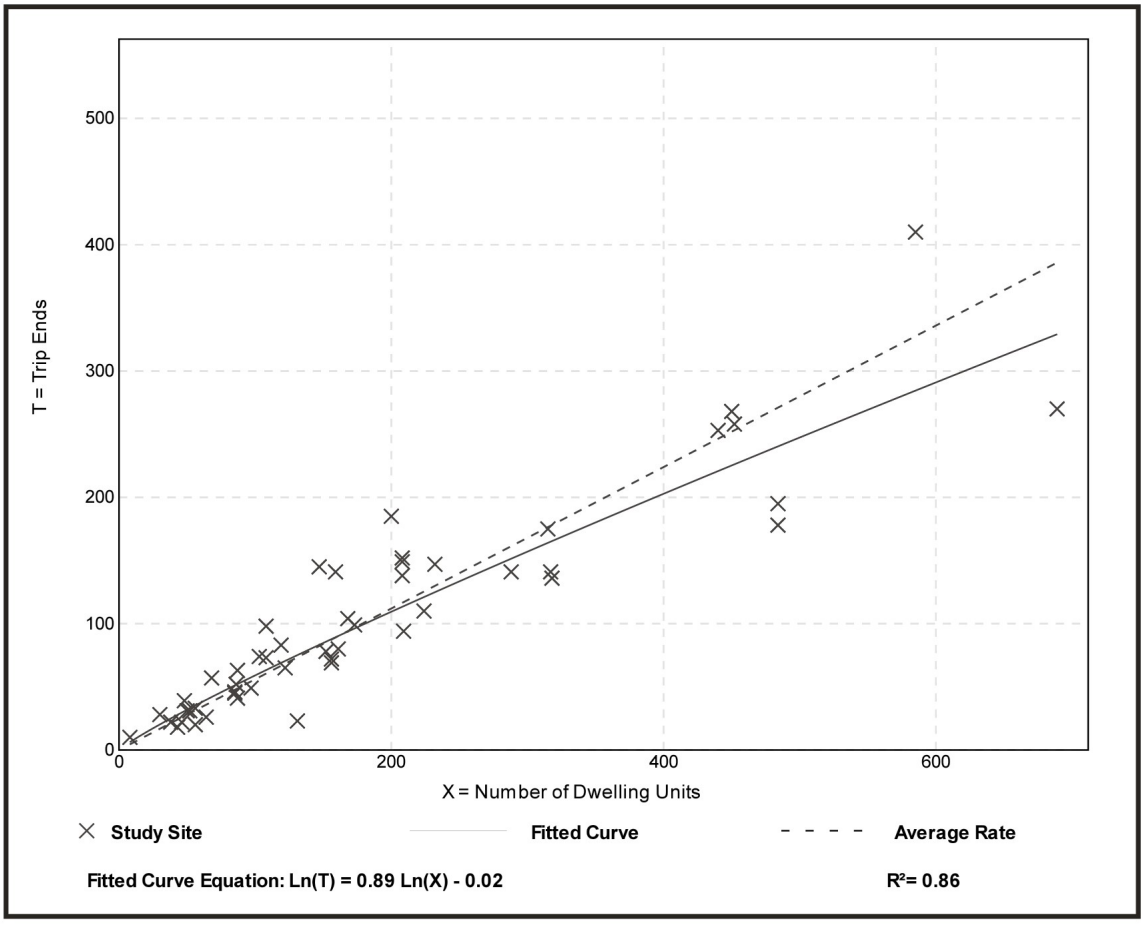
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	50
Avg. Num. of Dwelling Units:	187
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

August 27, 2021

Elise Purguette
Traffic Engineer
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: ***Galena Boulevard @ Constitution Drive***
IDOT

Dear Ms. Purguette:

In response to a request made on your behalf and dated August 27, 2021, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Galena Blvd, @ Constitution Dr	14,600	21,100

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

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

Sincerely,

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

cc: Rios (IDOT)
\2021_CY_TrafficForecast\Aurora\ka-25-21\ka-25-21.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

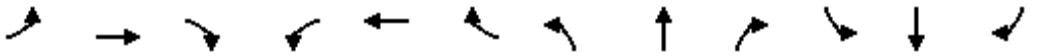
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of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

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

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Year 2021 Weekday Morning Peak Hour Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	434	128	52	311	50	143	53	47	47	48	35
Future Volume (vph)	46	434	128	52	311	50	143	53	47	47	48	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	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)	150		0	140		0	115		115	185		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	155			160			85			85		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00				0.99	1.00		
Frt		0.966			0.979				0.850		0.937	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1612	3386	0	1719	3369	0	1736	1923	1615	1805	1702	0
Flt Permitted	0.504			0.367			0.485			0.717		
Satd. Flow (perm)	854	3386	0	664	3369	0	886	1923	1594	1361	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			22				71		36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1928			1303			651			398	
Travel Time (s)		43.8			29.6			14.8			9.0	
Confl. Peds. (#/hr)	1					1			1	1		
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 (%)	12%	3%	3%	5%	5%	2%	4%	4%	0%	0%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	654	0	60	420	0	166	62	55	55	97	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	44.0		9.5	44.0		9.5	34.0	9.5	9.5	24.0	
Total Split (s)	9.0	47.0		9.0	47.0		11.0	34.0	9.0	10.0	33.0	
Total Split (%)	9.0%	47.0%		9.0%	47.0%		11.0%	34.0%	9.0%	10.0%	33.0%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0	3.5	3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Act Effct Green (s)	64.6	56.4		64.7	56.5		25.5	13.7	23.0	17.8	9.2	
Actuated g/C Ratio	0.65	0.56		0.65	0.56		0.26	0.14	0.23	0.18	0.09	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.34		0.12	0.22		0.50	0.24	0.13	0.20	0.51	
Control Delay	8.2	13.8		8.3	13.0		33.8	38.7	4.7	26.8	37.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	8.2	13.8		8.3	13.0		33.8	38.7	4.7	26.8	37.2	
LOS	A	B		A	B		C	D	A	C	D	
Approach Delay		13.4			12.4			29.2			33.5	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	11	113		13	68		84	35	0	26	37	
Queue Length 95th (ft)	28	172		31	110		122	67	17	49	80	
Internal Link Dist (ft)		1848			1223			571			318	
Turn Bay Length (ft)	150			140			115		115	185		
Base Capacity (vph)	603	1930		502	1912		333	538	423	279	485	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.09	0.34		0.12	0.22		0.50	0.12	0.13	0.20	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 17.7		Intersection LOS: B	
Intersection Capacity Utilization 64.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Constitution Drive & Galena Boulevard

Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	58	37	65	67	57	48
Future Vol, veh/h	58	37	65	67	57	48
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	5	7	2	6
Mvmt Flow	63	40	71	73	62	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	105	0	300	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	215	-
Critical Hdwy	-	-	4.15	-	6.42	6.26
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.354
Pot Cap-1 Maneuver	-	-	1468	-	691	963
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1465	-	654	961
Mov Cap-2 Maneuver	-	-	-	-	654	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	779	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.7	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	766	-	-	1465	-
HCM Lane V/C Ratio	0.149	-	-	0.048	-
HCM Control Delay (s)	10.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	5	4	102	102	0
Future Vol, veh/h	3	5	4	102	102	0
Conflicting Peds, #/hr	0	0	2	0	0	2
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	88	88	88	88	88	88
Heavy Vehicles, %	67	0	25	3	4	0
Mvmt Flow	3	6	5	116	116	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	244	118	118	0	-	0
Stage 1	118	-	-	-	-	-
Stage 2	126	-	-	-	-	-
Critical Hdwy	7.07	6.2	4.35	-	-	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	4.103	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	622	939	1339	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	617	937	1336	-	-	-
Mov Cap-2 Maneuver	617	-	-	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1336	-	784	-	-
HCM Lane V/C Ratio	0.003	-	0.012	-	-
HCM Control Delay (s)	7.7	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	19	0	0	0	7	105	0	0	107	0
Future Vol, veh/h	1	0	19	0	0	0	7	105	0	0	107	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	5	0	0	0	0	14	4	0	0	4	0
Mvmt Flow	1	0	19	0	0	0	7	107	0	0	109	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	233	233	112	240	233	107	112	0	0	107	0	0
Stage 1	112	112	-	121	121	-	-	-	-	-	-	-
Stage 2	121	121	-	119	112	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.55	6.2	7.1	6.5	6.2	4.24	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.045	3.3	3.5	4	3.3	2.326	-	-	2.2	-	-
Pot Cap-1 Maneuver	726	662	947	718	671	953	1406	-	-	1497	-	-
Stage 1	898	797	-	888	800	-	-	-	-	-	-	-
Stage 2	888	790	-	890	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	721	657	944	701	666	953	1402	-	-	1497	-	-
Mov Cap-2 Maneuver	721	657	-	701	666	-	-	-	-	-	-	-
Stage 1	891	795	-	884	796	-	-	-	-	-	-	-
Stage 2	884	786	-	872	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	0	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1402	-	-	930	-	1497	-	-
HCM Lane V/C Ratio	0.005	-	-	0.022	-	-	-	-
HCM Control Delay (s)	7.6	0	-	9	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-

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	1	0	16	3	1	5	27	106	16	7	111	8
Future Vol, veh/h	1	0	16	3	1	5	27	106	16	7	111	8
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	-	-	-	-	-	105	-	-	35	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	12	4	0	0	0	0
Mvmt Flow	1	0	20	4	1	6	33	129	20	9	135	10

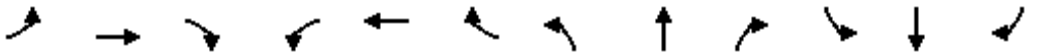
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	367	373	140	373	368	139	145	0	0	149	0	0
Stage 1	158	158	-	205	205	-	-	-	-	-	-	-
Stage 2	209	215	-	168	163	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.22	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.308	-	-	2.2	-	-
Pot Cap-1 Maneuver	593	561	913	588	564	915	1378	-	-	1445	-	-
Stage 1	849	771	-	802	736	-	-	-	-	-	-	-
Stage 2	798	729	-	839	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	575	544	913	562	547	915	1378	-	-	1445	-	-
Mov Cap-2 Maneuver	623	581	-	614	580	-	-	-	-	-	-	-
Stage 1	829	766	-	783	718	-	-	-	-	-	-	-
Stage 2	772	712	-	816	762	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.9	1.4	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	623	913	745	1445	-	-
HCM Lane V/C Ratio	0.024	-	-	0.002	0.021	0.015	0.006	-	-
HCM Control Delay (s)	7.7	-	-	10.8	9	9.9	7.5	-	-
HCM Lane LOS	A	-	-	B	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.1	0	0	-	-

Capacity Analysis Summary Sheets

Year 2021 Weekday Evening Peak Hour Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	492	153	63	501	82	179	47	52	86	73	35
Future Volume (vph)	78	492	153	63	501	82	179	47	52	86	73	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	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)	150		0	140		0	115		115	185		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	155			160			85			85		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964			0.979				0.850		0.951	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3446	0	1805	3494	0	1787	1961	1615	1770	1771	0
Flt Permitted	0.366			0.337			0.583			0.723		
Satd. Flow (perm)	689	3446	0	640	3494	0	1097	1961	1615	1347	1771	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			20				64		20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1928			1303			651			398	
Travel Time (s)		43.8			29.6			14.8			9.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%	1%	2%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	717	0	70	648	0	199	52	58	96	120	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	44.0		9.5	44.0		9.5	34.0	9.5	9.5	24.0	
Total Split (s)	12.0	51.0		12.0	51.0		18.0	35.0	12.0	12.0	29.0	
Total Split (%)	10.9%	46.4%		10.9%	46.4%		16.4%	31.8%	10.9%	10.9%	26.4%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0	3.5	3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Act Effct Green (s)	71.5	62.6		70.7	62.3		20.7	8.3	16.3	28.9	11.6	
Actuated g/C Ratio	0.65	0.57		0.64	0.57		0.19	0.08	0.15	0.26	0.11	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.17	0.36		0.14	0.33		0.72	0.35	0.20	0.23	0.59	
Control Delay	8.4	14.3		8.4	14.6		53.2	54.1	6.4	31.6	50.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	8.4	14.3		8.4	14.6		53.2	54.1	6.4	31.6	50.0	
LOS	A	B		A	B		D	D	A	C	D	
Approach Delay		13.7			14.0			44.5			41.8	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	18	125		14	116		119	36	0	54	68	
Queue Length 95th (ft)	47	217		39	201		165	74	20	86	123	
Internal Link Dist (ft)		1848			1223			571			318	
Turn Bay Length (ft)	150			140			115		115	185		
Base Capacity (vph)	539	1981		508	1986		332	516	315	419	386	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.16	0.36		0.14	0.33		0.60	0.10	0.18	0.23	0.31	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 52.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Constitution Drive & Galena Boulevard

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	97	66	77	118	67	95
Future Vol, veh/h	97	66	77	118	67	95
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	2	2	0	3
Mvmt Flow	126	86	100	153	87	123

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	214	0	524	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	-	-	4.12	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1356	-	517	870
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1353	-	474	868
Mov Cap-2 Maneuver	-	-	-	-	474	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	646	-	-	1353	-
HCM Lane V/C Ratio	0.326	-	-	0.074	-
HCM Control Delay (s)	13.2	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	3	162	142	1
Future Vol, veh/h	0	3	3	162	142	1
Conflicting Peds, #/hr	0	0	4	0	0	4
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	78	78	78	78	78	78
Heavy Vehicles, %	0	33	0	1	2	0
Mvmt Flow	0	4	4	208	182	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	403	187	187	0	-	0
Stage 1	187	-	-	-	-	-
Stage 2	216	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.2	-	-	-
Pot Cap-1 Maneuver	607	782	1399	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	600	779	1394	-	-	-
Mov Cap-2 Maneuver	600	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1394	-	779	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.6	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	17	1	0	0	25	163	2	0	144	1
Future Vol, veh/h	2	1	17	1	0	0	25	163	2	0	144	1
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	3	0
Mvmt Flow	2	1	21	1	0	0	30	199	2	0	176	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	442	443	182	448	442	200	182	0	0	201	0	0
Stage 1	182	182	-	260	260	-	-	-	-	-	-	-
Stage 2	260	261	-	188	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	529	512	866	524	513	846	1405	-	-	1383	-	-
Stage 1	824	753	-	749	697	-	-	-	-	-	-	-
Stage 2	749	696	-	818	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	517	497	862	501	498	846	1398	-	-	1383	-	-
Mov Cap-2 Maneuver	517	497	-	501	498	-	-	-	-	-	-	-
Stage 1	800	749	-	731	680	-	-	-	-	-	-	-
Stage 2	731	679	-	797	749	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	12.2	1	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1398	-	-	781	501	1383	-	-
HCM Lane V/C Ratio	0.022	-	-	0.031	0.002	-	-	-
HCM Control Delay (s)	7.6	0	-	9.8	12.2	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	0	70	10	1	7	66	136	5	1	114	47
Future Vol, veh/h	47	0	70	10	1	7	66	136	5	1	114	47
Conflicting Peds, #/hr	1	0	0	0	0	1	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	105	-	-	35	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	10	0	14	0	2	20	0	4	0
Mvmt Flow	58	0	86	12	1	9	81	168	6	1	141	58

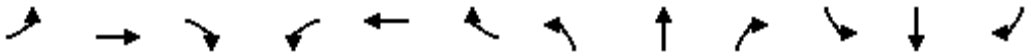
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	513	510	172	548	536	172	201	0	0	174	0	0
Stage 1	174	174	-	333	333	-	-	-	-	-	-	-
Stage 2	339	336	-	215	203	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.2	6.5	6.34	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.59	4	3.426	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	475	469	877	435	454	841	1383	-	-	1415	-	-
Stage 1	833	759	-	664	647	-	-	-	-	-	-	-
Stage 2	680	645	-	769	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	447	440	875	374	426	840	1380	-	-	1415	-	-
Mov Cap-2 Maneuver	517	501	-	453	482	-	-	-	-	-	-	-
Stage 1	783	757	-	625	609	-	-	-	-	-	-	-
Stage 2	632	607	-	693	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	11.8	2.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1380	-	-	517	875	554	1415	-	-
HCM Lane V/C Ratio	0.059	-	-	0.112	0.099	0.04	0.001	-	-
HCM Control Delay (s)	7.8	-	-	12.8	9.6	11.8	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	0.3	0.1	0	-	-

Capacity Analysis Summary Sheets

No-Build Weekday Morning Peak Hour Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	464	137	56	333	54	153	57	50	50	51	37
Future Volume (vph)	49	464	137	56	333	54	153	57	50	50	51	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	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)	150		0	140		0	115		115	185		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	155			160			85			85		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00				0.99	1.00		
Frt		0.966			0.979				0.850		0.937	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1612	3386	0	1719	3369	0	1736	1923	1615	1805	1702	0
Flt Permitted	0.484			0.344			0.488			0.714		
Satd. Flow (perm)	821	3386	0	622	3369	0	892	1923	1594	1355	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			22				71		36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1928			1303			651			398	
Travel Time (s)		43.8			29.6			14.8			9.0	
Confl. Peds. (#/hr)	1					1			1	1		
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 (%)	12%	3%	3%	5%	5%	2%	4%	4%	0%	0%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	699	0	65	450	0	178	66	58	58	102	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	44.0		9.5	44.0		9.5	34.0	9.5	9.5	24.0	
Total Split (s)	9.0	47.0		9.0	47.0		11.0	34.0	9.0	10.0	33.0	
Total Split (%)	9.0%	47.0%		9.0%	47.0%		11.0%	34.0%	9.0%	10.0%	33.0%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0	3.5	3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Act Effct Green (s)	64.3	56.0		64.5	56.1		25.7	13.8	23.3	18.2	9.5	
Actuated g/C Ratio	0.64	0.56		0.64	0.56		0.26	0.14	0.23	0.18	0.10	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.10	0.36		0.14	0.24		0.53	0.25	0.14	0.21	0.53	
Control Delay	8.1	14.2		8.3	13.2		34.7	39.2	5.4	26.9	37.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	8.1	14.2		8.3	13.2		34.7	39.2	5.4	26.9	37.9	
LOS	A	B		A	B		C	D	A	C	D	
Approach Delay		13.8			12.6			30.0			33.9	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	12	127		14	76		90	38	0	27	40	
Queue Length 95th (ft)	29	182		32	115		133	72	19	52	84	
Internal Link Dist (ft)		1848			1223			571			318	
Turn Bay Length (ft)	150			140			115		115	185		
Base Capacity (vph)	582	1918		477	1900		335	538	426	284	485	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.10	0.36		0.14	0.24		0.53	0.12	0.14	0.20	0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 18.1		Intersection LOS: B	
Intersection Capacity Utilization 64.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Constitution Drive & Galena Boulevard

Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	62	40	70	72	63	53
Future Vol, veh/h	62	40	70	72	63	53
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	5	7	2	6
Mvmt Flow	67	43	76	78	68	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	321	91
Stage 1	-	-	-	-	91	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	-	-	4.15	-	6.42	6.26
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.354
Pot Cap-1 Maneuver	-	-	1459	-	673	956
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1456	-	635	954
Mov Cap-2 Maneuver	-	-	-	-	635	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	750	-	-	1456	-
HCM Lane V/C Ratio	0.168	-	-	0.052	-
HCM Control Delay (s)	10.8	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	5	4	113	110	0
Future Vol, veh/h	3	5	4	113	110	0
Conflicting Peds, #/hr	0	0	2	0	0	2
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	88	88	88	88	88	88
Heavy Vehicles, %	67	0	25	3	4	0
Mvmt Flow	3	6	5	128	125	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	265	127	127	0	-	0
Stage 1	127	-	-	-	-	-
Stage 2	138	-	-	-	-	-
Critical Hdwy	7.07	6.2	4.35	-	-	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	4.103	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	604	929	1329	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	599	927	1326	-	-	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1326	-	769	-	-
HCM Lane V/C Ratio	0.003	-	0.012	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	19	0	0	0	7	116	0	0	115	0
Future Vol, veh/h	1	0	19	0	0	0	7	116	0	0	115	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	5	0	0	0	0	14	4	0	0	4	0
Mvmt Flow	1	0	19	0	0	0	7	118	0	0	117	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	252	252	120	259	252	118	120	0	0	118	0	0
Stage 1	120	120	-	132	132	-	-	-	-	-	-	-
Stage 2	132	132	-	127	120	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.55	6.2	7.1	6.5	6.2	4.24	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.045	3.3	3.5	4	3.3	2.326	-	-	2.2	-	-
Pot Cap-1 Maneuver	706	646	937	698	655	939	1396	-	-	1483	-	-
Stage 1	889	791	-	876	791	-	-	-	-	-	-	-
Stage 2	876	781	-	882	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	701	641	934	681	650	939	1392	-	-	1483	-	-
Mov Cap-2 Maneuver	701	641	-	681	650	-	-	-	-	-	-	-
Stage 1	882	789	-	872	787	-	-	-	-	-	-	-
Stage 2	872	777	-	864	798	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	0	0.4	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	919	-	1483	-	-
HCM Lane V/C Ratio	0.005	-	-	0.022	-	-	-	-
HCM Control Delay (s)	7.6	0	-	9	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	16	3	1	5	27	117	16	7	119	8
Future Vol, veh/h	1	0	16	3	1	5	27	117	16	7	119	8
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	-	-	-	-	-	105	-	-	35	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	12	4	0	0	0	0
Mvmt Flow	1	0	20	4	1	6	33	143	20	9	145	10

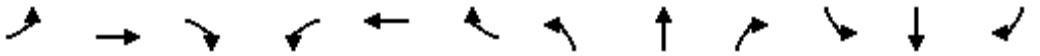
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	391	397	150	397	392	153	155	0	0	163	0	0
Stage 1	168	168	-	219	219	-	-	-	-	-	-	-
Stage 2	223	229	-	178	173	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.22	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.308	-	-	2.2	-	-
Pot Cap-1 Maneuver	572	544	902	567	547	898	1366	-	-	1428	-	-
Stage 1	839	763	-	788	726	-	-	-	-	-	-	-
Stage 2	784	718	-	828	760	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	554	528	902	542	531	898	1366	-	-	1428	-	-
Mov Cap-2 Maneuver	609	569	-	599	569	-	-	-	-	-	-	-
Stage 1	819	758	-	769	709	-	-	-	-	-	-	-
Stage 2	759	701	-	805	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	10	1.3	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1366	-	-	609	902	730	1428	-	-
HCM Lane V/C Ratio	0.024	-	-	0.002	0.022	0.015	0.006	-	-
HCM Control Delay (s)	7.7	-	-	10.9	9.1	10	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.1	0	0	-	-

Capacity Analysis Summary Sheets

No-Build Weekday Evening Peak Hour Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	526	164	67	536	88	192	50	56	92	78	37
Future Volume (vph)	83	526	164	67	536	88	192	50	56	92	78	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	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)	150		0	140		0	115		115	185		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	155			160			85			85		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964			0.979				0.850		0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3446	0	1805	3494	0	1787	1961	1615	1770	1773	0
Flt Permitted	0.341			0.312			0.590			0.720		
Satd. Flow (perm)	641	3446	0	593	3494	0	1110	1961	1615	1341	1773	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			20				64		20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1928			1303			651			398	
Travel Time (s)		43.8			29.6			14.8			9.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%	1%	2%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	766	0	74	694	0	213	56	62	102	128	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	44.0		9.5	44.0		9.5	34.0	9.5	9.5	24.0	
Total Split (s)	12.0	51.0		12.0	51.0		18.0	35.0	12.0	12.0	29.0	
Total Split (%)	10.9%	46.4%		10.9%	46.4%		16.4%	31.8%	10.9%	10.9%	26.4%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0	3.5	3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Act Effct Green (s)	70.2	61.2		69.4	60.8		24.3	11.9	22.3	27.2	12.1	
Actuated g/C Ratio	0.64	0.56		0.63	0.55		0.22	0.11	0.20	0.25	0.11	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.19	0.40		0.16	0.36		0.66	0.26	0.16	0.26	0.60	
Control Delay	9.0	15.4		9.0	15.8		47.5	50.5	6.0	32.0	50.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	9.0	15.4		9.0	15.8		47.5	50.5	6.0	32.0	50.4	
LOS	A	B		A	B		D	D	A	C	D	
Approach Delay		14.7			15.1			40.2			42.3	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	20	143		16	132		127	38	0	57	73	
Queue Length 95th (ft)	52	247		44	230		169	77	21	87	130	
Internal Link Dist (ft)		1848			1223			571			318	
Turn Bay Length (ft)	150			140			115		115	185		
Base Capacity (vph)	504	1936		474	1939		365	516	399	389	386	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.18	0.40		0.16	0.36		0.58	0.11	0.16	0.26	0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Constitution Drive & Galena Boulevard

Intersection	
Int Delay, s/veh	5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	72	84	126	73	103
Future Vol, veh/h	104	72	84	126	73	103
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	2	2	0	3
Mvmt Flow	135	94	109	164	95	134

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	231	0	566	184
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	-	-	4.12	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1337	-	489	856
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	694	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1334	-	444	854
Mov Cap-2 Maneuver	-	-	-	-	444	-
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	632	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	617	-	-	1334	-
HCM Lane V/C Ratio	0.37	-	-	0.082	-
HCM Control Delay (s)	14.2	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.7	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	3	176	155	1
Future Vol, veh/h	0	3	3	176	155	1
Conflicting Peds, #/hr	0	0	4	0	0	4
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	78	78	78	78	78	78
Heavy Vehicles, %	0	33	0	1	2	0
Mvmt Flow	0	4	4	226	199	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	438	204	204	0	-	0
Stage 1	204	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.2	-	-	-
Pot Cap-1 Maneuver	580	764	1380	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	761	1375	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1375	-	761	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	17	1	0	0	25	177	2	0	157	1
Future Vol, veh/h	2	1	17	1	0	0	25	177	2	0	157	1
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	3	0
Mvmt Flow	2	1	21	1	0	0	30	216	2	0	191	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	474	475	197	480	474	217	197	0	0	218	0	0
Stage 1	197	197	-	277	277	-	-	-	-	-	-	-
Stage 2	277	278	-	203	197	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	504	491	849	499	492	828	1388	-	-	1364	-	-
Stage 1	809	742	-	734	685	-	-	-	-	-	-	-
Stage 2	734	684	-	804	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	492	476	845	477	477	828	1381	-	-	1364	-	-
Mov Cap-2 Maneuver	492	476	-	477	477	-	-	-	-	-	-	-
Stage 1	785	738	-	716	668	-	-	-	-	-	-	-
Stage 2	716	667	-	783	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	12.6	0.9	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1381	-	-	761	477	1364	-	-
HCM Lane V/C Ratio	0.022	-	-	0.032	0.003	-	-	-
HCM Control Delay (s)	7.7	0	-	9.9	12.6	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	0	70	10	1	7	66	150	5	1	127	47
Future Vol, veh/h	47	0	70	10	1	7	66	150	5	1	127	47
Conflicting Peds, #/hr	1	0	0	0	0	1	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	105	-	-	35	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	10	0	14	0	2	20	0	4	0
Mvmt Flow	58	0	86	12	1	9	81	185	6	1	157	58

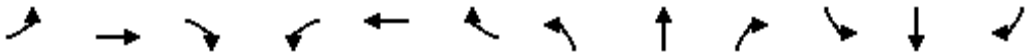
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	546	543	188	581	569	189	217	0	0	191	0	0
Stage 1	190	190	-	350	350	-	-	-	-	-	-	-
Stage 2	356	353	-	231	219	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.2	6.5	6.34	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.59	4	3.426	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	452	450	859	413	435	823	1365	-	-	1395	-	-
Stage 1	816	747	-	650	636	-	-	-	-	-	-	-
Stage 2	666	634	-	754	726	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	424	422	857	354	408	822	1362	-	-	1395	-	-
Mov Cap-2 Maneuver	500	488	-	437	468	-	-	-	-	-	-	-
Stage 1	766	745	-	612	598	-	-	-	-	-	-	-
Stage 2	618	597	-	677	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	12	2.3	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1362	-	-	500	857	537	1395	-	-
HCM Lane V/C Ratio	0.06	-	-	0.116	0.101	0.041	0.001	-	-
HCM Control Delay (s)	7.8	-	-	13.1	9.7	12	7.6	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	0.3	0.1	0	-	-

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)	53	464	137	56	333	57	153	58	50	59	53	37
Future Volume (vph)	53	464	137	56	333	57	153	58	50	59	53	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	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)	150		0	140		0	115		115	185		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	155			160			85			85		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00				0.99	1.00		
Frt		0.966			0.978				0.850		0.939	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1612	3386	0	1719	3366	0	1736	1923	1615	1805	1704	0
Flt Permitted	0.481			0.344			0.490			0.713		
Satd. Flow (perm)	815	3386	0	622	3366	0	895	1923	1594	1353	1704	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			23				71		34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1928			1303			651			398	
Travel Time (s)		43.8			29.6			14.8			9.0	
Confl. Peds. (#/hr)	1					1			1	1		
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 (%)	12%	3%	3%	5%	5%	2%	4%	4%	0%	0%	8%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	699	0	65	453	0	178	67	58	69	105	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	44.0		9.5	44.0		9.5	34.0	9.5	9.5	24.0	
Total Split (s)	9.0	47.0		9.0	47.0		11.0	34.0	9.0	10.0	33.0	
Total Split (%)	9.0%	47.0%		9.0%	47.0%		11.0%	34.0%	9.0%	10.0%	33.0%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0	3.5	3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Act Effct Green (s)	64.2	55.8		64.2	55.8		25.7	13.6	23.1	18.9	9.7	
Actuated g/C Ratio	0.64	0.56		0.64	0.56		0.26	0.14	0.23	0.19	0.10	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.11	0.37		0.14	0.24		0.53	0.26	0.14	0.24	0.54	
Control Delay	8.3	14.4		8.4	13.5		34.5	39.6	5.4	27.4	38.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	8.3	14.4		8.4	13.5		34.5	39.6	5.4	27.4	38.9	
LOS	A	B		A	B		C	D	A	C	D	
Approach Delay		13.9			12.8			30.0			34.3	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	14	128		14	77		89	38	0	32	44	
Queue Length 95th (ft)	31	183		32	117		133	73	19	59	87	
Internal Link Dist (ft)		1848			1223			571			318	
Turn Bay Length (ft)	150			140			115		115	185		
Base Capacity (vph)	579	1910		475	1887		336	538	423	295	484	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.11	0.37		0.14	0.24		0.53	0.12	0.14	0.23	0.22	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 18.4		Intersection LOS: B	
Intersection Capacity Utilization 64.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Constitution Drive & Galena Boulevard

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	62	41	71	72	67	57
Future Vol, veh/h	62	41	71	72	67	57
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	5	7	2	6
Mvmt Flow	67	45	77	78	73	62

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	114	0	324	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	232	-
Critical Hdwy	-	-	4.15	-	6.42	6.26
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.354
Pot Cap-1 Maneuver	-	-	1457	-	670	954
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1454	-	632	952
Mov Cap-2 Maneuver	-	-	-	-	632	-
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	747	-	-	1454	-
HCM Lane V/C Ratio	0.18	-	-	0.053	-
HCM Control Delay (s)	10.9	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	5	4	121	112	0
Future Vol, veh/h	3	5	4	121	112	0
Conflicting Peds, #/hr	0	0	2	0	0	2
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	88	88	88	88	88	88
Heavy Vehicles, %	67	0	25	3	4	0
Mvmt Flow	3	6	5	138	127	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	277	129	129	0	-	0
Stage 1	129	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	7.07	6.2	4.35	-	-	-
Critical Hdwy Stg 1	6.07	-	-	-	-	-
Critical Hdwy Stg 2	6.07	-	-	-	-	-
Follow-up Hdwy	4.103	3.3	2.425	-	-	-
Pot Cap-1 Maneuver	594	926	1326	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	589	924	1323	-	-	-
Mov Cap-2 Maneuver	589	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	742	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1323	-	762	-	-
HCM Lane V/C Ratio	0.003	-	0.012	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	24	0	0	0	11	120	0	0	116	1
Future Vol, veh/h	5	0	24	0	0	0	11	120	0	0	116	1
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	5	0	0	0	0	14	4	0	0	4	0
Mvmt Flow	5	0	24	0	0	0	11	122	0	0	118	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	266	266	122	275	266	122	122	0	0	122	0	0
Stage 1	122	122	-	144	144	-	-	-	-	-	-	-
Stage 2	144	144	-	131	122	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.55	6.2	7.1	6.5	6.2	4.24	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.55	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.045	3.3	3.5	4	3.3	2.326	-	-	2.2	-	-
Pot Cap-1 Maneuver	691	635	935	681	643	935	1394	-	-	1478	-	-
Stage 1	887	789	-	864	782	-	-	-	-	-	-	-
Stage 2	864	772	-	877	799	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	685	628	932	659	636	935	1390	-	-	1478	-	-
Mov Cap-2 Maneuver	685	628	-	659	636	-	-	-	-	-	-	-
Stage 1	877	787	-	857	776	-	-	-	-	-	-	-
Stage 2	857	766	-	854	797	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	0	0.6	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	877	-	1478	-	-
HCM Lane V/C Ratio	0.008	-	-	0.034	-	-	-	-
HCM Control Delay (s)	7.6	0	-	9.2	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	22	3	1	5	31	121	16	7	124	9
Future Vol, veh/h	5	0	22	3	1	5	31	121	16	7	124	9
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	-	-	-	-	-	105	-	-	35	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	12	4	0	0	0	0
Mvmt Flow	6	0	27	4	1	6	38	148	20	9	151	11

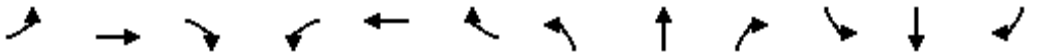
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	413	419	157	422	414	158	162	0	0	168	0	0
Stage 1	175	175	-	234	234	-	-	-	-	-	-	-
Stage 2	238	244	-	188	180	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.22	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.308	-	-	2.2	-	-
Pot Cap-1 Maneuver	553	528	894	546	532	893	1358	-	-	1422	-	-
Stage 1	832	758	-	774	715	-	-	-	-	-	-	-
Stage 2	770	708	-	818	754	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	534	510	894	516	514	893	1358	-	-	1422	-	-
Mov Cap-2 Maneuver	593	557	-	578	555	-	-	-	-	-	-	-
Stage 1	809	753	-	752	695	-	-	-	-	-	-	-
Stage 2	742	688	-	788	749	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	10.1	1.4	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1358	-	-	593	894	715	1422	-	-
HCM Lane V/C Ratio	0.028	-	-	0.01	0.03	0.015	0.006	-	-
HCM Control Delay (s)	7.7	-	-	11.1	9.2	10.1	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.1	0	0	-	-

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)	98	526	164	67	536	97	192	52	56	98	79	37
Future Volume (vph)	98	526	164	67	536	97	192	52	56	98	79	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	2000	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)	150		0	140		0	115		115	185		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	155			160			85			85		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964			0.977				0.850		0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3446	0	1805	3487	0	1787	1961	1615	1770	1773	0
Flt Permitted	0.321			0.319			0.535			0.719		
Satd. Flow (perm)	604	3446	0	606	3487	0	1006	1961	1615	1339	1773	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			23				64		19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1928			1303			651			398	
Travel Time (s)		43.8			29.6			14.8			9.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%	1%	2%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	766	0	74	704	0	213	58	62	109	129	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	44.0		9.5	44.0		9.5	34.0	9.5	9.5	24.0	
Total Split (s)	12.0	51.0		12.0	51.0		18.0	35.0	12.0	12.0	29.0	
Total Split (%)	10.9%	46.4%		10.9%	46.4%		16.4%	31.8%	10.9%	10.9%	26.4%	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0	3.5	3.5	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	2.0	0.0	0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Act Effct Green (s)	70.5	61.1		68.1	58.4		21.8	8.6	16.7	30.3	12.2	
Actuated g/C Ratio	0.64	0.56		0.62	0.53		0.20	0.08	0.15	0.28	0.11	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.23	0.40		0.16	0.38		0.74	0.38	0.21	0.25	0.61	
Control Delay	9.3	15.5		9.1	16.7		55.1	54.4	6.6	31.2	50.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	9.3	15.5		9.1	16.7		55.1	54.4	6.6	31.2	50.9	
LOS	A	B		A	B		E	D	A	C	D	
Approach Delay		14.7			16.0			45.9			41.9	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	24	143		16	135		126	40	0	61	75	
Queue Length 95th (ft)	60	247		44	236		169	80	21	92	131	
Internal Link Dist (ft)		1848			1223			571			318	
Turn Bay Length (ft)	150			140			115		115	185		
Base Capacity (vph)	487	1935		477	1862		331	516	320	440	385	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.22	0.40		0.16	0.38		0.64	0.11	0.19	0.25	0.34	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Constitution Drive & Galena Boulevard

Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	76	88	126	75	105
Future Vol, veh/h	104	76	88	126	75	105
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	2	2	0	3
Mvmt Flow	135	99	114	164	97	136

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	236	0	579	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	392	-
Critical Hdwy	-	-	4.12	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1331	-	481	852
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	687	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1328	-	435	850
Mov Cap-2 Maneuver	-	-	-	-	435	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	622	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	608	-	-	1328	-
HCM Lane V/C Ratio	0.384	-	-	0.086	-
HCM Control Delay (s)	14.6	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.8	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	3	180	163	1
Future Vol, veh/h	0	3	3	180	163	1
Conflicting Peds, #/hr	0	0	4	0	0	4
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	78	78	78	78	78	78
Heavy Vehicles, %	0	33	0	1	2	0
Mvmt Flow	0	4	4	231	209	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	453	214	214	0	-	0
Stage 1	214	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.2	-	-	-
Pot Cap-1 Maneuver	568	754	1368	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	562	751	1363	-	-	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1363	-	751	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	1	20	1	0	0	38	179	2	0	161	5
Future Vol, veh/h	4	1	20	1	0	0	38	179	2	0	161	5
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	3	0
Mvmt Flow	5	1	24	1	0	0	46	218	2	0	196	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	515	516	204	523	518	219	207	0	0	220	0	0
Stage 1	204	204	-	311	311	-	-	-	-	-	-	-
Stage 2	311	312	-	212	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	474	466	842	468	465	826	1376	-	-	1361	-	-
Stage 1	803	737	-	704	662	-	-	-	-	-	-	-
Stage 2	704	661	-	795	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	458	446	838	440	445	826	1369	-	-	1361	-	-
Mov Cap-2 Maneuver	458	446	-	440	445	-	-	-	-	-	-	-
Stage 1	768	733	-	677	637	-	-	-	-	-	-	-
Stage 2	677	636	-	771	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	13.2	1.3	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1369	-	-	718	440	1361	-	-
HCM Lane V/C Ratio	0.034	-	-	0.042	0.003	-	-	-
HCM Control Delay (s)	7.7	0	-	10.2	13.2	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	0	74	10	1	7	79	163	5	1	130	51
Future Vol, veh/h	49	0	74	10	1	7	79	163	5	1	130	51
Conflicting Peds, #/hr	1	0	0	0	0	1	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	105	-	-	35	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	10	0	14	0	2	20	0	4	0
Mvmt Flow	60	0	91	12	1	9	98	201	6	1	160	63

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	602	599	194	639	627	205	225	0	0	207	0	0
Stage 1	196	196	-	400	400	-	-	-	-	-	-	-
Stage 2	406	403	-	239	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.2	6.5	6.34	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.59	4	3.426	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	414	418	853	378	403	806	1356	-	-	1376	-	-
Stage 1	810	742	-	611	605	-	-	-	-	-	-	-
Stage 2	626	603	-	747	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	385	387	851	319	373	805	1353	-	-	1376	-	-
Mov Cap-2 Maneuver	464	459	-	405	438	-	-	-	-	-	-	-
Stage 1	750	740	-	567	561	-	-	-	-	-	-	-
Stage 2	573	560	-	666	718	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	12.5	2.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1353	-	-	464	851	505	1376	-	-
HCM Lane V/C Ratio	0.072	-	-	0.13	0.107	0.044	0.001	-	-
HCM Control Delay (s)	7.9	-	-	13.9	9.7	12.5	7.6	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	0.4	0.1	0	-	-

Parking Occupancy Surveys

TABLE A.1. THE APARTMENTS AT KIRKLAND CROSSING PARKING SURVEYS – FRIDAY

Time	The Apartments at Kirkland Crossing - Occupied Parking Spaces - Friday				
	Surface Parking Spaces	Garage Spaces	Driveway Spaces	Curbside/Unmarked Spaces	Total
7:00 AM	219	154	50	0	423
11:00 AM	166	153	25	0	344
3:00 PM	149	152	33	0	334
7:00 PM	205	153	40	0	398
10:00 PM	221	154	46	0	421
Inventory	**370**	**154**	**101**	**0**	**625**

TABLE A.2. THE APARTMENTS AT KIRKLAND CROSSING PARKING SURVEYS – SATURDAY

Time	The Apartments at Kirkland Crossing - Occupied Parking Spaces - Saturday				
	Surface Parking Spaces	Garage Spaces	Driveway Spaces	Curbside/Unmarked Spaces	Total
7:00 AM	265	154	53	0	472
11:00 AM	212	154	31	0	397
3:00 PM	205	153	37	1	397
7:00 PM	217	154	39	0	410
10:00 PM	239	154	47	0	440
Inventory	**370**	**154**	**101**	**0**	**625**

TABLE B.1. AURORA AT SUMMERFIELD APARTMENTS PARKING SURVEYS – FRIDAY

Time	Aurora at Summerfield Apartments - Occupied Parking Spaces - Friday				
	Surface Parking Spaces	Garage Spaces	Driveway Spaces	Curbside/Unmarked Spaces	Total
7:00 AM	362	160	Not Available	2	524
11:00 AM	295	163	Not Available	2	460
3:00 PM	294	164	Not Available	0	458
7:00 PM	368	164	Not Available	0	532
10:00 PM	392	164	Not Available	0	556
Inventory	**569**	**169**	**0**	**0**	**738**

TABLE B.2. AURORA AT SUMMERFIELD APARTMENTS PARKING SURVEYS – SATURDAY

Time	Aurora at Summerfield Apartments - Occupied Parking Spaces - Saturday				
	Surface Parking Spaces	Garage Spaces	Driveway Spaces	Curbside/Unmarked Spaces	Total
7:00 AM	466	166	Not Available	0	632
11:00 AM	387	166	Not Available	0	553
3:00 PM	352	166	Not Available	1	519
7:00 PM	367	166	Not Available	0	533
10:00 PM	408	166	Not Available	0	574
Inventory	**569**	**169**	**0**	**0**	**738**