TRAFFIC ANALYSIS REPORT

FOR

LOCKWOOD MEADOWS SUBDIVISION

LOCKWOOD CREEK ROAD

LA CENTER

SUBMITTED BY

CHARBONNEAU
ENGINEERING LLC

August 2021

Project 21-25

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Prepared By

CHARBONNEAU Engineering LLC

8-5-21

F. R. CHARBONNEAU
STATE OF WASHINGTON
17586
REGISTERED
PROFESSIONAL ENGINEER

Renews 9-30-22

August 2021

Project 21-25

10211 SW Barbur Blvd, Suite 210A, Portland, OR 97219 Phone: (503) 293-1118

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FL2164

INTRODUCTION

This traffic study has been prepared to evaluate and document the operations and safety conditions for the Lockwood Meadows Subdivision development being planned in La Center, Washington. The development will build 74 single-family homes. The project site is located in north La Center on the north side of Lockwood Creek Road between East Spruce Avenue and NE 24th Avenue. Figure 'a' in the appendix is a vicinity map highlighting the project location.

In accordance with the City's requirements the study area was defined as the surrounding neighborhood including several key intersections along Lockwood Creek Road, East 4th Street, and La Center Road.

TRAFFIC ANALYSIS CONSIDERATIONS

In the project scope established with City of La Center staff, a number of important elements were identified and considered in the study.

- Inventory and record pertinent information such as traffic control devices, circulation patterns, lane conditions, pedestrian & bicycle facilities, transit zones, parking, and street characteristics.
- Record data on typical weekdays during the AM & PM peak traffic hours.
- Obtain traffic counts for the six study intersections on Lockwood Creek Road, East 4th Street, and La Center Road.
- The project buildout is estimated to occur in year 2024. Three years of traffic growth at 3% per year was applied to establish the year 2024 background volumes. The City confirmed that in-process traffic was applicable for the project and furnished the data.
- Prepare trip generation for 74 single-family homes using the latest edition of the ITE Trip Generation manual (10th edition, Year 2021).
- Level of service (LOS) analysis of the study intersections to measure the approach delays and LOS for comparison to City of La Center standards.
- Review intersection sight distance at the proposed accesses on East Spruce Avenue and on NE 24th Avenue.
- Prepare peak hour signal warrant and left turn lane warrant.
- Review crash data furnished by WSDOT. Identify crash rates at the study intersections.
- Review the WSDOT Six Year Transportation Improvement Program from 2016 to 2021 to identify future projects covered in La Center.
- Review of the City's Capital Facilities Plan – Transportation to identify programmed street improvement projects relative to the Lockwood Meadows Subdivision development.

SITE DESCRIPTION, STREETS, ACCESS, AND CRITICAL INTERSECTIONS
Development of the Lockwood Meadows Subdivision project will include construction of 74 single-family homes. The project's location is situated on a 19.8 acre parcel (#209113000) on the north side of Lockwood Creek Road between East Spruce Street and NE 24th Avenue. The address is 2000 NW Lockwood Creek Road, La Center. The property is currently vacant.

Access to the proposed development includes street connections to the north, east, and west. The project site plan (Figure 'b') illustrates the access locations. These include two street approaches to an existing street to the north, a street approach to East Spruce Avenue on the property's west side, and a street approach to NE 24th Avenue on the site's east side. The development's internal streets will include sidewalks for pedestrian circulation purposes.

The study intersections on Lockwood Creek Road include Ivy Avenue/Highland Avenue, John Storm Avenue, East Spruce Avenue, and NE 24th Avenue. Additionally the intersections at East 4th Street/Cedar Avenue and La Center Road at Timmen Road were analyzed. All of the study intersections are controlled by stop signing on the side street approaches.

In the future according to WSDOT's Six Year TIP for 2016-2021 and the City's Capital Facilities Plan – Transportation the intersection of La Center Road at Timmen Road will become signalized or converted to a roundabout.

The intersection of La Center Road at Paradise Park Road was assessed for trip distribution purposes only.

The existing and proposed lane configurations and traffic control are presented in Figures 'c1' and `c2`.

Lockwood Creek Road adjacent to the site is classified as a major collector and contains one travel lane in each direction. The travel speed is posted at 35 MPH. There are no bike lanes or sidewalks on the street in vicinity of the development site. No on-street parking is permitted. Based on AASHTO standards the required intersection sight distance along Lockwood Creek Road is 390 feet.

East Spruce Avenue is a local street serving residential properties north of Lockwood Creek Road. The street is unmarked and includes curb and sidewalk on both sides. By statute, the legal travel speed is 25 MPH as the speed limit is not posted.

Northeast 24th Avenue is a minor collector with two-way traffic flow. The street is unmarked and has pavement edges and narrow grass/gravel shoulders. There is no posted speed limit and by statute the legal travel speed is 25 MPH.

East 4th Street at Cedar Avenue is a tee-shaped intersection without separate turn lanes. Cedar Avenue serves residential properties to the north and the street's approach to East 4th Street is controlled by stop signing. Pedestrian crosswalks are marked at the intersection.

East 4th Street/Lockwood Creek Drive at Highland Avenue/Ivy Avenue is a four-way intersection with stop control on the north and south approaches. Separate left turn lanes are in place on all four approaches. Pedestrian crosswalks are marked at the intersection and sidewalks exist on the streets. School facilities are present in the area.

Lockwood Creek Road at John Storm Avenue is tee-shaped intersection with stop control on the south approach. There are no separate turn lanes at this location. Sidewalks exist on the south side of Lockwood Creek Road and on both sides of John Storm Avenue. A marked crosswalk is present on the intersection's south leg.

Lockwood Creek Road at East Spruce Avenue is tee-shaped intersection with stop control on the north approach. There are no separate turn lanes at this location. Sidewalks exist on along East Spruce Street and in the intersection's corner radii on the north side. There is a marked crosswalk across Lockwood Creek Road approximately 90 feet west of the intersection. East Spruce Avenue feeds into residential development to the north.

Lockwood Creek Road at NE 24th Avenue is tee-shaped intersection with stop control on the north approach. There are no separate turn lanes at this location. No sidewalk is present. Northeast 24th Avenue feeds into residential development to the north and has no lane markings.

La Center Road at Timmen Road is configured as a tee-shaped intersection containing stop signing on the Timmen Road approach where there are separate left and right turn lanes. There is a separate westbound left turn lane on La Center Road. The travel speed is posted at 40 MPH on Lockwood Creek Road. There are no bike lanes or sidewalks at this location.

TRAFFIC OPERATIONAL ANALYSIS

In order to evaluate traffic flow and delay at the study intersections it was necessary to perform level of service (LOS) analyses and assess safety conditions. The intersections evaluated included Lockwood Creek Road at Ivy Avenue/Highland Avenue, John Storm Avenue, East Spruce Avenue, and NE 24th Avenue. Additionally the intersections at East 4th Street/Cedar Avenue and La Center Road at Timmen Road were analyzed. The results included identification of the LOS and average delay per vehicle in the peak hours for the following scenarios:

- Year 2021 Existing Traffic
- Year 2024 Background Traffic
- Year 2024 Total Traffic

To perform the LOS analysis at the study intersections required obtaining recent historical data at two locations and performing new video traffic counts at four other intersections. The counts were conducted during the AM peak (7:00-9:00AM) & PM peak (4:00-6:00 PM) traffic hours. Figures 1a & 1b depict the year 2021 existing AM & PM peak hour traffic volumes. The year 2018 and year 2019 historical data used for the intersections of East 4th Street at Cedar Avenue and East 4th Street/Lockwood Creek Road at Highland Avenue/Ivy Avenue were factored by a growth rate of 3.9% per year based on annual population growth to equate to year 2021 volumes.

Three years of traffic growth (3% per year) plus in-process traffic has been added to the year 2021 existing volumes to account for the background traffic volumes. The in-process traffic consisted of several projects including Teresa's Little School, New Middle School, and the Minit Management Development as referenced according to City staff. The associated trips are shown on Figures 2a & 2b. The Year 2024 background traffic volumes are illustrated on Figure 3a & 3b for the AM & PM peak hours, respectively.

The Year 2024 total traffic scenario (background plus site generated traffic) is presented in Figures 6a & 6b for the AM & PM peak hour, respectively.

VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation manual 10th edition (Year 2021) were utilized to estimate the site's trip generation. Single-Family housing and land-use code #210 was applied. The trip generation is summarized in Table 1.

Table 1 Trip Generation Summary

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
Single-Family (#210)	74							
Generation Rate [1]		9.44	0.74	25%	75%	0.99	63%	37%
Site Trips		**699**	**55**	14	41	**73**	46	27

[1] Source: *Trip Generation*, 10th Edition, ITE, 2017, average rates.

The proposed development is expected to generate 699 daily trips, 55 AM peak hour trips, and 73 PM peak hour trips.

The trip distribution was based on the existing traffic counts, intersection traffic control, site access locations, and engineering judgment. Figure 4 presents the trip distribution results and Figures 5a & 5b display the trip assignments for the AM & PM peak hours, respectively.

CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday peak hours. Synchro v11.1 software based on the year 2010 Highway Capacity Manual methodology was used to determine the LOS and approach delays for the study intersections. The results are summarized in the following table. Copies of the capacity analysis summaries are included in the appendix.

Table 2 Capacity Analysis Summary

Intersection	Type of Control	Peak Hour	Traffic Scenario											
			Year 2021				2024 Background				2024 Total			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Cedar Avenue & E 4th Street	Two-way Stop	AM	SB	B	10.7	0.04	SB	B	12.4	0.08	SB	B	12.9	0.08
		PM	SB	B	13.2	0.10	SB	B	14.6	0.13	SB	C	15.5	0.14
Highland/ Ivy Avenue & E 4th Street/ Lockwood Creek Rd	Two-way Stop	AM	NB	F	87.9	0.10	NB	F	185.1	0.05	NB	F	257.6	0.05
		PM	NB	C	21.5	0.09	NB	D	25.7	0.09	NB	D	28.6	0.11
	Mitigated[1]	*AM*	-	-	-	-	-	A	7.5	0.21	-	A	8.0	0.22
		PM	-	-	-	-	-	-	-	-	-	-	-	-
	Mitigated[2]	*AM*	-	-	-	-	-	A	8.8	0.35	-	A	*9.0*	*0.37*
		PM	-	-	-	-	-	-	-	-	-	-	-	-
John Storm Road & Lockwood Creek Rd	Two-way Stop	AM	NB	B	10.8	0.10	NB	B	14.4	0.19	NB	C	15.3	0.21
		PM	NB	B	11.5	0.11	NB	B	12.6	0.14	NB	B	13.3	0.15
E Spruce Avenue & Lockwood Creek Rd	Two-way Stop	AM	SB	A	9.3	0.02	SB	B	10.9	0.05	SB	B	11.0	0.07
		PM	SB	A	9.3	0.02	SB	A	9.9	0.03	SB	B	10.0	0.04
NE 24th Avenue & Lockwood Creek Rd	Two-way Stop	AM	SB	A	9.5	0.01	SB	A	9.6	0.02	SB	A	9.8	0.05
		PM	SB	B	10.4	0.02	SB	B	10.6	0.02	SB	B	10.5	0.04
Timmen Road and La Center Rd	Two-way Stop	AM	NB	B	12.3	0.11	NB	B	13.5	0.07	NB	B	13.7	0.07
		PM	NB	C	18.2	0.25	NB	C	21.5	0.31	NB	C	22.4	0.33

Notes: 2016 Highway Capacity Manual methodology used in analysis, Synchro v11. NB - Northbound, SB - Southbound, Crit. Mov't - Critical movement or critical approach.

[1] Construct roundabout.

[2] Install traffic signal.

According to the City's Comprehensive Plan policy the minimum acceptable level of service mobility standard for stop controlled intersections is LOS `E`. As documented in the Table 2 all of the study intersections except East 4th Street/Lockwood Creek Road at Highland Avenue/Ivy Avenue will operate at LOS `E` or better through the Year 2024 total traffic scenario.

The intersection of East 4th Street/Lockwood Creek Road at Highland Avenue/Ivy Avenue will maintain LOS `D` or better in the peak hours through the year 2024 total traffic scenario.

Currently the intersection experiences LOS `F` with 88 seconds of delay in the AM peak hour and will continue to fail through the year 2024 background and total traffic scenarios. The failing approach is the northbound stop controlled movement. The potential mitigation is either to install a traffic signal or construct a roundabout. However, mitigating the failing condition is not proposed in conjunction with the Lockwood Meadows Subdivision development for several reasons;

- In the failing AM peak hour the proposed development distributes no trips to the failing northbound approach.
- There is only a 4% impact when comparing the number of site trips distributed at the intersection to the year 2024 background traffic conditions.
- The City's Capital Facilities Plan documents that the intersection fails and proposes no mitigation through the year 2036. The Capital Facilities Plan surmises that future street connectivity improvements including local street extensions will further alleviate some of the motor vehicle trip demand in the area and yield reduced delay times at the intersection. Even a small shift in such trips would be sufficient to mitigate the condition.

Generally, LOS 'A', 'B', 'C', and 'D' are desirable service levels ranging from no vehicle delays to average or longer than average delays in the peak hours. Level 'E' represents longer delays and is considered to be the limit of acceptable delay for unsignalized and signalized intersections. Signalization warrants need to be reviewed and signals considered only if warrants are met. Level 'F' indicates that intersection improvements, such as widening and signalization, may be required. According to the Highway Capacity Manual (HCM*)*, the following delay times are associated with the LOS at stop controlled unsignalized and signalized intersections.

Level of Service criteria defined in Highway Capacity Manual

Level of Service (LOS)	Unsignalized Control Stopped Delay (sec/veh)	Signalized Control Stopped Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

QUEUING ANALYSIS

Queue length demand at the study intersections was determined with the capacity analyses. The results based on the 95th percentile queue rating for the Year 2024 total traffic scenario established that queues on the stop approaches in the AM & PM peak hours will not exceed one to two vehicles except at the intersection of East 4th Street/Lockwood Creek Road and Highland Avenue/Ivy Avenue. At this location the queues were projected to be three to four cars in the AM peak hour and two to three cars in the PM peak hour.

The LOS reports containing the queue results are contained in the appendix.

SIGHT DISTANCE

Intersection sight distance at the proposed access points on East Spruce Avenue and on NE 24th Avenue was reviewed in the field in accordance with the AASHTO standards. Using the posted travel speed of 25 MPH on Spruce Street requires an intersection sight distance of 280 feet in both directions. No restrictions to the sightlines are present on East Spruce Street and the sight distance standard is met.

Northeast 24th Avenue between Lockwood Creek Road and NE 339th Avenue does not have a posted travel speed and the traffic speeds were gauged by performing test drives following local traffic. The speeds typically ranged from 35 MPH to 40 MPH. The AASHTO standard for the higher speed is 445 feet. The available intersection sight distance was measured at 580 feet north of the access approach and in excess of 600 feet to the south. Therefore, the intersection sight distance standard is met.

When the development is constructed it will be necessary to maintain the required sight distance. Placement of any objects such as building structures, walls, signing, parking, above ground utilities, or landscaping that obstruct the sightlines is not permitted for safety purposes.

LEFT TURN LANE REQUIREMENTS

Left turn lane needs were evaluated for the peak hour conditions on Lockwood Creek Road at East Spruce Avenue and at NE 24th Avenue. Based on the warrant results eastbound left turn lanes are not warranted on Lockwood Creek Road in the peak hours through the year 2024 total traffic scenario. The warrant curve results are included in the appendix.

TRAFFIC SIGNAL WARRANTS

The peak hour signal warrant was evaluated for the stop controlled study intersections. The peak hour warrant data is included in the appendix.

The intersection at La Center Road and Timmen Road marginally meets the peak hour signal warrant in the PM peak hour for the year 2024 background and year 2024 total traffic

scenarios. However, with a 14% reduction of the Timmen Road approach volume for right turn traffic (a separate northbound right turn lane is present on the Timmen Road approach) the warrant is not met and signalization is not recommended in conjunction with the proposed development. Another factor that must be noted is that according to WSDOT's Six Year TIP for 2016-2021 and the City's Capital Facilities Plan – Transportation a traffic signal or roundabout improvement has been programmed at this location.

ACCIDENT HISTORY

Crash data for the study intersections on Lockwood Creek Road, East 4th Street, La Center Road was obtained from WSDOT staff and reviewed to identify potential safety issues. The latest available data covered the years 2016 - 2020.

The accident rates presented in Table 3 below are based on the number of accidents per million entering vehicles (MEV) per year. Typically, an intersection is not considered unsafe unless the crash rate exceeds the threshold value of 1.0 accidents per MEV.

Table 3 Crash Rate Results

Intersection	Crash History (Years)	Number of Crashes	Crashes per year	Annual Traffic Entering (veh/yr)	Crash rate per M.E.V.*
Cedar Avenue & E 4th Street	5	1	0.2	2604161	**0.08**
Highland/Ivy Ave & E 4th St/Lockwood Cr. Rd.	5	5	1.0	3016882	**0.33**
John Storm Road & Lockwood Cr. Rd.	5	1	0.2	1782371	**0.11**
E Spruce Avenue & Lockwood Cr. Rd.	5	0	0.0	1413479	**0.00**
NE 24th Avenue & Lockwood Cr. Rd.	5	0	0.0	1249121	**0.00**
Timmen Road and La Center Rd.	5	5	1.0	4572805	**0.22**

* M.E.V. - million entering vehicles.

None of the intersections experienced a crash rate above 0.33 crashes per MEV per year indicating safety mitigation is not necessary.

PEDESTRIANS, BICYCLES, & BUSES

Sidewalk will be provided along both sides of the streets constructed internally within development site. Sidewalk will also be constructed along the site's frontage adjacent to Lockwood Creek Road and NE 24th Avenue.

No bicycle lanes are provided on Lockwood Creek Road along the development's frontage. New bike lanes are not planned with the project.

C-Tran provides limited service to La Center with the Connector route which runs on weekdays only. The service operates between downtown La Center with a stop at the 4th Street Park & Ride to the 99th Street Transit Center in Vancouver.

SUMMARY AND RECOMMENDATIONS

The traffic study for Lockwood Meadows Subdivision has been prepared to determine the potential impacts at several study intersections along Lockwood Creek Road, East 4th Street, and La Center Road. Development of the site includes 74 single-family homes. Trip generation is projected to be 699 daily trips with 55 AM peak hour trips and 73 PM peak hour trips.

Intersection sight distance at the proposed access points on East Spruce Avenue and on NE 24th Avenue was reviewed in accordance with the AASHTO standards. A travel speed of 25 MPH on Spruce Street requires an intersection sight distance of 280 feet in both directions. No restrictions to the sightlines are present on East Spruce Street and the sight distance standard is met. Northeast 24th Avenue between Lockwood Creek Road and NE 339th Avenue does not have a posted travel speed and the traffic speeds were gauged by performing test drives following local traffic. The speeds typically ranged from 35 MPH to 40 MPH. The AASHTO standard for the higher speed is 445 feet. The available intersection sight distance was measured to be 580 feet north of the access approach and in excess of 600 feet to the south. Therefore, the intersection sight distance standard is met.

When the development is constructed it will be necessary to maintain the required sight distance. Placement of any objects such as building structures, walls, signing, parking, above ground utilities, or landscaping that obstruct the sightlines is not permitted for safety purposes.

According to the City's Comprehensive Plan policy the minimum acceptable level of service mobility standard for stop controlled intersections is LOS `E`. The analysis has determined that all of the study intersections except East 4th Street/Lockwood Creek Road at Highland Avenue/Ivy Avenue will operate at LOS `D` or better through the Year 2024 total traffic scenario. This intersection will maintain LOS `D` or better in the PM peak hour through the year 2024 total traffic scenario. Currently the intersection experiences LOS `F` with 88 seconds of delay in the AM peak hour and will continue to fail through the year 2024 background and total traffic scenarios. The failing approach is the northbound stop controlled movement. The failing condition would be mitigated by signalizing the intersection or constructing a roundabout. However, mitigating the failing condition is not proposed in conjunction with the Lockwood Meadows Subdivision development for several reasons;

- In the failing AM peak hour the proposed development distributes no trips to the failing northbound approach.

- There is only a 4% impact when comparing the number of site trips distributed at the intersection to the year 2024 background traffic conditions.
- The City's Capital Facilities Plan documents that the intersection fails and proposes no mitigation through the year 2036. The Capital Facilities Plan surmises that future street connectivity improvements including local street extensions will further alleviate some of the motor vehicle trip demand in the area and yield reduced delay times at the intersection. Even a small shift in such trips would be sufficient to mitigate the condition.

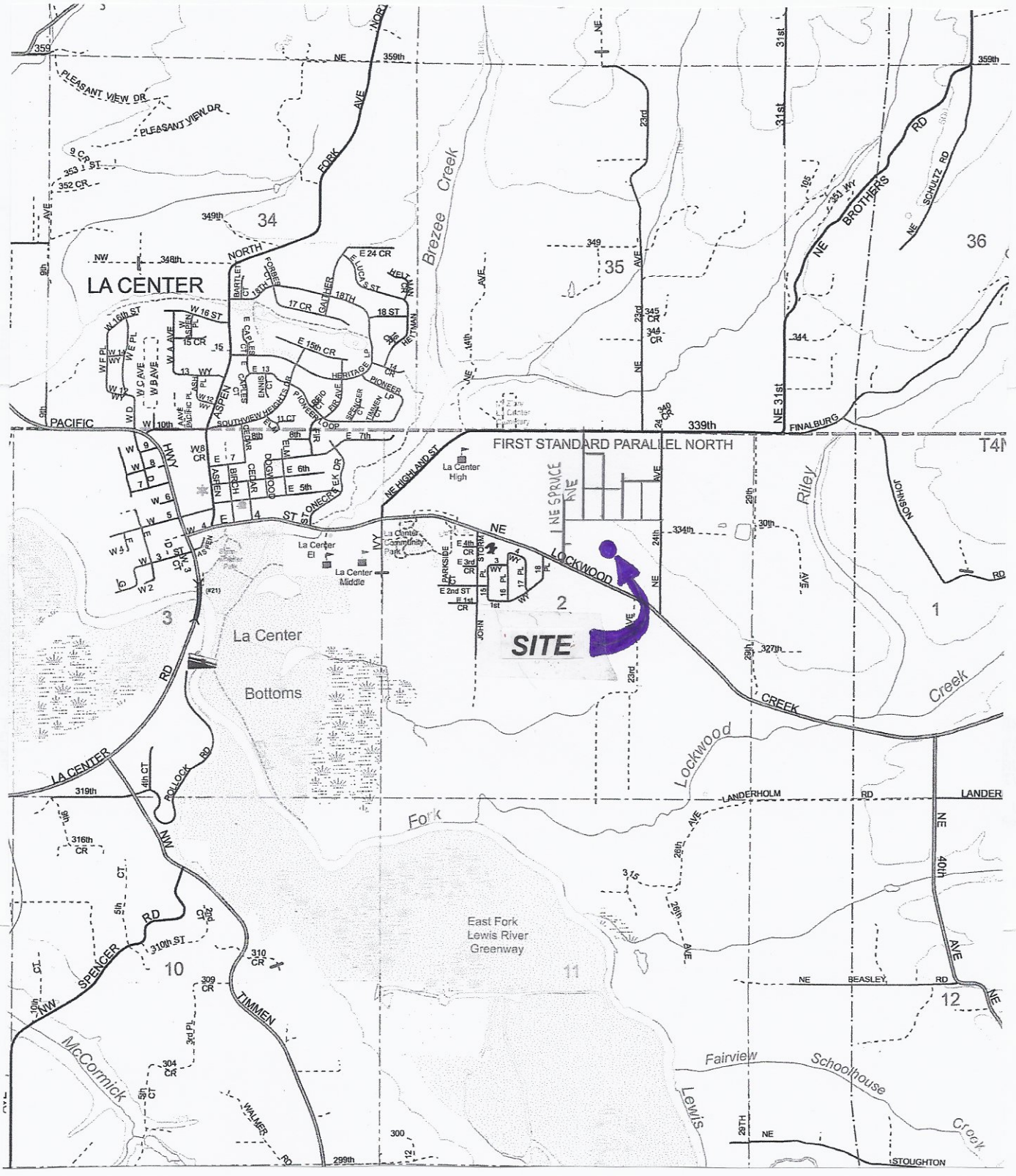
Queue length demand at the study intersections was determined with the capacity analyses. The results based on the 95th percentile queue rating for the Year 2024 total traffic scenario established that queues on the stop approaches in the AM & PM peak hours will not exceed one to two vehicles except at the intersection of East 4th Street/Lockwood Creek Road and Highland Avenue/Ivy Avenue. At this location the queues were projected to be three to four cars in the AM peak hour and two to three cars in the PM peak hour.

Crash data for the study intersections was obtained from WSDOT staff and reviewed to identify potential safety issues. The latest five years of available data was reviewed. None of the intersection crash rates exceed 0.33 accidents per MEV per year indicating safety mitigation is not necessary.

Based on evaluation of the study intersections including level of service conditions, vehicle delays, crash history, and warrants no intersection improvements beyond those planned at the site access approaches to East Spruce Avenue and NE 24th Avenue and the frontage improvements along Lockwood Creek Road and NE 24th Avenue are required in conjunction with the proposed development. The site access approaches to East Spruce Avenue and NE 24th Avenue will require stop sign control and stop bar pavement markings.

APPENDIX

- Vicinity Map — Figure 'a'
- Site Plan — Figure 'b'
- Lane Configurations and Traffic Control — Figures 'c1' & `c2`
- Traffic Flow Diagrams
  - Figures 1a & 1b — Year 2021 Existing Traffic (AM & PM)
  - Figures 2a & 2b — In-Process Traffic (AM & PM)
  - Figures 3a & 3b — Year 2024 Background Traffic (AM & PM)
  - Figure 4 — Trip Distribution
  - Figures 5a & 5b — Trip Assignment (AM & PM)
  - Figures 6a & 6b — Year 2024 Total Traffic (AM & PM)
- Traffic Count Data
- In-Process Traffic
- Left Turn Lane Warrant Worksheets
- Peak Hour Signal Warrant
- Crash History Summary (furnished by WSDOT)
- La Center Capital Facilities Plan – Transportation, document excerpts
- Synchro v11.1 Capacity Analysis Worksheets



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CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES: NO SCALE	N	VICINITY MAP LOCKWOOD MEADOWS	FIGURE a

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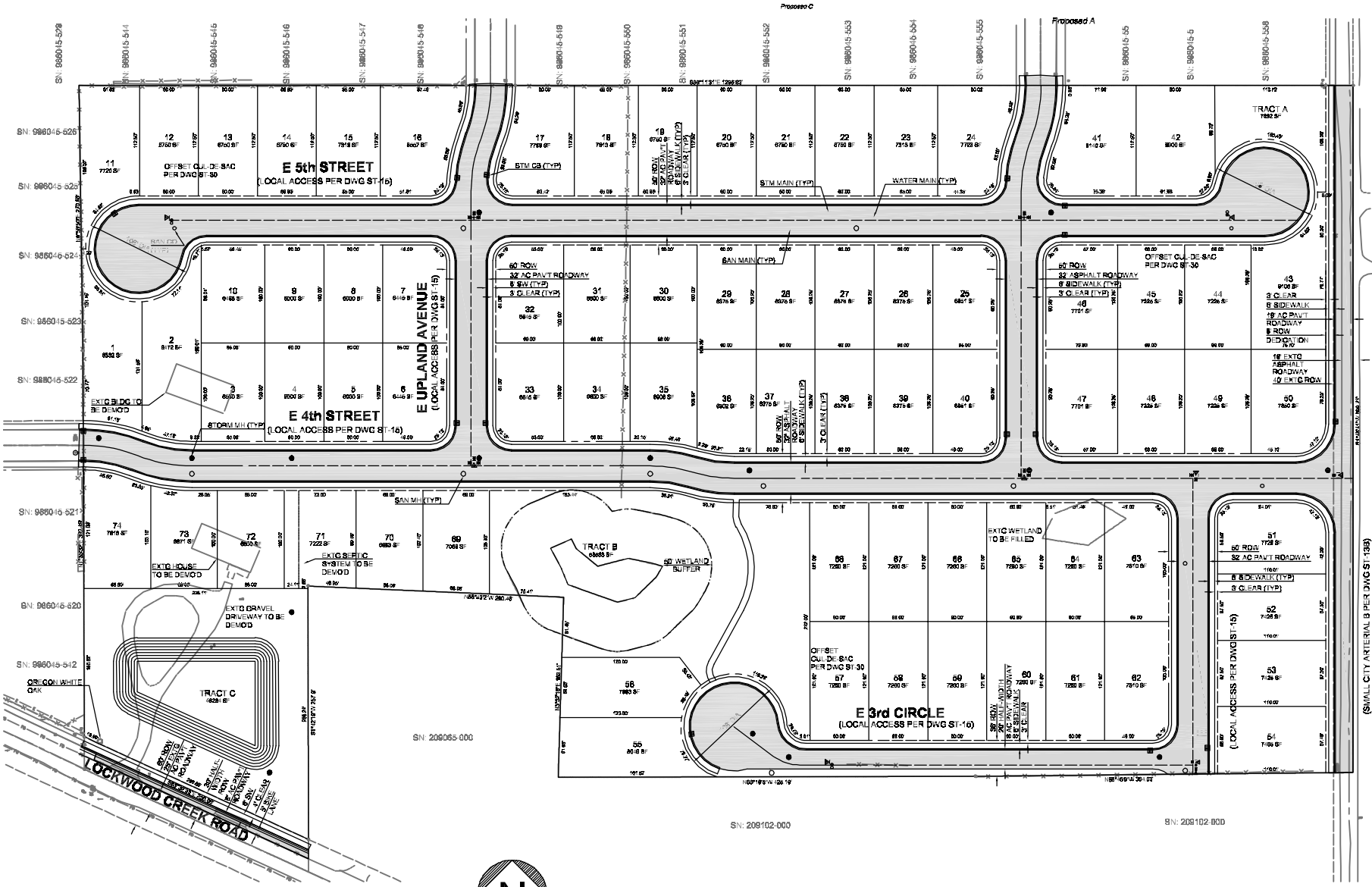

CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES: Site plan provided by PLS Engineering.	SITE PLAN LOCKWOOD MEADOWS	FIGURE b

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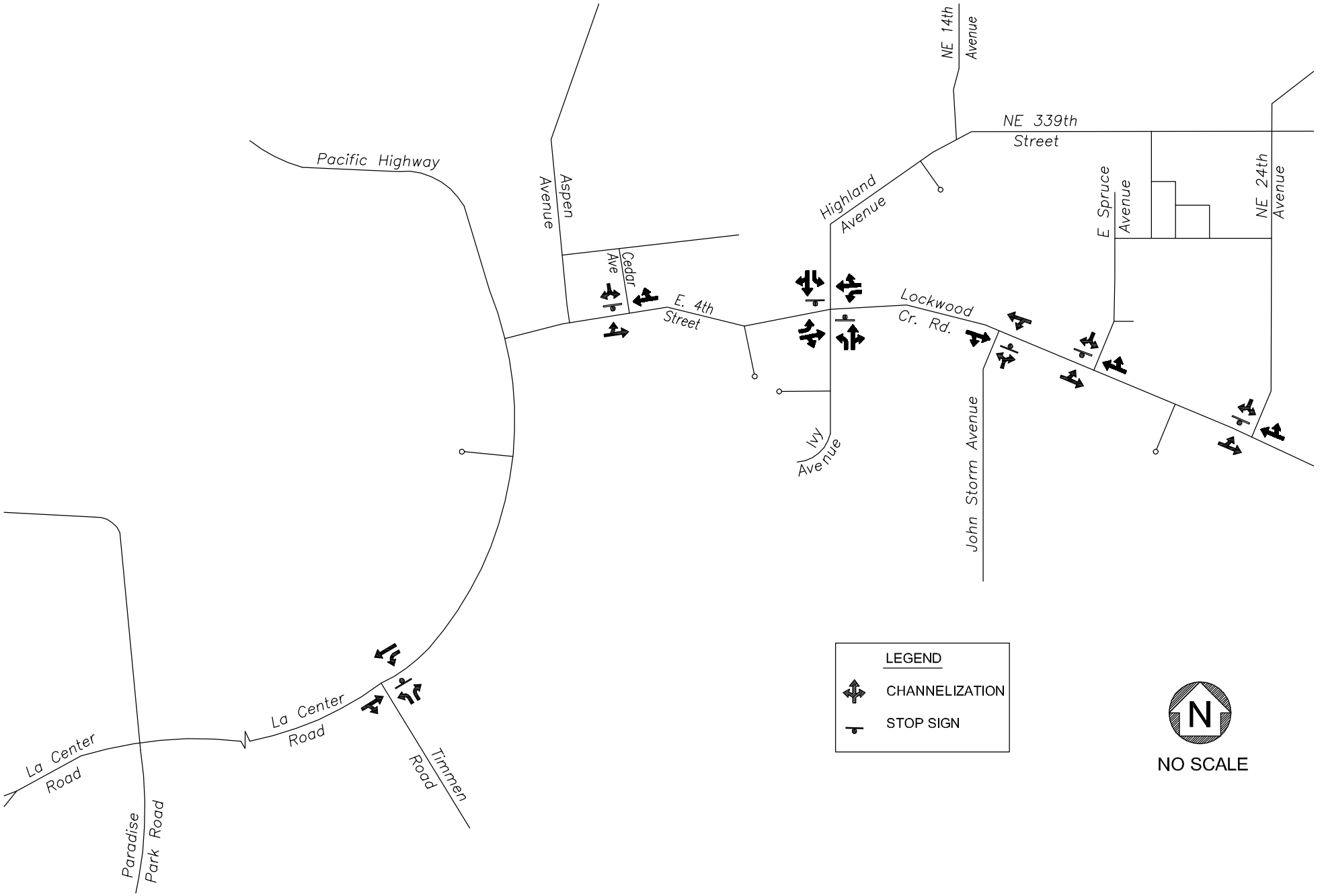

CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES:	EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL LOCKWOOD MEADOWS	FIGURE c1

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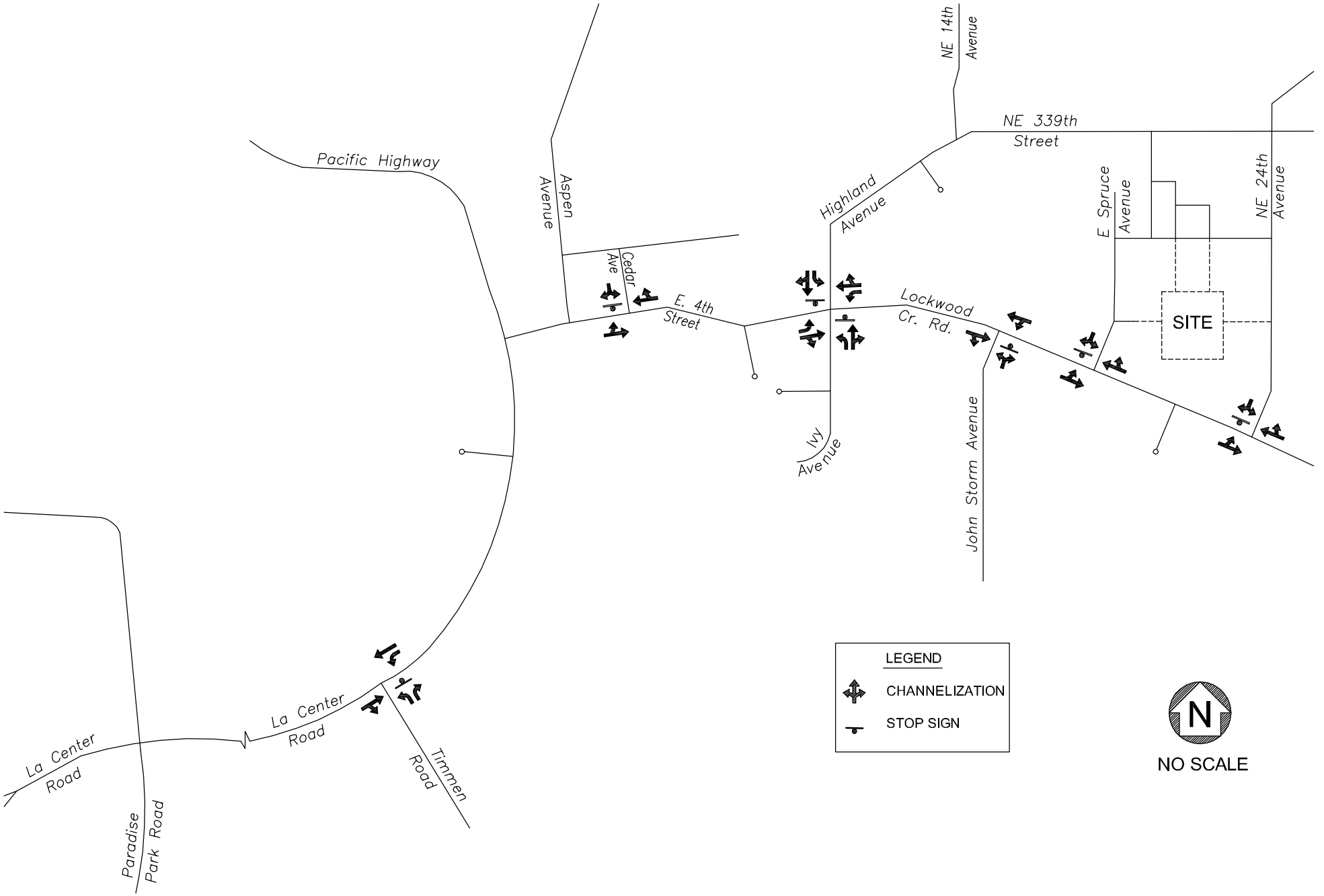

CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES:	PROPOSED LANE CONFIGURATIONS AND TRAFFIC CONTROL LOCKWOOD MEADOWS	FIGURE c2

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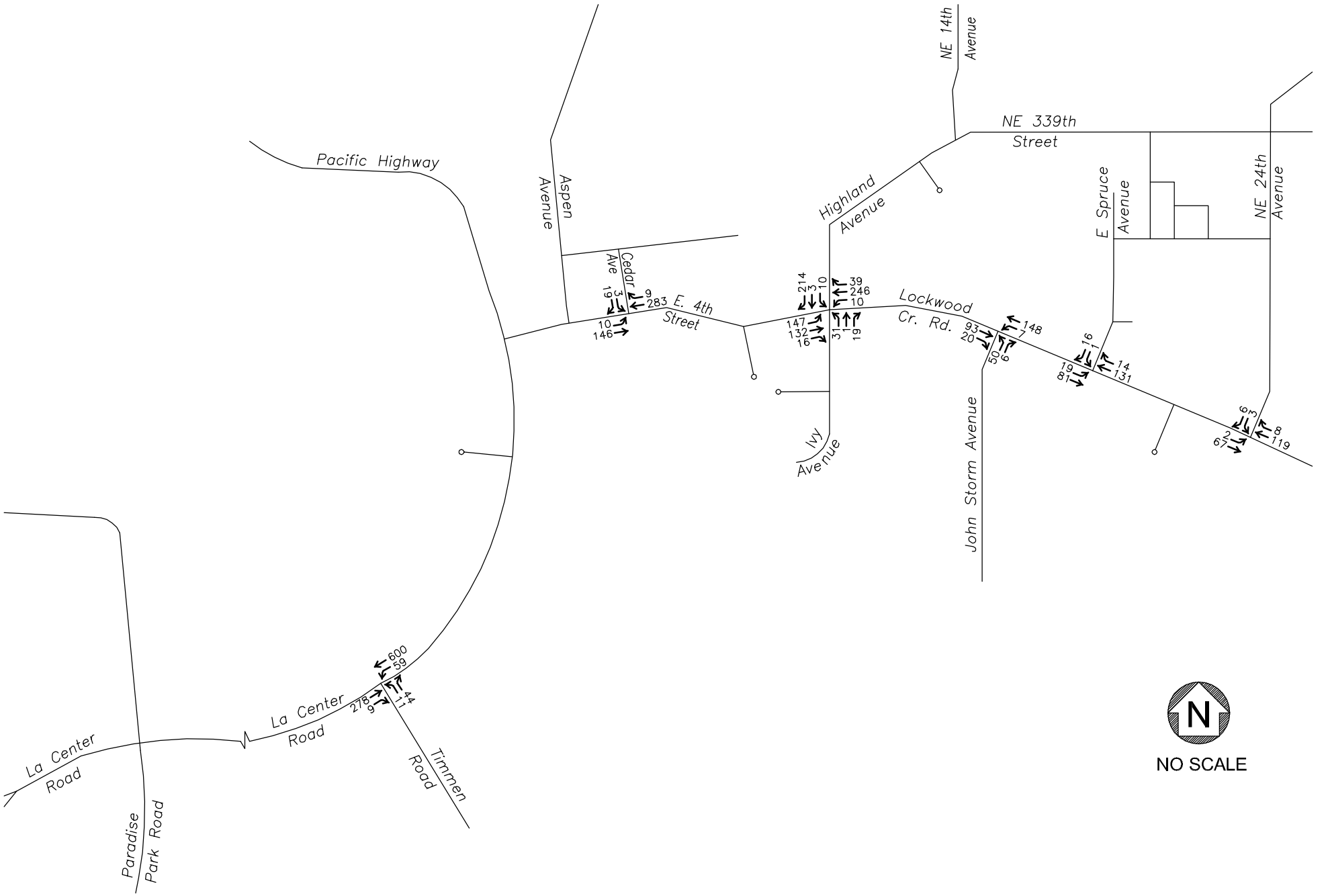

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PROJECT: 21-25

NOTES: Historical count data factored by La Center traffic growth rate (calculated as 3.89%/year).

YEAR 2021 TRAFFIC AM PEAK HOUR LOCKWOOD MEADOWS

FIGURE 1a

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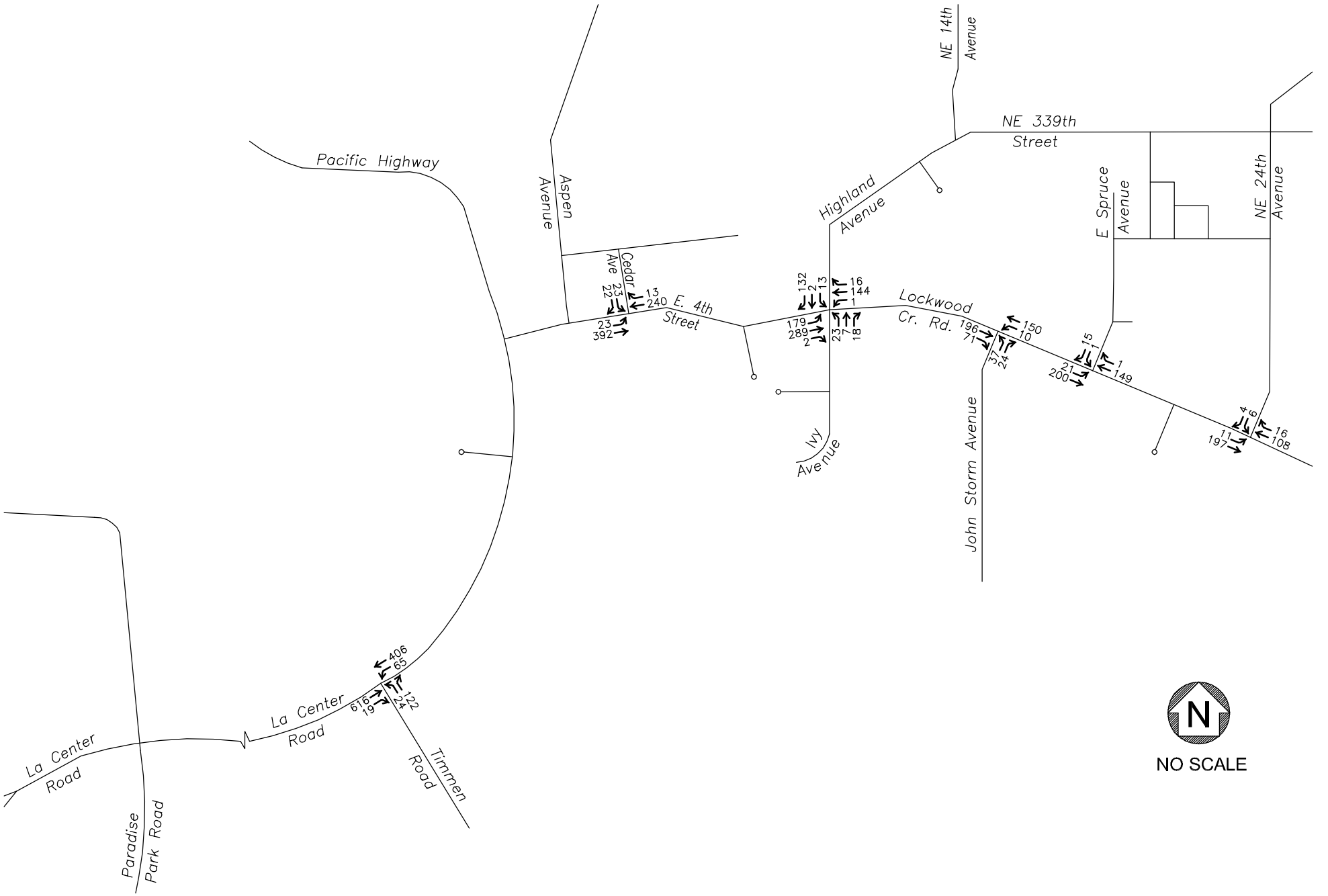

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NOTES: Historical count data factored by La Center traffic growth rate (calculated as 3.89%/year).

YEAR 2021 TRAFFIC
PM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE
1b

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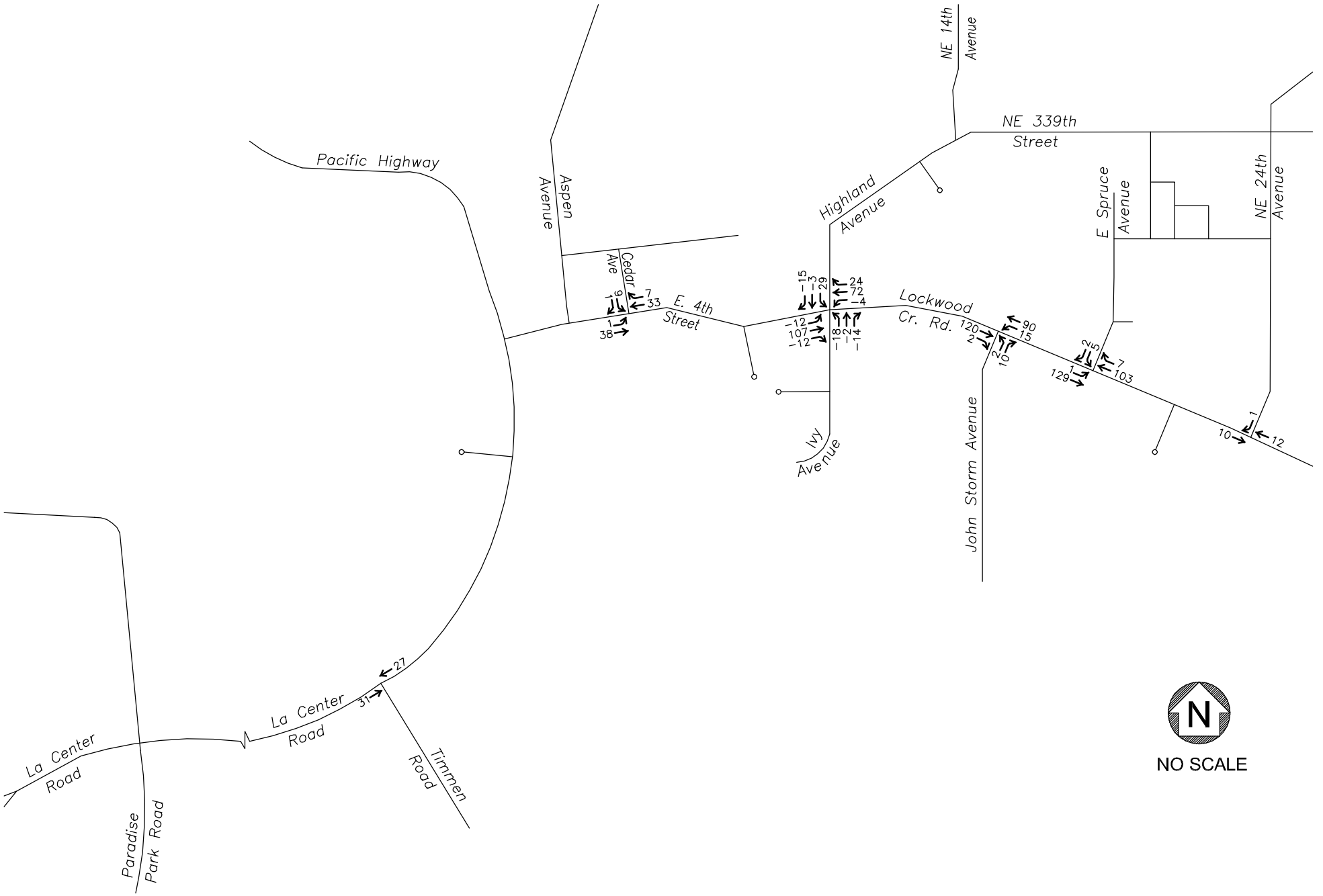

CHARBONNEAU ENGINEERING LLC

PROJECT: 21-25

NOTES: In-process traffic includes trips generated by La Center Middle School. Heritage Bldg 'B', and Minit Management sites.

IN-PROCESS TRAFFIC
AM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE

2a

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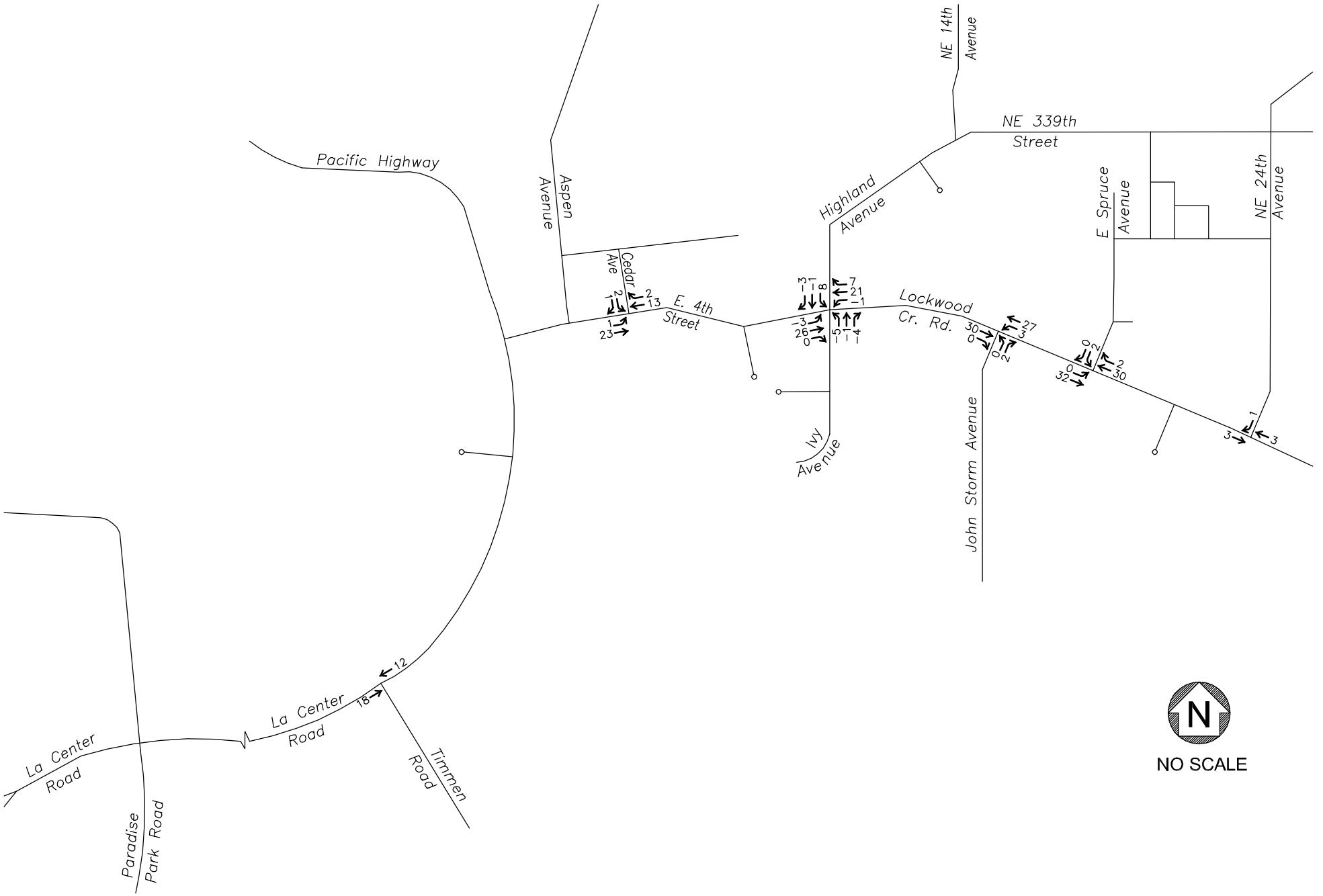

CHARBONNEAU ENGINEERING LLC

PROJECT: 21-25

NOTES: In-process traffic includes trips generated by La Center Middle School. Heritage Bldg 'B', and Minit Management sites.

IN-PROCESS TRAFFIC
PM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE

2b

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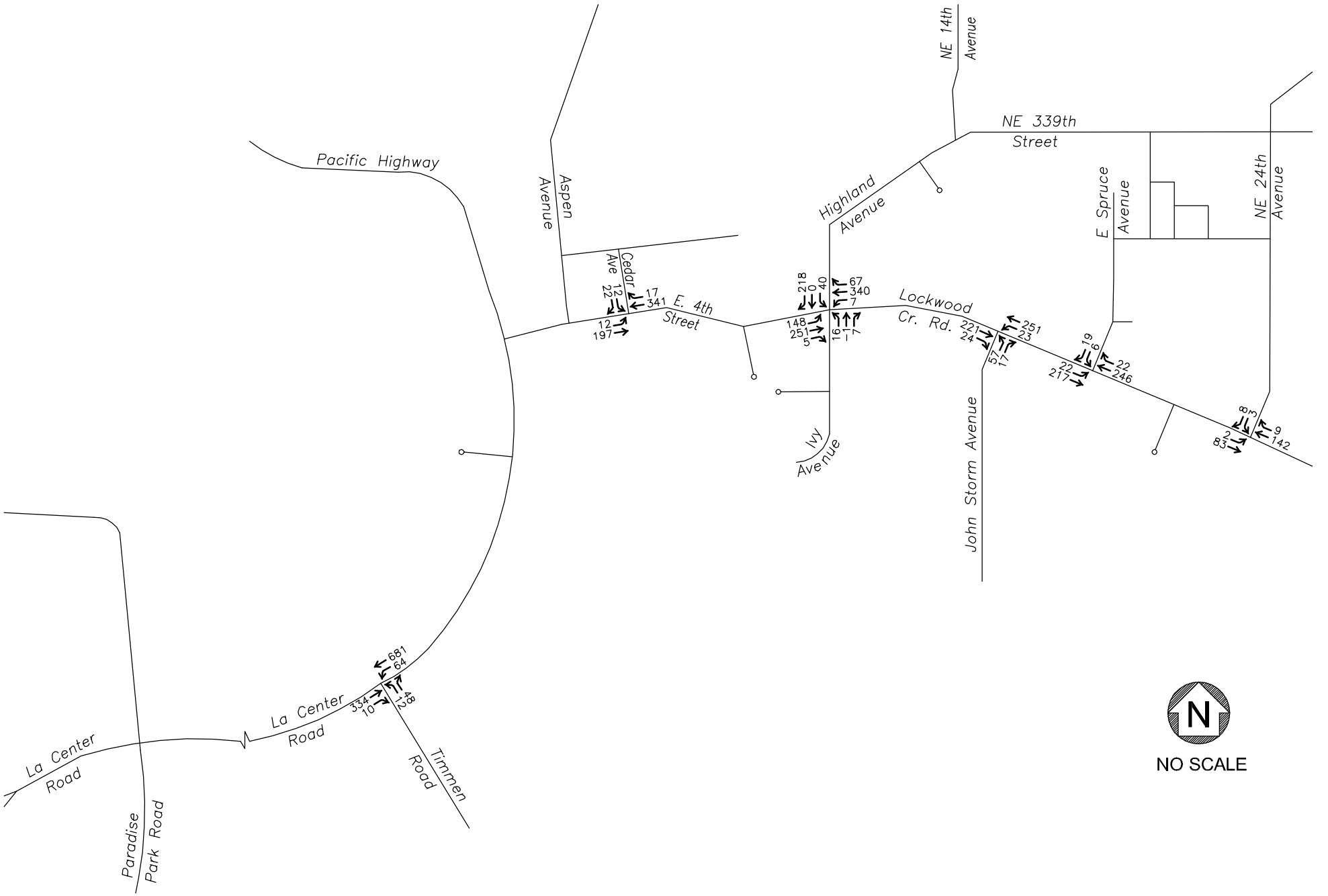
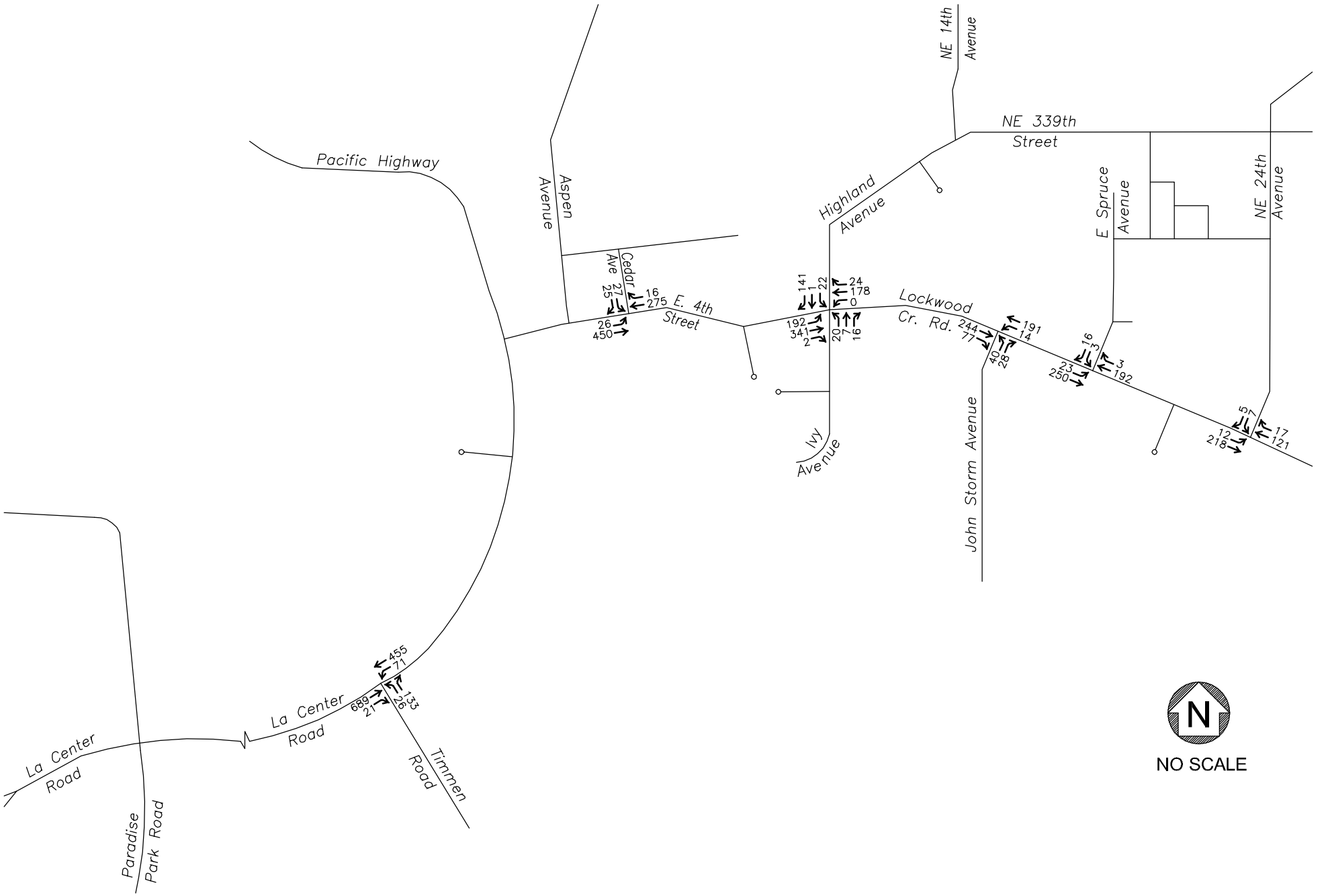


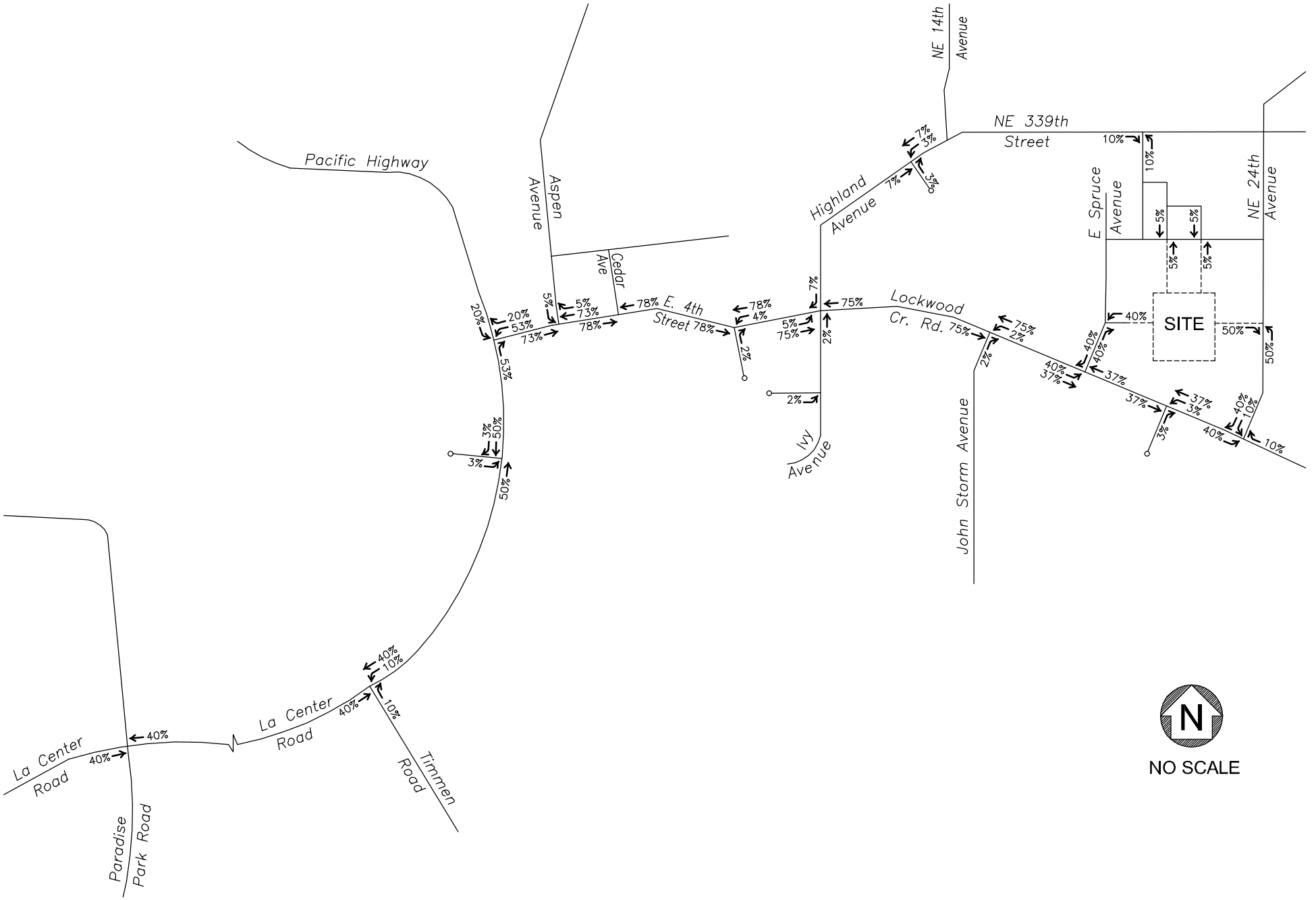
CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES: 2024 Background Traffic = Year 2021 Traffic + annual growth (3%/yr for 3 yrs) + In-process Traffic.	2024 BACKGROUND TRAFFIC AM PEAK HOUR LOCKWOOD MEADOWS	FIGURE 3a

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES: 2024 Background Traffic = Year 2021 Traffic + annual growth (3%/yr for 3 yrs) + In-process Traffic.	2024 BACKGROUND TRAFFIC PM PEAK HOUR LOCKWOOD MEADOWS	FIGURE 3b

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC

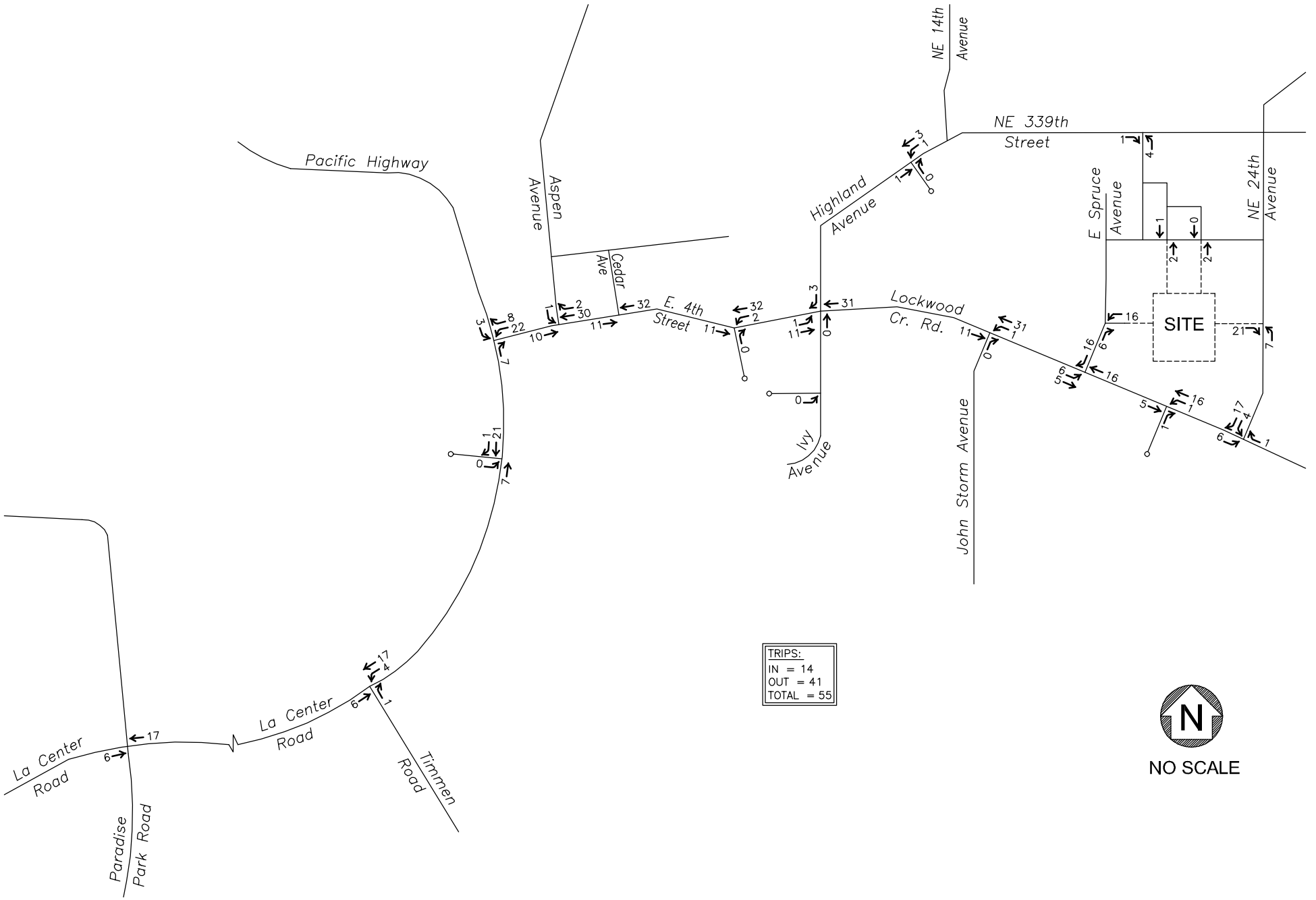
PROJECT: 21-25

NOTES: Trip distribution for the site is based on engineering judgment.

TRIP DISTRIBUTION
AM PEAK HOUR & PM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE 4

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC

PROJECT: 21-25

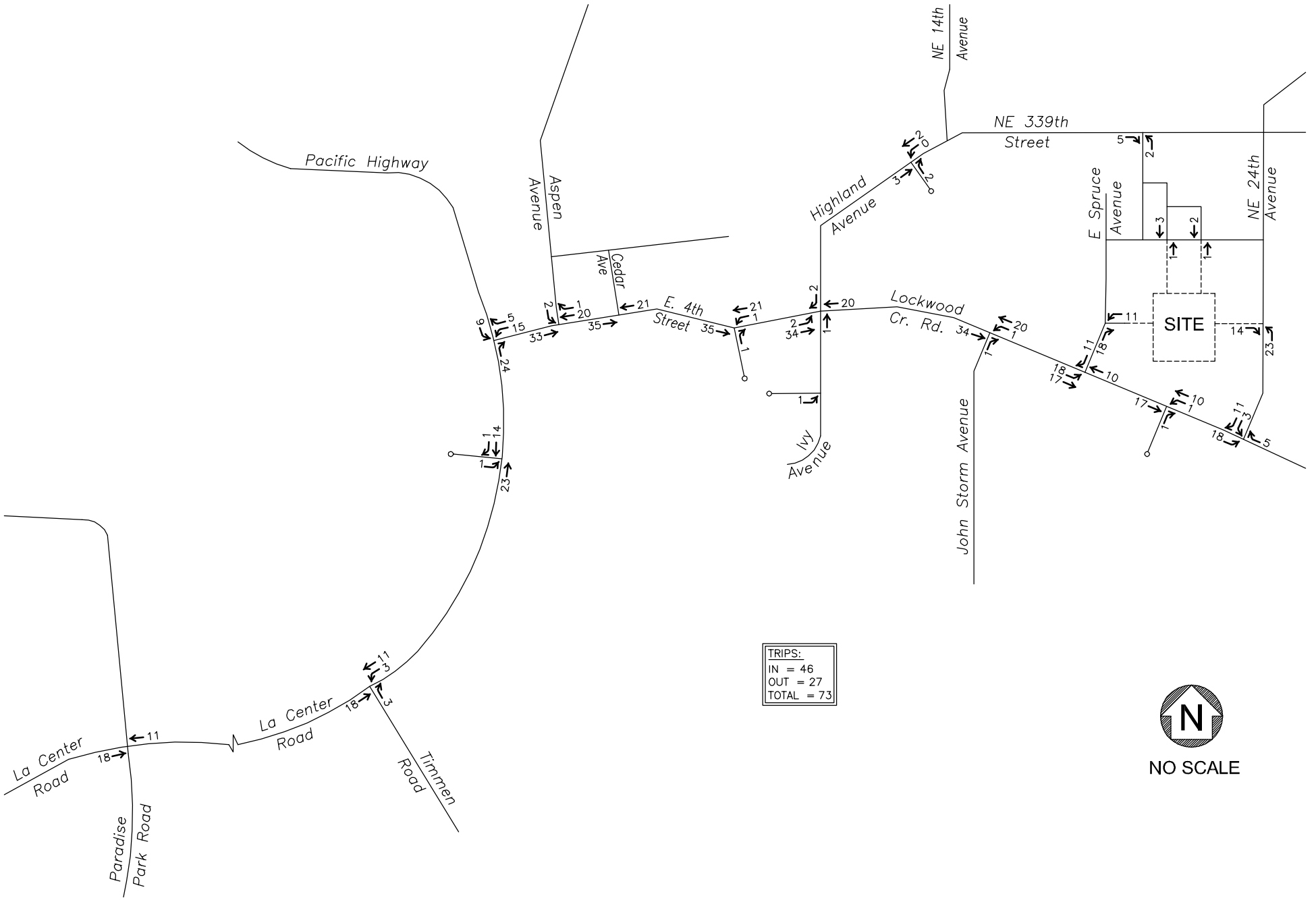
NOTES: Trip generation is based on Single-Family Residential (ITE 210) trip rates.

TRIP ASSIGNMENT
AM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE

5a

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC

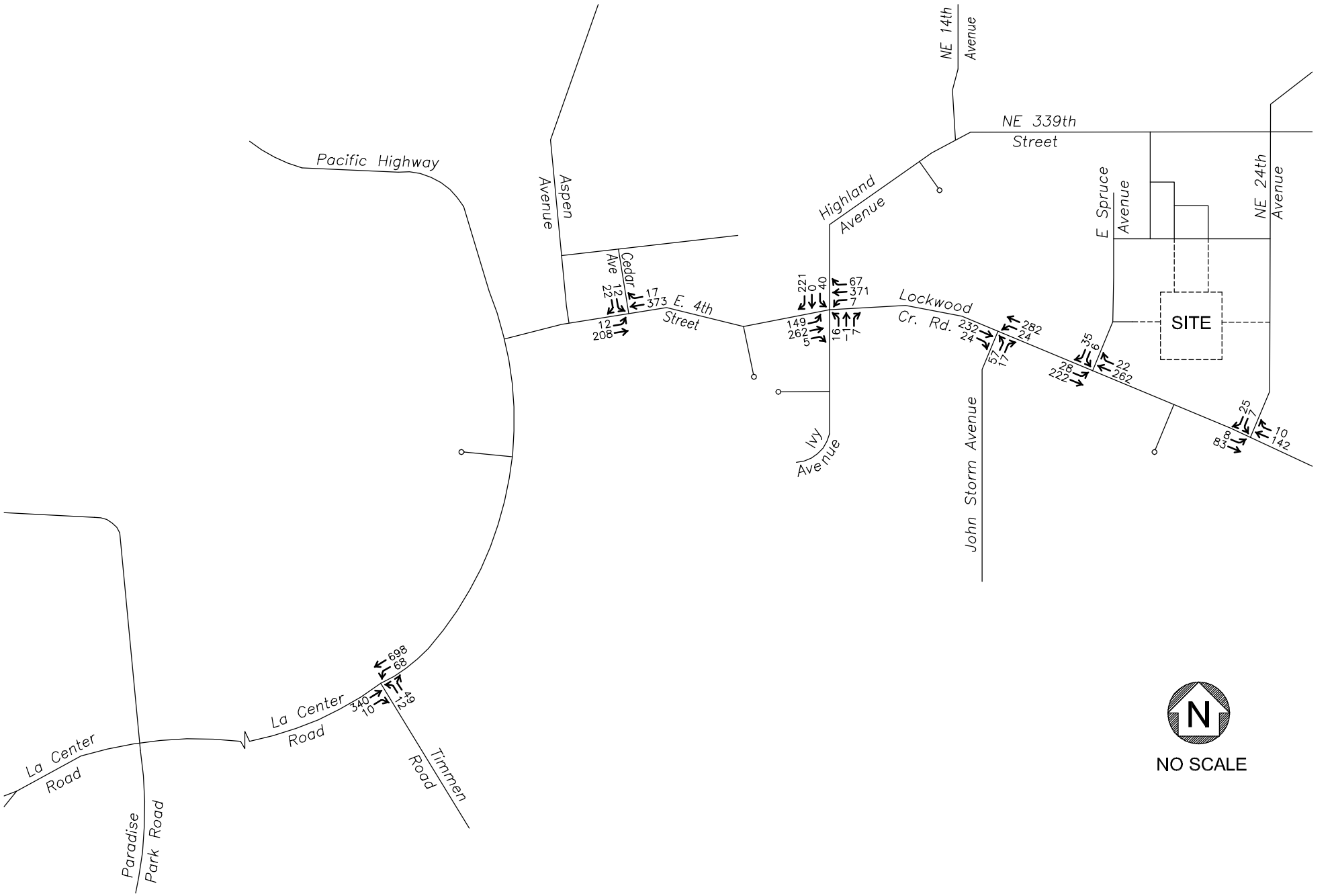
PROJECT: 21-25

NOTES: Trip generation is based on Single-Family Residential (ITE 210) trip rates.

TRIP ASSIGNMENT
PM PEAK HOUR
LOCKWOOD MEADOWS

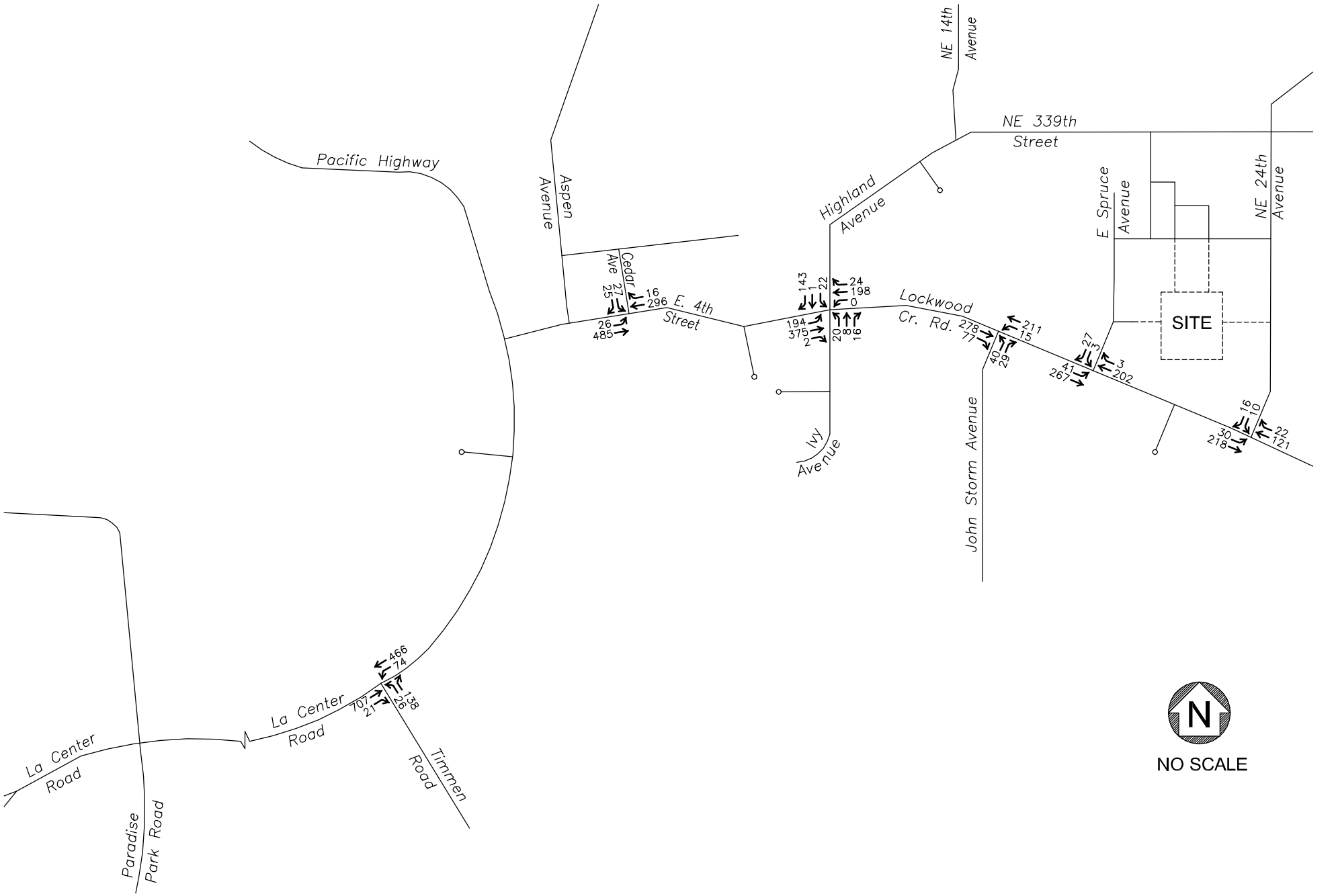
FIGURE
5b

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES: 2024 Total Traffic = 2024 Background Traffic + Trip Assignment.	2024 TOTAL TRAFFIC AM PEAK HOUR LOCKWOOD MEADOWS	FIGURE 6a

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC

PROJECT: 21-25

NOTES: 2024 Total Traffic = 2024 Background Traffic + Trip Assignment.

2024 TOTAL TRAFFIC
PM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE

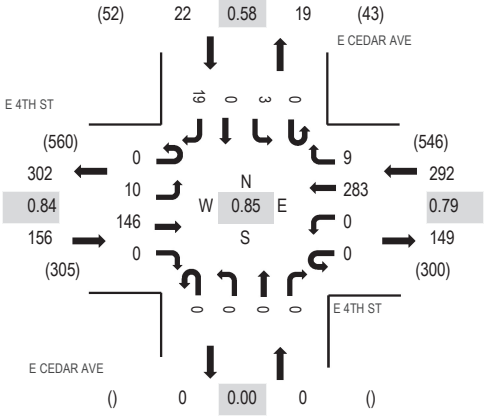
6b

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

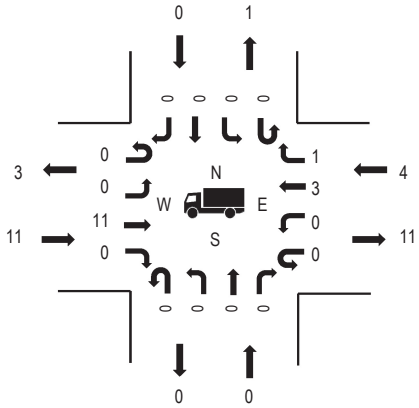
Location: 4 E CEDAR AVE & E 4TH ST AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:25 AM - 08:25 AM
Peak 15-Minutes: 07:25 AM - 07:40 AM

Peak Hour

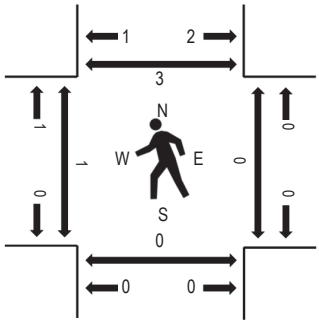
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	7.1%	0.84
WB	1.4%	0.79
NB	0.0%	0.00
SB	0.0%	0.58
All	3.2%	0.85

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				E CEDAR AVE Northbound				E CEDAR AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	13	0	0	0	20	1	0	0	0	0	0	0	0	2	36	462
7:05 AM	0	1	14	0	0	0	12	0	0	0	0	0	0	0	0	0	27	458
7:10 AM	0	1	9	0	0	0	19	1	0	0	0	0	0	2	0	2	34	454
7:15 AM	0	0	16	0	0	0	26	1	0	0	0	0	0	1	0	2	46	464
7:20 AM	0	0	6	0	0	0	16	1	0	0	0	0	0	1	0	1	25	450
7:25 AM	0	1	15	0	0	0	28	3	0	0	0	0	0	0	0	1	48	470
7:30 AM	0	1	7	0	0	0	28	1	0	0	0	0	0	0	0	1	38	469
7:35 AM	0	1	22	0	0	0	26	2	0	0	0	0	0	1	0	1	53	466
7:40 AM	0	1	5	0	0	0	34	1	0	0	0	0	0	0	0	2	43	446
7:45 AM	0	1	13	0	0	0	23	0	0	0	0	0	0	0	0	0	37	433
7:50 AM	0	0	12	0	0	0	18	1	0	0	0	0	0	0	0	2	33	428
7:55 AM	0	2	20	0	0	0	15	0	0	0	0	0	0	0	0	5	42	439
8:00 AM	0	1	9	0	0	0	19	0	0	0	0	0	0	1	0	2	32	441
8:05 AM	0	0	10	0	0	0	12	0	0	0	0	0	0	0	0	1	23	
8:10 AM	0	1	14	0	0	0	25	1	0	0	0	0	0	1	0	2	44	
8:15 AM	0	1	4	0	0	0	26	0	0	0	0	0	0	0	0	1	32	
8:20 AM	0	0	15	0	0	0	29	0	0	0	0	0	0	0	0	1	45	
8:25 AM	0	1	12	0	0	0	31	0	0	0	0	0	0	1	0	2	47	
8:30 AM	0	1	11	0	0	0	22	0	0	0	0	0	0	1	0	0	35	
8:35 AM	0	1	15	0	0	0	16	0	0	0	0	0	0	0	0	1	33	
8:40 AM	0	1	6	0	0	0	22	0	0	0	0	0	0	0	0	1	30	
8:45 AM	0	1	5	0	0	0	23	1	0	0	0	0	0	1	0	1	32	
8:50 AM	0	1	15	0	0	0	17	3	0	0	0	0	0	3	0	5	44	
8:55 AM	0	2	17	0	0	0	16	6	0	0	0	0	0	2	0	1	44	
Count Total	0	20	285	0	0	0	523	23	0	0	0	0	0	15	0	37	903	
Peak Hour	0	10	146	0	0	0	283	9	0	0	0	0	0	3	0	19	470	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

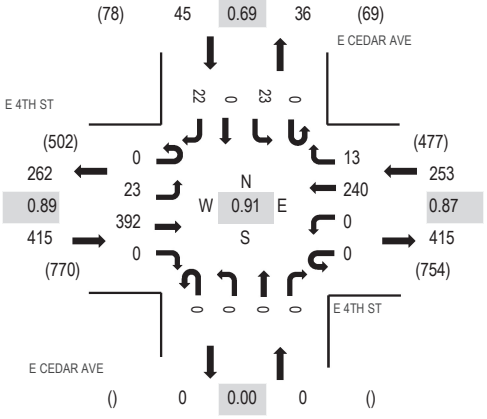
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	0	0	0	2	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	1	0	1	0	2	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	1	0	1	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	0	0	1	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	1	0	1	0	2	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	1	0	1	0	2	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	2	0	0	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	1	1
7:50 AM	2	0	0	0	2	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	1	1
7:55 AM	1	0	1	0	2	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	2	0	0	0	2	8:10 AM	0	0	0	0	0	8:10 AM	1	0	0	1	2
8:15 AM	0	0	1	0	1	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	0	0	0	1	8:25 AM	0	0	0	0	0	8:25 AM	2	0	0	0	2
8:30 AM	0	0	2	0	2	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	3	0	1	0	4	8:35 AM	1	0	0	0	1	8:35 AM	0	0	0	0	0
8:40 AM	0	0	1	0	1	8:40 AM	0	0	0	0	0	8:40 AM	1	0	0	0	1
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	1	0	1	0	2	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	1	0	0	0	1	8:55 AM	0	0	0	0	0	8:55 AM	1	0	0	0	1
Count Total	21	0	11	0	32	Count Total	1	0	0	0	1	Count Total	5	0	0	3	8
Peak Hour	11	0	4	0	15	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	3	4

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

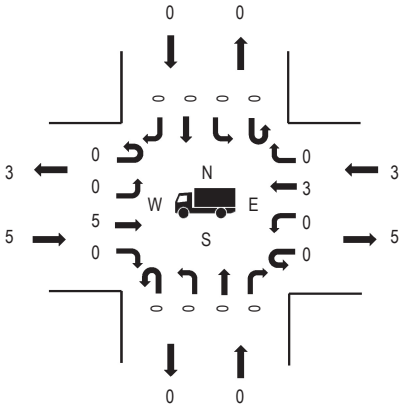
Location: 4 E CEDAR AVE & E 4TH ST PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:25 PM - 05:25 PM
Peak 15-Minutes: 04:35 PM - 04:50 PM

Peak Hour

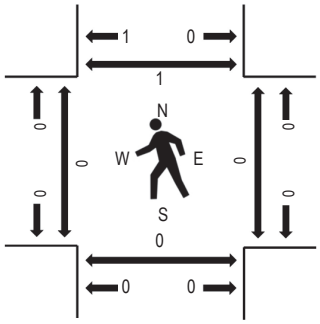
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.2%	0.89
WB	1.2%	0.87
NB	0.0%	0.00
SB	0.0%	0.69
All	1.1%	0.91

Traffic Counts - Motorized Vehicles

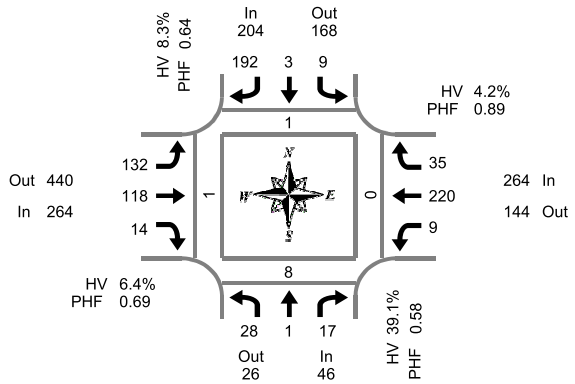
Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				E CEDAR AVE Northbound				E CEDAR AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	23	0	0	0	14	0	0	0	0	0	0	0	0	3	40	688
4:05 PM	0	1	23	0	0	0	21	1	0	0	0	0	0	1	0	1	48	698
4:10 PM	0	7	29	0	0	0	21	1	0	0	0	0	0	1	0	1	60	700
4:15 PM	0	2	28	0	0	0	24	0	0	0	0	0	0	2	0	4	60	699
4:20 PM	0	4	30	0	0	0	15	1	0	0	0	0	0	0	0	1	51	703
4:25 PM	0	2	35	0	0	0	17	1	0	0	0	0	0	5	0	3	63	713
4:30 PM	0	3	26	0	0	0	20	1	0	0	0	0	0	1	0	2	53	709
4:35 PM	0	5	35	0	0	0	29	1	0	0	0	0	0	4	0	2	76	713
4:40 PM	0	1	29	0	0	0	21	1	0	0	0	0	0	0	0	4	56	676
4:45 PM	0	2	35	0	0	0	21	1	0	0	0	0	0	3	0	2	64	675
4:50 PM	0	5	35	0	0	0	20	1	0	0	0	0	0	2	0	2	65	664
4:55 PM	0	0	28	0	0	0	18	3	0	0	0	0	0	1	0	2	52	649
5:00 PM	0	2	28	0	0	0	16	1	0	0	0	0	0	3	0	0	50	637
5:05 PM	0	0	28	0	0	0	20	0	0	0	0	0	0	1	0	1	50	
5:10 PM	0	0	34	0	0	0	22	2	0	0	0	0	0	0	0	1	59	
5:15 PM	0	2	37	0	0	0	19	1	0	0	0	0	0	3	0	2	64	
5:20 PM	0	1	42	0	0	0	17	0	0	0	0	0	0	0	0	1	61	
5:25 PM	0	3	30	0	0	0	22	0	0	0	0	0	0	2	0	2	59	
5:30 PM	0	2	30	0	0	0	21	0	0	0	0	0	0	2	0	2	57	
5:35 PM	0	1	24	0	0	0	11	1	0	0	0	0	0	0	0	2	39	
5:40 PM	0	2	27	0	0	0	22	0	0	0	0	0	0	3	0	1	55	
5:45 PM	0	0	30	0	0	0	20	1	0	0	0	0	0	0	0	2	53	
5:50 PM	0	0	36	0	0	0	12	0	0	0	0	0	0	0	0	2	50	
5:55 PM	0	6	17	0	0	0	16	0	0	0	0	0	0	1	0	0	40	
Count Total	0	51	719	0	0	0	459	18	0	0	0	0	0	35	0	43	1,325	
Peak Hour	0	23	392	0	0	0	240	13	0	0	0	0	0	23	0	22	713	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	1	0	0	0	1	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	1	0	0	1	2
4:15 PM	0	0	1	1	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	2	0	0	0	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	1	0	1	5:00 PM	0	0	0	0	0
5:05 PM	1	0	1	0	2	5:05 PM	1	0	0	0	1	5:05 PM	0	0	0	0	0
5:10 PM	1	0	0	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	1	1
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	1	0	0	1	2
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	1	0	0	0	1
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	6	0	6	1	13	Count Total	1	0	1	0	2	Count Total	3	0	0	3	6
Peak Hour	5	0	3	0	8	Peak Hour	1	0	1	0	2	Peak Hour	0	0	0	1	1

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

E Ivy St & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	33	0	8	21	2	1	0	45	0	0	109	0	0	0	0
7:15 AM	1	1	0	0	1	0	27	0	21	23	0	0	1	48	4	0	127	0	4	0	0
7:30 AM	0	0	0	0	0	0	36	0	23	20	0	0	0	55	2	0	136	0	2	0	1
7:45 AM	2	1	3	0	1	0	47	0	41	23	2	0	3	52	12	0	187	0	4	0	0
8:00 AM	13	0	7	0	8	3	69	0	51	36	9	0	4	53	17	0	270	1	2	0	0
8:15 AM	13	0	7	0	0	0	40	0	17	39	3	0	2	60	4	0	185	0	0	0	0
8:30 AM	3	0	2	0	1	0	23	0	10	20	2	0	0	32	2	0	95	0	3	0	0
8:45 AM	1	1	1	0	0	0	18	0	12	27	0	0	1	34	0	0	95	0	0	0	0
Total Survey	33	3	20	0	11	3	293	0	183	209	18	1	11	379	41	0	1,204	1	15	0	1

Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	46	26	72	0	204	168	372	0	264	440	704	0	264	144	408	0	778	1	8	0	1
%HV	39.1%				8.3%				6.4%				4.2%				8.1%				
PHF	0.58				0.64				0.69				0.89				0.72				

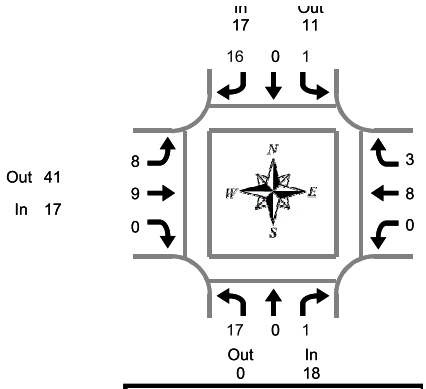
By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	28	1	17	46	9	3	192	204	132	118	14	264	9	220	35	264	778
%HV	60.7%	0.0%	5.9%	39.1%	11.1%	0.0%	8.3%	8.3%	6.1%	7.6%	0.0%	6.4%	0.0%	3.6%	8.6%	4.2%	8.1%
PHF	0.54	0.25	0.61	0.58	0.28	0.25	0.70	0.64	0.65	0.76	0.39	0.69	0.56	0.92	0.51	0.89	0.72

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	3	2	3	0	2	0	143	0	93	87	4	1	4	200	18	0	559	0	10	0	1
7:15 AM	16	2	10	0	10	3	179	0	136	102	11	0	8	208	35	0	720	1	12	0	1
7:30 AM	28	1	17	0	9	3	192	0	132	118	14	0	9	220	35	0	778	1	8	0	1
7:45 AM	31	1	19	0	10	3	179	0	119	118	16	0	9	197	35	0	737	1	9	0	0
8:00 AM	30	1	17	0	9	3	150	0	90	122	14	0	7	179	23	0	645	1	5	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



E Ivy St & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Peak Hour Summary
7:30 AM to 8:30 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	1	1	1	8	0	9	0	1	0	1	11
7:15 AM	0	0	0	0	0	0	0	0	1	6	0	7	0	0	0	0	7
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:45 AM	0	0	1	1	0	0	2	2	3	2	0	5	0	4	0	4	12
8:00 AM	12	0	0	12	1	0	14	15	4	3	0	7	0	2	2	4	38
8:15 AM	5	0	0	5	0	0	0	0	1	3	0	4	0	1	1	2	11
8:30 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	2	0	2	5
8:45 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	4	0	4	6
Total Survey	17	0	1	18	1	0	18	19	11	26	0	37	0	15	3	18	92

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound E Ivy St			Southbound E Ivy St			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	18	0	18	17	11	28	17	41	58	11	11	22	63
PHF	0.25			0.25			0.25			0.28			0.26

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	17	0	1	18	1	0	16	17	8	9	0	17	0	8	3	11	63
PHF	0.25	0.00	0.25	0.25	0.25	0.00	0.25	0.25	0.25	0.15	0.00	0.25	0.00	0.29	0.25	0.28	0.26

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

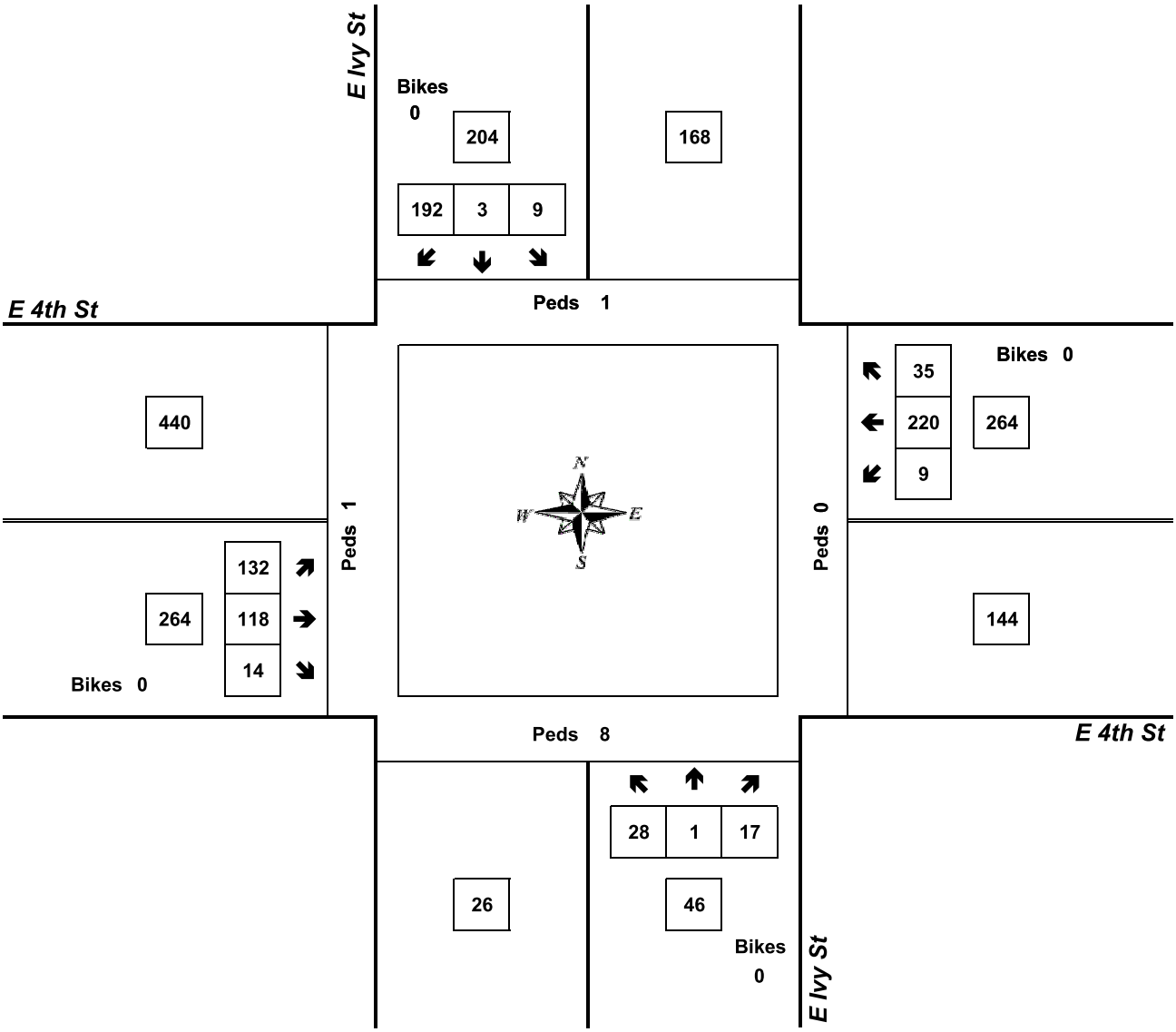
Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	1	1	0	0	3	3	5	17	0	22	0	6	0	6	32
7:15 AM	12	0	1	13	1	0	16	17	8	12	0	20	0	7	2	9	59
7:30 AM	17	0	1	18	1	0	16	17	8	9	0	17	0	8	3	11	63
7:45 AM	17	0	1	18	1	0	16	17	9	10	0	19	0	9	3	12	66
8:00 AM	17	0	0	17	1	0	15	16	6	9	0	15	0	9	3	12	60

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

E Ivy St & E 4th St

7:30 AM to 8:30 AM
Thursday, September 13, 2018

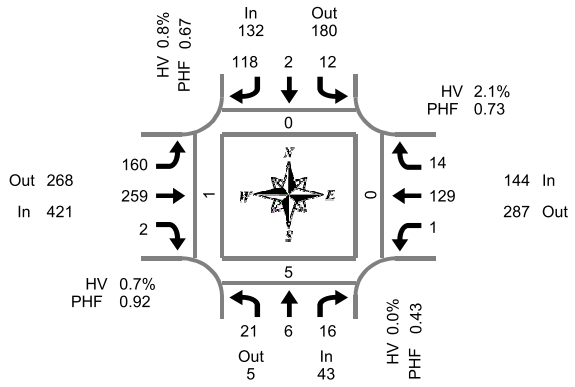


Approach	PHF	HV%	Volume
EB	0.69	6.4%	264
WB	0.89	4.2%	264
NB	0.58	39.1%	46
SB	0.64	8.3%	204
Intersection	0.72	8.1%	778

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
5:00 PM to 6:00 PM

E Ivy St & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	2	0	1	0	2	0	31	0	24	46	2	0	0	39	1	0	148	0	21	0	0
4:15 PM	5	0	3	0	2	1	20	0	39	64	4	0	0	46	1	0	185	0	20	0	0
4:30 PM	6	1	4	0	0	0	17	0	39	57	1	0	0	44	3	0	172	0	32	0	0
4:45 PM	0	0	0	0	3	1	18	0	49	76	2	0	1	45	5	0	200	0	11	0	0
5:00 PM	1	0	0	0	5	1	22	0	46	59	0	0	0	28	7	0	169	0	1	0	0
5:15 PM	1	1	0	0	1	0	22	0	30	61	0	0	0	46	3	0	165	0	0	0	0
5:30 PM	14	4	7	0	0	0	32	0	45	68	2	0	0	30	3	0	205	0	1	0	0
5:45 PM	5	1	9	0	6	1	42	0	39	71	0	0	1	25	1	0	201	0	3	0	1
Total Survey	34	7	24	0	19	4	204	0	311	502	11	0	2	303	24	0	1,445	0	89	0	1

Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	43	5	48	0	132	180	312	0	421	268	689	0	144	287	431	0	740	0	5	0	1
%HV	0.0%				0.8%				0.7%				2.1%				0.9%				
PHF	0.43				0.67				0.92				0.73				0.90				

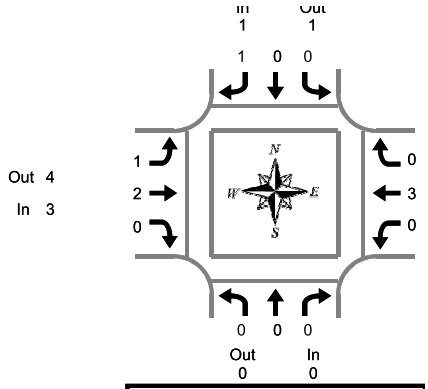
By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	21	6	16	43	12	2	118	132	160	259	2	421	1	129	14	144	740
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.8%	0.6%	0.8%	0.0%	0.7%	0.0%	2.3%	0.0%	2.1%	0.9%
PHF	0.38	0.38	0.44	0.43	0.50	0.50	0.70	0.67	0.87	0.91	0.25	0.92	0.25	0.70	0.50	0.73	0.90

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	13	1	8	0	7	2	86	0	151	243	9	0	1	174	10	0	705	0	84	0	0
4:15 PM	12	1	7	0	10	3	77	0	173	256	7	0	1	163	16	0	726	0	64	0	0
4:30 PM	8	2	4	0	9	2	79	0	164	253	3	0	1	163	18	0	706	0	44	0	0
4:45 PM	16	5	7	0	9	2	94	0	170	264	4	0	1	149	18	0	739	0	13	0	0
5:00 PM	21	6	16	0	12	2	118	0	160	259	2	0	1	129	14	0	740	0	5	0	1

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



E Ivy St & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
5:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	4	0	4	7
4:15 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	2	0	2	5
4:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	1	0	1	3
4:45 PM	0	0	0	0	0	0	2	2	0	2	0	2	0	1	0	1	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:45 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	2
Total Survey	0	0	0	0	0	0	6	6	1	9	0	10	0	11	0	11	27

Heavy Vehicle Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound E Ivy St			Southbound E Ivy St			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	1	2	3	4	7	3	2	5	7
PHF	0.00			0.06			0.15			0.11			0.12

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	1	1	1	2	0	3	0	3	0	3	7
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.25	0.10	0.00	0.15	0.00	0.11	0.00	0.11	0.12

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

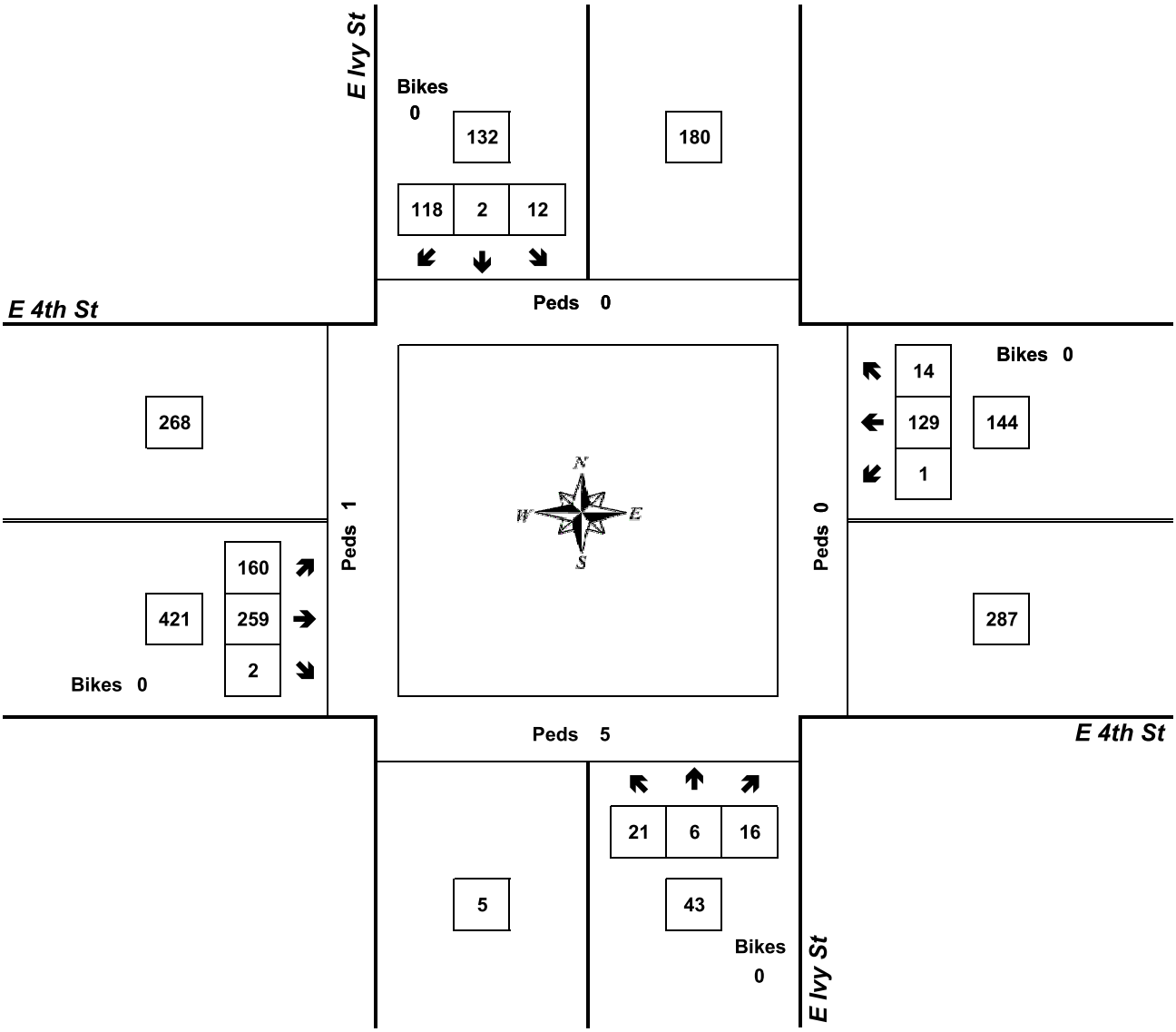
Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	5	5	0	7	0	7	0	8	0	8	20
4:15 PM	0	0	0	0	0	0	4	4	0	5	0	5	0	4	0	4	13
4:30 PM	0	0	0	0	0	0	3	3	0	4	0	4	0	4	0	4	11
4:45 PM	0	0	0	0	0	0	2	2	0	4	0	4	0	4	0	4	10
5:00 PM	0	0	0	0	0	0	1	1	1	2	0	3	0	3	0	3	7

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

E Ivy St & E 4th St

5:00 PM to 6:00 PM
Thursday, September 13, 2018



Approach	PHF	HV%	Volume
EB	0.92	0.7%	421
WB	0.73	2.1%	144
NB	0.43	0.0%	43
SB	0.67	0.8%	132
Intersection	0.90	0.9%	740

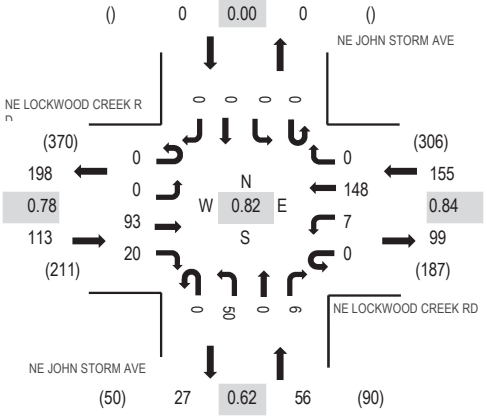
Count Period: 4:00 PM to 6:00 PM

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

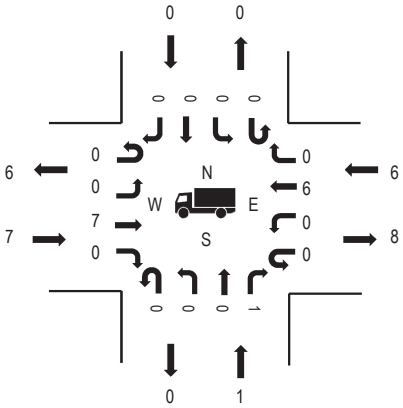
Location: 1 NE JOHN STORM AVE & NE LOCKWOOD CREEK RD AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:10 AM - 08:10 AM
Peak 15-Minutes: 07:25 AM - 07:40 AM

Peak Hour

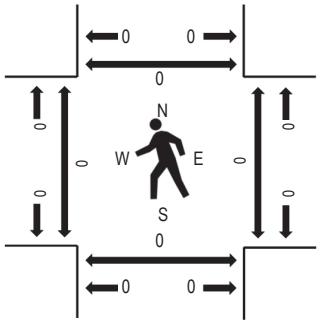
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	6.2%	0.78
WB	3.9%	0.84
NB	1.8%	0.62
SB	0.0%	0.00
All	4.3%	0.82

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE JOHN STORM AVE Northbound				NE JOHN STORM AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	12	4	0	0	8	0	0	1	0	1	0	0	0	0	26	319
7:05 AM	0	0	6	0	0	0	8	0	0	2	0	0	0	0	0	0	16	314
7:10 AM	0	0	6	2	0	1	12	0	0	1	0	0	0	0	0	0	22	324
7:15 AM	0	0	8	5	0	0	10	0	0	3	0	0	0	0	0	0	26	324
7:20 AM	0	0	4	0	0	0	21	0	0	3	0	1	0	0	0	0	29	315
7:25 AM	0	0	7	3	0	0	11	0	0	4	0	1	0	0	0	0	26	314
7:30 AM	0	0	8	1	0	1	17	0	0	6	0	0	0	0	0	0	33	319
7:35 AM	0	0	15	4	0	1	13	0	0	7	0	0	0	0	0	0	40	304
7:40 AM	0	0	3	0	0	1	10	0	0	10	0	0	0	0	0	0	24	290
7:45 AM	0	0	10	0	0	1	10	0	0	3	0	2	0	0	0	0	26	290
7:50 AM	0	0	9	1	0	0	10	0	0	2	0	0	0	0	0	0	22	289
7:55 AM	0	0	8	2	0	0	14	0	0	3	0	2	0	0	0	0	29	288
8:00 AM	0	0	7	0	0	2	8	0	0	4	0	0	0	0	0	0	21	288
8:05 AM	0	0	8	2	0	0	12	0	0	4	0	0	0	0	0	0	26	
8:10 AM	0	0	5	2	0	0	13	0	0	2	0	0	0	0	0	0	22	
8:15 AM	0	0	2	0	0	0	12	0	0	3	0	0	0	0	0	0	17	
8:20 AM	0	0	8	1	0	0	17	0	0	1	0	1	0	0	0	0	28	
8:25 AM	0	0	7	1	0	1	18	0	0	4	0	0	0	0	0	0	31	
8:30 AM	0	0	6	2	0	0	8	0	0	2	0	0	0	0	0	0	18	
8:35 AM	0	0	13	0	0	2	10	0	0	0	0	1	0	0	0	0	26	
8:40 AM	0	0	2	0	0	0	14	0	0	5	0	3	0	0	0	0	24	
8:45 AM	0	0	5	2	0	1	15	0	0	2	0	0	0	0	0	0	25	
8:50 AM	0	0	8	2	0	0	10	0	0	0	0	1	0	0	0	0	21	
8:55 AM	0	0	6	4	0	1	13	0	0	4	0	1	0	0	0	0	29	
Count Total	0	0	173	38	0	12	294	0	0	76	0	14	0	0	0	0	607	
Peak Hour	0	0	93	20	0	7	148	0	0	50	0	6	0	0	0	0	324	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	1	0	0	1
7:05 AM	1	0	2	0	3	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	1	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	1	0	1	0	2	7:30 AM	0	0	0	0	0	7:30 AM	0	1	0	0	1
7:35 AM	2	0	1	0	3	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	1	0	0	1
7:45 AM	0	1	0	0	1	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	2	0	0	0	2	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	1	0	1	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	0	1	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	1	0	1	0	2	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	2	0	2	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	2	1	1	0	4	8:35 AM	1	0	0	0	1	8:35 AM	0	2	0	0	2
8:40 AM	0	0	1	0	1	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	1	0	0	0	1	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	1	0	0	1
Count Total	14	2	13	0	29	Count Total	1	0	0	0	1	Count Total	0	6	0	0	6
Peak Hour	7	1	6	0	14	Peak Hour	0	0	0	0	0	Peak Hour	0	2	0	0	2

ALL TRAFFIC DATA SERVICES
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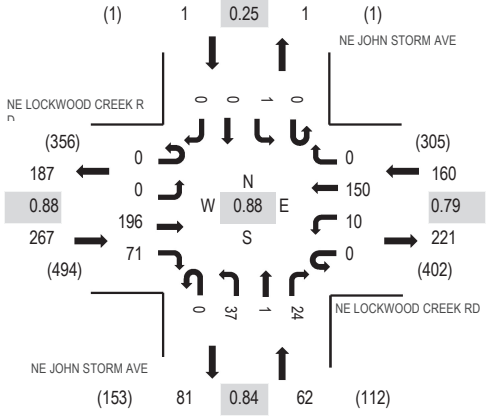
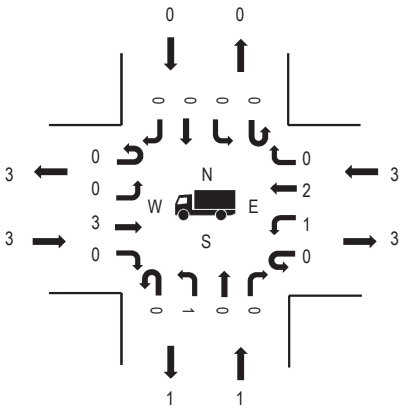
Location: 1 NE JOHN STORM AVE & NE LOCKWOOD CREEK RD PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:25 PM - 05:25 PM
Peak 15-Minutes: 04:25 PM - 04:40 PM

Peak Hour

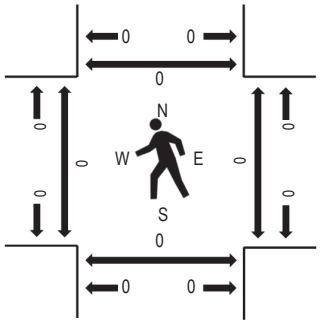
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.1%	0.88
WB	1.9%	0.79
NB	1.6%	0.84
SB	0.0%	0.25
All	1.4%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE JOHN STORM AVE Northbound				NE JOHN STORM AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	13	5	0	0	9	0	0	5	0	2	0	0	0	0	34	474
4:05 PM	0	0	11	4	0	1	16	0	0	2	0	2	0	0	0	0	36	474
4:10 PM	0	0	14	10	0	2	15	0	0	4	0	1	0	0	0	0	46	477
4:15 PM	0	0	13	5	0	0	7	0	0	4	0	1	0	0	0	0	30	467
4:20 PM	0	0	10	7	0	0	12	0	0	3	0	0	0	0	0	0	32	480
4:25 PM	0	0	12	9	0	1	11	0	0	5	0	4	0	0	0	0	42	490
4:30 PM	0	0	19	5	0	0	16	0	0	4	0	1	0	0	0	0	45	485
4:35 PM	0	0	18	6	0	3	18	0	0	3	0	4	0	0	0	0	52	474
4:40 PM	0	0	13	5	0	1	13	0	0	8	0	2	0	0	0	0	42	458
4:45 PM	0	0	19	5	0	2	13	0	0	1	0	2	0	0	0	0	42	456
4:50 PM	0	0	16	7	0	0	8	0	0	3	0	1	0	0	0	0	35	452
4:55 PM	0	0	12	6	0	0	8	0	0	6	0	6	0	0	0	0	38	448
5:00 PM	0	0	17	5	0	2	10	0	0	0	0	0	0	0	0	0	34	438
5:05 PM	0	0	12	5	0	1	18	0	0	1	0	2	0	0	0	0	39	
5:10 PM	0	0	18	6	0	0	8	0	0	2	1	1	0	0	0	0	36	
5:15 PM	0	0	23	6	0	0	9	0	0	3	0	1	0	1	0	0	43	
5:20 PM	0	0	17	6	0	0	18	0	0	1	0	0	0	0	0	0	42	
5:25 PM	0	0	16	3	0	0	14	0	0	3	0	1	0	0	0	0	37	
5:30 PM	0	0	14	8	0	1	9	0	0	1	0	1	0	0	0	0	34	
5:35 PM	0	0	10	3	0	2	14	0	0	5	0	2	0	0	0	0	36	
5:40 PM	0	0	15	6	0	1	16	0	0	1	0	1	0	0	0	0	40	
5:45 PM	0	0	21	4	0	0	8	0	0	2	0	3	0	0	0	0	38	
5:50 PM	0	0	14	3	0	2	9	0	0	0	0	3	0	0	0	0	31	
5:55 PM	0	0	13	5	0	0	7	0	0	3	0	0	0	0	0	0	28	
Count Total	0	0	360	134	0	19	286	0	0	70	1	41	0	1	0	0	912	
Peak Hour	0	0	196	71	0	10	150	0	0	37	1	24	0	1	0	0	490	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	1	0	0	0	1	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	1	0	0	1
4:30 PM	0	0	1	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	1	0	0	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	1	0	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	1	0	0	1	5:05 PM	1	0	0	0	1	5:05 PM	0	0	0	0	0
5:10 PM	1	0	0	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	4	1	4	0	9	Count Total	1	0	0	0	1	Count Total	0	2	0	0	2
Peak Hour	3	1	3	0	7	Peak Hour	1	0	0	0	1	Peak Hour	0	1	0	0	1

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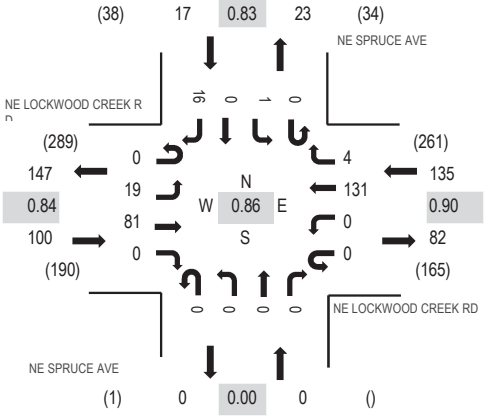
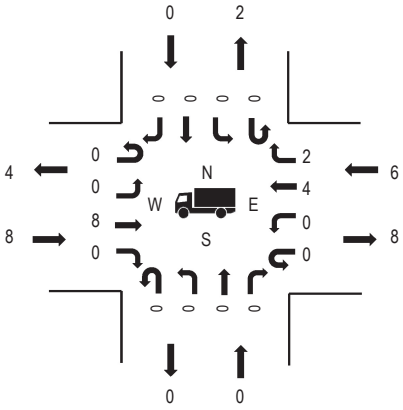
Location: 2 NE SPRUCE AVE & NE LOCKWOOD CREEK RD AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:10 AM - 08:10 AM
Peak 15-Minutes: 07:50 AM - 08:05 AM

Peak Hour

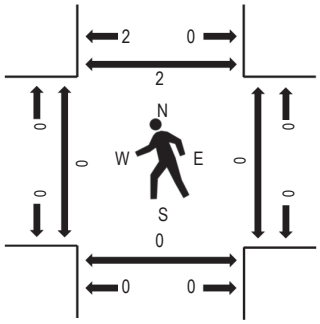
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	8.0%	0.84
WB	4.4%	0.90
NB	0.0%	0.00
SB	0.0%	0.83
All	5.6%	0.86

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE SPRUCE AVE Northbound				NE SPRUCE AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	3	11	0	0	0	7	0	0	0	0	0	0	0	0	3	24	249
7:05 AM	0	1	6	0	0	1	3	0	0	0	0	0	0	0	0	2	13	251
7:10 AM	0	4	4	0	0	0	11	0	0	0	0	0	0	0	0	1	20	252
7:15 AM	0	0	6	0	0	0	10	0	0	0	0	0	0	0	0	2	18	250
7:20 AM	0	2	5	0	0	0	13	0	0	0	0	0	0	0	0	1	21	247
7:25 AM	0	0	4	0	0	0	18	0	0	0	0	0	0	0	0	1	23	244
7:30 AM	0	0	8	0	0	0	7	0	0	0	0	0	0	1	0	2	18	246
7:35 AM	0	2	13	0	0	0	13	0	0	0	0	0	0	0	0	1	29	249
7:40 AM	0	1	6	0	0	0	10	0	0	0	0	0	0	0	0	1	18	238
7:45 AM	0	3	4	0	0	0	9	0	0	0	0	0	0	0	0	2	18	241
7:50 AM	0	2	6	0	0	0	12	2	0	0	0	0	0	0	0	1	23	243
7:55 AM	0	2	11	0	0	0	7	2	0	0	0	0	0	0	0	2	24	241
8:00 AM	0	2	8	0	0	0	15	0	0	0	0	0	0	0	0	1	26	240
8:05 AM	0	1	6	0	0	0	6	0	0	0	0	0	0	0	0	1	14	
8:10 AM	0	2	3	0	0	0	11	0	0	0	0	0	0	0	0	2	18	
8:15 AM	0	1	2	0	0	0	11	1	0	0	0	0	0	0	0	0	15	
8:20 AM	0	0	6	0	0	0	10	0	0	0	0	0	0	0	0	2	18	
8:25 AM	0	0	8	0	0	0	13	0	0	0	0	0	0	1	0	3	25	
8:30 AM	0	0	8	0	0	0	13	0	0	0	0	0	0	0	0	0	21	
8:35 AM	0	1	9	0	0	0	7	0	0	0	0	0	0	0	0	1	18	
8:40 AM	0	0	8	0	0	0	12	0	0	0	0	0	0	0	0	1	21	
8:45 AM	0	0	9	0	0	0	10	0	0	0	0	0	0	0	0	1	20	
8:50 AM	0	0	5	0	0	0	14	0	0	0	0	0	0	0	0	2	21	
8:55 AM	0	0	7	0	0	0	11	2	0	0	0	0	0	0	0	3	23	
Count Total	0	27	163	0	0	1	253	7	0	0	0	0	0	2	0	36	489	
Peak Hour	0	19	81	0	0	0	131	4	0	0	0	0	0	1	0	16	252	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	1	0	1
7:05 AM	0	0	1	0	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	1	0	1	0	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	0	0	1	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	1	0	1	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	1	0	1	0	2	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	2	0	0	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	1	0	1	0	2	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	1	0	1	0	2	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	2	2
8:00 AM	1	0	1	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	1	0	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	2	0	2	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	1	0	1	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	2	0	1	0	3	8:35 AM	0	0	0	0	0	8:35 AM	2	0	0	2	4
8:40 AM	2	0	1	0	3	8:40 AM	1	0	0	0	1	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	1	0	0	0	1	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	1	1	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	15	0	13	1	29	Count Total	1	0	0	0	1	Count Total	2	0	1	4	7
Peak Hour	8	0	6	0	14	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	2	2

ALL TRAFFIC DATA SERVICES
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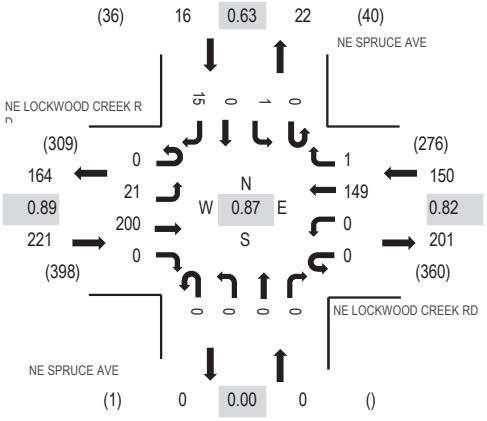
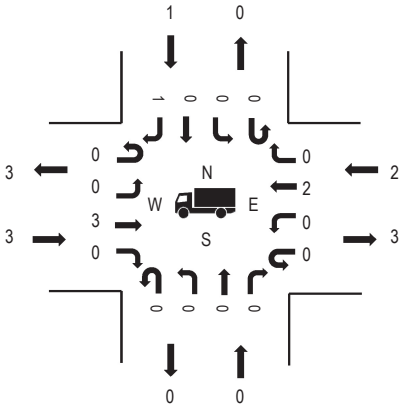
Location: 2 NE SPRUCE AVE & NE LOCKWOOD CREEK RD PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour

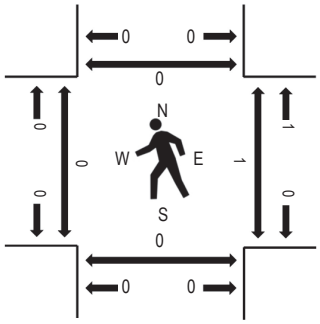
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.4%	0.89
WB	1.3%	0.82
NB	0.0%	0.00
SB	6.3%	0.63
All	1.6%	0.87

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE SPRUCE AVE Northbound				NE SPRUCE AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	3	14	0	0	0	10	0	0	0	0	0	0	0	0	0	27	355
4:05 PM	0	2	10	0	0	0	8	0	0	0	0	0	0	0	0	3	23	361
4:10 PM	0	1	15	0	0	0	18	0	0	0	0	0	0	0	0	0	34	369
4:15 PM	0	0	15	0	0	0	8	0	0	0	0	0	0	0	0	3	26	360
4:20 PM	0	1	13	0	0	0	8	0	0	0	0	0	0	0	0	3	25	367
4:25 PM	0	1	7	0	0	0	11	0	0	0	0	0	0	0	0	4	23	380
4:30 PM	0	2	22	0	0	0	10	0	0	0	0	0	0	0	0	1	35	387
4:35 PM	0	1	18	0	0	0	25	0	0	0	0	0	0	0	0	2	46	380
4:40 PM	0	0	16	0	0	0	10	1	0	0	0	0	0	0	0	3	30	363
4:45 PM	0	3	13	0	0	0	10	0	0	0	0	0	0	0	0	3	29	359
4:50 PM	0	3	21	0	0	0	13	0	0	0	0	0	0	0	0	1	38	360
4:55 PM	0	1	10	0	0	0	8	0	0	0	0	0	0	0	0	0	19	350
5:00 PM	0	3	19	0	0	0	9	0	0	0	0	0	0	0	0	2	33	355
5:05 PM	0	2	11	0	0	0	17	0	0	0	0	0	0	1	0	0	31	
5:10 PM	0	3	11	0	0	0	10	0	0	0	0	0	0	0	0	1	25	
5:15 PM	0	1	21	0	0	0	11	0	0	0	0	0	0	0	0	0	33	
5:20 PM	0	2	24	0	0	0	11	0	0	0	0	0	0	0	0	1	38	
5:25 PM	0	0	14	0	0	0	15	0	0	0	0	0	0	0	0	1	30	
5:30 PM	0	0	18	0	0	0	7	0	0	0	0	0	0	0	0	3	28	
5:35 PM	0	0	16	1	0	0	11	0	0	0	0	0	0	0	0	1	29	
5:40 PM	0	0	10	0	0	0	15	0	0	0	0	0	0	1	0	0	26	
5:45 PM	0	5	11	0	0	0	13	0	0	0	0	0	0	0	0	1	30	
5:50 PM	0	3	15	0	0	0	10	0	0	0	0	0	0	0	0	0	28	
5:55 PM	0	2	14	0	0	0	7	0	0	0	0	0	0	0	0	1	24	
Count Total	0	39	358	1	0	0	275	1	0	0	0	0	0	2	0	34	710	
Peak Hour	0	21	200	0	0	0	149	1	0	0	0	0	0	1	0	15	387	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

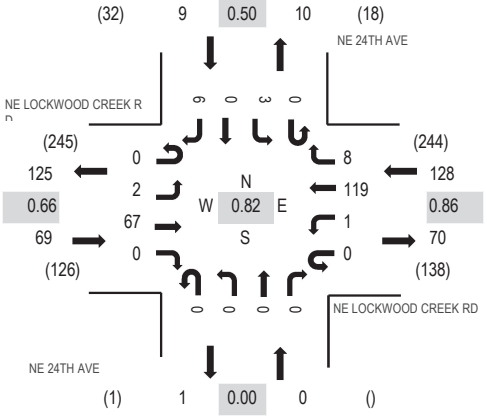
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	1	0	0	0	1	4:10 PM	0	0	0	0	0	4:10 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	2	2	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	1	0	1
4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	1	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	1	0	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	1	0	0	0	1	5:10 PM	1	0	0	0	1	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	4	0	2	3	9	Count Total	1	0	0	0	1	Count Total	1	0	1	0	2
Peak Hour	3	0	2	1	6	Peak Hour	1	0	0	0	1	Peak Hour	0	0	1	0	1

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

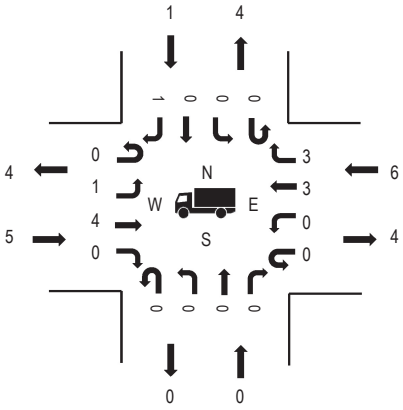
Location: 3 NE 24TH AVE & NE LOCKWOOD CREEK RD AM
Date: Tuesday, July 27, 2021
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:35 AM - 08:50 AM

Peak Hour

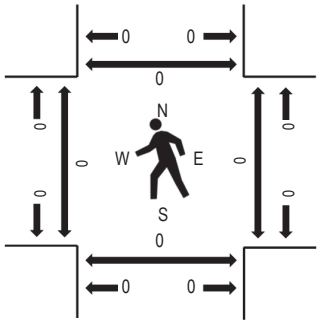
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	7.2%	0.66
WB	4.7%	0.86
NB	0.0%	0.00
SB	11.1%	0.50
All	5.8%	0.82

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE 24TH AVE Northbound				NE 24TH AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	4	0	0	0	6	0	0	0	0	0	0	1	0	0	11	196
7:05 AM	0	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	9	200
7:10 AM	0	0	1	0	0	0	13	0	0	0	0	0	0	0	0	0	14	202
7:15 AM	0	1	6	0	0	0	6	0	0	0	0	0	0	0	0	1	14	202
7:20 AM	0	1	4	0	0	0	20	0	0	0	0	0	0	1	0	0	26	199
7:25 AM	0	1	6	0	0	0	7	0	0	0	0	0	0	1	0	1	16	197
7:30 AM	0	0	2	0	0	0	9	1	0	0	0	0	0	3	0	2	17	203
7:35 AM	0	0	12	0	0	0	11	0	0	0	0	0	0	3	0	1	27	197
7:40 AM	0	0	2	0	0	0	8	0	0	0	0	0	0	2	0	1	13	190
7:45 AM	0	1	4	0	0	0	10	1	0	0	0	0	0	3	0	0	19	195
7:50 AM	0	0	3	0	0	0	10	0	0	0	0	0	0	0	0	1	14	201
7:55 AM	0	1	5	0	0	0	7	1	0	0	0	0	0	2	0	0	16	202
8:00 AM	0	0	5	0	0	0	9	0	0	0	0	0	0	0	0	1	15	206
8:05 AM	0	0	3	0	0	0	7	1	0	0	0	0	0	0	0	0	11	
8:10 AM	0	0	3	0	0	0	10	1	0	0	0	0	0	0	0	0	14	
8:15 AM	0	0	2	0	0	1	6	0	0	0	0	0	0	0	0	2	11	
8:20 AM	0	1	6	0	0	0	16	1	0	0	0	0	0	0	0	0	24	
8:25 AM	0	0	7	0	0	0	12	1	0	0	0	0	0	0	0	2	22	
8:30 AM	0	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	11	
8:35 AM	0	0	10	0	0	0	9	1	0	0	0	0	0	0	0	0	20	
8:40 AM	0	1	6	0	0	0	11	0	0	0	0	0	0	0	0	0	18	
8:45 AM	0	0	9	0	0	0	13	1	0	0	0	0	0	2	0	0	25	
8:50 AM	0	0	4	0	0	0	9	1	0	0	0	0	0	1	0	0	15	
8:55 AM	0	0	7	0	0	0	11	1	0	0	0	0	0	0	0	1	20	
Count Total	0	7	119	0	0	1	232	11	0	0	0	0	0	19	0	13	402	
Peak Hour	0	2	67	0	0	1	119	8	0	0	0	0	0	3	0	6	206	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

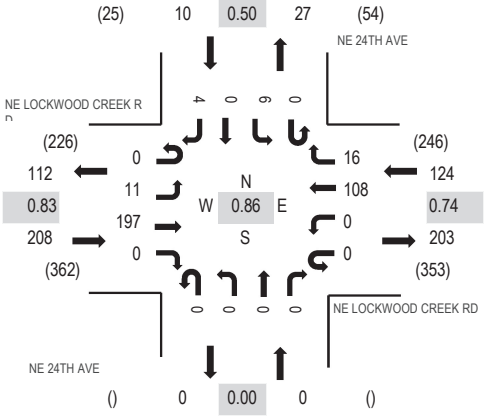
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	2	0	2	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	1	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	1	0	0	0	1	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	1	0	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	0	1	1	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	2	0	2	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	1	0	1	0	2	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	1	0	0	0	1	8:40 AM	1	0	0	0	1	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	1	0	1	0	2	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	7	0	9	1	17	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	5	0	6	1	12	Peak Hour	1	0	0	0	1	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

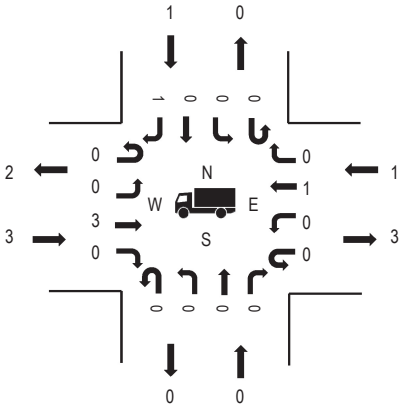
Location: 3 NE 24TH AVE & NE LOCKWOOD CREEK RD PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:35 PM - 04:50 PM

Peak Hour

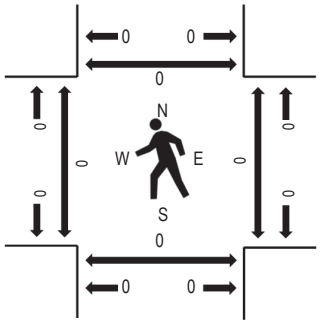
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.4%	0.83
WB	0.8%	0.74
NB	0.0%	0.00
SB	10.0%	0.50
All	1.5%	0.86

Traffic Counts - Motorized Vehicles

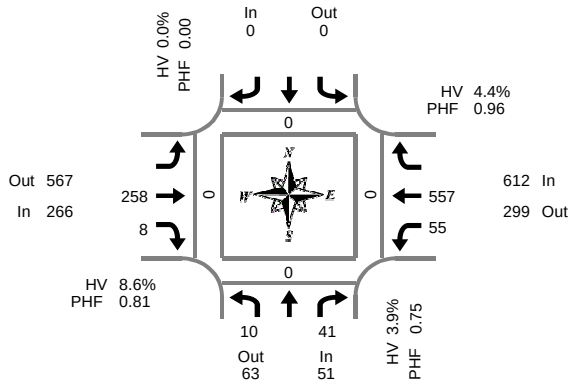
Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE 24TH AVE Northbound				NE 24TH AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	2	14	0	0	0	11	1	0	0	0	0	0	0	0	0	28	313
4:05 PM	0	2	10	0	0	0	10	1	0	0	0	0	0	1	0	0	24	316
4:10 PM	0	0	11	0	0	0	15	1	0	0	0	0	0	0	0	0	27	316
4:15 PM	0	0	12	0	0	0	4	0	0	0	0	0	0	1	0	0	17	308
4:20 PM	0	1	11	0	0	0	9	1	0	0	0	0	0	0	0	0	22	322
4:25 PM	0	0	12	0	0	0	6	2	0	0	0	0	0	0	0	0	20	334
4:30 PM	0	0	22	0	0	0	5	1	0	0	0	0	0	0	0	1	29	342
4:35 PM	0	0	19	0	0	0	15	2	0	0	0	0	0	1	0	0	37	335
4:40 PM	0	0	15	0	0	0	12	3	0	0	0	0	0	0	0	1	31	329
4:45 PM	0	0	19	0	0	0	9	2	0	0	0	0	0	0	0	1	31	328
4:50 PM	0	1	17	0	0	0	8	2	0	0	0	0	0	1	0	0	29	319
4:55 PM	0	3	6	0	0	0	6	1	0	0	0	0	0	1	0	1	18	317
5:00 PM	0	0	19	0	0	0	9	2	0	0	0	0	0	1	0	0	31	320
5:05 PM	0	0	12	0	0	0	11	0	0	0	0	0	0	1	0	0	24	
5:10 PM	0	1	11	0	0	0	6	0	0	0	0	0	0	1	0	0	19	
5:15 PM	0	3	20	0	0	0	8	0	0	0	0	0	0	0	0	0	31	
5:20 PM	0	1	20	0	0	0	10	3	0	0	0	0	0	0	0	0	34	
5:25 PM	0	2	17	0	0	0	9	0	0	0	0	0	0	0	0	0	28	
5:30 PM	0	1	11	0	0	0	6	1	0	0	0	0	0	2	0	1	22	
5:35 PM	0	2	15	0	0	0	14	0	0	0	0	0	0	0	0	0	31	
5:40 PM	0	1	12	0	0	0	10	2	0	0	0	0	0	1	0	4	30	
5:45 PM	0	3	9	0	0	0	5	1	0	0	0	0	0	4	0	0	22	
5:50 PM	0	1	13	0	0	0	11	2	0	0	0	0	0	0	0	0	27	
5:55 PM	0	0	11	0	0	0	7	2	0	0	0	0	0	0	0	1	21	
Count Total	0	24	338	0	0	0	216	30	0	0	0	0	0	15	0	10	633	
Peak Hour	0	11	197	0	0	0	108	16	0	0	0	0	0	6	0	4	342	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	1	0	0	0	1	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	1	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	1	0	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	1	0	0	0	1	5:05 PM	0	0	0	0	0
5:10 PM	1	0	0	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	4	0	1	1	6	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	3	0	1	1	5	Peak Hour	1	0	0	0	1	Peak Hour	0	0	0	0	0

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



NW Timmen Rd & NW La Center Rd

Thursday, May 09, 2019
7:00 AM to 9:00 AM

Peak Hour Summary
7:15 AM to 8:15 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
7:00 AM	3		7	0				0		44	2	0	13	135		0	204	0	0	1	0
7:15 AM	3		10	0				0		53	2	0	11	148		0	227	0	0	0	0
7:30 AM	3		8	0				0		67	1	0	22	130		0	231	0	0	0	0
7:45 AM	2		15	0				0		79	3	0	13	129		0	241	0	0	0	0
8:00 AM	2		8	0				0		59	2	0	9	150		0	230	0	0	0	0
8:15 AM	2		5	0				0		46	4	0	14	134		0	205	0	0	0	0
8:30 AM	5		9	0				0		59	2	0	17	111		0	203	0	0	0	0
8:45 AM	3		7	0				0		45	3	0	13	100		0	171	0	0	0	0
Total Survey	23		69	0				0		452	19	0	112	1,037		0	1,712	0	0	1	0

Peak Hour Summary
7:15 AM to 8:15 AM

By Approach	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	51	63	114	0	0	0	0	0	266	567	833	0	612	299	911	0	929	0	0	0	0
%HV	3.9%				0.0%				8.6%				4.4%				5.6%				
PHF	0.75				0.00				0.81				0.96				0.96				

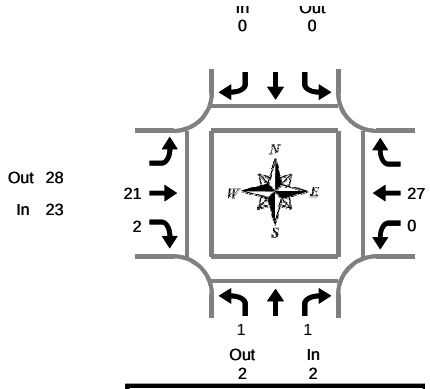
By Movement	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	10		41	51				0		258	8	266	55	557		612	929
%HV	10.0%	NA	2.4%	3.9%	NA	NA	NA	0.0%	NA	8.1%	25.0%	8.6%	0.0%	4.8%	NA	4.4%	5.6%
PHF	0.83		0.68	0.75				0.00		0.82	0.67	0.81	0.63	0.93		0.96	0.96

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
7:00 AM	11		40	0				0		243	8	0	59	542		0	903	0	0	1	0
7:15 AM	10		41	0				0		258	8	0	55	557		0	929	0	0	0	0
7:30 AM	9		36	0				0		251	10	0	58	543		0	907	0	0	0	0
7:45 AM	11		37	0				0		243	11	0	53	524		0	879	0	0	0	0
8:00 AM	12		29	0				0		209	11	0	53	495		0	809	0	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



NW Timmen Rd & NW La Center Rd

Thursday, May 09, 2019
7:00 AM to 9:00 AM

Peak Hour Summary
7:15 AM to 8:15 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		0	0				0		11	2	13	1	6		7	20
7:15 AM	0		0	0				0		7	0	7	0	2		2	9
7:30 AM	0		1	1				0		4	0	4	0	3		3	8
7:45 AM	0		0	0				0		4	1	5	0	1		1	6
8:00 AM	1		0	1				0		6	1	7	0	21		21	29
8:15 AM	1		0	1				0		5	0	5	1	7		8	14
8:30 AM	4		1	5				0		5	0	5	0	3		3	13
8:45 AM	0		0	0				0		2	0	2	1	4		5	7
Total Survey	6		2	8				0		44	4	48	3	47		50	106

Heavy Vehicle Peak Hour Summary
7:15 AM to 8:15 AM

By Approach	Northbound NW Timmen Rd			Southbound NW Timmen Rd			Eastbound NW La Center Rd			Westbound NW La Center Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	2	4	0	0	0	23	28	51	27	22	49	52
PHF	0.07			0.00			0.24			0.21			0.23

By Movement	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	1		1	2				0		21	2	23	0	27		27	52
PHF	0.04		0.25	0.07				0.00		0.24	0.25	0.24	0.00	0.22		0.21	0.23

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

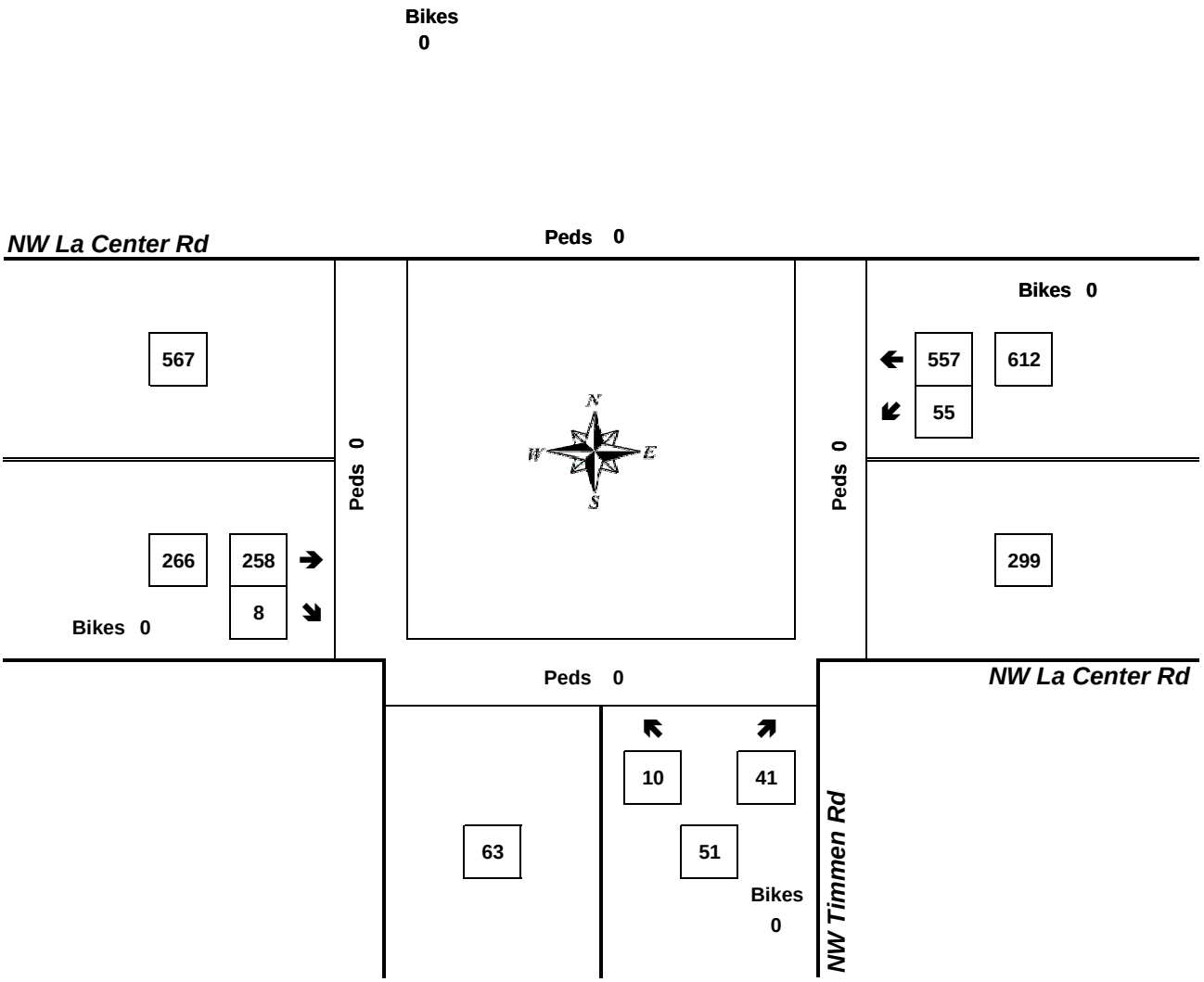
Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		1	1				0		26	3	29	1	12		13	43
7:15 AM	1		1	2				0		21	2	23	0	27		27	52
7:30 AM	2		1	3				0		19	2	21	1	32		33	57
7:45 AM	6		1	7				0		20	2	22	1	32		33	62
8:00 AM	6		1	7				0		18	1	19	2	35		37	63

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

NW Timmen Rd & NW La Center Rd

7:15 AM to 8:15 AM
Thursday, May 09, 2019

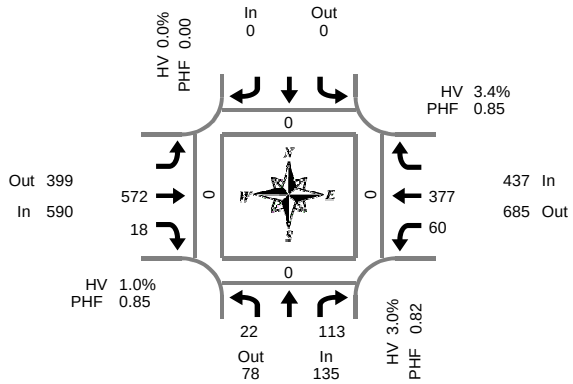


Approach	PHF	HV%	Volume
EB	0.81	8.6%	266
WB	0.96	4.4%	612
NB	0.75	3.9%	51
SB	0.00	0.0%	0
Intersection	0.96	5.6%	929

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:30 PM to 5:30 PM

NW Timmen Rd & NW La Center Rd

Wednesday, May 08, 2019
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
4:00 PM	4		21	0				0		133	6	0	11	102		0	277	0	0	0	0
4:15 PM	2		36	0				0		138	8	0	9	97		0	290	0	0	0	0
4:30 PM	8		33	0				0		139	5	0	11	84		0	280	0	0	0	0
4:45 PM	4		27	0				0		125	7	0	11	98		0	272	0	0	0	0
5:00 PM	3		23	0				0		138	3	0	18	111		0	296	0	0	0	0
5:15 PM	7		30	0				0		170	3	0	20	84		0	314	0	0	0	0
5:30 PM	5		15	0				0		167	3	0	4	78		0	272	0	0	0	0
5:45 PM	2		25	1				0		126	2	0	11	58		0	224	0	0	0	0
Total Survey	35		210	1				0		1,136	37	0	95	712		0	2,225	0	0	0	0

Peak Hour Summary
4:30 PM to 5:30 PM

By Approach	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	135	78	213	0	0	0	0	0	590	399	989	0	437	685	1,122	0	1,162	0	0	0	0
%HV	3.0%				0.0%				1.0%				3.4%				2.2%				
PHF	0.82				0.00				0.85				0.85				0.93				

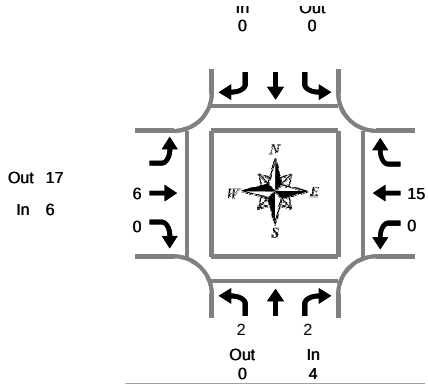
By Movement	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	22		113	135				0		572	18	590	60	377		437	1,162
%HV	9.1%	NA	1.8%	3.0%	NA	NA	NA	0.0%	NA	1.0%	0.0%	1.0%	0.0%	4.0%	NA	3.4%	2.2%
PHF	0.69		0.86	0.82				0.00		0.84	0.64	0.85	0.75	0.85		0.85	0.93

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
4:00 PM	18		117	0				0		535	26	0	42	381		0	1,119	0	0	0	0
4:15 PM	17		119	0				0		540	23	0	49	390		0	1,138	0	0	0	0
4:30 PM	22		113	0				0		572	18	0	60	377		0	1,162	0	0	0	0
4:45 PM	19		95	0				0		600	16	0	53	371		0	1,154	0	0	0	0
5:00 PM	17		93	1				0		601	11	0	53	331		0	1,106	0	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



NW Timmen Rd & NW La Center Rd

Wednesday, May 08, 2019
4:00 PM to 6:00 PM

Peak Hour Summary
4:30 PM to 5:30 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	1		0	1				0		4	1	5	0	4		4	10
4:15 PM	0		0	0				0		4	0	4	0	6		6	10
4:30 PM	1		1	2				0		4	0	4	0	4		4	10
4:45 PM	0		0	0				0		2	0	2	0	3		3	5
5:00 PM	0		1	1				0		0	0	0	0	6		6	7
5:15 PM	1		0	1				0		0	0	0	0	2		2	3
5:30 PM	1		0	1				0		1	0	1	0	2		2	4
5:45 PM	0		0	0				0		1	1	2	0	1		1	3
Total Survey	4		2	6				0		16	2	18	0	28		28	52

Heavy Vehicle Peak Hour Summary
4:30 PM to 5:30 PM

By Approach	Northbound NW Timmen Rd			Southbound NW Timmen Rd			Eastbound NW La Center Rd			Westbound NW La Center Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	4	0	4	0	0	0	6	17	23	15	8	23	25
PHF	0.33			0.00			0.12			0.27			0.21

By Movement	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	2		2	4				0		6	0	6	0	15		15	25
PHF	0.25		0.25	0.33				0.00		0.13	0.00	0.12	0.00	0.27		0.27	0.21

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NW Timmen Rd				Southbound NW Timmen Rd				Eastbound NW La Center Rd				Westbound NW La Center Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	2		1	3				0		14	1	15	0	17		17	35
4:15 PM	1		2	3				0		10	0	10	0	19		19	32
4:30 PM	2		2	4				0		6	0	6	0	15		15	25
4:45 PM	2		1	3				0		3	0	3	0	13		13	19
5:00 PM	2		1	3				0		2	1	3	0	11		11	17

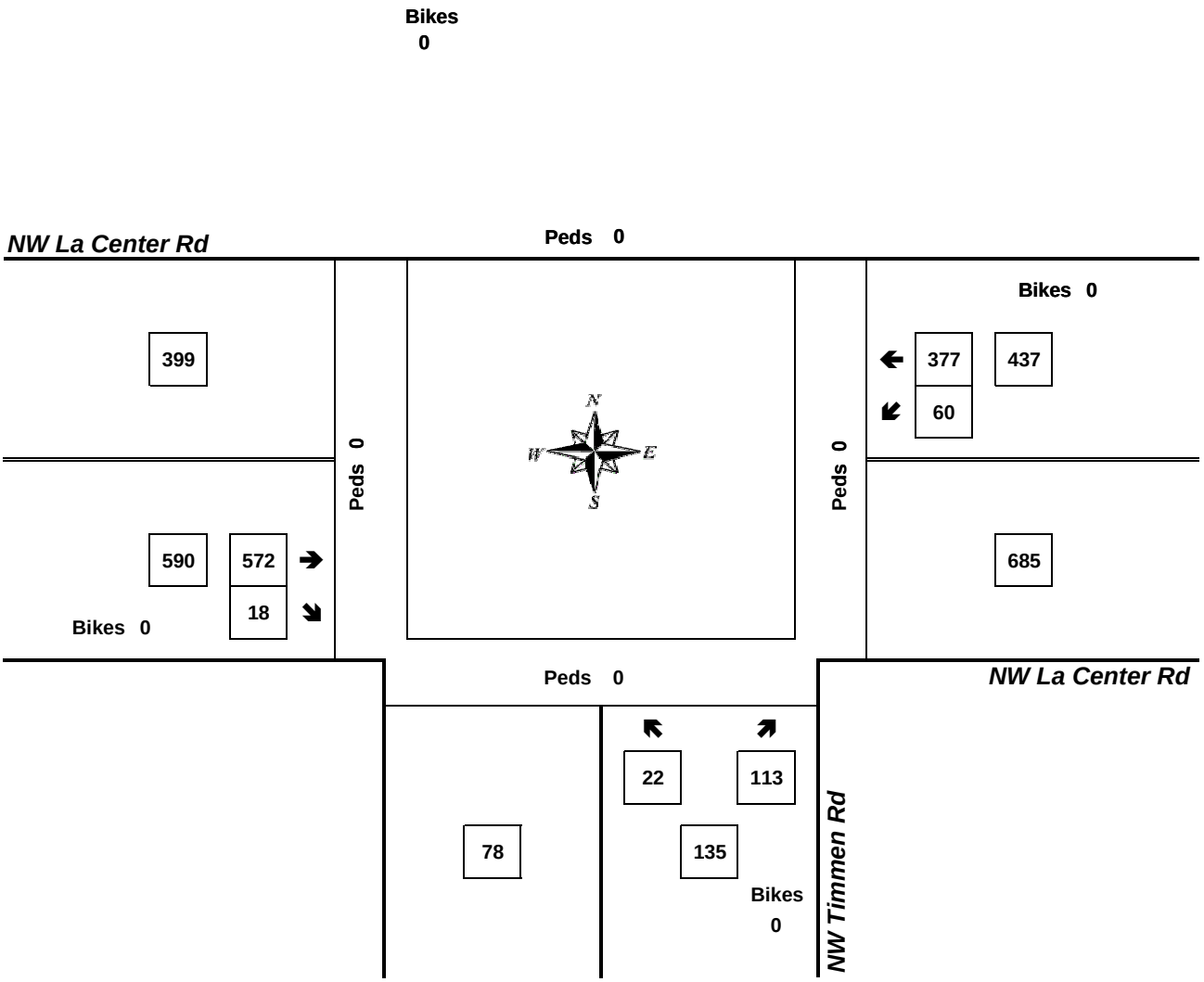
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

NW Timmen Rd & NW La Center Rd

4:30 PM to 5:30 PM
Wednesday, May 08, 2019



Approach	PHF	HV%	Volume
EB	0.85	1.0%	590
WB	0.85	3.4%	437
NB	0.82	3.0%	135
SB	0.00	0.0%	0
Intersection	0.93	2.2%	1,162

Count Period: 4:00 PM to 6:00 PM

KELLY ENGINEERING
1805 NE 94th Street No. 19
Vancouver, WA 98665

Phone: 360-433-7530
e-mail: Kellyengineer@comcast.net

February 9, 2021

Roy Heikkala
PO Box 211
Vancouver, WA 98666

Subject: Site Traffic Generation, Teresa's Little School
La Center, Washington

Roy:

This is a site traffic generation estimate for the amount of traffic that could come from the 6,620 sq. ft. GFA private school for tutoring to be known as Teresa's Little School. The site is located in the Heritage Center at 419 Cedar Ave. in La Center. A private school for tutoring would be a conditional use under Chapter 18.150 (14, Services - Educational, h., Public/private educational institutions) of the La Center Municipal Code. The site is in the Downtown Commercial (C-1) District.

I based my calculations on 24 students that would attend the school during the peak hour of school activities. This would be the peak hour of the generator, i.e. the school. I also used a land use of Private School (K-12) and an independent variable of students. Private School (K-12) is land use code 536 in the ITE Trip Generation Manual, 10th edition. Based on my calculations the site could generate 14 trips during the PM peak hour of activities at the school. A trip is a one directional vehicle movement.

In comparison to other permitted land uses for an assumed 6,620 sq. ft. GFA building under the C-1 zoning 14 trips is a minimal impact in regards to traffic. Other permitted land uses under the C-1 zoning for a building of comparable size would be a Quality Restaurant (ITE code 931, *31 PM trips*), Small Office Building (ITE code 712, *25 PM trips*), Athletic Club (ITE code 493, *42 PM trips*) and a Copy, Print and Express Ship Store (ITE code 920, *81 PM trips*).

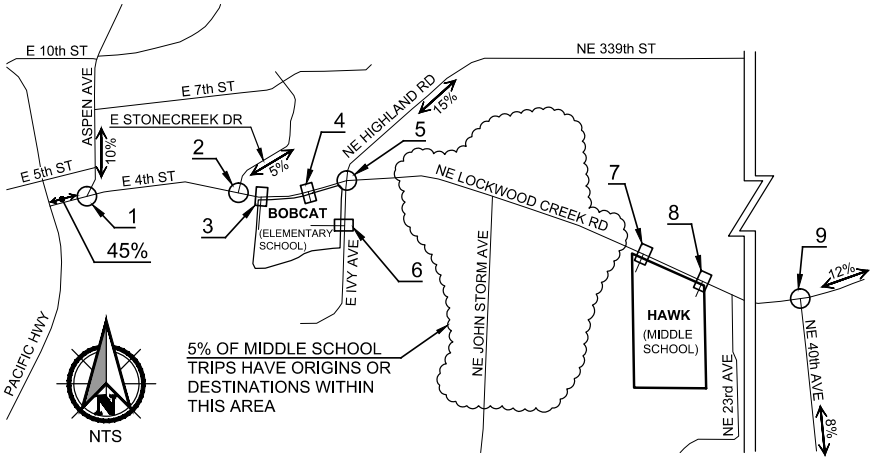
Please contact me if you have any questions regarding the above. I can be reached at 360-433-7530 or e-mail to Kellyengineer@comcast.net.

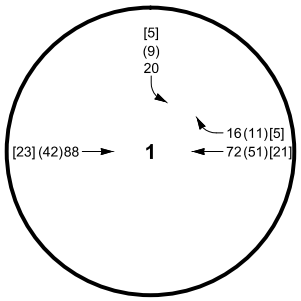
Sincerely,

David Kelly

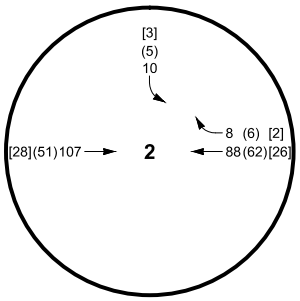
David Kelly, P.E.
Transportation Engineer

2/9/2021

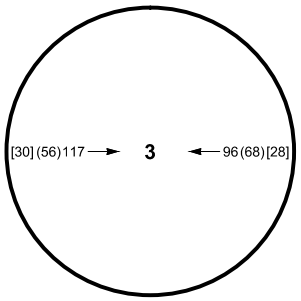




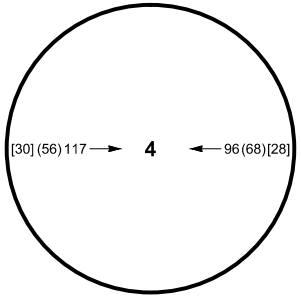
Aspen Avenue / E 4th Street



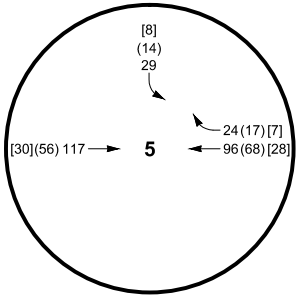
E Stonecreek Drive / E 4th Street



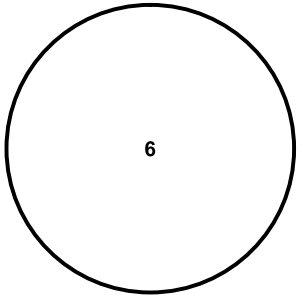
Bobcat West Driveway / E 4th Street



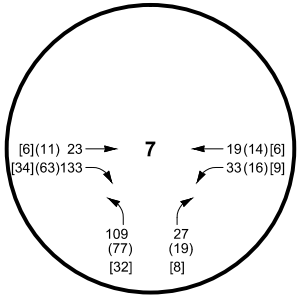
Bobcat East Driveway / E 4th Street



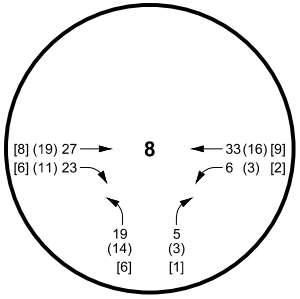
NE Highland Road / E Ivy Avenue / NE Lockwood Creek Road



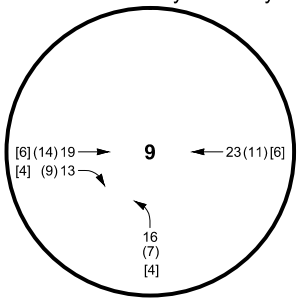
E Ivy Avenue / Bobcat Exit-Only Driveway



Hawk West Driveway / NE Lockwood Creek Road



Hawk East Driveway / NE Lockwood Creek Road



NE 40th Avenue / NE Lockwood Creek Road

LEGEND

□	DRIVEWAY
○	INTERSECTION
XXX	AM PEAK HOUR (7:30 - 8:30 AM)
(XXX)	MIDDAY PEAK HOUR (2:30 - 3:30 PM)
[XXX]	PM PEAK HOUR (4:45 - 5:45 PM)

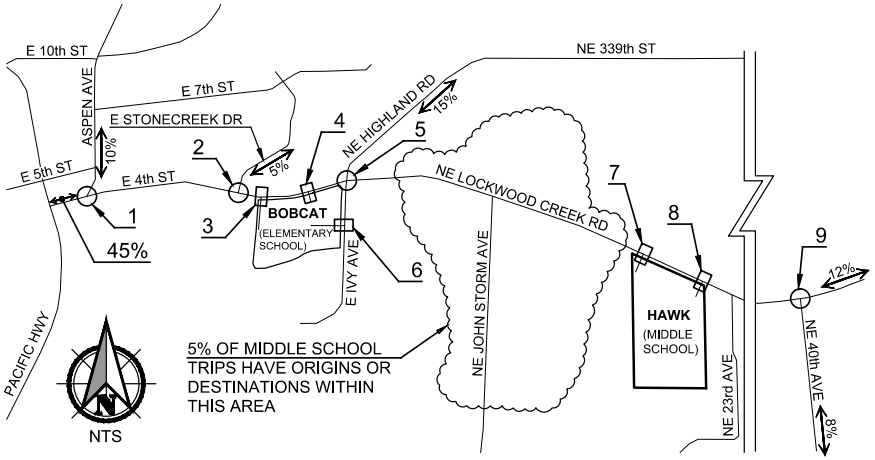
PBS

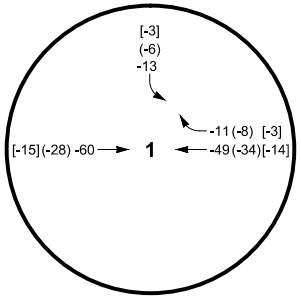
New Middle School Trip Distribution and Trip Assignments

La Center Middle School

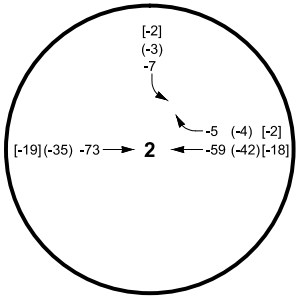
NOV 2018

FIGURE 8

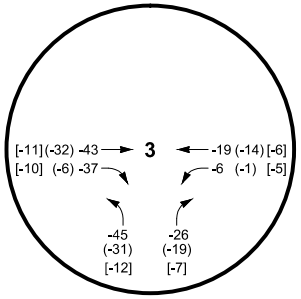




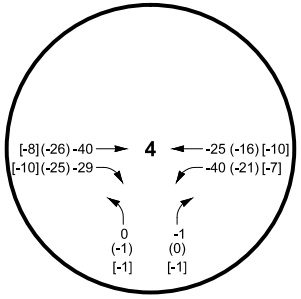
Aspen Avenue / E 4th Street



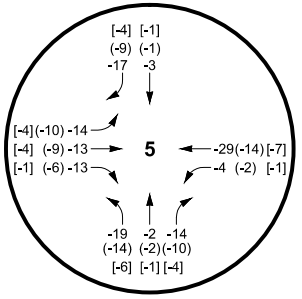
E Stonecreek Drive / E 4th Street



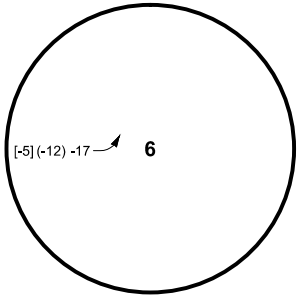
Bobcat West Driveway / E 4th Street



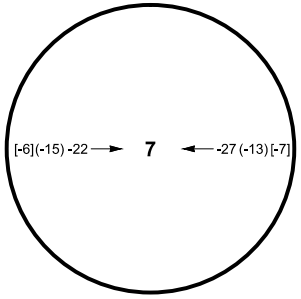
Bobcat East Driveway / E 4th Street



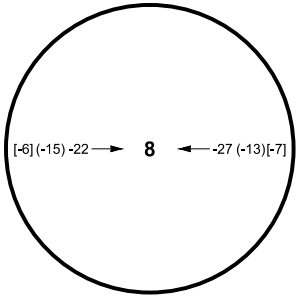
NE Highland Road / E Ivy Avenue / NE Lockwood Creek Road



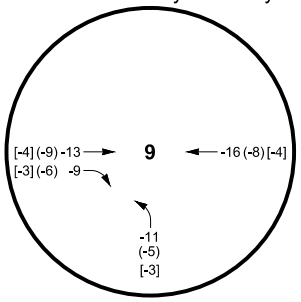
E Ivy Avenue / Bobcat Exit-Only Driveway



Hawk West Driveway / NE Lockwood Creek Road



Hawk East Driveway / NE Lockwood Creek Road



NE 40th Avenue / NE Lockwood Creek Road

LEGEND

□	DRIVEWAY
○	INTERSECTION
XXX	AM PEAK HOUR (7:30 - 8:30 AM)
(XXX)	MIDDAY PEAK HOUR (2:30 - 3:30 PM)
[XXX]	PM PEAK HOUR (4:45 - 5:45 PM)

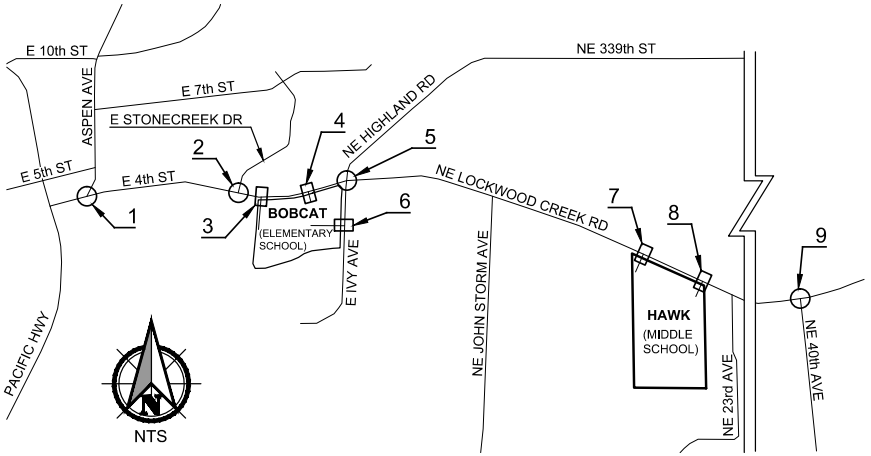
PBS

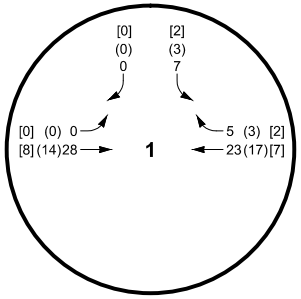
Existing Middle School Trip Distribution and Adjustments

La Center Middle School

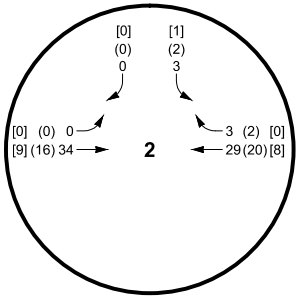
NOV 2018

FIGURE 9

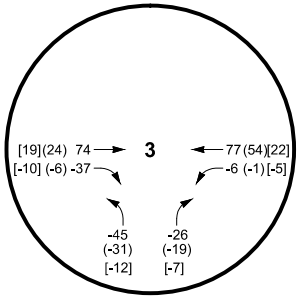




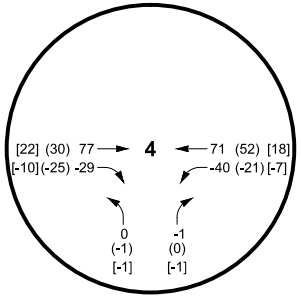
Aspen Avenue / E 4th Street



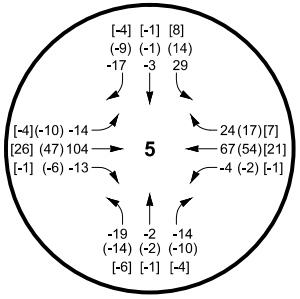
E Stonecreek Drive / E 4th Street



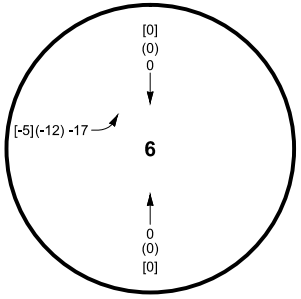
Bobcat West Driveway / E 4th Street



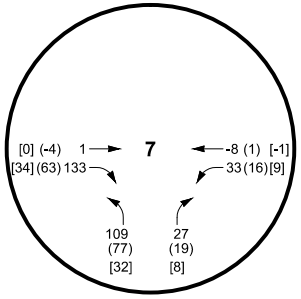
Bobcat East Driveway / E 4th Street



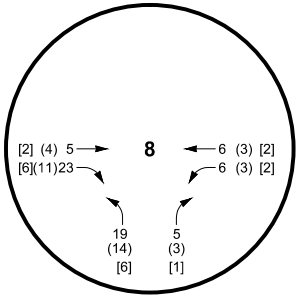
NE Highland Road / E Ivy Avenue / NE Lockwood Creek Road



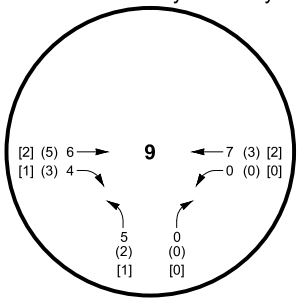
E Ivy Avenue / Bobcat Exit-Only Driveway



Hawk West Driveway / NE Lockwood Creek Road



Hawk East Driveway / NE Lockwood Creek Road



NE 40th Avenue / NE Lockwood Creek Road

LEGEND

▭	DRIVEWAY
○	INTERSECTION
XXX	AM PEAK HOUR (7:30 - 8:30 AM)
(XXX)	MIDDAY PEAK HOUR (2:30 - 3:30 PM)
[XXX]	PM PEAK HOUR (4:45 - 5:45 PM)

PBS

Net Trip Impacts
La Center Middle School

NOV 2018

FIGURE 10

CHARBONNEAU
ENGINEERING LLC

MEMORANDUM

Date: March 2, 2020

To: Mike Odren, RLA
Associate Principal
Olson Engineering, Inc.
222 East Evergreen Blvd
Vancouver WA 98660

From: Frank Charbonneau, PE, PTOE

Subject: Trip Generation Assessment FL2024
Minit Management Development
NW Paradise Park Road, La Center

This memo will serve as the trip generation assessment documenting the number of vehicular trips that will be produced by the proposed Minit Management development. The four acre site at address #2814 NW 319th Street is located in the northeast quadrant of NW La Center Road and the I-5 northbound on-ramp.

The development project will demolish the existing convenience store and gas station facilities and construct several new buildings consisting of 11,600 square feet of general retail, fast foot restaurant with drive-through totaling 2,800 square feet, convenience market with coffee drive-through totaling 4,510 square feet, and a 101 unit hotel. Parking on the site for 184 spaces will be provided, including eight ADA parking stalls. A copy of the project's site plan is attached to this memo.

The site we be served by three driveway accesses connecting to the perimeter road (NW Paradise Park Road) on the property's north and east sides. The nearest major intersections include NW La Center Road at the I-5 northbound off-ramp which is configured as a round-about and NW Paradise Park Road at NW La Center Road. This intersection is controlled by stop signing on the northbound Paradise Park Road approach and on the southbound Paradise Road approach.

The City of La Center issued a pre-application conference report (2019-018-PAC) dated June 11, 2019 documenting the application's process and requirements. The staff report detailed that the development agreement between the City and Minit Management LLC dated March 2016 vested a total of 199 PM peak hour trips for the site. As a result it was necessary to submit a trip generation assessment to verify the trip projection.

The number of trips were calculated based on the proposed building uses and sizes. Trip credits were applied for the existing facilities that will be demolished including the convenience market and gas station and a cardlock fueling station. The trip calculations were determined for the weekday average daily traffic (ADT) and the weekday AM and PM peak hours.

The analysis used the ITE Trip Generation manual (10th edition, year 2017).

For the proposed site uses several ITE land use categories were applied including #310 (Hotel), #820 (shopping center), #852 (convenience market), #934 (fast food restaurant with drive-through), and #938 (coffee drive-through). For the existing uses ITE code #853 for convenience market was used and historical rates for Pacific Pride Cardlock were applied for the cardlock fueling station.

A summary of the site's trip generation is provided in the following tables. Table 1 provides the trip generation for the site's existing uses. Table 2 provides the trip generation for the proposed site uses. Table 3 lists the net site trips for the development.

Table 1 Existing Land Uses Trip Generation Summary

ITE Land Use	Units	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
Convenience Mkt with Gas (#853)								
Generation Rate [1]	6 fueling posiitons	322.50	20.76	50%	50%	23.04	50%	50%
Total Driveway Trips		**1,935**	**125**	63	62	**138**	69	69
Pass-By Trips [2] (AM Peak=63%; PM Peak=66%)			79	40	39	91	46	45
New Site Trips			**46**	23	23	**47**	23	24
Cardlock Fueling Station								
Generation Rate [3]	12 fueling positions		4.44	50%	50%	2.96	50%	50%
Total Driveway Trips		**1445**	**53**	27	26	**36**	18	18
Pass-By Trips [2] (AM Peak=58%; PM Peak=42%)			31	16	15	15	8	7
New Trips			**22**	11	11	**21**	10	11
Total Site Trips			**178**	90	88	**174**	87	87
Pass-by Trips			**110**	56	54	**106**	54	52
New Trips [4]		**3,380**	**68**	34	34	**68**	33	35

[1] Source: *Trip Generation*, 10th Edition, ITE, 2017, average rates.

[2] Pass-by percentage based on *Trip Generation Handbook, 3nd Edition*, ITE, 2017.

[3] Source: Independent surveys at Tarr Inc. Pacific Pride. AM trip rate = 1.5x calculated PM trip rate, ADT = 70% of ITE #944 Gas Station Rate

[4] New Trips = Total Trips - Internal Trips - Pass-by Trips.

Table 2 Proposed Land Uses Trip Generation Summary

ITE Land Use	Units	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
Convenience Mkt [Open 15-16 hours] (#852)	4,410 sq. ft.							
Generation Rate [1,2]		345.70	31.02	50%	50%	34.57	49%	51%
Total Driveway Trips		**1,525**	**137**	69	68	**152**	74	78
Internal Trips [3] (AM Peak=16%; PM Peak=36%)			22	11	11	55	27	28
Pass-By Trips [4] (AM Peak=63%; PM Peak=66%)			72	36	36	64	31	33
New Site Trips		**1,525**	**43**	22	21	**33**	16	17
Shopping Center (#820)	11,600 sq. ft.							
Generation Rate [2]		37.75	0.94	62%	38%	3.81	48%	52%
Total Driveway Trips		**438**	**11**	7	4	**44**	21	23
Internal Trips [3] (AM Peak=16%; PM Peak=36%)			2	1	1	16	8	8
Pass-By Trips [4] (AM Peak=N/A; PM Peak=34%)						10	5	5
New Site Trips [4]		**438**	**9**	6	3	**18**	8	10
Hotel (#310)	101 rooms							
Generation Rate [2]		8.36	0.47	59%	41%	0.60	51%	49%
Total Driveway Trips		**844**	**47**	28	19	**61**	31	30
Internal Trips [3] (AM Peak=16%; PM Peak=36%)			8	4	4	22	11	11
New Site Trips			39	24	15	39	20	19
Fast-Food with Drive-Through (#934)	2,800 sq. ft.							
Generation Rate [2]		470.95	40.19	51%	49%	32.67	52%	48%
Total Driveway Trips		**1,319**	**113**	58	55	**91**	48	43
Internal Trips [3] (AM Peak=16%; PM Peak=36%)			19	10	9	33	17	16
Pass-By Trips [4] (AM Peak=49%; PM Peak=50%)			46	24	22	29	15	14
New Trips			**48**	24	24	**29**	16	13
Coffee/Donut Shop with Drive-Through & No Indoor Seating (#938)	100 sq. ft.							
Generation Rate [2]		2000.00	337.04	50%	50%	83.33	50%	50%
Total Driveway Trips		**200**	**34**	17	17	**8**	4	4
Internal Trips [3] (AM Peak=16%; PM Peak=36%)		0	6	3	3	3	2	1
Pass-By Trips [4,5] (AM Peak=83%; PM Peak=83%)		166	23	12	11	4	2	2
New Site Trips		**34**	**5**	2	3	**1**	0	1
Total Site Trips		**4,326**	**342**	179	163	**356**	178	178
Internal Trips			**57**	29	28	**129**	65	64
Pass-by Trips			**141**	72	69	**107**	53	54
New Trips			**144**	78	66	**120**	60	60

[1] ADT trip rate estimated as ten times the PM peak hour trip rate.

[2] Source: *Trip Generation*, 10th Edition, ITE, 2017, average rates.

[3] Internal capture calculated with unconstrained internal capture rates presented in the Center for Urban Transportation Research (CUTR) *Trip Internalization in Multi-Use Developments*, April 2014, FDOT.

[4] Pass-by percentage based on Trip Generation Handbook, 3nd Edition, ITE, 2017.

[5] The weekday PM peak pass-by rate used to calculate the daily and weekday AM peak pass-by trips.

[6] New Trips = Total Trips - Internal Trips - Pass-by Trips.

Table 3 presents the net trip generation results (proposed site trips – existing site trips) for the development project. When the new facility is developed it is projected that the site will generate a net of 76 trips in the AM peak hour 52 trips in the PM peak hour. The ADT is projected to increase by 946 trips per day.

Table 3 Net New Trips

Site Uses	Weekday Peak Hour						Weekday ADT
	AM Peak Hour			PM Peak Hour			
	Total	Enter	Exit	Total	Enter	Exit	
Proposed Site [1]	**144**	78	66	**120**	60	60	4,326
Existing Site [2]	**-68**	-34	-34	**-68**	-33	-35	3,380
Net New Trips [3]	**76**	44	32	**52**	27	25	946

[1] Refer to Table 2.

[2] Refer to Table 1.

[3] Net New Trips = Proposed Site Trips - Existing Site Trips.

It is recommended that the City of La Center support the proposed development without the application of traffic impact fees as the projected number of site trips falls below the vested number of peak hour trips (199 trips) identified in the City's development agreement with Minit Management.

If you should need any additional traffic engineering support on this project or if there are any further questions, please contact Frank Charbonneau, PE, PTOE at 503.293.1118 or email Frank@CharbonneauEngineer.com.

Attachment

- Site Plan

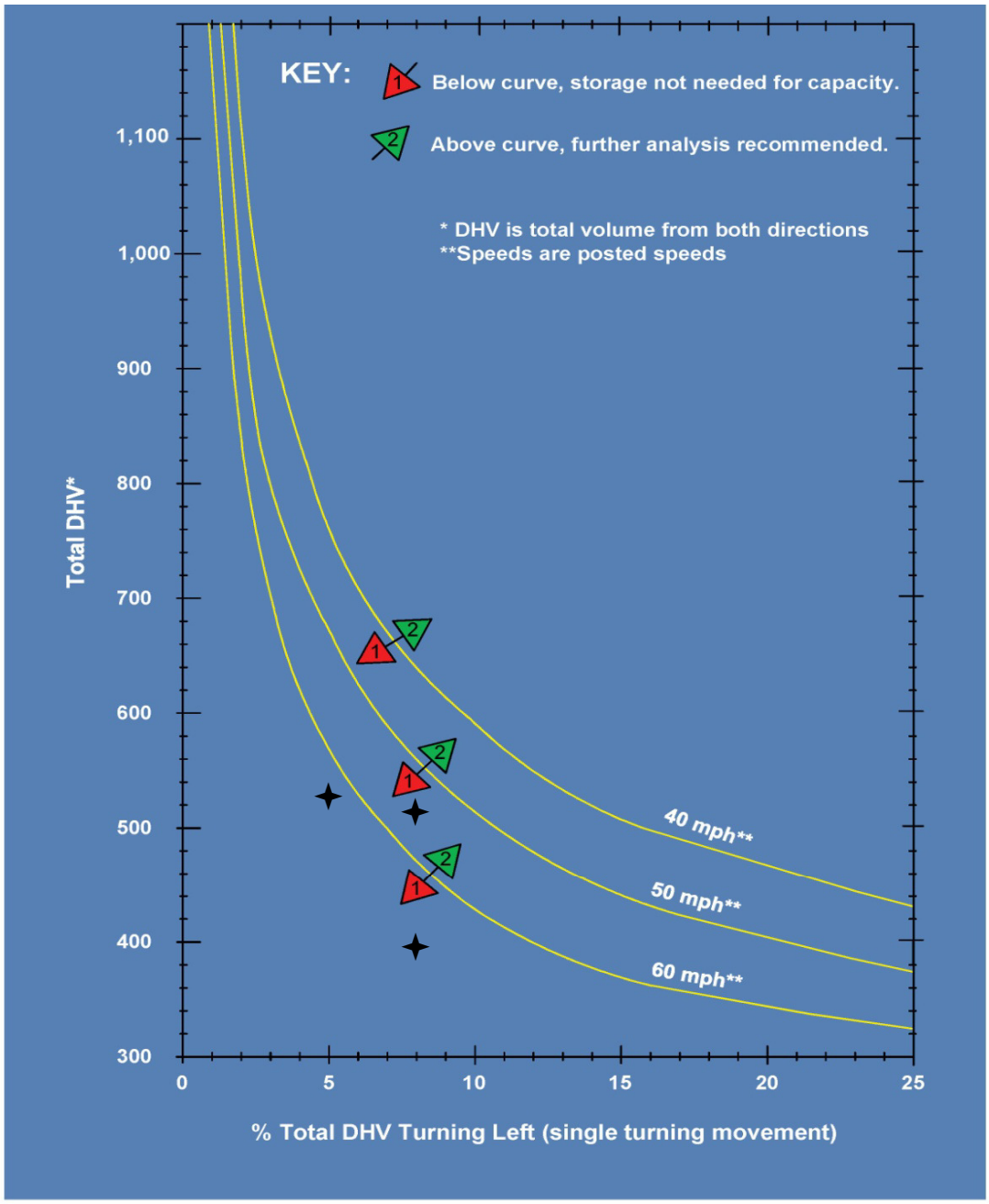


Exhibit 1310-7a. Left-turn Storage Guidelines-: Two-Lane, Unsignalized.

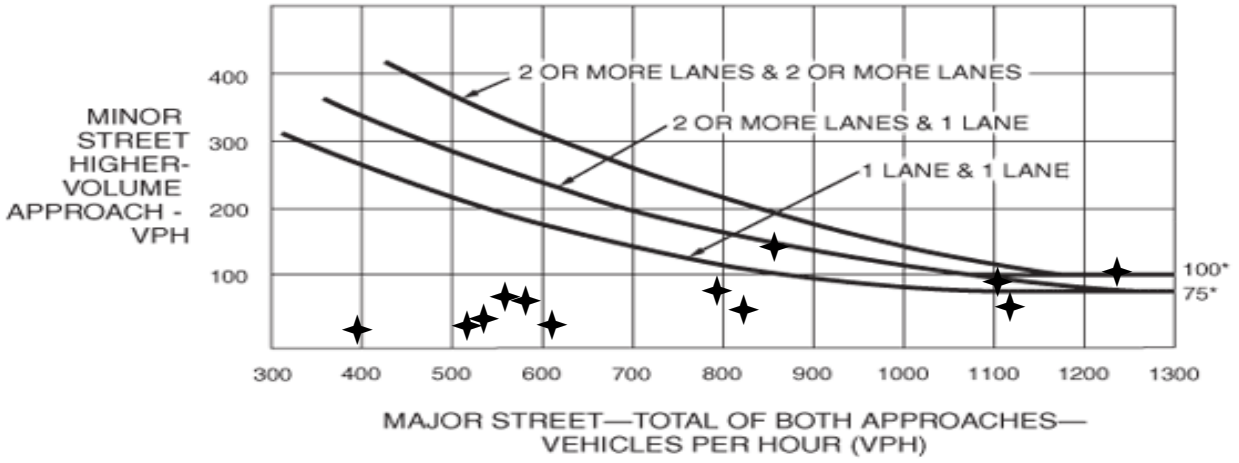
Storage requirements for critical left-turn movements at unsignalized intersections on 2-lane highways.

Intersection	Mov't	Analysis Period	Speed *V* (mph)	Left Turns in Advancing Volume (vph)	Advancing Volume V_A (vph)	Opposing Volume V_O (vph)	Total DHV	% Left Turns in Advancing Volume *L*	Storage Req'd (ft)
E Spruce Avenue & Lockwood Cr. Rd.	EB LT	2024 Total Traffic - AM Peak	35	28	250	284	534	5%	None
		2024 Total Traffic - PM Peak		41	308	205	513	8%	None
NE 24th Avenue & Lockwood Cr. Rd.	EB LT	2024 Total Traffic - AM Peak	35	8	91	152	243	3%	None
		2024 Total Traffic - PM Peak		30	248	143	391	8%	None

Source: WSDOT Design Guide, February 2019.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Table for Figure 4C-4

One lane and one lane		Two or more lanes and one lane		Two or more lanes and two or more lanes	
VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)	VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)	VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)
1300	75	1300	75 or 100*	1300	100
1200	75	1200	80 or 100*	1200	100
1100	75	1100	100	1100	120
1000	80	1000	120	1000	150
900	100	900	140	900	175
800	120	800	160	800	225
700	145	700	200	700	260
600	170	600	245	600	315
500	220	500	280	500	370
400	260	400	340	400	Not available

* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Peak hour volume warrant for signalization data.

Intersection	Analysis Period	Major Street Speed (mph)	Major Street		Minor Street High Volume Approach		Signal Warranted?
			Volume (vph)	Lanes (#)	Volume (vph)	Lanes (#)	
Cedar Avenue & E. 4th Street	2024 Total Traffic - AM Peak	35	610	1	34	1	No
	2024 Total Traffic - PM Peak		823		52		No
Highland/ Ivy Avenue & E 4th St/ Lockwood Cr. Rd.	2024 Total Traffic - AM Peak	35	861	2	139[1]	2	No
	2024 Total Traffic - PM Peak		793		80[1]		No
John Storm Road & Lockwood Cr. Rd.	2024 Total Traffic - AM Peak	35	562	1	74	1	No
	2024 Total Traffic - PM Peak		581		69		No
E Spruce Avenue & Lockwood Cr. Rd.	2024 Total Traffic - AM Peak	35	534	1	41	1	No
	2024 Total Traffic - PM Peak		513		30		No
NE 24th Avenue & Lockwood Cr. Rd.	2024 Total Traffic - AM Peak	35	243	1	32	1	No
	2024 Total Traffic - PM Peak		391		26		No
Timmen Road & La Center Road	2024 Total Traffic - AM Peak	50	1,116	2	61	2	No
	2024 Bkgd Traffic - PM Peak		1,236		106[1]		Yes
	Year 2021 Traffic - PM Peak		1,106		91[1]		No

Source: *Manual on Uniform Traffic Control Devices (MUTCD)*, 2003 Edition.

[1] Right-turn volume adjusted using Pagones Theorem.

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER

01/01/2016 - 12/31/2020

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO
E 4TH ST	0	E CEDAR AVE					E760159	01/06/2018	2	0	2	0	0	West	e Stopped	West	East
E 4TH ST	0	NE HIGHLAND RD					E713418	09/18/2017	1	0	1	1	0	West	East		
E 4TH ST	0	NE HIGHLAND RD					E826699	06/14/2018	0	0	2	0	0	North	South	East	West
E 4TH ST	900		163	F	E	NE IVY AVE	E744770	11/29/2017	0	0	2	0	0	North	East	East	West
E 4TH ST	700		379	F	W	NE IVY AVE	E934599	06/13/2019	0	0	1	0	0	North	East		
E 4TH ST	1200		330	F	W	NE JOHN STORM AVE	EA43462	06/22/2020	1	0	2	0	0	South	West	West	East
NE HIGHLAND RD	400		157	F	N	E 4TH ST	E795549	03/22/2018	0	0	2	0	0	North	NE	North	South
NW LACENTER RD	0	NW PARADISE PARK RD					E866954	11/26/2018	0	0	2	0	0	South	North	West	East
NW LACENTER RD	32100		68	F	NE	NW TIMMEN RD	E532641	03/23/2016	0	0	2	0	0	West	East	West	North
NW LACENTER RD	32000		1000	F	SW	NW TIMMEN RD	E603749	10/28/2016	1	0	3	0	0	e Stopped	e Stopped	West	East
NW LACENTER RD	32200		0.25	M	NE	NW TIMMEN RD	E709624	09/07/2017	1	0	2	0	0	East	West	e Stopped	e Stopped
NW LACENTER RD	32100		100	F	NE	NW TIMMEN RD	E837059	09/11/2018	0	0	2	0	0	SW	NE	SE	NW
NW TIMMEN RD	0	NW LACENTER RD					E839247	08/29/2018	1	0	2	0	0	North	West	West	East
NW TIMMEN RD	31600		100	F	NW	NE TIMMEN RD	EA00050	12/12/2019	0	0	1	0	0	North	South		

2036 Mitigated Motor Vehicle Operations

Table 7 shows the p.m. peak hour operations at the study intersections with the recommended improvements. It should be noted that the 2035 Regional Transportation Plan (RTP) for Clark County recommends various improvements without committed funding, including:

- Widening La Center Road to four/five lanes between Timmen Road and 4th Street and reconstruction of the Lewis River Bridge
- Roadway improvements along 4th Street, Lockwood Creek Road, and Highland Avenue-339th Street
- Intersection improvements along 5th Street at Aspen Avenue
- Construction/reconstruction of collector streets between North Fork Avenue and Bolen Street, and Lockwood Creek Road and 339th Street

City staff also suggested constructing a new collector street between La Center Road and Spencer Road. This updated system analysis confirms/re-affirms the need for capacity and safety improvements at these RTP and City identified locations.

Several intersections are not expected to meet mobility targets in 2035 without additional improvements, as shown in Table 7. Further improvement details are provided.

Table 7: 2036 Mitigated Peak Hour Intersection Operations

Intersection (control)	Mobility Standard	PM Peak			Mitigated Intersection Improvement
		Delay	LOS	V/C	
Pacific Highway / 4th Street (roundabout)	LOS E	14.4	B	0.70	None*
4th Street / Aspen Avenue (unsignalized)	LOS E	56.5	**A/F**	0.55	No mitigation, alternate local street connections available
Aspen Avenue / 5th Street (unsignalized)	LOS E	11.5	A/B	0.07	None*
La Center Road / Timmen Road (roundabout)	LOS E	30.7	D	0.89	Install two-lane roundabout (preferred) or traffic signal. Roundabout should be striped with single lane until La Center Road is widened to four lanes.
4th Street / Highland Avenue (unsignalized)	LOS E	84.6	**A/F**	0.37	No mitigation, alternate local street connections available
La Center Road / Paradise Park Road (signalized)	LOS E	34.6	C	0.82	None*
La Center Road / 26th Avenue extension (unsignalized)	LOS E	19.8	B/C	0.21	Restrict turn movements at the intersection to left-in, right-in and right-out.

Bolded red values indicate intersection exceeds LOS mobility target.
Signalized: LOS, V/C and Delay reported for the intersection
Unsignalized: LOS = Level of Service of Major Street / Minor Street; V/C = Volume-to-Capacity Ratio of Worst Movement; Delay = Average Delay of Worst Movement (seconds per vehicle)
Roundabout: LOS = Level of Service of Worst Movement; V/C = Volume-to-Capacity Ratio of Worst Movement; Delay = Average Delay of Worst Movement (seconds per vehicle)
*The intersection operations change slightly from the 2036 Baseline results, despite no intersection improvements, due to network improvements changing motor vehicle travel patterns.

Although the 4th Street / Aspen Avenue and 4th Street / Highland Avenue intersections fail to meet the mobility target (shown in Table 7), the condition was related to high delays experienced by a small number of projected vehicles attempting to turn out of the side street onto 4th Street. It is likely that under such conditions, these drivers will avoid the area and reroute to nearby streets. Street connectivity improvements, including local street extensions in the downtown area, and between Lockwood Creek Road and 339th Street, including the extension of John Storm Avenue to the north and reconstruction of 24th Avenue, will be expected to further alleviate some of the motor vehicle trip demand in these areas. Even a small shift in such trips would be enough to mitigate the impacts to the 4th Street / Aspen Avenue and 4th Street / Highland Avenue intersections. Therefore, no mitigation is recommended for these intersections.

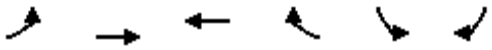
A sensitivity test was conducted to ensure that improvements identified based on p.m. peak hour traffic volumes would accommodate a.m. peak hour commute patterns. The a.m. volumes were estimated at study intersections by using similar growth rates as p.m. peak hour volumes and no additional improvements were identified. The northbound left-turn at the 4th Street / Highland Avenue intersection is expected to operate at LOS F in 2036 during the a.m. peak hour. However, the movement is expected to have a relatively low v/c (0.41), and only 25 vehicles are expected to experience this level of congestion. Therefore, no additional improvements are recommended.

With these improvements in place, all roadway links will be expected to operate with a volume-to-capacity ratio less than 0.90, with the exception of La Center Road between Paradise Park Road and 13th Avenue (as shown in Figure 7). However, this segment of La Center Road is still expected to operate with a volume-to-capacity ratio under 1.0 and has very few accesses. The capacity of this segment will be managed given that future private driveway access is generally prohibited (see access spacing section earlier in this document). Therefore, no improvements are recommended to mitigate this level of congestion.

The following improvements included in the 2035 RTP or identified for evaluation by City staff were not recommended in this updated Transportation CFP:

- Construction of new collector streets, following an alignment between La Center Road and Pacific Highway, including a second bridge over the East Fork Lewis River, and between Pacific Highway and Bolen Street (Source: RTP).
- Creation of a downtown couplet along 4th and 5th Streets (Source: RTP).
- Construction of a new roadway crossing of Brezee Creek, between Stonecreek Drive and Highland Avenue (Source: City Staff).

These projects were considered to have limited utility relative to their cost. A sensitivity test was conducted to determine the potential use of a new Brezee Creek roadway crossing north of 4th Street, however, it is not expected to attract enough motor vehicle traffic to warrant the cost. A trail (pedestrian and bicycle use) creek crossing is recommended as an alternative to a full street connection since it would provide a direct connection between the neighborhoods on the west side of Brezee Creek and the schools and parks on the east side.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	10	146	283	9	3	19
Future Volume (vph)	10	146	283	9	3	19
Confl. Peds. (#/hr)	4			3	3	4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 27.1%		ICU Level of Service A	
Analysis Period (min) 15			

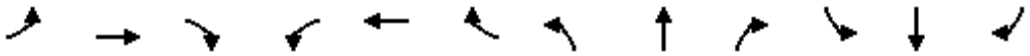
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	146	283	9	3	19
Future Vol, veh/h	10	146	283	9	3	19
Conflicting Peds, #/hr	4	0	0	3	3	4
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	172	333	11	4	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	348	0	-	0	542	347
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1211	-	-	-	501	696
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1206	-	-	-	491	691
Mov Cap-2 Maneuver	-	-	-	-	491	-
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1206	-	-	-	655
HCM Lane V/C Ratio	0.01	-	-	-	0.04
HCM Control Delay (s)	8	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	132	16	10	246	39	31	1	19	10	3	214
Future Volume (vph)	147	132	16	10	246	39	31	1	19	10	3	214
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	147	132	16	10	246	39	31	1	19	10	3	214
Future Vol, veh/h	147	132	16	10	246	39	31	1	19	10	3	214
Conflicting Peds, #/hr	2	0	9	8	0	1	9	0	8	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	125	-	-	60	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	6	6	6	4	4	4	39	39	39	8	8	8
Mvmt Flow	204	183	22	14	342	54	43	1	26	14	4	297

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	398	0	0	214	0	0	1168	1037	211	1023	1021	380
Stage 1	-	-	-	-	-	-	611	611	-	399	399	-
Stage 2	-	-	-	-	-	-	557	426	-	624	622	-
Critical Hdwy	4.16	-	-	4.14	-	-	7.49	6.89	6.59	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.49	5.89	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.49	5.89	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.236	-	-	3.851	4.351	3.651	3.572	4.072	3.372
Pot Cap-1 Maneuver	1139	-	-	1344	-	-	144	199	744	209	231	654
Stage 1	-	-	-	-	-	-	423	431	-	615	592	-
Stage 2	-	-	-	-	-	-	455	527	-	463	470	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1137	-	-	1332	-	-	64	160	732	170	185	647
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	160	-	170	185	-
Stage 1	-	-	-	-	-	-	344	351	-	504	584	-
Stage 2	-	-	-	-	-	-	240	520	-	362	383	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.4	0.3	87.9	16.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	64	621	1137	-	-	1332	-	-	170	625
HCM Lane V/C Ratio	0.673	0.045	0.18	-	-	0.01	-	-	0.082	0.482
HCM Control Delay (s)	137.5	11.1	8.9	-	-	7.7	-	-	28.1	16
HCM Lane LOS	F	B	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	2.9	0.1	0.7	-	-	0	-	-	0.3	2.6

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	20	7	148	50	6
Future Volume (vph)	93	20	7	148	50	6
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	6%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	23.5%	ICU Level of Service	A
Analysis Period (min)	15		

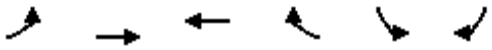
Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	93	20	7	148	50	6
Future Vol, veh/h	93	20	7	148	50	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	4	4	2	2
Mvmt Flow	113	24	9	180	61	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	137	0	323	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	198	-
Critical Hdwy	-	-	4.14	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.236	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1435	-	671	926
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	666	926
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	829	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	687	-	-	1435	-
HCM Lane V/C Ratio	0.099	-	-	0.006	-
HCM Control Delay (s)	10.8	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	19	81	131	14	1	16
Future Volume (vph)	19	81	131	14	1	16
Confl. Peds. (#/hr)	2			2	2	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 27.4%		ICU Level of Service A	
Analysis Period (min) 15			

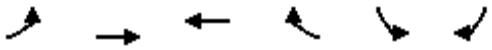
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	81	131	14	1	16
Future Vol, veh/h	19	81	131	14	1	16
Conflicting Peds, #/hr	2	0	0	2	2	2
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	86	86	86	86	86	86
Heavy Vehicles, %	8	8	4	4	2	2
Mvmt Flow	22	94	152	16	1	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	170	0	-	0	302	164
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1372	-	-	-	690	881
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	887	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1369	-	-	-	676	878
Mov Cap-2 Maneuver	-	-	-	-	676	-
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1369	-	-	-	863
HCM Lane V/C Ratio	0.016	-	-	-	0.023
HCM Control Delay (s)	7.7	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	67	119	8	3	6
Future Volume (vph)	2	67	119	8	3	6
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	7%	7%	5%	5%	11%	11%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 16.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	67	119	8	3	6
Future Vol, veh/h	2	67	119	8	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	7	7	5	5	11	11
Mvmt Flow	2	82	145	10	4	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	155	0	-	0	236	150
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.17	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.263	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	1395	-	-	-	733	873
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	915	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1395	-	-	-	732	873
Mov Cap-2 Maneuver	-	-	-	-	732	-
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	915	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1395	-	-	-	820
HCM Lane V/C Ratio	0.002	-	-	-	0.013
HCM Control Delay (s)	7.6	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	278	9	59	600	11	44
Future Volume (vph)	278	9	59	600	11	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

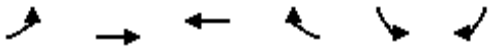
Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	9	59	600	11	44
Future Vol, veh/h	278	9	59	600	11	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	9	4	4	4	4
Mvmt Flow	290	9	61	625	11	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	299	0	1042	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	747	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1251	-	252	740
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	465	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1251	-	240	740
Mov Cap-2 Maneuver	-	-	-	-	240	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	240	740	-	-	1251	-
HCM Lane V/C Ratio	0.048	0.062	-	-	0.049	-
HCM Control Delay (s)	20.8	10.2	-	-	8	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.2	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	23	392	240	13	23	22
Future Volume (vph)	23	392	240	13	23	22
Confl. Peds. (#/hr)	1			1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

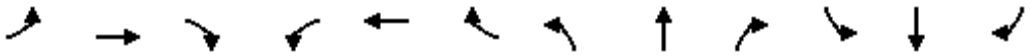
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	392	240	13	23	22
Future Vol, veh/h	23	392	240	13	23	22
Conflicting Peds, #/hr	1	0	0	1	1	1
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	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	25	431	264	14	25	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	279	0	-	0	754	273
Stage 1	-	-	-	-	272	-
Stage 2	-	-	-	-	482	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1289	-	-	-	377	766
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1288	-	-	-	366	765
Mov Cap-2 Maneuver	-	-	-	-	366	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1288	-	-	-	491
HCM Lane V/C Ratio	0.02	-	-	-	0.101
HCM Control Delay (s)	7.9	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	289	2	1	144	16	23	7	18	13	2	132
Future Volume (vph)	179	289	2	1	144	16	23	7	18	13	2	132
Confl. Peds. (#/hr)	1		6	5			6		5			1
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	0.92
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 43.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	179	289	2	1	144	16	23	7	18	13	2	132
Future Vol, veh/h	179	289	2	1	144	16	23	7	18	13	2	132
Conflicting Peds, #/hr	1	0	6	5	0	0	6	0	5	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	125	-	-	60	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	92
Heavy Vehicles, %	1	1	1	2	2	2	2	2	2	1	1	1
Mvmt Flow	199	321	2	1	160	18	26	8	20	14	2	143

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	329	0	0	976	907	333	911	899	176
Stage 1	-	-	-	-	-	-	726	726	-	172	172	-
Stage 2	-	-	-	-	-	-	250	181	-	739	727	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1403	-	-	1231	-	-	230	276	709	256	280	870
Stage 1	-	-	-	-	-	-	416	430	-	832	758	-
Stage 2	-	-	-	-	-	-	754	750	-	411	431	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1402	-	-	1224	-	-	168	235	702	215	238	864
Mov Cap-2 Maneuver	-	-	-	-	-	-	168	235	-	215	238	-
Stage 1	-	-	-	-	-	-	355	367	-	713	756	-
Stage 2	-	-	-	-	-	-	623	749	-	334	368	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	0	21.5	11.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	168	451	1402	-	-	1224	-	-	215	831
HCM Lane V/C Ratio	0.152	0.062	0.142	-	-	0.001	-	-	0.067	0.175
HCM Control Delay (s)	30.2	13.5	8	-	-	7.9	-	-	22.9	10.3
HCM Lane LOS	D	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.5	0.2	0.5	-	-	0	-	-	0.2	0.6

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	196	71	10	150	37	24
Future Volume (vph)	196	71	10	150	37	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		

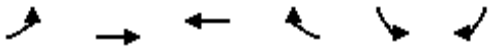
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	196	71	10	150	37	24
Future Vol, veh/h	196	71	10	150	37	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	223	81	11	170	42	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	304	0	456	264
Stage 1	-	-	-	-	264	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1257	-	562	775
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1257	-	556	775
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	833	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	626	-	-	1257	-
HCM Lane V/C Ratio	0.111	-	-	0.009	-
HCM Control Delay (s)	11.5	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	200	146	1	1	15
Future Volume (vph)	21	200	146	1	1	15
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	6%	6%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			

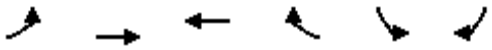
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	200	146	1	1	15
Future Vol, veh/h	21	200	146	1	1	15
Conflicting Peds, #/hr	0	0	0	1	1	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	97	97	97	97	97	97
Heavy Vehicles, %	1	1	1	1	6	6
Mvmt Flow	22	206	151	1	1	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	153	0	-	0	404	153
Stage 1	-	-	-	-	153	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.11	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.209	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1434	-	-	-	595	883
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1433	-	-	-	584	882
Mov Cap-2 Maneuver	-	-	-	-	584	-
Stage 1	-	-	-	-	849	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1433	-	-	-	855
HCM Lane V/C Ratio	0.015	-	-	-	0.019
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	11	197	108	16	6	4
Future Volume (vph)	11	197	108	16	6	4
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	1%	1%	10%	10%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	197	108	16	6	4
Future Vol, veh/h	11	197	108	16	6	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	10	10
Mvmt Flow	13	229	126	19	7	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	145	0	-	0	391	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	255	-
Critical Hdwy	4.11	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.209	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	1443	-	-	-	598	892
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	769	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1443	-	-	-	592	892
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	769	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1443	-	-	-	684
HCM Lane V/C Ratio	0.009	-	-	-	0.017
HCM Control Delay (s)	7.5	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	616	19	65	406	24	122
Future Volume (vph)	616	19	65	406	24	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

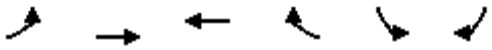
Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	616	19	65	406	24	122
Future Vol, veh/h	616	19	65	406	24	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	3	3	3	3
Mvmt Flow	662	20	70	437	26	131

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	682	0	1249	672
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	577	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	906	-	190	454
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	560	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	906	-	175	454
Mov Cap-2 Maneuver	-	-	-	-	175	-
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	517	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	18.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	175	454	-	-	906	-
HCM Lane V/C Ratio	0.147	0.289	-	-	0.077	-
HCM Control Delay (s)	29.1	16.1	-	-	9.3	-
HCM Lane LOS	D	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	1.2	-	-	0.2	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	197	341	17	12	22
Future Volume (vph)	12	197	341	17	12	22
Confl. Peds. (#/hr)	4			3	3	4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 31.4%		ICU Level of Service A	
Analysis Period (min) 15			

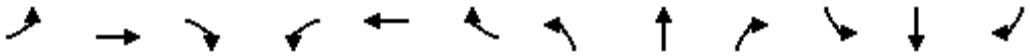
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	197	341	17	12	22
Future Vol, veh/h	12	197	341	17	12	22
Conflicting Peds, #/hr	4	0	0	3	3	4
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	232	401	20	14	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	425	0	-	0	678	419
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1134	-	-	-	418	634
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	781	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1130	-	-	-	409	629
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1130	-	-	-	529
HCM Lane V/C Ratio	0.012	-	-	-	0.076
HCM Control Delay (s)	8.2	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	251	5	7	340	67	16	0	7	40	0	218
Future Volume (vph)	148	251	5	7	340	67	16	0	7	40	0	218
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	148	251	5	7	340	67	16	0	7	40	0	218
Future Vol, veh/h	148	251	5	7	340	67	16	0	7	40	0	218
Conflicting Peds, #/hr	2	0	9	8	0	1	9	0	8	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	125	-	-	60	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	6	6	6	4	4	4	39	39	39	8	8	8
Mvmt Flow	206	349	7	10	472	93	22	0	10	56	0	303

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	567	0	0	365	0	0	1473	1361	370	1319	1318	530
Stage 1	-	-	-	-	-	-	774	774	-	541	541	-
Stage 2	-	-	-	-	-	-	699	587	-	778	777	-
Critical Hdwy	4.16	-	-	4.14	-	-	7.49	6.89	6.59	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.49	5.89	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.49	5.89	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.236	-	-	3.851	4.351	3.651	3.572	4.072	3.372
Pot Cap-1 Maneuver	985	-	-	1183	-	-	87	125	601	130	153	537
Stage 1	-	-	-	-	-	-	341	359	-	515	511	-
Stage 2	-	-	-	-	-	-	376	442	-	380	398	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	983	-	-	1173	-	-	31	97	591	106	118	531
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	97	-	106	118	-
Stage 1	-	-	-	-	-	-	267	281	-	406	505	-
Stage 2	-	-	-	-	-	-	159	437	-	293	312	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.5	0.1	185.1	28.3
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	31	591	983	-	-	1173	-	-	106	531
HCM Lane V/C Ratio	0.717	0.016	0.209	-	-	0.008	-	-	0.524	0.57
HCM Control Delay (s)	261.2	11.2	9.6	-	-	8.1	-	-	71.4	20.4
HCM Lane LOS	F	B	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	2.4	0.1	0.8	-	-	0	-	-	2.4	3.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	221	24	23	251	57	17
Future Volume (vph)	221	24	23	251	57	17
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	6%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

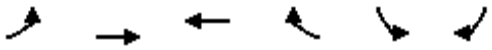
Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	221	24	23	251	57	17
Future Vol, veh/h	221	24	23	251	57	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	4	4	2	2
Mvmt Flow	270	29	28	306	70	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	299	0	647	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	362	-
Critical Hdwy	-	-	4.14	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.236	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1251	-	436	754
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1251	-	424	754
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	685	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	471	-	-	1251	-
HCM Lane V/C Ratio	0.192	-	-	0.022	-
HCM Control Delay (s)	14.4	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	22	217	246	22	6	19
Future Volume (vph)	22	217	246	22	6	19
Confl. Peds. (#/hr)	2			2	2	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 40.4%		ICU Level of Service A	
Analysis Period (min) 15			

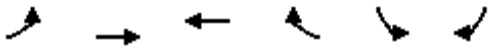
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	217	246	22	6	19
Future Vol, veh/h	22	217	246	22	6	19
Conflicting Peds, #/hr	2	0	0	2	2	2
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	86	86	86	86	86	86
Heavy Vehicles, %	8	8	4	4	2	2
Mvmt Flow	26	252	286	26	7	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	314	0	-	0	607	303
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1213	-	-	-	460	737
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	747	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1211	-	-	-	447	734
Mov Cap-2 Maneuver	-	-	-	-	447	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	746	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1211	-	-	-	636
HCM Lane V/C Ratio	0.021	-	-	-	0.046
HCM Control Delay (s)	8	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	83	142	9	3	8
Future Volume (vph)	2	83	142	9	3	8
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	7%	7%	5%	5%	11%	11%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 18.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	83	142	9	3	8
Future Vol, veh/h	2	83	142	9	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	7	7	5	5	11	11
Mvmt Flow	2	101	173	11	4	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	184	0	-	0	284	179
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	4.17	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.263	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	1361	-	-	-	688	841
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1361	-	-	-	687	841
Mov Cap-2 Maneuver	-	-	-	-	687	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1361	-	-	-	793
HCM Lane V/C Ratio	0.002	-	-	-	0.017
HCM Control Delay (s)	7.7	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	334	10	64	681	12	48
Future Volume (vph)	334	10	64	681	12	48
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

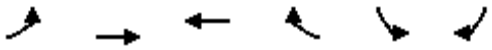
Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	334	10	64	681	12	48
Future Vol, veh/h	334	10	64	681	12	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	9	4	4	4	4
Mvmt Flow	348	10	67	709	13	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	358	0	1196	353
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	843	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1190	-	204	686
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	419	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1190	-	193	686
Mov Cap-2 Maneuver	-	-	-	-	193	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	396	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	193	686	-	-	1190	-
HCM Lane V/C Ratio	0.065	0.073	-	-	0.056	-
HCM Control Delay (s)	24.9	10.7	-	-	8.2	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.2	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	450	275	16	27	25
Future Volume (vph)	26	450	275	16	27	25
Confl. Peds. (#/hr)	1			1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 54.2%		ICU Level of Service A	
Analysis Period (min) 15			

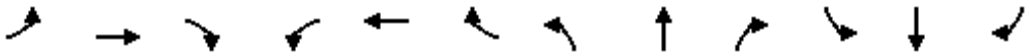
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	450	275	16	27	25
Future Vol, veh/h	26	450	275	16	27	25
Conflicting Peds, #/hr	1	0	0	1	1	1
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	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	29	495	302	18	30	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	321	0	-	0	866	313
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	554	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1245	-	-	-	324	727
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	575	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1244	-	-	-	313	726
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	574	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1244	-	-	-	431
HCM Lane V/C Ratio	0.023	-	-	-	0.133
HCM Control Delay (s)	8	0	-	-	14.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	192	341	2	0	178	24	20	7	16	22	1	141
Future Volume (vph)	192	341	2	0	178	24	20	7	16	22	1	141
Confl. Peds. (#/hr)	1		6	5			6		5			1
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	0.92
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 47.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	192	341	2	0	178	24	20	7	16	22	1	141
Future Vol, veh/h	192	341	2	0	178	24	20	7	16	22	1	141
Conflicting Peds, #/hr	1	0	6	5	0	0	6	0	5	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	125	-	-	60	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	92
Heavy Vehicles, %	1	1	1	2	2	2	2	2	2	1	1	1
Mvmt Flow	213	379	2	0	198	27	22	8	18	24	1	153

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	226	0	0	387	0	0	1107	1038	391	1037	1026	219
Stage 1	-	-	-	-	-	-	812	812	-	213	213	-
Stage 2	-	-	-	-	-	-	295	226	-	824	813	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1348	-	-	1171	-	-	188	231	658	210	236	823
Stage 1	-	-	-	-	-	-	373	392	-	791	728	-
Stage 2	-	-	-	-	-	-	713	717	-	369	393	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1347	-	-	1164	-	-	132	193	651	173	197	818
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	193	-	173	197	-
Stage 1	-	-	-	-	-	-	312	328	-	665	727	-
Stage 2	-	-	-	-	-	-	575	716	-	294	329	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0	25.7	13.1
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	132	378	1347	-	-	1164	-	-	173	800
HCM Lane V/C Ratio	0.168	0.068	0.158	-	-	-	-	-	0.141	0.193
HCM Control Delay (s)	37.7	15.2	8.2	-	-	0	-	-	29.2	10.6
HCM Lane LOS	E	C	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.6	0.2	0.6	-	-	0	-	-	0.5	0.7

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	244	77	14	191	40	28
Future Volume (vph)	244	77	14	191	40	28
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

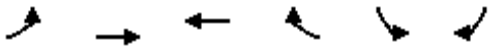
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	244	77	14	191	40	28
Future Vol, veh/h	244	77	14	191	40	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	277	88	16	217	45	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	365	0	570	321
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1194	-	483	720
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1194	-	476	720
Mov Cap-2 Maneuver	-	-	-	-	476	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	780	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	553	-	-	1194	-
HCM Lane V/C Ratio	0.14	-	-	0.013	-
HCM Control Delay (s)	12.6	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	23	250	192	3	3	16
Future Volume (vph)	23	250	192	3	3	16
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	6%	6%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 38.2%		ICU Level of Service A	
Analysis Period (min) 15			

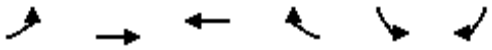
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	250	192	3	3	16
Future Vol, veh/h	23	250	192	3	3	16
Conflicting Peds, #/hr	0	0	0	1	1	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	97	97	97	97	97	97
Heavy Vehicles, %	1	1	1	1	6	6
Mvmt Flow	24	258	198	3	3	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	202	0	-	0	508	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	307	-
Critical Hdwy	4.11	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.209	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1376	-	-	-	518	830
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1375	-	-	-	507	829
Mov Cap-2 Maneuver	-	-	-	-	507	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	736	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	753
HCM Lane V/C Ratio	0.017	-	-	-	0.026
HCM Control Delay (s)	7.7	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	218	121	17	7	5
Future Volume (vph)	12	218	121	17	7	5
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	1%	1%	10%	10%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 31.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	218	121	17	7	5
Future Vol, veh/h	12	218	121	17	7	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	10	10
Mvmt Flow	14	253	141	20	8	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	432	151
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	281	-
Critical Hdwy	4.11	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.209	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	1424	-	-	-	566	875
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1424	-	-	-	560	875
Mov Cap-2 Maneuver	-	-	-	-	560	-
Stage 1	-	-	-	-	849	-
Stage 2	-	-	-	-	749	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1424	-	-	-	659
HCM Lane V/C Ratio	0.01	-	-	-	0.021
HCM Control Delay (s)	7.6	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	689	21	71	455	26	133
Future Volume (vph)	689	21	71	455	26	133
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

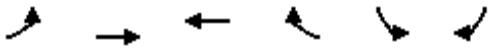
Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	689	21	71	455	26	133
Future Vol, veh/h	689	21	71	455	26	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	3	3	3	3
Mvmt Flow	741	23	76	489	28	143

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	764	0	1394	753
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	641	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	844	-	155	408
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	523	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	844	-	141	408
Mov Cap-2 Maneuver	-	-	-	-	141	-
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	476	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	21.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	141	408	-	-	844	-
HCM Lane V/C Ratio	0.198	0.351	-	-	0.09	-
HCM Control Delay (s)	36.7	18.5	-	-	9.7	-
HCM Lane LOS	E	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	1.5	-	-	0.3	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	208	373	17	12	22
Future Volume (vph)	12	208	373	17	12	22
Confl. Peds. (#/hr)	4			3	3	4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 32.0%		ICU Level of Service A	
Analysis Period (min) 15			

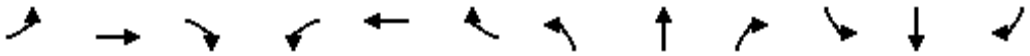
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	208	373	17	12	22
Future Vol, veh/h	12	208	373	17	12	22
Conflicting Peds, #/hr	4	0	0	3	3	4
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	245	439	20	14	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	463	0	-	0	729	457
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	276	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1098	-	-	-	390	604
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	381	599
Mov Cap-2 Maneuver	-	-	-	-	381	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	498
HCM Lane V/C Ratio	0.013	-	-	-	0.08
HCM Control Delay (s)	8.3	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	262	5	7	371	67	16	0	7	40	0	221
Future Volume (vph)	149	262	5	7	371	67	16	0	7	40	0	221
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	13.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	149	262	5	7	371	67	16	0	7	40	0	221
Future Vol, veh/h	149	262	5	7	371	67	16	0	7	40	0	221
Conflicting Peds, #/hr	2	0	9	8	0	1	9	0	8	1	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	125	-	-	60	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	6	6	6	4	4	4	39	39	39	8	8	8
Mvmt Flow	207	364	7	10	515	93	22	0	10	56	0	307

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	610	0	0	380	0	0	1535	1421	385	1379	1378	573
Stage 1	-	-	-	-	-	-	791	791	-	584	584	-
Stage 2	-	-	-	-	-	-	744	630	-	795	794	-
Critical Hdwy	4.16	-	-	4.14	-	-	7.49	6.89	6.59	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.49	5.89	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.49	5.89	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.236	-	-	3.851	4.351	3.651	3.572	4.072	3.372
Pot Cap-1 Maneuver	950	-	-	1168	-	-	78	114	589	118	141	508
Stage 1	-	-	-	-	-	-	333	352	-	487	489	-
Stage 2	-	-	-	-	-	-	355	422	-	372	391	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	948	-	-	1158	-	-	25	87	580	95	108	503
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	87	-	95	108	-
Stage 1	-	-	-	-	-	-	258	273	-	380	484	-
Stage 2	-	-	-	-	-	-	136	417	-	284	303	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.5	0.1	257.6	32.4
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	25	580	948	-	-	1158	-	-	95	503
HCM Lane V/C Ratio	0.889	0.017	0.218	-	-	0.008	-	-	0.585	0.61
HCM Control Delay (s)	$ 365.3	11.3	9.9	-	-	8.1	-	-	86.2	22.7
HCM Lane LOS	F	B	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	2.7	0.1	0.8	-	-	0	-	-	2.7	4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	232	24	24	282	57	17
Future Volume (vph)	232	24	24	282	57	17
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	6%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

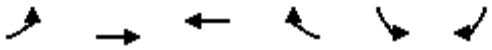
Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	232	24	24	282	57	17
Future Vol, veh/h	232	24	24	282	57	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	6	6	4	4	2	2
Mvmt Flow	283	29	29	344	70	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	312	0	700	298
Stage 1	-	-	-	-	298	-
Stage 2	-	-	-	-	402	-
Critical Hdwy	-	-	4.14	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.236	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1237	-	405	741
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1237	-	393	741
Mov Cap-2 Maneuver	-	-	-	-	393	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	656	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	441	-	-	1237	-
HCM Lane V/C Ratio	0.205	-	-	0.024	-
HCM Control Delay (s)	15.3	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	222	262	22	6	35
Future Volume (vph)	28	222	262	22	6	35
Confl. Peds. (#/hr)	2			2	2	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

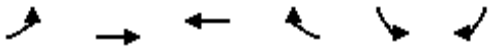
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	222	262	22	6	35
Future Vol, veh/h	28	222	262	22	6	35
Conflicting Peds, #/hr	2	0	0	2	2	2
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	86	86	86	86	86	86
Heavy Vehicles, %	8	8	4	4	2	2
Mvmt Flow	33	258	305	26	7	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	333	0	-	0	646	322
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1193	-	-	-	436	719
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1191	-	-	-	420	716
Mov Cap-2 Maneuver	-	-	-	-	420	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1191	-	-	-	649
HCM Lane V/C Ratio	0.027	-	-	-	0.073
HCM Control Delay (s)	8.1	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	8	83	142	10	7	25
Future Volume (vph)	8	83	142	10	7	25
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	7%	7%	5%	5%	11%	11%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 21.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	83	142	10	7	25
Future Vol, veh/h	8	83	142	10	7	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	7	7	5	5	11	11
Mvmt Flow	10	101	173	12	9	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	185	0	-	0	300	179
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	4.17	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.263	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	1360	-	-	-	673	841
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1360	-	-	-	668	841
Mov Cap-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	882	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1360	-	-	-	796
HCM Lane V/C Ratio	0.007	-	-	-	0.049
HCM Control Delay (s)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	340	10	68	698	12	49
Future Volume (vph)	340	10	68	698	12	49
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	4%	4%	4%	4%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

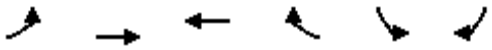
Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	340	10	68	698	12	49
Future Vol, veh/h	340	10	68	698	12	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	9	4	4	4	4
Mvmt Flow	354	10	71	727	13	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	364	0	1228	359
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	869	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1184	-	195	681
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	407	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1184	-	183	681
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	383	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	183	681	-	-	1184	-
HCM Lane V/C Ratio	0.068	0.075	-	-	0.06	-
HCM Control Delay (s)	26.1	10.7	-	-	8.2	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.2	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	485	296	16	27	25
Future Volume (vph)	26	485	296	16	27	25
Confl. Peds. (#/hr)	1			1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

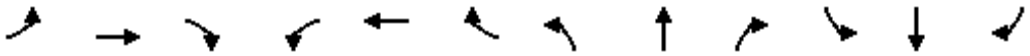
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	485	296	16	27	25
Future Vol, veh/h	26	485	296	16	27	25
Conflicting Peds, #/hr	1	0	0	1	1	1
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	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	29	533	325	18	30	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	344	0	-	0	927	336
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	592	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1221	-	-	-	298	706
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	553	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1220	-	-	-	287	705
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	552	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1220	-	-	-	401
HCM Lane V/C Ratio	0.023	-	-	-	0.143
HCM Control Delay (s)	8	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	375	2	0	198	24	20	8	16	22	1	143
Future Volume (vph)	194	375	2	0	198	24	20	8	16	22	1	143
Confl. Peds. (#/hr)	1		6	5			6		5			1
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	0.92
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 49.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	194	375	2	0	198	24	20	8	16	22	1	143
Future Vol, veh/h	194	375	2	0	198	24	20	8	16	22	1	143
Conflicting Peds, #/hr	1	0	6	5	0	0	6	0	5	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	125	-	-	60	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	92
Heavy Vehicles, %	1	1	1	2	2	2	2	2	2	1	1	1
Mvmt Flow	216	417	2	0	220	27	22	9	18	24	1	155

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	425	0	0	1174	1104	429	1104	1092	241
Stage 1	-	-	-	-	-	-	856	856	-	235	235	-
Stage 2	-	-	-	-	-	-	318	248	-	869	857	-
Critical Hdwy	4.11	-	-	4.12	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.218	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1324	-	-	1134	-	-	169	211	626	189	215	800
Stage 1	-	-	-	-	-	-	352	374	-	770	712	-
Stage 2	-	-	-	-	-	-	693	701	-	348	375	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1323	-	-	1128	-	-	117	175	619	154	179	795
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	175	-	154	179	-
Stage 1	-	-	-	-	-	-	293	311	-	644	711	-
Stage 2	-	-	-	-	-	-	553	700	-	273	312	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0	28.6	13.8
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	117	335	1323	-	-	1128	-	-	154	776
HCM Lane V/C Ratio	0.19	0.08	0.163	-	-	-	-	-	0.159	0.202
HCM Control Delay (s)	42.8	16.7	8.2	-	-	0	-	-	32.7	10.8
HCM Lane LOS	E	C	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.7	0.3	0.6	-	-	0	-	-	0.5	0.8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	278	77	15	211	40	29
Future Volume (vph)	278	77	15	211	40	29
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			

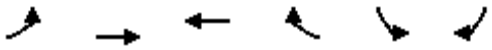
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	77	15	211	40	29
Future Vol, veh/h	278	77	15	211	40	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	316	88	17	240	45	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	404	0	634	360
Stage 1	-	-	-	-	360	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1155	-	443	684
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1155	-	435	684
Mov Cap-2 Maneuver	-	-	-	-	435	-
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	514	-	-	1155	-
HCM Lane V/C Ratio	0.153	-	-	0.015	-
HCM Control Delay (s)	13.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	41	267	202	3	3	27
Future Volume (vph)	41	267	202	3	3	27
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	6%	6%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 40.5%		ICU Level of Service A	
Analysis Period (min) 15			

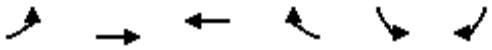
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	267	202	3	3	27
Future Vol, veh/h	41	267	202	3	3	27
Conflicting Peds, #/hr	0	0	0	1	1	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	97	97	97	97	97	97
Heavy Vehicles, %	1	1	1	1	6	6
Mvmt Flow	42	275	208	3	3	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	212	0	-	0	571	211
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	360	-
Critical Hdwy	4.11	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.209	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1364	-	-	-	476	819
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1363	-	-	-	458	818
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1363	-	-	-	758
HCM Lane V/C Ratio	0.031	-	-	-	0.041
HCM Control Delay (s)	7.7	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	30	218	121	22	10	16
Future Volume (vph)	30	218	121	22	10	16
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	1%	1%	10%	10%
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 34.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	218	121	22	10	16
Future Vol, veh/h	30	218	121	22	10	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	10	10
Mvmt Flow	35	253	141	26	12	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	167	0	-	0	477	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	323	-
Critical Hdwy	4.11	-	-	-	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.209	-	-	-	3.59	3.39
Pot Cap-1 Maneuver	1417	-	-	-	533	871
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1417	-	-	-	518	871
Mov Cap-2 Maneuver	-	-	-	-	518	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	716	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1417	-	-	-	690
HCM Lane V/C Ratio	0.025	-	-	-	0.044
HCM Control Delay (s)	7.6	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	707	21	74	466	26	138
Future Volume (vph)	707	21	74	466	26	138
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	3%	3%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

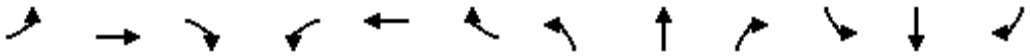
Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	707	21	74	466	26	138
Future Vol, veh/h	707	21	74	466	26	138
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	-	90
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	3	3	3	3
Mvmt Flow	760	23	80	501	28	148

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	783	0	1433	772
Stage 1	-	-	-	-	772	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	831	-	147	398
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	831	-	133	398
Mov Cap-2 Maneuver	-	-	-	-	133	-
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	463	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	22.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	133	398	-	-	831	-
HCM Lane V/C Ratio	0.21	0.373	-	-	0.096	-
HCM Control Delay (s)	39.1	19.3	-	-	9.8	-
HCM Lane LOS	E	C	-	-	A	-
HCM 95th %tile Q(veh)	0.8	1.7	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	251	5	7	340	67	16	0	7	40	0	218
Future Volume (vph)	148	251	5	7	340	67	16	0	7	40	0	218
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Control Type: Roundabout	
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

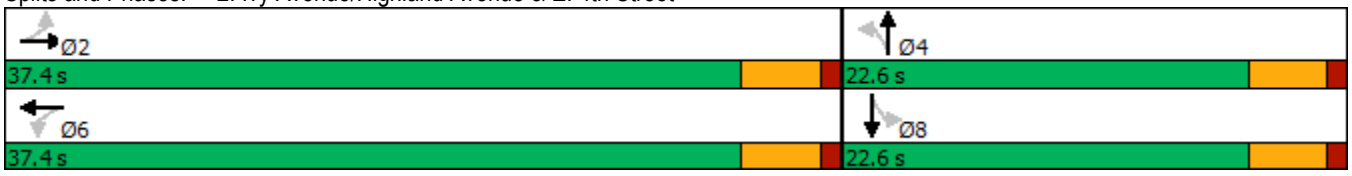
Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	562	575	32	359
Demand Flow Rate, veh/h	595	598	45	387
Vehicles Circulating, veh/h	70	249	648	532
Vehicles Exiting, veh/h	849	444	17	315
Ped Vol Crossing Leg, #/h	9	8	9	2
Ped Cap Adj	0.990	0.993	0.996	0.999
Approach Delay, s/veh	5.0	9.4	6.8	8.3
Approach LOS	A	A	A	A

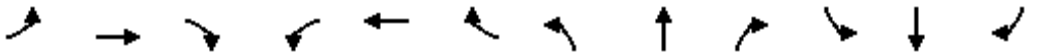
Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.366	0.634	0.017	0.983	0.689	0.311	0.155	0.845
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	218	377	10	588	31	14	60	327
Cap Entry Lane, veh/h	1332	1332	1132	1132	787	787	875	875
Entry HV Adj Factor	0.945	0.944	1.000	0.961	0.710	0.714	0.933	0.927
Flow Entry, veh/h	206	356	10	565	22	10	56	303
Cap Entry, veh/h	1247	1246	1124	1080	557	560	816	810
V/C Ratio	0.165	0.286	0.009	0.523	0.040	0.018	0.069	0.374
Control Delay, s/veh	4.3	5.5	3.3	9.5	6.9	6.6	5.1	8.9
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	1	1	0	3	0	0	0	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	251	5	7	340	67	16	0	7	40	0	218
Future Volume (vph)	148	251	5	7	340	67	16	0	7	40	0	218
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	37.4	37.4		37.4	37.4		22.6	22.6		22.6	22.6	
Total Split (%)	62.3%	62.3%		62.3%	62.3%		37.7%	37.7%		37.7%	37.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Act Effct Green (s)	17.7	17.7		17.7	17.7		7.8	7.8		7.8	7.8	
Actuated g/C Ratio	0.50	0.50		0.50	0.50		0.22	0.22		0.22	0.22	
v/c Ratio	0.62	0.40		0.02	0.63		0.14	0.02		0.19	0.51	
Control Delay	15.3	6.5		4.1	9.2		17.4	0.0		16.1	4.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	6.5		4.1	9.2		17.4	0.0		16.1	4.9	
LOS	B	A		A	A		B	A		B	A	
Approach Delay		9.7			9.1			11.9			6.7	
Approach LOS		A			A			B			A	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 35.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Ivy Avenue/Highland Avenue & E. 4th Street

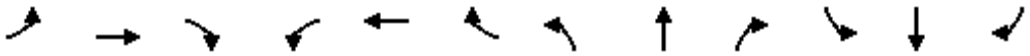




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	251	5	7	340	67	16	0	7	40	0	218
Future Volume (veh/h)	148	251	5	7	340	67	16	0	7	40	0	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.98		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1841	1841	1841	1322	1322	1322	1781	1781	1781
Adj Flow Rate, veh/h	206	349	7	10	472	93	22	0	10	56	0	303
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	6	6	6	4	4	4	39	39	39	8	8	8
Cap, veh/h	422	954	19	584	804	158	217	0	293	497	0	400
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.27	0.00	0.27	0.27	0.00	0.27
Sat Flow, veh/h	817	1769	35	1005	1491	294	760	0	1101	1316	0	1504
Grp Volume(v), veh/h	206	0	356	10	0	565	22	0	10	56	0	303
Grp Sat Flow(s),veh/h/ln	817	0	1804	1005	0	1785	760	0	1101	1316	0	1504
Q Serve(g_s), s	10.5	0.0	5.2	0.3	0.0	9.9	1.3	0.0	0.3	1.5	0.0	8.6
Cycle Q Clear(g_c), s	20.4	0.0	5.2	5.5	0.0	9.9	9.8	0.0	0.3	1.8	0.0	8.6
Prop In Lane	1.00		0.02	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	422	0	973	584	0	963	217	0	293	497	0	400
V/C Ratio(X)	0.49	0.00	0.37	0.02	0.00	0.59	0.10	0.00	0.03	0.11	0.00	0.76
Avail Cap(c_a), veh/h	564	0	1285	758	0	1271	313	0	432	663	0	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	6.1	7.7	0.0	7.2	20.1	0.0	12.6	13.2	0.0	15.6
Incr Delay (d2), s/veh	0.9	0.0	0.2	0.0	0.0	0.6	0.2	0.0	0.0	0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.3	0.0	0.0	2.5	0.2	0.0	0.1	0.4	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	6.3	7.7	0.0	7.7	20.3	0.0	12.6	13.3	0.0	18.8
LnGrp LOS	B	A	A	A	A	A	C	A	B	B	A	B
Approach Vol, veh/h		562			575			32			359	
Approach Delay, s/veh		9.5			7.7			17.9			18.0	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.4		16.8		29.4		16.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1				
Max Q Clear Time (g_c+I1), s		22.4		11.8		11.9		10.6				
Green Ext Time (p_c), s		2.6		0.0		3.7		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	262	5	7	371	67	16	0	7	40	0	221
Future Volume (vph)	149	262	5	7	371	67	16	0	7	40	0	221
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Control Type: Roundabout	
Intersection Capacity Utilization 55.8%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

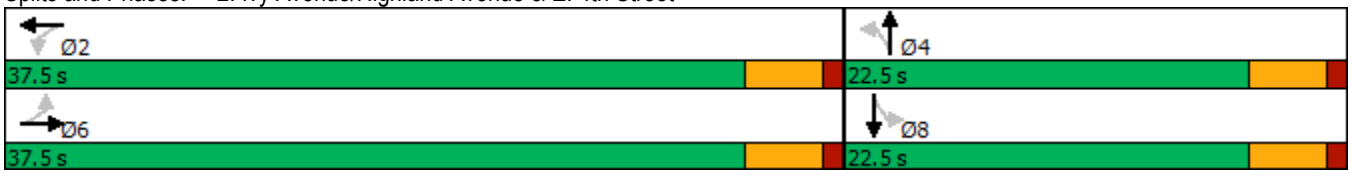
Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	578	618	32	363
Demand Flow Rate, veh/h	612	643	45	392
Vehicles Circulating, veh/h	70	250	665	577
Vehicles Exiting, veh/h	899	460	17	316
Ped Vol Crossing Leg, #/h	9	8	9	2
Ped Cap Adj	0.990	0.993	0.996	0.999
Approach Delay, s/veh	5.1	10.3	6.9	9.0
Approach LOS	A	B	A	A

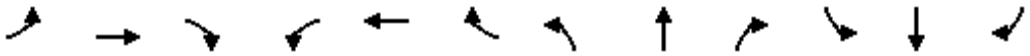
Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.358	0.642	0.016	0.984	0.689	0.311	0.153	0.847
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	219	393	10	633	31	14	60	332
Cap Entry Lane, veh/h	1332	1332	1131	1131	775	775	840	840
Entry HV Adj Factor	0.945	0.944	1.000	0.961	0.710	0.714	0.933	0.925
Flow Entry, veh/h	207	371	10	608	22	10	56	307
Cap Entry, veh/h	1247	1246	1123	1079	548	552	783	776
V/C Ratio	0.166	0.298	0.009	0.564	0.040	0.018	0.072	0.396
Control Delay, s/veh	4.3	5.6	3.3	10.4	7.0	6.7	5.3	9.6
LOS	A	A	A	B	A	A	A	A
95th %tile Queue, veh	1	1	0	4	0	0	0	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	262	5	7	371	67	16	0	7	40	0	221
Future Volume (vph)	149	262	5	7	371	67	16	0	7	40	0	221
Confl. Peds. (#/hr)	2		9	8		1	9		8	1		2
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	39%	39%	39%	8%	8%	8%
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	37.5	37.5		37.5	37.5		22.5	22.5		22.5	22.5	
Total Split (%)	62.5%	62.5%		62.5%	62.5%		37.5%	37.5%		37.5%	37.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	21.7	21.7		21.7	21.7		8.0	8.0		8.0	8.0	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.20	0.20		0.20	0.20	
v/c Ratio	0.60	0.38		0.02	0.61		0.16	0.02		0.21	0.55	
Control Delay	14.8	6.3		4.3	8.9		18.6	0.0		17.2	6.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.8	6.3		4.3	8.9		18.6	0.0		17.2	6.7	
LOS	B	A		A	A		B	A		B	A	
Approach Delay		9.3			8.8			12.8			8.3	
Approach LOS		A			A			B			A	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 39.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Ivy Avenue/Highland Avenue & E. 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	262	5	7	371	67	16	0	7	40	0	221
Future Volume (veh/h)	149	262	5	7	371	67	16	0	7	40	0	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	0.98		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1841	1841	1841	1322	1322	1322	1781	1781	1781
Adj Flow Rate, veh/h	207	364	7	10	515	93	22	0	10	56	0	307
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	6	6	6	4	4	4	39	39	39	8	8	8
Cap, veh/h	401	982	19	581	841	152	202	0	291	484	0	397
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.26	0.00	0.26	0.26	0.00	0.26
Sat Flow, veh/h	786	1771	34	992	1515	274	757	0	1101	1316	0	1504
Grp Volume(v), veh/h	207	0	371	10	0	608	22	0	10	56	0	307
Grp Sat Flow(s),veh/h/ln	786	0	1805	992	0	1789	757	0	1101	1316	0	1504
Q Serve(g_s), s	12.0	0.0	5.7	0.3	0.0	11.4	1.4	0.0	0.3	1.6	0.0	9.4
Cycle Q Clear(g_c), s	23.4	0.0	5.7	6.0	0.0	11.4	10.8	0.0	0.3	2.0	0.0	9.4
Prop In Lane	1.00		0.02	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	401	0	1001	581	0	992	202	0	291	484	0	397
V/C Ratio(X)	0.52	0.00	0.37	0.02	0.00	0.61	0.11	0.00	0.03	0.12	0.00	0.77
Avail Cap(c_a), veh/h	487	0	1198	689	0	1188	276	0	399	613	0	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	6.2	7.9	0.0	7.5	21.9	0.0	13.6	14.3	0.0	16.9
Incr Delay (d2), s/veh	1.0	0.0	0.2	0.0	0.0	0.7	0.2	0.0	0.0	0.1	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.5	0.0	0.0	3.0	0.2	0.0	0.1	0.4	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	0.0	6.4	7.9	0.0	8.1	22.1	0.0	13.6	14.4	0.0	21.6
LnGrp LOS	B	A	A	A	A	A	C	A	B	B	A	C
Approach Vol, veh/h		578			618			32			363	
Approach Delay, s/veh		10.0			8.1			19.5			20.5	
Approach LOS		A			A			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.1		17.6		32.1		17.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		33.0		18.0		33.0		18.0				
Max Q Clear Time (g_c+I1), s		13.4		12.8		25.4		11.4				
Green Ext Time (p_c), s		4.0		0.0		2.2		1.1				

Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									