CHARBONNEAU ENGINEERING LLC

MEMORANDUM

Date: July 21, 2020

To: Eric Golemo, PE
SGA Engineering, PLLC
2005 Broadway
Vancouver WA 98663

From: Frank Charbonneau, PE, PTOE

Subject: **Pacific Highway at NW 14th Street & NW 15th Street** FL2066
Traffic Analysis
La Center

This memo documents the traffic analysis findings for the intersections on Pacific Highway at NW 14th Street/Larsen Road and NW 15th Street in La Center.

With development of several housing projects including the Highland Terrace and Riverside Estates sites the intersections along Pacific Highway including NW 15th Street and NW 14th Street/Larsen Road will be impacted. As these two intersections are separated by a distance less than the City's standard it is critical that the safe operations of both locations be confirmed and maintained when the projects are built.

The Riverside Estates subdivision development will require construction of the new intersection at NW 15th Street. The design will include a northbound left turn lane with 100 feet of stacking distance. The separation between NW 14th Street/Larsen Road and NW 15th Street will be approximately 290 feet and does not meet the City's minimum intersection spacing standard of 600 feet.

In June 2019 Charbonneau Engineering issued the traffic analysis report for the Riverside Estates subdivision (attached to this memo). The analysis included several traffic scenarios including the year 2019 existing conditions, year 2022 background traffic, and year 2022 total traffic. In-Process traffic for several approved developments including the Highland Terrace project was included in the background traffic. Essentially the study analyzed the complete operations and safety of both intersections on Pacific Highway at NW 14th Street/Larsen Road and at NW 15th Street by evaluating the following elements.

Intersection LOS
An intersection capacity analysis was performed for both locations on Pacific Highway and established that through the year 2022 total traffic scenario NW 14th Street/Larsen Road at Pacific Highway will operate at acceptable LOS `B` in the AM peak hour and acceptable LOS `C` in the PM peak hour. The intersection at NW 15th Street will operate at acceptable LOS `B` in both the AM & PM peak hours. The results confirm that the average vehicle delays on the side streets at both locations will not be excessive (approximately 11 seconds average delay in the AM peak hour & approximately 16 seconds average delay in the PM peak hour).

Left Turn Queues on Pacific Highway
A queuing analysis was included in the previous traffic study for Riverside Estates that included the projected queuing conditions on Pacific Highway at the study intersections. The results based on the 95th percentile queue rating indicated that for the year 2022 total traffic scenario queues at NW 15th Street in the proposed northbound left turn lane on Pacific Highway will not exceed one to two vehicles or approximately 50 feet in the peak hours. For the southbound direction no queuing is projected on Pacific Highway for traffic turning left onto NW 14th Avenue in the peak hours. As a result the proposed intersection separation distance of 290 feet between NW 15th Street and NW 14th Street/Larsen Road with 100 feet of stacking distance plus a center lane transition area will be adequate for the northbound left turn lane without impacting southbound traffic flow in the peak hours.

The queuing results are contained in the attached Riverside Estates traffic report's appendix. Exhibit 1310-8a from the WSDOT Design Manual, July 2013 was used to verify that 100 feet of storage is sufficient for the northbound left turn lane at NW 15th Street.

Left Turn Warrant – Pacific Highway at NW 14th Street/Larsen Road
The need for separate left turn lanes on Pacific Highway at the 14th Street/Larsen Road intersection was evaluated for the peak hour conditions. Based on the analysis results separate northbound and southbound left turn lanes are not warranted on Pacific Highway at the 14th Street/Larsen Road intersection through the year 2022 total traffic condition. The warrant curve results are included in the attached report (per WSDOT reference Left-Turn Storage Guidelines, Exhibit 1310-7a).

Signal Warrant
The peak hour traffic signal warrant was prepared for the intersections on Pacific Highway at NW 14th Street/Larsen Road and at NW 15th Street. The signal warrant was not met for either location. Reference attached report.

Intersection Sight Distance
Sight distance at the study intersections on Pacific Highway including at NW 14th Street/Larsen Road and at NW 15th Avenue was reviewed in accordance with the AASHTO standards. Using the posted travel speed of 35 MPH an intersection sight distance of 390 feet is required in both directions. The length of sight distance was determined to exceed 500 feet at both intersection locations. Therefore, the intersection sight distance standard will be met.

Crash History - NW 14th Street/Larsen Road
An intersection crash report with data was requested from WSDOT for the existing intersection of Pacific Highway and NW 14th Street/Larsen Road. The study period covered the years 2014-2018. No reported crashes were identified at this location establishing that for the study period investigated the intersection operated at a safe level.

Summary
The previous traffic analysis documentation and results have demonstrated that the two study intersections on Pacific Highway at NW 14th Street/Larsen Road and at NW 15th Street separated by approximately 290 feet will operate safely in the future. When traffic from the Riverside Estates, Highland Terrace, other in-process developments, and traffic growth is accounted for there will not be any queuing issues and both intersections will operate safely

and at acceptable service levels. For these reasons it is recommended that the City of La Center support the proposed intersection spacing distance of approximately 290 feet.

If you should have any questions, please contact Frank Charbonneau, PE, PTOE at 503.293.1118 or email Frank@CharbonneauEngineer.com.

Attachment

- Traffic Analysis Report, Riverside Estates Subdivision, June 2019, Charbonneau Engineering

7-21-20

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

Renews 9-30-20

TRAFFIC ANALYSIS REPORT

FOR

RIVERSIDE ESTATES SUBDIVISION

NW PACIFIC HIGHWAY

CITY OF LA CENTER

SUBMITTED BY

CHARBONNEAU ENGINEERING LLC

June 2019

Project 19-23

TRAFFIC ANALYSIS REPORT

FOR

RIVERSIDE ESTATES SUBDIVISION

NW PACIFIC HIGHWAY

CITY OF LA CENTER

Prepared By

CHARBONNEAU Engineering LLC

6-4-19

Renews 9-30-20

June 2019

Project 19-23

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

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INTRODUCTION

This traffic study has been prepared to evaluate and document the operations and safety conditions for the Riverside Estates Subdivision development being planned in La Center, Washington. The development will build 182 single-family homes and 155 apartment units. The project site is located in north La Center on the south side of Pacific Highway near the intersection of NW Larson Drive. Figure 'a' in the appendix is a vicinity map highlighting the project location. In year 2017 the same site was analyzed in a study that included 99 single-family housing units and 306 apartments.

In accordance with the City's requirements the study area was defined as the surrounding neighborhood including the site access points at Pacific Highway and NW Lacenter Road at Timmen Road (trip distribution & assignment only).

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 peak hour traffic counts for the intersection on Pacific Highway at NW 14th Street/Larsen Road.
- The project buildout is estimated to occur in year 2022. Three years of traffic growth at 2% per year was applied to establish the year 2022 background volumes. The City confirmed that in-process traffic for La Center Middle School, Stevens Hillside Subdivision, & Holley Park Subdivision was applicable.
- Prepare trip generation for 182 single-family homes and 155 apartments using the latest edition of the ITE Trip Generation manual (10th edition, year 2017).
- Level of service (LOS) analysis of the study intersections on Old Pacific Highway at 15th Street and at Larsen Road to measure the approach delays and LOS for comparison to City of La Center standards.
- For concurrency purposes determination of the number of site generated trips that will impact the intersection of La Center Road at Timmen Road.
- Review intersection sight distance at the proposed access on Pacific Highway.
- Prepare peak hour signal warrant.
- Review crash data furnished by WSDOT. Identify crash rates at the study intersections.
- Address spacing and queuing between the intersections on Pacific Highway at NW 15th Street and NW 14th Street/Larsen Road.
- Review the WSDOT Six Year Transportation Improvement Program from 2016 to 2021 to identify future projects covered in La Center.

SITE DESCRIPTION, STREETS, ACCESS, AND CRITICAL INTERSECTIONS

Development of the Riverside Estates Subdivision project will include construction of 182 single-family homes and 155 apartment units. The project's location is situated on a 44.48 acre parcel (#986028830) at the corner of Pacific Highway and Larson Drive. The address is 1514 NW 339th Street, La Center. The property is currently vacant and is used for agriculture or pasture.

Access to the proposed development will include two approaches on Pacific Highway. The project site plan (reference Figures 'b' & 'c') illustrate the access locations at NW 15th Street and at Larsen Road. The new approaches will have stop control. The site's internal streets will include sidewalks and connectivity within for site circulation purposes. A northbound left turn lane will be constructed on Old Pacific Highway at the new NW 15th Street intersection.

Pacific Highway at Larsen Road operates as a stop controlled intersection without a stop sign posted on the Larsen Road approach. The intersection at Lacenter Road and Timmen Road is controlled by stop signing. In the future according to WSDOT's Six Year TIP for 2016-2021 the intersection of Lacenter Road at Timmen Road will become signalized or converted to a roundabout. The existing and proposed lane configurations and traffic control are presented in Figure 'd'.

Pacific Highway adjacent to the site is classified as a major arterial 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. No on-street parking is permitted. Based on AASHTO the required intersection sight distance at the proposed access point is 390 feet.

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 Pacific Highway. The travel speed is posted at 40 MPH on Pacific Highway. 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 level of service (LOS) and safety conditions were determined. The intersections evaluated included Pacific Highway at the future site accesses at NW 15th Street and at NW 14th Street/Larsen Road. The results included identification of the LOS, average delay per vehicle, and queuing in the peak hours for the following scenarios:

- Year 2019 Existing Traffic
- Year 2022 Background Traffic
- Year 2022 Total Traffic

In order to perform the LOS analysis at the critical intersections video traffic counts were conducted in May 2019 during the AM peak (7:00-9:00AM) & PM peak (4:00-6:00 PM) traffic hours. Figure 1 depicts the existing AM & PM peak hour traffic volumes.

Three years of traffic growth (2% per year) plus in-process traffic has been added to the existing volumes to account for the background traffic volumes. The in-process traffic shown on Figure 2 included La Center Middle School, Stevens Hillside Subdivision, & the Holley Park Subdivision development projects. The year 2022 background traffic volumes are illustrated in Figure 3.

The year 2022 total traffic scenario (background plus site generated traffic) is presented in Figure 8.

VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation manual 10th edition (year 2017) were utilized to estimate the site's trip generation. 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
PHASES 1 & 2								
Single-Family (#210)	182							
Generation Rate [1]		9.44	0.74	25%	75%	0.99	63%	37%
Site Trips		**1,718**	**135**	34	101	**180**	113	67
PHASE 3								
Apartment (#220)	155							
Generation Rate [1]		7.32	0.46	23%	77%	0.56	63%	37%
Site Trips		**1,135**	**71**	16	55	**87**	55	32
Total Site Trips		**2,853**	**206**	50	156	**267**	168	99

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

The proposed development is expected to generate a net total 2,853 daily trips, 206 AM peak hour trips, and 267 PM peak hour trips.

The trip distribution was based on the existing traffic counts, intersection traffic control, site access locations, and engineering judgment. Figures 4 & 5 present the trip distribution results for the single-family and apartment housing, respectively. Figures 6a & 6b and Figures 7a & 7b present the trip assignments for the single-family and apartment housing, respectively.

In the AM peak hour the development will distribute a total of 124 site trips to the intersection of La Center Road at Timmen Road. During the PM peak hour the development will distribute a total of 160 site trips to the intersection of La Center Road at Timmen Road.

CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday peak hours. Synchro v9.1 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											
			2019 Existing				2022 Background				2022 Total			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
NW 15th Street *(proposed)* and Pacific Highway	Two-way Stop	AM	-	-	-	-	-	-	-	-	NB	B	10.7	0.20
		PM	-	-	-	-	-	-	-	-	NB	B	10.9	0.15
Larsen Drive/ NW 14th Street and Pacific Highway	Two-way Stop	AM	NB	A	9.1	0.00	SB	B	10.8	0.10	SB	B	13.0	0.13
		PM	SB	B	10.5	0.01	SB	B	11.7	0.08	SB	C	15.8	0.13

Notes: 2010 Highway Capacity Manual methodology used in analysis, Synchro v9. NB - Northbound, SB - Southbound, Crit. Mov't - Critical movement or critical approach.

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 summary the study intersections will operate at adequate LOS `C` or better through the year 2022 total traffic scenario.

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 for the proposed site access intersections at NW 15th Street and at NW 14th Street/Larsen Road on Pacific Highway was determined with the capacity analyses. The results based on the 95th percentile queue rating indicated that for the year 2022 total traffic scenario queues in the proposed northbound left turn lane on Pacific Highway will not exceed one to two vehicles or approximately 50 feet in the peak hours. No southbound queues on Pacific Highway for traffic turning onto NW 14th Avenue are projected in the peak hours. As a result the proposed intersection separation distance of 290 feet between NW 15th Street and NW 14th Street/Larsen Road with 100 feet of stacking distance will be adequate for the northbound left turn lane without impacting southbound traffic flow in the peak hours.

The LOS reports containing the queue results are contained in the appendix. Exhibit 1310-8a from the WSDOT Design Manual, July 2013 was used to also verify that 100 feet of storage is sufficient for the northbound left turn lane at NW 15th Street (reference Exhibit in appendix).

SIGHT DISTANCE

Sight distance at the proposed access on Pacific Highway was reviewed in the field in accordance with the AASHTO standards. Using the posted travel speed of 35 MPH an intersection sight distance of 390 feet is required in both directions. The length of sight distance was determined to exceed 500 feet to the north and equated to 450 feet to the south. Therefore, the intersection sight distance standard will be met.

LEFT TURN LANE REQUIREMENTS

A northbound left turn lane on Pacific Highway at the NW 15th Street intersection is proposed in conjunction with the development.

The need for a separate left turn lane on Pacific Highway at the 14th Street/Larsen Road intersection was evaluated for the peak hour conditions. Based on the analysis results a

separate left turn lane is not warranted on Pacific Highway at the 14th Street/Larsen Road intersection through the year 2022 total traffic condition. The warrant curve results are included in the appendix (per WSDOT reference Left-Turn Storage Guidelines, Exhibit 1310-7a).

TRAFFIC SIGNAL WARRANTS

The peak hour signal warrant was evaluated for the stop controlled study intersections including the site accesses on Pacific Highway at NW 15th Street and at NW 14th Street/Larsen Road. The peak hour warrant is not met at either location. The warrant data is included in the appendix.

ACCIDENT HISTORY

Crash data for the existing study intersections on Pacific Highway at NW 14th Street and Larsen Road was obtained from WSDOT staff and reviewed to identify potential safety issues. The latest available data covered the years 2014-2018. No reported crashes were identified at this location.

PEDESTRIANS, BICYCLES, & BUSES

Sidewalk will be provided along both sides of the streets constructed internally within site's property. Sidewalk will also be constructed along the site's frontage adjacent to Pacific Highway.

No bicycle lanes are provided on Pacific Highway along the development's frontage. New bike lanes are planned with the project along the site's property frontage.

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 Riverside Estates Subdivision has been prepared to determine the potential impacts at the site access points on Pacific Highway and La Center Road at Timmen Road. Development of the site includes 182 single-family homes and 155 apartment units. Trip generation is projected to be 2,853 daily trips with 206 AM peak hour trips and 267 PM peak hour trips.

Sight distance at the proposed access on Pacific Highway was reviewed in the field accordance with the AASHTO standards. Using the posted travel speed of 35 MPH an intersection sight distance of 390 feet is required in both directions. The length of sight

distance was determined to exceed 500 feet to the north and equated to 450 feet to the south. Therefore, the intersection sight distance standard will be met. The sight distance standards shall be maintained for safety purposes and potential obstruction to the sightlines by vegetation, walls, parking, signing, buildings or other items must be avoided.

According to the City's Comprehensive Plan policy the minimum acceptable level of service mobility standard for stop controlled intersections is LOS `E`. The study intersections on Pacific Highway at NW 15th Street and at NW 14th Street/Larsen Road will operate at acceptable LOS `C` or better through the year 2022 total traffic scenario and meet the City's standard.

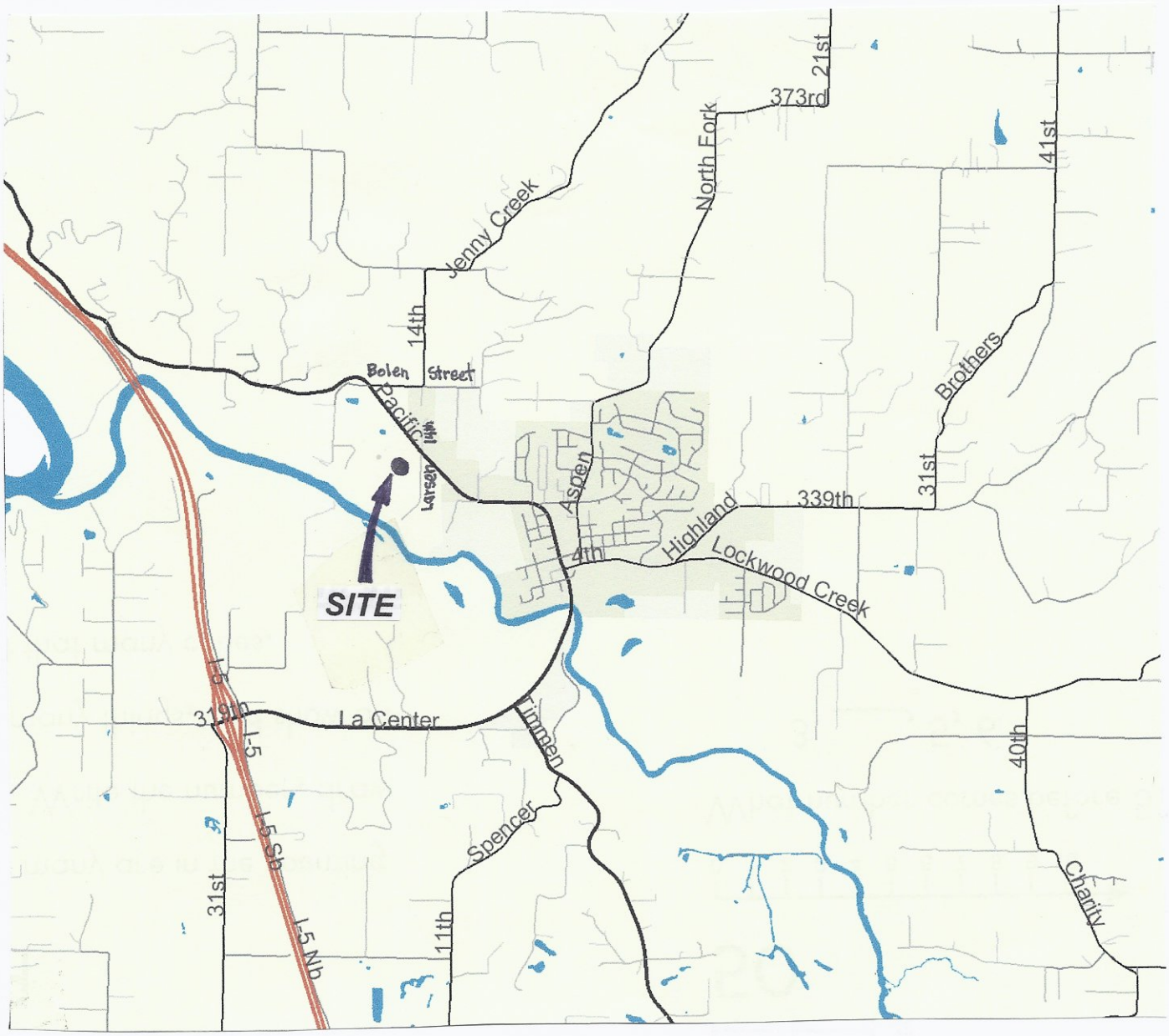
Queue length demand for the proposed site access intersections at NW 15th Street and at Larsen Road on Pacific Highway was determined in the capacity analyses. The results based on the 95th percentile queue rating indicated that for the year 2022 total traffic scenario queues in the proposed northbound left turn lane on Pacific Highway will not exceed one to two vehicles or approximately 50 feet in the peak hours. A left turn lane with 100 feet of storage length is proposed. No southbound queues on Pacific Highway for traffic turning onto NW 14th Avenue are projected in the peak hours. As a result the proposed intersection separation distance of 290 feet between NW 15th Street and NW 14th Street/Larsen Road will be adequate for northbound left turn stacking and not impact southbound traffic flow in the peak hours.

Crash data for the existing study intersections on Pacific Highway at NW 14th Street and Larsen Road was obtained from WSDOT staff and reviewed to identify potential safety issues. The latest available data covered the years 2014-2018. No reported crashes were identified at this location.

Based on evaluation of the study intersections including level of service conditions and vehicle delays, queuing, crash history, and warrants no intersection improvements beyond those planned at the site access and frontage are required in conjunction with the proposed development. The site access approaches to Pacific Highway will require stop sign control and inclusion of stop bar pavement markings.

APPENDIX

- Vicinity Map — Figure 'a'
- Site Plans — Figure 'b' & 'c'
- Lane Configurations and Traffic Control — Figure 'd'
- Traffic Flow Diagrams
  - Figure 1 — 2019 Existing Traffic (AM & PM)
  - Figure 2 — In-Process Traffic
  - Figure 3 — 2022 Background Traffic
  - Figures 4 & 5 — Trip Distribution
  - Figures 6a, 6b, 7a, & 7b — Trip Assignment
  - Figure 8 — 2022 Total Traffic
- Traffic Count Data
- In-Process Traffic – Sunrise Terrace
- Peak Hour Signal Warrant
- Exhibit 1310-7a, Left Turn Storage Guidelines (WSDOT Design Manual, 2013)
- Exhibit 1310-8a, Left Turn Storage Length (WSDOT Design Manual, 2013)
- Crash History Summary (furnished by WSDOT)
- Synchro v9.1 Capacity Analysis Worksheets



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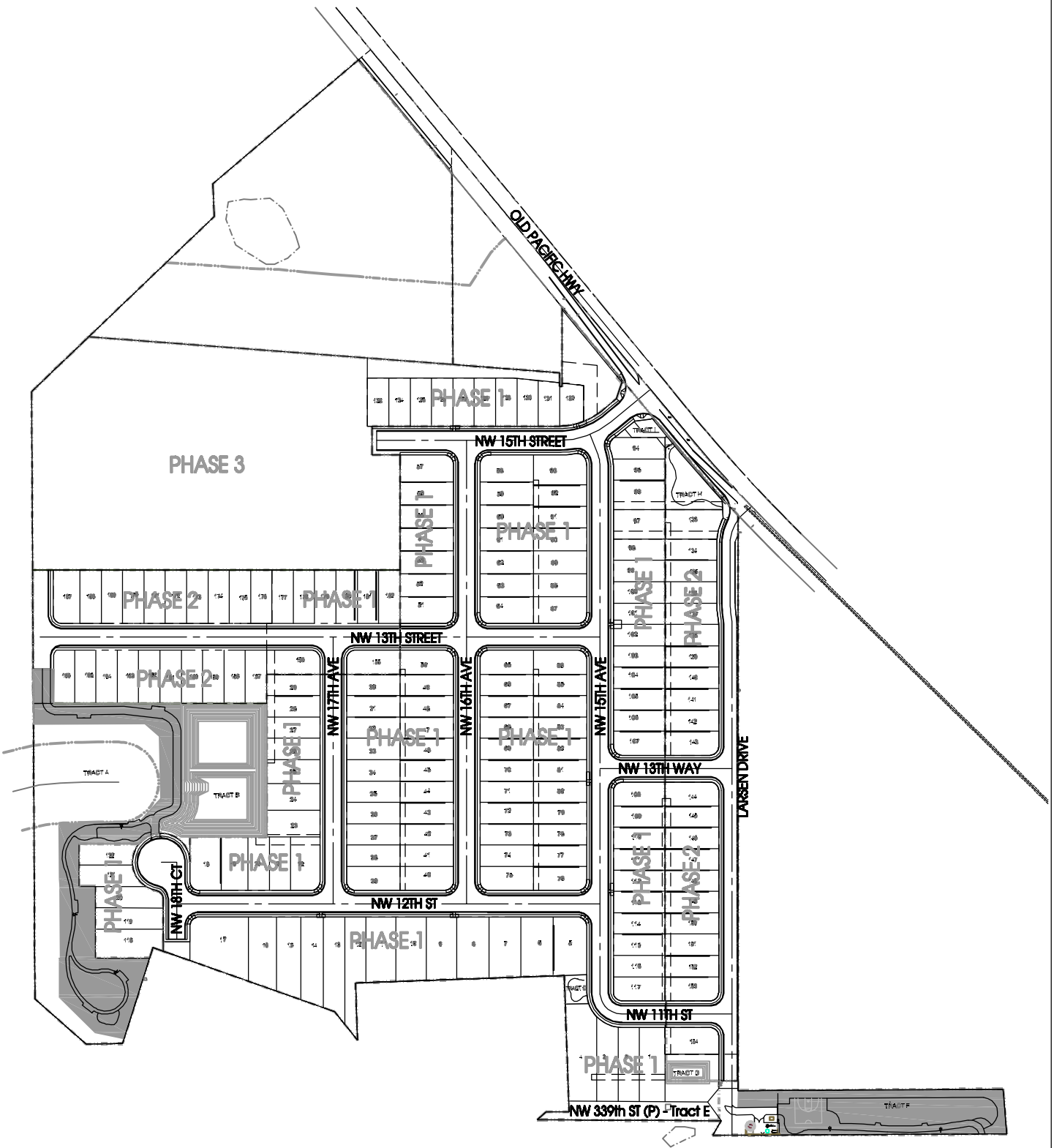

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NOTES:
NO SCALE

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SITE PLAN (PHASES 1 & 2)
- SINGLE-FAMILY COMPONENT -
RIVERSIDE ESTATES

FIGURE

b

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PROJECT: 19-23

NOTES:
NO SCALE

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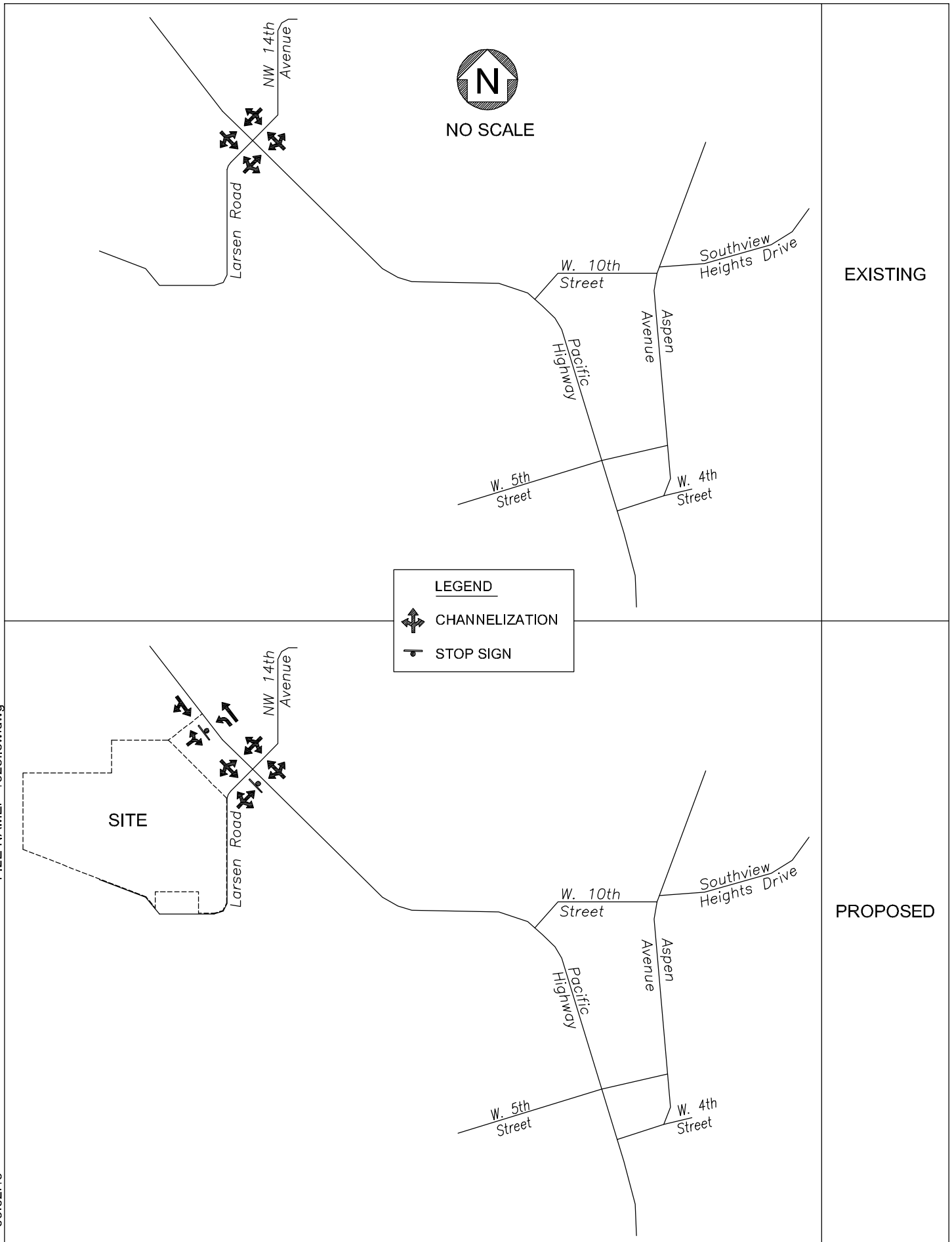
SITE PLAN (PHASE 3) - APARTMENTS COMPONENT - RIVERSIDE ESTATES

FIGURE

C



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CHARBONNEAU ENGINEERING LLC

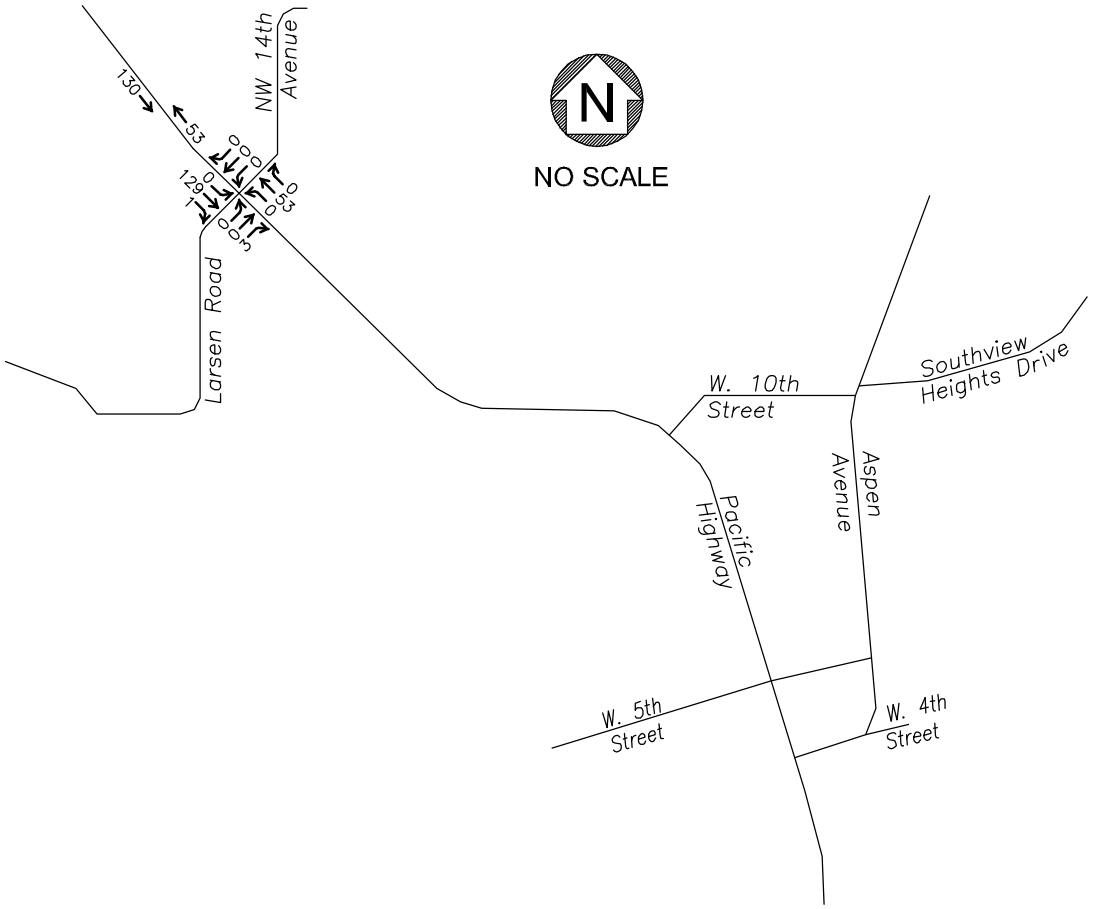
PROJECT: 19-23

NOTES:

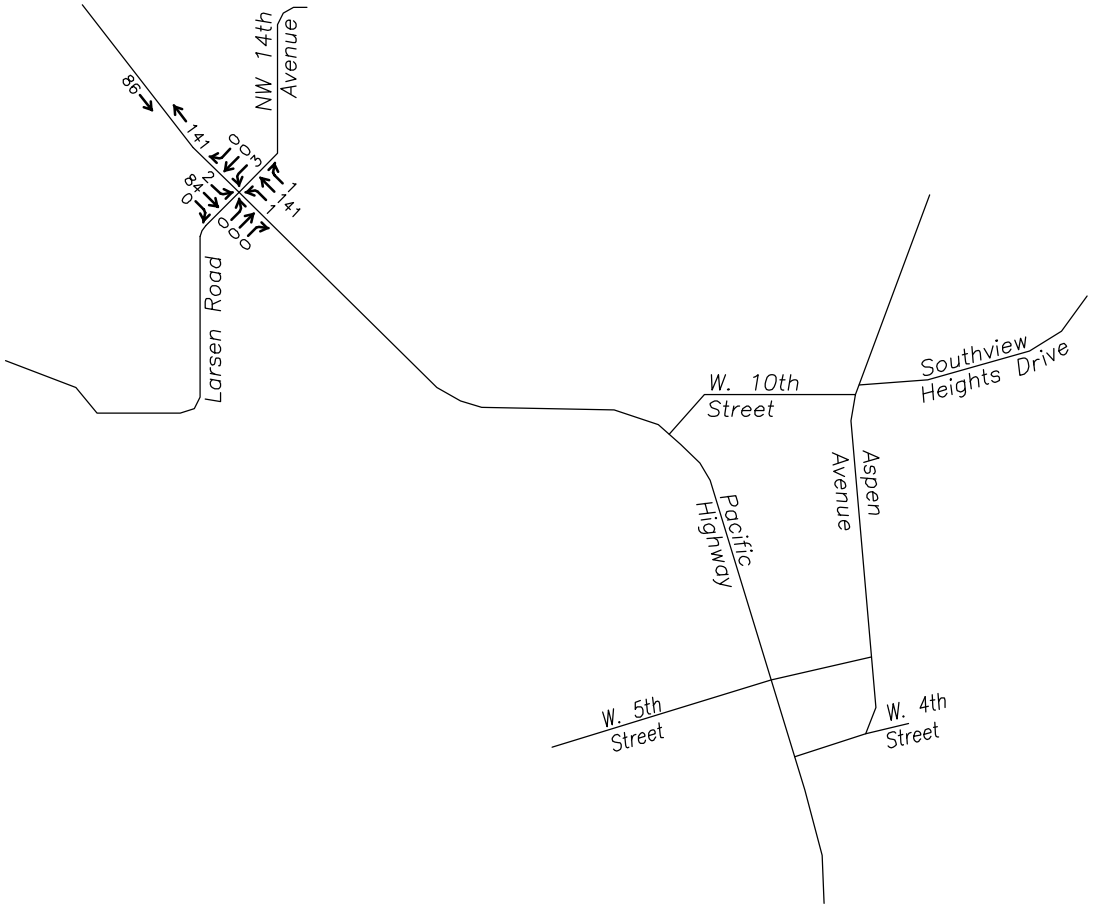
LANE CONFIGURATIONS AND TRAFFIC CONTROL RIVERSIDE ESTATES

FIGURE

d



AM PEAK HOUR



PM PEAK HOUR

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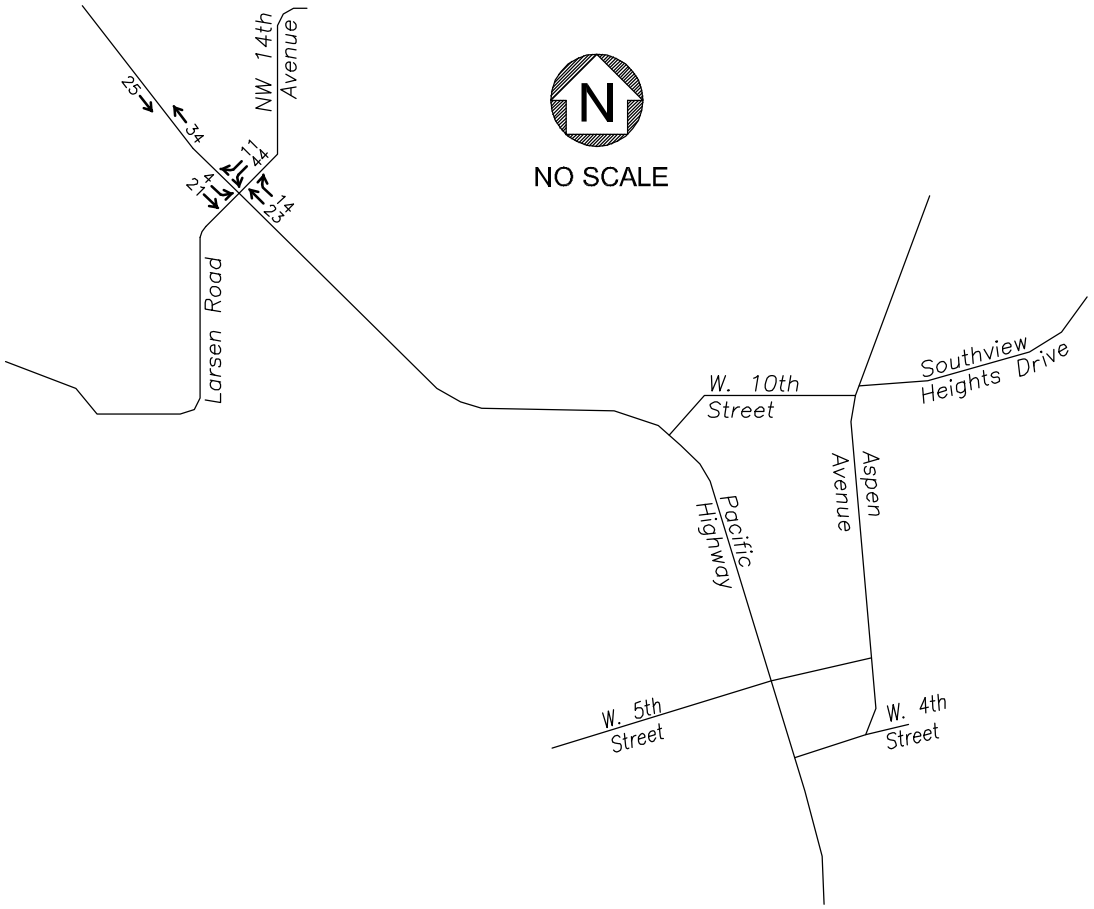
CHARBONNEAU ENGINEERING LLC

PROJECT: 19-23

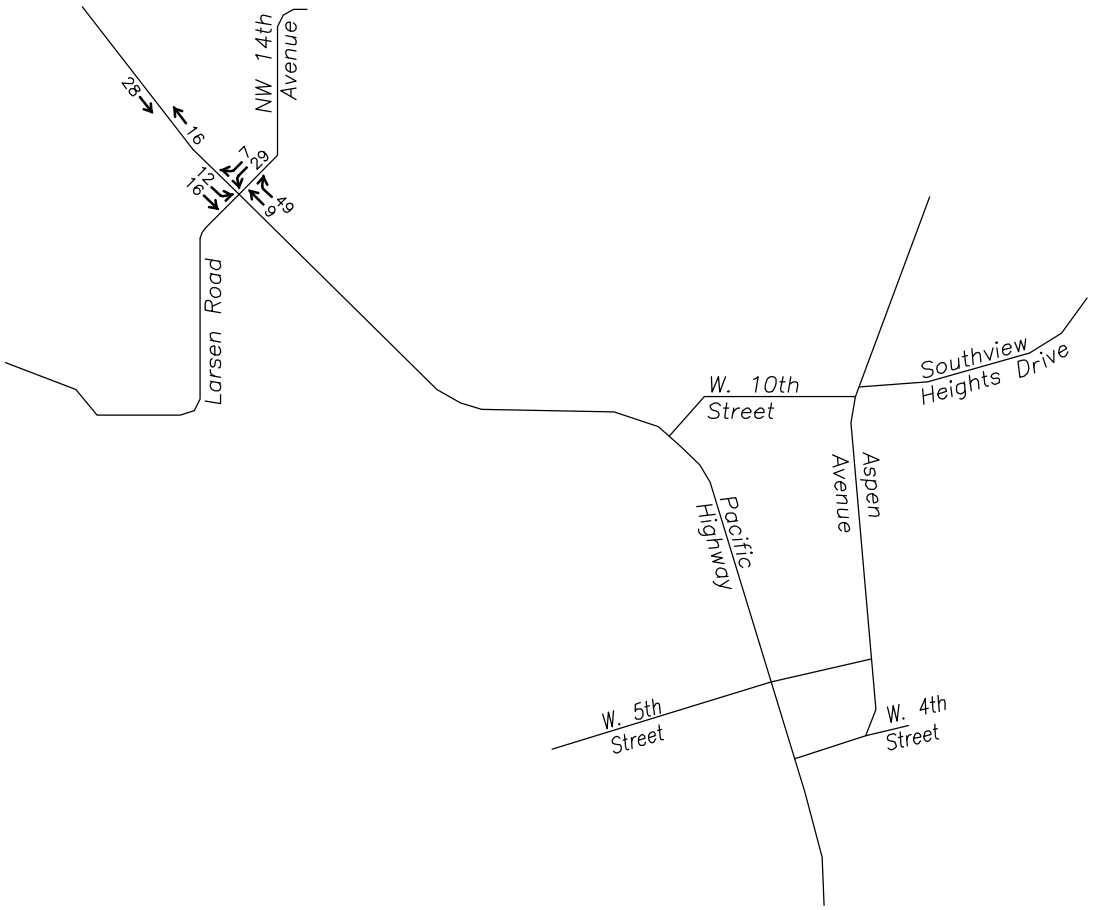
NOTES:

2019 EXISTING TRAFFIC
RIVERSIDE ESTATES

FIGURE
1



AM PEAK HOUR



PM PEAK HOUR

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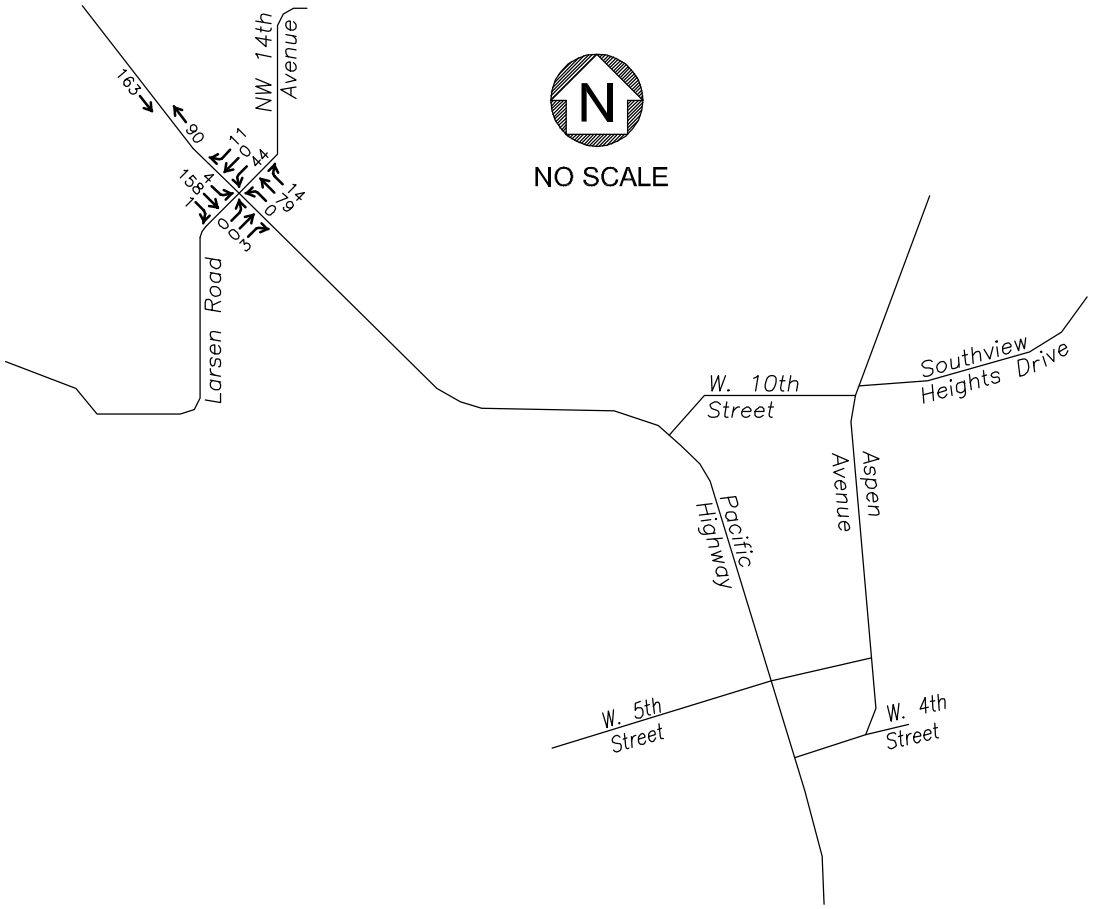
PROJECT: 19-23

NOTES: In-process Traffic includes trips generated by Holly Park & Stephen's Hillside Subdivisions & the New Middle School.

IN-PROCESS TRAFFIC RIVERSIDE ESTATES

FIGURE 2



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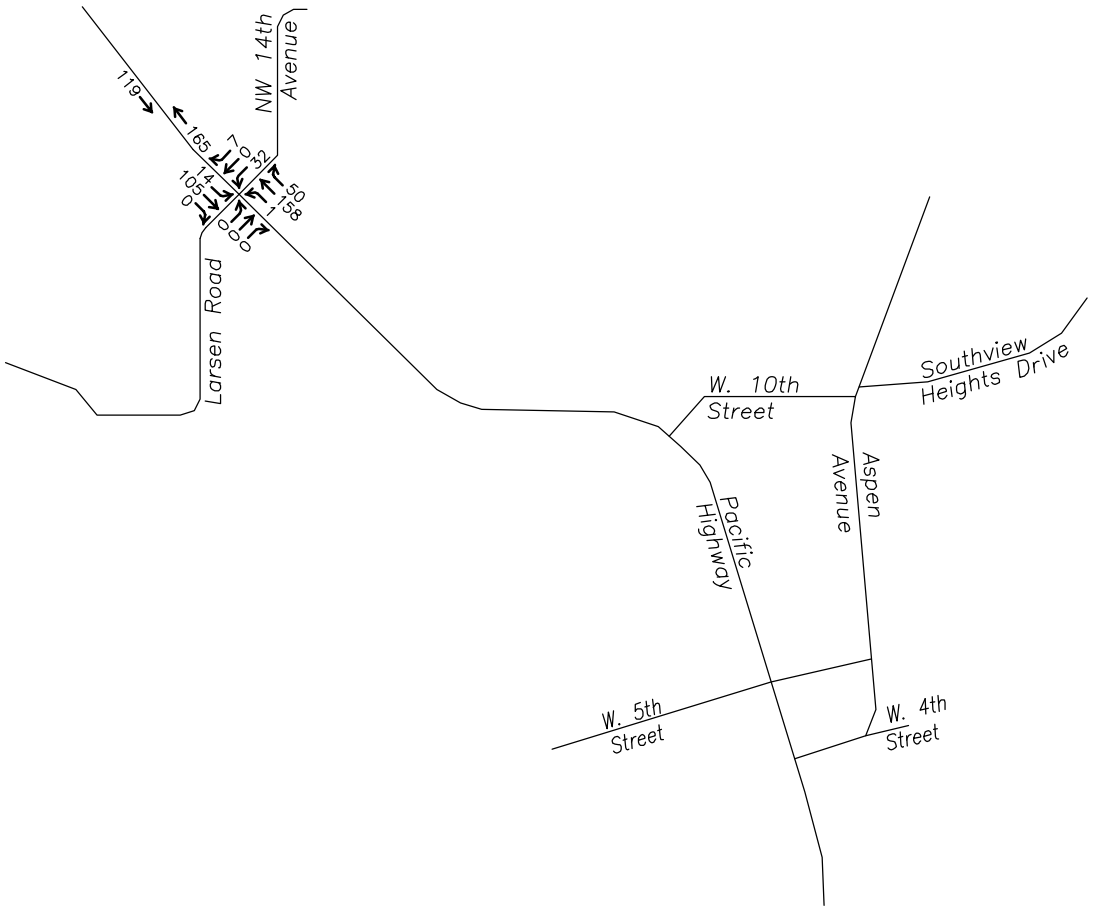

PM PEAK HOUR

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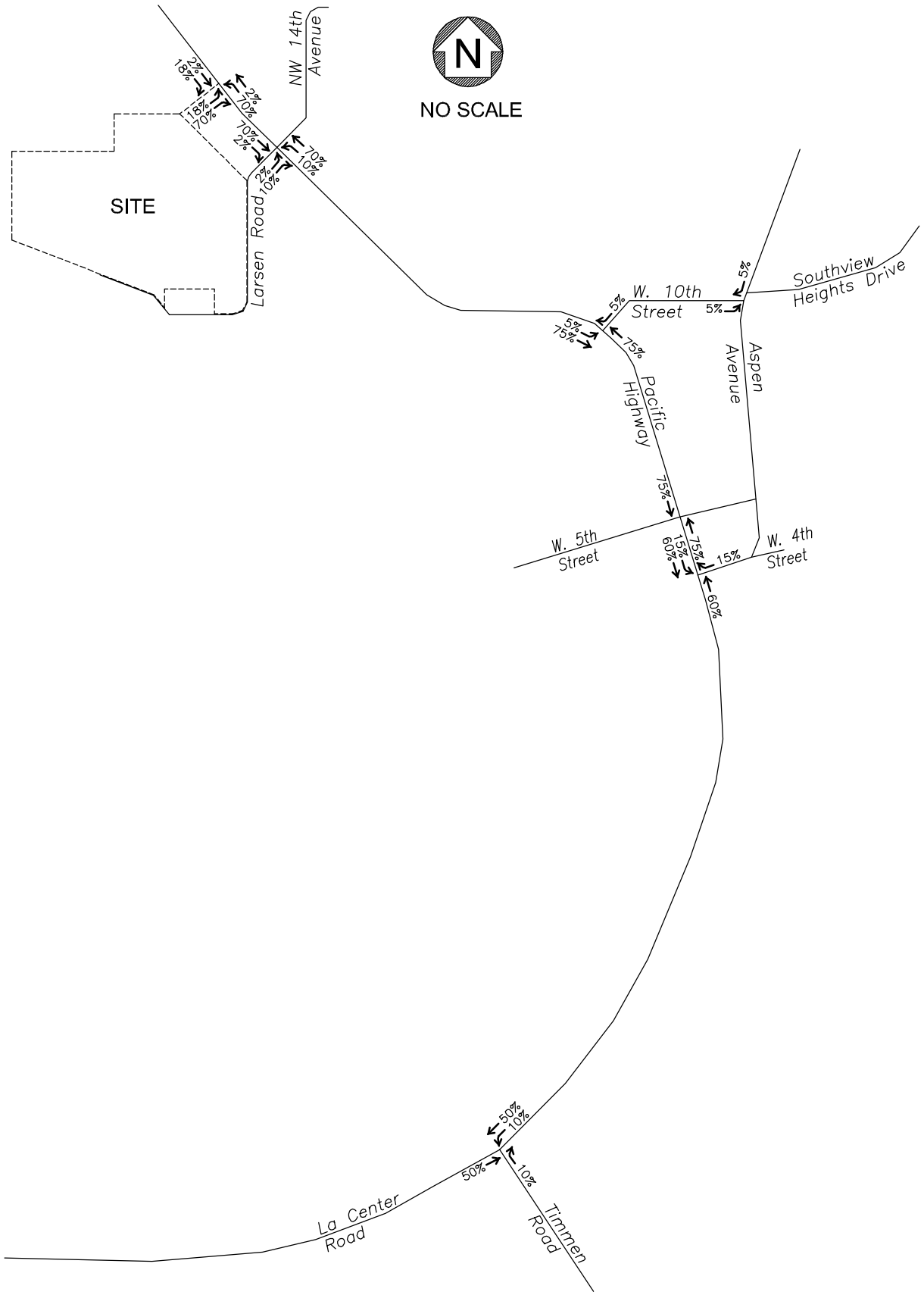
PROJECT: 19-23

NOTES: 2022 Background Traffic= 2019 Existing Traffic + growth (2%/yr for 3 yrs) + In-Process Traffic.

2022 BACKGROUND TRAFFIC RIVERSIDE ESTATES

FIGURE 3



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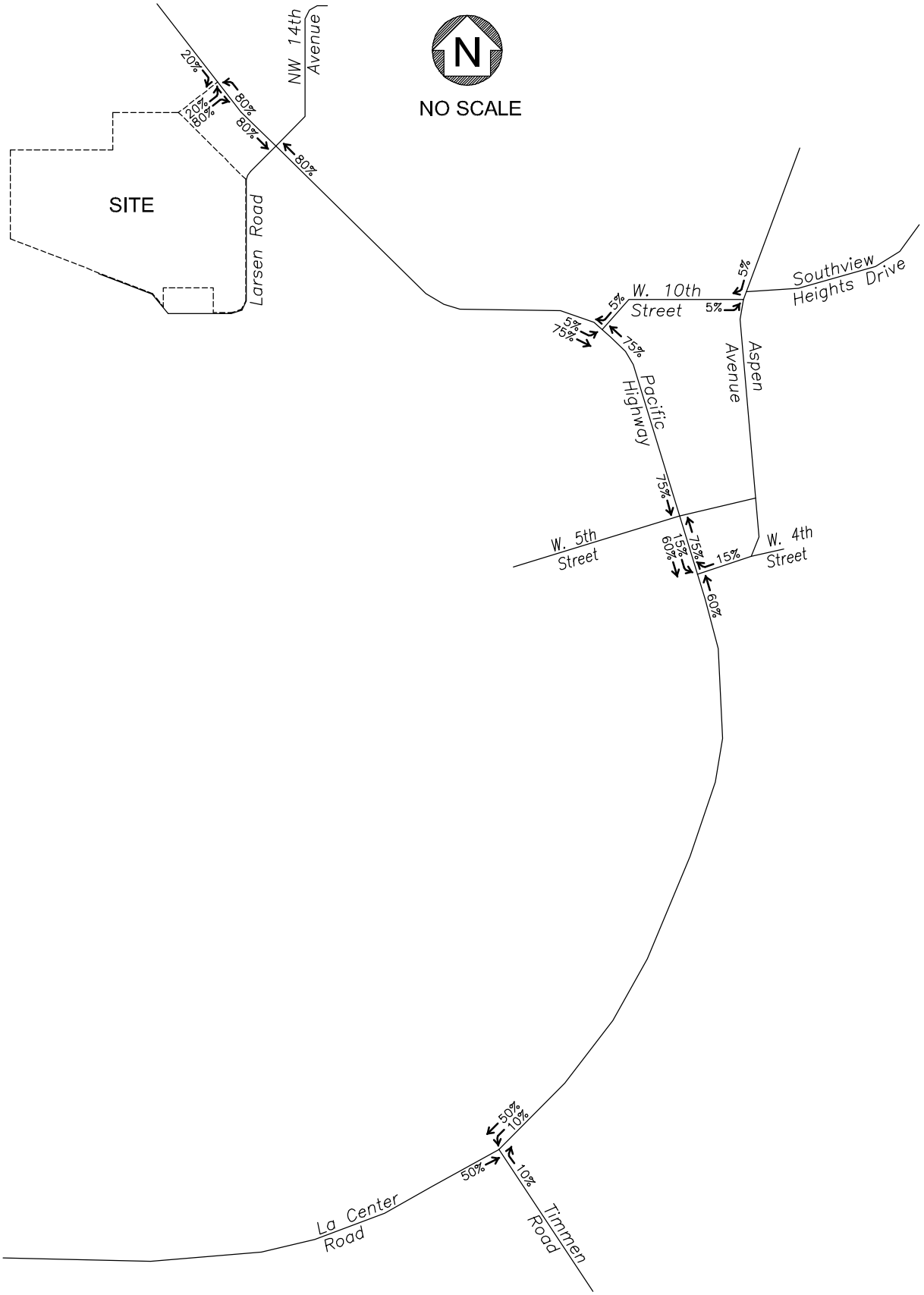
PROJECT: 19-23

NOTES: Trip distribution for the single-family homes is based on the layout of the site and engineering judgment.

TRIP DISTRIBUTION - PHASES 1 & 2 AM PEAK HOUR & PM PEAK HOUR RIVERSIDE ESTATES

FIGURE 4



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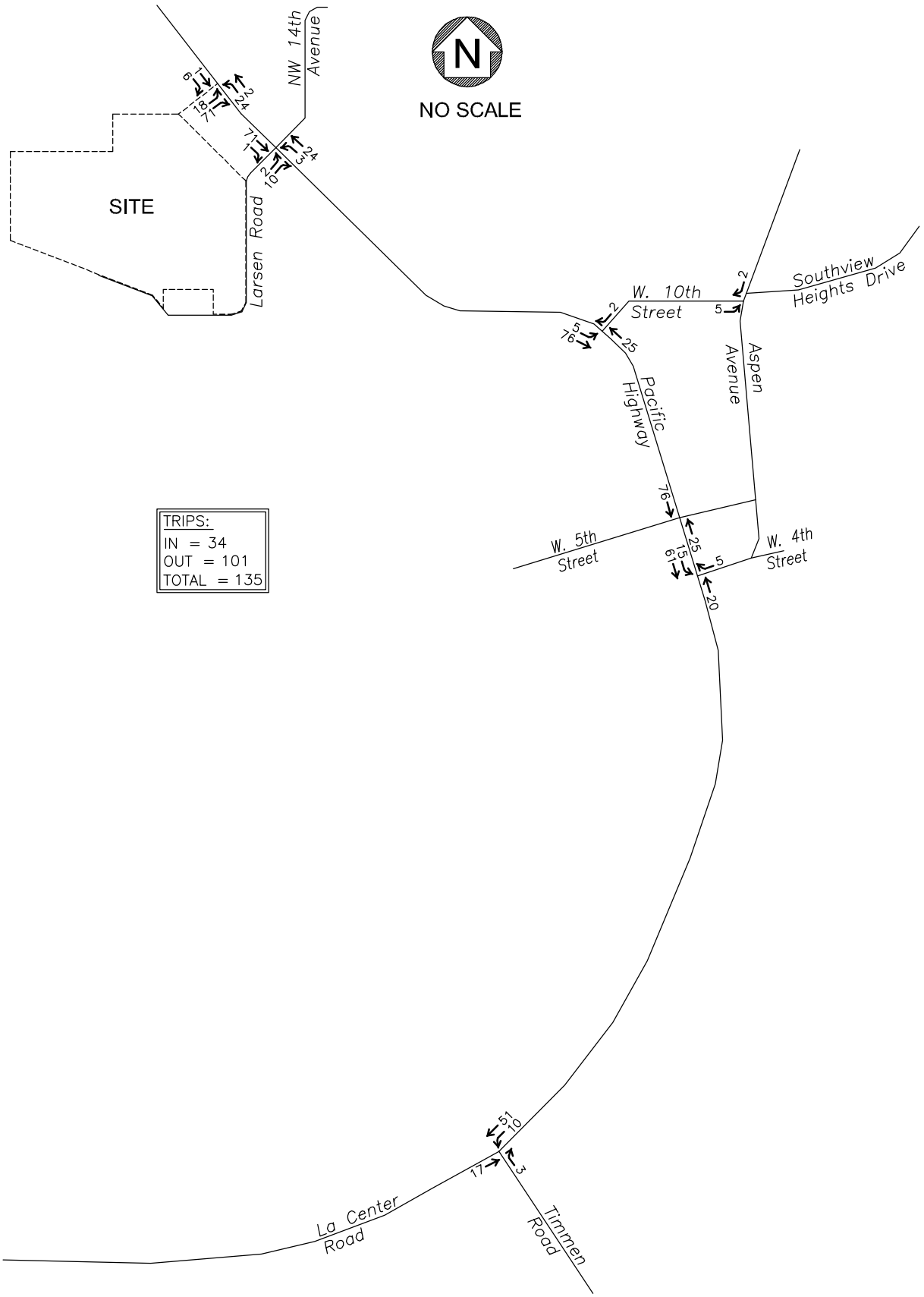
CHARBONNEAU ENGINEERING LLC PROJECT: 19-23	NOTES: Trip distribution for the apartments is based on the layout of the site and engineering judgment.	TRIP DISTRIBUTION - PHASE 3 AM PEAK HOUR & PM PEAK HOUR RIVERSIDE ESTATES	FIGURE 5



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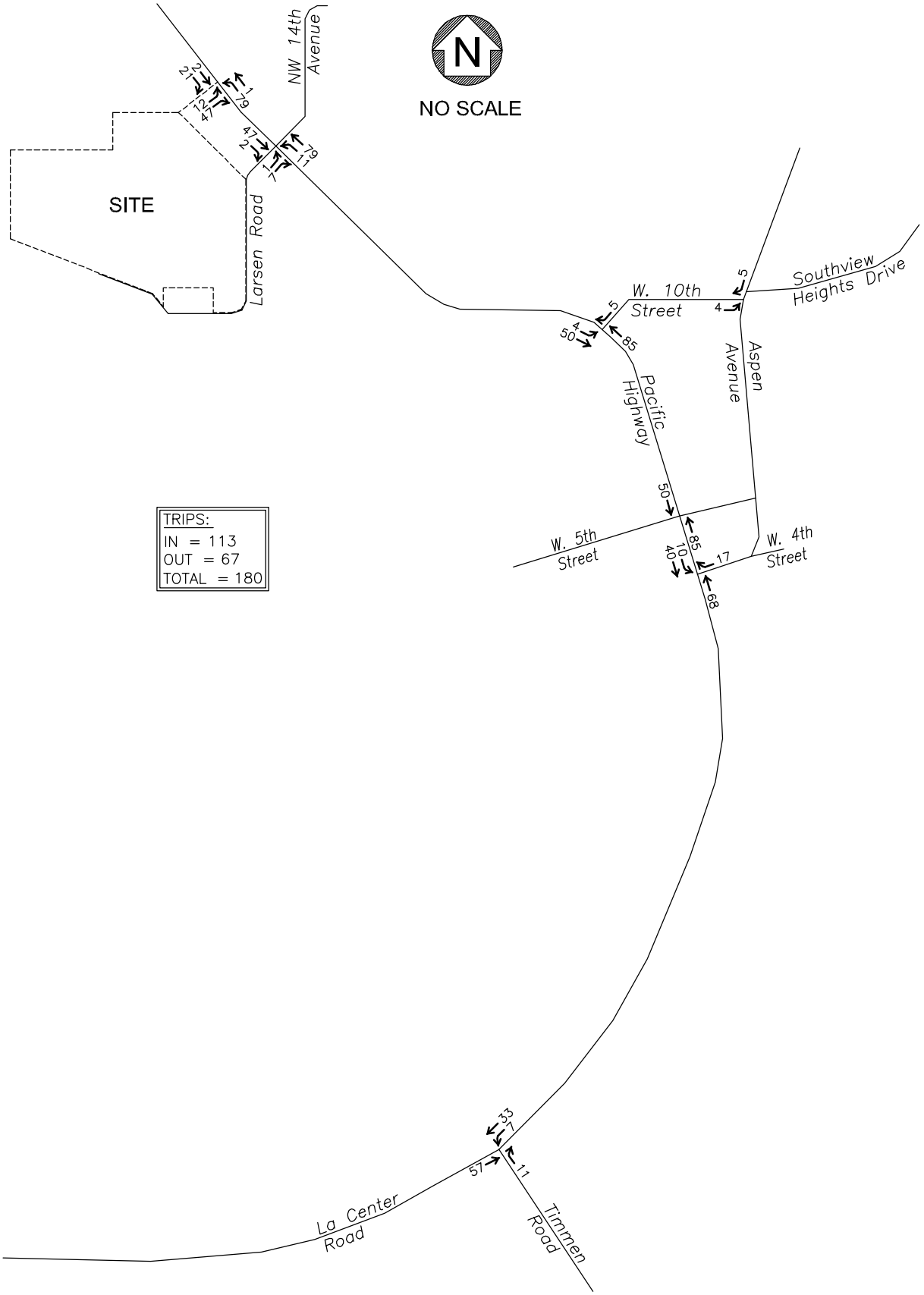
NOTES: Phases 1 & 2 will include construction of 182 homes. Trip generation is based on Single-Family (ITE 210) trip rates.

TRIP ASSIGNMENT - PHASES 1 & 2
AM PEAK HOUR
RIVERSIDE ESTATES

FIGURE

6a



FILE NAME: 1923flow.dwg

PLOT DATE: 06.03.19

CHARBONNEAU ENGINEERING LLC

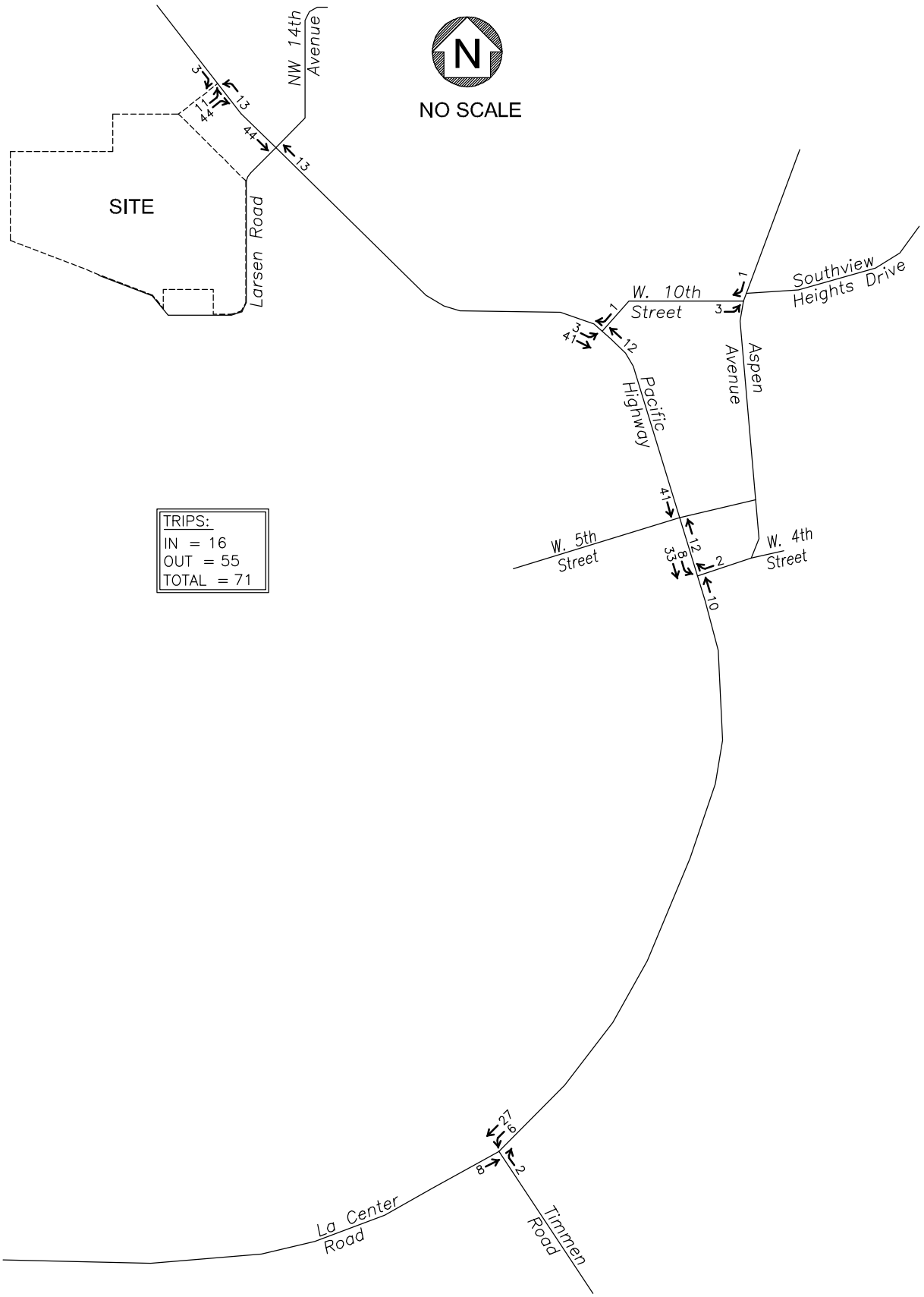
PROJECT: 19-23

NOTES: Phases 1 & 2 will include construction of 182 homes. Trip generation is based on Single-Family (ITE 210) trip rates.

TRIP ASSIGNMENT - PHASES 1 & 2
PM PEAK HOUR
RIVERSIDE ESTATES

FIGURE

6b



FILE NAME: 1923flow.dwg

PLOT DATE: 06.03.19

CHARBONNEAU ENGINEERING LLC

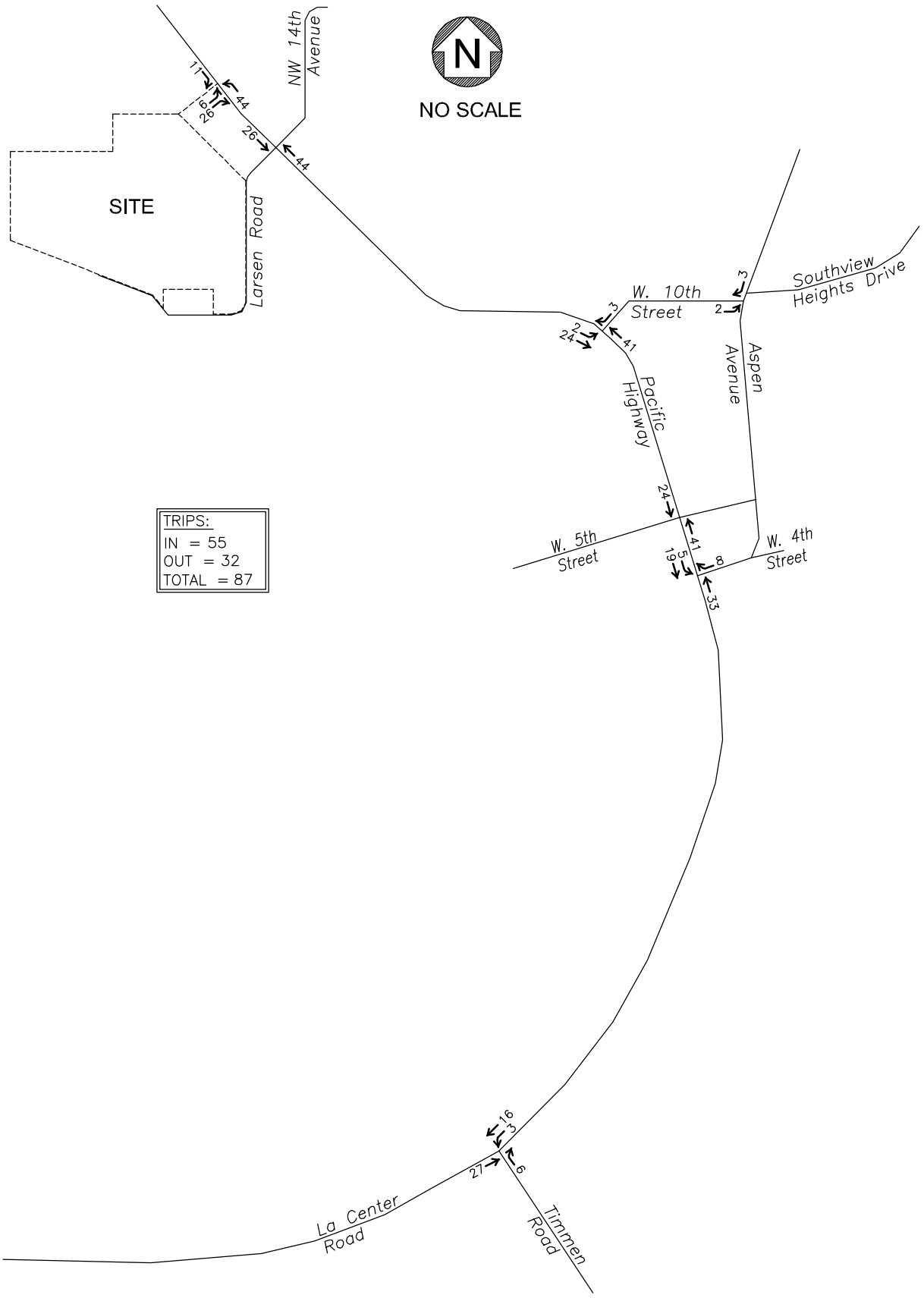
PROJECT: 19-23

NOTES: Phase 3 will include construction of 155 apartments. Trip generation is based on Apartments (ITE 220) trip rates.

TRIP ASSIGNMENT - PHASE 3
AM PEAK HOUR
RIVERSIDE ESTATES

FIGURE

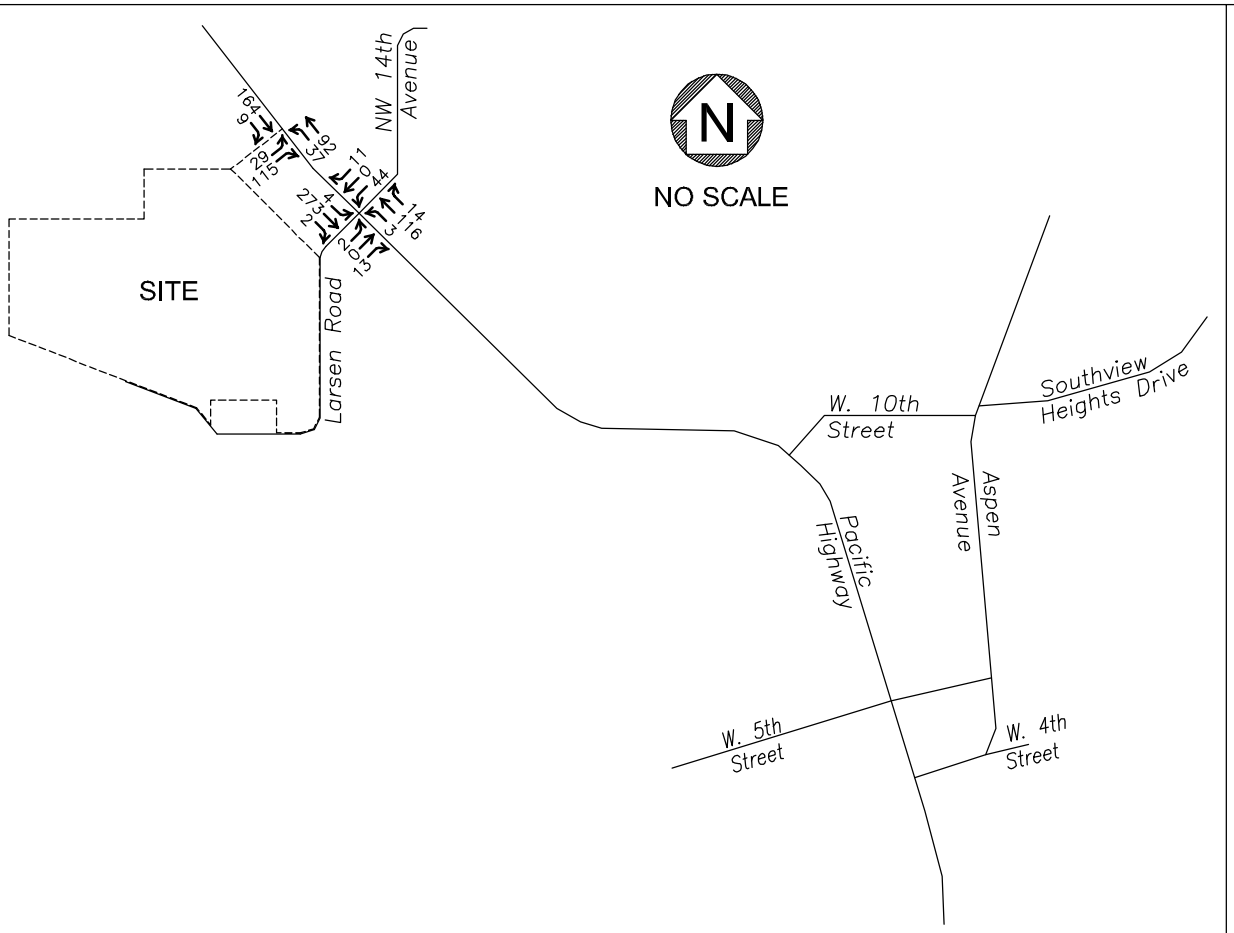
7a



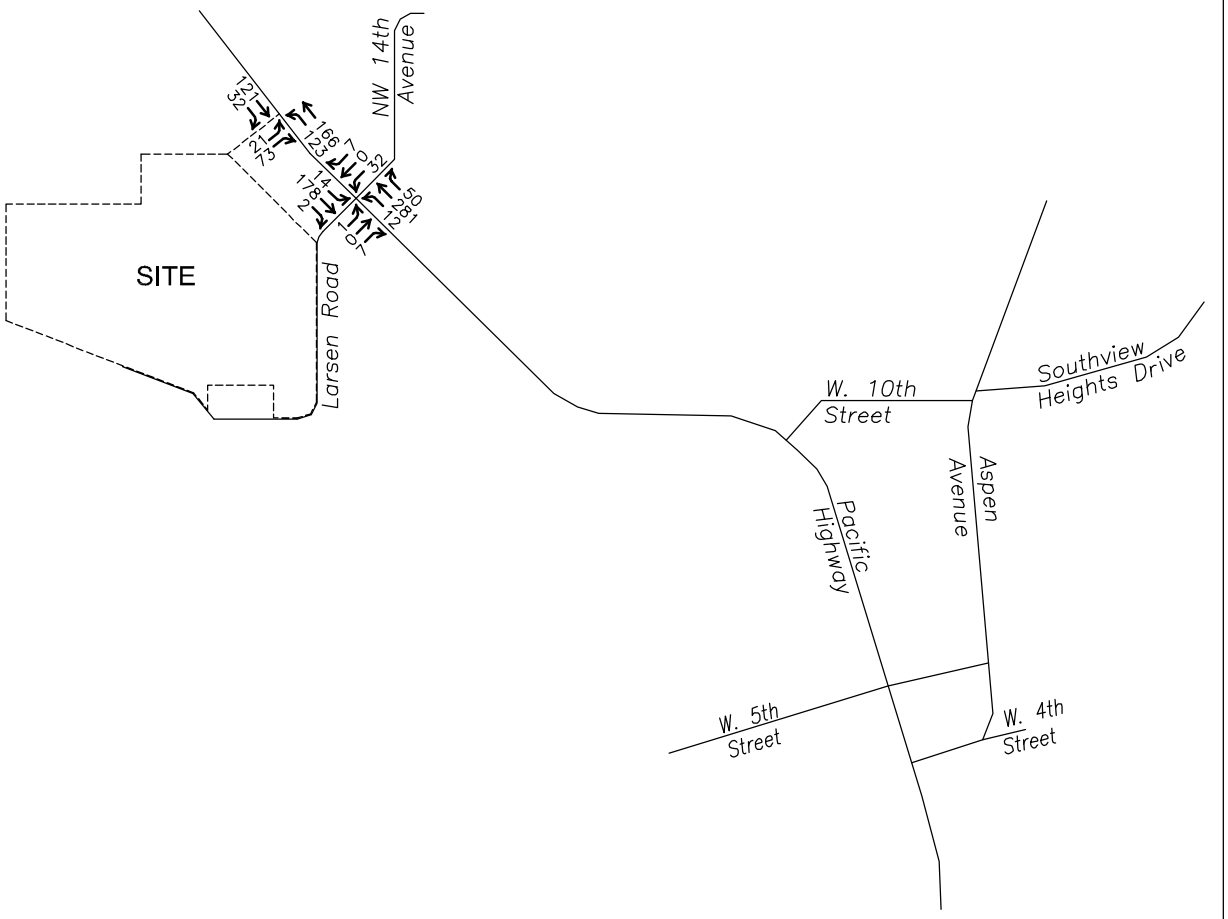
FILE NAME: 1923flow.dwg

PLOT DATE: 06.03.19

CHARBONNEAU ENGINEERING LLC PROJECT: 19-23	NOTES: Phase 3 will include construction of 155 apartments. Trip generation is based on Apartments (ITE 220) trip rates.	TRIP ASSIGNMENT - PHASE 3 PM PEAK HOUR RIVERSIDE ESTATES	FIGURE 7b



AM PEAK HOUR



PM PEAK HOUR

FILE NAME: 1923flow.dwg

PLOT DATE: 06.03.19

CHARBONNEAU ENGINEERING LLC

PROJECT: 19-23

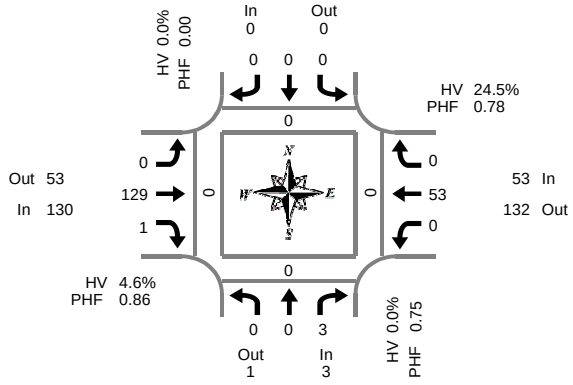
NOTES: 2022 Total Traffic = 2022 Background Traffic + Trip Assignment (Single-Family & Apartments).

2022 TOTAL TRAFFIC RIVERSIDE ESTATES

FIGURE 8

Total Vehicle Summary

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



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

NW Larsen Dr & NW Pacific Hwy

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

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

Interval Start Time	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				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	0	0	0	17	0	0	0	10	0	0	27	0	0	0	0
7:15 AM	0	0	1	0	0	0	0	0	0	35	0	0	0	10	0	0	46	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	32	0	0	0	12	0	0	44	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	25	0	1	0	14	0	0	40	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	0	37	1	0	0	17	0	0	56	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	19	0	0	0	21	0	0	41	0	0	0	0
8:30 AM	0	0	4	0	0	0	0	0	0	14	0	0	0	9	0	0	27	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	16	0	0	0	19	0	0	35	0	0	0	0
Total Survey	0	0	8	0	0	0	0	0	0	195	1	1	0	112	0	0	316	0	0	0	0

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

By Approach	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	3	1	4	0	0	0	0	0	130	53	183	1	53	132	185	0	186	0	0	0	0
%HV	0.0%				0.0%				4.6%				24.5%				10.2%				
PHF	0.75				0.00				0.86				0.78				0.83				

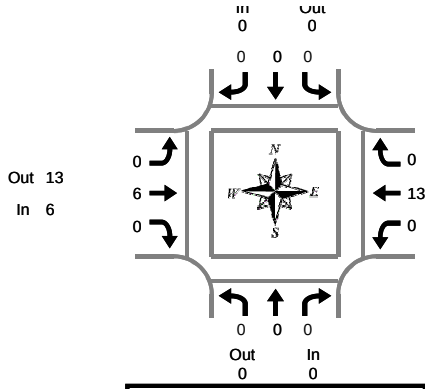
By Movement	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	3	3	0	0	0	0	0	129	1	130	0	53	0	53	186
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	0.0%	4.6%	0.0%	24.5%	0.0%	24.5%	10.2%
PHF	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.87	0.25	0.86	0.00	0.78	0.00	0.78	0.83

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

Interval Start Time	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				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	2	0	0	0	0	0	0	109	0	1	0	46	0	0	157	0	0	0	0
7:15 AM	0	0	3	0	0	0	0	0	0	129	1	1	0	53	0	0	186	0	0	0	0
7:30 AM	0	0	3	0	0	0	0	0	0	113	1	1	0	64	0	0	181	0	0	0	0
7:45 AM	0	0	7	0	0	0	0	0	0	95	1	1	0	61	0	0	164	0	0	0	0
8:00 AM	0	0	6	0	0	0	0	0	0	86	1	0	0	66	0	0	159	0	0	0	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Out 13
In 6

NW Larsen Dr & NW Pacific Hwy

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 Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				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	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7
8:15 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	9	0	9	0	14	0	14	23

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

By Approach	Northbound NW Larsen Dr			Southbound NW Larsen Dr			Eastbound NW Pacific Hwy			Westbound NW Pacific Hwy			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	6	13	19	13	6	19	19
PHF	0.00			0.00			0.21			0.36			0.34

By Movement	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	6	0	6	0	13	0	13	19
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.21	0.00	0.36	0.00	0.36	0.34

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

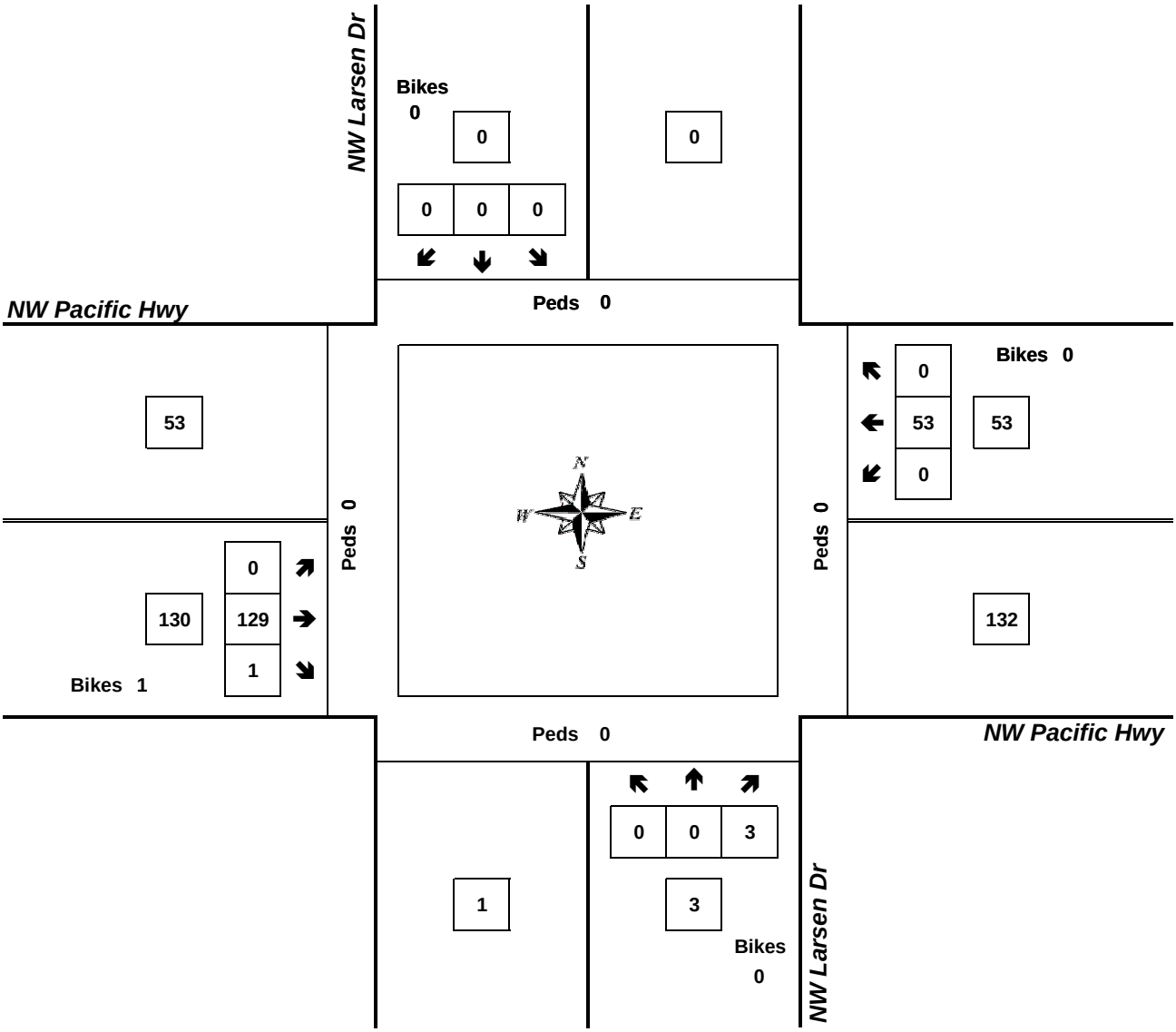
Interval Start Time	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	10	0	10	13
7:15 AM	0	0	0	0	0	0	0	0	0	6	0	6	0	13	0	13	19
7:30 AM	0	0	0	0	0	0	0	0	0	9	0	9	0	8	0	8	17
7:45 AM	0	0	0	0	0	0	0	0	0	7	0	7	0	6	0	6	13
8:00 AM	0	0	0	0	0	0	0	0	0	6	0	6	0	4	0	4	10

Peak Hour Summary

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

NW Larsen Dr & NW Pacific Hwy

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

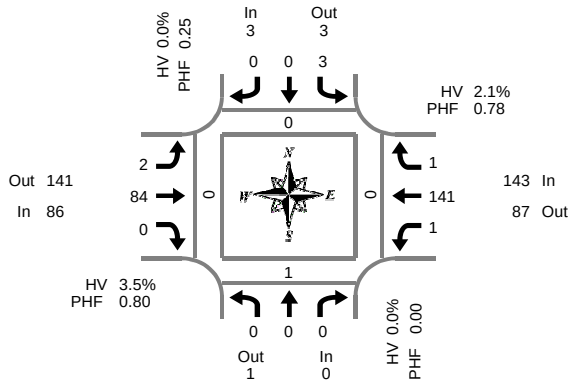


Approach	PHF	HV%	Volume
EB	0.86	4.6%	130
WB	0.78	24.5%	53
NB	0.75	0.0%	3
SB	0.00	0.0%	0
Intersection	0.83	10.2%	186

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
4:15 PM to 5:15 PM

NW Larsen Dr & NW Pacific Hwy

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 Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				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	0	0	0	0	0	22	1	0	1	27	0	0	54	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	33	0	0	48	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	2	21	0	0	0	28	1	0	52	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	27	0	0	1	45	0	0	73	0	0	0	0
5:00 PM	0	0	0	0	3	0	0	0	0	21	0	0	0	35	0	0	59	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	24	0	0	1	22	0	0	47	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	16	0	0	2	33	0	0	51	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	25	0	0	42	0	0	0	0
Total Survey	2	0	1	0	3	0	0	0	2	163	1	0	5	248	1	0	426	0	2	0	0

Peak Hour Summary
4:15 PM to 5:15 PM

By Approach	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	1	1	0	3	3	6	0	86	141	227	0	143	87	230	0	232	0	1	0	0
%HV	0.0%				0.0%				3.5%				2.1%				2.6%				
PHF	0.00				0.25				0.80				0.78				0.79				

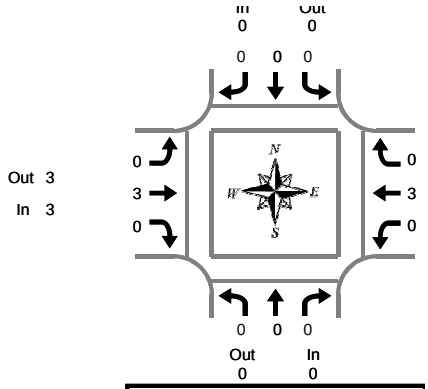
By Movement	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	3	0	0	3	2	84	0	86	1	141	1	143	232
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	3.5%	0.0%	2.1%	0.0%	2.1%	2.6%
PHF	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.25	0.78	0.00	0.80	0.25	0.78	0.25	0.78	0.79

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

Interval Start Time	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				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	0	0	0	0	2	85	1	0	2	133	1	0	227	0	2	0	0
4:15 PM	0	0	0	0	3	0	0	0	2	84	0	0	1	141	1	0	232	0	1	0	0
4:30 PM	0	0	0	0	3	0	0	0	2	93	0	0	2	130	1	0	231	0	0	0	0
4:45 PM	0	0	0	0	3	0	0	0	0	88	0	0	4	135	0	0	230	0	0	0	0
5:00 PM	0	0	0	0	3	0	0	0	0	78	0	0	3	115	0	0	199	0	0	0	0

Heavy Vehicle Summary

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



NW Larsen Dr & NW Pacific Hwy

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

Peak Hour Summary
4:15 PM to 5:15 PM

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

Interval Start Time	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				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	0	0	0	2	0	2	0	1	0	1	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	5	0	5	0	4	0	4	9

Heavy Vehicle Peak Hour Summary
4:15 PM to 5:15 PM

By Approach	Northbound NW Larsen Dr			Southbound NW Larsen Dr			Eastbound NW Pacific Hwy			Westbound NW Pacific Hwy			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	3	3	6	3	3	6	6
PHF	0.00			0.00			0.19			0.25			0.21

By Movement	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.19	0.00	0.25	0.00	0.25	0.21

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

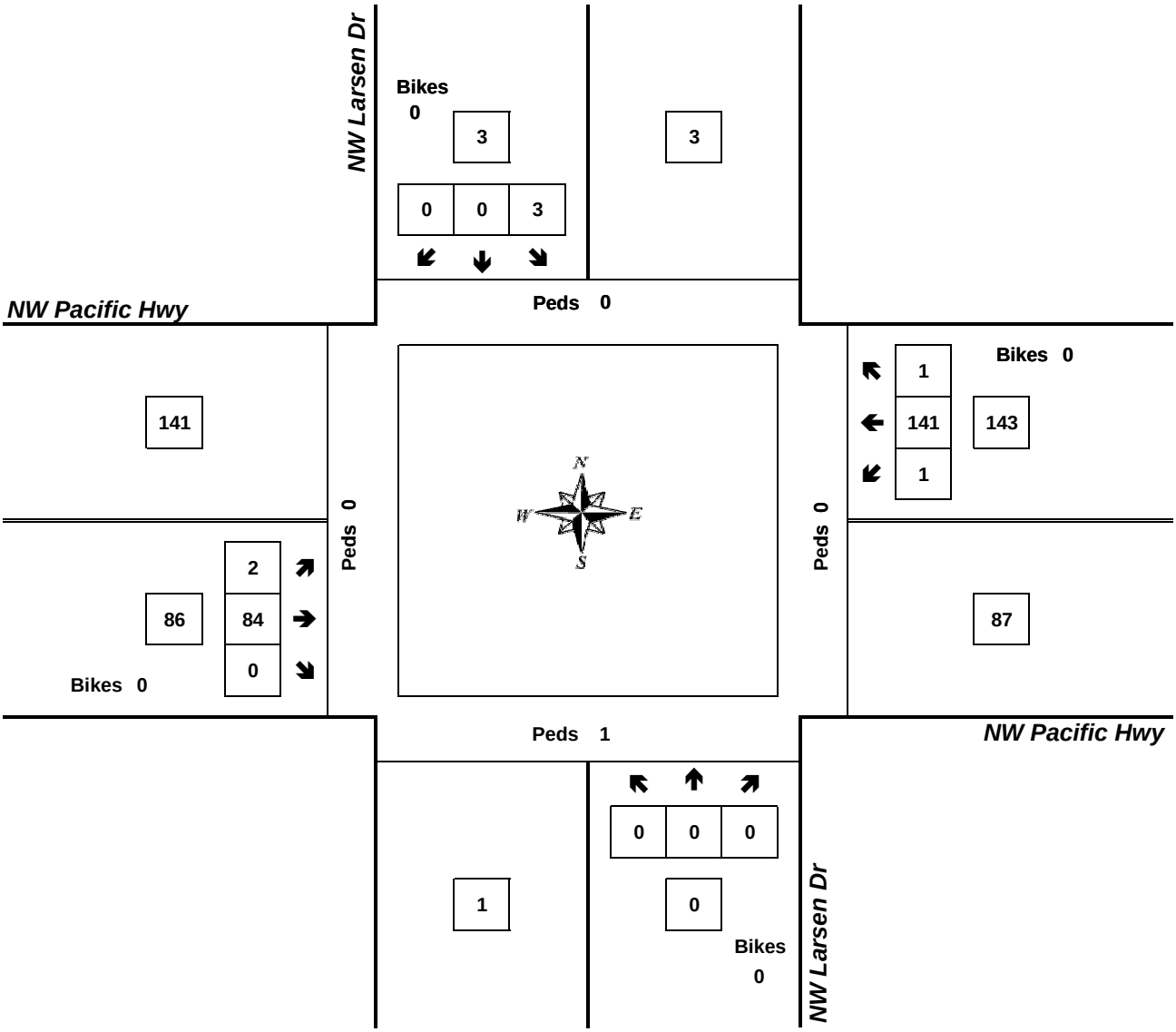
Interval Start Time	Northbound NW Larsen Dr				Southbound NW Larsen Dr				Eastbound NW Pacific Hwy				Westbound NW Pacific Hwy				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	3	0	3	7
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2

Peak Hour Summary

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

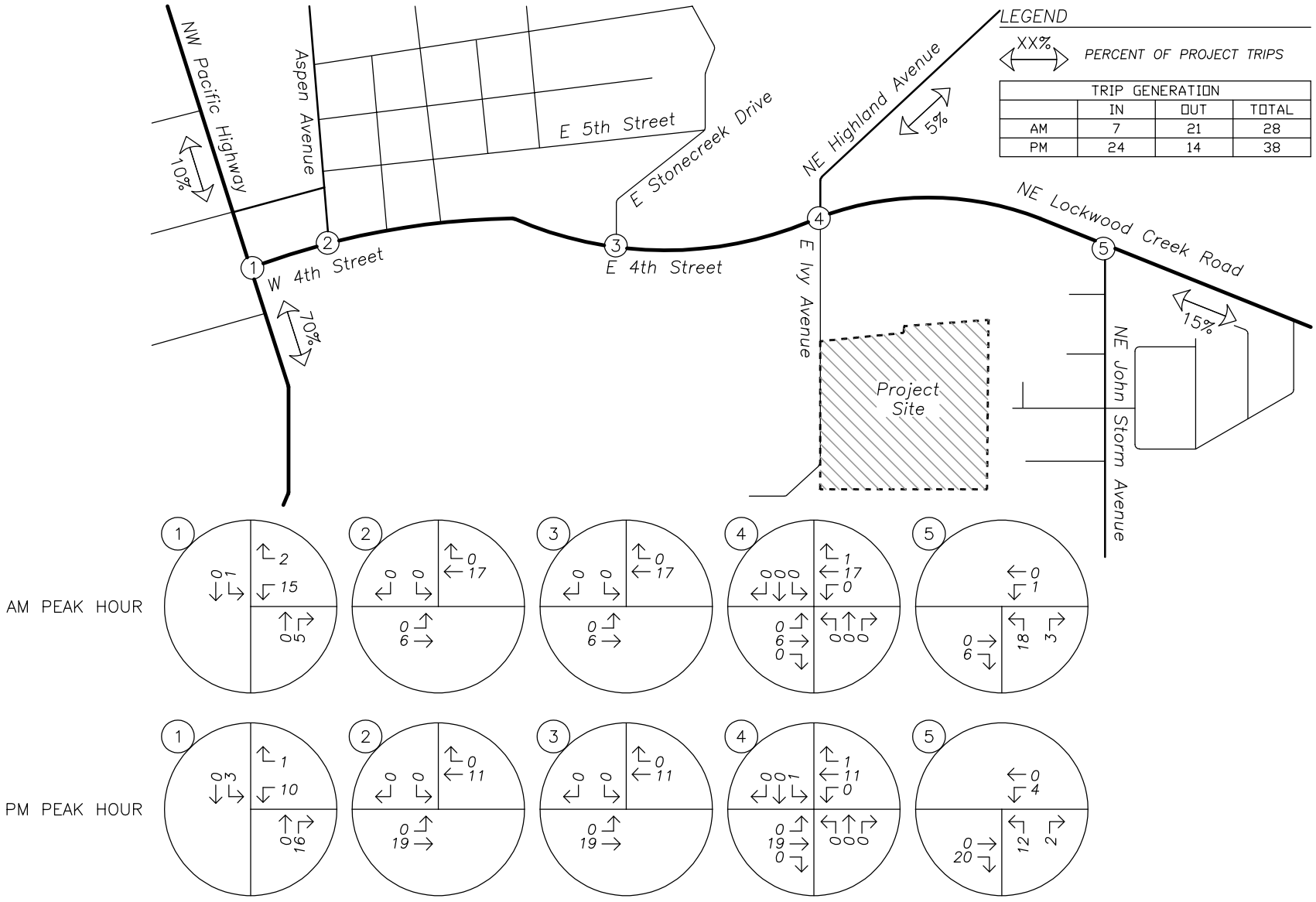
NW Larsen Dr & NW Pacific Hwy

4:15 PM to 5:15 PM
Wednesday, May 08, 2019



Approach	PHF	HV%	Volume
EB	0.80	3.5%	86
WB	0.78	2.1%	143
NB	0.00	0.0%	0
SB	0.25	0.0%	3
Intersection	0.79	2.6%	232

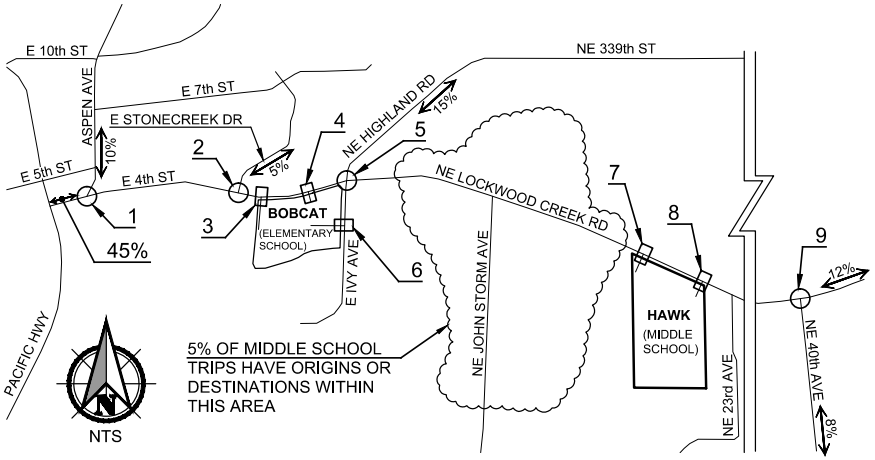
Count Period: 4:00 PM to 6:00 PM

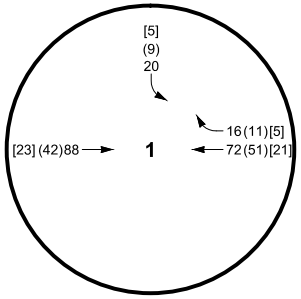


SITE TRIP DISTRIBUTION & ASSIGNMENT
Proposed Development Plan – Site Trips
AM & PM Peak Hours

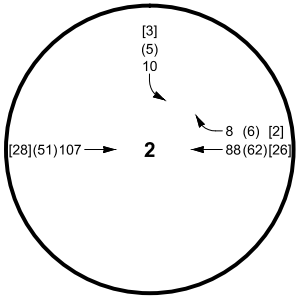
no scale

FIGURE 3

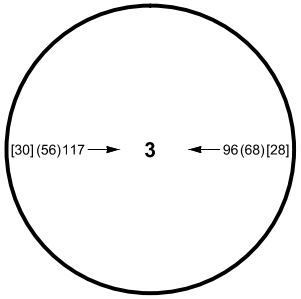




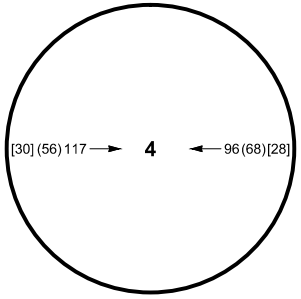
Aspen Avenue / E 4th Street



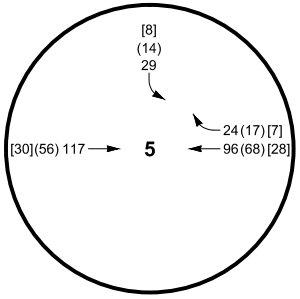
E Stonecreek Drive / E 4th Street



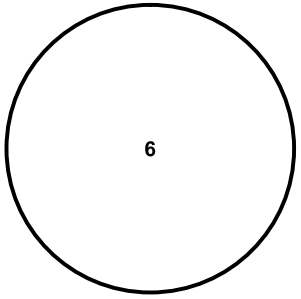
Bobcat West Driveway / E 4th Street



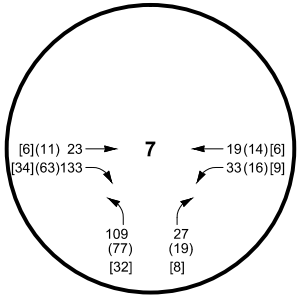
Bobcat East Driveway / E 4th Street



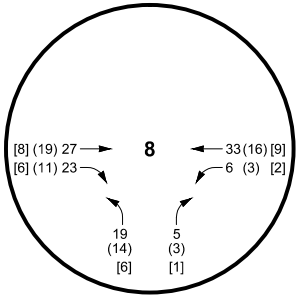
NE Highland Road / E Ivy Avenue / NE Lockwood Creek Road



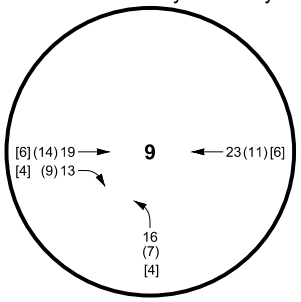
E Ivy Avenue / Bobcat Exit-Only Driveway



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)

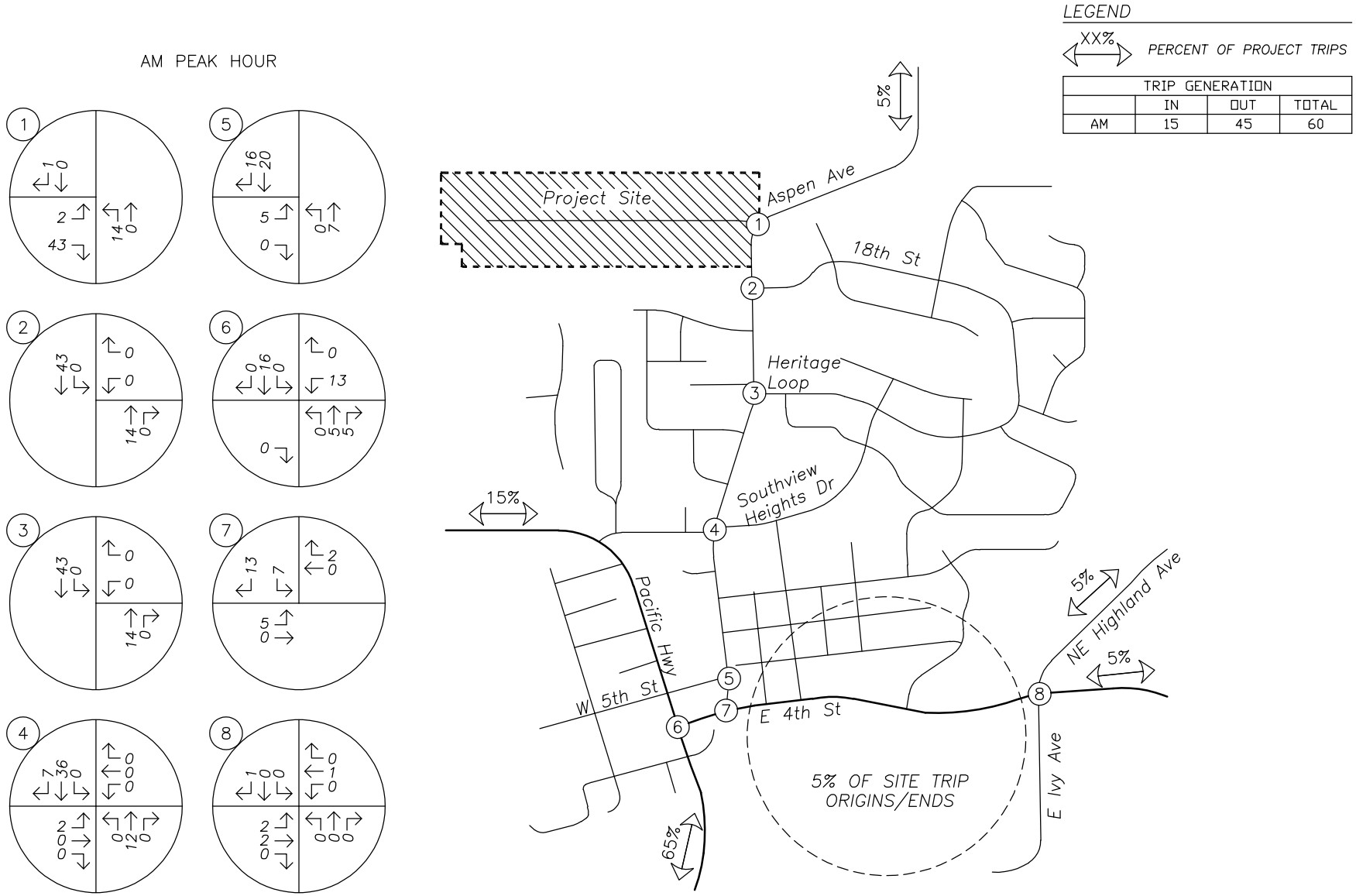
PBS

New Middle School Trip Distribution and Trip Assignments

La Center Middle School

NOV 2018

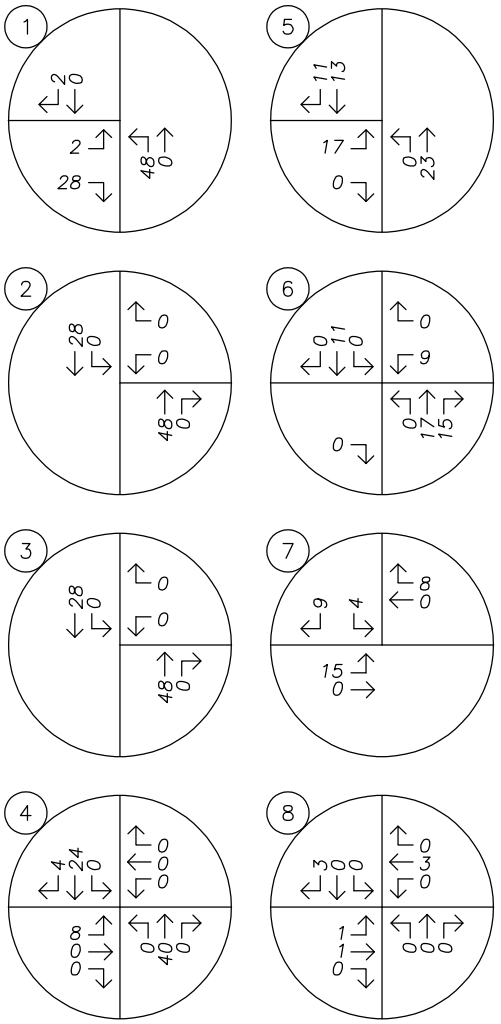
FIGURE 8

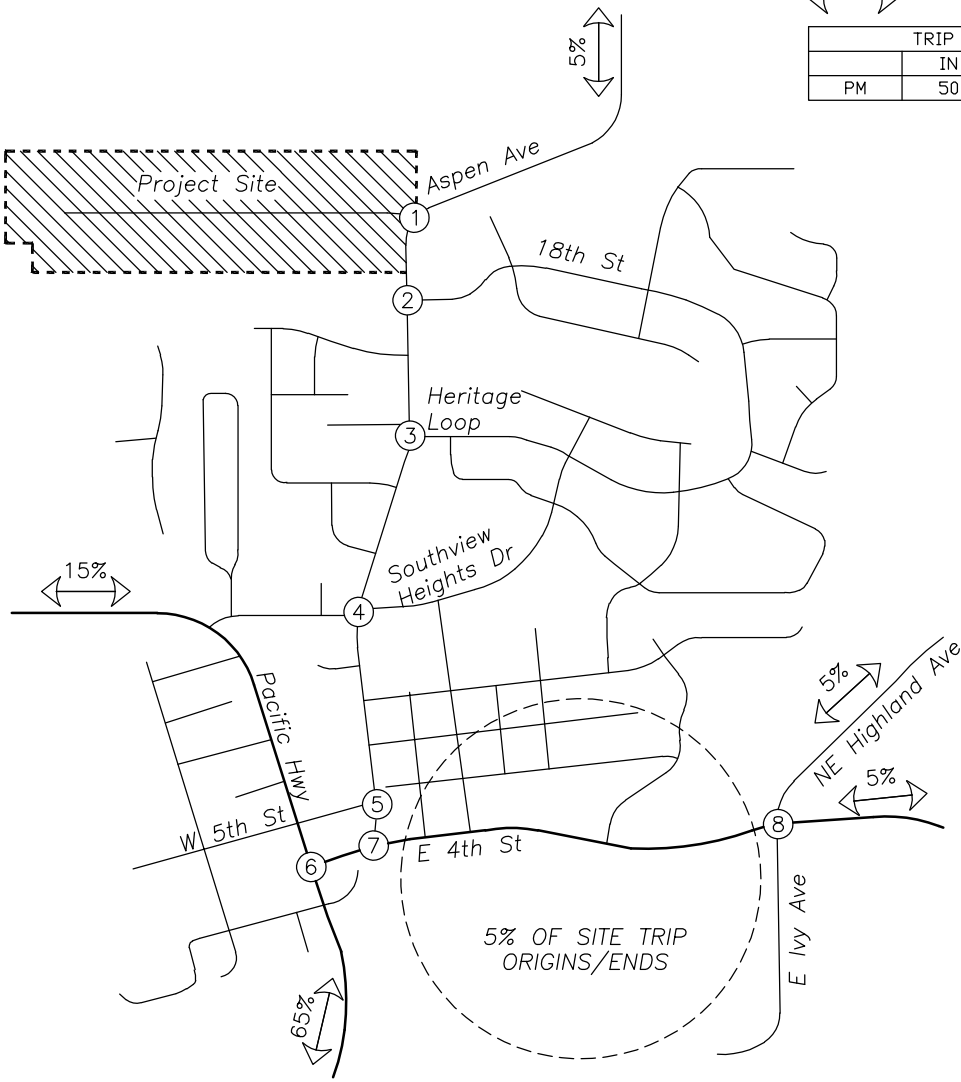


SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
AM Peak Hour

FIGURE 5

PM PEAK HOUR



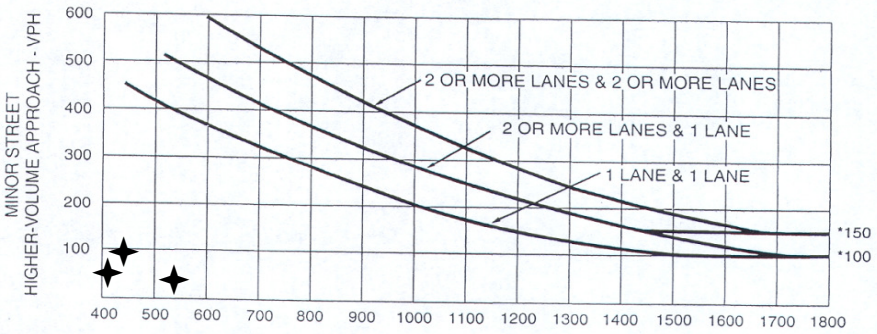


SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
PM Peak Hour

no scale

FIGURE 6

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

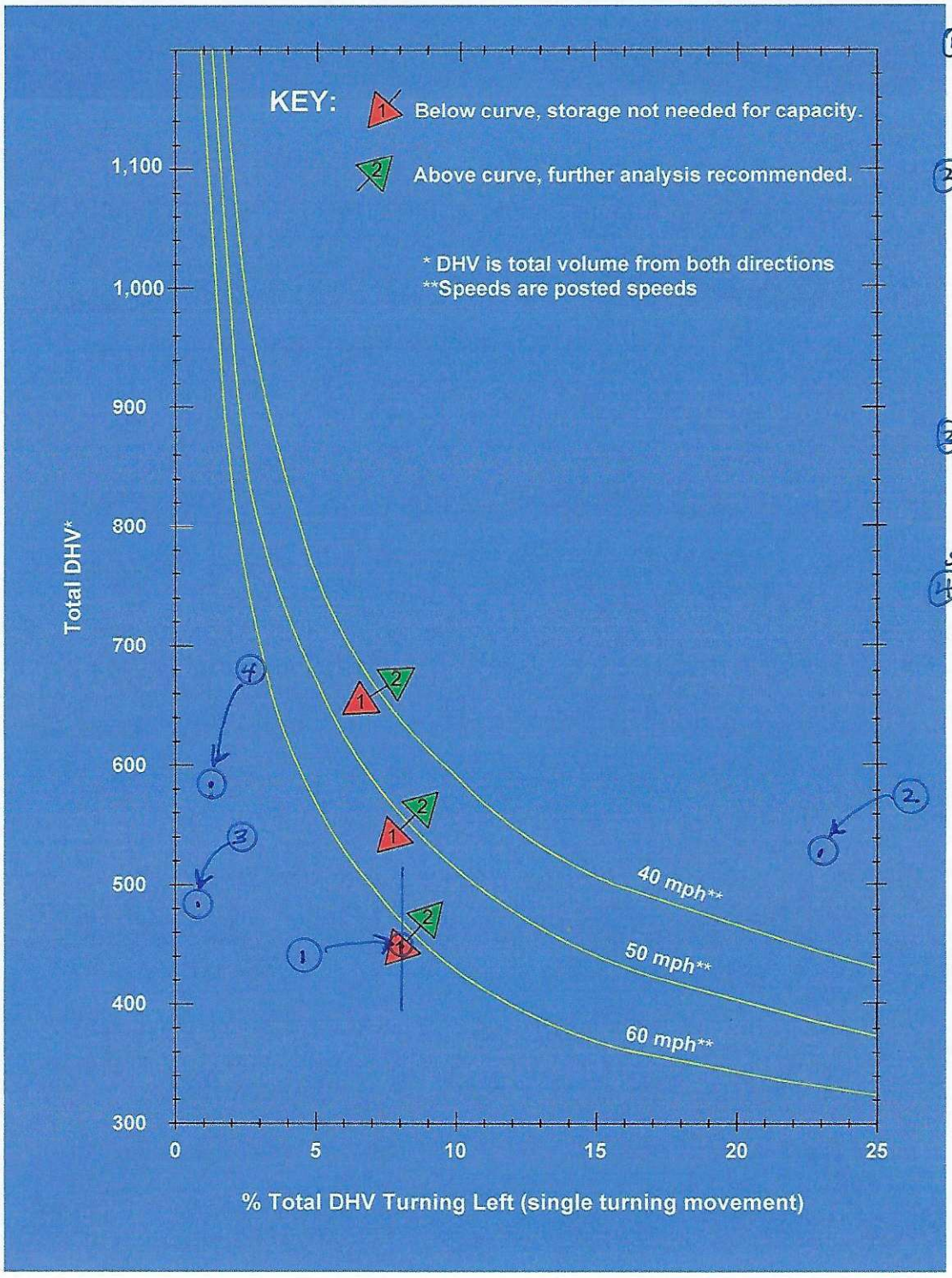
Peak hour volume warrant for signalization data.

Intersection	Analysis Period	Major Street Speed (mph)	Major Street		Minor Street High Volume Approach		Signal Warranted?
			Volume (vph)	Lanes (#)	Volume (vph)	Lanes (#)	
NW 15th Street and Pacific Hwy (prop.)	2022 Total Traffic - AM Peak	35	302	2	144	1	No
	2022 Total Traffic - PM Peak		442		94		No
NW 14th Street/ Larsen Drive and Pacific Hwy	2022 Total Traffic - AM Peak	35	412	1	55	1	No
	2022 Total Traffic - PM Peak		538		39		No

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

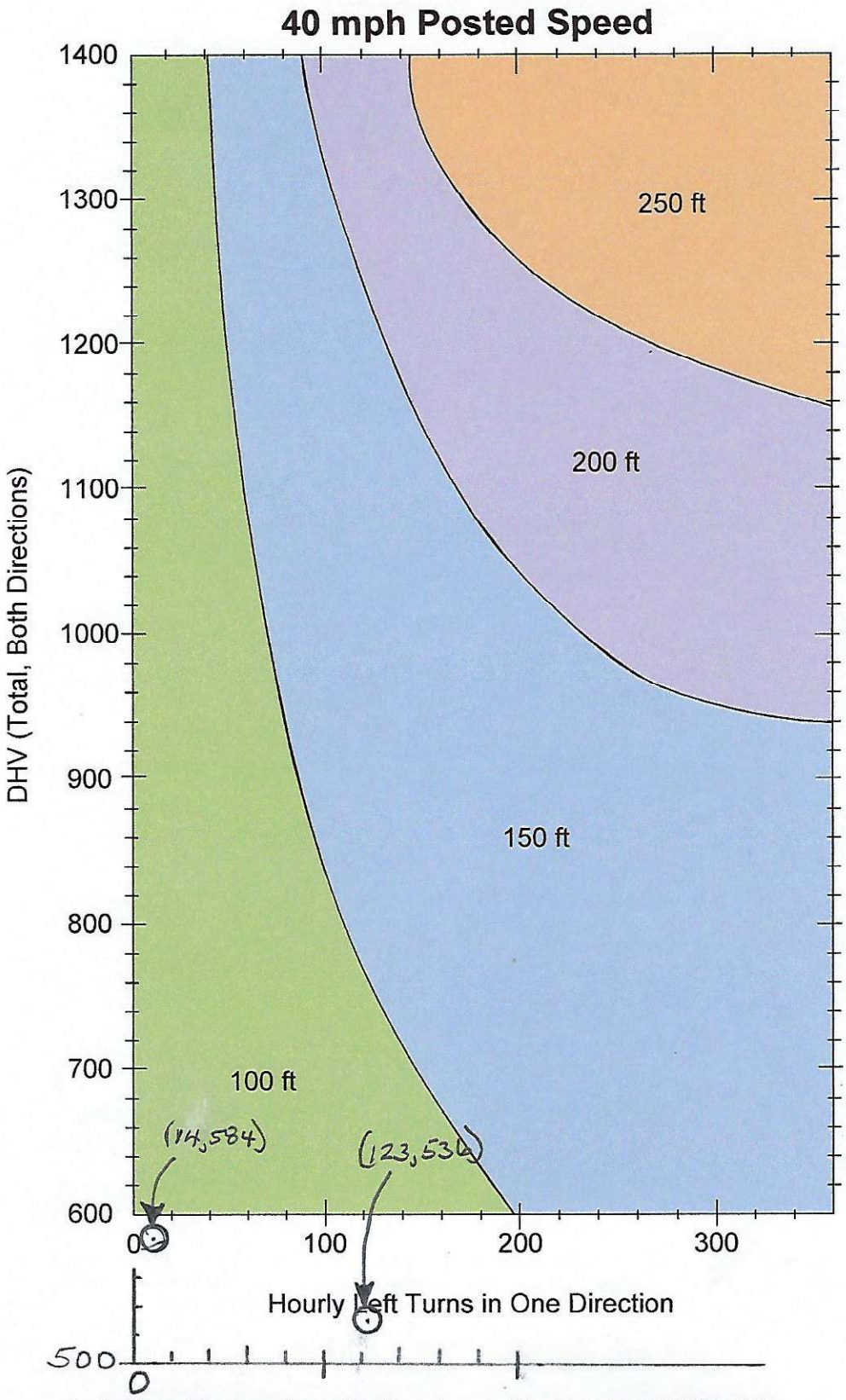
15th St. Int.
① AM DHV = 446
%L = 37/446 = 8%
② PM DHV = 536
%L = 123/536 = 23%

Larsen Rd
③ AM DHV = 482
%L = 4/482 = 1%
④ PM DHV = 584
%L = 14/584 = 2%



Left-Turn Storage Guidelines: Two-Lane, Unsignalized

Exhibit 1310-7a



Left-Turn Storage Length: Two-Lane, Unsignalized (40mph)

Exhibit 1310-8a

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

Pacific Hwy @ Larson Dr

Pacific Hwy @ 5th St

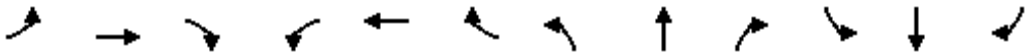
Pacific Hwy @ 10th St - *No Reported Crashes*

La Center Rd @ Timmen Rd

01/01/2014 - 12/31/2018

Under 23 U.S. Code § 409 and 23 U.S. Code § 148, 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	REFERENCE POINT NAME	REPORT NUMBER	DATE	MOST SEVERE INJURY TYPE	# 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
NW LACENTER RD	32100	Timmen Road	68	F	NW TIMMEN RD	E532641	03/23/2016	No Apparent Injury	0	0	2	0	0	West	East	West	North
NW LACENTER RD	32100	Timmen Road	100	F	NW TIMMEN RD	E837059	09/11/2018	No Apparent Injury	0	0	2	0	0	SW	NE	SE	NW
NW PACIFIC HWY	0	W 5TH ST				E677236	06/02/2017	No Apparent Injury	0	0	2	0	0	East	South	North	South
NW PACIFIC HWY	34200	East of Larsen	200	F	NW LARSON DR	E525947	03/17/2016	Possible Injury	1	0	1	0	0	West	East		
NW TIMMEN RD	0	NW LACENTER RD				E839247	08/29/2018	Possible Injury	1	0	2	0	0	North	West	West	East



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	129	1	0	53	0	0	0	3	0	0	0
Future Volume (vph)	0	129	1	0	53	0	0	0	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		643			789			670			657	
Travel Time (s)		12.5			15.4			18.3			17.9	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	5%	5%	5%	25%	25%	25%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.9%		ICU Level of Service A	
Analysis Period (min) 15			

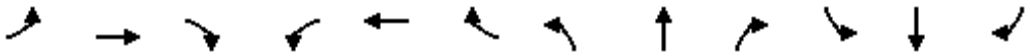
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	129	1	0	53	0	0	0	3	0	0	0
Future Vol, veh/h	0	129	1	0	53	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	5	5	5	25	25	25	2	2	2	2	2	2
Mvmt Flow	0	155	1	0	64	0	0	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	64	0	0	156	0	0	220	220	156	222	220	64
Stage 1	-	-	-	-	-	-	156	156	-	64	64	-
Stage 2	-	-	-	-	-	-	64	64	-	158	156	-
Critical Hdwy	4.15	-	-	4.35	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.425	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1519	-	-	1295	-	-	736	678	890	734	678	1000
Stage 1	-	-	-	-	-	-	846	769	-	947	842	-
Stage 2	-	-	-	-	-	-	947	842	-	844	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1295	-	-	736	678	890	731	678	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	736	678	-	731	678	-
Stage 1	-	-	-	-	-	-	846	769	-	947	842	-
Stage 2	-	-	-	-	-	-	947	842	-	841	769	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	890	1519	-	-	1295	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-	-	-	-	-
HCM Control Delay (s)	9.1	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	84	0	1	141	1	0	0	0	3	0	0
Future Volume (vph)	2	84	0	1	141	1	0	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		643			789			670			657	
Travel Time (s)		12.5			15.4			18.3			17.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

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

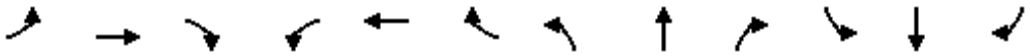
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	84	0	1	141	1	0	0	0	3	0	0
Future Vol, veh/h	2	84	0	1	141	1	0	0	0	3	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	0	0	0
Mvmt Flow	3	106	0	1	178	1	0	0	0	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	107	0	0	294	294	107	293	294	179
Stage 1	-	-	-	-	-	-	113	113	-	181	181	-
Stage 2	-	-	-	-	-	-	181	181	-	112	113	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1385	-	-	1484	-	-	662	620	953	663	620	869
Stage 1	-	-	-	-	-	-	897	806	-	825	754	-
Stage 2	-	-	-	-	-	-	825	754	-	898	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1385	-	-	1483	-	-	660	618	952	662	618	869
Mov Cap-2 Maneuver	-	-	-	-	-	-	660	618	-	662	618	-
Stage 1	-	-	-	-	-	-	894	804	-	823	753	-
Stage 2	-	-	-	-	-	-	824	753	-	896	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	0	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1385	-	-	1483	-	-	662
HCM Lane V/C Ratio	-	0.002	-	-	0.001	-	-	0.006
HCM Control Delay (s)	0	7.6	0	-	7.4	0	-	10.5
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	158	1	0	79	14	0	0	3	44	0	11
Future Volume (vph)	4	158	1	0	79	14	0	0	3	44	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		643			789			670			657	
Travel Time (s)		12.5			15.4			18.3			17.9	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	5%	5%	5%	25%	25%	25%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.0%		ICU Level of Service A	
Analysis Period (min) 15			

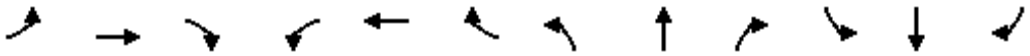
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	158	1	0	79	14	0	0	3	44	0	11
Future Vol, veh/h	4	158	1	0	79	14	0	0	3	44	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	5	5	5	25	25	25	2	2	2	2	2	2
Mvmt Flow	5	190	1	0	95	17	0	0	4	53	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	112	0	0	191	0	0	311	313	191	307	305	104
Stage 1	-	-	-	-	-	-	201	201	-	104	104	-
Stage 2	-	-	-	-	-	-	110	112	-	203	201	-
Critical Hdwy	4.15	-	-	4.35	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.425	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1459	-	-	1256	-	-	642	602	851	645	608	951
Stage 1	-	-	-	-	-	-	801	735	-	902	809	-
Stage 2	-	-	-	-	-	-	895	803	-	799	735	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1256	-	-	631	600	851	640	606	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	631	600	-	640	606	-
Stage 1	-	-	-	-	-	-	798	732	-	898	809	-
Stage 2	-	-	-	-	-	-	883	803	-	792	732	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	9.2	10.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	851	1459	-	-	1256	-	-	685
HCM Lane V/C Ratio	0.004	0.003	-	-	-	-	-	0.097
HCM Control Delay (s)	9.2	7.5	0	-	0	-	-	10.8
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	105	0	1	158	50	0	0	0	32	0	7
Future Volume (vph)	14	105	0	1	158	50	0	0	0	32	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		643			789			670			657	
Travel Time (s)		12.5			15.4			18.3			17.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	105	0	1	158	50	0	0	0	32	0	7
Future Vol, veh/h	14	105	0	1	158	50	0	0	0	32	0	7
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	0	0	0
Mvmt Flow	18	133	0	1	200	63	0	0	0	41	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	263	0	0	134	0	0	408	435	134	403	404	232
Stage 1	-	-	-	-	-	-	170	170	-	234	234	-
Stage 2	-	-	-	-	-	-	238	265	-	169	170	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1290	-	-	1451	-	-	557	517	920	562	539	812
Stage 1	-	-	-	-	-	-	837	762	-	774	715	-
Stage 2	-	-	-	-	-	-	770	693	-	838	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1290	-	-	1450	-	-	544	508	919	555	530	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	544	508	-	555	530	-
Stage 1	-	-	-	-	-	-	824	750	-	762	714	-
Stage 2	-	-	-	-	-	-	761	692	-	825	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	0	11.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1290	-	-	1450	-	-	588
HCM Lane V/C Ratio	-	0.014	-	-	0.001	-	-	0.084
HCM Control Delay (s)	0	7.8	0	-	7.5	0	-	11.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.3

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	164	9	37	92	29	115
Future Volume (vph)	164	9	37	92	29	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	35			35	25	
Link Distance (ft)	644			710	678	
Travel Time (s)	12.5			13.8	18.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	5%	25%	25%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		

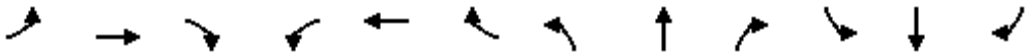
Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	164	9	37	92	29	115
Future Vol, veh/h	164	9	37	92	29	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	25	25	2	2
Mvmt Flow	182	10	41	102	32	128

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	192	0	371	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	184	-
Critical Hdwy	-	-	4.35	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.425	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1255	-	630	855
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	848	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1255	-	609	855
Mov Cap-2 Maneuver	-	-	-	-	609	-
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	820	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	791	-	-	1255	-
HCM Lane V/C Ratio	0.202	-	-	0.033	-
HCM Control Delay (s)	10.7	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	273	2	3	116	14	2	0	13	44	0	11
Future Volume (vph)	4	273	2	3	116	14	2	0	13	44	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		643			789			670			657	
Travel Time (s)		12.5			15.4			18.3			17.9	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	5%	5%	5%	25%	25%	25%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

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

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	273	2	3	116	14	2	0	13	44	0	11
Future Vol, veh/h	4	273	2	3	116	14	2	0	13	44	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	5	5	5	25	25	25	2	2	2	2	2	2
Mvmt Flow	5	329	2	4	140	17	2	0	16	53	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	331	0	0	503	505	330	505	498	149
Stage 1	-	-	-	-	-	-	340	340	-	157	157	-
Stage 2	-	-	-	-	-	-	163	165	-	348	341	-
Critical Hdwy	4.15	-	-	4.35	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.425	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1405	-	-	1110	-	-	479	470	712	478	474	898
Stage 1	-	-	-	-	-	-	675	639	-	845	768	-
Stage 2	-	-	-	-	-	-	839	762	-	668	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1405	-	-	1110	-	-	469	466	712	465	470	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	469	466	-	465	470	-
Stage 1	-	-	-	-	-	-	672	636	-	842	765	-
Stage 2	-	-	-	-	-	-	823	759	-	651	636	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	10.6	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	666	1405	-	-	1110	-	-	515
HCM Lane V/C Ratio	0.027	0.003	-	-	0.003	-	-	0.129
HCM Control Delay (s)	10.6	7.6	0	-	8.3	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	121	32	123	166	21	73
Future Volume (vph)	121	32	123	166	21	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	35			35	25	
Link Distance (ft)	644			710	678	
Travel Time (s)	12.5			13.8	18.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.8%	ICU Level of Service	A
Analysis Period (min)	15		

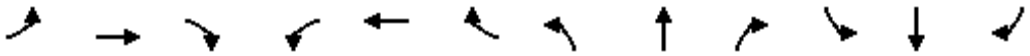
Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	121	32	123	166	21	73
Future Vol, veh/h	121	32	123	166	21	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	4	2	2	2	2
Mvmt Flow	134	36	137	184	23	81

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	170	0	610	152
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	458	-
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	-	-	1407	-	458	894
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	637	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1407	-	414	894
Mov Cap-2 Maneuver	-	-	-	-	414	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	575	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	710	-	-	1407	-
HCM Lane V/C Ratio	0.147	-	-	0.097	-
HCM Control Delay (s)	10.9	-	-	7.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	178	3	12	281	50	1	0	7	32	0	7
Future Volume (vph)	14	178	3	12	281	50	1	0	7	32	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		643			789			670			657	
Travel Time (s)		12.5			15.4			18.3			17.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	178	3	12	281	50	1	0	7	32	0	7
Future Vol, veh/h	14	178	3	12	281	50	1	0	7	32	0	7
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	0	0	0
Mvmt Flow	18	225	4	15	356	63	1	0	9	41	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	419	0	0	230	0	0	686	713	228	686	684	388
Stage 1	-	-	-	-	-	-	264	264	-	418	418	-
Stage 2	-	-	-	-	-	-	422	449	-	268	266	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1129	-	-	1338	-	-	364	360	816	364	374	665
Stage 1	-	-	-	-	-	-	746	694	-	616	594	-
Stage 2	-	-	-	-	-	-	613	576	-	742	692	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1129	-	-	1337	-	-	350	348	815	351	361	665
Mov Cap-2 Maneuver	-	-	-	-	-	-	350	348	-	351	361	-
Stage 1	-	-	-	-	-	-	732	681	-	605	585	-
Stage 2	-	-	-	-	-	-	596	567	-	721	679	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	10.2	15.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1129	-	-	1337	-	-	384
HCM Lane V/C Ratio	0.014	0.016	-	-	0.011	-	-	0.129
HCM Control Delay (s)	10.2	8.2	0	-	7.7	0	-	15.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4