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NW 9th Avenue Subdivision & Rezone

Transportation Impact Study

La Center, Washington

10/20/2025

Date:
October 20, 2025

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Executive Summary

1. The proposed NW 9th Avenue Subdivision & Rezone project will include the rezone and subsequent development of two properties located at 33901 NW Pacific Highway in La Center, Washington. The proposal will include rezoning the properties from *Low Density Residential District* (LDR-7.5) to *Medium Density Residential District* (MDR-16) and developing 81 residential lots. As part of the development application, one existing single-family house and several ancillary structures will be removed. Access to the site will be provided via the intersection of NW 9th Avenue at NW Pacific Highway along the west side of the project site.
2. The trip generation calculations show that the proposed development is projected to generate 46 net new AM peak hour trips, 58 net new PM peak hour trips, and 652 net new average weekday trips.
3. No significant trends or crash patterns were identified at the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.
4. Provided any obstructing on-site foliage is either removed or properly maintained following redevelopment of the site, adequate intersection and stopping sight distances can be made available to the east of the intersection of NW 9th Avenue at NW Pacific Highway to allow for safe and efficient operation. To the west of the intersection, adequate stopping sight distance is available to allow safe operation. If the City of La Center requests that at least minimum intersection sight distance standards be met to the west of the intersection, the applicant with coordinate with the adjacent property owner regarding the fence. No other sight distance related mitigation is necessary or recommended.
5. Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NW Pacific Highway. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed development.
6. Traffic signal warrants are not projected to be met at the intersection of NW Paradise Park Road at NW La Center Road, under year 2028 site buildout conditions. Signal warrants were found to be met at the intersection of NW Timmen Road at NW La Center Road. The City of La Center is planning to reconstruct the intersection as a roundabout, where the City is currently pursuing State and Federal funding for this improvement project. Therefore, no further mitigation on behalf of the proposed development application is necessary.
7. The intersection of NW Timmen Road at NW La Center Road is projected to exceed City of La Center mobility standards. The City of La Center is planning to reconstruct the intersection as a roundabout, where the City is currently pursuing State and Federal funding for this improvement project. Therefore, no further mitigation on behalf of the proposed development application is necessary.
8. All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2028 buildout year of the site. Accordingly, no operational mitigation is necessary or recommended at these study intersections.

Project Description

Introduction

The proposed NW 9th Avenue Subdivision & Rezone project will include the rezone and subsequent development of two properties located at 33901 NW Pacific Highway in La Center, Washington. The proposal will include rezoning the properties from *Low Density Residential District* (LDR-7.5) to *Medium Density Residential District* (MDR-16), and developing 81 residential lots which will consist of the following:

- 46 single-family attached homes (11 duplex and 6 fourplex structures).
- 35 single-family detached homes.

As part of the development application, one existing single-family house and several ancillary structures will be removed. Access to the site will be provided via the intersection of NW 9th Avenue at NW Pacific Highway along the west side of the project site.

Based on correspondence with City of La Center staff, the report conducts safety and capacity/level of service analyses at the following intersections:

1. NW 9th Avenue at NW Pacific Highway (Site Access)
2. W 10th Street at NW Pacific Highway
3. W 5th Street at NW Pacific Highway
4. W 4th Street at NW Pacific Highway
5. NW Timmen Road at NW La Center Road
6. NW Paradise Park Road at NW La Center Road (Limited to a preliminary review of traffic signal warrants)

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the surrounding existing and proposed uses, and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

Location Description

The project site is located north of NW Pacific Highway, east of NW 9th Avenue, and west of W D Avenue in La Center, Washington. Located within a developing area of the City, the site is immediately surrounded by residential subdivisions to the east and south, and lower density single-family houses to the north and west.

The site consists of two properties (assessor parcels 258921000 and 258902000) which encompass an approximate total of 11.3 acres. A single-family detached house and ancillary storage structures are currently built on-site, all of which will be removed following site redevelopment. The site is currently served by three driveways along NW Pacific Highway, all of which will be removed.

Figure 1 presents an aerial image of the nearby vicinity with the project site outlined in yellow.

Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Vicinity Streets

The study area is composed of eight roadways. Table 1 provides a description of these vicinity roadways.

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
NW Pacific Highway	La Center	Minor Arterial	25/35	Not Permitted	Partial Both Sides	None
NW La Center Road	La Center	Principal Arterial	25/35/50	Not Permitted	Partial Both Sides	Partial Both Sides
NW 9th Avenue	La Center	Local Street	25*	Not Permitted	None	None
W 10th Street	La Center	Minor Collector	25	Not Permitted	Both Sides	None

Table Notes: *Functional classification based on La Center Transportation Capital Facilities Plan Classification Map. Street System map.*
** Statutory speed based on Washington State Code Section RCW 46.61.400.*

Table 1: Vicinity Roadway Descriptions (Continued)

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
W 5th Street	La Center	Minor Collector/Local Street	25	Partially Permitted	Partial Both Sides	None
W 4th Street	La Center	Minor Arterial	25	Partially Permitted	Both Sides	None
NW Timmen Road	La Center	Minor Arterial	40	Not Permitted	None	None
NW Paradise Park Road	La Center	Major Collector	35	Not Permitted	Partial Both Sides	Partial Both Sides

Table Notes: *Functional classification based on La Center Transportation Capital Facilities Plan Classification Map. Street System map.*

Study Intersections

Based on correspondence with agency staff, an analysis of six intersections of significance was conducted. A summarized description of these study intersections under their existing lane configurations is provided in Table 2.

Table 2: Study Intersection Descriptions

Number	Intersection	Geometry	Traffic Control	Phasing/Stopped Approaches
1	NW 9th Avenue at NW Pacific Highway	Three-Legged	Stop-Controlled	Stop-Controlled SB Approach
2	W 10th Street at NW Pacific Highway	Three-Legged	Stop-Controlled	Stop-Controlled SWB Approach
3	W 5th Street at NW Pacific Highway	Four-Legged	Stop-Controlled	Stop-Controlled EB/WB Approaches
4	W 4th Street at NW Pacific Highway	Three-Legged	Roundabout	Yield-Controlled Approaches
5	NW Timmen Road at NW La Center Road	Three-Legged	Stop-Controlled	Stop-Controlled NWB Approach
6	NW Paradise Park Road at NW La Center Road	Four-Legged	Stop-Controlled	Stop-Controlled NB/SB Approaches

A vicinity map showing the project site, vicinity streets, and study intersection configurations are shown in Figure 2.

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VICINITY MAP

Figure 2

NW 9th Avenue Subdivision

10/20/2025

Site Trips

Trip Generation

The proposed NW 9th Avenue Subdivision and Rezone project will include the construction of 46 single-family attached homes and 35 single-family detached homes. As part of the proposal one existing single-family house will be removed. To estimate the number of trips that are and will be generated by the existing and proposed uses, trip rates from the *Trip Generation Manual, 11th Edition*[1] were used. Data from the following land use codes were used to estimate existing and proposed site trip generation:

- 210, *Single-Family Detached Housing*, based on the number of dwelling units.
- 215, *Single-Family Attached Housing*, based on the number of dwellings units.

Based on the above methodologies and assumptions, the trip generation calculations show that the proposed development is projected to generate 46 net new AM peak hour trips, 58 net new PM peak hour trips, and 652 net new average weekday trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included in the technical appendix.

Table 3: Trip Generation Summary

ITE Land Use Code		Size	AM Peak Hour			PM Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing Conditions									
210	Single-Family Detached Housing	1 units	0	1	1	1	0	1	10
Proposed Conditions									
210	Single-Family Detached Housing	35 units	6	19	25	21	12	33	330
215	Single-Family Attached Housing	46 units	6	16	22	15	11	26	332
Total Trips			12	35	47	36	23	59	662
Net Change In Site Trip Generation									
Net New Trips			**12**	**34**	**46**	**35**	**23**	**58**	**652**

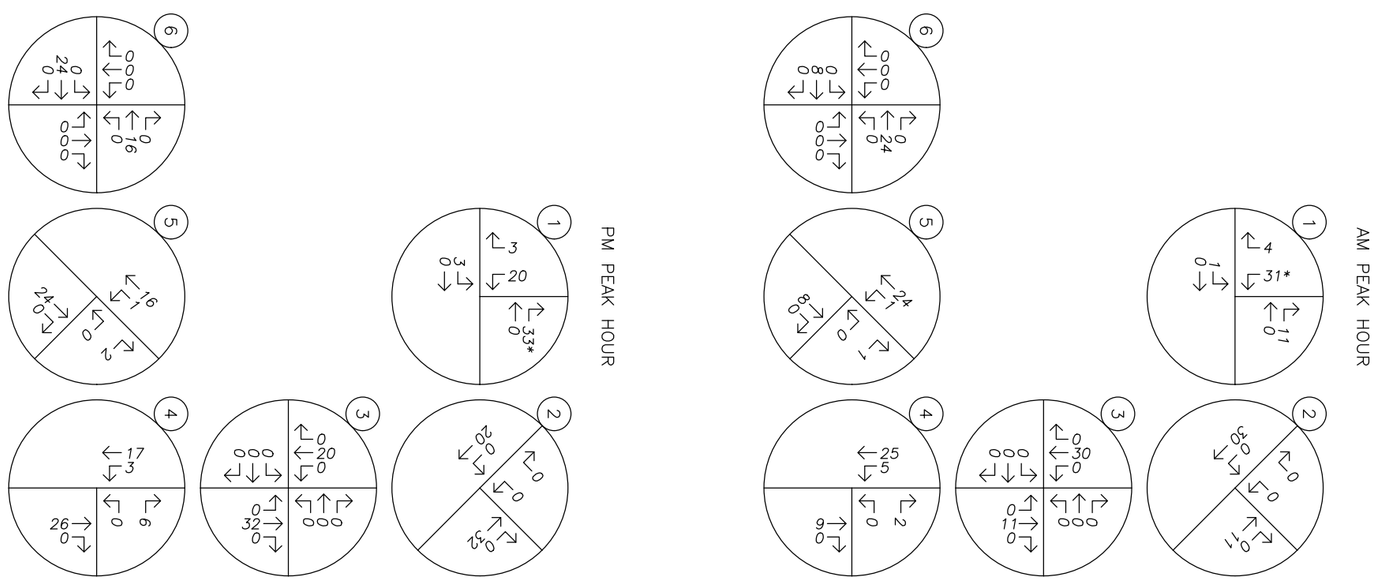
[1] Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.

Trip Distribution

The trip distribution of the proposed development was referenced from the assumed distribution utilized in the *Vineyard Vista Subdivision Transportation Impact Study* (TIS), dated March 6, 2024. The directional distribution percentages of trips to/from the Vineyard Vista Subdivision project were estimated based on the locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and travel patterns at study area intersections. The following trip distribution is projected:

- Approximately 70 percent of site trips will travel to/from the Interstate 5 interchange via NW La Center Road.
- Approximately 15 percent of site trips will travel to/from the east along W 4th Street, east of NW Pacific Highway.
- Approximately 10 percent of site trips will travel to/from the west along NW Pacific Highway, west of the project site.
- Approximately 5 percent of site trips will travel to/from the south along NW Timmen Road, south of NW La Center Road.

The trip distribution and assignment for the site trips generated during the AM and PM peak hours are shown in Figure 3.



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SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips

AM & PM Peak Hours

Figure 3

NW 9th Avenue Subdivision

10/20/2025

Traffic Volumes

2025 Existing Conditions

Traffic counts were conducted at the study intersections on Thursday, August 28, 2025, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Data was used from each intersection's respective AM and PM peak hours.

Figure 4 shows the year 2025 existing traffic volumes at the study intersections during the AM and PM peak hours.

2027 Background Conditions

Volume Growth

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. In order to approximate the future year 2028 traffic volumes at the study intersections, a compounding growth rate of two percent per year for an assumed buildout condition of three years was applied to the year 2025 existing traffic volumes.

In-Process Data

In addition to the traffic volume growth described above, there are several in-process developments that are currently approved/proposed for construction within the site vicinity that are expected to impact nearby study intersections. These in-process developments include the following:

- Asa's View Subdivision (approximately 15% constructed and occupied).
- Juniper Ridge Subdivision
- Larsen Drive Subdivision
- Lockwood Meadows Subdivision (approximately 30% constructed and occupied).
- Stephen Hillside Farm Subdivision (approximately 45% constructed and occupied).
- Valley View Subdivision
- Vineyard Vista Subdivision

The in-process developments are not currently/fully contributing trips to the transportation system but may potentially be by the assumed 2028 buildout year of the site. Additional trips corresponding to each in-process development were added to the existing year traffic volumes in addition to the three years of traffic growth at each of the applicable study intersections. To maintain a conservative analysis of operation at the study intersections, all in-process developments were assumed to be constructed by year 2028. Figure A in the technical appendix shows the in-process development trips at the study intersections during the AM and PM peak hours.

Regarding the transportation analysis prepared for Juniper Ridge Subdivision, the study had assumed all subdivision trips would access the transportation system via W D Avenue instead of NW 9th Avenue. For the purposes of conducting a conservative evaluation of operation at the intersection of NW 9th Avenue at NW Pacific Highway, these trips were rerouted to utilize NW 9th Avenue to access the greater transportation system.

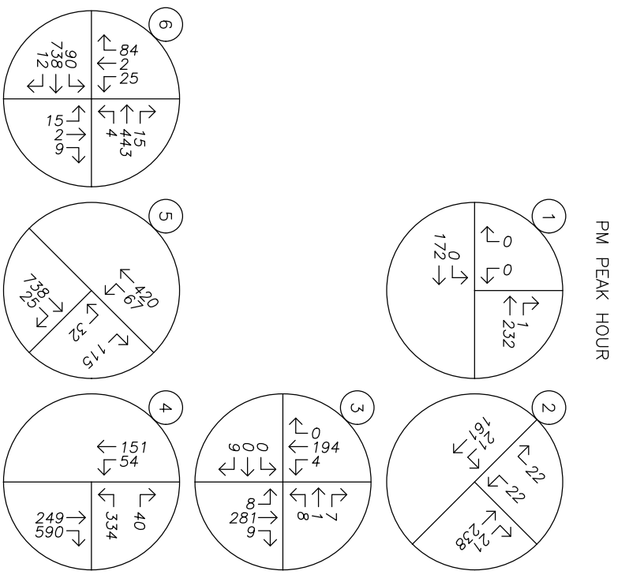
Figure 5 shows the projected year 2028 background traffic volumes at the study intersections during the AM and PM peak hours.

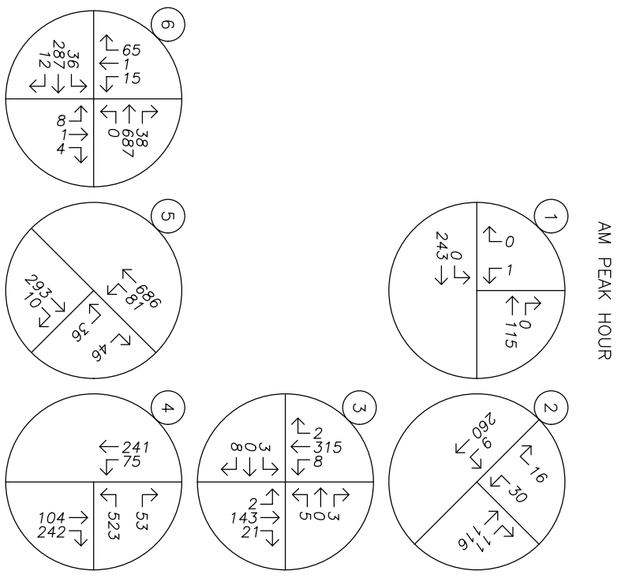
2027 Buildout Conditions

Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2027 background traffic volumes to obtain the expected 2028 site buildout volumes.

In addition to the above, site trips generated by the existing single-family house were rerouted and assigned to the intersection of NW 9th Avenue at NW Pacific Highway in a manner consistent with the trip generation and distribution methodologies described in the *Site Trips* section.

Figure 6 shows the year 2028 buildout traffic volumes at the study intersections during the AM and PM peak hours.





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TRAFFIC VOLUMES

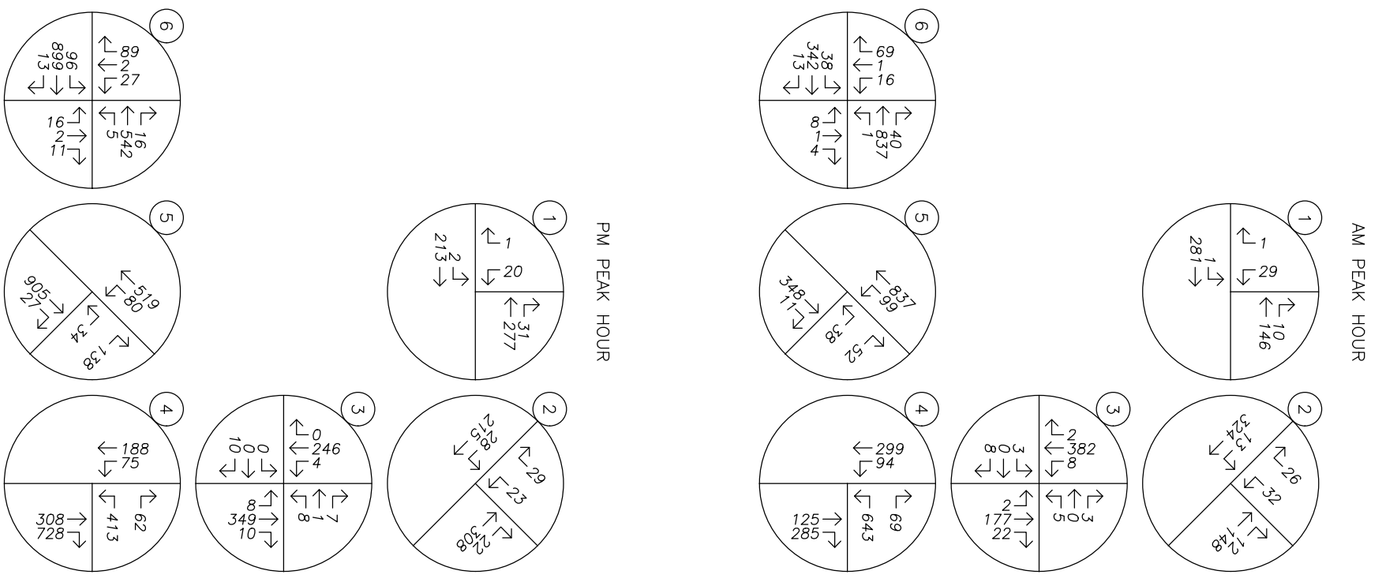
Year 2025 Existing Conditions

AM & PM Peak Hours

Figure 4

NW 9th Avenue Subdivision

10/20/2025



TRAFFIC VOLUMES

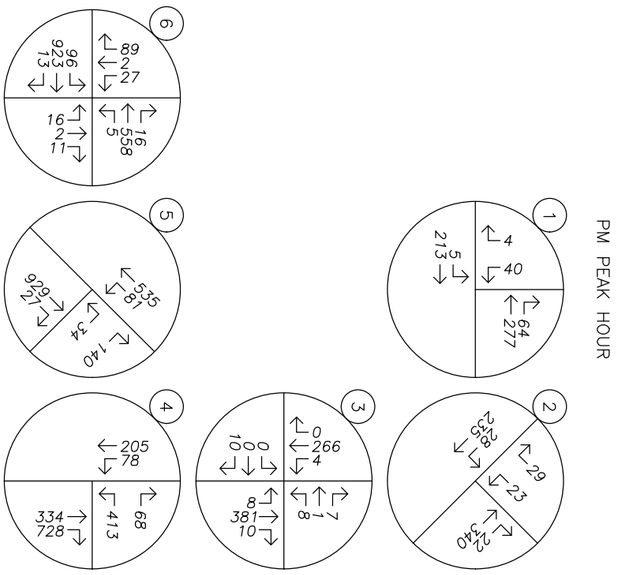
Year 2028 Background Conditions

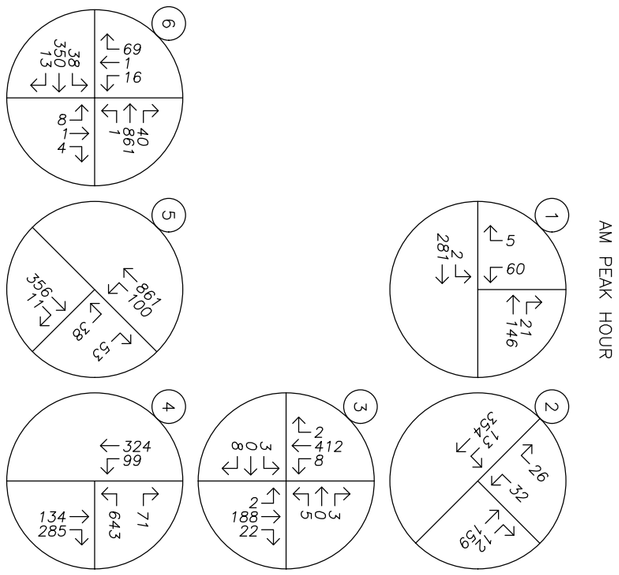
AM & PM Peak Hours

Figure 5

NW 9th Avenue Subdivision

10/20/2025





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TRAFFIC VOLUMES

Year 2028 Buildout Conditions

AM & PM Peak Hours

Figure 6

NW 9th Avenue Subdivision

10/20/2025

Safety Analysis

Crash History Review

Using data obtained from the Washington Department of Transportation (WSDOT) Crash Data and Reporting Branch, a review of the most recent available five years of crash history (January 2020 to December 2024) at the study intersections was performed. The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection.

Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the PM peak hour represents approximately 10 percent of the annual average daily traffic (AADT) at the intersection. Crash rates in excess of 1.00 crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

With regard to crash severity, WSDOT classifies crashes in the following categories:

- *No Apparent Injury* (NA);
- *Possible Injury* (P);
- *Suspected Minor Injury* (SM);
- *Suspected Serious Injury* (SS); and
- *Fatality* or *Fatal Injury*.

Table 4 provides a summary of crash types while Table 5 summarizes crash severities and rates for each of the applicable study intersections. Crash data is included in the technical appendix to this report.

Table 4: Crash Type Summary

No.	Intersection	Crash Type							Total
		Rear End	Turn	Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
1	NW 9th Avenue at NW Pacific Highway	0	0	0	0	0	0	0	0
2	W 10th Street at NW Pacific Highway	0	0	0	0	0	0	0	0
3	W 5th Street at NW Pacific Highway	0	1	0	0	0	0	0	1
4	W 4th Street at NW Pacific Highway	0	1	0	0	0	0	0	1
5	NW Timmen Road at NW La Center Road	1	1	0	1	0	0	0	3

Table 5: Crash Severity and Rate Summary

No.	Intersection	Crash Severity					Total Crashes	AADT	Crash Rate
		NA	P	SM	SS	Unknown			
1	NW 9th Avenue at NW Pacific Highway	0	0	0	0	0	0	4,050	0.00
2	W 10th Street at NW Pacific Highway	0	0	0	0	0	0	4,850	0.00
3	W 5th Street at NW Pacific Highway	1	0	0	0	0	1	5,210	0.11
4	W 4th Street at NW Pacific Highway	1	0	0	0	0	1	14,180	0.04
5	NW Timmen Road at NW La Center Road	0	0	3	0	0	3	13,970	0.12

Based on a review of available crash data, no significant trends or crash patterns were identified at the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.

Sight Distance Evaluation

Sight Distance Definitions and Methodologies

Intersection and stopping sight distances were measured at the intersection of NW 9th Avenue at NW Pacific Highway (i.e., the proposed site access intersection). Sight distances were measured and evaluated at the intersection in accordance with standards established in *A Policy of Geometric Design of Highways and Streets*[2].

Intersection sight distance is an operational measure, intended to provide sufficient line of sight along the major street so that a driver can enter the roadway without impeding the flow of through traffic. For intersection sight distance, the driver's eye is assumed to be 14.5 feet from the near edge of the nearest travel lane (or traveled way) of the intersecting street and at a height of 3.5 feet above the minor-street approach pavement. The oncoming vehicle driver's eye height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement.

Stopping sight distance is considered the minimum requirement to ensure safe operation of an intersection with respect to sight lines. This distance allows the driver of a vehicle traveling on the major street to react to a turning vehicle or other object in the roadway and, if necessary, come to a complete stop to avoid a collision. To ensure safe operation, the extent of available intersection sight distance must at least equal the minimum required stopping sight distance. For stopping sight distance, the major street approaching driver's eye height is 3.5 feet while an object height of 2 feet above the street pavement is used.

[2] American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 7th Edition, 2018.

Based on a posted speed limit of 35 mph along NW Pacific Highway, the following minimum intersection and stopping sight distances are applicable to the proposed site access location:

- Intersection Sight Distance: 335 feet to the east to accommodate site egress right-turn vehicles.
- Intersection Sight Distance: 390 feet to the west to accommodate site egress left-turn vehicles.
- Stopping Sight Distance: 265 feet to the east, considering the major-street westbound approach grade is approximately 4.3 percent downhill over an approximate 300-foot distance from the proposed access.
- Stopping Sight Distance: 235 feet to the west, considering the major-street eastbound approach grade is approximately 4.6 percent uphill over an approximate 300-foot distance from the proposed access.

Sight Distance Measurements

Field measurements were conducted at the intersection of NW 9th Avenue at NW Pacific Highway on Sunday, September 28, 2025. Assuming any obstructing on-site foliage is either removed or properly maintained, sight distance was measured to be in excess of 350 feet to the east of the intersection. To the west of the intersection, sight distance was measured to be approximately 270 feet, limited by a fence on a nearby residential property addressed at 33916 NW 9th Avenue (assessor parcel 258630000). At the time measurements were conducted, it appeared that the fence may have been recently constructed in 2024 or 2025, noting that Streetview and aerial imagery from Google Earth/Maps does not depict the fence having been installed prior to July 2024. Although the minimum recommended intersection sight distance standard of 390 feet to the west of NW 9th Avenue is currently not met, the minimum required stopping sight distance of 235 feet is available to safely accommodate southbound left-turning vehicles at the intersection. If the City of La Center requests that at least minimum intersection sight distance standards be met to the west of the intersection, the applicant with coordinate with the adjacent property owner regarding the fence.

Analysis Summary

Based on the sight distance analysis and provided any obstructing on-site foliage is either removed or properly maintained following redevelopment of the site, adequate intersection and stopping sight distances can be made available to the east of the intersection of NW 9th Avenue at NW Pacific Highway to allow for safe and efficient operation. To the west of the intersection, adequate stopping sight distance is available to allow safe operation. If the City of La Center requests that at least minimum intersection sight distance standards be met to the west of the intersection, the applicant with coordinate with the adjacent property owner regarding the fence. No other sight distance related mitigation is necessary or recommended.

Warrant Analysis

Left-turn lane and preliminary traffic signal warrants were examined for the study intersections where such treatments would be applicable.

Left-Turn Lane Warrants

A left-turn refuge lane is primarily a safety consideration for the major street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants used were developed from the *National Cooperative Highway Research Project's* (NCHRP) *Report 457*. Turn lane warrants were evaluated based on the number of advancing and opposing vehicles as well as the number of turning vehicles, the travel speed, and the number of through lanes.

Warrants were evaluated at study intersections where left-turn lanes are not currently provided or planned for installation. Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NW Pacific Highway. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed development.

Preliminary Traffic Signal Warrants

Preliminary traffic signal warrants were examined for the unsignalized study intersections of NW Timmen Road at NW La Center Road and NW Paradise Park Road at NW La Center Road, where both intersections were previously identified by City of La Center staff as operating in excess of acceptable mobility standards. The analysis was conducted utilizing the projected 2028 site buildout year volumes, where it was assumed the PM peak hour would reflect approximately ten percent of an intersection's average daily traffic (ADT) and the 8th highest hour volumes at the intersection would be approximately 5.65 percent of the ADT.

Based on the preliminary analysis following a review of Warrant 1 in the *Manual on Uniform Traffic Control Devices*, or MUTCD, traffic signal warrants are not projected to be met at the intersection of NW Paradise Park Road at NW La Center Road under year 2028 site buildout conditions. Signal warrants were found to be met at the intersection of NW Timmen Road at NW La Center Road. The City of La Center is planning to reconstruct the intersection as a roundabout, where the City is currently pursuing State and Federal funding for this improvement project. Therefore, no further mitigation on behalf of the proposed development application is necessary.

Operational Analysis

Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM)[3]. Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

Performance Standards

Per the *La Center Transportation Capital Facilities Plan* (2018), the following minimum operation standards apply at intersections under City jurisdiction:

- Signalized intersections, as a whole, are required to operate at LOS D or better with a v/c ratio of 0.95 or less during the highest one-hour period of an average weekday.
- Unsignalized intersections, including roundabouts, are required to operate at LOS E or better for all movements during the highest one-hour period of an average weekday.

Delay & Capacity Analysis

The study intersections were analyzed utilizing methodologies and parameters detailed in the *WSDOT Synchro & SimTraffic Protocol* document. Of specific note, the following peak hour factors (PHF) were incorporated in the analysis models:

- For existing year conditions, a PHF of no less than 0.80 was applied to each study intersection.
- For future year conditions, for study intersections where count data recorded a PHF of 0.90 or greater, the PHF was increased to 1.0.
- In order to better avoid showing a future year scenario with lower delays than under existing conditions, for study intersections where count data recorded a PHF of 0.89 or less the PHF was increased to 0.92.

In accordance with the *WSDOT Synchro & SimTraffic Protocol* document, the roundabout intersection of W 4th Street at NW Pacific Highway was modeled and analyzed utilizing Sidra software. Parameters used to model the intersection were based on methodologies presented in the *WSDOT Sidra Policy Settings* document.

The LOS, delay, and v/c results of the capacity analysis are shown in Table 6 for the AM and PM peak hours. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

[3] Transportation Research Board, *Highway Capacity Manual 7th Edition*, 2022.

Table 6: Intersection Capacity Analysis Summary

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. NW 9th Avenue at NW Pacific Highway						
2025 Existing Conditions	B	11	<0.01	A	0	0.00
2028 Background Conditions	B	12	0.06	B	13	0.05
2028 Buildout Conditions	B	12	0.12	B	13	0.10
2. W 10th Street at NW Pacific Highway						
2025 Existing Conditions	B	12	<0.01	B	12	0.05
2028 Background Conditions	B	13	0.07	B	14	0.06
2028 Buildout Conditions	B	14	0.08	B	15	0.06
3. W 5th Street at NW Pacific Highway						
2025 Existing Conditions	B	12	0.02	B	12	0.04
2028 Background Conditions	B	13	0.02	B	13	0.04
2028 Buildout Conditions	B	14	0.02	B	14	0.04
4. W 4th Street at NW Pacific Highway						
2025 Existing Conditions	A	9	0.56	A	6	0.40
2028 Background Conditions	A	10	0.62	A	7	0.46
2028 Buildout Conditions	A	10	0.63	A	7	0.46
5. NW Timmen Road at NW La Center Road						
2025 Existing Conditions	E	42	0.30	E	42	0.34
2028 Background Conditions	**F**	65	0.42	**F**	56	0.42
2028 Buildout Conditions	**F**	71	0.44	**F**	61	0.44

Table Notes: ***BOLDED*** *text indicates intersection operation above agency standards.*

* *Delay increased to match previous analysis scenario.*

Based on the results of the operational analysis, the intersection of NW Timmen Road at NW La Center Road is projected to exceed City of La Center mobility standards. The City of La Center is planning to reconstruct the intersection as a roundabout, where the City is currently pursuing State and Federal funding for this improvement project. Therefore, no further mitigation on behalf of the proposed development application is necessary.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2028 buildout year of the site. Accordingly, no operational mitigation is necessary or recommended at these study intersections.

Conclusions

No significant trends or crash patterns were identified at the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.

Provided any obstructing on-site foliage is either removed or properly maintained following redevelopment of the site, adequate intersection and stopping sight distances can be made available to the east of the intersection of NW 9th Avenue at NW Pacific Highway to allow for safe and efficient operation. To the west of the intersection, adequate stopping sight distance is available to allow safe operation. If the City of La Center requests that at least minimum intersection sight distance standards be met to the west of the intersection, the applicant with coordinate with the adjacent property owner regarding the fence. No other sight distance related mitigation is necessary or recommended.

Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NW Pacific Highway. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed development.

Traffic signal warrants are not projected to be met at the intersection of NW Paradise Park Road at NW La Center Road, under year 2028 site buildout conditions. Signal warrants were found to be met at the intersection of NW Timmen Road at NW La Center Road. The City of La Center is planning to reconstruct the intersection as a roundabout, where the City is currently pursuing State and Federal funding for this improvement project. Therefore, no further mitigation on behalf of the proposed development application is necessary.

The intersection of NW Timmen Road at NW La Center Road is projected to exceed City of La Center mobility standards. The City of La Center is planning to reconstruct the intersection as a roundabout, where the City is currently pursuing State and Federal funding for this improvement project. Therefore, no further mitigation on behalf of the proposed development application is necessary.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2028 buildout year of the site. Accordingly, no operational mitigation is necessary or recommended at these study intersections.

Appendix A – Scoping Materials

Scoping Memorandum

Scoping Email Response

1130 SW Morrison St., Suite 318
Portland, OR 97205
503.248.0313
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Memorandum

To: **Anthony Cooper, City of La Center**

From: **Daniel Stumpf, PE**

Date: **August 14, 2025**

Subject: **NW 9th Avenue Subdivision & Rezone (2025-013-PAC)**
Transportation Study Scoping Memorandum.

Introduction

This memorandum details a proposed scope of work for a Transportation Impact Study (TIS) related to the *NW 9th Avenue Subdivision & Rezone (2025-013-PAC)* project. The project site is located at two properties (assessor parcels 258921000 and 258902000) at 33901 NW Pacific Highway in La Center, Washington. The proposal will include rezoning the properties from *Low Density Residential District* (LDR-7.5) to *Medium Density Residential District* (MDR-16), and subsequently developing 81 residential lots which consist of the following:

- 46 single-family attached homes (11 duplex and 6 fourplex structures).
- 35 single-family detached homes.

As part of the development application, one existing single-family house and several ancillary structures will be removed. Access to the site will be provided via the intersection of NW 9th Avenue at NW Pacific Highway along the west side of the project site.

Trip Generation

To estimate the number of trips that will be generated by the proposed development, trip rates from the *Trip Generation Manual, 11th Edition*.[1] were used. Data from the following land use codes were used to estimate existing and proposed site trip generation:

- 210, *Single-Family Detached Housing*, based on the number of dwelling units.
- 215, *Single-Family Attached Housing*, based on the number of dwellings units.

Based on the above methodologies and assumptions, the trip generation calculations show that the proposed development is projected to generate 46 net new AM peak hour trips, 58 net new PM peak hour trips, and 652 net new average weekday trips. The trip generation estimates are summarized in Table 1. Detailed trip generation calculations are included as an attachment to this memorandum.

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[1] Institute of Transportation Engineers (ITE), *Trip Generation Manual, 11th Edition*, 2021.

Table 1: Trip Generation Summary

ITE Land Use Code		Size	AM Peak Hour			PM Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing Conditions									
210	Single-Family Detached Housing	1 units	0	1	1	1	0	1	10
Proposed Conditions									
210	Single-Family Detached Housing	35 units	6	19	25	21	12	33	330
215	Single-Family Attached Housing	46 units	6	16	22	15	11	26	332
Total Trips			12	35	47	36	23	59	662
Net Change In Site Trip Generation									
Net New Trips			**12**	**34**	**46**	**35**	**23**	**58**	**652**

Trip Distribution

The trip distribution of the proposed development was referenced from the assumed distribution utilized in the *Vineyard Vista Subdivision Transportation Impact Study* (TIS), dated March 6, 2024. The directional distribution percentages of trips to/from the Vineyard Vista Subdivision project were estimated based on the locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and travel patterns at study area intersections. The following trip distribution is projected:

- Approximately 70 percent of site trips will travel to/from the Interstate 5 interchange via NW La Center Road.
- Approximately 10 percent of site trips will travel to/from the west along NW Pacific Highway, west of the project site.
- Approximately 5 percent of site trips will travel to/from the north along NE Highland Avenue, north of E 4th Street.
- Approximately 5 percent of site trips will travel to/from the east along NE Lockwood Creek Road, east of NE Highland Avenue.
- Approximately 5 percent of site trips will travel to/from the south along NW Timmen Road, south of NW La Center Road.
- Approximately 5 percent of site trips will travel to/from locales within the immediate vicinity, specifically La Center Elementary School and downtown La Center.

Figure A in the attachments depicts site trip assignment at the nearby vicinity intersections during the AM and PM peak hours.

Proposed Study Intersections

Full Capacity and Safety Analysis

Based on the projected trips generated, the preliminary trip distribution, and the anticipated impacts to the transportation system, the following intersections are suggested for analysis (refer to Figure A for the numbering convention of listed intersections):

2. Site Access at NW Pacific Highway – 46 AM and 58 PM peak hour trip impact.
3. W 10th Street at NW Pacific Highway – 41 AM and 52 PM peak hour trip impact.
4. W 5th Street at NW Pacific Highway – 41 AM and 52 PM peak hour trip impact.
5. W 4th Street at NW Pacific Highway – 41 AM and 52 PM peak hour trip impact.

Limited Analysis (Traffic Signal Warrants Only)

Per the *Valley View Subdivision TIS*, dated September 2022, the following intersection is projected to operate at LOS F under existing conditions and 2024 conditions.

10. NW Paradise Park Road at NW LaCenter Road – 32 AM and 40 PM peak hour trip impact.

Mitigation has been identified at the intersection (i.e. installation of a roundabout); however, this project will not be implemented until traffic signal warrants are met. Since it is known that the intersection currently operates at LOS F, it is recommended that only a preliminary review of traffic signal warrants only be conducted at this intersection.

No Analysis Recommended

The following higher classification intersections are recommended from removal from requiring study, with explanation for removal provided:

1. NW Bolen Street at NW Pacific Highway – 5 AM and 6 PM peak hour trips impact.
    a. The proposed development is expected to add fewer than 10 peak hour trips to the intersection. Accordingly, limited impacts from the proposed development to the intersection are expected to occur.
    b. The proposed development is expected to only add through traffic along NW Pacific Highway and no minor-street turning vehicles. Therefore, low impacts to the capacity/delays experienced at the intersection are expected to occur.
6. E/W 4th Street at Aspen Avenue – 7 AM and 9 PM peak hour trip impact.
    a. The proposed development is expected to add fewer than 10 peak hour trips to the intersection. Accordingly, limited impacts from the proposed development to the intersection are expected to occur.
    b. The proposed development is expected to only add through traffic along E/W 4th Street and no minor-street turning vehicles. Therefore, low impacts to the capacity/delays experienced at the intersection are expected to occur.

7. E 4th Street at E Stonecreek Drive – 7 AM and 9 PM peak hour trip impact.
    a. The proposed development is expected to add fewer than 10 peak hour trips to the intersection. Accordingly, limited impacts from the proposed development to the intersection are expected to occur.
    b. The proposed development is expected to only add through traffic along E/W 4th Street and no minor-street turning vehicles. Therefore, low impacts to the capacity/delays experienced at the intersection are expected to occur.
    c. Per the *Valley View Subdivision TIS*, the intersection was estimated to operate at LOS B with average control delays of approximately 13-14 seconds during the AM and PM peak hours under 2024 conditions. Note this assumes planned improvements at the intersection, which consist of widening E 4th Street to a three-lane cross-section, will be constructed.
8. E 4th Street at NE Highland Avenue – 4 AM and 6 PM peak hour trip impact.
    a. The proposed development is expected to add fewer than 10 peak hour trips to the intersection. Accordingly, limited impacts from the proposed development to the intersection are expected to occur.
    b. Per the *Valley View Subdivision TIS*, the intersection was estimated to operate at LOS B with average control delays of approximately 10 seconds during the AM and PM peak hours under 2024 conditions. Note this assumes planned improvements at the intersection, which consist of installing a traffic signal, will be constructed.
9. NW Timmen Road at NW LaCenter Road – 34 AM and 43 PM peak hour trip impact.
    a. Per the *Valley View Subdivision TIS*, the intersection was found to operate at LOS F by year 2024 conditions. The City has indicated that the intersection will be reconstructed as a roundabout (note traffic signal warrants were found to be met). The TIS indicated that once the roundabout is installed, the intersection is projected to operate at LOS B with average control delays of approximately 12-14 seconds during the AM and PM peak hours under 2024 conditions. The intersection is expected to have more than sufficient capacity to accommodate impacts from the proposed development by an assumed 2028 site buildout year.

Other Considerations

In-Process Development

Are there are any in-process development projects that should be incorporated into the study? If yes, data will be retrieved from the City of La Center's website (Recent Land Use - The City of La Center, Washington) to find the applicable traffic studies.

Lancaster Mobley is aware that in-process data from the following projects may need to be incorporated in the TIS to project future traffic volumes at study intersections:

- Asa's View Subdivision
- Lockwood Meadows Subdivision
- Stephen Hillside Farm Subdivision
- Valley View Subdivision
- Vineyard Vista Subdivision
- Juniper Ridge Subdivision

Zone Change

Is there any additional transportation related analysis required specifically for the zone change aspect of the proposed development application?

Conclusions

Please confirm the following for preparation of the NW 9th Avenue Subdivision TIS:

- Is the preliminary trip generation and distribution analysis in the scoping memorandum acceptable?
- Are the following suggested study intersections acceptable?

    2. Site Access at NW Pacific Highway
    3. W 10th Street at NW Pacific Highway
    4. W 5th Street at NW Pacific Highway
    5. W 4th Street at NW Pacific Highway
    10. NW Paradise Park Road at NW LaCenter Road (Limited to a preliminary review of traffic signal warrants)

    If not, what additional intersections should be included as part of the TIS?

- Are there are any in-process development projects that should be incorporated into the study? If yes, data will be retrieved from the City of La Center's website (Recent Land Use - The City of La Center, Washington) to find the applicable traffic studies.
- Is there any additional transportation related analysis required specifically for the zone change aspect of the proposed development application?

If you have any questions regarding the preparation of this scoping memorandum, please don't hesitate to contact us.

SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips

AM & PM Peak Hours

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Figure A

NW 9th Avenue Subdivision

8/14/2025

LEGEND

XX% PERCENT OF PROJECT TRIPS

NET NEW TRIP GENERATION			
	IN	OUT	TOTAL
AM	12	34	46
PM	35	23	58

AM PEAK HOUR

PM PEAK HOUR

No Scale

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Existing Conditions

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	1

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	0	1	1

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	1	0	1

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

Source: Trip Generation Manual, 11th Edition

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Proposed Conditions

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	35

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	6	19	25

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	21	12	33

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	165	165	330

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	166	166	332

Source: Trip Generation Manual, 11th Edition

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Proposed Conditions

Land Use:	Single-Family Attached Housing
Land Use Code:	215
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	46

AM PEAK HOUR

Trip Rate: 0.48

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	6	16	22

PM PEAK HOUR

Trip Rate: 0.57

	Enter	Exit	Total
Directional Split	59%	41%	
Trip Ends	15	11	26

WEEKDAY

Trip Rate: 7.2

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	166	166	332

SATURDAY

Trip Rate: 8.76

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	201	201	402

Source: Trip Generation Manual, 11th Edition

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Daniel Stumpf <daniel@lancastermobley.com>

NW 9th Avenue Subdivision & Rezone (2025-013-PAC) - Traffic Study Scoping

Anthony Cooper <acooper@ci.lacenter.wa.us> Fri, Aug 15, 2025 at 7:39 AM
To: Daniel Stumpf <daniel@lancastermobley.com>
Cc: Angie Merrill <amerrill@ci.lacenter.wa.us>

Daniel:

Thanks for the advanced notice of the assumptions of your traffic study for NW 9th Avenue Subdivision.

See my comments in red below.

From: Daniel Stumpf <daniel@lancastermobley.com>
Sent: Thursday, August 14, 2025 3:32 PM
To: Anthony Cooper <acooper@ci.lacenter.wa.us>
Subject: NW 9th Avenue Subdivision & Rezone (2025-013-PAC) - Traffic Study Scoping

Good afternoon Tony,

I'm working on preparing a traffic study for the NW 9th Avenue Subdivision & Rezone project (2025-013-PAC) and was wondering if you could provide me with scoping input for the study.

Attached is a scoping memo for your review. To summarize, I was wondering if you could weigh in on the following:

- Is the preliminary trip generation and distribution analysis in the scoping memorandum acceptable? A trip assignment figure is included at the end of the scoping memo.

Yes. the trip generation assumptions from the ITE manual are reasonable.

- Are the suggested study intersections acceptable? If not, what additional intersections should be included as part of the TIS?

The only other intersections I would include is La Center Road and Timmen Road, and the 4th Street and Pacific Highway roundabout. I know you reference the LOS from the Valley View traffic study, but we should have this intersection analyzed. We are trying to get at least one grant so far for the Timmen Road roundabout, and any newer traffic studies might help.

- Are there any in-process development projects beyond those mentioned in the memo that should be included in the TIS?

The only other subdivision that is being built now is Larsen Subdivision accessed by Pacific Highway.

- Is there any additional transportation analysis that may be necessary to address the zone change element of the application.

No. I think this is enough information about traffic for the zone change. The applicant still needs to go through this zone change process.

Thanks and let me know if you have any questions or need additional info from me.
[Quoted text hidden]

NW 9th Avenue Subdivision Scoping Memo_081425.pdf
645K

Appendix B – Site Plan

Site Plan

STORM

W E PLACE

SAN MH
RIM=160.28
8" PVC (S)=140.95

SEPTIC
TO

Appendix C – Trip Generation and Distribution

Trip Generation Calculations

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Existing Conditions

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	1

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	0	1	1

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	1	0	1

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

Source: Trip Generation Manual, 11th Edition

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Proposed Conditions

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	35

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	6	19	25

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	21	12	33

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	165	165	330

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	166	166	332

Source: Trip Generation Manual, 11th Edition

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Proposed Conditions

Land Use:	Single-Family Attached Housing
Land Use Code:	215
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	46

AM PEAK HOUR

Trip Rate: 0.48

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	6	16	22

PM PEAK HOUR

Trip Rate: 0.57

	Enter	Exit	Total
Directional Split	59%	41%	
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WEEKDAY

Trip Rate: 7.2

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	166	166	332

SATURDAY

Trip Rate: 8.76

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	201	201	402

Source: Trip Generation Manual, 11th Edition

Appendix D – Traffic Volumes

Traffic Counts

In-Process Trips

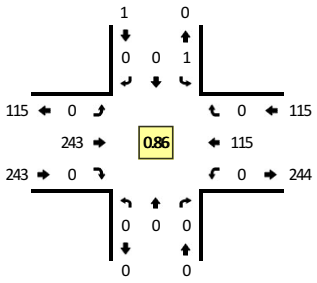
Type of peak hour being reported: Intersection Peak

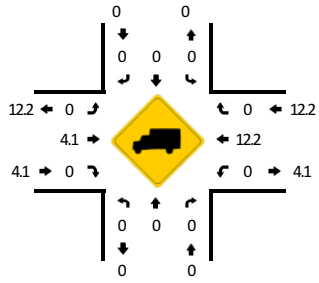
Method for determining peak hour: Total Entering Volume

LOCATION: NW 9th Ave/NW 11th Ct -- NW Pacific Hwy
CITY/STATE: La Center, WA

QC JOB #: 17213101
DATE: Thu, Aug 28 2025

Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:20 AM -- 7:35 AM





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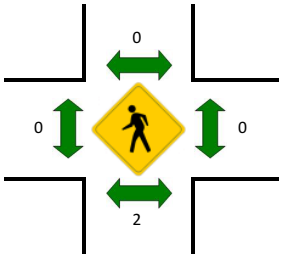
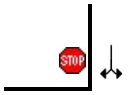
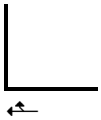
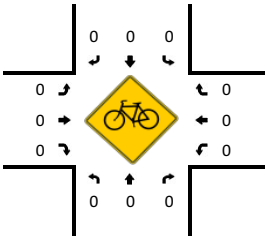
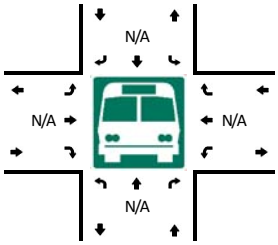
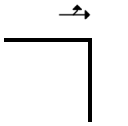


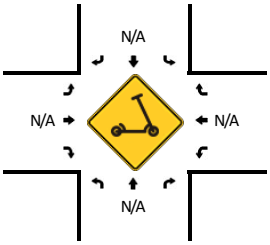












5-Min Count Period Beginning At	NW 9th Ave/NW 11th Ct (Northbound)				NW 9th Ave/NW 11th Ct (Southbound)				NW Pacific Hwy (Eastbound)				NW Pacific Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	9	0	0	29	
7:05 AM	0	0	0	0	1	0	0	0	0	20	0	0	0	5	0	0	26	
7:10 AM	0	0	0	0	0	0	0	0	0	16	0	0	0	6	0	0	22	
7:15 AM	0	0	0	0	0	0	0	0	0	18	0	0	0	9	0	0	27	
7:20 AM	0	0	0	0	0	0	0	0	0	31	0	0	0	5	0	0	36	
7:25 AM	0	0	0	0	0	0	0	0	0	29	0	0	0	7	0	0	36	
7:30 AM	0	0	0	0	0	0	0	0	0	28	0	0	0	4	0	0	32	
7:35 AM	0	0	0	0	0	0	0	0	0	16	0	0	0	11	0	0	27	
7:40 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	19	0	0	34	
7:45 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	16	0	0	31	
7:50 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	8	0	0	28	
7:55 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	16	0	0	31	359
8:00 AM	0	0	0	0	0	0	1	0	0	14	0	0	0	4	0	0	19	349
8:05 AM	0	0	0	0	0	0	0	0	0	13	0	0	0	10	0	0	23	346
8:10 AM	0	0	0	0	0	0	0	0	0	13	0	0	0	13	0	0	26	350
8:15 AM	0	0	0	0	0	0	0	0	0	26	0	0	0	9	0	0	35	358
8:20 AM	0	0	0	0	0	0	0	0	0	30	0	0	0	7	0	0	37	359
8:25 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	6	0	0	26	349
8:30 AM	0	0	0	0	0	0	0	0	0	17	0	0	0	13	0	0	30	347
8:35 AM	0	0	0	0	1	0	0	0	0	13	0	0	0	14	0	0	28	348
8:40 AM	0	0	0	0	0	0	0	0	1	10	0	0	0	13	0	0	24	338
8:45 AM	0	0	0	0	1	0	0	0	0	11	0	0	0	7	1	0	20	327
8:50 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	13	0	0	25	324
8:55 AM	0	0	0	0	0	0	0	0	0	8	0	0	0	4	0	0	12	305

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	352	0	0	0	64	0	0	416
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	4	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

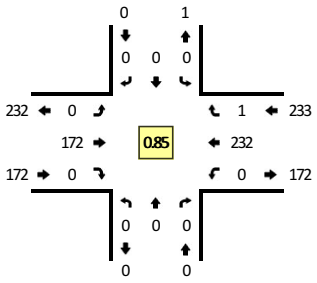
Type of peak hour being reported: Intersection Peak

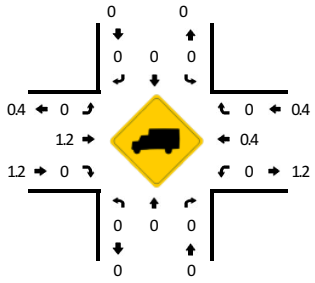
Method for determining peak hour: Total Entering Volume

LOCATION: NW 9th Ave/NW 11th Ct -- NW Pacific Hwy
CITY/STATE: La Center, WA

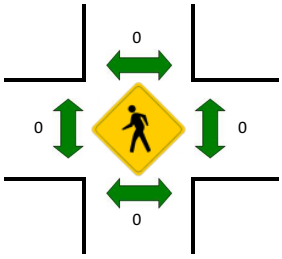
QC JOB #: 17213102
DATE: Thu, Aug 28 2025

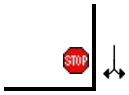
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:35 PM -- 5:50 PM

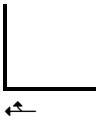


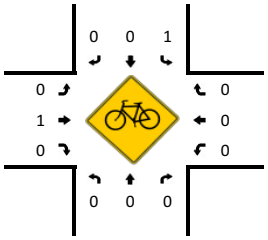


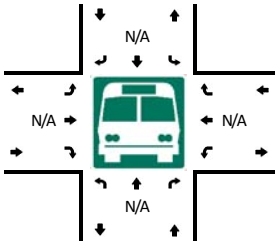
TRUE DATA TO IMPROVE MOBILITY

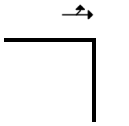


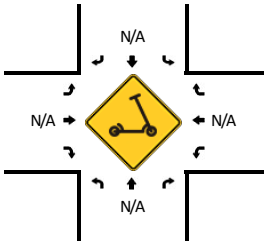












5-Min Count Period Beginning At	NW 9th Ave/NW 11th Ct (Northbound)				NW 9th Ave/NW 11th Ct (Southbound)				NW Pacific Hwy (Eastbound)				NW Pacific Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	15	0	0	24	
4:05 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	12	0	0	21	
4:10 PM	0	0	0	0	0	0	0	0	1	9	0	0	0	26	0	0	36	
4:15 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	20	0	0	26	
4:20 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	16	0	0	31	
4:25 PM	0	0	0	0	1	0	0	0	0	17	0	0	0	12	0	0	30	
4:30 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	14	0	0	24	
4:35 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	28	0	0	43	
4:40 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	19	1	0	29	
4:45 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	20	0	0	37	
4:50 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	23	0	0	36	
4:55 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	17	0	0	25	362
5:00 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	17	0	0	34	372
5:05 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	18	0	0	25	376
5:10 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	26	1	0	38	378
5:15 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	18	0	0	32	384
5:20 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	14	0	0	31	384
5:25 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	17	0	0	31	385
5:30 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	22	0	0	32	393
5:35 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	25	0	0	41	391
5:40 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	15	0	0	32	394
5:45 PM	0	0	0	0	0	0	0	0	0	24	0	0	0	22	0	0	46	403
5:50 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	16	0	0	29	396
5:55 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	22	0	0	34	405

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	228	0	0	0	248	0	0	476
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

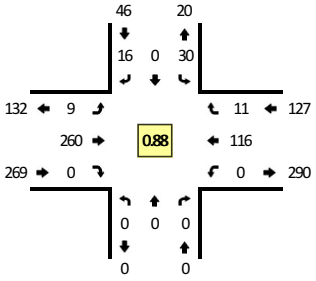
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

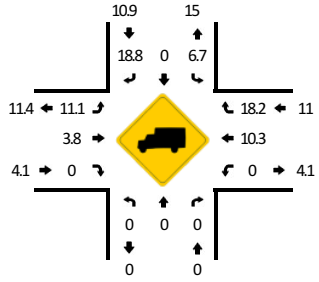
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

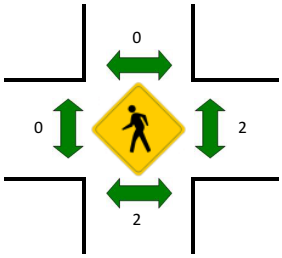
LOCATION: W 10th St -- NW Pacific Hwy
CITY/STATE: La Center, WA

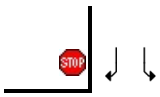
QC JOB #: 17213103
DATE: Thu, Aug 28 2025

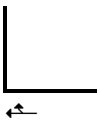
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

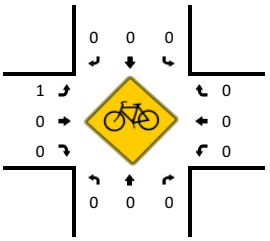


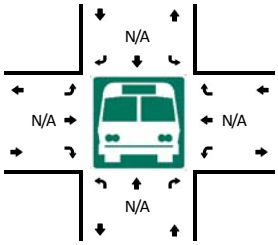


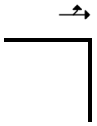


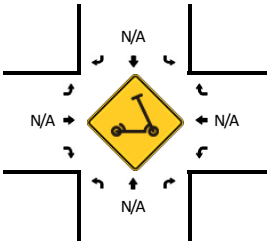












5-Min Count Period Beginning At	W 10th St (Northbound)				W 10th St (Southbound)				NW Pacific Hwy (Eastbound)				NW Pacific Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	1	0	1	20	0	0	0	8	0	0	31	
7:05 AM	0	0	0	0	5	0	1	0	0	20	0	0	0	5	1	0	32	
7:10 AM	0	0	0	0	1	0	1	0	1	18	0	0	0	7	0	0	28	
7:15 AM	0	0	0	0	3	0	1	0	0	18	0	0	0	5	1	0	28	
7:20 AM	0	0	0	0	4	0	1	0	1	31	0	0	0	5	1	0	43	
7:25 AM	0	0	0	0	0	0	2	0	1	34	0	0	0	5	0	0	42	
7:30 AM	0	0	0	0	4	0	0	0	1	29	0	0	0	4	1	0	39	
7:35 AM	0	0	0	0	5	0	1	0	0	24	0	0	0	11	1	0	42	
7:40 AM	0	0	0	0	0	0	3	0	1	18	0	0	0	20	2	0	44	
7:45 AM	0	0	0	0	1	0	1	0	0	18	0	0	0	13	0	0	33	
7:50 AM	0	0	0	0	3	0	2	0	0	21	0	0	0	9	0	0	35	
7:55 AM	0	0	0	0	1	0	1	0	2	15	0	0	0	16	1	0	36	433
8:00 AM	0	0	0	0	1	0	1	0	0	14	0	0	0	2	2	0	20	422
8:05 AM	0	0	0	0	2	0	1	0	3	10	0	0	0	10	2	0	28	418
8:10 AM	0	0	0	0	5	0	3	0	0	15	0	0	0	10	1	0	34	424
8:15 AM	0	0	0	0	5	0	0	0	0	28	0	0	0	8	0	0	41	437
8:20 AM	0	0	0	0	3	0	1	0	1	34	0	0	0	8	1	0	48	442
8:25 AM	0	0	0	0	4	0	2	0	1	20	0	0	0	6	0	0	33	433
8:30 AM	0	0	0	0	5	0	0	0	0	21	0	0	0	13	1	0	40	434
8:35 AM	0	0	0	0	1	0	0	0	0	13	0	0	0	14	0	0	28	420
8:40 AM	0	0	0	0	2	0	2	0	2	12	0	0	0	14	2	0	34	410
8:45 AM	0	0	0	0	2	0	1	0	1	8	0	0	0	10	0	0	22	399
8:50 AM	0	0	0	0	1	0	1	0	3	14	0	0	0	9	0	0	28	392
8:55 AM	0	0	0	0	2	0	0	0	0	15	0	0	0	3	0	0	20	376

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	36	0	16	0	8	284	0	0	0	140	16	0	500
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	12	4		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		4	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

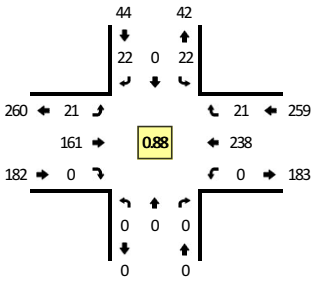
Type of peak hour being reported: Intersection Peak

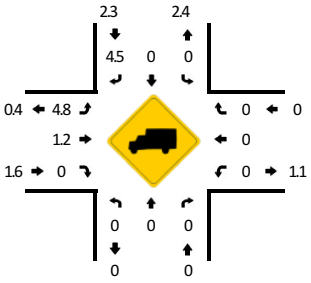
Method for determining peak hour: Total Entering Volume

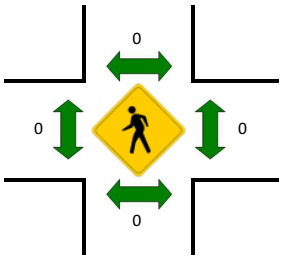
LOCATION: W 10th St -- NW Pacific Hwy
CITY/STATE: La Center, WA

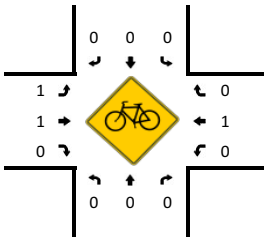
QC JOB #: 17213104
DATE: Thu, Aug 28 2025

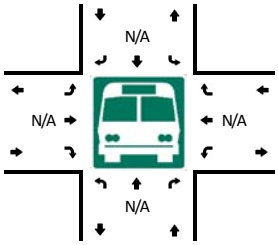
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:35 PM -- 5:50 PM

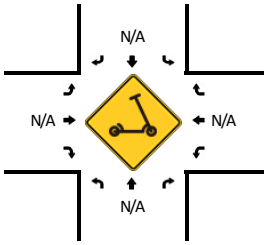












5-Min Count Period Beginning At	W 10th St (Northbound)				W 10th St (Southbound)				NW Pacific Hwy (Eastbound)				NW Pacific Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	2	0	3	0	0	7	0	0	0	18	0	0	30	
4:05 PM	0	0	0	0	2	0	0	0	2	12	0	0	0	10	2	0	28	
4:10 PM	0	0	0	0	1	0	1	0	0	11	0	0	0	27	0	0	40	
4:15 PM	0	0	0	0	2	0	1	0	1	6	0	0	0	22	0	0	32	
4:20 PM	0	0	0	0	2	0	1	0	1	13	0	0	0	15	4	0	36	
4:25 PM	0	0	0	0	3	0	1	0	3	13	0	0	0	13	2	0	35	
4:30 PM	0	0	0	0	0	0	2	0	2	12	0	0	0	15	2	0	33	
4:35 PM	0	0	0	0	3	0	4	0	1	14	0	0	0	24	2	0	48	
4:40 PM	0	0	0	0	1	0	4	0	0	12	0	0	0	20	1	0	38	
4:45 PM	0	0	0	0	3	0	2	0	0	19	0	0	0	21	1	0	46	
4:50 PM	0	0	0	0	2	0	3	0	1	14	0	0	0	18	4	0	42	
4:55 PM	0	0	0	0	1	0	2	0	1	8	0	0	0	13	1	0	26	434
5:00 PM	0	0	0	0	4	0	2	0	2	12	0	0	0	19	4	0	43	447
5:05 PM	0	0	0	0	2	0	2	0	0	8	0	0	0	16	1	0	29	448
5:10 PM	0	0	0	0	2	0	1	0	0	13	0	0	0	30	0	0	46	454
5:15 PM	0	0	0	0	4	0	1	0	1	14	0	0	0	18	1	0	39	461
5:20 PM	0	0	0	0	1	0	1	0	4	17	0	0	0	19	1	0	43	468
5:25 PM	0	0	0	0	1	0	2	0	3	12	0	0	0	16	2	0	36	469
5:30 PM	0	0	0	0	2	0	1	0	1	8	0	0	0	23	4	0	39	475
5:35 PM	0	0	0	0	3	0	2	0	1	15	0	0	0	25	1	0	47	474
5:40 PM	0	0	0	0	1	0	2	0	4	16	0	0	0	14	3	0	40	476
5:45 PM	0	0	0	0	1	0	3	0	4	21	0	0	0	21	1	0	51	481
5:50 PM	0	0	0	0	1	0	3	0	1	11	0	0	0	19	2	0	37	476
5:55 PM	0	0	0	0	0	0	2	0	0	14	0	0	0	18	1	0	35	485

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	20	0	28	0	36	208	0	0	0	240	20	0	552
Heavy Trucks	0	0	0		0	0	4		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		4	0	0		0	4	0		8
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

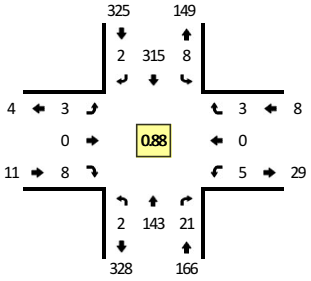
Type of peak hour being reported: Intersection Peak

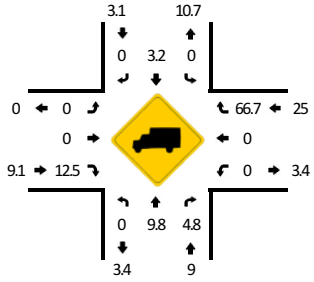
Method for determining peak hour: Total Entering Volume

LOCATION: NW Pacific Hwy -- W 5th St
CITY/STATE: La Center, WA

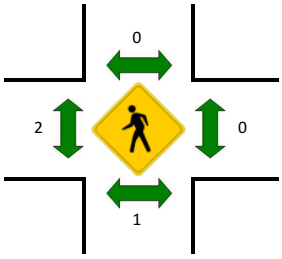
QC JOB #: 17213105
DATE: Thu, Aug 28 2025

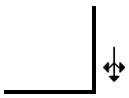
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

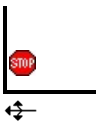


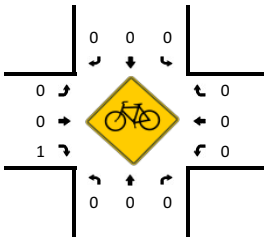


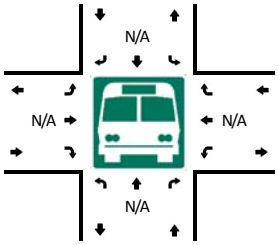
TRUE DATA TO IMPROVE MOBILITY

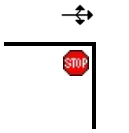


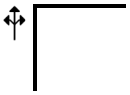


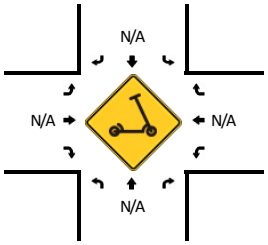












5-Min Count Period Beginning At	NW Pacific Hwy (Northbound)				NW Pacific Hwy (Southbound)				W 5th St (Eastbound)				W 5th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	11	1	0	1	24	0	0	0	0	0	0	1	0	0	0	38	
7:05 AM	1	4	2	0	0	22	0	0	0	0	0	0	1	0	1	0	31	
7:10 AM	0	9	2	0	2	18	0	0	0	0	1	0	1	0	0	0	33	
7:15 AM	0	10	1	0	0	25	0	0	0	0	1	0	0	0	0	0	37	
7:20 AM	0	6	1	0	3	25	1	0	0	0	0	0	0	0	0	0	36	
7:25 AM	1	8	0	0	2	41	1	0	0	0	1	0	0	0	0	0	54	
7:30 AM	0	5	1	0	1	32	0	0	1	0	0	0	0	0	0	0	40	
7:35 AM	0	15	1	0	1	32	0	0	1	0	0	0	1	0	0	0	51	
7:40 AM	1	22	0	0	0	23	0	0	1	0	0	0	2	0	0	0	49	
7:45 AM	0	14	4	0	0	20	0	0	0	0	0	0	1	0	0	0	39	
7:50 AM	0	11	3	0	0	22	0	0	0	0	0	0	0	0	0	0	36	
7:55 AM	0	17	4	0	2	19	0	0	0	0	0	0	0	0	0	0	42	486
8:00 AM	0	8	0	0	0	13	0	0	0	0	0	0	0	0	1	0	22	470
8:05 AM	0	10	0	0	0	19	1	0	0	0	2	0	0	0	1	0	33	472
8:10 AM	0	11	3	0	1	18	0	0	0	0	1	0	0	0	0	0	34	473
8:15 AM	0	10	1	0	0	39	0	0	0	0	3	0	1	0	1	0	55	491
8:20 AM	0	12	4	0	1	37	0	0	0	0	1	0	0	0	0	0	55	510
8:25 AM	0	11	2	0	1	20	1	0	0	0	1	0	2	0	0	0	38	494
8:30 AM	0	11	0	0	3	28	0	0	0	1	1	0	1	1	2	0	48	502
8:35 AM	0	14	1	0	1	16	1	0	0	0	0	0	0	0	0	0	33	484
8:40 AM	1	14	1	0	0	16	0	0	0	0	2	0	1	0	0	0	35	470
8:45 AM	0	12	4	0	0	9	1	0	0	0	1	0	0	0	0	0	27	458
8:50 AM	0	8	5	0	1	15	0	0	0	0	0	0	0	0	0	0	29	451
8:55 AM	0	3	4	0	0	16	0	0	0	0	0	0	0	0	0	0	23	432

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	112	8	0	16	420	4	0	8	0	4	0	4	0	0	0	580
Heavy Trucks	0	24	0		0	12	0		0	0	4		0	0	0		40
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

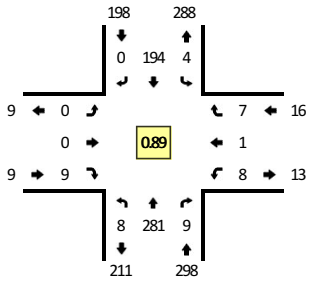
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

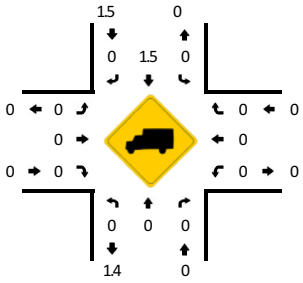
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: NW Pacific Hwy -- W 5th St
CITY/STATE: La Center, WA

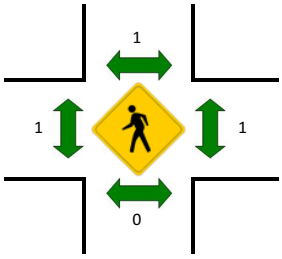
QC JOB #: 17213106
DATE: Thu, Aug 28 2025

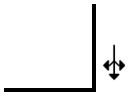
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:35 PM -- 5:50 PM

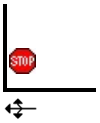


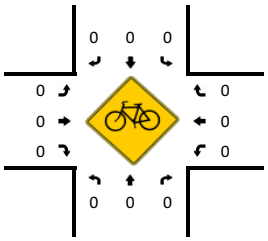


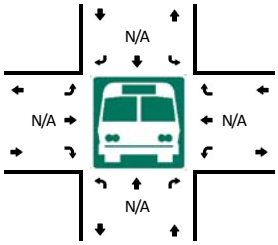
TRUE DATA TO IMPROVE MOBILITY

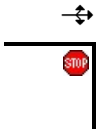


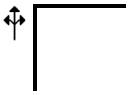


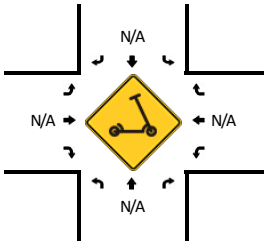












5-Min Count Period Beginning At	NW Pacific Hwy (Northbound)				NW Pacific Hwy (Southbound)				W 5th St (Eastbound)				W 5th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	20	0	0	2	10	1	0	1	0	0	0	2	0	0	0	36	
4:05 PM	3	16	1	0	1	13	0	0	0	0	0	0	5	0	2	0	41	
4:10 PM	1	22	0	0	1	17	0	0	0	0	2	0	1	0	1	0	45	
4:15 PM	0	20	2	0	0	8	0	0	0	1	0	0	0	0	0	0	31	
4:20 PM	0	24	0	0	2	13	0	0	0	0	0	0	3	0	1	0	43	
4:25 PM	1	13	1	0	0	21	0	0	1	0	0	0	0	0	0	0	37	
4:30 PM	2	22	0	0	1	14	0	0	1	0	0	0	1	0	0	0	41	
4:35 PM	1	25	0	0	0	15	0	0	0	0	2	0	0	0	0	0	43	
4:40 PM	1	22	0	0	1	17	0	0	0	0	0	0	1	0	2	0	44	
4:45 PM	1	20	2	0	0	19	0	0	0	0	0	0	0	0	1	0	43	
4:50 PM	1	29	1	0	0	18	0	0	0	0	0	0	2	0	0	0	51	
4:55 PM	1	14	0	0	0	12	0	0	0	0	0	0	0	0	0	0	27	482
5:00 PM	1	25	1	0	0	15	0	0	0	0	1	0	1	0	0	0	44	490
5:05 PM	1	15	1	0	0	12	0	0	0	0	1	0	0	0	2	0	32	481
5:10 PM	0	30	0	0	0	18	0	0	0	0	0	0	1	0	1	0	50	486
5:15 PM	1	21	1	0	0	20	0	0	0	0	1	0	1	0	0	0	45	500
5:20 PM	1	19	0	0	0	16	0	0	0	0	2	0	1	0	0	0	39	496
5:25 PM	0	23	0	0	0	14	0	0	0	0	0	0	0	1	2	0	40	499
5:30 PM	0	30	1	0	2	11	0	0	0	0	1	0	1	0	0	0	46	504
5:35 PM	2	28	2	0	1	17	0	0	0	0	0	0	1	0	2	0	53	514
5:40 PM	0	22	1	0	1	16	0	0	0	0	1	0	0	0	0	0	41	511
5:45 PM	0	25	1	0	0	25	0	0	0	0	2	0	0	0	0	0	53	521
5:50 PM	0	22	0	0	0	13	1	0	0	0	0	0	1	0	0	0	37	507
5:55 PM	0	19	0	0	0	13	0	0	0	0	0	0	0	0	0	0	32	512

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	300	16	0	8	232	0	0	0	0	12	0	4	0	8	0	588
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

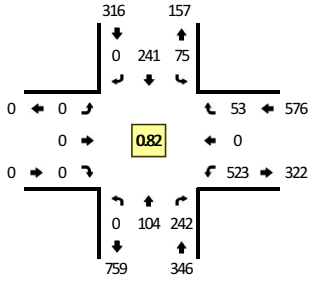
Type of peak hour being reported: Intersection Peak

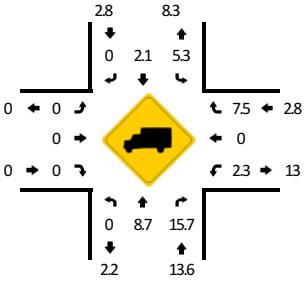
Method for determining peak hour: Total Entering Volume

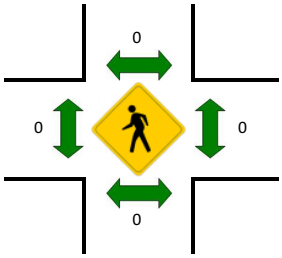
LOCATION: NW Pacific Hwy -- W 4th St
CITY/STATE: La Center, WA

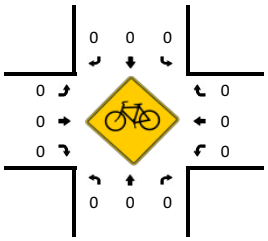
QC JOB #: 17213107
DATE: Thu, Aug 28 2025

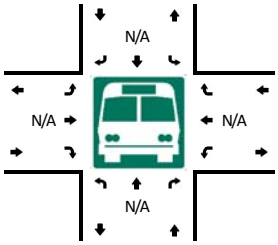
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

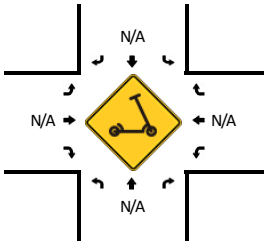












5-Min Count Period Beginning At	NW Pacific Hwy (Northbound)				NW Pacific Hwy (Southbound)				W 4th St (Eastbound)				W 4th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	11	15	0	1	23	0	0	0	0	0	0	32	0	2	1	85	
7:05 AM	0	5	15	0	5	19	0	0	0	0	0	0	36	0	1	0	81	
7:10 AM	0	10	17	0	2	18	0	0	0	0	0	0	32	0	2	0	81	
7:15 AM	0	9	25	0	8	18	0	0	0	0	0	0	39	0	1	0	100	
7:20 AM	0	7	18	0	10	11	0	0	0	0	0	0	40	0	1	0	87	
7:25 AM	0	2	33	0	19	27	0	0	0	0	0	0	51	0	4	3	139	
7:30 AM	0	5	21	0	13	19	0	0	0	0	0	0	56	0	2	1	117	
7:35 AM	0	7	12	0	5	30	0	0	0	0	0	0	57	0	10	0	121	
7:40 AM	0	6	21	0	7	18	0	0	0	0	0	0	55	0	16	0	123	
7:45 AM	0	13	14	0	1	21	0	0	0	0	0	0	47	0	7	0	103	
7:50 AM	0	16	32	0	3	17	0	0	0	0	0	0	39	0	2	0	109	
7:55 AM	0	13	19	0	1	20	0	0	0	0	0	0	34	0	5	0	92	1238
8:00 AM	0	5	24	0	1	10	0	0	0	0	0	0	35	0	2	0	77	1230
8:05 AM	0	9	16	0	1	21	0	0	0	0	0	0	29	0	3	0	79	1228
8:10 AM	0	9	27	0	1	16	0	1	0	0	0	0	28	0	3	0	85	1232
8:15 AM	0	7	16	0	13	31	0	0	0	0	0	0	19	0	2	0	88	1220
8:20 AM	0	16	16	0	20	16	0	0	0	0	0	0	18	0	3	1	90	1223
8:25 AM	0	6	25	0	7	14	0	0	0	0	0	0	33	0	6	0	91	1175
8:30 AM	0	6	24	0	18	18	0	0	0	0	0	0	45	0	3	0	114	1172
8:35 AM	0	6	23	0	4	12	0	0	0	0	0	0	30	0	10	0	85	1136
8:40 AM	0	12	17	0	7	12	0	0	0	0	0	0	65	0	3	0	116	1129
8:45 AM	0	13	16	0	3	7	0	0	0	0	0	0	45	0	4	0	88	1114
8:50 AM	0	10	36	0	3	10	0	0	0	0	0	0	36	0	3	0	98	1103
8:55 AM	0	6	25	0	2	14	0	0	0	0	0	0	37	0	3	0	87	1098

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	56	264	0	148	304	0	0	0	0	0	0	656	0	64	16	1508
Heavy Trucks	0	4	36		12	8	0		0	0	0		4	0	0		64
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

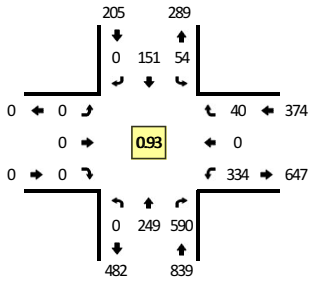
Type of peak hour being reported: Intersection Peak

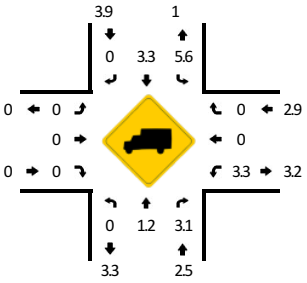
Method for determining peak hour: Total Entering Volume

LOCATION: NW Pacific Hwy -- W 4th St
CITY/STATE: La Center, WA

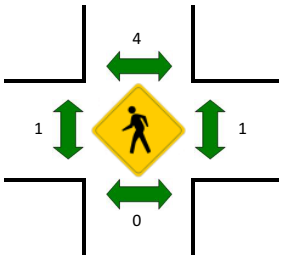
QC JOB #: 17213108
DATE: Thu, Aug 28 2025

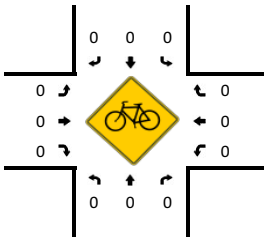
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

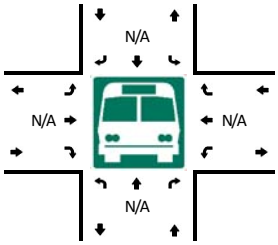


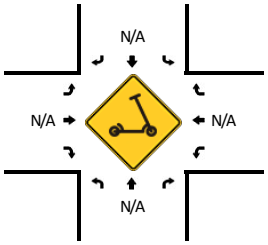


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	NW Pacific Hwy (Northbound)				NW Pacific Hwy (Southbound)				W 4th St (Eastbound)				W 4th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	15	44	0	0	12	0	0	0	0	0	0	24	0	6	0	101	
4:05 PM	0	16	35	0	5	13	0	0	0	0	0	0	39	0	4	0	112	
4:10 PM	0	18	54	0	2	18	0	0	0	0	0	0	32	0	5	0	129	
4:15 PM	0	21	40	0	1	6	0	0	0	0	0	0	29	0	1	0	98	
4:20 PM	0	21	40	0	1	15	0	0	0	0	0	0	34	0	3	0	114	
4:25 PM	0	12	47	0	2	20	0	0	0	0	0	0	31	0	5	0	117	
4:30 PM	0	20	48	0	5	10	0	0	0	0	0	0	34	0	4	0	121	
4:35 PM	0	26	52	0	3	14	0	0	0	0	0	0	37	0	1	2	135	
4:40 PM	0	19	50	0	3	15	0	0	0	0	0	0	29	0	3	0	119	
4:45 PM	0	18	65	0	2	16	0	0	0	0	0	0	22	0	4	0	127	
4:50 PM	0	29	35	0	9	12	0	0	0	0	0	0	23	0	2	0	110	
4:55 PM	0	16	43	0	2	9	0	0	0	0	0	0	24	0	2	0	96	1379
5:00 PM	0	16	42	0	5	15	0	0	0	0	0	0	31	0	6	0	115	1393
5:05 PM	0	18	48	0	6	7	0	0	0	0	0	0	22	0	3	1	105	1386
5:10 PM	0	22	42	0	4	14	0	0	0	0	0	0	27	0	3	0	112	1369
5:15 PM	0	22	52	0	7	14	0	0	0	0	0	0	26	0	3	0	124	1395
5:20 PM	0	14	53	0	7	12	0	0	0	0	0	0	31	0	6	0	123	1404
5:25 PM	0	23	59	0	4	12	0	0	0	0	0	0	25	0	1	0	124	1411
5:30 PM	0	26	49	0	2	11	0	0	0	0	0	0	34	0	6	0	128	1418
5:35 PM	0	27	49	0	3	14	0	0	0	0	0	0	32	0	4	0	129	1412
5:40 PM	0	21	44	0	4	13	0	0	0	0	0	0	31	0	3	0	116	1409
5:45 PM	0	22	49	0	14	10	0	0	0	0	0	0	27	0	1	0	123	1405
5:50 PM	0	17	45	0	5	8	0	0	0	0	0	0	24	0	4	0	103	1398
5:55 PM	0	14	38	0	5	7	0	0	0	0	0	0	25	0	4	0	93	1395

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	252	668	0	32	180	0	0	0	0	0	0	352	0	32	8	1524
Heavy Trucks	0	4	32		0	20	0		0	0	0		16	0	0		72
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:42 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

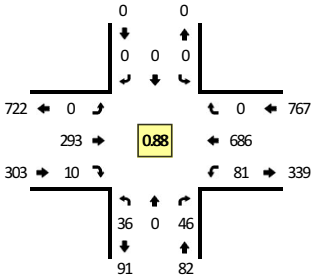
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

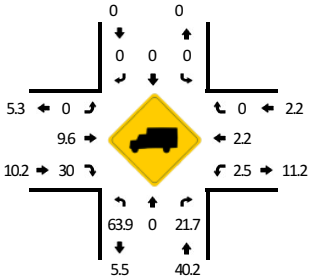
LOCATION: NW Timmen Rd -- NW la Center Rd
CITY/STATE: La Center, WA

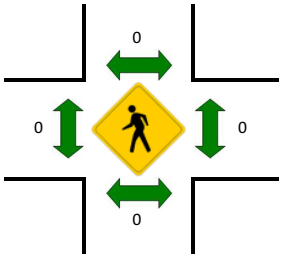
QC JOB #: 17213109
DATE: Thu, Aug 28 2025

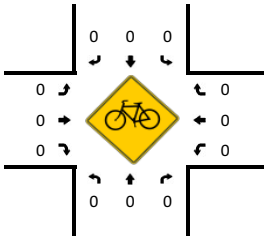
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

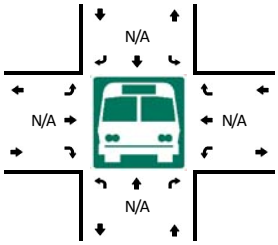


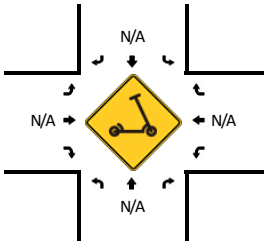
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	NW Timmen Rd (Northbound)				NW Timmen Rd (Southbound)				NW la Center Rd (Eastbound)				NW la Center Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	0	2	0	0	0	0	0	0	26	0	0	6	52	0	0	89	
7:05 AM	3	0	3	0	0	0	0	0	0	15	3	0	7	56	0	0	87	
7:10 AM	2	0	3	0	0	0	0	0	0	22	0	0	6	38	0	0	71	
7:15 AM	3	0	5	0	0	0	0	0	0	22	2	0	4	55	0	0	91	
7:20 AM	2	0	5	0	0	0	0	0	0	25	0	0	4	41	0	0	77	
7:25 AM	3	0	5	0	0	0	0	0	0	25	0	0	8	69	0	0	110	
7:30 AM	3	0	2	0	0	0	0	0	0	26	0	0	7	74	0	0	112	
7:35 AM	0	0	2	0	0	0	0	0	0	23	0	0	10	71	0	0	106	
7:40 AM	6	0	3	0	0	0	0	0	0	18	1	0	7	67	0	0	102	
7:45 AM	5	0	3	0	0	0	0	0	0	28	2	0	11	59	0	0	108	
7:50 AM	2	0	6	0	0	0	0	0	0	37	0	0	5	55	0	0	105	
7:55 AM	4	0	7	0	0	0	0	0	0	26	2	0	6	49	0	0	94	1152
8:00 AM	3	0	5	0	0	0	0	0	0	21	3	0	3	38	0	0	73	1136
8:05 AM	1	0	2	0	0	0	0	0	0	32	2	0	7	50	0	0	94	1143
8:10 AM	3	0	5	0	0	0	0	0	0	25	0	0	3	39	0	0	75	1147
8:15 AM	1	0	5	0	0	0	0	0	0	21	1	0	9	37	0	0	74	1130
8:20 AM	1	0	5	0	0	0	0	0	0	31	1	0	3	32	0	0	73	1126
8:25 AM	5	0	3	0	0	0	0	0	0	22	1	0	4	47	0	0	82	1098
8:30 AM	1	0	6	0	0	0	0	0	0	29	1	0	5	54	0	0	96	1082
8:35 AM	4	0	3	0	0	0	0	0	0	22	0	0	3	35	0	0	67	1043
8:40 AM	3	0	1	0	0	0	0	0	0	22	2	0	8	65	0	0	101	1042
8:45 AM	1	0	6	0	0	0	0	0	0	27	1	0	6	50	0	0	91	1025
8:50 AM	0	0	13	0	0	0	0	0	0	33	1	0	5	46	0	0	98	1018
8:55 AM	0	0	4	0	0	0	0	0	0	26	0	0	2	49	0	0	81	1005

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	0	36	0	0	0	0	0	0	296	0	0	100	856	0	0	1312
Heavy Trucks	20	0	0		0	0	0		0	28	0		0	12	0		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:43 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

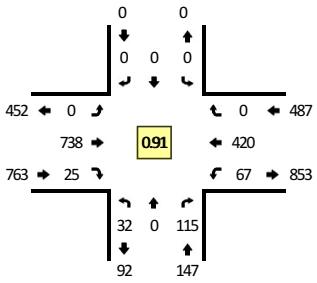
Type of peak hour being reported: Intersection Peak

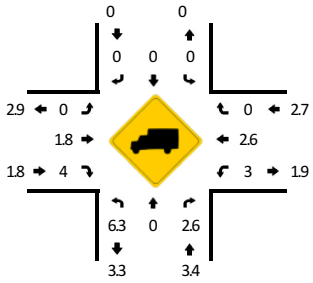
Method for determining peak hour: Total Entering Volume

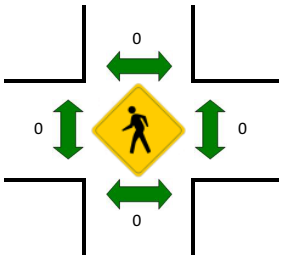
LOCATION: NW Timmen Rd -- NW la Center Rd
CITY/STATE: La Center, WA

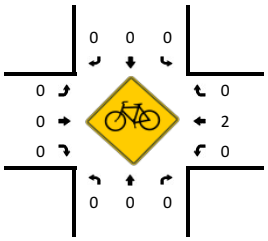
QC JOB #: 17213110
DATE: Thu, Aug 28 2025

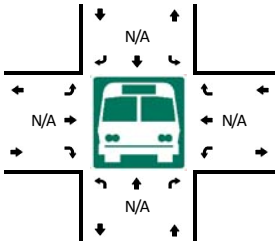
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

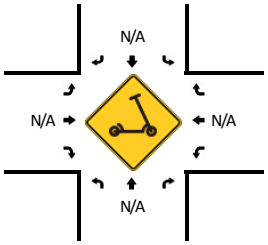












5-Min Count Period Beginning At	NW Timmen Rd (Northbound)				NW Timmen Rd (Southbound)				NW la Center Rd (Eastbound)				NW la Center Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	0	9	0	0	0	0	0	0	52	1	0	6	36	0	0	107	
4:05 PM	3	0	7	0	0	0	0	0	0	48	0	0	3	41	0	0	102	
4:10 PM	4	0	18	0	0	0	0	0	0	56	4	0	11	44	0	0	137	
4:15 PM	1	0	7	0	0	0	0	0	0	52	2	0	4	32	0	0	98	
4:20 PM	4	0	13	0	0	0	0	0	0	45	0	0	6	36	0	0	104	
4:25 PM	2	0	8	0	0	0	0	0	0	58	2	0	9	42	0	0	121	
4:30 PM	2	0	10	0	0	0	0	0	0	73	2	0	9	39	0	0	135	
4:35 PM	3	0	6	0	0	0	0	0	0	62	1	0	7	43	0	0	122	
4:40 PM	6	0	7	0	0	0	0	0	0	68	1	0	6	40	0	0	128	
4:45 PM	2	0	11	0	0	0	0	0	0	65	7	0	6	36	0	0	127	
4:50 PM	1	0	12	0	0	0	0	0	0	56	0	0	3	28	0	0	100	
4:55 PM	1	0	5	0	0	0	0	0	0	53	4	0	5	27	0	0	95	1376
5:00 PM	1	0	17	0	0	0	0	0	0	56	2	0	11	37	0	0	124	1393
5:05 PM	4	0	8	0	0	0	0	0	0	56	3	0	3	25	0	0	99	1390
5:10 PM	1	0	10	0	0	0	0	0	0	57	1	0	3	32	0	0	104	1357
5:15 PM	6	0	9	0	0	0	0	0	0	52	1	0	5	35	0	0	108	1367
5:20 PM	2	0	13	0	0	0	0	0	0	63	3	0	5	41	0	0	127	1390
5:25 PM	3	0	7	0	0	0	0	0	0	77	0	0	4	37	0	0	128	1397
5:30 PM	1	0	7	0	0	0	0	0	0	75	1	0	7	41	0	0	132	1394
5:35 PM	6	0	9	0	0	0	0	0	0	58	1	0	1	40	0	0	115	1387
5:40 PM	1	0	11	0	0	0	0	0	0	54	2	0	4	39	0	0	111	1370
5:45 PM	4	0	12	0	0	0	0	0	0	61	4	0	5	38	0	0	124	1367
5:50 PM	2	0	7	0	0	0	0	0	0	64	0	0	4	27	0	0	104	1371
5:55 PM	1	0	5	0	0	0	0	0	0	46	1	0	4	24	0	0	81	1357

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	0	92	0	0	0	0	0	0	812	16	0	88	488	0	0	1540
Heavy Trucks	4	0	0		0	0	0		0	20	4		4	20	0		52
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4
Scooters																	

Comments:

Report generated on 9/4/2025 2:43 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

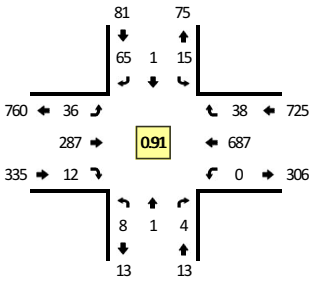
Type of peak hour being reported: Intersection Peak

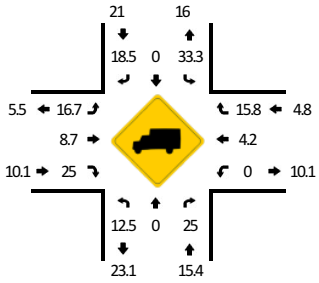
Method for determining peak hour: Total Entering Volume

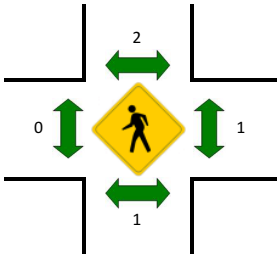
LOCATION: NW Paradise Park Rd -- NW la Center Rd
CITY/STATE: La Center, WA

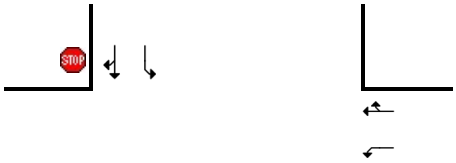
QC JOB #: 17213111
DATE: Thu, Aug 28 2025

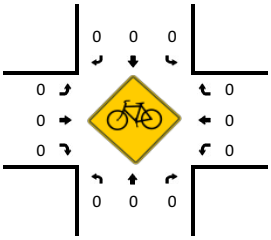
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

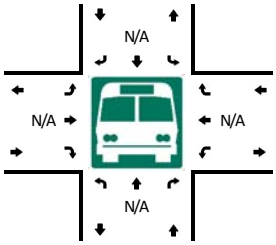


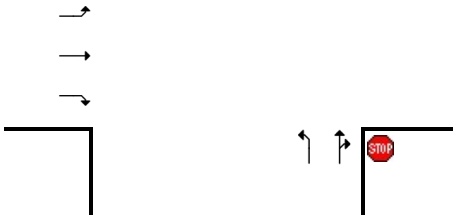


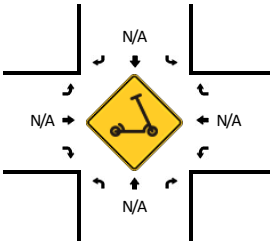












5-Min Count Period Beginning At	NW Paradise Park Rd (Northbound)				NW Paradise Park Rd (Southbound)				NW la Center Rd (Eastbound)				NW la Center Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	7	0	1	21	0	0	0	47	1	0	77	
7:05 AM	0	0	0	0	1	0	6	0	1	21	3	0	0	62	3	0	97	
7:10 AM	0	0	0	0	3	1	4	0	2	24	0	0	0	43	5	0	82	
7:15 AM	0	0	0	0	1	0	5	0	5	19	1	0	0	48	2	0	81	
7:20 AM	1	0	0	0	1	0	5	0	4	29	0	0	0	56	3	0	99	
7:25 AM	1	0	0	0	1	0	6	0	0	21	0	0	0	50	1	0	80	
7:30 AM	0	0	0	0	4	0	5	0	3	16	3	0	0	75	3	0	109	
7:35 AM	1	0	0	0	0	0	4	0	4	25	0	0	0	71	4	0	109	
7:40 AM	1	1	1	0	2	0	8	0	1	19	0	0	0	63	3	0	99	
7:45 AM	3	0	0	0	1	0	3	0	2	36	0	0	0	61	2	0	108	
7:50 AM	1	0	1	0	0	0	6	0	7	32	1	0	0	56	6	0	110	
7:55 AM	0	0	1	0	1	0	10	0	4	23	0	0	0	56	4	0	99	1150
8:00 AM	0	0	1	0	0	0	3	0	3	22	4	0	0	46	2	0	81	1154
8:05 AM	0	2	0	0	1	0	5	0	3	30	0	0	1	44	1	0	87	1144
8:10 AM	0	0	0	0	1	0	3	0	5	25	1	0	0	43	2	0	80	1142
8:15 AM	0	0	0	0	1	0	4	0	4	22	0	0	0	42	2	0	75	1136
8:20 AM	0	0	0	0	0	0	5	0	6	29	1	0	0	32	1	0	74	1111
8:25 AM	2	0	0	0	0	1	2	0	6	23	1	0	0	41	3	0	79	1110
8:30 AM	1	0	0	0	2	0	4	0	5	26	1	0	0	55	1	0	95	1096
8:35 AM	1	0	0	0	4	0	3	0	1	21	0	0	0	46	3	0	79	1066
8:40 AM	1	0	0	0	1	0	7	0	3	25	2	0	0	37	9	0	85	1052
8:45 AM	0	0	0	0	2	0	6	0	2	28	2	0	0	63	8	0	111	1055
8:50 AM	0	0	0	0	0	1	3	0	5	30	0	0	0	43	1	0	83	1028
8:55 AM	0	1	0	0	6	0	6	0	9	20	1	0	1	42	3	0	89	1018

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	4	4	0	24	0	68	0	32	240	12	0	0	836	40	0	1268
Heavy Trucks	0	0	4		0	0	4		0	24	4		0	32	8		76
Buses																	
Pedestrians		4				8				0				4			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 9/4/2025 2:43 PM

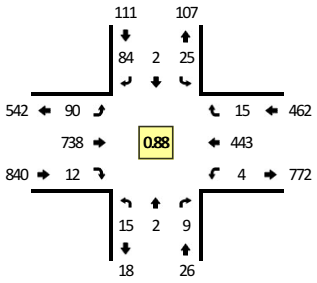
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

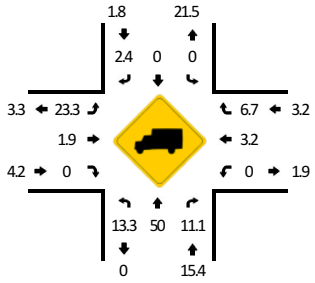
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

LOCATION: NW Paradise Park Rd -- NW la Center Rd
CITY/STATE: La Center, WA

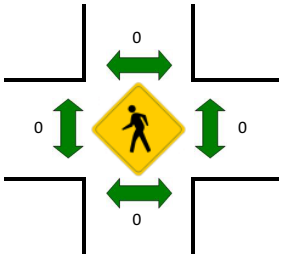
QC JOB #: 17213112
DATE: Thu, Aug 28 2025

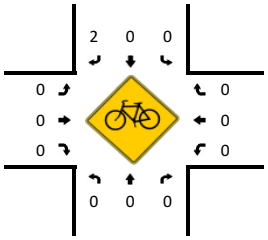
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

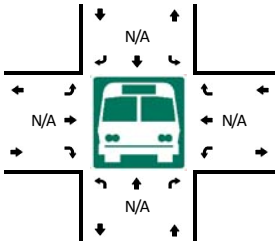


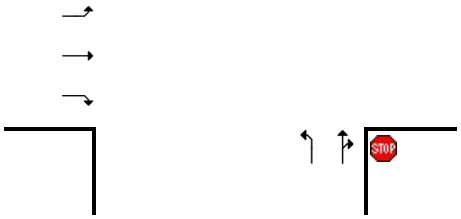


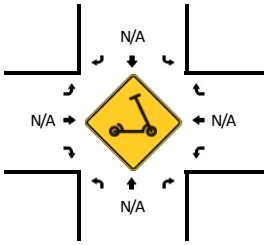
TRUE DATA TO IMPROVE MOBILITY











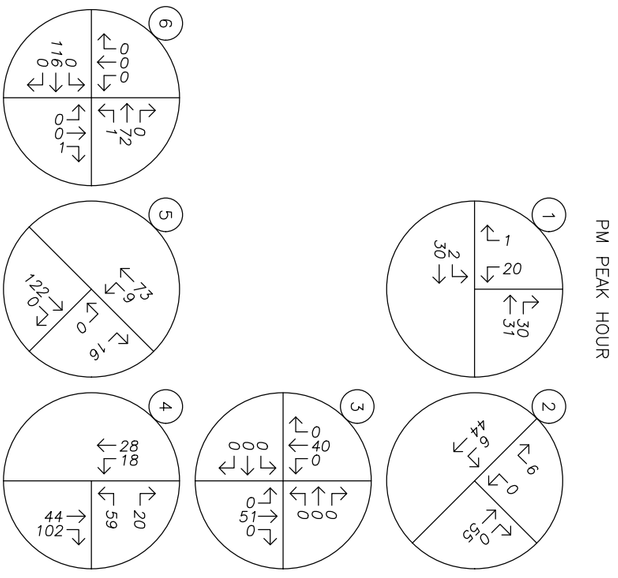
5-Min Count Period Beginning At	NW Paradise Park Rd (Northbound)				NW Paradise Park Rd (Southbound)				NW la Center Rd (Eastbound)				NW la Center Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	0	0	0	0	0	5	0	3	47	0	0	0	39	2	0	100	
4:05 PM	0	0	2	0	0	0	5	0	8	54	1	0	0	29	4	0	103	
4:10 PM	3	0	0	0	3	0	10	0	8	56	0	0	1	51	4	0	136	
4:15 PM	1	0	0	0	4	0	7	0	8	46	1	0	0	32	5	0	104	
4:20 PM	1	0	0	0	4	0	3	0	8	47	1	0	0	29	6	0	99	
4:25 PM	1	0	0	0	2	0	5	0	7	67	2	0	1	41	3	0	129	
4:30 PM	0	1	0	0	4	1	8	0	8	71	1	0	0	43	1	0	138	
4:35 PM	0	0	0	0	1	0	10	0	9	59	1	0	1	43	2	0	126	
4:40 PM	1	0	0	0	2	0	8	0	9	72	1	0	1	48	4	0	146	
4:45 PM	2	0	1	0	1	0	10	0	8	65	1	0	1	31	0	0	120	
4:50 PM	0	0	2	0	1	0	5	0	8	53	2	0	1	32	1	0	105	
4:55 PM	3	1	2	0	5	1	14	0	10	48	0	0	0	27	0	0	111	1417
5:00 PM	1	0	2	0	2	0	6	0	6	56	1	0	0	34	2	0	110	1427
5:05 PM	2	0	1	0	4	0	3	0	10	54	1	0	0	34	0	0	109	1433
5:10 PM	3	0	1	0	4	0	5	0	3	51	2	0	0	31	0	0	100	1397
5:15 PM	0	0	0	0	1	0	5	0	6	64	0	0	0	37	0	0	113	1406
5:20 PM	2	0	0	0	0	0	6	0	4	71	0	0	0	44	2	0	129	1436
5:25 PM	1	0	0	0	0	0	4	0	9	74	2	0	0	39	3	0	132	1439
5:30 PM	0	0	0	0	2	0	7	0	5	74	1	0	1	35	4	0	129	1430
5:35 PM	2	1	0	0	4	0	9	0	2	51	2	0	0	51	2	0	124	1428
5:40 PM	3	0	1	0	2	0	5	0	5	66	2	0	0	39	0	0	123	1405
5:45 PM	2	1	0	0	4	0	4	0	3	50	1	0	0	34	1	0	100	1385
5:50 PM	1	0	0	0	1	0	0	0	5	58	2	0	0	36	0	0	103	1383
5:55 PM	1	0	0	0	0	0	6	0	7	53	1	0	0	26	2	0	96	1368

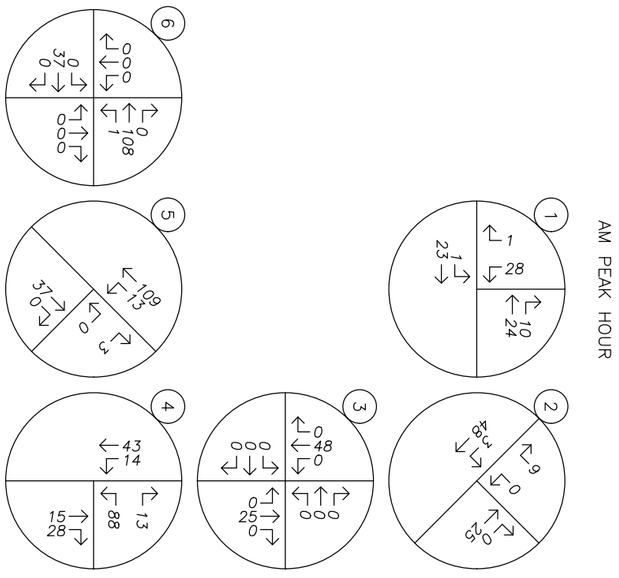
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	4	0	0	28	4	104	0	104	808	12	0	8	536	28	0	1640
Heavy Trucks	0	4	0		0	0	4		52	28	0		0	20	4		112
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	4		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 9/4/2025 2:43 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212





No Scale

TRAFFIC VOLUMES

In-Process Development Trips

AM & PM Peak Hours

Figure A

NW 9th Avenue Subdivision

10/1/2025

Appendix E – Safety Analysis

Crash History Data

Left-Turn Lane Warrant Analysis

Preliminary Traffic Signal Warrants

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

CITY STREET INTERSECTIONS

9th Ave / 11th Ct @ Pacific Hwy

10th St @ Pacific Hwy

01/01/2020 - 12/31/2024 See 2nd tab below for road info

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, 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.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY ACCUMULATIVE ROUTE MILEPOST (ARM)	SR ONLY HISTORY / SUSPENSE IND	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION

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

CITY STREET INTERSECTIONS

9th Ave / 11th Ct @ Pacific Hwy

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LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD

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

CITY STREET INTERSECTIONS

5th St @ Pacific Hwy

01/01/2020 - 12/31/2024 See 2nd tab below for road info

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JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY ACCUMULATIVE ROUTE MILEPOST (ARM)	SR ONLY HISTORY / SUSPENSE IND	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION
City Street	Clark	La Center	NW PACIFIC HWY	200	W 5TH ST								No	EE07804	08/09/2023	20:29	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear	Dry

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

CITY STREET INTERSECTIONS

5th St @ Pacific Hwy

01/01/2020 - 12/31/2024 See 2nd tab below for road info

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LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Daylight	From same direction - one right turn - one straight	Making Right Turn	Overtaking and Passing	South	East	South	North	None			None			Lane of Primary Trafficway	1086841.84	200676.72

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

CITY STREET INTERSECTIONS

4th St @ Pacific Hwy

01/01/2020 - 12/31/2024 See 2nd tab below for road info

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, 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.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY ACCUMULATIVE ROUTE MILEPOST (ARM)	SR ONLY HISTORY / SUSPENSE IND	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION
City Street	Clark	La Center	W 4TH ST		NW PACIFIC HWY								No	ED06718	11/19/2022	20:09	No Apparent Injury	0	0	1	0	0	Truck Tractor & Semi-Trailer		Circulating Roundabout	Clear	Dry

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

CITY STREET INTERSECTIONS

4th St @ Pacific Hwy

01/01/2020 - 12/31/2024 See 2nd tab below for road info

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, 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.

LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Dark-Street Lights On	Retaining Wall (concrete, rock, brick, etc.)	Making Left Turn		South	West			None						Median Shoulder of Primary Trafficway	1086951.62	200418.8

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

CITY STREET INTERSECTIONS

Timmen Rd @ La Center Rd

01/01/2020 - 12/31/2024 See 2nd tab below for road info

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, 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.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY ACCUMULATIVE ROUTE MILEPOST (ARM)	SR ONLY HISTORY / SUSPENSE IND	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION
City Street	Clark	La Center	NW LA CENTER RD	32088	NW TIMMEN RD								No	ED04764	10/21/2022	12:36	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Raining	Wet
City Street	Clark	La Center	NW LA CENTER RD	32088	NW TIMMEN RD								No	EE06989	10/07/2023	02:19	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Motorcycle	At Intersection and Related	Clear or Partly Cloudy	Dry
City Street	Clark	La Center	NW TIMMEN RD	31986	NW LA CENTER RD								No	EC15297	12/18/2021	23:24	Suspected Minor Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Snowing	Wet

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

CITY STREET INTERSECTIONS

Timmen Rd @ La Center Rd

01/01/2020 - 12/31/2024 See 2nd tab below for road info

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, 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.

LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Daylight	From same direction - both going straight - both moving - rear-end	Slowing	Going Straight Ahead	West	East	West	East	None			Other Distractions	Follow Too Closely		Lane of Primary Trafficway	1085769.12	197298.37
Dark-Street Lights On	Entering at angle	Making Left Turn	Going Straight Ahead	South	West	West	East	Did Not Grant RW to Vehicle			None			Lane of Primary Trafficway	1085769.12	197298.37
Dark-Street Lights On	Guardrail - Through, Over or Under	Going Straight Ahead		Southeast	Northwest			Under Influence of Alcohol	Operating Handheld Cell Phone	Disregard Traffic Sign and Signals				Other Location (City/County/Misc. Trafficway)	1085769.12	197298.37

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 1. NW 9th Avenue at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - AM Peak Hour (EB)

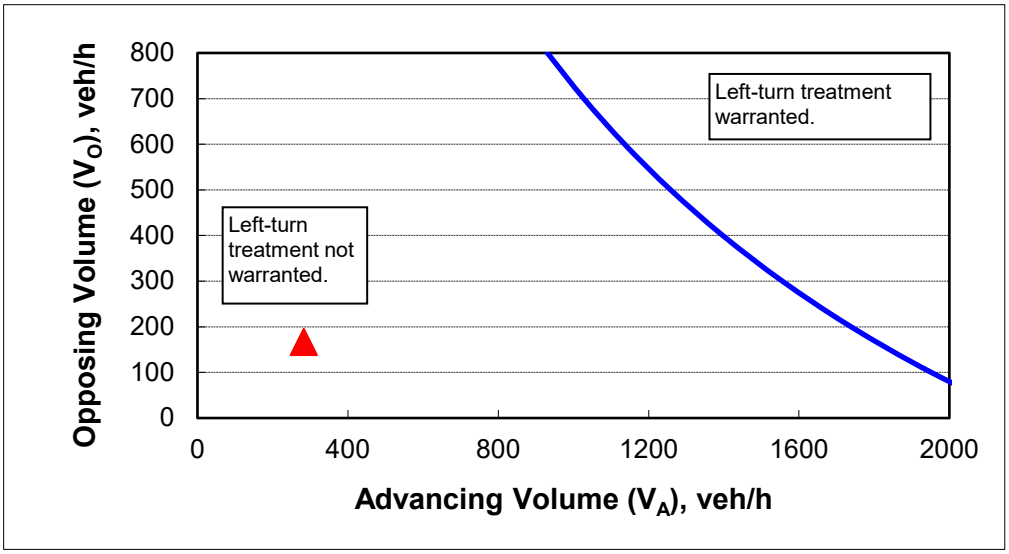
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	283
Opposing volume (V_O), veh/h:	167

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1805
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 1. NW 9th Avenue at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - PM Peak Hour (EB)

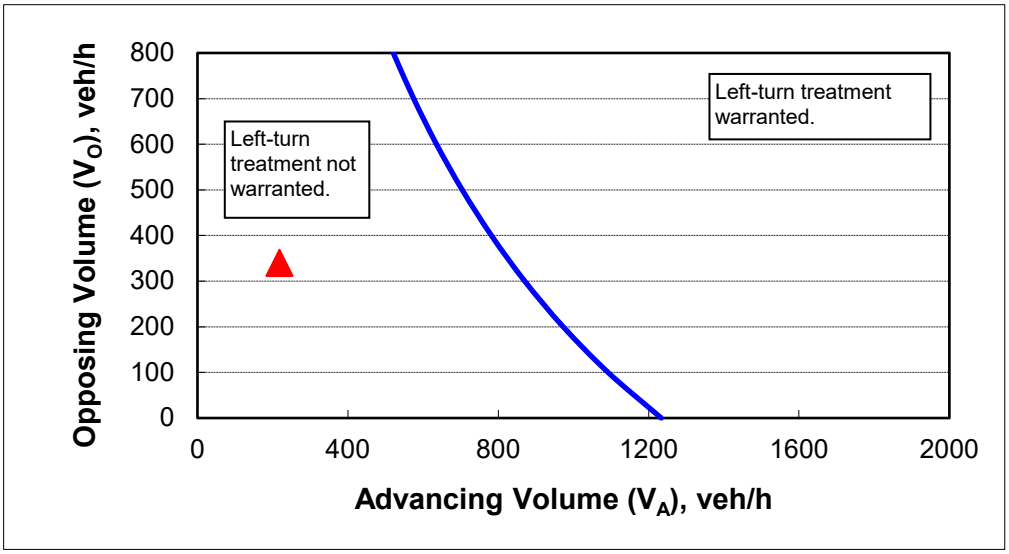
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	218
Opposing volume (V_O), veh/h:	340

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	834
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 2. W 10th Street at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - AM Peak Hour (EB)

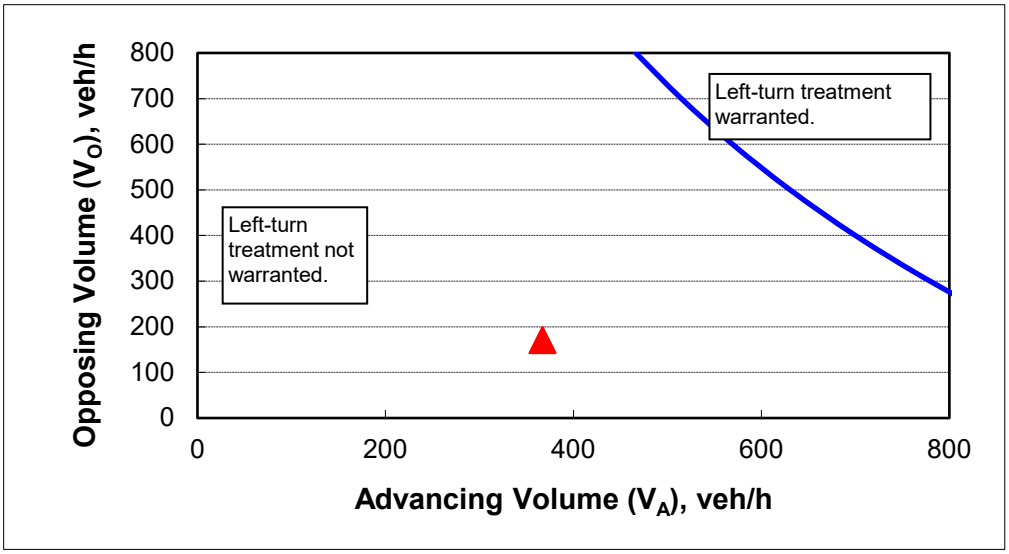
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	367
Opposing volume (V_O), veh/h:	171

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	900
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 2. W 10th Street at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - PM Peak Hour (EB)

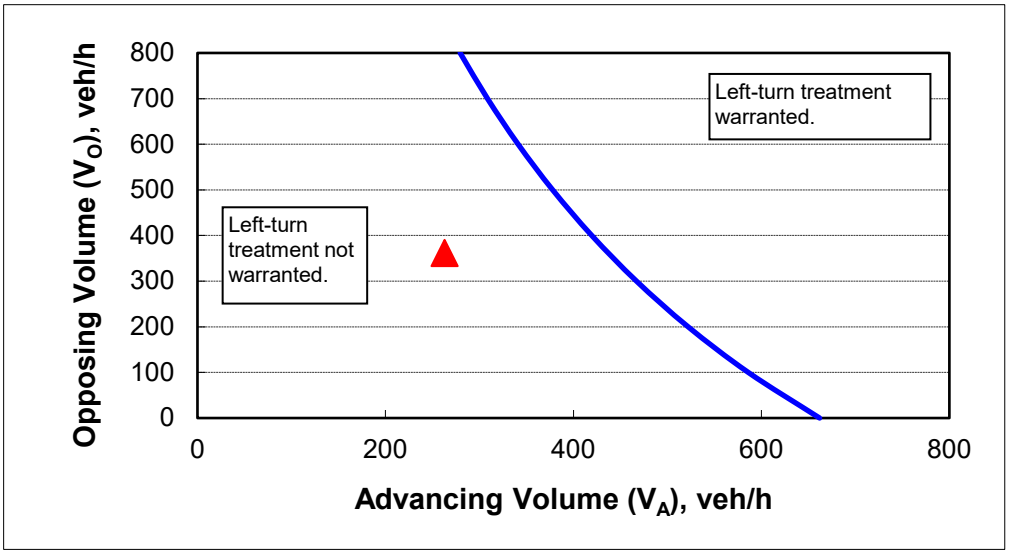
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	11%
Advancing volume (V_A), veh/h:	263
Opposing volume (V_O), veh/h:	362

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	437
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 3. W 5th Street at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - AM Peak Hour (NB)

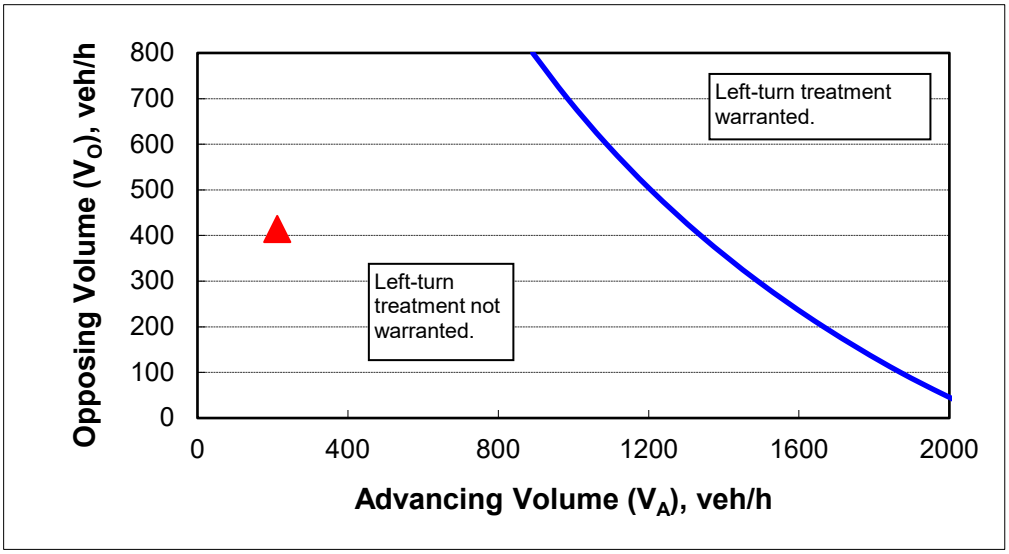
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	212
Opposing volume (V_O), veh/h:	414

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1319
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 3. W 5th Street at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - AM Peak Hour (SB)

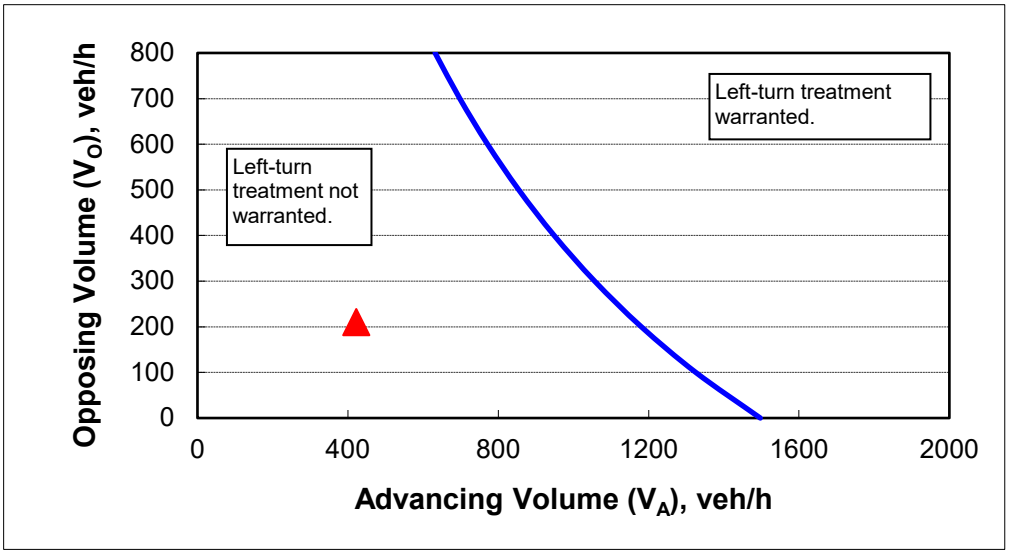
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	422
Opposing volume (V_O), veh/h:	210

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1167
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 3. W 5th Street at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - PM Peak Hour (NB)

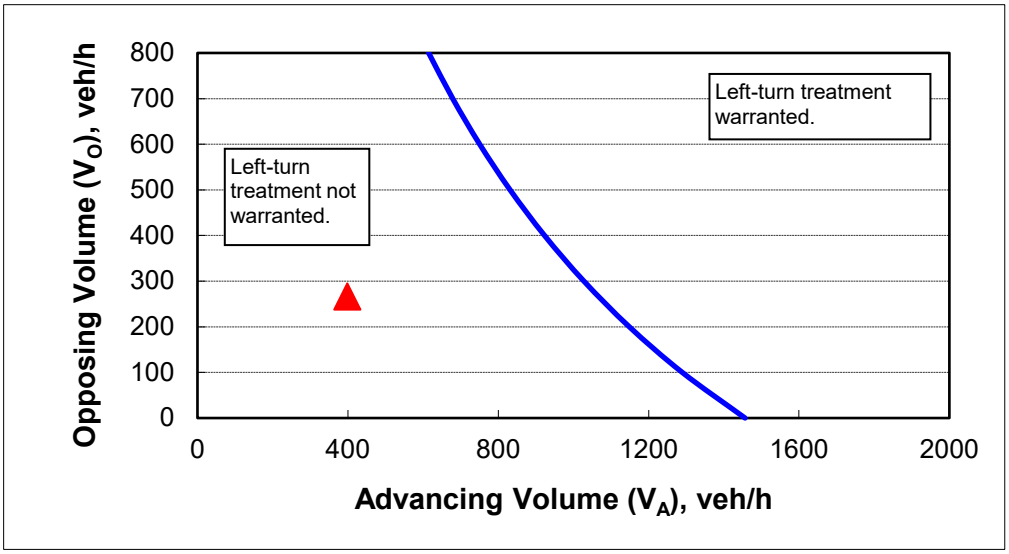
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	399
Opposing volume (V_O), veh/h:	266

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1067
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Intersection: 3. W 5th Street at NW Pacific Highway
Date: 9/30/2025
Scenario: 2028 Buildout Conditions - PM Peak Hour (SB)

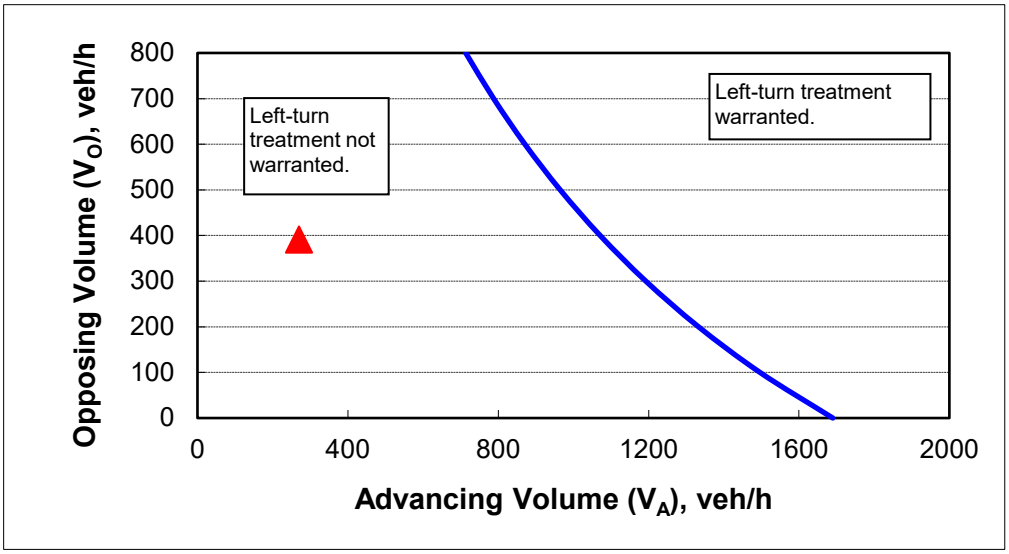
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	270
Opposing volume (V_O), veh/h:	391

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1081
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Traffic Signal Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Date: 9/30/2025
Scenario: 2028 Buildout Conditions

	Major Street:	Minor Street:
	NW La Center Road	NW Timmen Road
Number of Lanes:	1	2
PM Peak Hour Volumes:	1572	139

Warrant Used:

_____	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	15,720	6,200	
Minor Street*	1,390	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	15,720	9,300	
Minor Street*	1,390	1,250	**Yes**
Combination Warrant			
Major Street	15,720	7,440	
Minor Street*	1,390	2,000	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: NW 9th Avenue Subdivision & Rezone
Date: 9/30/2025
Scenario: 2028 Buildout Conditions

	Major Street:	Minor Street:
	NW La Center Road	NW Paradise Park Road
Number of Lanes:	1	2
PM Peak Hour Volumes:	1611	96

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	16,110	6,200	
Minor Street*	960	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	16,110	9,300	
Minor Street*	960	1,250	**No**
Combination Warrant			
Major Street	16,110	7,440	
Minor Street*	960	2,000	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Appendix F – Operation Analysis

Level of Service Descriptions

Synchro Capacity Reports

Sidra Capacity Reports

LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

LEVEL OF SERVICE CRITERIA
FOR UNSIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	243	115	0	1	0
Future Vol, veh/h	0	243	115	0	1	0
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, %	4	4	12	12	0	0
Mvmt Flow	0	283	134	0	1	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	134	0	-	0	416	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	4.14	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1439	-	-	-	597	921
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1439	-	-	-	597	921
Mov Cap-2 Maneuver	-	-	-	-	597	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	11.04
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1439	-	-	-	597
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Ctrl Dly (s/v)	0	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	9	260	116	11	30	16
Future Vol, veh/h	9	260	116	11	30	16
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	4	4	11	11	11	11
Mvmt Flow	10	295	132	13	34	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	144	0	-	0	456	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.14	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.236	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	1426	-	-	-	546	887
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	718	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1426	-	-	-	541	887
Mov Cap-2 Maneuver	-	-	-	-	541	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	718	-

Approach	SE	NW	SW
HCM Ctrl Dly, s/v	0.25	0	11.07
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	60	-	541	887
HCM Lane V/C Ratio	-	-	0.007	-	0.063	0.021
HCM Ctrl Dly (s/v)	-	-	7.5	0	12.1	9.1
HCM Lane LOS	-	-	A	A	B	A
HCM 95th %tile Q(veh)	-	-	0	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	8	5	0	3	2	143	21	8	315	2
Future Vol, veh/h	3	0	8	5	0	3	2	143	21	8	315	2
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	25	25	25	9	9	9	3	3	3
Mvmt Flow	3	0	9	6	0	3	2	163	24	9	358	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	546	570	362	556	559	174	362	0	0	186	0	0
Stage 1	379	379	-	179	179	-	-	-	-	-	-	-
Stage 2	167	191	-	377	380	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.35	6.75	6.45	4.19	-	-	4.13	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.725	4.225	3.525	2.281	-	-	2.227	-	-
Pot Cap-1 Maneuver	438	422	667	408	407	813	1159	-	-	1382	-	-
Stage 1	629	602	-	772	710	-	-	-	-	-	-	-
Stage 2	819	729	-	600	575	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	430	417	665	398	402	813	1156	-	-	1382	-	-
Mov Cap-2 Maneuver	430	417	-	398	402	-	-	-	-	-	-	-
Stage 1	622	596	-	770	708	-	-	-	-	-	-	-
Stage 2	814	728	-	587	570	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.35	12.45	0.1	0.19
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	21	-	-	579	492	44	-	-
HCM Lane V/C Ratio	0.002	-	-	0.022	0.018	0.007	-	-
HCM Ctrl Dly (s/v)	8.1	0	-	11.4	12.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	36	46	293	10	81	686
Future Vol, veh/h	36	46	293	10	81	686
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	90	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	40	40	10	10	2	2
Mvmt Flow	41	52	333	11	92	780

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1302	339	0	0	344	0
Stage 1	339	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Critical Hdwy	6.8	6.6	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.86	3.66	-	-	2.218	-
Pot Cap-1 Maneuver	148	625	-	-	1215	-
Stage 1	645	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	137	625	-	-	1215	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	293	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	24.87	0	0.87
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	137	625	1215	-
HCM Lane V/C Ratio	-	-	0.299	0.084	0.076	-
HCM Ctrl Dly (s/v)	-	-	42.2	11.3	8.2	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.3	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	172	232	1	0	0
Future Vol, veh/h	0	172	232	1	0	0
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	85	85	85	85	85	85
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	0	202	273	1	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	274	0	-	0	476	274
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	202	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1295	-	-	-	551	770
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	551	770
Mov Cap-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	836	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1295	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	21	161	238	21	22	22
Future Vol, veh/h	21	161	238	21	22	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	0	0	2	2
Mvmt Flow	24	183	270	24	25	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	294	0	-	0	513	282
Stage 1	-	-	-	-	282	-
Stage 2	-	-	-	-	231	-
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	1267	-	-	-	521	757
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1267	-	-	-	510	757
Mov Cap-2 Maneuver	-	-	-	-	510	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	808	-

Approach	SE	NW	SW
HCM Ctrl Dly, s/v	0.91	0	11.17
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	208	-	510	757
HCM Lane V/C Ratio	-	-	0.019	-	0.049	0.033
HCM Ctrl Dly (s/v)	-	-	7.9	0	12.4	9.9
HCM Lane LOS	-	-	A	A	B	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	9	8	1	7	8	281	9	4	194	0
Future Vol, veh/h	0	0	9	8	1	7	8	281	9	4	194	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	2	2	2
Mvmt Flow	0	0	10	9	1	8	9	316	10	4	218	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	563	573	219	567	568	323	219	0	0	327	0	0
Stage 1	228	228	-	340	340	-	-	-	-	-	-	-
Stage 2	335	345	-	227	228	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	440	433	826	438	435	723	1362	-	-	1233	-	-
Stage 1	779	719	-	679	643	-	-	-	-	-	-	-
Stage 2	683	640	-	780	719	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	428	426	825	426	429	721	1361	-	-	1232	-	-
Mov Cap-2 Maneuver	428	426	-	426	429	-	-	-	-	-	-	-
Stage 1	775	715	-	673	637	-	-	-	-	-	-	-
Stage 2	668	634	-	768	715	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.42	12.18	0.21	0.16
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	48	-	-	825	520	36	-	-
HCM Lane V/C Ratio	0.007	-	-	0.012	0.035	0.004	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	9.4	12.2	7.9	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	32	115	738	25	67	420
Future Vol, veh/h	32	115	738	25	67	420
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	90	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	2	2	3	3
Mvmt Flow	35	126	811	27	74	462

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1434	825	0	0	838	0
Stage 1	825	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	147	371	-	-	792	-
Stage 1	429	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	133	371	-	-	792	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	24.38	0	1.38
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	133	371	792	-
HCM Lane V/C Ratio	-	-	0.264	0.341	0.093	-
HCM Ctrl Dly (s/v)	-	-	41.5	19.6	10	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	1	1.5	0.3	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	281	146	10	29	1
Future Vol, veh/h	1	281	146	10	29	1
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	92	92	92	92	92	92
Heavy Vehicles, %	4	4	12	12	0	0
Mvmt Flow	1	305	159	11	32	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	170	0	-	0	472	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	4.14	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1396	-	-	-	554	886
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	750	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1396	-	-	-	554	886
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	750	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.03	0	11.81
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	6	-	-	-	561
HCM Lane V/C Ratio	0.001	-	-	-	0.058
HCM Ctrl Dly (s/v)	7.6	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	13	324	148	12	32	26
Future Vol, veh/h	13	324	148	12	32	26
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	11	11	11	11
Mvmt Flow	14	352	161	13	35	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	174	0	-	0	550	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	4.14	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.236	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	1391	-	-	-	481	854
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1391	-	-	-	475	854
Mov Cap-2 Maneuver	-	-	-	-	475	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	670	-

Approach	SE	NW	SW
HCM Ctrl Dly, s/v	0.29	0	11.47
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	69	-	475	854
HCM Lane V/C Ratio	-	-	0.01	-	0.073	0.033
HCM Ctrl Dly (s/v)	-	-	7.6	0	13.2	9.4
HCM Lane LOS	-	-	A	A	B	A
HCM 95th %tile Q(veh)	-	-	0	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	8	5	0	3	2	177	22	8	382	2
Future Vol, veh/h	3	0	8	5	0	3	2	177	22	8	382	2
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	9	9	9	25	25	25	9	9	9	3	3	3
Mvmt Flow	3	0	9	5	0	3	2	192	24	9	415	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	632	656	419	642	645	204	419	0	0	216	0	0
Stage 1	436	436	-	209	209	-	-	-	-	-	-	-
Stage 2	197	221	-	434	437	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.35	6.75	6.45	4.19	-	-	4.13	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.725	4.225	3.525	2.281	-	-	2.227	-	-
Pot Cap-1 Maneuver	383	376	619	356	362	781	1103	-	-	1348	-	-
Stage 1	586	568	-	744	688	-	-	-	-	-	-	-
Stage 2	789	708	-	558	542	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	377	371	617	347	358	781	1101	-	-	1348	-	-
Mov Cap-2 Maneuver	377	371	-	347	358	-	-	-	-	-	-	-
Stage 1	580	562	-	742	687	-	-	-	-	-	-	-
Stage 2	784	706	-	545	537	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.01	13.37	0.08	0.16
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	18	-	-	526	439	37	-	-
HCM Lane V/C Ratio	0.002	-	-	0.023	0.02	0.006	-	-
HCM Ctrl Dly (s/v)	8.3	0	-	12	13.4	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	38	52	348	11	99	837
Future Vol, veh/h	38	52	348	11	99	837
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	90	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	40	40	10	10	2	2
Mvmt Flow	41	57	378	12	108	910

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1509	384	0	0	390	0
Stage 1	384	-	-	-	-	-
Stage 2	1125	-	-	-	-	-
Critical Hdwy	6.8	6.6	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.86	3.66	-	-	2.218	-
Pot Cap-1 Maneuver	109	587	-	-	1168	-
Stage 1	613	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	99	587	-	-	1168	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	238	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	34.43	0	0.89
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	99	587	1168	-
HCM Lane V/C Ratio	-	-	0.418	0.096	0.092	-
HCM Ctrl Dly (s/v)	-	-	65.4	11.8	8.4	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	1.7	0.3	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	213	277	31	20	1
Future Vol, veh/h	2	213	277	31	20	1
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	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	2	232	301	34	22	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	335	0	-	0	554	318
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1230	-	-	-	497	727
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1230	-	-	-	496	727
Mov Cap-2 Maneuver	-	-	-	-	496	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	808	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.07	0	12.49
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	17	-	-	-	504
HCM Lane V/C Ratio	0.002	-	-	-	0.045
HCM Ctrl Dly (s/v)	7.9	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	28	215	308	22	23	29
Future Vol, veh/h	28	215	308	22	23	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	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	2	2
Mvmt Flow	30	234	335	24	25	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	359	0	-	0	641	347
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	295	-
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	1200	-	-	-	439	696
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1200	-	-	-	426	696
Mov Cap-2 Maneuver	-	-	-	-	426	-
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	756	-

Approach	SE	NW	SW
HCM Ctrl Dly, s/v	0.93	0	11.99
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	207	-	426	696
HCM Lane V/C Ratio	-	-	0.025	-	0.059	0.045
HCM Ctrl Dly (s/v)	-	-	8.1	0	14	10.4
HCM Lane LOS	-	-	A	A	B	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	10	8	1	7	8	349	10	4	246	0
Future Vol, veh/h	0	0	10	8	1	7	8	349	10	4	246	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	2	2	2
Mvmt Flow	0	0	11	9	1	8	9	379	11	4	267	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	675	686	268	679	680	387	268	0	0	391	0	0
Stage 1	277	277	-	403	403	-	-	-	-	-	-	-
Stage 2	398	409	-	276	277	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	370	373	775	368	376	666	1307	-	-	1167	-	-
Stage 1	734	685	-	628	603	-	-	-	-	-	-	-
Stage 2	632	600	-	735	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	360	367	774	358	370	664	1306	-	-	1166	-	-
Mov Cap-2 Maneuver	360	367	-	358	370	-	-	-	-	-	-	-
Stage 1	730	681	-	622	597	-	-	-	-	-	-	-
Stage 2	617	594	-	721	681	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.71	13.33	0.17	0.13
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	39	-	-	774	450	29	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	0.039	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	9.7	13.3	8.1	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	34	138	905	27	80	519
Future Vol, veh/h	34	138	905	27	80	519
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	90	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	2	2	3	3
Mvmt Flow	34	138	905	27	80	519

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1598	919	0	0	932	0
Stage 1	919	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	116	328	-	-	730	-
Stage 1	387	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	104	328	-	-	730	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	387	-	-	-	-	-
Stage 2	447	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	30.09	0	1.41
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	104	328	730	-
HCM Lane V/C Ratio	-	-	0.328	0.421	0.11	-
HCM Ctrl Dly (s/v)	-	-	55.8	23.8	10.5	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	1.3	2	0.4	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	281	146	21	60	5
Future Vol, veh/h	2	281	146	21	60	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	92	92	92	92	92	92
Heavy Vehicles, %	4	4	12	12	0	0
Mvmt Flow	2	305	159	23	65	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	182	0	-	0	480	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	310	-
Critical Hdwy	4.14	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1382	-	-	-	548	879
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1382	-	-	-	547	879
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.05	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	13	-	-	-	564
HCM Lane V/C Ratio	0.002	-	-	-	0.125
HCM Ctrl Dly (s/v)	7.6	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	13	354	159	12	32	26
Future Vol, veh/h	13	354	159	12	32	26
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	11	11	11	11
Mvmt Flow	14	385	173	13	35	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	594	179
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	415	-
Critical Hdwy	4.14	-	-	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.236	-	-	-	3.599	3.399
Pot Cap-1 Maneuver	1377	-	-	-	453	841
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1377	-	-	-	447	841
Mov Cap-2 Maneuver	-	-	-	-	447	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	647	-

Approach	SE	NW	SW
HCM Ctrl Dly, s/v	0.27	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	64	-	447	841
HCM Lane V/C Ratio	-	-	0.01	-	0.078	0.034
HCM Ctrl Dly (s/v)	-	-	7.6	0	13.7	9.4
HCM Lane LOS	-	-	A	A	B	A
HCM 95th %tile Q(veh)	-	-	0	-	0.3	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	8	5	0	3	2	188	22	8	412	2
Future Vol, veh/h	3	0	8	5	0	3	2	188	22	8	412	2
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	9	9	9	25	25	25	9	9	9	3	3	3
Mvmt Flow	3	0	9	5	0	3	2	204	24	9	448	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	677	701	452	687	690	216	452	0	0	228	0	0
Stage 1	468	468	-	221	221	-	-	-	-	-	-	-
Stage 2	209	233	-	466	469	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.35	6.75	6.45	4.19	-	-	4.13	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.725	4.225	3.525	2.281	-	-	2.227	-	-
Pot Cap-1 Maneuver	357	354	593	332	341	769	1073	-	-	1334	-	-
Stage 1	562	549	-	732	680	-	-	-	-	-	-	-
Stage 2	778	699	-	535	524	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	351	350	592	323	337	769	1070	-	-	1334	-	-
Mov Cap-2 Maneuver	351	350	-	323	337	-	-	-	-	-	-	-
Stage 1	556	544	-	731	678	-	-	-	-	-	-	-
Stage 2	772	698	-	522	518	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.4	13.9	0.08	0.15
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	17	-	-	499	413	34	-	-
HCM Lane V/C Ratio	0.002	-	-	0.024	0.021	0.007	-	-
HCM Ctrl Dly (s/v)	8.4	0	-	12.4	13.9	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	38	53	356	11	100	861
Future Vol, veh/h	38	53	356	11	100	861
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	90	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	40	40	10	10	2	2
Mvmt Flow	41	58	387	12	109	936

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1546	393	0	0	399	0
Stage 1	393	-	-	-	-	-
Stage 2	1153	-	-	-	-	-
Critical Hdwy	6.8	6.6	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.86	3.66	-	-	2.218	-
Pot Cap-1 Maneuver	103	581	-	-	1160	-
Stage 1	607	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	93	581	-	-	1160	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	230	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	36.65	0	0.88
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	93	581	1160	-
HCM Lane V/C Ratio	-	-	0.443	0.099	0.094	-
HCM Ctrl Dly (s/v)	-	-	71.2	11.9	8.4	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	1.9	0.3	0.3	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	213	277	64	40	4
Future Vol, veh/h	5	213	277	64	40	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	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	5	232	301	70	43	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	371	0	-	0	578	336
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1193	-	-	-	481	711
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1193	-	-	-	478	711
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.18	0	13.08
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	41	-	-	-	493
HCM Lane V/C Ratio	0.005	-	-	-	0.097
HCM Ctrl Dly (s/v)	8	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	28	235	340	22	23	29
Future Vol, veh/h	28	235	340	22	23	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	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	2	2
Mvmt Flow	30	255	370	24	25	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	393	0	-	0	698	382
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	316	-
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	1165	-	-	-	407	666
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	739	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1165	-	-	-	394	666
Mov Cap-2 Maneuver	-	-	-	-	394	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	739	-

Approach	SE	NW	SW
HCM Ctrl Dly, s/v	0.87	0	12.48
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	192	-	394	666
HCM Lane V/C Ratio	-	-	0.026	-	0.063	0.047
HCM Ctrl Dly (s/v)	-	-	8.2	0	14.7	10.7
HCM Lane LOS	-	-	A	A	B	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	10	8	1	7	8	381	10	4	266	0
Future Vol, veh/h	0	0	10	8	1	7	8	381	10	4	266	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	2	2	2
Mvmt Flow	0	0	11	9	1	8	9	414	11	4	289	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	732	742	290	736	737	422	290	0	0	426	0	0
Stage 1	299	299	-	438	438	-	-	-	-	-	-	-
Stage 2	433	443	-	298	299	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	339	346	754	337	349	636	1283	-	-	1133	-	-
Stage 1	714	670	-	601	582	-	-	-	-	-	-	-
Stage 2	605	579	-	715	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	329	341	753	328	343	635	1282	-	-	1132	-	-
Mov Cap-2 Maneuver	329	341	-	328	343	-	-	-	-	-	-	-
Stage 1	710	666	-	595	576	-	-	-	-	-	-	-
Stage 2	591	573	-	702	666	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.85	14	0.16	0.12
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	36	-	-	753	417	27	-	-
HCM Lane V/C Ratio	0.007	-	-	0.014	0.042	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	9.9	14	8.2	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	34	140	929	27	81	535
Future Vol, veh/h	34	140	929	27	81	535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	90	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	2	2	3	3
Mvmt Flow	34	140	929	27	81	535

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1640	943	0	0	956	0
Stage 1	943	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	110	317	-	-	715	-
Stage 1	377	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	97	317	-	-	715	-
Mov Cap-2 Maneuver	97	-	-	-	-	-
Stage 1	377	-	-	-	-	-
Stage 2	437	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	31.99	0	1.4
HCM LOS	D		

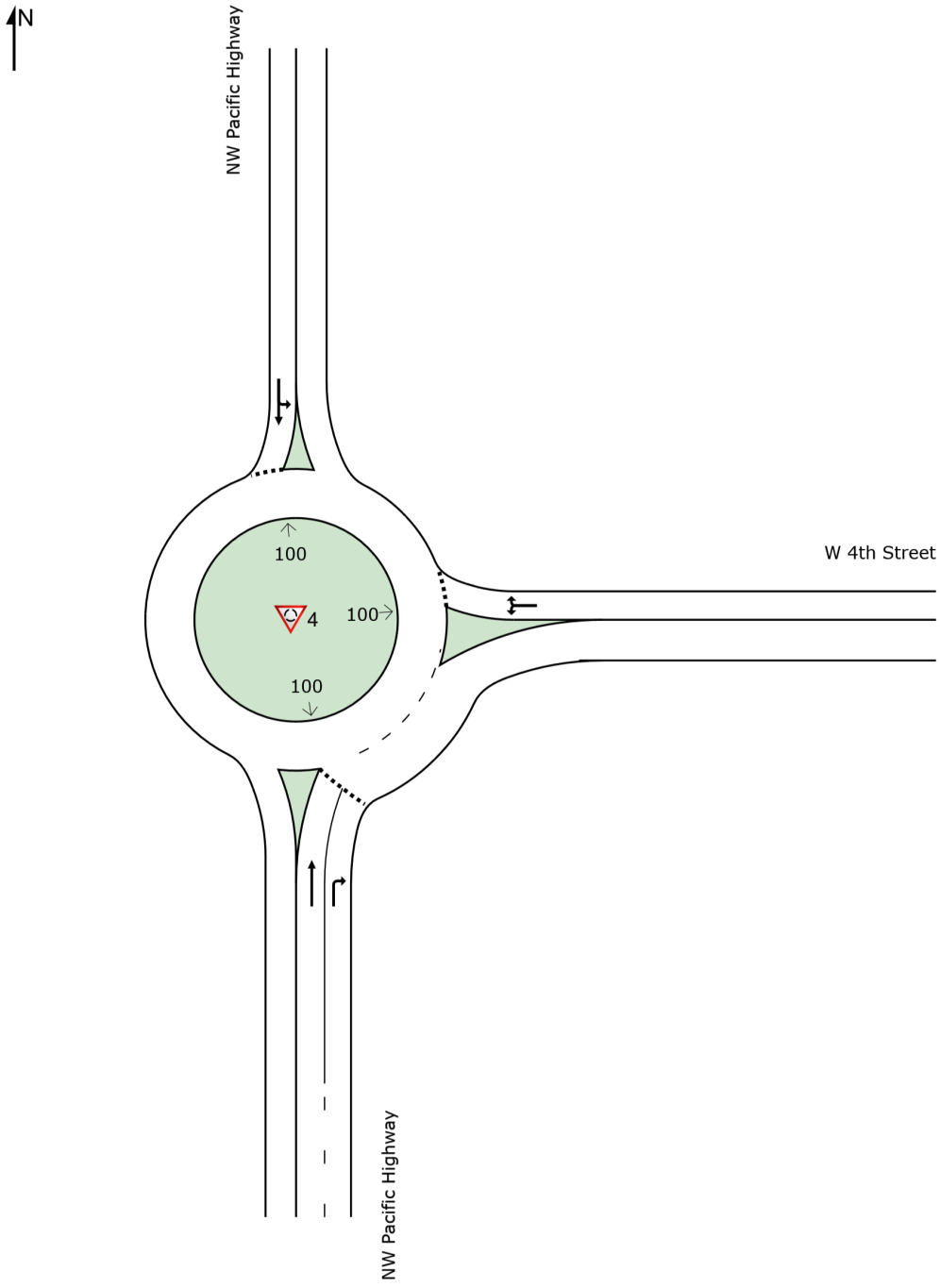
Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	97	317	715	-
HCM Lane V/C Ratio	-	-	0.35	0.441	0.113	-
HCM Ctrl Dly (s/v)	-	-	60.7	25	10.7	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	1.4	2.2	0.4	-

SITE LAYOUT

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2025 Existing Conditions - AM Peak Hour
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2025 Existing Conditions - AM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Pacific Highway														
8	T1	104	13.6	127	13.6	0.117	4.4	LOS A	0.7	18.7	0.30	0.40	0.30	36.9
18	R2	242	13.6	295	13.6	0.214	4.6	LOS A	1.4	39.3	0.31	0.48	0.31	35.6
Approach		346	13.6	422	13.6	0.214	4.5	LOS A	1.4	39.3	0.30	0.45	0.30	35.9
East: W 4th Street														
1	L2	523	2.8	638	2.8	0.556	10.9	LOS B	4.5	116.2	0.48	0.63	0.48	34.0
16	R2	53	2.8	65	2.8	0.556	5.0	LOS A	4.5	116.2	0.48	0.63	0.48	33.0
Approach		576	2.8	702	2.8	0.556	10.3	LOS B	4.5	116.2	0.48	0.63	0.48	33.9
North: NW Pacific Highway														
7	L2	75	2.8	91	2.8	0.477	15.2	LOS B	3.9	98.8	0.84	0.88	0.92	34.4
4	T1	241	2.8	294	2.8	0.477	9.1	LOS A	3.9	98.8	0.84	0.88	0.92	34.3
Approach		316	2.8	385	2.8	0.477	10.6	LOS B	3.9	98.8	0.84	0.88	0.92	34.3
All Vehicles		1238	5.8	1510	5.8	0.556	8.8	LOS A	4.5	116.2	0.52	0.65	0.54	34.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2025 Existing Conditions - PM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Pacific Highway														
8	T1	249	2.5	268	2.5	0.213	4.1	LOS A	1.3	33.2	0.24	0.38	0.24	37.3
18	R2	590	2.5	634	2.5	0.398	4.3	LOS A	3.1	79.3	0.26	0.46	0.26	36.0
Approach		839	2.5	902	2.5	0.398	4.3	LOS A	3.1	79.3	0.25	0.44	0.25	36.4
East: W 4th Street														
1	L2	334	2.9	359	2.9	0.349	11.3	LOS B	2.1	54.6	0.50	0.69	0.50	34.1
16	R2	40	2.9	43	2.9	0.349	5.4	LOS A	2.1	54.6	0.50	0.69	0.50	33.1
Approach		374	2.9	402	2.9	0.349	10.6	LOS B	2.1	54.6	0.50	0.69	0.50	33.9
North: NW Pacific Highway														
7	L2	54	3.9	58	3.9	0.216	11.7	LOS B	1.3	33.9	0.57	0.62	0.57	35.5
4	T1	151	3.9	162	3.9	0.216	5.7	LOS A	1.3	33.9	0.57	0.62	0.57	35.5
Approach		205	3.9	220	3.9	0.216	7.3	LOS A	1.3	33.9	0.57	0.62	0.57	35.5
All Vehicles		1418	2.8	1525	2.8	0.398	6.4	LOS A	3.1	79.3	0.36	0.53	0.36	35.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2028 Background Conditions - AM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Pacific Highway														
8	T1	125	13.6	136	13.6	0.127	4.4	LOS A	0.7	20.7	0.33	0.41	0.33	36.8
18	R2	285	13.6	310	13.6	0.227	4.6	LOS A	1.6	43.0	0.33	0.48	0.33	35.5
Approach		410	13.6	446	13.6	0.227	4.6	LOS A	1.6	43.0	0.33	0.46	0.33	35.9
East: W 4th Street														
1	L2	643	2.8	699	2.8	0.619	11.1	LOS B	5.5	141.8	0.55	0.64	0.55	33.9
16	R2	69	2.8	75	2.8	0.619	5.2	LOS A	5.5	141.8	0.55	0.64	0.55	32.9
Approach		712	2.8	774	2.8	0.619	10.5	LOS B	5.5	141.8	0.55	0.64	0.55	33.8
North: NW Pacific Highway														
7	L2	94	2.8	102	2.8	0.574	17.8	LOS B	5.6	142.2	0.92	1.01	1.14	33.1
4	T1	299	2.8	325	2.8	0.574	11.7	LOS B	5.6	142.2	0.92	1.01	1.14	33.0
Approach		393	2.8	427	2.8	0.574	13.2	LOS B	5.6	142.2	0.92	1.01	1.14	33.0
All Vehicles		1515	5.7	1647	5.7	0.619	9.6	LOS A	5.6	142.2	0.59	0.69	0.64	34.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2028 Background Conditions - PM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Pacific Highway														
8	T1	308	2.5	308	2.5	0.250	4.2	LOS A	1.6	40.8	0.29	0.40	0.29	37.1
18	R2	728	2.5	728	2.5	0.463	4.5	LOS A	4.0	101.5	0.33	0.47	0.33	35.8
Approach		1036	2.5	1036	2.5	0.463	4.4	LOS A	4.0	101.5	0.32	0.45	0.32	36.2
East: W 4th Street														
1	L2	413	2.9	413	2.9	0.426	11.6	LOS B	2.8	72.3	0.57	0.71	0.57	34.0
16	R2	62	2.9	62	2.9	0.426	5.8	LOS A	2.8	72.3	0.57	0.71	0.57	33.0
Approach		475	2.9	475	2.9	0.426	10.9	LOS B	2.8	72.3	0.57	0.71	0.57	33.8
North: NW Pacific Highway														
7	L2	75	3.9	75	3.9	0.271	12.2	LOS B	1.8	45.4	0.63	0.67	0.63	35.2
4	T1	188	3.9	188	3.9	0.271	6.2	LOS A	1.8	45.4	0.63	0.67	0.63	35.2
Approach		263	3.9	263	3.9	0.271	7.9	LOS A	1.8	45.4	0.63	0.67	0.63	35.2
All Vehicles		1774	2.8	1774	2.8	0.463	6.6	LOS A	4.0	101.5	0.43	0.55	0.43	35.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2028 Buildout Conditions - AM Peak Hour Site
Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Pacific Highway														
8	T1	134	13.6	146	13.6	0.136	4.5	LOS A	0.8	22.4	0.34	0.42	0.34	36.7
18	R2	285	13.6	310	13.6	0.229	4.7	LOS A	1.6	43.5	0.34	0.49	0.34	35.5
Approach		419	13.6	455	13.6	0.229	4.6	LOS A	1.6	43.5	0.34	0.46	0.34	35.9
East: W 4th Street														
1	L2	643	2.8	699	2.8	0.626	11.2	LOS B	5.6	144.2	0.57	0.65	0.57	33.9
16	R2	71	2.8	77	2.8	0.626	5.3	LOS A	5.6	144.2	0.57	0.65	0.57	32.9
Approach		714	2.8	776	2.8	0.626	10.6	LOS B	5.6	144.2	0.57	0.65	0.57	33.8
North: NW Pacific Highway														
7	L2	99	2.8	108	2.8	0.621	18.8	LOS B	6.5	167.1	0.95	1.05	1.24	32.6
4	T1	324	2.8	352	2.8	0.621	12.8	LOS B	6.5	167.1	0.95	1.05	1.24	32.5
Approach		423	2.8	460	2.8	0.621	14.2	LOS B	6.5	167.1	0.95	1.05	1.24	32.5
All Vehicles		1556	5.7	1691	5.7	0.626	10.0	LOS A	6.5	167.1	0.61	0.71	0.69	33.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 4 [W 4th Street at NW Pacific Highway (Site Folder: General)]

2028 Buildout Conditions - PM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Pacific Highway														
8	T1	334	2.5	334	2.5	0.268	4.2	LOS A	1.8	44.8	0.30	0.40	0.30	37.1
18	R2	728	2.5	728	2.5	0.464	4.5	LOS A	4.0	102.1	0.34	0.47	0.34	35.8
Approach		1062	2.5	1062	2.5	0.464	4.4	LOS A	4.0	102.1	0.33	0.45	0.33	36.2
East: W 4th Street														
1	L2	413	2.9	413	2.9	0.439	11.8	LOS B	3.0	75.7	0.60	0.73	0.60	33.9
16	R2	68	2.9	68	2.9	0.439	6.0	LOS A	3.0	75.7	0.60	0.73	0.60	32.9
Approach		481	2.9	481	2.9	0.439	11.0	LOS B	3.0	75.7	0.60	0.73	0.60	33.8
North: NW Pacific Highway														
7	L2	78	3.9	78	3.9	0.293	12.2	LOS B	1.9	50.0	0.65	0.67	0.65	35.2
4	T1	205	3.9	205	3.9	0.293	6.2	LOS A	1.9	50.0	0.65	0.67	0.65	35.2
Approach		283	3.9	283	3.9	0.293	7.9	LOS A	1.9	50.0	0.65	0.67	0.65	35.2
All Vehicles		1826	2.8	1826	2.8	0.464	6.7	LOS A	4.0	102.1	0.45	0.56	0.45	35.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.