Monroe 30

Monroe, WA

Traffic Impact Analysis

April 8, 2025

Prepared for:

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FINDINGS/CONCLUSIONS

This Traffic Impact Analysis (TIA) has been prepared for the proposed *Monroe 30* residential project located between 175th Ave SE and Robinhood Lane and south of 123rd Street SE in Monroe, WA.

Project Proposal. The proposed project would include the development of 179 single-family homes and 34 townhomes on nine parcels (#0103800009-9900, #2806260040-0100, #2806260040-0500, #2806260040-0700, #2806260040-0900, #2806260040-1100, #2806260040-1200, #2806260040-1300, #2806260040-1700). Existing uses on the site include four single-family homes that would be removed as part of the proposed project. Vehicular access to the site is proposed via two driveways on 175th Ave SE and a new west leg to the existing Robinhood Ln/124th Street SE intersection. For this analysis, a design horizon of 2030 was used based on traffic scoping with the City.

Trip Generation. The proposed *Monroe 30* project is estimated to generate 1,881 net new weekday daily trips with 135 trips occurring during the weekday AM peak hour (34 in, 101 out) and 183 trips during the weekday PM peak hour (114 in, 69 out). *It should be noted that the PM peak hour traffic operations analysis included in this study was based on an earlier site plan that included a more intense land use which resulted in a slightly higher trip generation estimate (189 net new PM peak hour trips). Since the analysis documented in this report was based on a higher trip generation estimate, the results represent a conservative analysis.*

Intersection Level of Service (LOS). Weekday PM peak hour LOS analysis was conducted at four off-site study intersections along US 2. Each of the four off-site study intersections are anticipated to operate at an acceptable LOS E or better during the weekday PM peak hour in 2030 with or without the proposed *Monroe 30* project.

Site Access Evaluation. Based on the results of the analysis, the individual movements entering and exiting the site at each of the proposed stop-controlled site access locations are expected to operate at LOS A with minimal queuing during the weekday PM peak hour in 2030.

Mitigation.

Off-Site Improvements. Based on the results of the traffic analysis, all four study intersections are expected to meet LOS standards with full buildout of the proposed project. Therefore, no project-specific off-site transportation improvements are proposed.

City of Monroe Transportation Impact Fees. The City of Monroe requires payment of transportation impact fees to help fund planned roadway improvements throughout the City. The impact fee rate is subject to change and will be based on the impact fee schedule in effect at the time of building permit issuance. The City's current transportation impact fee rate is $4,231 per Single Family dwelling unit (1 or 2 dwellings) and $2,412 per Multi Family dwelling unit (3 or more dwellings).

Snohomish County Mitigation. The City of Monroe and Snohomish County have adopted an interlocal agreement whereby developments in Monroe must assess potential mitigation for impacts on Snohomish County roadway facilities. Pursuant to this agreement, the project is required to evaluate potential impact fees to fund improvements in nearby unincorporated areas of Snohomish County. TENW reviewed the interlocal agreement requirements and based on the location of the nearest County roadway improvements included in Appendix D of the *Snohomish County Transportation Needs Report* none of the County's impact fee projects are anticipated to be impacted by at least 3 directional peak hour trips. Therefore, no impact fees should be due to Snohomish County.

INTRODUCTION

This Traffic Impact Analysis (TIA) has been prepared for the proposed *Monroe 30* project located between 175th Ave SE and Robinhood Lane and south of 123rd Street SE in Monroe as shown in Figure 1.

Project Description

The proposed project would include the development of 179 single-family homes and 34 townhomes on nine parcels (#0103800009-9900, #2806260040-0100, #2806260040-0500, #2806260040-0700, #2806260040-0900, #2806260040-1100, #2806260040-1200, #2806260040-1300, #2806260040-1700). Existing uses on the site include four single-family homes that would be removed as part of the proposed project.

Vehicular access to the site is proposed via two driveways on 175th Ave SE and a new west leg to the existing Robinhood Ln/124th Street SE intersection. For this analysis, a design horizon of 2030 was used based on traffic scoping with the City. A preliminary site plan is included in Appendix A.

Project Approach

To analyze the traffic impacts from the proposed *Monroe 30* project, the following tasks were undertaken:

- Assessed existing conditions through field reconnaissance and reviewed existing planning documents.
- Described and assessed existing transportation conditions in the area.
- Documented existing (2025) traffic volumes and intersection levels of service (LOS) at four off-site study intersections during the weekday PM peak hour.
- Documented future planned transportation improvements in the project vicinity.
- Developed trip generation estimates for weekday daily, AM, and PM peak hour conditions based on the proposed land use.
- Documented trip distribution and assignment of weekday PM peak hour project-generated traffic.
- Documented traffic forecasts and assumptions for year 2030 conditions at the four off-site study intersections without and with the proposed project.
- Analyzed weekday PM peak hour LOS for future year 2030 conditions without and with the proposed project at the four off-site study intersections.
- Evaluated weekday PM peak hour LOS and queuing for future year 2030 conditions at the proposed site access locations.
- Documented impacts to Snohomish County key intersections.
- Documented proposed traffic mitigation.

Primary Data and Information Sources

- Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.
- Institute of Transportation Engineers (ITE), *Trip Generation Handbook*, 3rd Edition, 2017.
- 2025 weekday PM peak hour traffic counts, IDAX.
- Monroe *2023-2028 Transportation Improvement Program (TIP)*.
- Transportation Research Board (TRB), *Highway Capacity Manual (HCM)*, 7th Edition, 2022.
- City of Monroe *2044 Comprehensive Plan*.

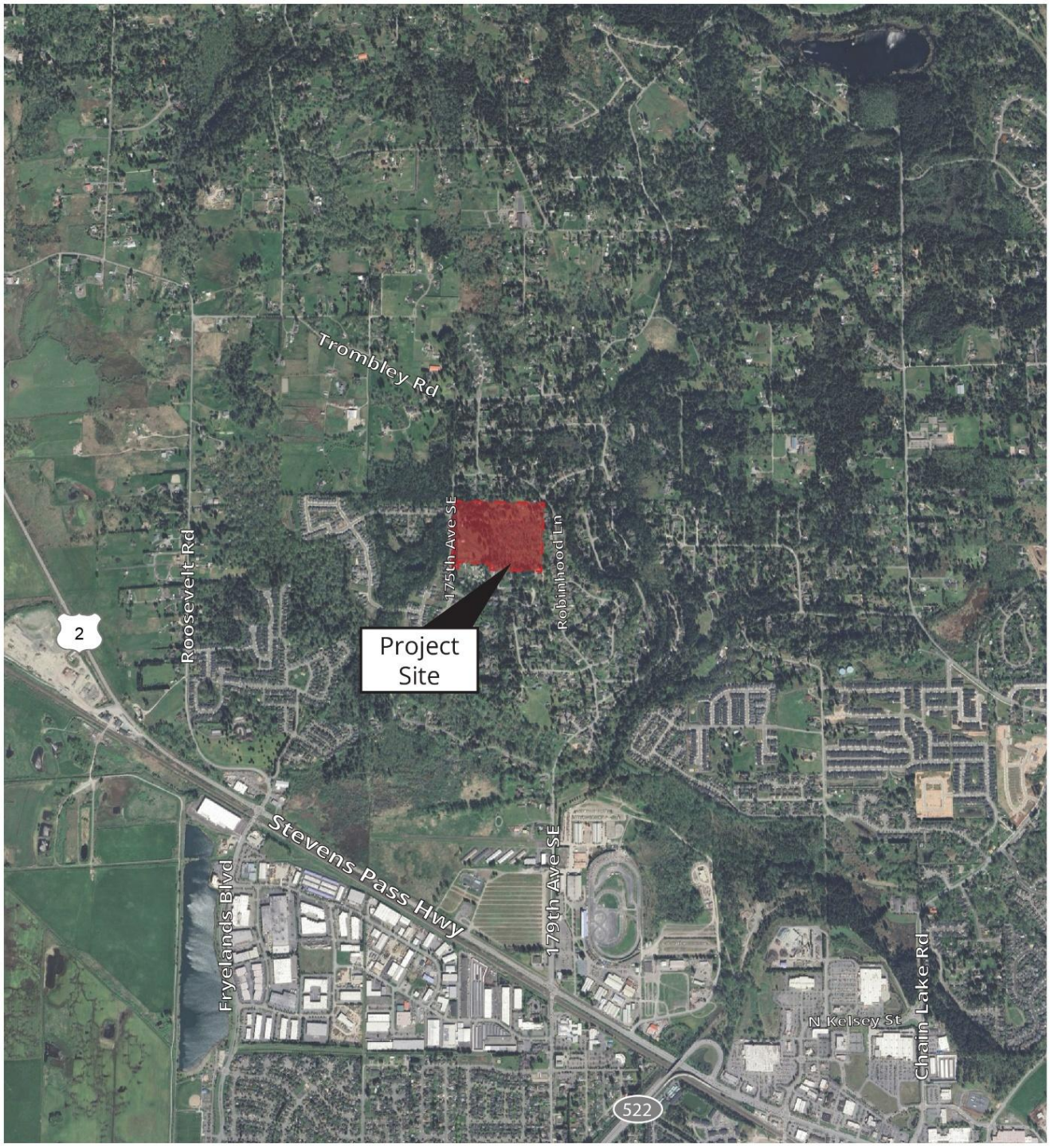


Figure 1: Project Site Vicinity

EXISTING CONDITIONS

Study Area

Based on scoping comments received from the City of Monroe, the following four off-site study intersections are included in this traffic impact analysis:

1. US 2 / 179th Ave SE - signal
2. US 2 / SR 522 - signal
3. US 2 / N Kelsey St - signal
4. US 2 / Chain Lk Rd (N Lewis St) - signal

Roadway Network

Table 1 describes the existing characteristics of the streets that would be used as primary routes to and from the site. Roadway characteristics are described in terms of orientation, arterial classification, posted speed limits, parking, sidewalks, and bicycle facilities. The relationship of these roadways to the project site is shown in Figure 1.

Table 1
Existing Roadway Network Summary

Roadway	Orientation	Classification[1]	Speed Limit	Parking	Sidewalks	Bicycle Facilities
US 2	E/W	Principal Arterial	35	None	Both Sides	None
SR 522	E/W	Principal Arterial	60	None	None	None
179th Ave SE	N/S	Local (n/o US 2)	25	None	None	None

1. Source: City of Monroe 2044 Comprehensive Plan, Chapter 4 Transportation.

Transit Service

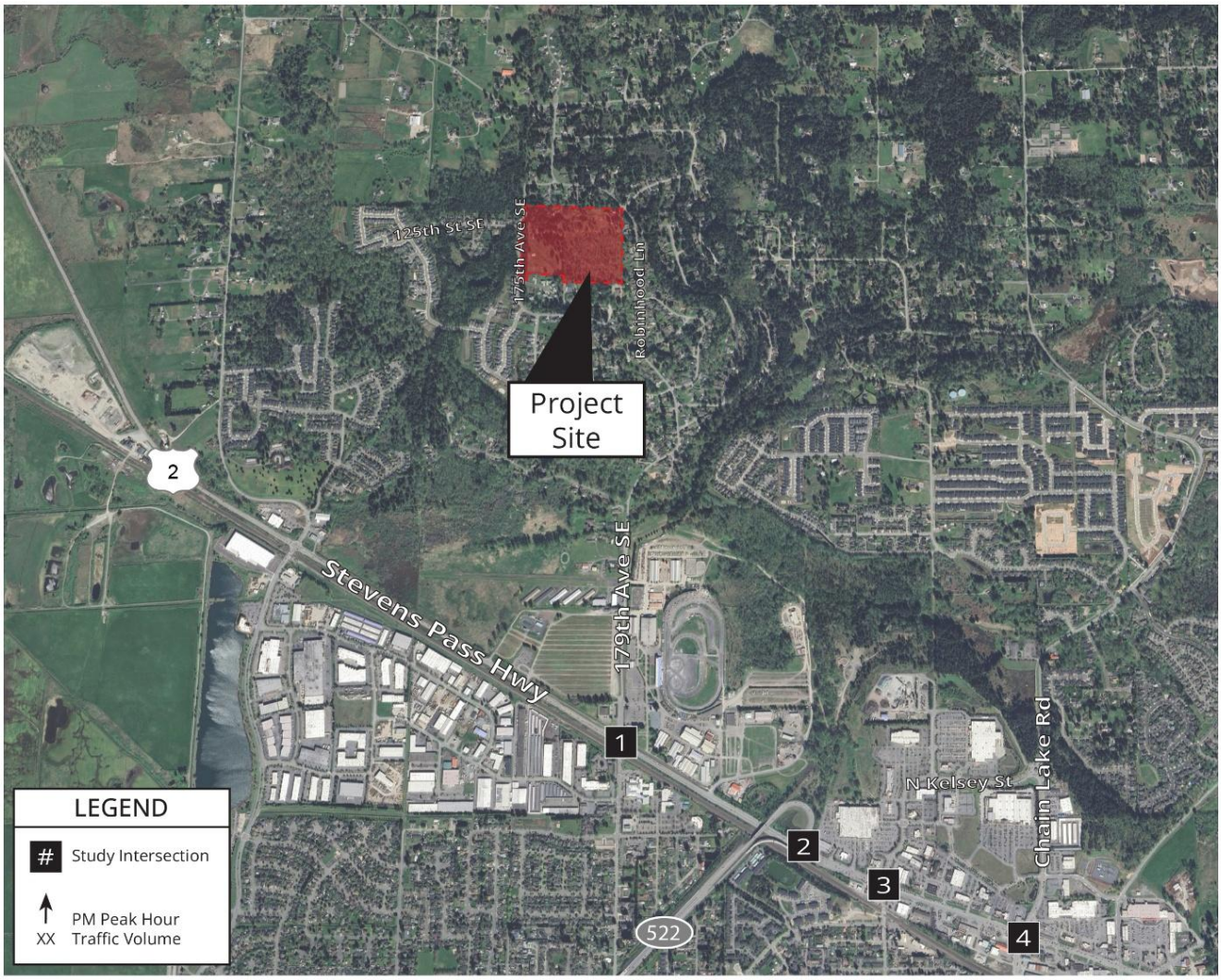
No public transportation currently exists in the immediate project vicinity. The nearest transit stops are located approximately 1.5 miles south of the site at the intersection of 179th Ave SE/US 2. These bus stops provide access to Community Transit routes 270, 271, and 424.

Non-Motorized Transportation Facilities

Non-motorized transportation facilities adjacent to the project site vicinity are limited. At the off-site study intersections on US 2, non-motorized facilities including sidewalks and crosswalks are generally provided.

Traffic Volumes

Existing weekday PM peak hour traffic volumes at the study intersections were based on counts collected by IDAX in January 2025. The PM peak hour traffic volumes represent the highest hour of traffic between 4:00 and 6:00 p.m. Figure 3 illustrates the existing 2025 weekday PM peak hour traffic volumes at the study intersections. The existing traffic count sheets are included in Appendix B.



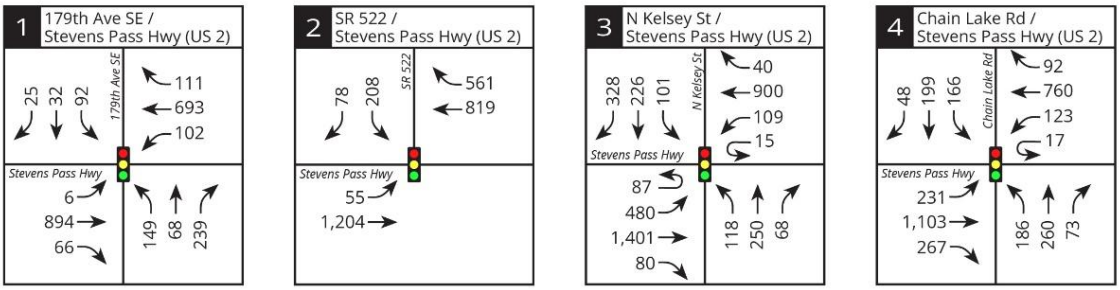


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Figure 2: 2025 Existing Weekday PM Peak Hour Traffic Volumes

Crash History

Crash history at the four off-site study intersections was analyzed for the five-year period from 2019 to 2023 (the most recent 5-year period as provided by WSDOT). Summaries of the total and yearly average during this period are provided in Table 2. Summaries of crashes by type over the five-year period are provided in Table 3.

Table 2
Crash Data Summary by Year, January 1, 2019 to December 31, 2023

Study Intersection	2019	2020	2021	2022	2023	5-Year Total Crashes	Average Annual Crash Rate
1. US 2 / 179th Ave SE	1	3	3	3	1	11	2.20
2. US 2 / SR 522	3	2	3	3	4	15	3.00
3. US 2 / N Kelsey St	11	12	6	9	18	58	11.60
4. US 2 / Chain Lk Rd (N Lewis St)	4	4	9	11	4	35	7.00

Table 3
Crash Data Summary by Type, January 1, 2019 to December 31, 2023

			Crash Type						
Study Intersection	5-Year Total Crashes	Average Annual Crash Rate	Angle (Left/Right)	Angle (T)	Side Swipe	Rear End	Parked Veh/ Fixed Object	Ped/Cyclist	Other
1. US 2 / 179th Ave SE	11	2.20	2	0	2	7	0	0	0
2. US 2 / SR 522	15	3.00	2	3	1	8	1	0	0
3. US 2 / N Kelsey St	58	11.60	12	4	5	36	0	1	0
4. US 2 / Chain Lk Rd (N Lewis St)	35	7.00	6	9	3	13	3	1	0

Intersection Levels of Service

An existing weekday PM peak hour level of service (LOS) analysis was conducted at the four off-site study intersections. Intersection LOS was calculated using the methodology and procedures outlined in the *Highway Capacity Manual* (HCM 7th Edition) and WSDOT Synchro Protocol using the *Synchro 12* software program. Existing signal timing used in the analysis was provided by WSDOT. The 2025 existing weekday PM peak hour LOS analysis results for the study intersections are summarized in Table 4. The LOS methodology and calculations are included in Appendix B.

Table 4
Existing 2025 Weekday PM Peak Hour LOS Summary

Study Intersection	LOS	Delay (sec)
Signalized Intersections:		
1. US 2 / 179th Ave SE	D	44.1
2. US 2 / SR 522	B	14.5
3. US 2 / N Kelsey St	D	48.3
4. US 2 / Chain Lk Rd (N Lewis St)	D	41.2

As shown in Table 4, each of the study intersections currently operate at LOS D or better during the weekday PM peak hour.

FUTURE CONDITIONS

Planned Transportation Improvements

Based on a review of the City of Monroe 2023-2028 *Transportation Improvement Program (TIP)* and the WSDOT *2025-2028 Statewide Transportation Improvement Program (STIP)*, there are no planned capacity improvements within the project study area.

Project Trip Generation

The trip generation estimates for the proposed *Monroe 30* project were based on methodology documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th edition for Land Use Code (LUC) 210 (Single-Family Detached Housing) and LUC 215 (Single-Family Attached Housing). The resulting net new trip generation associated with the proposed project is summarized in Table 5. Detailed trip generation calculations are included in Appendix D.

Table 5
Trip Generation Summary

	Net New Trips Generated		
Weekday Time Period	In	Out	Total
Daily	940	941	1,881
AM Peak Hour	34	101	135
PM Peak Hour	114	669	183

It should be noted that the PM peak hour traffic operations analysis included in this study was based on an earlier site plan that included a more intense land use which resulted in a slightly higher trip generation estimate (189 net new PM peak hour trips). Since the analysis documented in this report was based on a higher trip generation estimate, the results represent a conservative analysis.

Project Trip Distribution

The distribution of vehicle trips generated by the proposed *Monroe 30* project was based on existing and anticipated travel patterns in the area and confirmed with City staff during the traffic scoping process. The new weekday PM peak hour project-generated trips (shown graphically in Figure 4) were generally distributed to the vicinity street system as follows:

- 35% to/from the south on SR-522
- 25% to/from the west on US-2 (via Tromble Road and Roosevelt Road)
- 15% to/from the south on SR-203
- 15% local (north of US-2)
- 5% to/from the east on US-2
- 5% local (south of US-2)

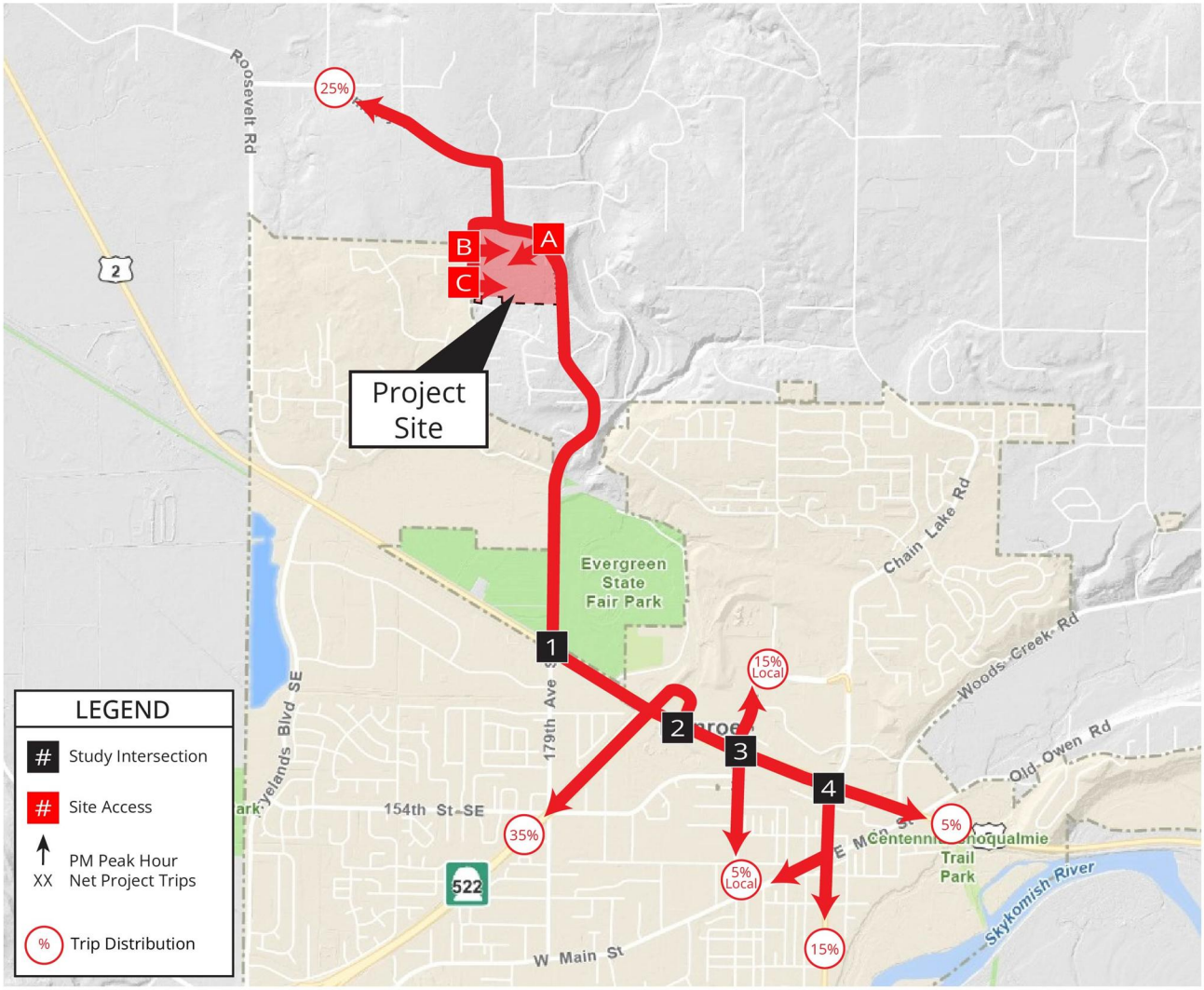
Traffic Volumes

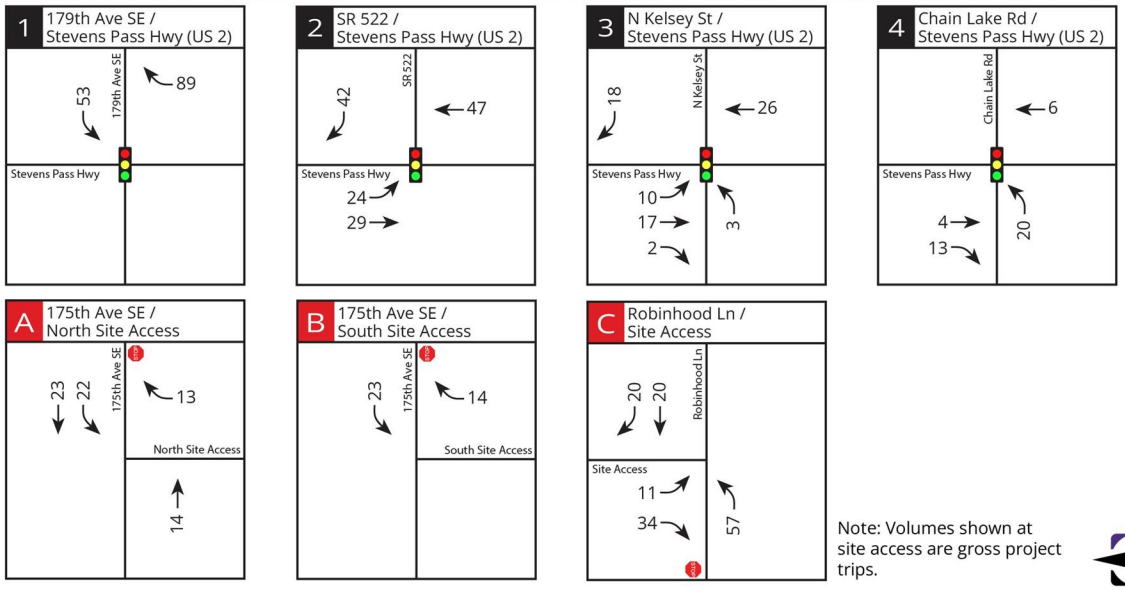
To estimate the future 2030 No Action (Without Project) weekday PM peak hour traffic volumes, a 2 percent annual growth rate was applied to the 2025 existing traffic volumes (confirmed by City staff as part of the traffic scoping discussions). The growth factor is used to account for new development in the

study area and growth in existing traffic. In addition to the background growth rate, trips from the following projects currently in the house-building stage were included in the future baseline traffic volumes.

- Garibaldi residential development
- Cooper Ridge residential development

The resulting future 2030 No Action weekday PM peak hour traffic volumes at the study intersections are shown in Figure 5. The 2030 With Project peak hour traffic volumes were determined by adding the trip assignment from the proposed development (shown in Figure 3) to the future 2030 No Action peak hour traffic volumes (shown in Figure 4). The 2030 With Project PM peak hour traffic volumes are shown in Figure 5.





Note: Volumes shown at site access are gross project trips.

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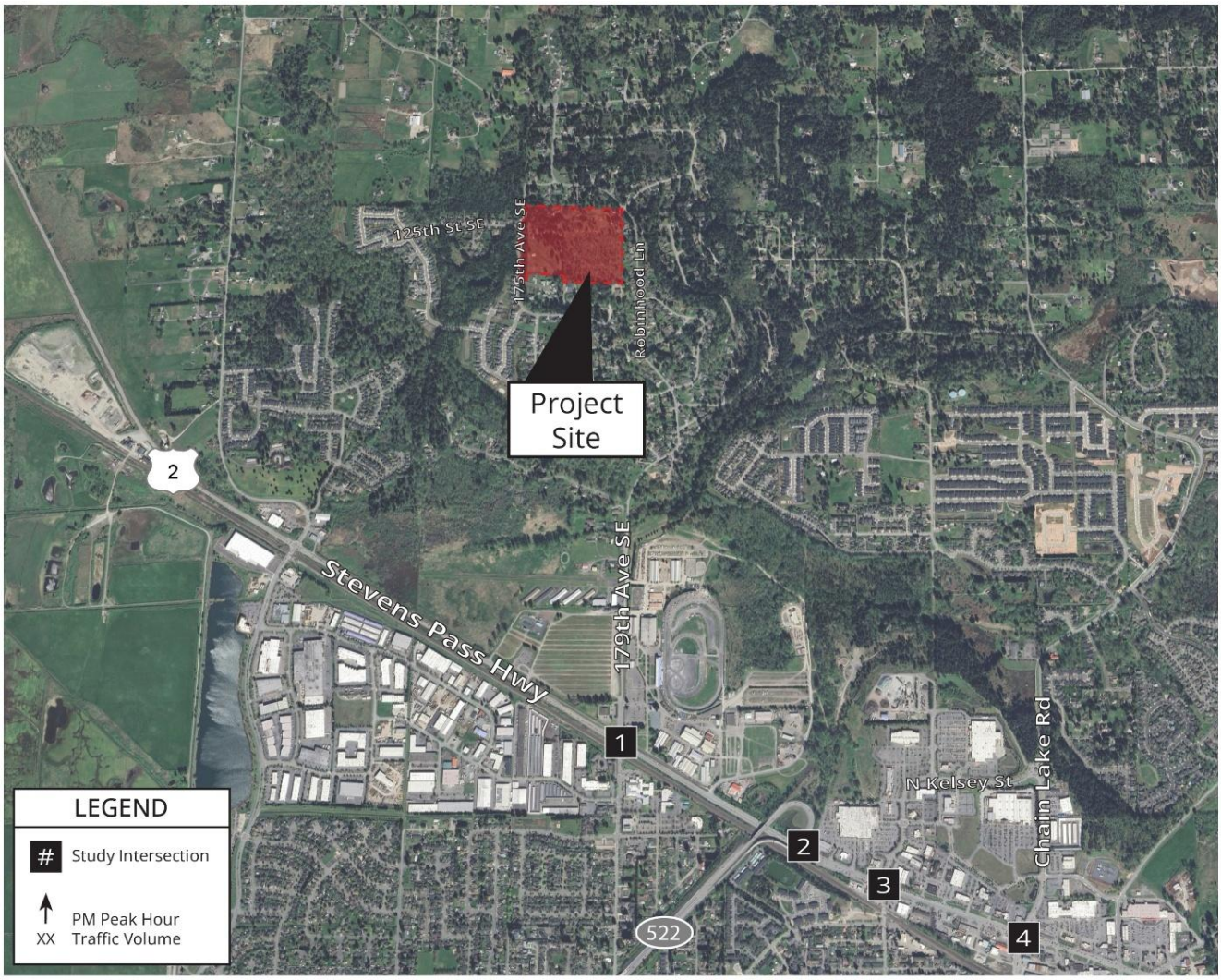
Figure 3: PM Peak Hour Net Project Trip Assignment



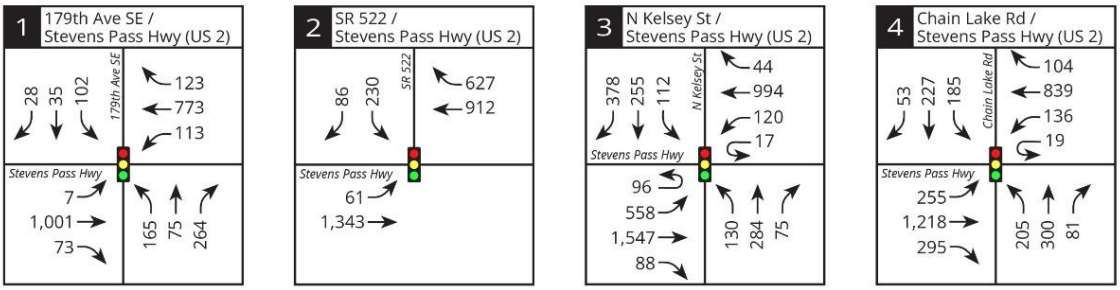


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Figure 4: 2030 Baseline Weekday PM Peak Hour Traffic Volumes

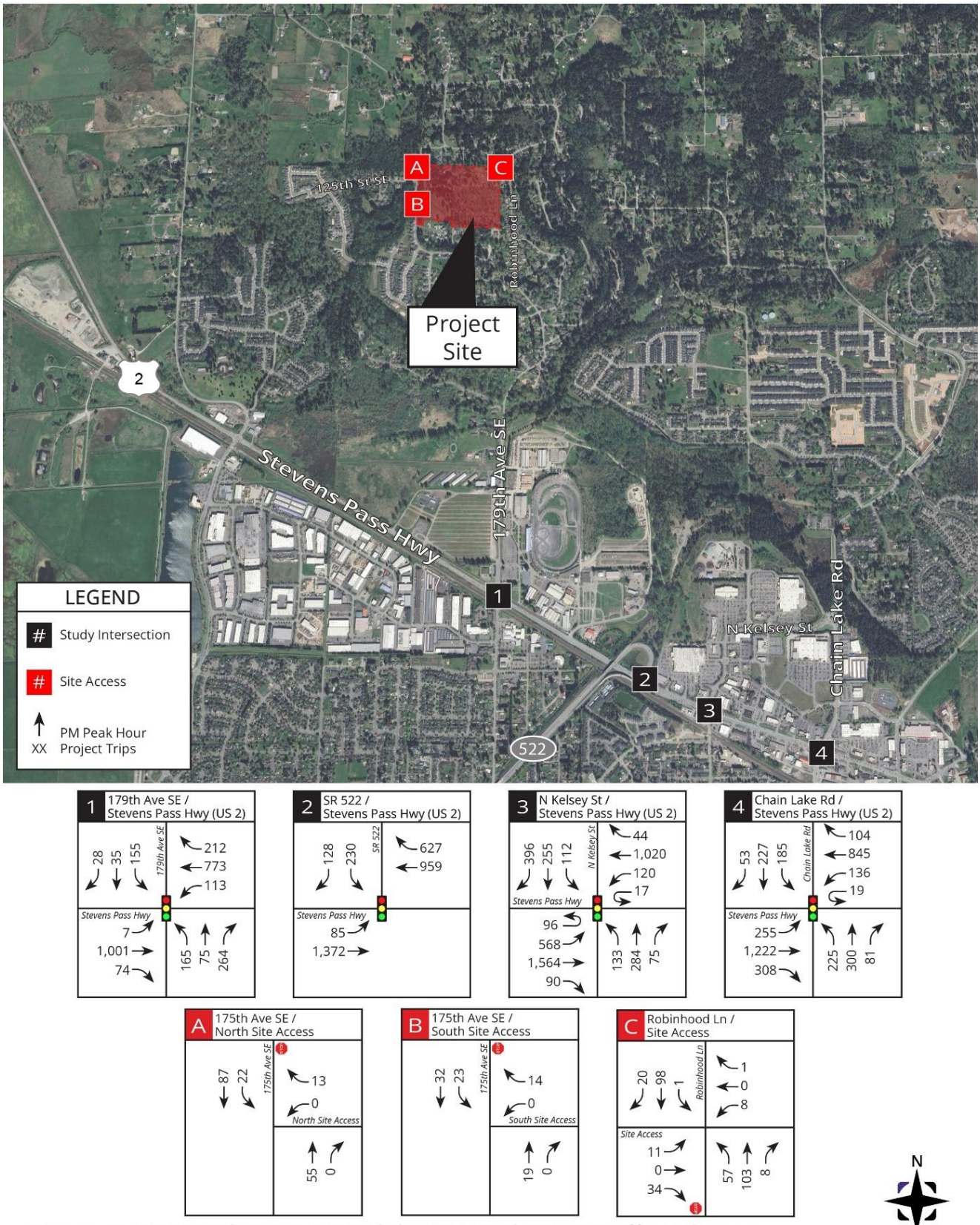

Figure 5: 2030 With Project Weekday PM Peak Hour Traffic Volumes

Intersection Levels of Service

Future year 2030 Level of Service (LOS) analyses were conducted at the four off-site study intersections for weekday PM peak hour No Action (without-project) conditions and With Project conditions that include buildout of the proposed *Monroe 30* project. Existing intersection geometry was assumed at the study intersections as there are no planned improvements. Existing signal timing plans provided by WSDOT were used in the analysis.

The 2030 weekday PM peak hour LOS results at the study intersections with and without the proposed project are summarized in Table 6. The LOS worksheets are included in Appendix C.

Table 6
Future 2030 Weekday PM Peak Hour LOS Summary

	2030 No Action		2030 With Project	
Study Intersection	LOS	Delay (sec)	LOS	Delay (sec)
Signalized Intersections:				
US 2 / 179th Ave SE	E	56.8	E	76.4
US 2 / SR 522	B	14.9	B	16.9
US 2 / N Kelsey St	D	53.6	D	54.4
US 2 / Chain Lk Rd (N Lewis St)	D	42.5	D	42.8

As shown in Table 6, each of the four off-site study intersections on US 2 are anticipated to operate at an acceptable LOS E or better during the weekday PM peak hour without or with the proposed *Monroe 30* project based on policy 4.6.2 included in the City's *2044 Comprehensive Plan*.

Site Access Evaluation

Vehicular access is proposed via two driveways on 175th Ave SE and a new west leg to the existing Robinhood Ln/124th Street SE intersection. This section includes evaluation of the proposed site access locations including LOS and queuing.

LOS and Queuing

To assess operations at the proposed site access locations, LOS and queuing was conducted during the weekday PM peak hour for future year 2030 conditions. The reported queues for the individual movements at each of the proposed site access locations are 95th-percentile queues, which are only exceeded five (5) percent of the time. The 2030 weekday PM peak hour traffic volumes at the proposed site access locations were shown previously in Figure 5.

The weekday PM peak hour site access analysis for future year 2030 is summarized below in Table 7. The LOS worksheets are included in Appendix C.

Table 7
Future 2030 Weekday PM Peak Hour Site Access LOS and Queue Summary

Site Access / Movement	LOS	Delay (sec)	95th Percentile Queue (ft)
A. 175th Ave SE / North Access			
Westbound Approach (exiting trips)	A	8.6	0′
Southbound Left-Turn (entering trips)	A	7.3	0′
B. 175th Ave SE / South Access			
Westbound Approach (exiting trips)	A	8.4	0′
Southbound Left-Turn (entering trips)	A	7.3	0′
C. Robinhood Lane / Access			
Northbound Left-Turn (entering trips)	A	7.6	< 25′
Eastbound Approach (exiting trips)	A	9.7	< 25′

As shown in Table 7, the individual movements entering and exiting the site at the proposed stop-controlled site access locations are expected to operate at LOS A during the weekday PM peak hour in 2030. Additionally, the estimated 95th-percentile queues at each of the site access locations are anticipated to be less than 25 feet (1 vehicle) with buildout of the proposed project during the weekday PM peak hour.

Snohomish County Key Intersections

In accordance with the *Snohomish County Traffic Worksheet and Traffic Study Requirements for Developments in the City of Monroe*, project trip impacts at Snohomish County key intersections were identified. Weekday AM and PM peak hour Trip Distribution and Assignment figures and tables were prepared consistent with these guidelines and are included in Appendix E.

MITIGATION

The following measures are identified to mitigate the transportation impacts of the proposed *Monroe 30* project.

Off-Site Improvements. Based on the results of the traffic analysis, all four study intersections are expected to meet LOS standards with full buildout of the proposed project. Therefore, no project-specific off-site transportation improvements are proposed.

City of Monroe Transportation Impact Fees. The City of Monroe requires payment of transportation impact fees to help fund planned roadway improvements throughout the City. The impact fee rate is subject to change and will be based on the impact fee schedule in effect at the time of building permit issuance. The City's current transportation impact fee rate is $4,231 per Single Family dwelling unit (1 or 2 dwellings) and $2,412 per Multi Family dwelling unit (3 or more dwellings).

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Appendix A

Site Plan

PORTION OF THE SE 1/4, SEC 26, T28N, R6E, WM, SNOHOMISH COUNTY, WASHINGTON

ENGINEERS STAMP	REVISIONS		
	#	DESCRIPTION	DATE

Solid Ground Engineering
8105 166th Ave NE
Redmond, WA 98052

SITE PLAN

LAND PRO GROUP

MONROE 30

MONROE, WASHINGTON

DRAWN BY:	RDP
CHECKED BY:	TPA
DATE:	7-10-24
JURISDICTION:	CITY OF MONROE
JOB NUMBER:	24-0072

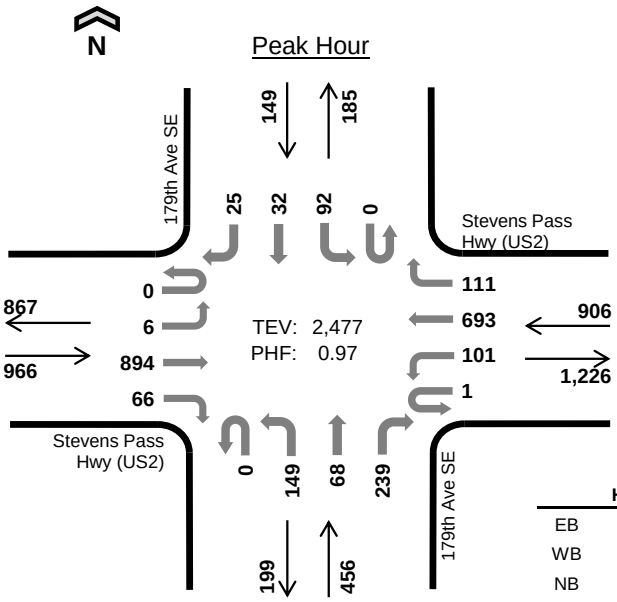
EX-01
1 OF 1

C:\Users\ryan\OneDrive\Solid Ground Engineering\24-0072 Monroe 30\Project Files\Exhibits\24-0072EX-01.dwg 3/31/2025 3:01:01 PM

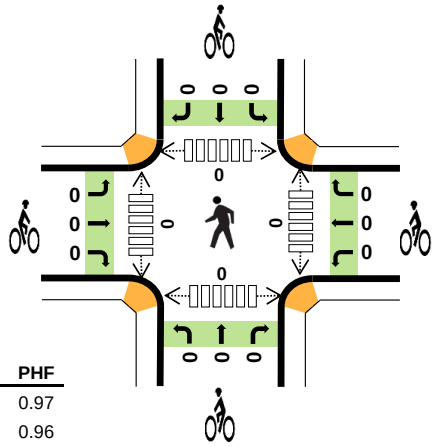
Appendix B

Existing Traffic Counts

179th Ave SE
Stevens Pass Hwy (US2)



Date: 01/16/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	2.7%	0.97
WB	3.4%	0.96
NB	1.8%	0.95
SB	0.7%	0.85
TOTAL	2.7%	0.97

Two-Hour Count Summaries

Interval Start		Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				179th Ave SE Northbound				179th Ave SE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	190	19	0	27	138	29	0	44	17	75	0	27	12	7	588	0
4:15 PM		**0**	**2**	**226**	**15**	**1**	**34**	**172**	**28**	**0**	**42**	**16**	**57**	**0**	**20**	**8**	**2**	**623**	0
4:30 PM		**0**	**2**	**235**	**12**	**0**	**20**	**185**	**24**	**0**	**40**	**19**	**60**	**0**	**30**	**6**	**8**	**641**	0
4:45 PM		**0**	**1**	**208**	**18**	**0**	**30**	**164**	**32**	**0**	**29**	**17**	**56**	**0**	**27**	**11**	**4**	**597**	2,449
5:00 PM		**0**	**1**	**225**	**21**	**0**	**17**	**172**	**27**	**0**	**38**	**16**	**66**	**0**	**15**	**7**	**11**	**616**	**2,477**
5:15 PM		0	2	205	13	0	22	162	27	0	48	16	71	0	25	9	5	605	2,459
5:30 PM		0	4	186	14	0	22	169	37	0	26	11	58	0	18	4	3	552	2,370
5:45 PM		0	2	180	16	0	28	182	39	0	24	11	45	0	18	4	4	553	2,326
Count Total		0	17	1,655	128	1	200	1,344	243	0	291	123	488	0	180	61	44	4,775	0
Peak Hour	**All**	**0**	**6**	**894**	**66**	**1**	**101**	**693**	**111**	**0**	**149**	**68**	**239**	**0**	**92**	**32**	**25**	**2,477**	**0**
	HV	**0**	**0**	**23**	**3**	**0**	**4**	**27**	**0**	**0**	**4**	**1**	**3**	**0**	**1**	**0**	**0**	**66**	**0**
	HV%	**-**	**0%**	**3%**	**5%**	**0%**	**4%**	**4%**	**0%**	**-**	**3%**	**1%**	**1%**	**-**	**1%**	**0%**	**0%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	6	11	1	5	*23*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**10**	**12**	**2**	**0**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**5**	**9**	**0**	**0**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**7**	**5**	**5**	**1**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**4**	**5**	**1**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	3	8	1	1	*13*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	2	9	1	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	5	8	5	0	*18*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	42	67	16	7	*132*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**26**	**31**	**8**	**1**	***66***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

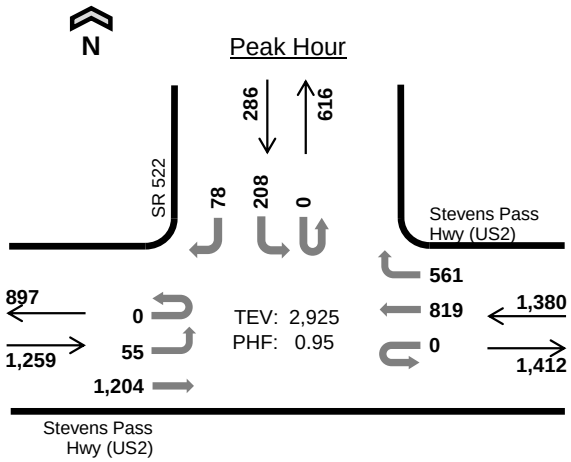
Interval Start	Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				179th Ave SE Northbound				179th Ave SE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	5	0	0	3	8	0	0	0	1	0	0	2	1	2	23	0
4:15 PM	**0**	**0**	**10**	**0**	**0**	**3**	**9**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**24**	0
4:30 PM	**0**	**0**	**5**	**0**	**0**	**1**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	0
4:45 PM	**0**	**0**	**6**	**1**	**0**	**0**	**5**	**0**	**0**	**2**	**1**	**2**	**0**	**1**	**0**	**0**	**18**	79
5:00 PM	**0**	**0**	**2**	**2**	**0**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**66**
5:15 PM	0	0	3	0	0	4	3	1	0	0	0	1	0	0	0	1	13	55
5:30 PM	0	0	2	0	0	1	8	0	0	1	0	0	0	0	0	0	12	53
5:45 PM	0	0	4	1	0	1	7	0	0	2	0	3	0	0	0	0	18	53
Count Total	0	1	37	4	0	13	53	1	0	7	2	7	0	3	1	3	132	0
Peak Hour	**0**	**0**	**23**	**3**	**0**	**4**	**27**	**0**	**0**	**4**	**1**	**3**	**0**	**1**	**0**	**0**	**66**	**0**

Two-Hour Count Summaries - Bikes

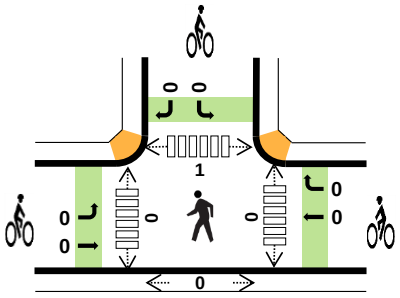
Interval Start	Stevens Pass Hwy (US2) Eastbound			Stevens Pass Hwy (US2) Westbound			179th Ave SE Northbound			179th Ave SE Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

SR 522
Stevens Pass Hwy (US2)



Date: 01/16/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	2.9%	0.95
WB	3.6%	0.96
NB	-	-
SB	2.1%	0.80
TOTAL	3.2%	0.95

Two-Hour Count Summaries

Interval Start		Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				0 Northbound				SR 522 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**10**	**323**	**0**	**0**	**0**	**192**	**155**	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**16**	**743**	0
4:15 PM		**0**	**15**	**279**	**0**	**0**	**0**	**213**	**146**	**0**	**0**	**0**	**0**	**0**	**59**	**0**	**30**	**742**	0
4:30 PM		**0**	**15**	**306**	**0**	**0**	**0**	**224**	**135**	**0**	**0**	**0**	**0**	**0**	**67**	**0**	**22**	**769**	0
4:45 PM		**0**	**15**	**296**	**0**	**0**	**0**	**190**	**125**	**0**	**0**	**0**	**0**	**0**	**35**	**0**	**10**	**671**	**2,925**
5:00 PM		0	9	281	0	0	0	179	142	0	0	0	0	1	54	0	17	683	2,865
5:15 PM		0	10	308	0	0	0	222	133	0	0	0	0	0	57	0	16	746	2,869
5:30 PM		0	13	257	0	0	0	185	132	0	0	0	0	0	65	0	20	672	2,772
5:45 PM		0	8	215	0	0	0	227	146	0	0	0	0	0	56	0	19	671	2,772
Count Total		0	95	2,265	0	0	0	1,632	1,114	0	0	0	0	1	440	0	150	5,697	0
Peak Hour	**All**	**0**	**55**	**1,204**	**0**	**0**	**0**	**819**	**561**	**0**	**0**	**0**	**0**	**0**	**208**	**0**	**78**	**2,925**	**0**
	HV	**0**	**6**	**31**	**0**	**0**	**0**	**36**	**14**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**93**	**0**
	HV%	**-**	**11%**	**3%**	**-**	**-**	**-**	**4%**	**2%**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**6%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**9**	**13**	**0**	**4**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
4:15 PM	**13**	**17**	**0**	**2**	***32***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**5**	**13**	**0**	**0**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**10**	**7**	**0**	**0**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	3	4	0	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	3	7	0	1	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	3	7	0	1	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	4	10	0	0	*14*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	50	78	0	9	*137*	0	0	0	0	*0*	0	0	1	0	*1*
Peak Hr	**37**	**50**	**0**	**6**	***93***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Stevens Pass Hwy (US2)				Stevens Pass Hwy (US2)				0				SR 522				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**2**	**7**	**0**	**0**	**0**	**9**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**26**	0
4:15 PM	**0**	**2**	**11**	**0**	**0**	**0**	**11**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**32**	0
4:30 PM	**0**	**0**	**5**	**0**	**0**	**0**	**10**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	0
4:45 PM	**0**	**2**	**8**	**0**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**93**
5:00 PM	0	0	3	0	0	0	2	2	0	0	0	0	0	0	0	1	8	75
5:15 PM	0	0	3	0	0	0	7	0	0	0	0	0	0	1	0	0	11	54
5:30 PM	0	1	2	0	0	0	7	0	0	0	0	0	0	1	0	0	11	47
5:45 PM	0	0	4	0	0	0	8	2	0	0	0	0	0	0	0	0	14	44
Count Total	0	7	43	0	0	0	60	18	0	0	0	0	0	3	0	6	137	0
Peak Hour	**0**	**6**	**31**	**0**	**0**	**0**	**36**	**14**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**93**	**0**

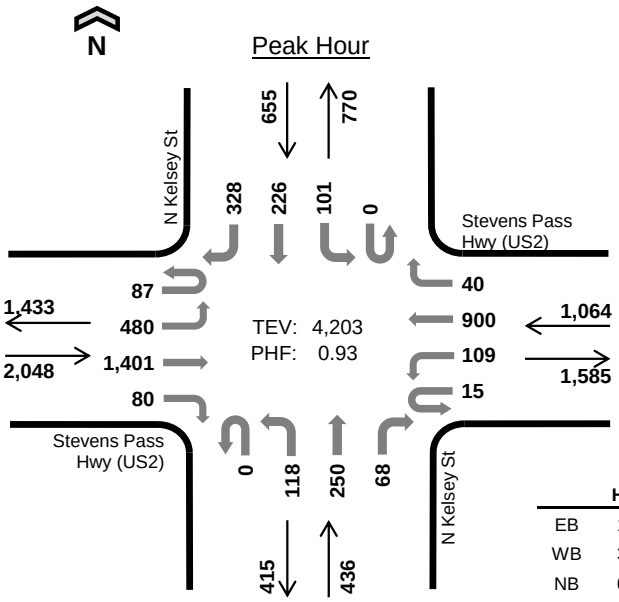
Two-Hour Count Summaries - Bikes

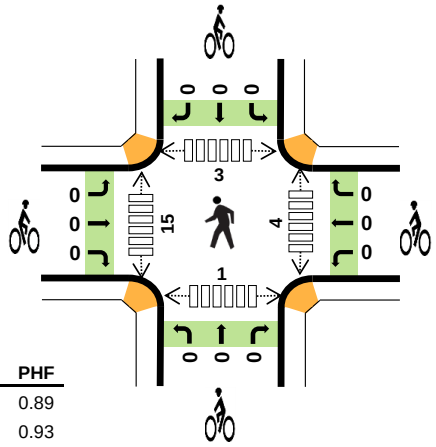
Interval Start	Stevens Pass Hwy (US2)			Stevens Pass Hwy (US2)			0			SR 522			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

N Kelsey St
Stevens Pass Hwy (US2)

Date: 01/16/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	1.9%	0.89
WB	3.7%	0.93
NB	0.7%	0.87
SB	1.5%	0.95
TOTAL	2.1%	0.93

Two-Hour Count Summaries

Interval Start	Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				N Kelsey St Northbound				N Kelsey St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**33**	**117**	**411**	**17**	**3**	**25**	**249**	**9**	**0**	**17**	**69**	**12**	**0**	**25**	**60**	**81**	**1,128**	0
4:15 PM	**23**	**126**	**341**	**16**	**1**	**33**	**230**	**6**	**0**	**38**	**65**	**22**	**0**	**28**	**66**	**78**	**1,073**	0
4:30 PM	**18**	**117**	**321**	**23**	**4**	**21**	**214**	**12**	**0**	**39**	**57**	**20**	**0**	**27**	**45**	**96**	**1,014**	0
4:45 PM	**13**	**120**	**328**	**24**	**7**	**30**	**207**	**13**	**0**	**24**	**59**	**14**	**0**	**21**	**55**	**73**	**988**	**4,203**
5:00 PM	20	115	311	16	8	34	191	6	0	40	74	21	0	25	62	95	1,018	4,093
5:15 PM	20	125	346	18	1	27	229	10	0	27	53	24	0	31	46	93	1,050	4,070
5:30 PM	13	115	319	20	5	30	199	15	0	36	61	17	0	28	45	72	975	4,031
5:45 PM	12	82	295	19	7	27	232	13	0	36	50	21	0	28	52	93	967	4,010
Count Total	152	917	2,672	153	36	227	1,751	84	0	257	488	151	0	213	431	681	8,213	0
Peak Hour All	**87**	**480**	**1,401**	**80**	**15**	**109**	**900**	**40**	**0**	**118**	**250**	**68**	**0**	**101**	**226**	**328**	**4,203**	**0**
Peak Hour HV	**0**	**6**	**29**	**3**	**0**	**4**	**35**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**4**	**6**	**90**	**0**
Peak Hour HV%	**0%**	**1%**	**2%**	**4%**	**0%**	**4%**	**4%**	**0%**	**-**	**2%**	**0%**	**1%**	**-**	**0%**	**2%**	**2%**	**2%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**9**	**14**	**0**	**3**	***26***	**0**	**0**	**0**	**0**	***0***	**1**	**7**	**2**	**1**	*11*
4:15 PM	**11**	**11**	**2**	**3**	***27***	**0**	**0**	**0**	**0**	***0***	**1**	**4**	**1**	**0**	*6*
4:30 PM	**8**	**8**	**1**	**4**	***21***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**0**	**0**	*4*
4:45 PM	**10**	**6**	**0**	**0**	***16***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	***2***
5:00 PM	3	4	1	0	*8*	0	0	0	0	*0*	1	4	0	4	*9*
5:15 PM	7	5	2	0	*14*	0	0	0	0	*0*	2	2	2	0	*6*
5:30 PM	5	8	0	0	*13*	0	0	0	0	*0*	3	0	2	0	*5*
5:45 PM	6	9	2	1	*18*	0	0	0	0	*0*	0	4	0	1	*5*
Count Total	59	65	8	11	*143*	0	0	0	0	*0*	10	25	7	6	*48*
Peak Hour	**38**	**39**	**3**	**10**	***90***	**0**	**0**	**0**	**0**	***0***	**4**	**15**	**3**	**1**	***23***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				N Kelsey St Northbound				N Kelsey St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**2**	**7**	**0**	**0**	**2**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**26**	0
4:15 PM	**0**	**3**	**8**	**0**	**0**	**1**	**10**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**2**	**27**	0
4:30 PM	**0**	**1**	**6**	**1**	**0**	**1**	**7**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**2**	**21**	0
4:45 PM	**0**	**0**	**8**	**2**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**90**
5:00 PM	0	0	3	0	0	0	4	0	0	0	0	1	0	0	0	0	8	72
5:15 PM	0	1	5	1	0	1	4	0	0	2	0	0	0	0	0	0	14	59
5:30 PM	0	0	4	1	0	1	7	0	0	0	0	0	0	0	0	0	13	51
5:45 PM	0	0	5	1	0	0	9	0	0	2	0	0	0	0	0	1	18	53
Count Total	0	7	46	6	0	6	59	0	0	6	0	2	0	0	4	7	143	0
Peak Hour	**0**	**6**	**29**	**3**	**0**	**4**	**35**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**4**	**6**	**90**	**0**

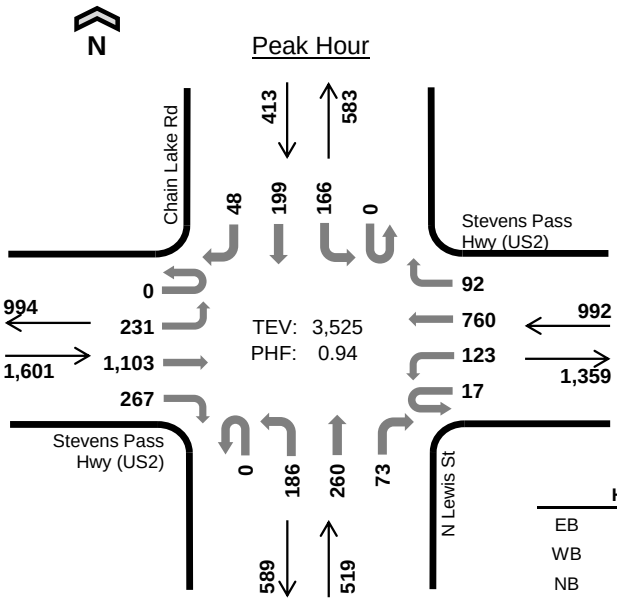
Two-Hour Count Summaries - Bikes

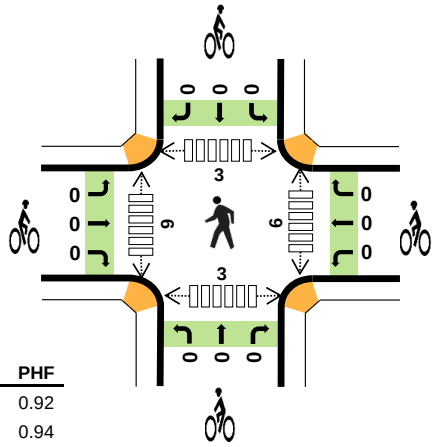
Interval Start	Stevens Pass Hwy (US2) Eastbound			Stevens Pass Hwy (US2) Westbound			N Kelsey St Northbound			N Kelsey St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

N Lewis St
Stevens Pass Hwy (US2)

Date: 01/16/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV %:	PHF
EB	1.9%	0.92
WB	2.7%	0.94
NB	2.9%	0.86
SB	1.7%	0.86
TOTAL	2.2%	0.94

Two-Hour Count Summaries

Interval Start		Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				N Lewis St Northbound				Chain Lake Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**61**	**289**	**85**	**6**	**32**	**190**	**24**	**0**	**59**	**75**	**17**	**0**	**33**	**58**	**13**	**942**	0
4:15 PM		**0**	**55**	**289**	**66**	**2**	**29**	**186**	**21**	**0**	**48**	**62**	**28**	**0**	**52**	**53**	**15**	**906**	0
4:30 PM		**0**	**57**	**293**	**55**	**2**	**29**	**189**	**18**	**0**	**49**	**62**	**13**	**0**	**35**	**42**	**10**	**854**	0
4:45 PM		**0**	**58**	**232**	**61**	**7**	**33**	**195**	**29**	**0**	**30**	**61**	**15**	**0**	**46**	**46**	**10**	**823**	**3,525**
5:00 PM		1	49	293	65	2	26	177	24	0	40	79	22	0	27	41	21	867	3,450
5:15 PM		0	54	306	45	1	39	188	14	0	44	66	22	0	20	37	9	845	3,389
5:30 PM		0	55	249	59	8	30	168	17	0	53	78	19	0	45	35	17	833	3,368
5:45 PM		0	53	288	48	4	30	209	19	0	63	58	15	0	41	36	11	875	3,420
Count Total		1	442	2,239	484	32	248	1,502	166	0	386	541	151	0	299	348	106	6,945	0
Peak Hour	**All**	**0**	**231**	**1,103**	**267**	**17**	**123**	**760**	**92**	**0**	**186**	**260**	**73**	**0**	**166**	**199**	**48**	**3,525**	**0**
	HV	**0**	**2**	**22**	**6**	**0**	**1**	**24**	**2**	**0**	**12**	**1**	**2**	**0**	**2**	**4**	**1**	**79**	**0**
	HV%	**-**	**1%**	**2%**	**2%**	**0%**	**1%**	**3%**	**2%**	**-**	**6%**	**0%**	**3%**	**-**	**1%**	**2%**	**2%**	**2%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**7**	**7**	**4**	**2**	***20***	**0**	**0**	**0**	**0**	***0***	**2**	**4**	**2**	**1**	*9*
4:15 PM	**8**	**9**	**4**	**1**	***22***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**1**	**1**	*7*
4:30 PM	**5**	**5**	**4**	**2**	***16***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
4:45 PM	**10**	**6**	**3**	**2**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**1**	***4***
5:00 PM	6	3	1	3	*13*	0	0	0	0	*0*	0	0	0	1	*1*
5:15 PM	5	3	5	0	*13*	0	0	0	0	*0*	5	1	2	1	*9*
5:30 PM	6	6	3	1	*16*	0	0	0	0	*0*	1	8	0	1	*10*
5:45 PM	4	6	3	0	*13*	0	0	0	0	*0*	1	2	0	2	*5*
Count Total	51	45	27	11	*134*	0	0	0	0	*0*	13	20	5	8	*46*
Peak Hour	**30**	**27**	**15**	**7**	***79***	**0**	**0**	**0**	**0**	***0***	**6**	**9**	**3**	**3**	***21***

Two-Hour Count Summaries - Heavy Vehicles

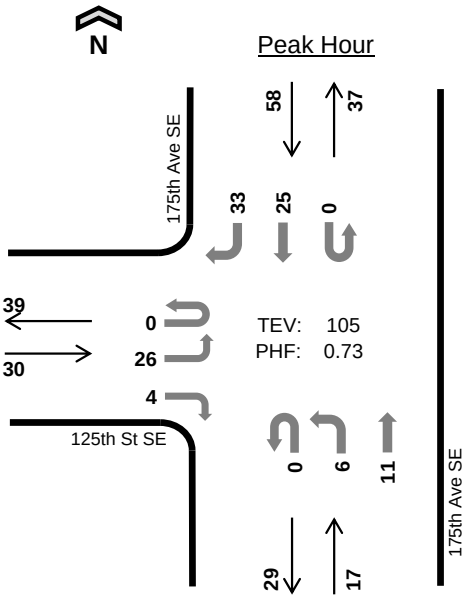
Interval Start	Stevens Pass Hwy (US2) Eastbound				Stevens Pass Hwy (US2) Westbound				N Lewis St Northbound				Chain Lake Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**1**	**4**	**2**	**0**	**0**	**7**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**1**	**1**	**20**	0
4:15 PM	**0**	**0**	**8**	**0**	**0**	**0**	**8**	**1**	**0**	**2**	**1**	**1**	**0**	**0**	**1**	**0**	**22**	0
4:30 PM	**0**	**0**	**3**	**2**	**0**	**0**	**4**	**1**	**0**	**4**	**0**	**0**	**0**	**1**	**1**	**0**	**16**	0
4:45 PM	**0**	**1**	**7**	**2**	**0**	**1**	**5**	**0**	**0**	**2**	**0**	**1**	**0**	**1**	**1**	**0**	**21**	**79**
5:00 PM	0	0	4	2	0	0	2	1	0	0	1	0	0	0	2	1	13	72
5:15 PM	0	0	3	2	0	0	3	0	0	3	0	2	0	0	0	0	13	63
5:30 PM	0	0	3	3	0	1	5	0	0	2	0	1	0	0	1	0	16	63
5:45 PM	0	0	2	2	0	0	6	0	0	3	0	0	0	0	0	0	13	55
Count Total	0	2	34	15	0	2	40	3	0	20	2	5	0	2	7	2	134	0
Peak Hour	**0**	**2**	**22**	**6**	**0**	**1**	**24**	**2**	**0**	**12**	**1**	**2**	**0**	**2**	**4**	**1**	**79**	**0**

Two-Hour Count Summaries - Bikes

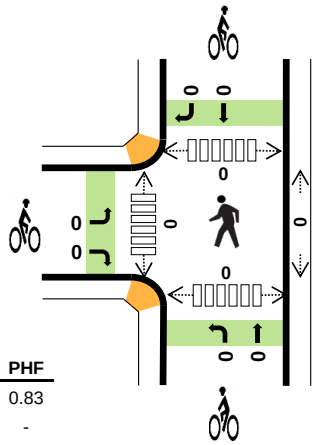
Interval Start	Stevens Pass Hwy (US2) Eastbound			Stevens Pass Hwy (US2) Westbound			N Lewis St Northbound			Chain Lake Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

175th Ave SE
125th St SE



Date: 01/16/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.0%	0.83
WB	-	-
NB	0.0%	0.71
SB	0.0%	0.63
TOTAL	0.0%	0.73

Two-Hour Count Summaries

Interval Start		125th St SE Eastbound				0 Westbound				175th Ave SE Northbound				175th Ave SE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	7	0	2	0	0	0	0	0	0	2	0	0	0	4	7	22	0
4:15 PM		0	3	0	0	0	0	0	0	0	2	0	0	0	0	3	4	12	0
4:30 PM		**0**	**7**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**3**	**4**	**18**	0
4:45 PM		**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**13**	**10**	**36**	88
5:00 PM		**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**5**	**9**	**23**	89
5:15 PM		**0**	**7**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**0**	**4**	**10**	**28**	**105**
5:30 PM		0	5	0	0	0	0	0	0	0	0	5	0	0	0	1	6	17	104
5:45 PM		0	11	0	1	0	0	0	0	0	1	6	0	0	0	2	6	27	95
Count Total		0	52	0	7	0	0	0	0	0	9	24	0	0	0	35	56	183	0
Peak Hour	**All**	**0**	**26**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**6**	**11**	**0**	**0**	**0**	**25**	**33**	**105**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**0%**	**-**	**-**	**-**	**0%**	**0%**	**0%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	2	0	0	*2*
4:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	0	1	1	*3*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	125th St SE				0				175th Ave SE				175th Ave SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	125th St SE			0			175th Ave SE			175th Ave SE			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

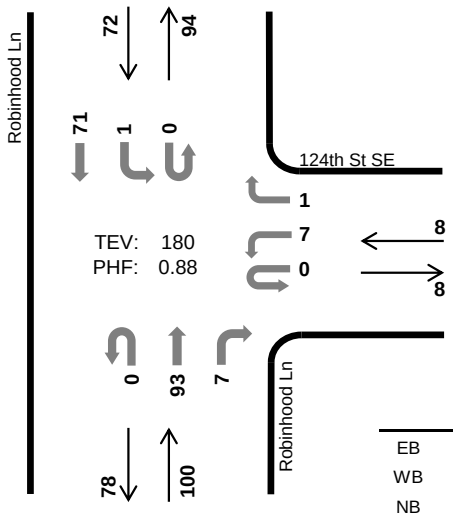
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

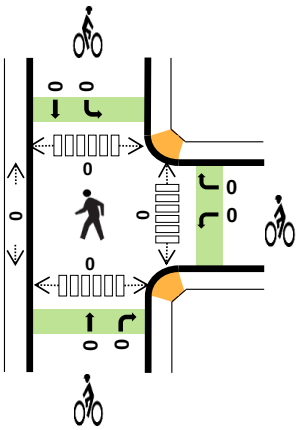
Robinhood Ln
124th St SE

Date: 01/16/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

N

Peak Hour





	HV %:	PHF
EB	-	-
WB	0.0%	0.67
NB	1.0%	0.81
SB	1.4%	0.90
TOTAL	1.1%	0.88

Two-Hour Count Summaries

Interval Start		0 Eastbound				124th St SE Westbound				Robinhood Ln Northbound				Robinhood Ln Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	1	0	0	29	2	0	0	24	0	56	0
4:15 PM		0	0	0	0	0	0	0	1	0	0	12	2	0	1	13	0	29	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**28**	**3**	**0**	**0**	**18**	**0**	**51**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**17**	**1**	**0**	**0**	**20**	**0**	**39**	175
5:00 PM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**24**	**1**	**0**	**1**	**18**	**0**	**46**	165
5:15 PM		**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**24**	**2**	**0**	**0**	**15**	**0**	**44**	**180**
5:30 PM		0	0	0	0	0	0	0	0	0	0	25	0	0	0	18	0	43	172
5:45 PM		0	0	0	0	0	3	0	0	0	0	21	4	0	2	8	0	38	171
Count Total		0	0	0	0	0	10	0	3	0	0	180	15	0	4	134	0	346	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**1**	**0**	**0**	**93**	**7**	**0**	**1**	**71**	**0**	**180**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**0%**	**-**	**-**	**1%**	**0%**	**-**	**0%**	**1%**	**-**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	3	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	0				124th St SE				Robinhood Ln				Robinhood Ln				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	6
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	5
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	0			124th St SE			Robinhood Ln			Robinhood Ln			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Appendix C

Level of Service (LOS) Methodology and Calculations

Level of Service Methodology

Level of Service (LOS) generally refers to the degree of congestion at an intersection. It is a measure of vehicle operating speed, travel time, travel delays, and driving comfort. A letter scale from A to F generally describes intersection LOS.

Signalized Intersection LOS represents the average control delay (sec/veh) and can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for signalized intersections.

LOS Criteria for Signalized Intersections [1]

Control Delay (sec/veh)	Level of Service [2]	General Description [3]
≤ 10	A	Exceptionally Favorable Progression (or very short cycle lengths) – Most vehicles arrive during the green indication and travel through the intersection without stopping.
> 10 to ≤ 20	B	Highly Favorable Progression (or short cycle lengths) – While more vehicles than LOS A stop, most vehicles still pass through the intersection without stopping.
> 20 to ≤ 35	C	Favorable Progression (or moderate cycle lengths) – Individual cycle failures begin to appear, but many vehicles still pass through the intersection without stopping.
> 35 to ≤ 55	D	Ineffective Progression (or long cycle lengths) – Many vehicles stop and individual cycle failures are noticeable.
> 55 to ≤ 80	E	Unfavorable Progression (and long cycle lengths) – Individual cycle failures are frequent.
> 80	F	Very Poor Progression (and long cycle lengths) – Most cycles fail to clear the queue at this level.

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2022.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at signals, LOS is defined solely by control delay.
3 Individual cycle failures: one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle.

Synchro 12 and/or HCM 2000 LOS methodology may be used when HCM 7th Edition methodology is not supported at an intersection (i.e., intersection geometry and/or custom phasing) or jurisdictional standards require use of an alternative methodology.

Unsignalized Intersection LOS (two-way stop control, all-way stop control, and roundabouts) is based on the average control delay. For two-way stop-controlled intersections, the LOS criteria apply to each controlled minor-street approach, controlled minor-street lane group, and controlled major-street movement (additional v/c ratio criteria apply to lane group LOS only). LOS is not calculated for major-street approaches or for the intersection as a whole at two-way stop-controlled intersections. For all-way stop-controlled intersections and roundabouts, LOS can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for unsignalized intersections based on these methodologies.

Note: LOS reported for WSDOT roundabouts use signalized intersection delay criteria, per *WSDOT Sidra Policy Settings*.

LOS Criteria for Unsignalized Intersections[1]

Control Delay (sec/veh)	Level of Service [2]
≤ 10	A
> 10 to ≤ 15	B
> 15 to ≤ 25	C
> 25 to ≤ 35	D
> 35 to ≤ 50	E
> 50	F

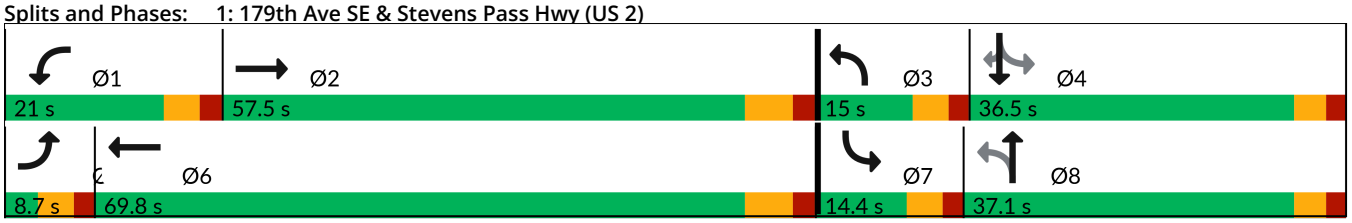
1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2022.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at unsignalized intersections, LOS is defined solely by control delay.

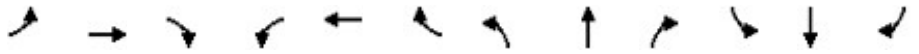
2025 Existing

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	894	66	102	693	111	149	68	239	92	32	25
Future Volume (vph)	6	894	66	102	693	111	149	68	239	92	32	25
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		0%			0%			0%			5%	
Storage Length (ft)	365		385	465		0	0		0	150		300
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1137			781			653			629	
Travel Time (s)		17.2			11.8			17.8			17.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	8.5	42.7		8.5	27.7		8.5	36.1		8.5	29.1	29.1
Total Split (s)	8.7	57.5		21.0	69.8		15.0	37.1		14.4	36.5	36.5
Total Split (%)	6.7%	44.2%		16.2%	53.7%		11.5%	28.5%		11.1%	28.1%	28.1%
Yellow Time (s)	3.5	4.7		3.5	4.7		3.5	3.1		3.5	3.1	3.1
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	6.7		5.5	6.7		5.5	5.1		5.5	5.1	5.1
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	Min		None	Min		None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 113.7	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 1: 179th Ave SE & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	894	66	102	693	111	149	68	239	92	32	25
Future Volume (veh/h)	6	894	66	102	693	111	149	68	239	92	32	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1709	1709	1709	1723	1723	1723	1601	1601	1601
Adj Flow Rate, veh/h	6	922	68	105	714	114	154	70	246	95	33	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	1	1	1
Cap, veh/h	7	1349	99	129	740	118	438	77	270	178	341	
Arrive On Green	0.00	0.44	0.44	0.08	0.51	0.51	0.08	0.23	0.23	0.06	0.21	0.00
Sat Flow, veh/h	1628	3066	226	1628	1438	230	1641	335	1176	1525	1601	1357
Grp Volume(v), veh/h	6	488	502	105	0	828	154	0	316	95	33	0
Grp Sat Flow(s),veh/h/ln	1628	1624	1668	1628	0	1668	1641	0	1511	1525	1601	1357
Q Serve(g_s), s	0.4	29.0	29.0	7.6	0.0	57.6	8.8	0.0	24.5	5.8	2.0	0.0
Cycle Q Clear(g_c), s	0.4	29.0	29.0	7.6	0.0	57.6	8.8	0.0	24.5	5.8	2.0	0.0
Prop In Lane	1.00		0.14	1.00		0.14	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	7	714	734	129	0	858	438	0	347	178	341	
V/C Ratio(X)	0.81	0.68	0.68	0.82	0.00	0.97	0.35	0.00	0.91	0.53	0.10	
Avail Cap(c_a), veh/h	43	714	734	210	0	874	438	0	402	196	418	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.9	27.0	27.0	54.6	0.0	28.2	33.3	0.0	45.2	36.1	38.1	0.0
Incr Delay (d2), s/veh	52.6	3.2	3.1	16.1	0.0	22.4	0.7	0.0	23.2	1.8	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	11.2	11.5	3.6	0.0	26.2	3.6	0.0	11.5	2.3	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	112.4	30.2	30.1	70.7	0.0	50.6	34.0	0.0	68.3	37.9	38.2	0.0
LnGrp LOS	F	C	C	E		D	C		E	D	D	
Approach Vol, veh/h		996			933			470			128	
Approach Delay, s/veh		30.7			52.8			57.1			38.0	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	59.7	15.0	30.7	6.0	68.6	13.0	32.7
Change Period (Y+Rc), s	5.5	6.7	5.5	5.1	5.5	6.7	5.5	5.1
Max Green Setting (Gmax), s	5.5	50.8	9.5	31.4	3.2	63.1	8.9	32.0
Max Q Clear Time (g_c+I1), s	9.6	31.0	10.8	4.0	2.4	59.6	7.8	26.5
Green Ext Time (p_c), s	0.2	9.3	0.0	0.1	0.0	2.3	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	44.1
HCM 7th LOS	D

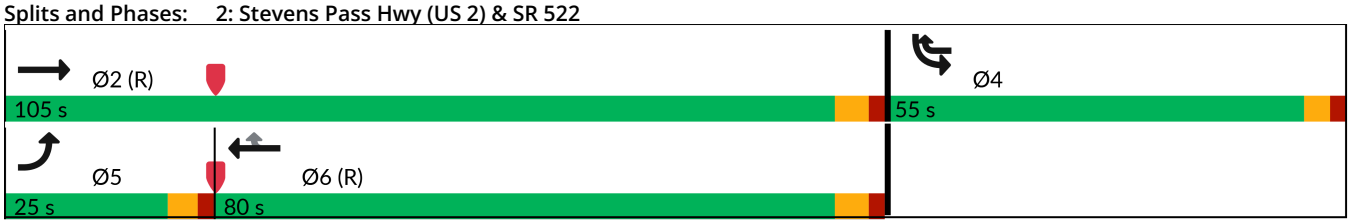
Notes

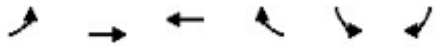
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	55	1204	819	561	208	78
Future Volume (vph)	55	1204	819	561	208	78
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Grade (%)		0%	0%		-3%	
Storage Length (ft)	470			0	0	150
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		579	562		325	
Travel Time (s)		11.3	10.9		8.9	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	pm+ov	Prot	
Protected Phases	5	2	6	4	4	
Permitted Phases				6	4	
Detector Phase	5	2	6	4	4	
Switch Phase						
Minimum Initial (s)	3.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	8.5	23.9	48.9	37.1	37.1	
Total Split (s)	25.0	105.0	80.0	55.0	55.0	
Total Split (%)	15.6%	65.6%	50.0%	34.4%	34.4%	
Yellow Time (s)	3.5	3.9	3.9	3.1	3.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.9	5.9	5.1	5.1	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	None	C-Min	C-Min	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 25 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: Stevens Pass Hwy (US 2) & SR 522





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	55	1204	819	561	208	78
Future Volume (veh/h)	55	1204	819	561	208	78
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1709	1709	1695	1695	1831	1831
Adj Flow Rate, veh/h	58	1267	862	591	151	155
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	4	4	2	2
Cap, veh/h	72	2645	2370	1224	204	181
Arrive On Green	0.04	0.81	0.74	0.74	0.12	0.12
Sat Flow, veh/h	1628	3333	3306	1436	1744	1552
Grp Volume(v), veh/h	58	1267	862	591	151	155
Grp Sat Flow(s),veh/h/ln	1628	1624	1611	1436	1744	1552
Q Serve(g_s), s	5.6	19.0	15.5	16.5	13.4	15.7
Cycle Q Clear(g_c), s	5.6	19.0	15.5	16.5	13.4	15.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	72	2645	2370	1224	204	181
V/C Ratio(X)	0.80	0.48	0.36	0.48	0.74	0.86
Avail Cap(c_a), veh/h	198	2645	2370	1224	544	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.7	4.5	7.6	3.0	68.3	69.3
Incr Delay (d2), s/veh	13.9	0.6	0.4	1.4	5.3	10.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.6	5.2	9.1	6.3	13.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	89.6	5.1	8.1	4.3	73.6	80.2
LnGrp LOS	F	A	A	A	E	F
Approach Vol, veh/h		1325	1453		306	
Approach Delay, s/veh		8.8	6.5		77.0	
Approach LOS		A	A		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		136.2		23.8	12.6	123.6
Change Period (Y+Rc), s		5.9		5.1	5.5	5.9
Max Green Setting (Gmax), s		99.1		49.9	19.5	74.1
Max Q Clear Time (g_c+I1), s		21.0		17.7	7.6	18.5
Green Ext Time (p_c), s		25.9		1.0	0.1	22.3

Intersection Summary	
HCM 7th Control Delay, s/veh	14.5
HCM 7th LOS	B

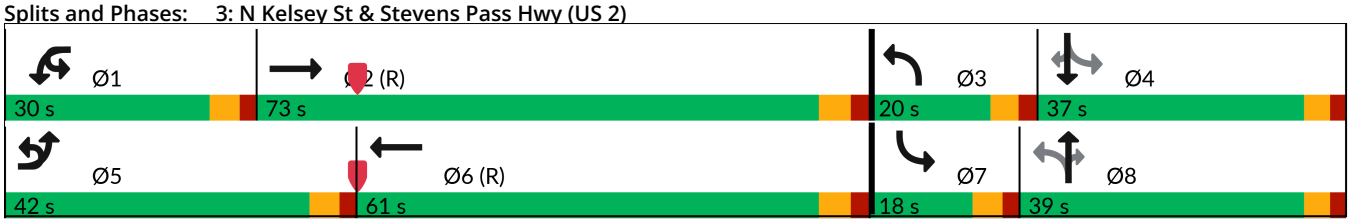
Notes

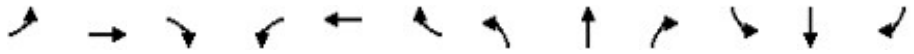
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	567	1401	80	124	900	40	118	250	68	101	226	328
Future Volume (vph)	567	1401	80	124	900	40	118	250	68	101	226	328
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	290		0	670		0	170		70	335		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		573			1773			386			410	
Travel Time (s)		11.2			34.5			10.5			11.2	
Confl. Peds. (#/hr)	3		1	1		3	3		4	4		15
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	3.0	7.0		3.0	7.0		3.0	5.0	5.0	3.0	5.0	5.0
Minimum Split (s)	8.5	36.9		8.5	30.9		8.5	38.1	38.1	8.5	36.1	36.1
Total Split (s)	42.0	73.0		30.0	61.0		20.0	39.0	39.0	18.0	37.0	37.0
Total Split (%)	26.3%	45.6%		18.8%	38.1%		12.5%	24.4%	24.4%	11.3%	23.1%	23.1%
Yellow Time (s)	3.5	3.9		3.5	3.9		3.5	3.1	3.1	3.5	3.1	3.1
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.9		5.5	5.9		5.5	5.1	5.1	5.5	5.1	5.1
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: N Kelsey St & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	567	1401	80	124	900	40	118	250	68	101	226	328
Future Volume (veh/h)	567	1401	80	124	900	40	118	250	68	101	226	328
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1695	1695	1695	1736	1736	1736	1723	1723	1723
Adj Flow Rate, veh/h	610	1506	86	133	968	43	127	269	73	109	243	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	2	2	2
Cap, veh/h	659	2364	135	152	1278	57	209	317	267	185	299	
Arrive On Green	0.21	0.52	0.52	0.13	0.54	0.54	0.08	0.18	0.18	0.07	0.17	0.00
Sat Flow, veh/h	3183	4551	260	1615	3141	140	1654	1736	1462	1641	1723	1460
Grp Volume(v), veh/h	610	1038	554	133	496	515	127	269	73	109	243	0
Grp Sat Flow(s),veh/h/ln	1591	1568	1675	1615	1611	1670	1654	1736	1462	1641	1723	1460
Q Serve(g_s), s	30.1	38.0	38.0	12.9	38.3	38.3	10.0	24.0	6.9	8.7	21.7	0.0
Cycle Q Clear(g_c), s	30.1	38.0	38.0	12.9	38.3	38.3	10.0	24.0	6.9	8.7	21.7	0.0
Prop In Lane	1.00		0.16	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	659	1628	870	152	655	679	209	317	267	185	299	
V/C Ratio(X)	0.93	0.64	0.64	0.87	0.76	0.76	0.61	0.85	0.27	0.59	0.81	
Avail Cap(c_a), veh/h	726	1628	870	247	655	679	234	368	310	204	343	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.2	27.6	27.6	69.0	30.6	30.6	50.6	63.3	56.3	51.3	63.6	0.0
Incr Delay (d2), s/veh	17.0	1.9	3.6	14.1	6.4	6.2	3.7	15.2	0.5	3.7	12.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	14.6	16.0	5.8	14.9	15.4	4.4	12.1	2.6	3.8	10.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	79.2	29.5	31.2	83.1	37.0	36.8	54.3	78.5	56.8	55.0	76.0	0.0
LnGrp LOS	E	C	C	F	D	D	D	E	E	E	E	
Approach Vol, veh/h		2202			1144			469			352	
Approach Delay, s/veh		43.7			42.2			68.6			69.5	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	89.0	17.5	32.9	38.6	71.0	16.1	34.3
Change Period (Y+Rc), s	5.5	5.9	5.5	5.1	5.5	5.9	5.5	5.1
Max Green Setting (Gmax), s	24.5	67.1	14.5	31.9	36.5	55.1	12.5	33.9
Max Q Clear Time (g_c+I1), s	14.9	40.0	12.0	23.7	32.1	40.3	10.7	26.0
Green Ext Time (p_c), s	0.2	13.1	0.1	0.8	1.0	5.6	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	48.3
HCM 7th LOS	D

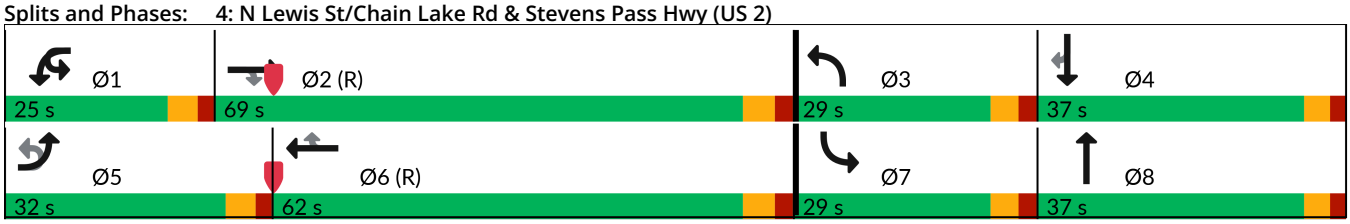
Notes

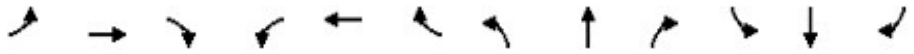
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	1103	267	140	760	92	186	260	73	166	199	48
Future Volume (vph)	231	1103	267	140	760	92	186	260	73	166	199	48
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		0%			0%			7%			0%	
Storage Length (ft)	560		0	280		200	215		0	190		0
Storage Lanes	1		1	1		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1773			412			387			385	
Travel Time (s)		34.5			8.0			10.6			10.5	
Confl. Peds. (#/hr)	3		3	3		3	9		6	6		9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Detector Phase	5	2	2	1	6	6	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	20.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	8.5	37.9	37.9	8.5	39.9	39.9	8.5	36.1		8.5	35.1	35.1
Total Split (s)	32.0	69.0	69.0	25.0	62.0	62.0	29.0	37.0		29.0	37.0	37.0
Total Split (%)	20.0%	43.1%	43.1%	15.6%	38.8%	38.8%	18.1%	23.1%		18.1%	23.1%	23.1%
Yellow Time (s)	3.5	3.9	3.9	3.5	3.9	3.9	3.5	3.1		3.5	3.1	3.1
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.9	5.9	5.5	5.9	5.9	5.5	5.1		5.5	5.1	5.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 20 (13%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: N Lewis St/Chain Lake Rd & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	1103	267	140	760	92	186	260	73	166	199	48
Future Volume (veh/h)	231	1103	267	140	760	92	186	260	73	166	199	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1709	1709	1709	1443	1443	1443	1723	1723	1723
Adj Flow Rate, veh/h	246	1173	0	149	809	0	198	277	78	177	212	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	2	2	2
Cap, veh/h	261	1689		168	1495		237	368	101	221	266	221
Arrive On Green	0.32	1.00	0.00	0.10	0.46	0.00	0.09	0.17	0.17	0.07	0.15	0.15
Sat Flow, veh/h	1641	3273	1460	1628	3247	1448	2667	2115	583	3183	1723	1434
Grp Volume(v), veh/h	246	1173	0	149	809	0	198	177	178	177	212	51
Grp Sat Flow(s),veh/h/ln	1641	1637	1460	1628	1624	1448	1333	1371	1327	1591	1723	1434
Q Serve(g_s), s	23.4	0.0	0.0	14.5	28.7	0.0	11.7	19.7	20.4	8.8	19.0	5.0
Cycle Q Clear(g_c), s	23.4	0.0	0.0	14.5	28.7	0.0	11.7	19.7	20.4	8.8	19.0	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	261	1689		168	1495		237	238	231	221	266	221
V/C Ratio(X)	0.94	0.69		0.89	0.54		0.83	0.74	0.77	0.80	0.80	0.23
Avail Cap(c_a), veh/h	272	1689		198	1495		392	273	265	467	343	286
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	0.0	0.0	70.8	31.0	0.0	71.7	62.7	63.0	73.4	65.3	59.3
Incr Delay (d2), s/veh	30.4	1.7	0.0	30.6	1.4	0.0	9.2	9.2	11.4	5.0	9.7	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	0.4	0.0	7.5	11.5	0.0	4.3	7.5	7.7	3.8	9.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.2	1.7	0.0	101.4	32.4	0.0	80.9	71.9	74.4	78.3	74.9	59.9
LnGrp LOS	F	A		F	C		F	E	E	E	E	E
Approach Vol, veh/h		1419			958			553			440	
Approach Delay, s/veh		16.0			43.2			75.9			74.5	
Approach LOS		B			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	88.5	19.7	29.8	30.9	79.5	16.6	32.9
Change Period (Y+Rc), s	5.5	5.9	5.5	5.1	5.5	5.9	5.5	5.1
Max Green Setting (Gmax), s	19.5	63.1	23.5	31.9	26.5	56.1	23.5	31.9
Max Q Clear Time (g_c+I1), s	16.5	2.0	13.7	21.0	25.4	30.7	10.8	22.4
Green Ext Time (p_c), s	0.1	17.8	0.6	1.0	0.1	8.2	0.3	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	41.2
HCM 7th LOS	D

Notes

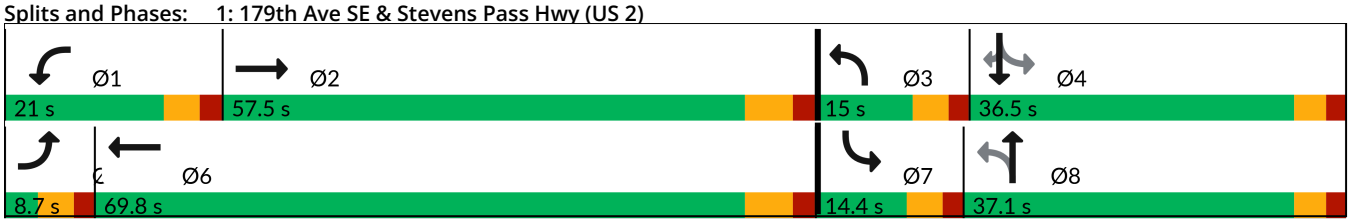
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

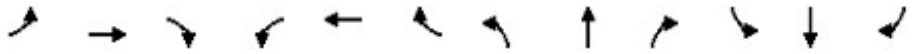
2030 No Action

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	1001	73	113	773	123	165	75	264	102	35	28
Future Volume (vph)	7	1001	73	113	773	123	165	75	264	102	35	28
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		0%			0%			0%			5%	
Storage Length (ft)	365		385	465		0	0		0	150		300
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1137			781			653			629	
Travel Time (s)		17.2			11.8			17.8			17.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	8.5	42.7		8.5	27.7		8.5	36.1		8.5	29.1	29.1
Total Split (s)	8.7	57.5		21.0	69.8		15.0	37.1		14.4	36.5	36.5
Total Split (%)	6.7%	44.2%		16.2%	53.7%		11.5%	28.5%		11.1%	28.1%	28.1%
Yellow Time (s)	3.5	4.7		3.5	4.7		3.5	3.1		3.5	3.1	3.1
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	6.7		5.5	6.7		5.5	5.1		5.5	5.1	5.1
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	Min		None	Min		None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 117.1	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 1: 179th Ave SE & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	1001	73	113	773	123	165	75	264	102	35	28
Future Volume (veh/h)	7	1001	73	113	773	123	165	75	264	102	35	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1709	1709	1709	1723	1723	1723	1601	1601	1601
Adj Flow Rate, veh/h	7	1001	73	113	773	123	165	75	264	102	35	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	1	1	1
Cap, veh/h	8	1312	96	137	729	116	451	80	283	175	367	
Arrive On Green	0.01	0.43	0.43	0.08	0.51	0.51	0.08	0.24	0.24	0.06	0.23	0.00
Sat Flow, veh/h	1628	3069	224	1628	1439	229	1641	334	1177	1525	1601	1357
Grp Volume(v), veh/h	7	530	544	113	0	896	165	0	339	102	35	0
Grp Sat Flow(s),veh/h/ln	1628	1624	1669	1628	0	1668	1641	0	1511	1525	1601	1357
Q Serve(g_s), s	0.5	34.5	34.5	8.5	0.0	63.1	9.5	0.0	27.4	6.3	2.1	0.0
Cycle Q Clear(g_c), s	0.5	34.5	34.5	8.5	0.0	63.1	9.5	0.0	27.4	6.3	2.1	0.0
Prop In Lane	1.00		0.13	1.00		0.14	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	8	694	714	137	0	844	451	0	364	175	367	
V/C Ratio(X)	0.83	0.76	0.76	0.83	0.00	1.06	0.37	0.00	0.93	0.58	0.10	
Avail Cap(c_a), veh/h	42	694	714	202	0	844	451	0	388	185	403	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	61.9	30.3	30.3	56.2	0.0	30.8	33.5	0.0	46.3	36.3	37.8	0.0
Incr Delay (d2), s/veh	50.4	5.6	5.4	19.6	0.0	48.5	0.7	0.0	28.5	3.4	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.8	14.2	4.2	0.0	34.5	4.0	0.0	13.2	2.5	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	112.4	35.9	35.7	75.8	0.0	79.2	34.2	0.0	74.8	39.7	37.9	0.0
LnGrp LOS	F	D	D	E		F	C		E	D	D	
Approach Vol, veh/h		1081			1009			504			137	
Approach Delay, s/veh		36.3			78.8			61.5			39.3	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	60.0	15.0	33.7	6.1	69.8	13.6	35.1
Change Period (Y+Rc), s	5.5	6.7	5.5	5.1	5.5	6.7	5.5	5.1
Max Green Setting (Gmax), s	10.5	50.8	9.5	31.4	3.2	63.1	8.9	32.0
Max Q Clear Time (g_c+I1), s	10.5	36.5	11.5	4.1	2.5	65.1	8.3	29.4
Green Ext Time (p_c), s	0.2	8.2	0.0	0.1	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	56.8
HCM 7th LOS	E

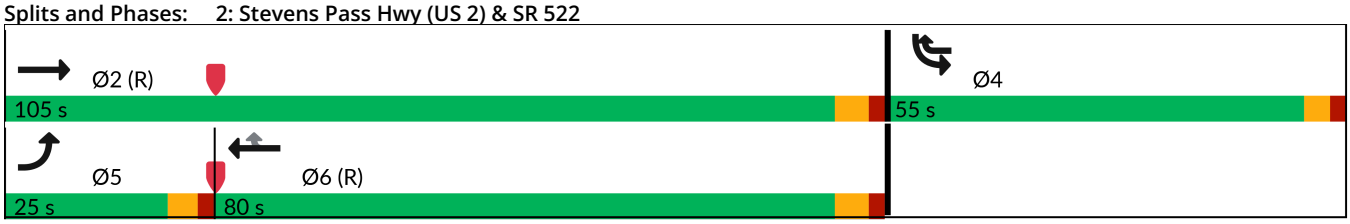
Notes

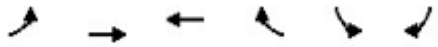
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	61	1343	912	627	230	86
Future Volume (vph)	61	1343	912	627	230	86
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Grade (%)		0%	0%		-3%	
Storage Length (ft)	470			0	0	150
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		579	562		325	
Travel Time (s)		11.3	10.9		8.9	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	pm+ov	Prot	
Protected Phases	5	2	6	4	4	
Permitted Phases				6	4	
Detector Phase	5	2	6	4	4	
Switch Phase						
Minimum Initial (s)	3.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	8.5	23.9	48.9	37.1	37.1	
Total Split (s)	25.0	105.0	80.0	55.0	55.0	
Total Split (%)	15.6%	65.6%	50.0%	34.4%	34.4%	
Yellow Time (s)	3.5	3.9	3.9	3.1	3.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.9	5.9	5.1	5.1	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	None	C-Min	C-Min	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 25 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: Stevens Pass Hwy (US 2) & SR 522





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	61	1343	912	627	230	86
Future Volume (veh/h)	61	1343	912	627	230	86
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1709	1709	1695	1695	1831	1831
Adj Flow Rate, veh/h	61	1343	912	627	158	163
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	2	2
Cap, veh/h	76	2628	2346	1221	213	189
Arrive On Green	0.05	0.81	0.73	0.73	0.12	0.12
Sat Flow, veh/h	1628	3333	3306	1436	1744	1552
Grp Volume(v), veh/h	61	1343	912	627	158	163
Grp Sat Flow(s),veh/h/ln	1628	1624	1611	1436	1744	1552
Q Serve(g_s), s	5.9	21.5	17.2	18.6	14.0	16.5
Cycle Q Clear(g_c), s	5.9	21.5	17.2	18.6	14.0	16.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	76	2628	2346	1221	213	189
V/C Ratio(X)	0.80	0.51	0.39	0.51	0.74	0.86
Avail Cap(c_a), veh/h	198	2628	2346	1221	544	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.5	5.0	8.2	3.2	67.8	68.9
Incr Delay (d2), s/veh	13.5	0.7	0.5	1.5	5.0	10.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.4	5.9	10.5	6.6	14.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	89.0	5.7	8.7	4.7	72.8	79.7
LnGrp LOS	F	A	A	A	E	E
Approach Vol, veh/h		1404	1539		321	
Approach Delay, s/veh		9.3	7.1		76.3	
Approach LOS		A	A		E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	135.4	24.6	13.0	122.4
Change Period (Y+Rc), s	5.9	5.1	5.5	5.9
Max Green Setting (Gmax), s	99.1	49.9	19.5	74.1
Max Q Clear Time (g_c+I1), s	23.5	18.5	7.9	20.6
Green Ext Time (p_c), s	28.6	1.0	0.1	24.1

Intersection Summary	
HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Notes

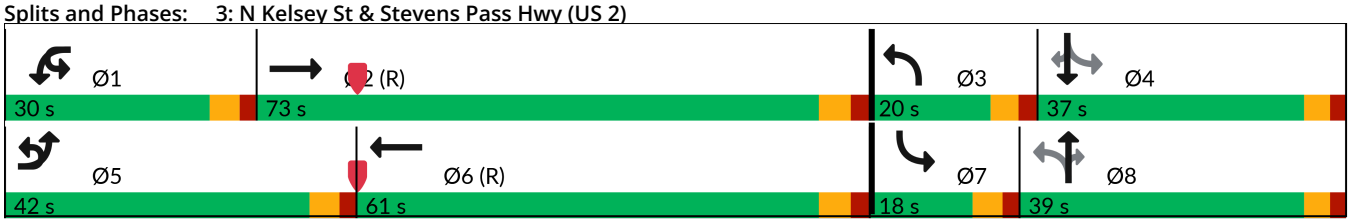
User approved volume balancing among the lanes for turning movement.

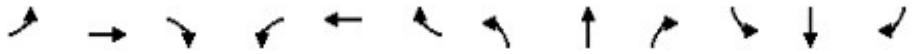
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	654	1547	88	137	994	44	130	284	75	112	255	378
Future Volume (vph)	654	1547	88	137	994	44	130	284	75	112	255	378
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	290		0	670		0	170		70	335		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		573			1773			386			410	
Travel Time (s)		11.2			34.5			10.5			11.2	
Confl. Peds. (#/hr)	3		1	1		3	3		4	4		15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	3.0	7.0		3.0	7.0		3.0	5.0	5.0	3.0	5.0	5.0
Minimum Split (s)	8.5	36.9		8.5	30.9		8.5	38.1	38.1	8.5	36.1	36.1
Total Split (s)	42.0	73.0		30.0	61.0		20.0	39.0	39.0	18.0	37.0	37.0
Total Split (%)	26.3%	45.6%		18.8%	38.1%		12.5%	24.4%	24.4%	11.3%	23.1%	23.1%
Yellow Time (s)	3.5	3.9		3.5	3.9		3.5	3.1	3.1	3.5	3.1	3.1
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.9		5.5	5.9		5.5	5.1	5.1	5.5	5.1	5.1
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 3: N Kelsey St & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	654	1547	88	137	994	44	130	284	75	112	255	378
Future Volume (veh/h)	654	1547	88	137	994	44	130	284	75	112	255	378
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1695	1695	1695	1736	1736	1736	1723	1723	1723
Adj Flow Rate, veh/h	654	1547	88	137	994	44	130	284	75	112	255	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	2	2	2
Cap, veh/h	696	2321	132	157	1221	54	209	326	275	183	309	
Arrive On Green	0.22	0.51	0.51	0.10	0.39	0.39	0.08	0.19	0.19	0.07	0.18	0.00
Sat Flow, veh/h	3183	4552	259	1615	3142	139	1654	1736	1462	1641	1723	1460
Grp Volume(v), veh/h	654	1065	570	137	510	528	130	284	75	112	255	0
Grp Sat Flow(s),veh/h/ln	1591	1568	1675	1615	1611	1670	1654	1736	1462	1641	1723	1460
Q Serve(g_s), s	32.3	40.4	40.4	13.4	45.3	45.3	10.2	25.4	7.0	8.8	22.8	0.0
Cycle Q Clear(g_c), s	32.3	40.4	40.4	13.4	45.3	45.3	10.2	25.4	7.0	8.8	22.8	0.0
Prop In Lane	1.00		0.15	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	696	1599	854	157	626	649	209	326	275	183	309	
V/C Ratio(X)	0.94	0.67	0.67	0.87	0.81	0.81	0.62	0.87	0.27	0.61	0.83	
Avail Cap(c_a), veh/h	726	1599	854	247	626	649	233	368	310	200	343	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	61.5	29.1	29.1	71.2	43.7	43.7	50.0	63.1	55.6	50.8	63.3	0.0
Incr Delay (d2), s/veh	19.8	2.2	4.1	14.2	8.6	8.3	4.3	18.2	0.5	4.7	14.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	15.6	17.1	6.2	19.4	20.1	4.5	13.0	2.7	3.9	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.3	31.3	33.2	85.4	52.3	52.0	54.3	81.3	56.2	55.4	77.3	0.0
LnGrp LOS	F	C	C	F	D	D	D	F	E	E	E	
Approach Vol, veh/h		2289			1175			489			367	
Approach Delay, s/veh		46.1			56.0			70.3			70.7	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	87.5	17.7	33.8	40.5	68.1	16.3	35.2
Change Period (Y+Rc), s	5.5	5.9	5.5	5.1	5.5	5.9	5.5	5.1
Max Green Setting (Gmax), s	24.5	67.1	14.5	31.9	36.5	55.1	12.5	33.9
Max Q Clear Time (g_c+I1), s	15.4	42.4	12.2	24.8	34.3	47.3	10.8	27.4
Green Ext Time (p_c), s	0.2	12.9	0.1	0.8	0.6	3.9	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	53.6
HCM 7th LOS	D

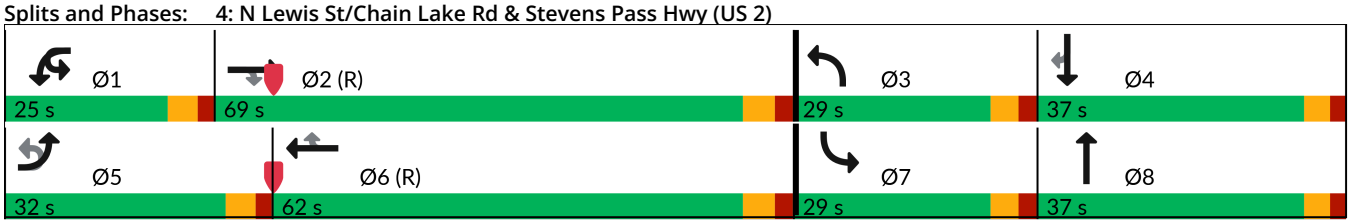
Notes

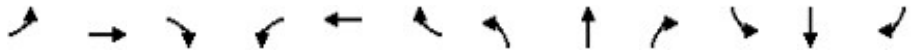
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	255	1218	295	155	839	104	205	300	81	185	227	53
Future Volume (vph)	255	1218	295	155	839	104	205	300	81	185	227	53
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		0%			0%			7%			0%	
Storage Length (ft)	560		0	280		200	215		0	190		0
Storage Lanes	1		1	1		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1773			412			387			385	
Travel Time (s)		34.5			8.0			10.6			10.5	
Confl. Peds. (#/hr)	3		3	3		3	9		6	6		9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Detector Phase	5	2	2	1	6	6	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	20.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	8.5	37.9	37.9	8.5	39.9	39.9	8.5	36.1		8.5	35.1	35.1
Total Split (s)	32.0	69.0	69.0	25.0	62.0	62.0	29.0	37.0		29.0	37.0	37.0
Total Split (%)	20.0%	43.1%	43.1%	15.6%	38.8%	38.8%	18.1%	23.1%		18.1%	23.1%	23.1%
Yellow Time (s)	3.5	3.9	3.9	3.5	3.9	3.9	3.5	3.1		3.5	3.1	3.1
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.9	5.9	5.5	5.9	5.9	5.5	5.1		5.5	5.1	5.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 20 (13%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: N Lewis St/Chain Lake Rd & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	1218	295	155	839	104	205	300	81	185	227	53
Future Volume (veh/h)	255	1218	295	155	839	104	205	300	81	185	227	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1709	1709	1709	1443	1443	1443	1723	1723	1723
Adj Flow Rate, veh/h	255	1218	0	155	839	0	205	300	81	185	227	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	2	2	2
Cap, veh/h	269	1650		174	1450		244	384	102	229	276	230
Arrive On Green	0.33	1.00	0.00	0.11	0.45	0.00	0.09	0.18	0.18	0.07	0.16	0.16
Sat Flow, veh/h	1641	3273	1460	1628	3247	1448	2667	2136	566	3183	1723	1435
Grp Volume(v), veh/h	255	1218	0	155	839	0	205	191	190	185	227	53
Grp Sat Flow(s),veh/h/ln	1641	1637	1460	1628	1624	1448	1333	1371	1331	1591	1723	1435
Q Serve(g_s), s	24.2	0.0	0.0	15.0	30.8	0.0	12.1	21.2	21.9	9.2	20.4	5.2
Cycle Q Clear(g_c), s	24.2	0.0	0.0	15.0	30.8	0.0	12.1	21.2	21.9	9.2	20.4	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	269	1650		174	1450		244	246	239	229	276	230
V/C Ratio(X)	0.95	0.74		0.89	0.58		0.84	0.77	0.80	0.81	0.82	0.23
Avail Cap(c_a), veh/h	272	1650		198	1450		392	273	265	467	343	286
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	0.0	70.5	33.0	0.0	71.5	62.5	62.8	73.2	65.0	58.6
Incr Delay (d2), s/veh	30.5	2.0	0.0	32.4	1.7	0.0	10.0	11.7	14.2	5.0	12.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	0.5	0.0	7.8	12.5	0.0	4.5	8.3	8.5	3.9	10.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.6	2.0	0.0	102.9	34.7	0.0	81.5	74.2	77.0	78.1	77.3	59.1
LnGrp LOS	F	A		F	C		F	E	E	E	E	E
Approach Vol, veh/h		1473			994			586			465	
Approach Delay, s/veh		16.1			45.4			77.7			75.6	
Approach LOS		B			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	86.5	20.2	30.7	31.8	77.4	17.0	33.9
Change Period (Y+Rc), s	5.5	5.9	5.5	5.1	5.5	5.9	5.5	5.1
Max Green Setting (Gmax), s	19.5	63.1	23.5	31.9	26.5	56.1	23.5	31.9
Max Q Clear Time (g_c+I1), s	17.0	2.0	14.1	22.4	26.2	32.8	11.2	23.9
Green Ext Time (p_c), s	0.1	19.0	0.6	1.0	0.0	8.3	0.4	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	42.5
HCM 7th LOS	D

Notes

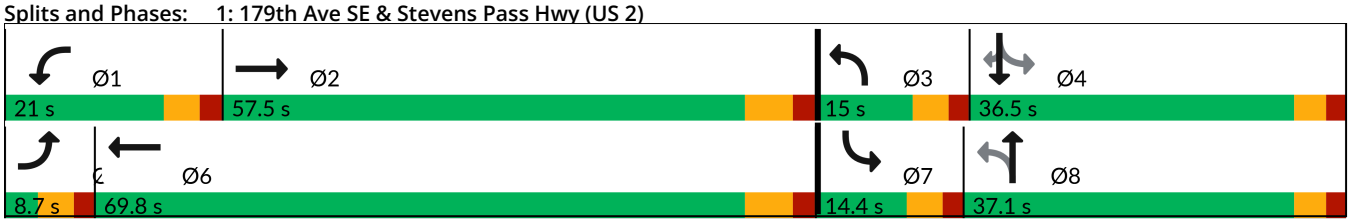
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

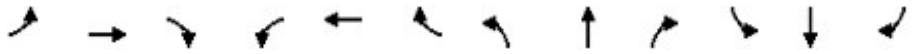
2030 With Project

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	1001	73	113	773	123	165	75	264	102	35	28
Future Volume (vph)	7	1001	73	113	773	123	165	75	264	102	35	28
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		0%			0%			0%			5%	
Storage Length (ft)	365		385	465		0	0		0	150		300
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		1137			781			653			629	
Travel Time (s)		17.2			11.8			17.8			17.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	8.5	42.7		8.5	27.7		8.5	36.1		8.5	29.1	29.1
Total Split (s)	8.7	57.5		21.0	69.8		15.0	37.1		14.4	36.5	36.5
Total Split (%)	6.7%	44.2%		16.2%	53.7%		11.5%	28.5%		11.1%	28.1%	28.1%
Yellow Time (s)	3.5	4.7		3.5	4.7		3.5	3.1		3.5	3.1	3.1
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	6.7		5.5	6.7		5.5	5.1		5.5	5.1	5.1
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	Min		None	Min		None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 117.1	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 1: 179th Ave SE & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	1001	73	113	773	123	165	75	264	102	35	28
Future Volume (veh/h)	7	1001	73	113	773	123	165	75	264	102	35	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1709	1709	1709	1709	1709	1709	1723	1723	1723	1601	1601	1601
Adj Flow Rate, veh/h	7	1001	73	113	773	123	165	75	264	102	35	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	1	1	1
Cap, veh/h	8	1312	96	137	729	116	451	80	283	175	367	
Arrive On Green	0.01	0.43	0.43	0.08	0.51	0.51	0.08	0.24	0.24	0.06	0.23	0.00
Sat Flow, veh/h	1628	3069	224	1628	1439	229	1641	334	1177	1525	1601	1357
Grp Volume(v), veh/h	7	530	544	113	0	896	165	0	339	102	35	0
Grp Sat Flow(s),veh/h/ln	1628	1624	1669	1628	0	1668	1641	0	1511	1525	1601	1357
Q Serve(g_s), s	0.5	34.5	34.5	8.5	0.0	63.1	9.5	0.0	27.4	6.3	2.1	0.0
Cycle Q Clear(g_c), s	0.5	34.5	34.5	8.5	0.0	63.1	9.5	0.0	27.4	6.3	2.1	0.0
Prop In Lane	1.00		0.13	1.00		0.14	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	8	694	714	137	0	844	451	0	364	175	367	
V/C Ratio(X)	0.83	0.76	0.76	0.83	0.00	1.06	0.37	0.00	0.93	0.58	0.10	
Avail Cap(c_a), veh/h	42	694	714	202	0	844	451	0	388	185	403	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	61.9	30.3	30.3	56.2	0.0	30.8	33.5	0.0	46.3	36.3	37.8	0.0
Incr Delay (d2), s/veh	50.4	5.6	5.4	19.6	0.0	48.5	0.7	0.0	28.5	3.4	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.8	14.2	4.2	0.0	34.5	4.0	0.0	13.2	2.5	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	112.4	35.9	35.7	75.8	0.0	79.2	34.2	0.0	74.8	39.7	37.9	0.0
LnGrp LOS	F	D	D	E		F	C		E	D	D	
Approach Vol, veh/h		1081			1009			504			137	
Approach Delay, s/veh		36.3			78.8			61.5			39.3	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	60.0	15.0	33.7	6.1	69.8	13.6	35.1
Change Period (Y+Rc), s	5.5	6.7	5.5	5.1	5.5	6.7	5.5	5.1
Max Green Setting (Gmax), s	10.5	50.8	9.5	31.4	3.2	63.1	8.9	32.0
Max Q Clear Time (g_c+I1), s	10.5	36.5	11.5	4.1	2.5	65.1	8.3	29.4
Green Ext Time (p_c), s	0.2	8.2	0.0	0.1	0.0	0.0	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	56.8
HCM 7th LOS	E

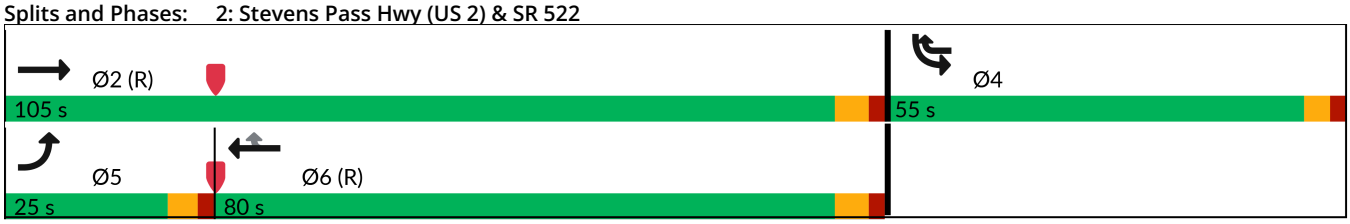
Notes

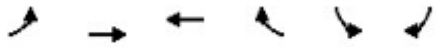
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	61	1343	912	627	230	86
Future Volume (vph)	61	1343	912	627	230	86
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Grade (%)		0%	0%		-3%	
Storage Length (ft)	470			0	0	150
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		579	562		325	
Travel Time (s)		11.3	10.9		8.9	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	pm+ov	Prot	
Protected Phases	5	2	6	4	4	
Permitted Phases				6	4	
Detector Phase	5	2	6	4	4	
Switch Phase						
Minimum Initial (s)	3.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	8.5	23.9	48.9	37.1	37.1	
Total Split (s)	25.0	105.0	80.0	55.0	55.0	
Total Split (%)	15.6%	65.6%	50.0%	34.4%	34.4%	
Yellow Time (s)	3.5	3.9	3.9	3.1	3.1	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.9	5.9	5.1	5.1	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	None	C-Min	C-Min	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 25 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: Stevens Pass Hwy (US 2) & SR 522





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	61	1343	912	627	230	86
Future Volume (veh/h)	61	1343	912	627	230	86
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1709	1709	1695	1695	1831	1831
Adj Flow Rate, veh/h	61	1343	912	627	158	163
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	4	4	2	2
Cap, veh/h	76	2628	2346	1221	213	189
Arrive On Green	0.05	0.81	0.73	0.73	0.12	0.12
Sat Flow, veh/h	1628	3333	3306	1436	1744	1552
Grp Volume(v), veh/h	61	1343	912	627	158	163
Grp Sat Flow(s),veh/h/ln	1628	1624	1611	1436	1744	1552
Q Serve(g_s), s	5.9	21.5	17.2	18.6	14.0	16.5
Cycle Q Clear(g_c), s	5.9	21.5	17.2	18.6	14.0	16.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	76	2628	2346	1221	213	189
V/C Ratio(X)	0.80	0.51	0.39	0.51	0.74	0.86
Avail Cap(c_a), veh/h	198	2628	2346	1221	544	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.5	5.0	8.2	3.2	67.8	68.9
Incr Delay (d2), s/veh	13.5	0.7	0.5	1.5	5.0	10.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.4	5.9	10.5	6.6	14.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	89.0	5.7	8.7	4.7	72.8	79.7
LnGrp LOS	F	A	A	A	E	E
Approach Vol, veh/h		1404	1539		321	
Approach Delay, s/veh		9.3	7.1		76.3	
Approach LOS		A	A		E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	135.4	24.6	13.0	122.4
Change Period (Y+Rc), s	5.9	5.1	5.5	5.9
Max Green Setting (Gmax), s	99.1	49.9	19.5	74.1
Max Q Clear Time (g_c+I1), s	23.5	18.5	7.9	20.6
Green Ext Time (p_c), s	28.6	1.0	0.1	24.1

Intersection Summary	
HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Notes

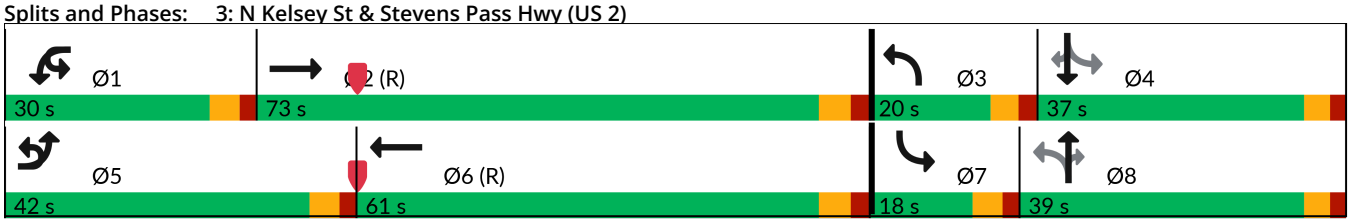
User approved volume balancing among the lanes for turning movement.

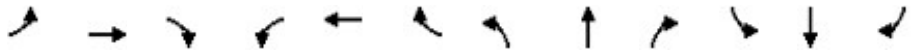
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	654	1547	88	137	994	44	130	284	75	112	255	378
Future Volume (vph)	654	1547	88	137	994	44	130	284	75	112	255	378
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	290		0	670		0	170		70	335		0
Storage Lanes	2		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		573			1773			386			410	
Travel Time (s)		11.2			34.5			10.5			11.2	
Confl. Peds. (#/hr)	3		1	1		3	3		4	4		15
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases							8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	3.0	7.0		3.0	7.0		3.0	5.0	5.0	3.0	5.0	5.0
Minimum Split (s)	8.5	36.9		8.5	30.9		8.5	38.1	38.1	8.5	36.1	36.1
Total Split (s)	42.0	73.0		30.0	61.0		20.0	39.0	39.0	18.0	37.0	37.0
Total Split (%)	26.3%	45.6%		18.8%	38.1%		12.5%	24.4%	24.4%	11.3%	23.1%	23.1%
Yellow Time (s)	3.5	3.9		3.5	3.9		3.5	3.1	3.1	3.5	3.1	3.1
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.9		5.5	5.9		5.5	5.1	5.1	5.5	5.1	5.1
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None

Intersection Summary

Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated

Splits and Phases: 3: N Kelsey St & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	654	1547	88	137	994	44	130	284	75	112	255	378
Future Volume (veh/h)	654	1547	88	137	994	44	130	284	75	112	255	378
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1695	1695	1695	1736	1736	1736	1723	1723	1723
Adj Flow Rate, veh/h	654	1547	88	137	994	44	130	284	75	112	255	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	2	2	2
Cap, veh/h	696	2321	132	157	1221	54	209	326	275	183	309	
Arrive On Green	0.22	0.51	0.51	0.10	0.39	0.39	0.08	0.19	0.19	0.07	0.18	0.00
Sat Flow, veh/h	3183	4552	259	1615	3142	139	1654	1736	1462	1641	1723	1460
Grp Volume(v), veh/h	654	1065	570	137	510	528	130	284	75	112	255	0
Grp Sat Flow(s),veh/h/ln	1591	1568	1675	1615	1611	1670	1654	1736	1462	1641	1723	1460
Q Serve(g_s), s	32.3	40.4	40.4	13.4	45.3	45.3	10.2	25.4	7.0	8.8	22.8	0.0
Cycle Q Clear(g_c), s	32.3	40.4	40.4	13.4	45.3	45.3	10.2	25.4	7.0	8.8	22.8	0.0
Prop In Lane	1.00		0.15	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	696	1599	854	157	626	649	209	326	275	183	309	
V/C Ratio(X)	0.94	0.67	0.67	0.87	0.81	0.81	0.62	0.87	0.27	0.61	0.83	
Avail Cap(c_a), veh/h	726	1599	854	247	626	649	233	368	310	200	343	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	61.5	29.1	29.1	71.2	43.7	43.7	50.0	63.1	55.6	50.8	63.3	0.0
Incr Delay (d2), s/veh	19.8	2.2	4.1	14.2	8.6	8.3	4.3	18.2	0.5	4.7	14.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	15.6	17.1	6.2	19.4	20.1	4.5	13.0	2.7	3.9	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.3	31.3	33.2	85.4	52.3	52.0	54.3	81.3	56.2	55.4	77.3	0.0
LnGrp LOS	F	C	C	F	D	D	D	F	E	E	E	
Approach Vol, veh/h		2289			1175			489			367	
Approach Delay, s/veh		46.1			56.0			70.3			70.7	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	87.5	17.7	33.8	40.5	68.1	16.3	35.2
Change Period (Y+Rc), s	5.5	5.9	5.5	5.1	5.5	5.9	5.5	5.1
Max Green Setting (Gmax), s	24.5	67.1	14.5	31.9	36.5	55.1	12.5	33.9
Max Q Clear Time (g_c+I1), s	15.4	42.4	12.2	24.8	34.3	47.3	10.8	27.4
Green Ext Time (p_c), s	0.2	12.9	0.1	0.8	0.6	3.9	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	53.6
HCM 7th LOS	D

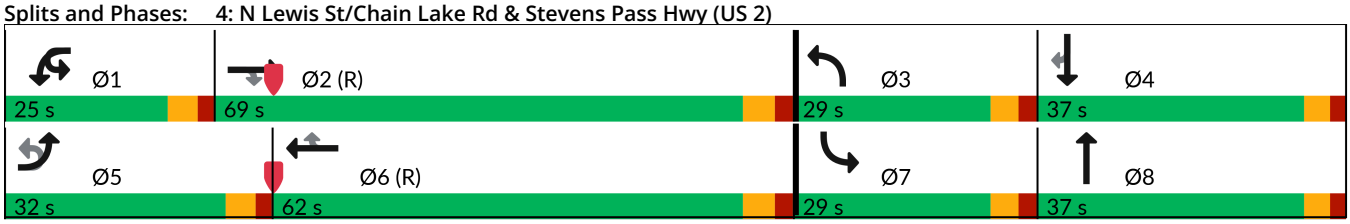
Notes

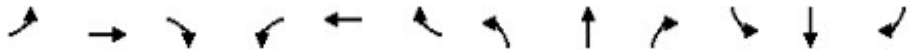
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	255	1218	295	155	839	104	205	300	81	185	227	53
Future Volume (vph)	255	1218	295	155	839	104	205	300	81	185	227	53
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		0%			0%			7%			0%	
Storage Length (ft)	560		0	280		200	215		0	190		0
Storage Lanes	1		1	1		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1773			412			387			385	
Travel Time (s)		34.5			8.0			10.6			10.5	
Confl. Peds. (#/hr)	3		3	3		3	9		6	6		9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Detector Phase	5	2	2	1	6	6	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	20.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	8.5	37.9	37.9	8.5	39.9	39.9	8.5	36.1		8.5	35.1	35.1
Total Split (s)	32.0	69.0	69.0	25.0	62.0	62.0	29.0	37.0		29.0	37.0	37.0
Total Split (%)	20.0%	43.1%	43.1%	15.6%	38.8%	38.8%	18.1%	23.1%		18.1%	23.1%	23.1%
Yellow Time (s)	3.5	3.9	3.9	3.5	3.9	3.9	3.5	3.1		3.5	3.1	3.1
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.9	5.9	5.5	5.9	5.9	5.5	5.1		5.5	5.1	5.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 20 (13%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: N Lewis St/Chain Lake Rd & Stevens Pass Hwy (US 2)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	1218	295	155	839	104	205	300	81	185	227	53
Future Volume (veh/h)	255	1218	295	155	839	104	205	300	81	185	227	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1709	1709	1709	1443	1443	1443	1723	1723	1723
Adj Flow Rate, veh/h	255	1218	0	155	839	0	205	300	81	185	227	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	2	2	2
Cap, veh/h	269	1650		174	1450		244	384	102	229	276	230
Arrive On Green	0.33	1.00	0.00	0.11	0.45	0.00	0.09	0.18	0.18	0.07	0.16	0.16
Sat Flow, veh/h	1641	3273	1460	1628	3247	1448	2667	2136	566	3183	1723	1435
Grp Volume(v), veh/h	255	1218	0	155	839	0	205	191	190	185	227	53
Grp Sat Flow(s),veh/h/ln	1641	1637	1460	1628	1624	1448	1333	1371	1331	1591	1723	1435
Q Serve(g_s), s	24.2	0.0	0.0	15.0	30.8	0.0	12.1	21.2	21.9	9.2	20.4	5.2
Cycle Q Clear(g_c), s	24.2	0.0	0.0	15.0	30.8	0.0	12.1	21.2	21.9	9.2	20.4	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	269	1650		174	1450		244	246	239	229	276	230
V/C Ratio(X)	0.95	0.74		0.89	0.58		0.84	0.77	0.80	0.81	0.82	0.23
Avail Cap(c_a), veh/h	272	1650		198	1450		392	273	265	467	343	286
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	0.0	70.5	33.0	0.0	71.5	62.5	62.8	73.2	65.0	58.6
Incr Delay (d2), s/veh	30.5	2.0	0.0	32.4	1.7	0.0	10.0	11.7	14.2	5.0	12.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	0.5	0.0	7.8	12.5	0.0	4.5	8.3	8.5	3.9	10.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.6	2.0	0.0	102.9	34.7	0.0	81.5	74.2	77.0	78.1	77.3	59.1
LnGrp LOS	F	A		F	C		F	E	E	E	E	E
Approach Vol, veh/h		1473			994			586			465	
Approach Delay, s/veh		16.1			45.4			77.7			75.6	
Approach LOS		B			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	86.5	20.2	30.7	31.8	77.4	17.0	33.9
Change Period (Y+Rc), s	5.5	5.9	5.5	5.1	5.5	5.9	5.5	5.1
Max Green Setting (Gmax), s	19.5	63.1	23.5	31.9	26.5	56.1	23.5	31.9
Max Q Clear Time (g_c+I1), s	17.0	2.0	14.1	22.4	26.2	32.8	11.2	23.9
Green Ext Time (p_c), s	0.1	19.0	0.6	1.0	0.0	8.3	0.4	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	42.5
HCM 7th LOS	D

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Appendix D

Trip Generation Calculations

Monroe 30
Weekday Trip Generation Summary

Land Use	Units [1]	ITE LUC [2]	Trip Rate or Equation [2]	Directional Distribution In	Directional Distribution Out	Trips Generated In	Trips Generated Out	Trips Generated Total
DAILY								
Proposed Use:								
Single-Family Detached Housing	179 DU	210	Ln(T) = 0.92 Ln(X) + 2.68	50%	50%	862	862	1,724
Single-Family Attached Housing	34 DU	215	T = 7.62(X) - 50.48	50%	50%	104	105	209
						966	967	1,933
Less Existing Use:								
Single-Family Detached Housing	4 DU	210	Ln(T) = 0.92 Ln(X) + 2.68	50%	50%	-26	-26	-52
					Net New Daily Trips =	**940**	**941**	**1,881**
AM PEAK HOUR								
Proposed Use:								
Single-Family Detached Housing	179 DU	210	Ln(T) = 0.91 Ln(X) + 0.12	25%	75%	32	95	127
Single-Family Attached Housing	34 DU	215	T = 0.52(X) - 5.70	25%	75%	3	9	12
						35	104	139
Less Existing Use:								
Single-Family Detached Housing	4 DU	210	Ln(T) = 0.91 Ln(X) + 0.12	25%	75%	-1	-3	-4
					Net New AM Peak Hour Trips =	**34**	**101**	**135**
PM PEAK HOUR								
Proposed Use:								
Single-Family Detached Housing	179 DU	210	Ln(T) = 0.94 Ln(X) + 0.27	63%	37%	108	64	172
Single-Family Attached Housing	34 DU	215	T = 0.60(X) - 3.93	59%	41%	9	7	16
						117	71	188
Less Existing Use:								
Single-Family Detached Housing	4 DU	210	Ln(T) = 0.94 Ln(X) + 0.27	63%	37%	-3	-2	-5
					Net New PM Peak Hour Trips =	**114**	**69**	**183**

Notes:
[1] DU = Dwelling Units.
[2] Based on Institute of Transportation Engineers (ITE) *Trip Generation* Manual, 11th Edition, 2021.

Appendix E

Snohomish County Key Intersection Impacts

Table E1
AM Peak Hour Trip Assignment at Snohomish County Key Intersections

Key Intersection ID#	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
155	0	2	0	0	5	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	26	0	0	9	0
165	0	9	0	0	26	0	0	0	0	0	0	0
166	0	0	0	0	0	26	0	0	0	9	0	0
313	0	5	0	0	2	0	0	0	0	0	0	0
318	0	0	0	0	0	0	0	5	0	0	15	0
320	0	0	0	0	0	0	0	5	0	0	15	0
496	0	0	0	0	0	26	0	0	0	78	0	0
497	0	0	9	0	0	0	26	0	0	0	0	0

Table E2
PM Peak Hour Trip Assignment at Snohomish County Key Intersections

Key Intersection ID#	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
155	0	4	0	0	6	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	17	0	0	30	0
165	0	30	0	0	17	0	0	0	0	0	0	0
166	0	0	0	0	0	17	0	0	0	30	0	0
313	0	4	0	0	6	0	0	0	0	0	0	0
318	0	0	0	0	0	0	0	17	0	0	11	0
320	0	0	0	0	0	0	0	17	0	0	11	0
496	0	0	0	0	0	89	0	0	0	53	0	0
497	0	0	30	0	0	0	17	0	0	0	0	0

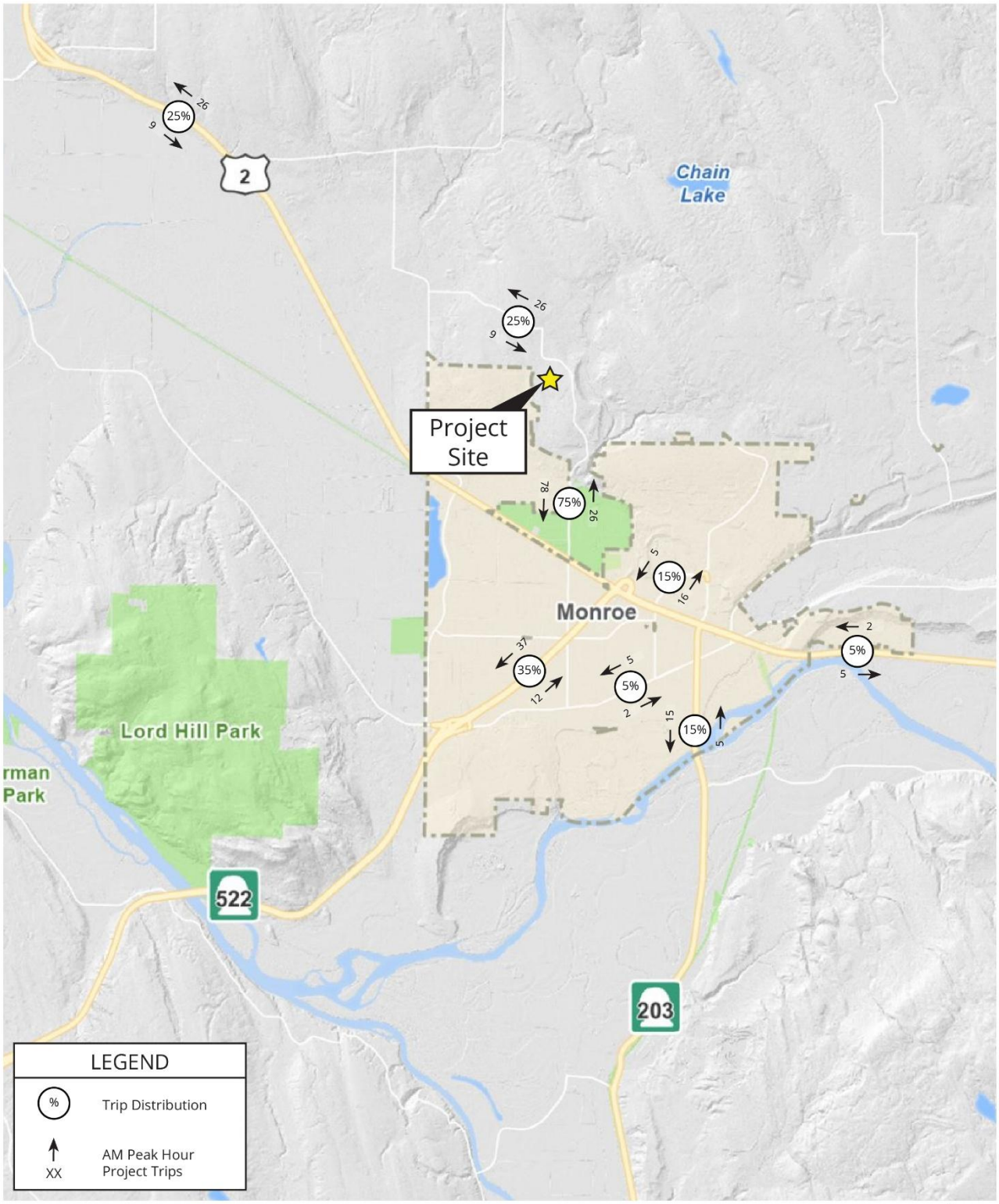


Figure E1: AM Peak Hour Project Trip Distribution and Assignment

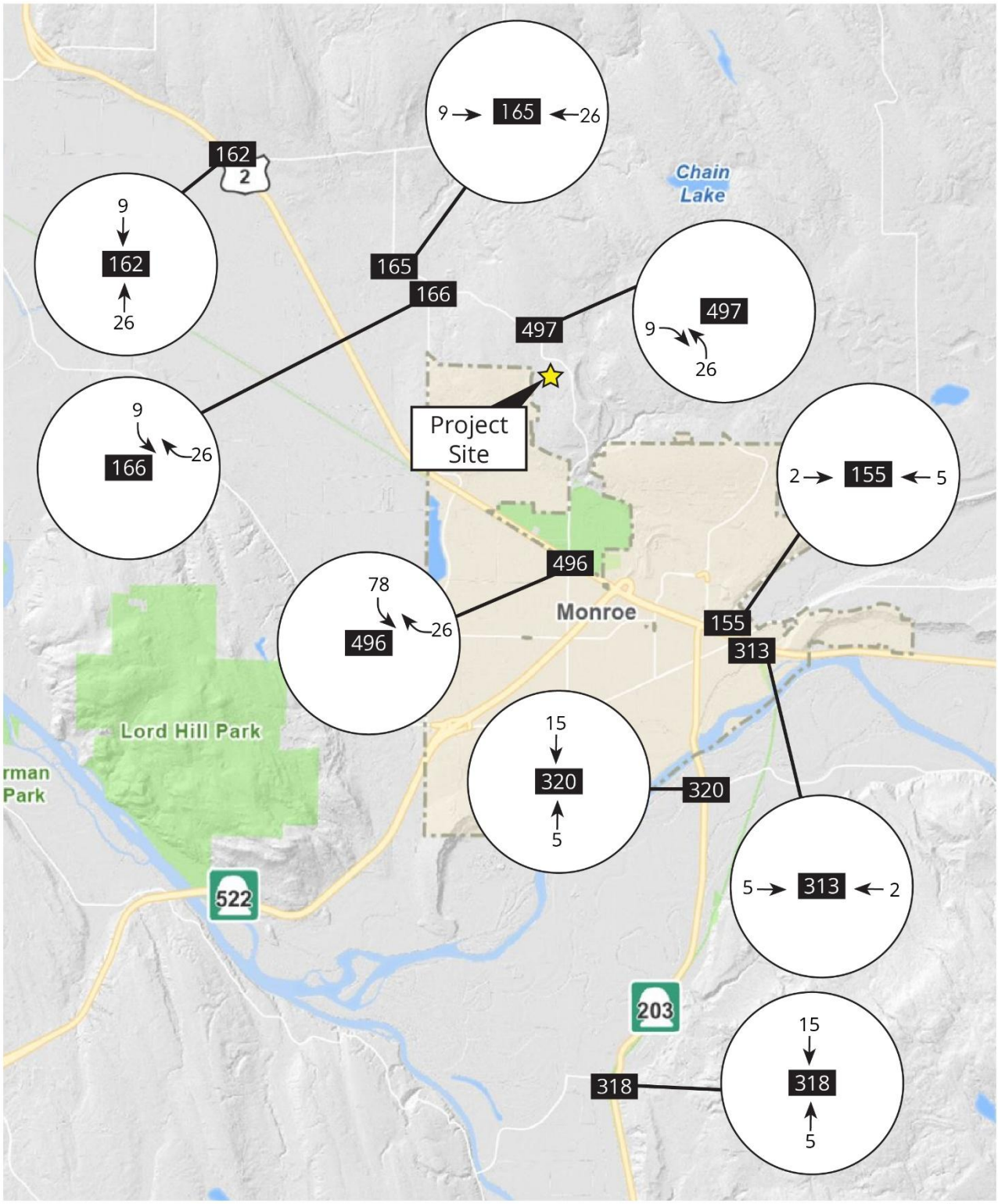


Figure E2: AM Peak Hour Project Trip Assignment at Snohomish County Key Intersections

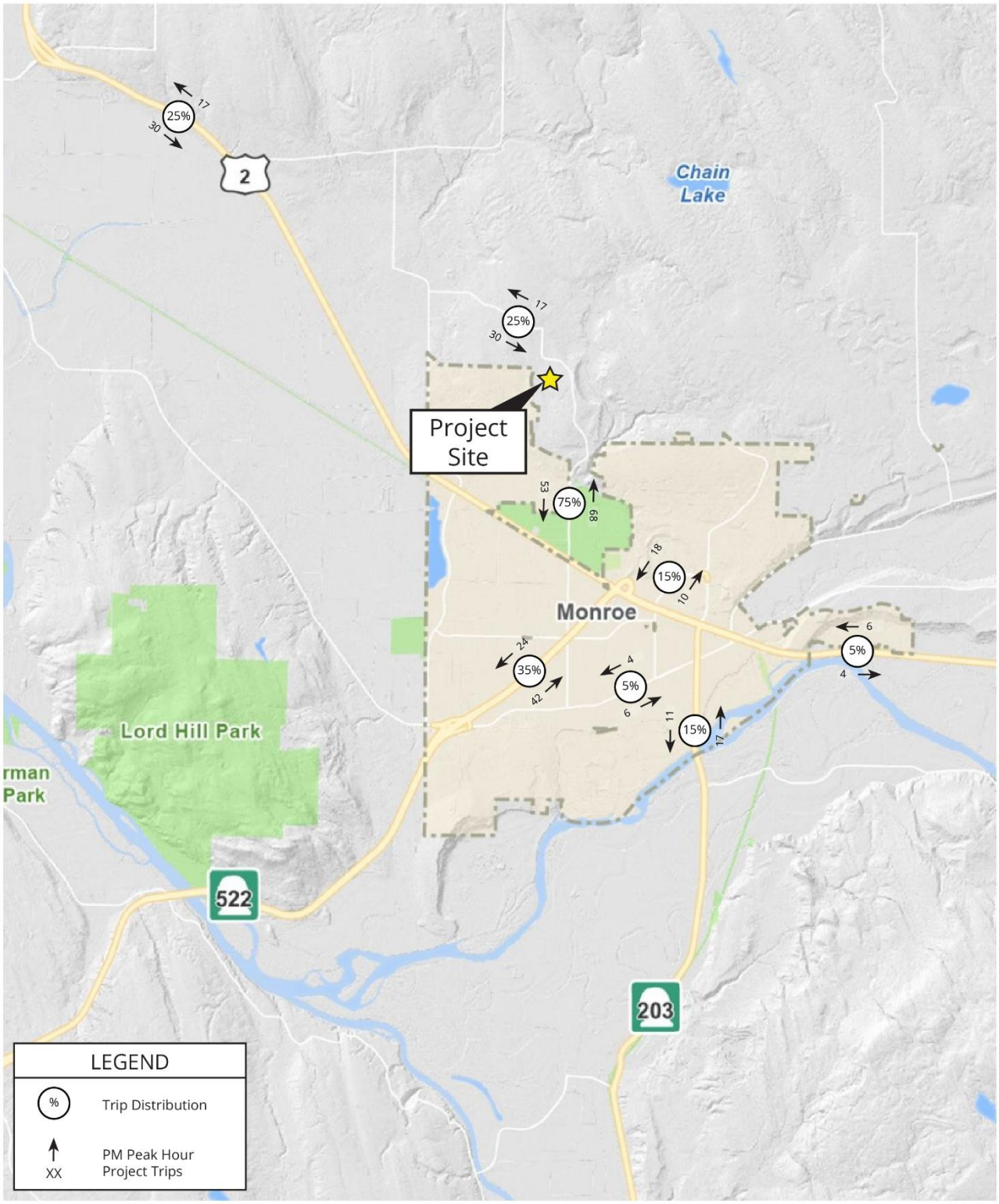


Figure E3: PM Peak Hour Project Trip Distribution and Assignment

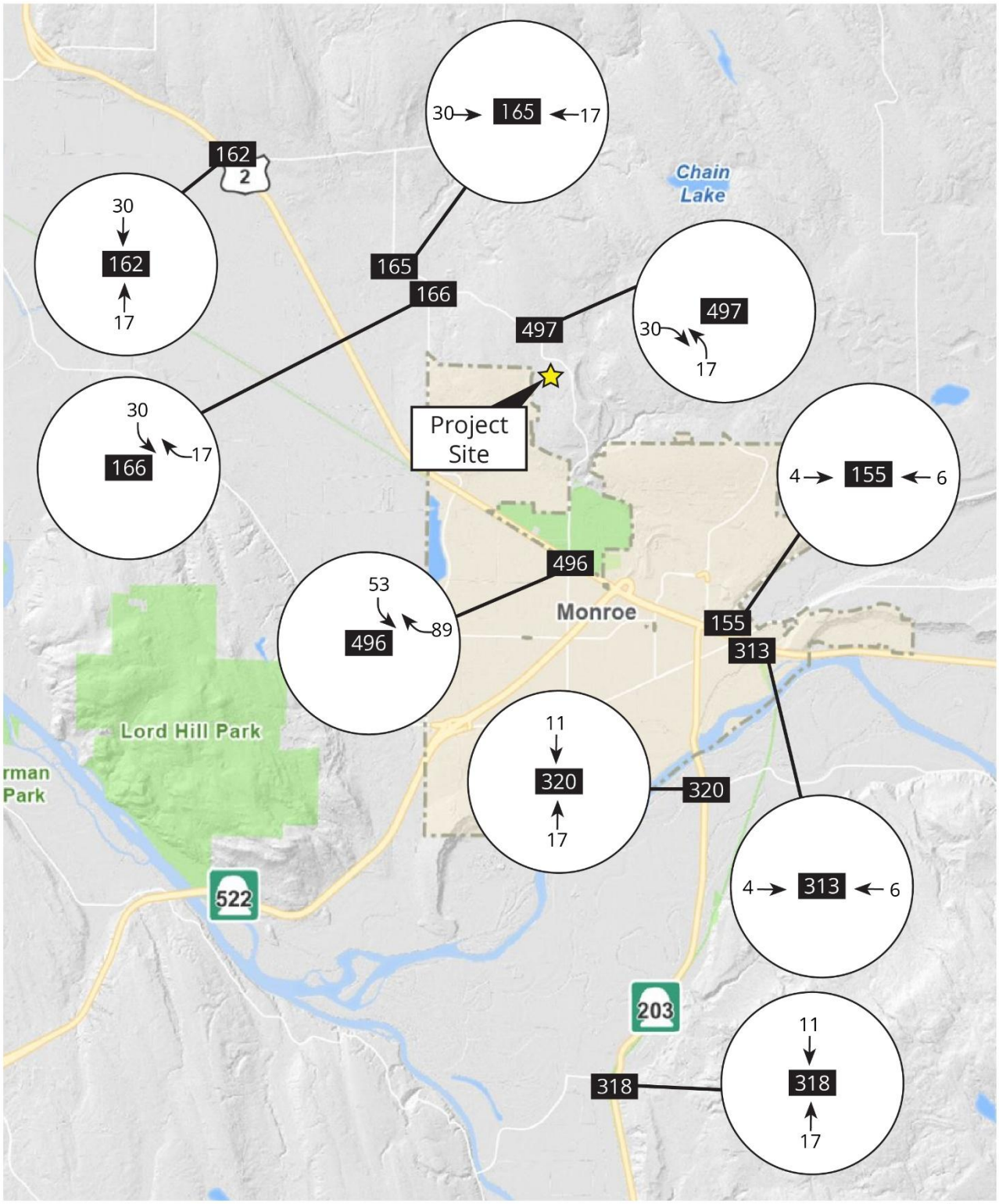


Figure E4: PM Peak Hour Project Trip Assignment at Snohomish County Key Intersections