

# Pascuzzi Industrial Buildings

Transportation Impact Study  
Tualatin, Oregon

**Date:**

October 22, 2019

**Prepared for:**

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**LANCASTER**  
ENGINEERING



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## ***Executive Summary***

1. The proposed Pascuzzi Industrial Buildings, to be located at 11045 SW Tualatin-Sherwood Road in Tualatin, Oregon, will include the construction of two industrial buildings totaling 316,375 square-feet. Specifically, approximately 40 percent of the total building square-footage will be dedicated as manufacturing space while the remaining 60 percent as a distribution center/warehouse.
2. The trip generation calculations show that the proposed development is projected to generate 93 morning peak hour trips, 104 evening peak hour trips, and 764 average weekday trips.
3. No significant trends or crash patterns were identified at any of the study intersections that were indicative of safety concerns.
4. Preliminary traffic signal warrants are projected to be met at the intersection of SW Myslony Street at SW 124<sup>th</sup> Avenue under year 2021 background conditions, regardless of whether the proposed development is constructed. However, it should be noted that the intersection is currently planned for signalization in the near-future.
5. All study intersections are currently operating acceptably per City of Tualatin and Washington County standards and are projected to continue operating acceptably through the 2021 buildout year of the site.



## ***Project Description***

### ***Introduction***

The proposed Pascuzzi Industrial Buildings, to be located at 11045 SW Tualatin-Sherwood Road in Tualatin, Oregon, will include the construction of two industrial buildings totaling 316,375 square-feet. Specifically, approximately 40 percent of the total building square-footage will be dedicated as manufacturing space while the remaining 60 percent as a distribution center/warehouse. The report conducts safety and capacity/level of service analyses at the following intersections:

1. SW Myslony Street at SW 124<sup>th</sup> Avenue;
2. SW Myslony Street at SW 112<sup>th</sup> Avenue;  
and
3. SW Tualatin-Sherwood Road at SW 112<sup>th</sup> Avenue.

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

### ***Location Description***

The site is located north of SW Tualatin-Sherwood Road and east of SW 112<sup>th</sup> Avenue in Tualatin, Oregon. The subject site is located within a predominately industrial area of the City, with industrial uses surrounding the site in all directions with the exception of undeveloped land the northwest.

The project site includes three tax lots (lots 500, 600, and 700) which encompass an approximate total of 16.25 acres. All three lots are currently undeveloped. Future access to the site will be provided via SW Myslony Street, specifically the section of roadway which terminates as a cul-de-sac.

### ***Vicinity Streets***

The proposed development is expected to impact five roadways near the site. Table 1 provides a description of each of the vicinity roadways.



**Table 1: Vicinity Roadway Descriptions**

Roadway	Jurisdiction	Functional Classification	Cross-Section	Speed	On-street Parking	Bicycle Lanes	Curbs	Sidewalks
SW Myslony Street	City of Tualatin	Major Collector	2 to 3 Lanes	20 mph Statutory	Partially Permitted	Partial Both Sides	Partial Both Sides	Partial Both Sides
SW Tualatin-Sherwood Road	Washington County	Major Arterial	3 to 5 Lanes	45 mph Posted	Not Permitted	Both Sides	Both Sides	Both Sides
SW 124th Avenue	City of Tualatin	Major Arterial	2 to 5 Lanes	45 mph Posted	Not Permitted	Both Sides	Partial Both Sides	Partial Both Sides
SW 112th Avenue	City of Tualatin	Major Collector	3 Lanes	20 mph Statutory	Not Permitted	Both Sides	Both Sides	Both Sides
SW Avery Street	City of Tualatin	Major Collector	2 to 3 Lanes	35 mph Posted	Not Permitted	Partial Both Sides	Both Sides	Both Sides

Note: Functional Classification based on *City of Tualatin TSP*.

### Study Intersections

A majority of site trips generated by the proposed development are expected to impact three nearby intersections of significance. A summarized description of these intersections is provided in Table 2.

**Table 2: Study Intersection Descriptions**

Number	Name	Geometry	Traffic Control	Phasing/Stopped Approaches
1	SW Myslony Street at SW 124th Avenue	Four-Legged	Stop-Controlled	Stop-Controlled EB/WB Approaches, Center Two-Way Left-Turn Lane
2	SW Myslony Street at SW 112th Avenue	Three-Legged	Stop-Controlled	All-Way Stop-Controlled (Except EB Right-Turn)
3	SW Tualatin-Sherwood Road at SW 112th Avenue	Four-Legged	Traffic Signal	FYA NEB/SWB Left-turns, Protected NWB/SEB Left-turns, Overlap EB Right-turn

Note: Flashing-Yellow-Arrow denoted as FYA.

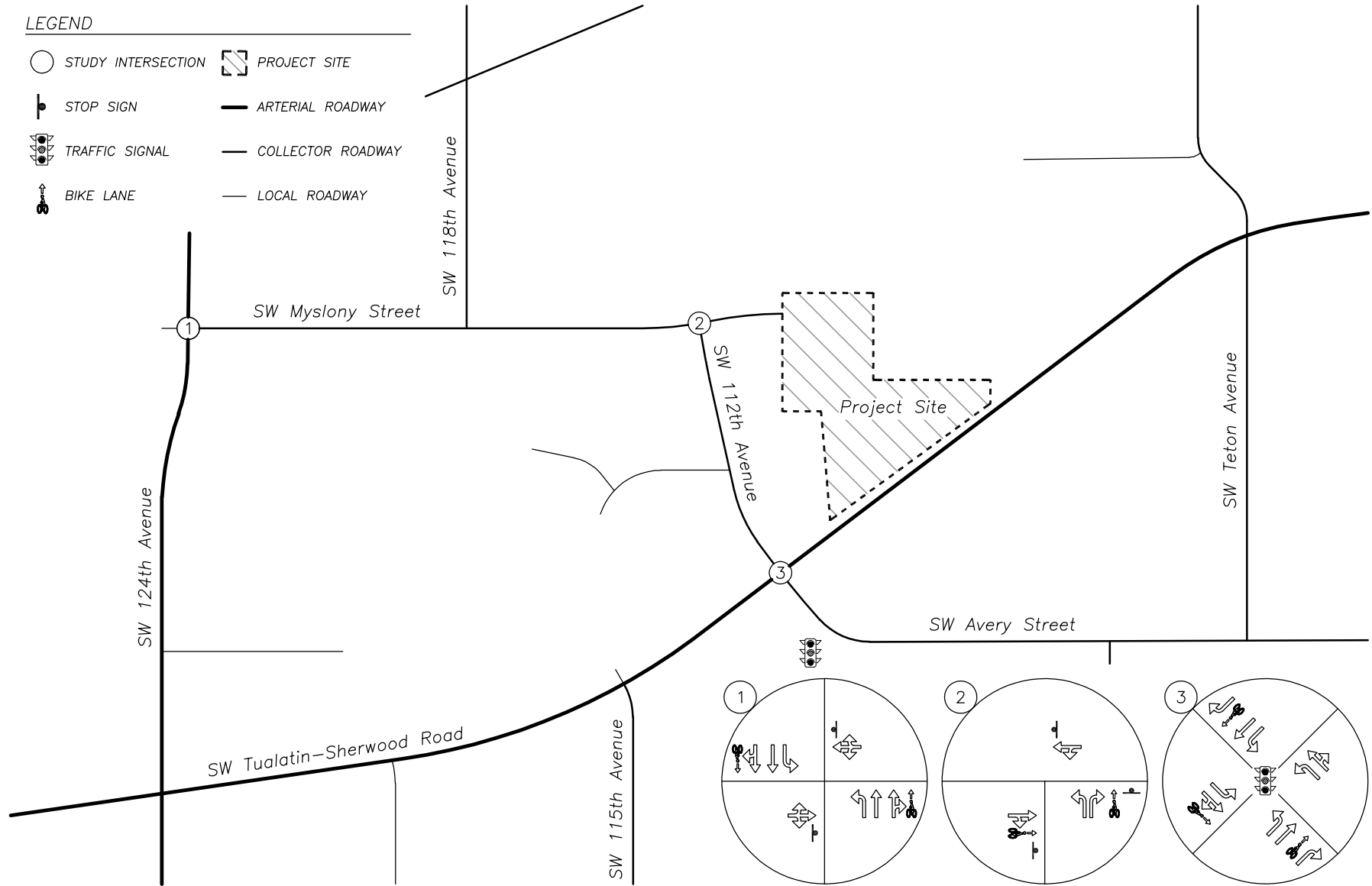


Based on correspondence with City of Tualatin staff as well as referencing the *Four-S Corp Distribution Center Transportation Impact Study* (TIS), dated August 28<sup>th</sup>, 2018, the intersection of SW Myslony Street at SW 124<sup>th</sup> Avenue is planned for signalization in the near-future. For the purposes of this analysis, the intersection was analyzed assuming operation under two-way stop-control and traffic signal control for future year 2021 conditions.

A vicinity map displaying the project site, vicinity streets, and the study intersections with their associated lane configurations is shown in Figure 1 on page 8.

LEGEND

- STUDY INTERSECTION
- ◻ PROJECT SITE
- ⊥ STOP SIGN
- ⊥ TRAFFIC SIGNAL
- ⊥ BIKE LANE
- ARTERIAL ROADWAY
- COLLECTOR ROADWAY
- LOCAL ROADWAY



VICINITY MAP



FIGURE 1

PAGE 8





## Site Trips

### Trip Generation

#### Total Trips

The proposed Pascuzzi Industrial Buildings will include the construction of two industrial buildings totaling 316,375 square-feet, where approximately 40 percent of the square-footage will be dedicated as manufacturing and approximately 60 percent as a distribution center/warehouse. To estimate the number of trips that will be generated by the proposed development, trip rates from the *Trip Generation Manual*<sup>1</sup> were used. Specifically, data from land use codes 140, *Manufacturing*, and 154, *High-Cube Transload & Short-Term Storage Warehouse*, were used based on the square-footage of gross building floor area.

The trip generation calculations show that the proposed development is projected to generate 93 morning peak hour trips, 104 evening peak hour trips, and 764 average weekday trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included in the technical appendix to this report.

**Table 3: Trip Generation Summary**

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Manufacturing	140	126,550 Sq.Ft	60	18	78	26	59	85	498
Distribution Center	154	189,825 Sq.Ft.	12	3	15	5	14	19	266
<b>Total Trips</b>		<b>316,375 Sq.Ft.</b>	<b>72</b>	<b>21</b>	<b>93</b>	<b>31</b>	<b>73</b>	<b>104</b>	<b>764</b>

#### Truck Trips

Per the *Trip Generation Handbook*<sup>2</sup>, relevant data pertaining to truck trip generation is provided for land use codes 130, *Industrial Park*, 150, *Warehousing*, and 152, *High-Cube Warehouse/Distribution Center*. For land use code 130, truck trips accounted for an average of approximately 13 percent of site trips generated while for code 150 approximately 20 percent of site trips were considered truck trips. For land use code 152, the majority of truck trips generated were noted to typically occur during off-peak hours, but on average would account for between 9 to 29 percent of peak hour traffic. No specific data pertaining to manufacturing uses is available.

<sup>1</sup> Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10<sup>th</sup> Edition, 2017.

<sup>2</sup> Institute of Transportation Engineers (ITE), *Trip Generation Handbook*, 3<sup>rd</sup> Edition, 2014.



For the purposes of simplicity, it is assumed that approximately 20 percent of the total site trip generation may consist of truck trips. Accordingly, the proposed development is projected to generate 19 morning peak hour truck trips, 21 evening peak hour truck trips, and 152 average weekday truck trips.

Given the surrounding site vicinity is predominately industrial in character, the nearby transportation system was constructed accordingly to best serve the needs of existing and future industrial development. As such, it is expected that a significant majority of truck trips would utilize either SW Myslony Street or SW 112<sup>th</sup> Avenue to access the major transportation corridors of SW Tualatin-Sherwood Road and SW 124<sup>th</sup> Avenue. From SW Tualatin-Sherwood Road and SW 124<sup>th</sup> Avenue, access to regional transportation facilities, such as SW Pacific Highway, Interstate 5, and Interstate 205, are available. While SW 118<sup>th</sup> Avenue could provide access between the site and the greater transportation system, it is unlikely many trucks would utilize this street to access SW Herman Road since it may increase out of direction travel to the prior mentioned regional facilities.

### *Trip Distribution*

The directional distribution of site trips to/from the project site was estimated based on the locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at the study intersections.

The following trip distribution was estimated and used for analysis:

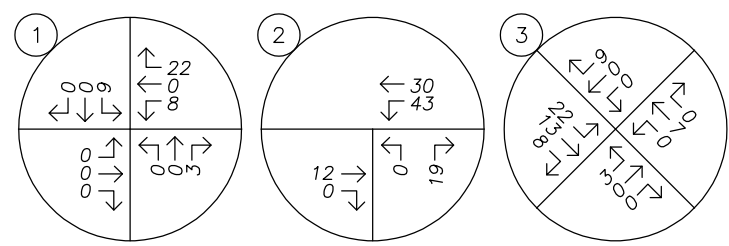
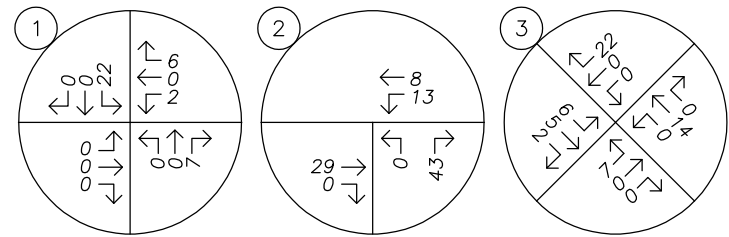
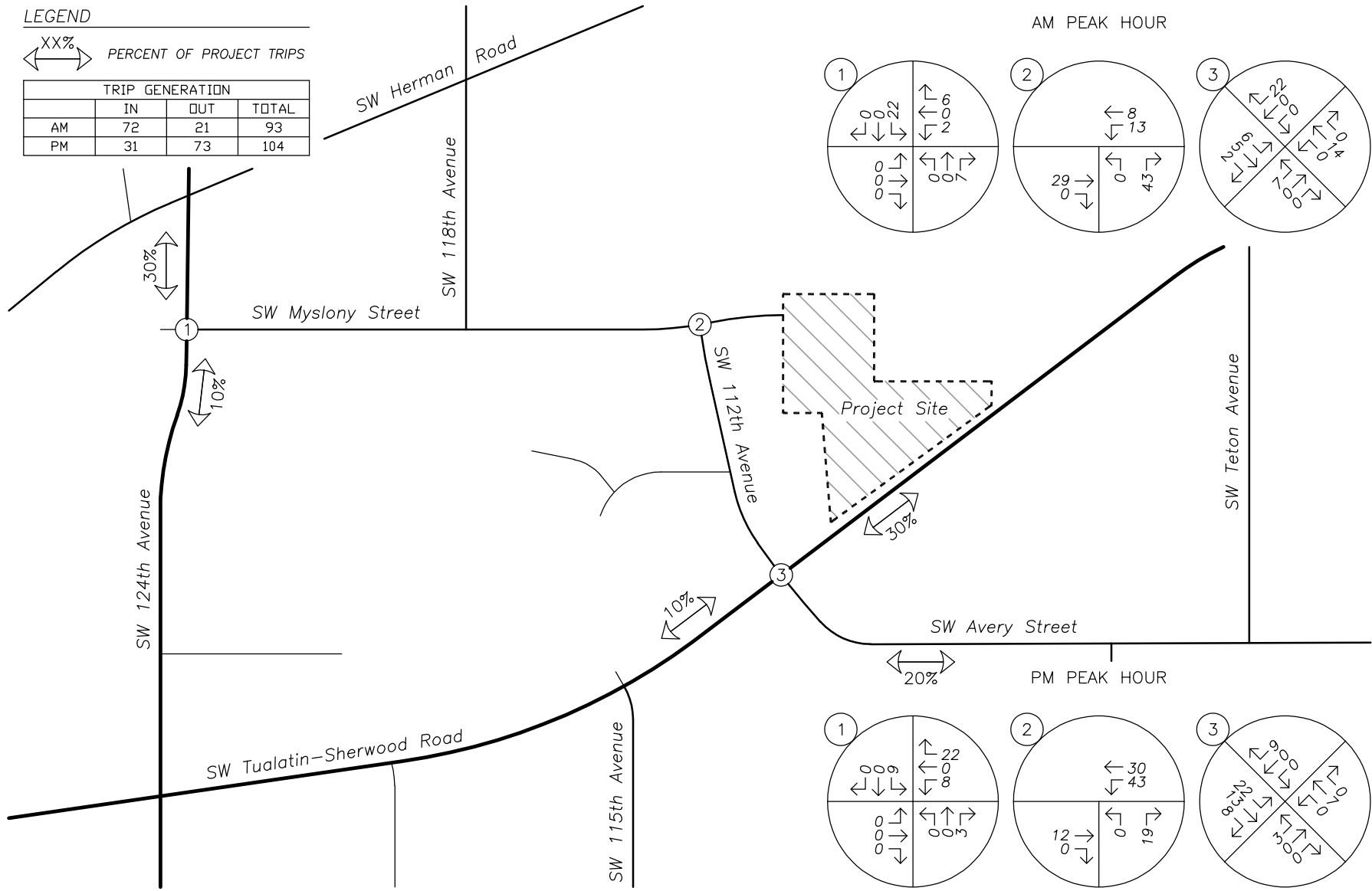
- Approximately 30 percent of site trips will travel to/from the east along SW Tualatin-Sherwood Road;
- Approximately 30 percent of site trips will travel to/from the north along SW 124<sup>th</sup> Avenue;
- Approximately 20 percent of site trips will travel to/from the south along SW Avery Street;
- Approximately 10 percent of site trips will travel to/from the west along SW Tualatin-Sherwood Road; and
- Approximately 10 percent of site trips will travel to/from the south along SW 124<sup>th</sup> Avenue.

The trip distribution and assignment for the site trips generated by the proposed development during the morning and evening peak hours is shown in Figure 2 on page 11.

LEGEND

XX% PERCENT OF PROJECT TRIPS

TRIP GENERATION			
	IN	OUT	TOTAL
AM	72	21	93
PM	31	73	104



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





## ***Traffic Volumes***

### ***Existing Conditions***

Traffic counts were conducted at the study intersections on Tuesday, October 8<sup>th</sup>, 2019, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Data was used from each intersection's respective morning and evening peak hours.

Figure 3 on page 14 shows the existing morning and evening peak hour traffic volumes at the study intersections.

### ***Background Conditions***

To provide an analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. In order to calculate the future traffic volumes, a compounded growth rate of two percent per year for an assumed buildout condition of two years was applied to the measured existing traffic volumes to approximate year 2021 background conditions.

In addition to the traffic volume growth described above, trips associated with several in-process developments within the site vicinity, that are currently approved but not yet fully constructed or occupied, were added to the existing volumes in addition to the calculated volume growth. The following projects were assumed to be completed and occupied prior to year 2021:

- Columbia Roofing Building Expansion (18525 SW 126<sup>th</sup> Place);
- Four-S Corp Distribution Center (12200 SW Myslony Street);
- Hedges C Development (11501 SW Amu Street);
- API Expansion (12505 SW Herman Road);
- Leveton Industrial Building (12540 SW Leveton Drive);
- LMC Teton Building (19200 SW Teton Avenue); and
- Mutual Materials (10700 SW Tualatin-Sherwood Road).

A figure depicting trip assignment associated with the in-process developments is included within the appendix to this report.

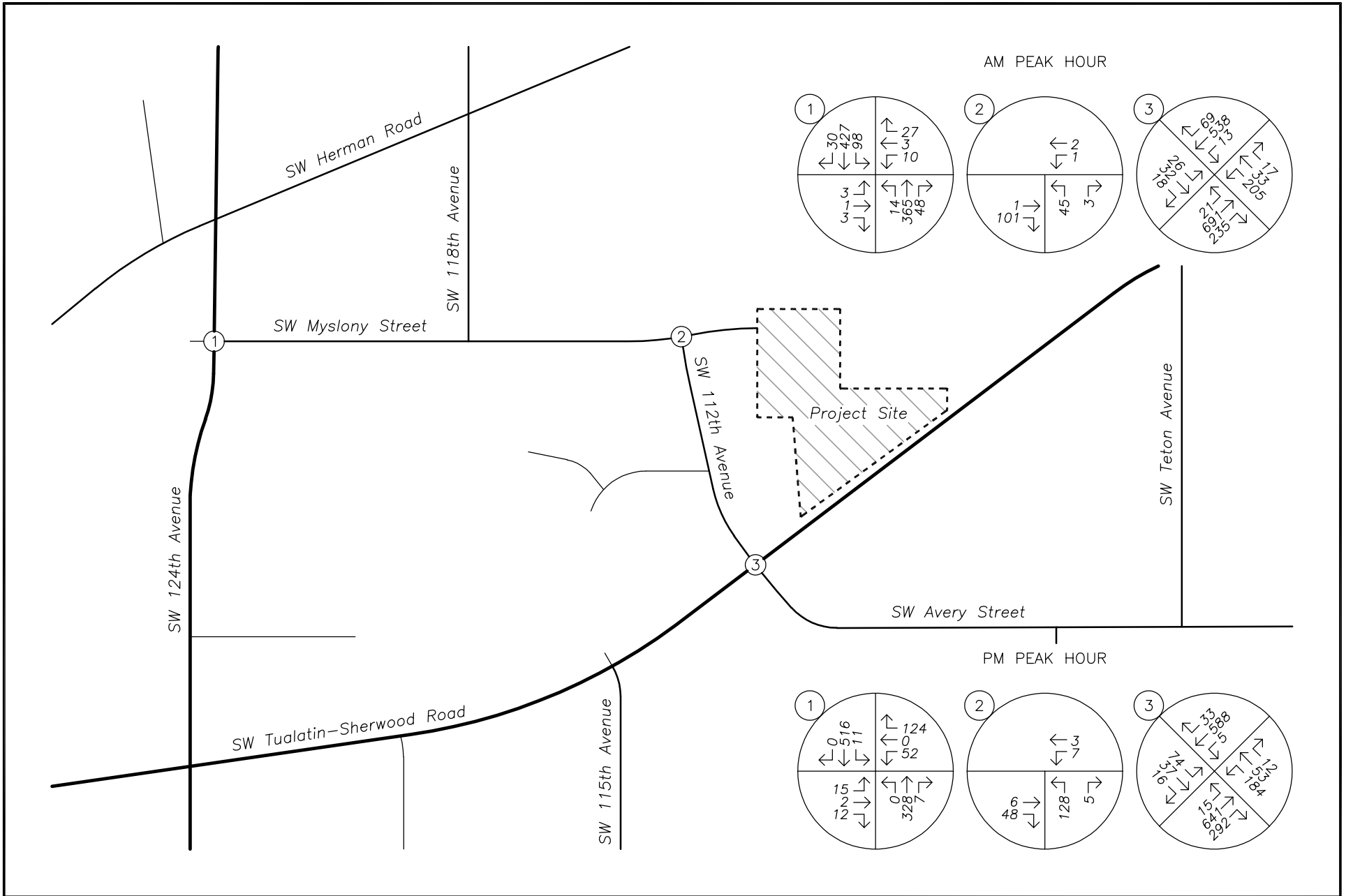
Figure 4 on page 15 shows the projected year 2021 background traffic volumes at the study intersections during the morning and evening peak hours.



### *Buildout Conditions*

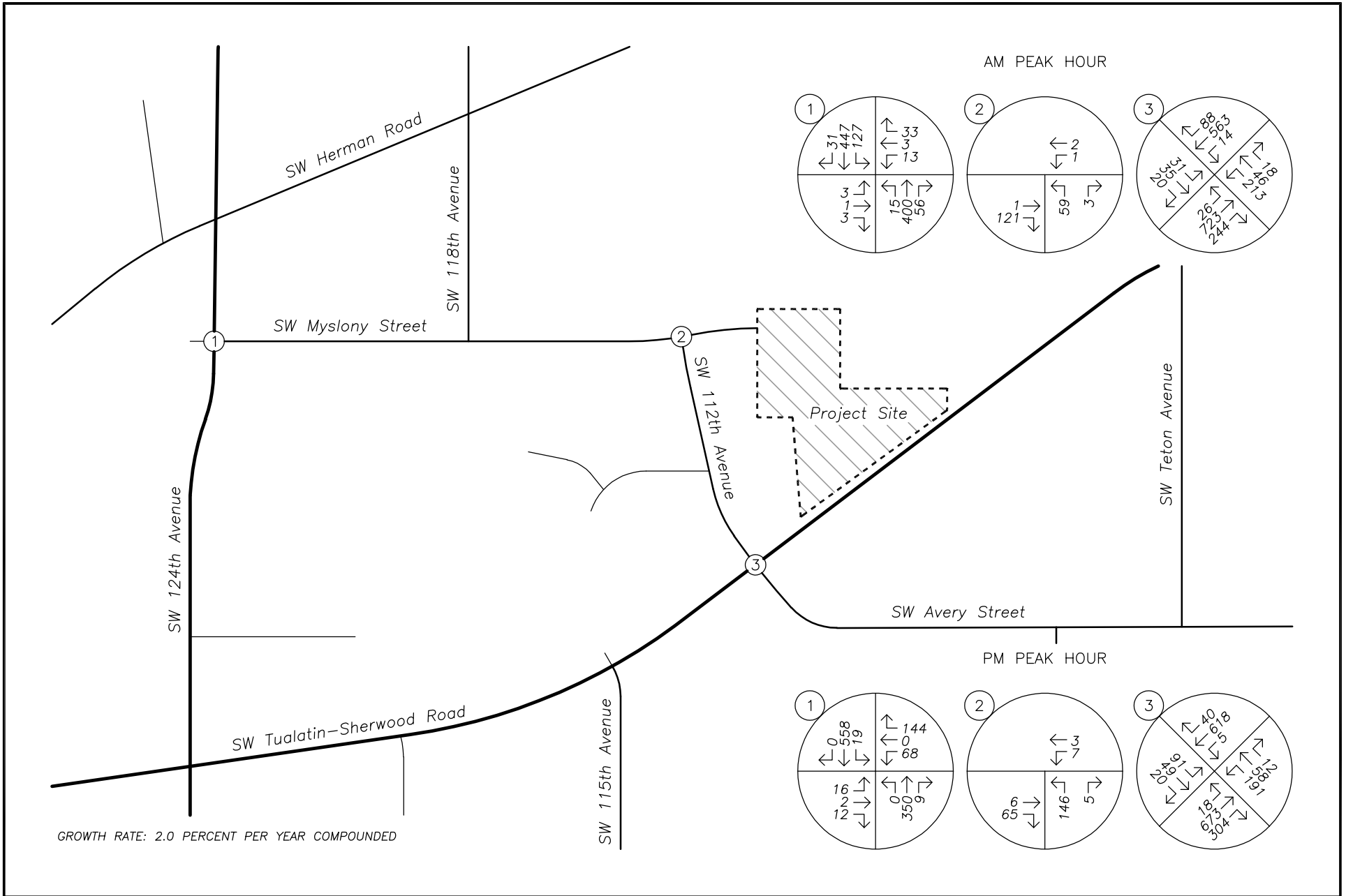
Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2021 background traffic volumes to obtain the expected year 2021 buildout volumes.

Figure 5 on page 16 shows the projected 2021 site buildout year traffic volumes at the study intersections during the morning and evening peak hours.



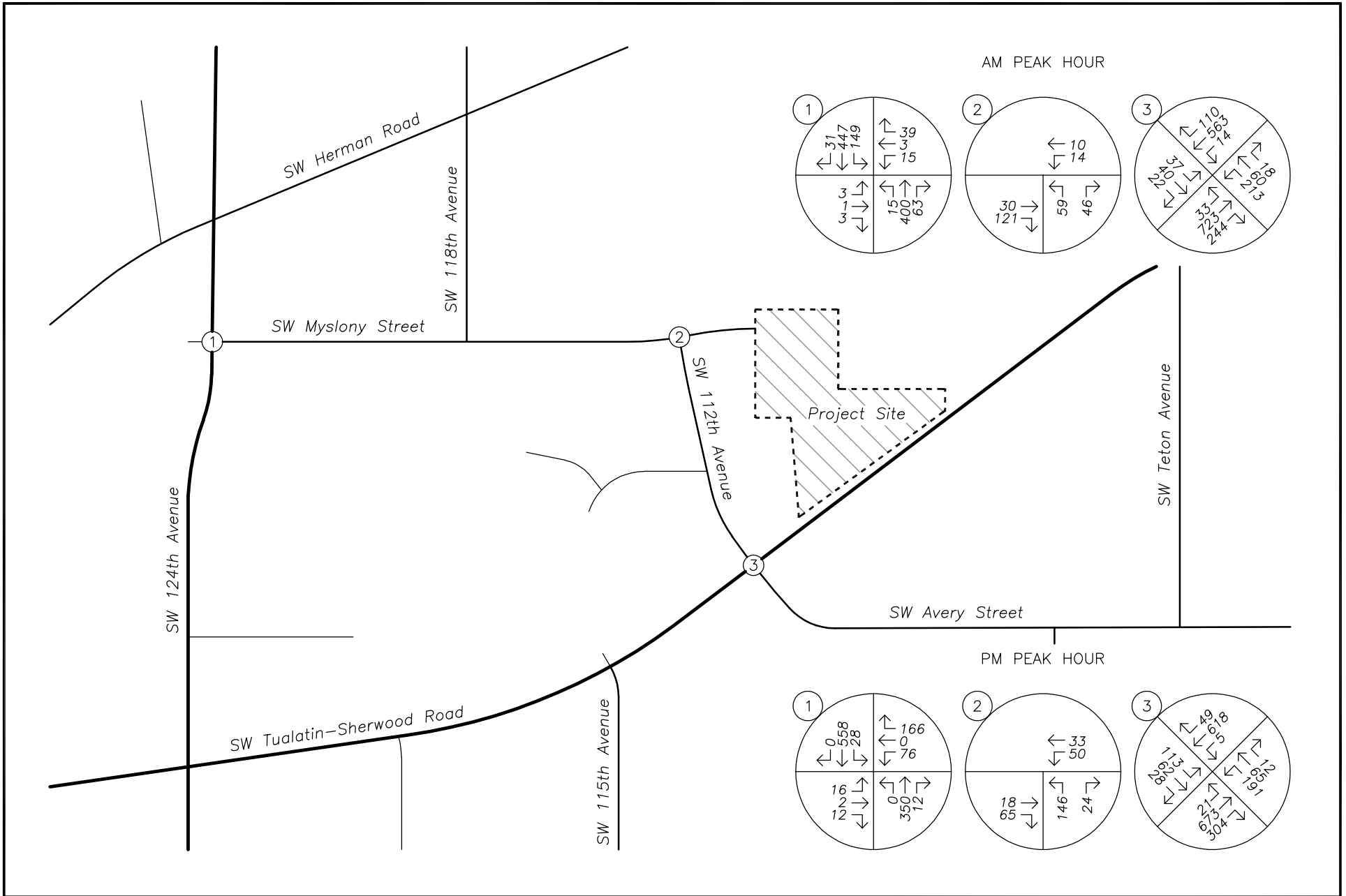
TRAFFIC VOLUMES  
Existing Conditions  
AM & PM Peak Hours





**TRAFFIC VOLUMES**  
 Year 2021 Background Conditions  
 AM & PM Peak Hours





TRAFFIC VOLUMES  
 Year 2021 Buildout Conditions  
 AM & PM Peak Hours



FIGURE  
5

PAGE  
16





## Safety Analysis

### Crash Data Analysis

Using data obtained from ODOT's Crash Analysis and Reporting Unit, a review of the most recent available five years of crash history (January 2013 to December 2017) at the study intersections was performed. The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection. Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak period represents approximately 10 percent of the annual average daily traffic (AADT) at the intersection. Crash rates in excess of 1.00 crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

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

- Property Damage Only (*PDO*);
- Possible Injury – Complaint of Pain (*Injury C*);
- Non-Incapacitating Injury (*Injury B*);
- Incapacitating Injury – Bleeding, Broken Bones (*Injury A*); and
- Fatality or Fatal Injury.

It should be noted that the intersection of SW Myslony Street at SW 112<sup>th</sup> Avenue is a recently constructed intersection. Accordingly, no crash data is available at the intersection per ODOT's Crash Analysis and Reporting Unit.

Table 4 provides a summary of crash types while Table 5 summarizes crash severities and rates for each of the study intersections. Detailed ODOT crash reports are included in the technical appendix to this report.



Table 4: Crash Type Summary

Intersection	Crash Type									Total Crashes
	Rear End	Turn	Angle	Fixed Object	Side swipe	Head On	Other	Ped	Bike	
1 SW Myslony Street at SE 124th Avenue	0	2	0	0	1	0	0	0	0	3
3 SW Tualatin-Sherwood Road at SW 112th Avenue	12	1	1	0	0	0	0	0	0	14

Table 5: Crash Severity and Rate Summary

Intersection	Crash Severity					Total Crashes	AADT	Crash Rate
	PDO	C	B	A	Fatal			
1 SW Myslony Street at SE 124th Avenue	1	1	1	0	0	3	10,670	0.15
3 SW Tualatin-Sherwood Road at SW 112th Avenue	6	4	3	1	0	14	19,500	0.39

**BOLDED** text indicates a crash rate in excess of either 1.0 CMEV.

As detailed in Table 5, there was one crash which resulted in injuries consistent with *Injury A* classification. The crash occurred at the intersection of SW Tualatin-Sherwood Road at SW 112<sup>th</sup> Avenue when the driver of a southeast-bound passenger car disregarded the traffic signal and collided with a northeast-bound passenger car. The driver who instigated the collision, as well as three other occupants in the same vehicle, sustained injuries consistent with *Injury B* classification while a fifth occupant in the vehicle sustained injuries consistent with *Injury A* classification. It should be noted that at the time of the collision the driver of the southeast-bound vehicle was distracted by a cell phone.

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

### Warrant Analysis

Preliminary traffic signal warrants were examined for the unsignalized intersection of SW Myslony Street at SW 124<sup>th</sup> Avenue to determine whether the installation of a new traffic signal will be warranted at this intersection upon completion of the proposed development. Based on the analysis, the preliminary traffic



signal warrants are projected to be met under year 2021 background conditions, regardless of whether the proposed development is constructed. It should be noted that the intersection is planned for signalization in the near-future.

## ***Operational Analysis***

### ***Intersection Capacity Analysis***

A capacity and delay analysis was conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM) 6<sup>th</sup> Edition<sup>3</sup>. Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

The City of Tualatin requires intersections to operate at a minimum LOS E or better. For both LOS and delay related to the analysis of unsignalized intersections, the reported result applies to the worst minor-street approach lane. In addition, the intersection of SW Tualatin-Sherwood Road at SW 112<sup>th</sup> Avenue is under the jurisdiction of Washington County, where the County requires intersections to operate with a v/c ratio of 0.99 or less.

As part of a 2018 Tualatin Bond Issue for the SW Myslony Street extension project, the intersection of SW Myslony Street at SW 124<sup>th</sup> Avenue was approved and currently planned for installation of a traffic signal. As such, the analysis of SW Myslony Street at SW 124<sup>th</sup> Avenue reflects intersection operation assuming both two-way stop-control and signal control for year 2021 analysis scenarios.

The v/c, delay, and LOS results of the capacity analysis are shown in Table 6 for the morning and evening peak hours. The reported results for signalized intersections are based on the analysis methodologies provided in the HCM 2000<sup>4</sup>. While more recent versions of the HCM are available, the methodologies used in the later editions (utilizing Trafficware software) do not report overall v/c ratios for signalized intersections, which is the standard Washington County uses to evaluate intersection operation. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

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<sup>3</sup> Transportation Research Board, *Highway Capacity Manual*, 6<sup>th</sup> Edition, 2016.

<sup>4</sup> Transportation Research Board, *Highway Capacity Manual*, 2000.



**Table 6: Intersection Capacity Analysis Summary**

	Morning Peak Hour			Evening Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
<b>1 SW Myslony Street at SW 124th Avenue</b>						
2019 Existing Conditions	C	20	0.11	B	14	0.31
2021 Background Conditions (TWSC)	C	22	0.15	C	15	0.40
2021 Background Conditions (Signal)	A	8	0.33	A	9	0.43
2021 Buildout Conditions (TWSC)	C	24	0.17	C	16	0.46
2021 Buildout Conditions (Signal)	A	8	0.34	A	10	0.44
<b>2 SW Myslony Street at SW 112th Avenue</b>						
2019 Existing Conditions	A	8	-	A	9	-
2021 Background Conditions	A	8	-	A	9	-
2021 Buildout Conditions	A	8	-	A	9	-
<b>3 SW Tualatin-Sherwood Road at SW 112th Avenue</b>						
2019 Existing Conditions	C	26	0.75	C	22	0.69
2021 Background Conditions	C	26	0.78	C	23	0.69
2021 Buildout Conditions	C	27	0.79	C	23	0.72

**BOLDED** results indicate operation above acceptable jurisdictional standards.

Based on the results of the operational analysis, all study intersections are currently operating acceptably per City of Tualatin and Washington County standards and are projected to continue operating acceptably through the 2021 buildout year of the site. No operational mitigation is necessary or recommended at these intersections.



## ***Conclusions***

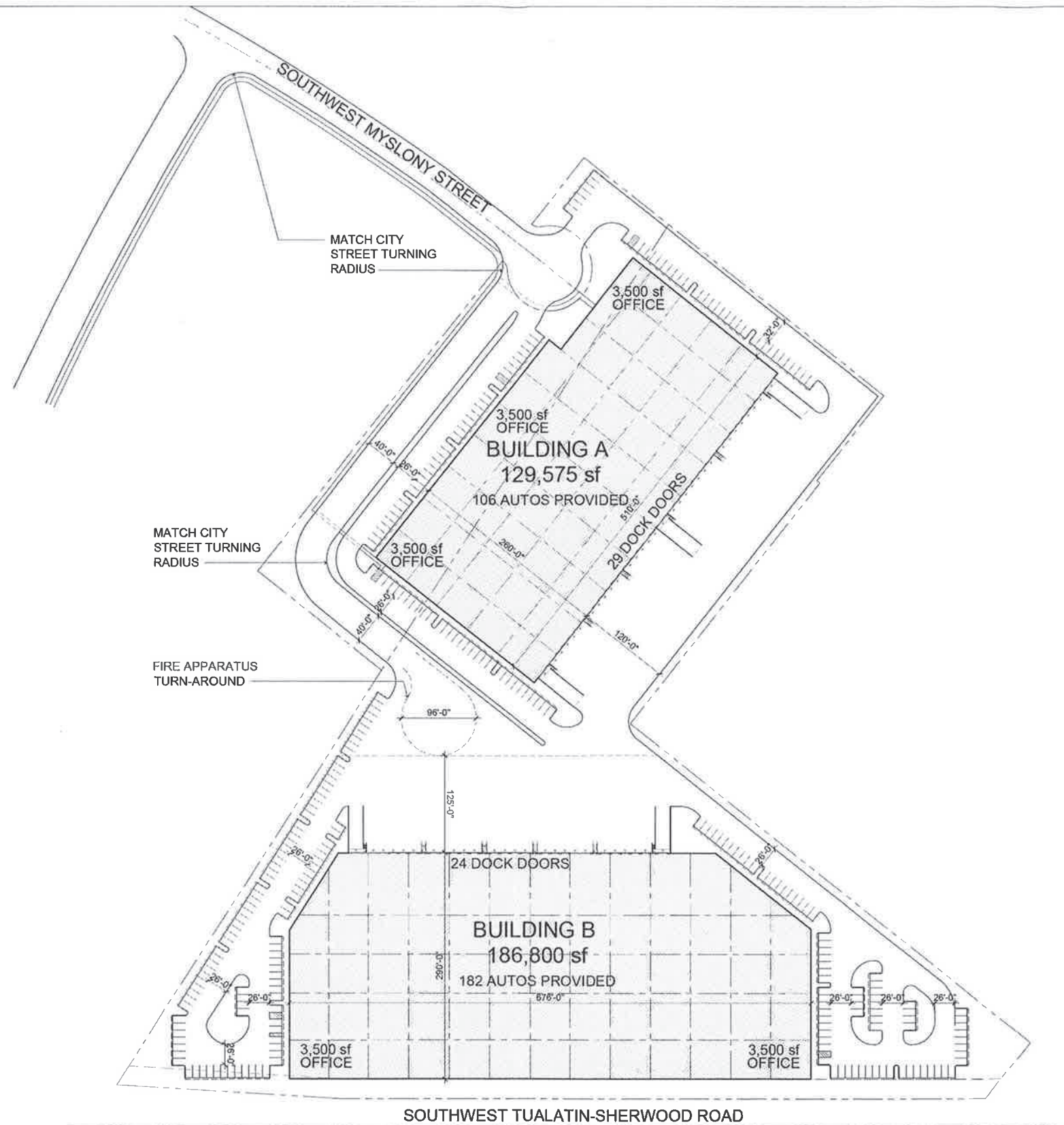
No significant trends or crash patterns were identified at any of the study intersections that were indicative of safety concerns.

Preliminary traffic signal warrants are projected to be met at the intersection of SW Myslony Street at SW 124<sup>th</sup> Avenue under year 2021 background conditions, regardless of whether the proposed development is constructed. However, it should be noted that the intersection is currently planned for signalization in the near-future.

All study intersections are currently operating acceptably per City of Tualatin and Washington County standards and are projected to continue operating acceptably through the 2021 buildout year of the site.



*Appendix*



**PRELIMINARY SITE PLAN**  
**SCHEME 13**  
 30 July 2019

Pascuzzi Property  
 Tualatin, Oregon



Carlie Coatsworth Architects, Inc  
 1802 MacArthur Blvd., Suite 300 - Irvine, CA 92612 - Phone: (949) 653-9333

**PHELAN**  
 DEVELOPMENT  
 450 Newport Center Drive, Suite 405  
 Newport Beach, CA 92660



## TRIP GENERATION CALCULATIONS

*Land Use:* Manufacturing  
*Land Use Code:* 140  
*Setting/Location:* General Urban/Suburban  
*Variable:* 1,000 Square Feet  
*Variable Quantity:* 126.55

### AM PEAK HOUR

*Trip Rate:* 0.62

	Enter	Exit	Total
Directional Distribution	77%	23%	
Trip Ends	<b>60</b>	<b>18</b>	<b>78</b>

### PM PEAK HOUR

*Trip Rate:* 0.67

	Enter	Exit	Total
Directional Distribution	31%	69%	
Trip Ends	<b>26</b>	<b>59</b>	<b>85</b>

### WEEKDAY

*Trip Rate:* 3.93

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	<b>249</b>	<b>249</b>	<b>498</b>

### SATURDAY

*Trip Rate:* 6.42

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	<b>406</b>	<b>406</b>	<b>812</b>





## TRIP GENERATION CALCULATIONS

*Land Use:* High-Cube Transload & Short-Term Storage  
Warehouse

*Land Use Code:* 154

*Setting/Location:* General Urban/Suburban

*Variable:* 1,000 Sq. Ft. GFA

*Variable Value:* 189.825

### AM PEAK HOUR

*Trip Rate:* 0.08

	Enter	Exit	Total
Directional Distribution	77%	23%	
Trip Ends	<b>12</b>	<b>3</b>	<b>15</b>

### PM PEAK HOUR

*Trip Rate:* 0.10

	Enter	Exit	Total
Directional Distribution	28%	72%	
Trip Ends	<b>5</b>	<b>14</b>	<b>19</b>

### WEEKDAY

*Trip Rate:* 1.40

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	<b>133</b>	<b>133</b>	<b>266</b>

### SATURDAY

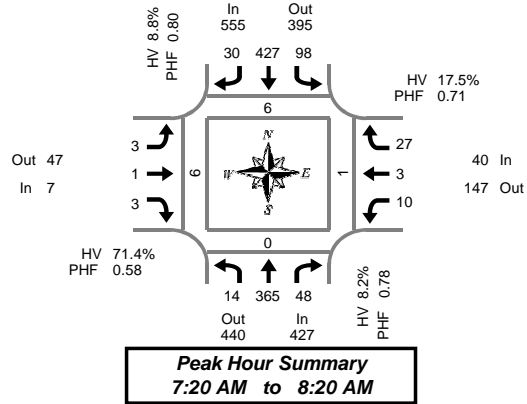
*Trip Rate:* 0.94

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	<b>89</b>	<b>89</b>	<b>178</b>

# Total Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 124th Ave & SW Myslony St

Tuesday, October 08, 2019

7:00 AM to 9:00 AM

### 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	11	3	0	9	24	0	0	0	0	0	0	1	0	2	0	50	0	0	0	0
7:05 AM	2	22	3	0	6	31	0	0	0	0	0	0	1	0	1	0	66	0	0	0	0
7:10 AM	2	20	2	0	5	30	1	0	0	0	0	0	3	2	0	0	65	0	0	0	0
7:15 AM	2	19	5	0	8	26	1	0	0	0	1	0	1	1	0	0	64	2	0	0	1
7:20 AM	1	20	4	0	11	28	3	0	1	0	1	0	1	0	5	0	75	0	0	0	0
7:25 AM	1	17	2	0	6	37	1	0	1	0	0	0	1	0	1	0	67	2	0	0	5
7:30 AM	2	22	4	0	7	51	1	0	0	0	0	0	2	0	2	0	91	0	0	0	1
7:35 AM	0	31	5	0	7	41	3	0	0	0	0	0	0	0	4	0	91	0	0	0	0
7:40 AM	1	27	3	0	11	48	4	0	0	0	0	0	2	0	2	0	98	0	0	0	0
7:45 AM	0	43	8	1	10	39	2	0	0	0	0	0	0	1	1	0	104	0	0	0	0
7:50 AM	2	32	3	0	9	38	4	0	0	1	0	0	0	0	0	0	89	0	0	0	0
7:55 AM	1	44	3	0	7	22	5	0	0	0	0	0	1	1	4	0	88	2	0	0	0
8:00 AM	2	34	5	0	13	32	1	0	1	0	0	0	1	1	2	0	92	0	0	0	0
8:05 AM	1	43	3	0	7	28	3	0	0	0	1	0	1	0	3	0	90	0	0	0	0
8:10 AM	3	17	3	0	5	36	1	0	0	0	0	0	1	0	3	0	69	0	0	0	0
8:15 AM	0	35	5	0	5	27	2	0	0	0	1	0	0	0	0	0	75	2	0	1	0
8:20 AM	3	21	6	0	3	28	2	0	1	0	0	0	1	0	0	0	65	0	0	0	0
8:25 AM	0	21	3	0	5	27	0	0	1	0	0	0	1	0	0	0	58	0	0	0	0
8:30 AM	2	30	2	0	2	15	0	0	0	0	0	0	1	0	1	0	53	0	0	0	0
8:35 AM	0	23	3	0	2	18	0	0	0	0	0	0	1	0	1	0	48	0	0	0	0
8:40 AM	1	26	4	0	1	11	0	0	0	0	0	0	2	0	1	0	46	0	0	0	0
8:45 AM	0	26	0	0	1	27	0	0	0	0	0	0	2	0	1	0	57	0	0	0	0
8:50 AM	0	23	2	0	2	15	0	0	0	0	0	0	1	0	2	0	45	0	0	0	0
8:55 AM	2	25	2	0	4	35	1	0	0	0	0	0	3	0	0	0	72	0	0	0	0
Total Survey	28	632	83	1	146	714	35	0	5	1	4	0	28	6	36	0	1,718	8	0	1	7

### 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	4	53	8	0	20	85	1	0	0	0	0	0	5	2	3	0	181	0	0	0	0
7:15 AM	4	56	11	0	25	91	5	0	2	0	2	0	3	1	6	0	206	4	0	0	6
7:30 AM	3	80	12	0	25	140	8	0	0	0	0	0	4	0	8	0	280	0	0	0	1
7:45 AM	3	119	14	1	26	99	11	0	0	1	0	0	1	2	5	0	281	2	0	0	0
8:00 AM	6	94	11	0	25	96	5	0	1	0	1	0	3	1	8	0	251	0	0	0	0
8:15 AM	3	77	14	0	13	82	4	0	2	0	1	0	2	0	0	0	198	2	0	1	0
8:30 AM	3	79	9	0	5	44	0	0	0	0	0	0	4	0	3	0	147	0	0	0	0
8:45 AM	2	74	4	0	7	77	1	0	0	0	0	0	6	0	3	0	174	0	0	0	0
Total Survey	28	632	83	1	146	714	35	0	5	1	4	0	28	6	36	0	1,718	8	0	1	7

### Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	427	440	867	1	555	395	950	0	7	47	54	0	40	147	187	0	1,029	6	0	1	6
%HV	8.2%				8.8%				71.4%				17.5%				9.3%				
PHF	0.78				0.80				0.58				0.71				0.88				

By Movement	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	14	365	48	427	98	427	30	555	3	1	3	7	10	3	27	40	1,029
%HV	0.0%	9.3%	2.1%	8.2%	3.1%	10.8%	0.0%	8.8%	66.7%	0.0%	#####	71.4%	20.0%	0.0%	18.5%	17.5%	9.3%
PHF	0.58	0.75	0.75	0.78	0.82	0.76	0.68	0.80	0.38	0.25	0.38	0.58	0.63	0.38	0.75	0.71	0.88

### Rolling Hour Summary

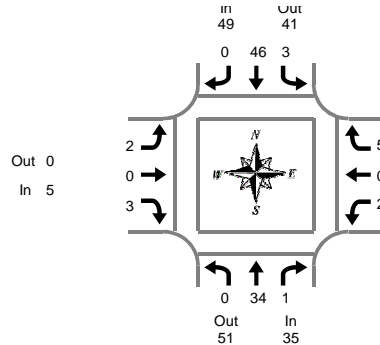
7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	14	308	45	1	96	415	25	0	2	1	2	0	13	5	22	0	948	6	0	0	7
7:15 AM	16	349	48	1	101	426	29	0	3	1	3	0	11	4	27	0	1,018	6	0	0	7
7:30 AM	15	370	51	1	89	417	28	0	3	1	2	0	10	3	21	0	1,010	4	0	1	1
7:45 AM	15	369	48	1	69	321	20	0	3	1	2	0	10	3	16	0	877	4	0	1	0
8:00 AM	14	324	38	0	50	299	10	0	3	0	2	0	15	1	14	0	770	2	0	1	0

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740



**Peak Hour Summary**  
7:20 AM to 8:20 AM

## SW 124th Ave & SW Myslony St

Tuesday, October 08, 2019

7:00 AM to 9:00 AM

### Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	1	0	1	1	2	0	3	0	0	0	0	0	0	0	0	4
7:05 AM	0	4	0	4	0	3	0	3	0	0	0	0	1	0	0	1	8
7:10 AM	0	1	0	1	0	4	0	4	0	0	0	0	2	2	0	4	9
7:15 AM	0	2	0	2	0	4	0	4	0	0	1	1	1	0	0	1	8
7:20 AM	0	1	0	1	0	2	0	2	1	0	1	2	0	0	0	0	5
7:25 AM	0	3	0	3	0	5	0	5	1	0	0	1	0	0	1	1	10
7:30 AM	0	3	0	3	0	4	0	4	0	0	0	0	0	0	0	0	7
7:35 AM	0	3	0	3	0	4	0	4	0	0	0	0	0	0	0	0	7
7:40 AM	0	1	0	1	1	3	0	4	0	0	0	0	1	0	1	2	7
7:45 AM	0	2	0	2	1	3	0	4	0	0	0	0	0	0	0	0	6
7:50 AM	0	1	0	1	0	5	0	5	0	0	0	0	0	0	0	0	6
7:55 AM	0	2	0	2	0	2	0	2	0	0	0	0	1	0	1	2	6
8:00 AM	0	3	0	3	1	4	0	5	0	0	0	0	0	0	1	1	9
8:05 AM	0	8	0	8	0	5	0	5	0	0	1	1	0	0	1	1	15
8:10 AM	0	3	1	4	0	5	0	5	0	0	0	0	0	0	0	0	9
8:15 AM	0	4	0	4	0	4	0	4	0	0	1	1	0	0	0	0	9
8:20 AM	0	5	1	6	0	3	0	3	0	0	0	0	0	0	0	0	9
8:25 AM	0	3	1	4	0	3	0	3	0	0	0	0	0	0	0	0	7
8:30 AM	0	6	0	6	0	2	0	2	0	0	0	0	0	0	0	0	8
8:35 AM	0	3	2	5	0	4	0	4	0	0	0	0	0	0	1	1	10
8:40 AM	0	4	2	6	1	1	0	2	0	0	0	0	1	0	0	1	9
8:45 AM	0	6	0	6	0	3	0	3	0	0	0	0	1	0	0	1	10
8:50 AM	0	1	0	1	0	4	0	4	0	0	0	0	0	0	1	1	6
8:55 AM	0	4	0	4	1	8	0	9	0	0	0	0	0	0	0	0	13
Total Survey	0	74	7	81	6	87	0	93	2	0	4	6	8	2	7	17	197

### Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 124th Ave			Southbound SW 124th Ave			Eastbound SW Myslony St			Westbound SW Myslony St			Interval Total				
	L	T	R	L	T	R	L	T	R	L	T	R					
7:00 AM	0	6	0	6	1	9	0	10	0	0	0	3	2	0	5	21	
7:15 AM	0	6	0	6	0	11	0	11	2	0	2	4	1	0	1	2	23
7:30 AM	0	7	0	7	1	11	0	12	0	0	0	0	1	0	1	2	21
7:45 AM	0	5	0	5	1	10	0	11	0	0	0	0	1	0	1	2	18
8:00 AM	0	14	1	15	1	14	0	15	0	0	1	1	0	0	2	2	33
8:15 AM	0	12	2	14	0	10	0	10	0	0	1	1	0	0	0	0	25
8:30 AM	0	13	4	17	1	7	0	8	0	0	0	0	1	0	1	2	27
8:45 AM	0	11	0	11	1	15	0	16	0	0	0	0	1	0	1	2	29
Total Survey	0	74	7	81	6	87	0	93	2	0	4	6	8	2	7	17	197

### Heavy Vehicle Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound SW 124th Ave			Southbound SW 124th Ave			Eastbound SW Myslony St			Westbound SW Myslony St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	35	51	86	49	41	90	5	0	5	7	4	11	96
PHF	0.55			0.82			0.42			0.44			0.73

By Movement	Northbound SW 124th Ave			Southbound SW 124th Ave			Eastbound SW Myslony St			Westbound SW Myslony St			Total				
	L	T	R	L	T	R	L	T	R	L	T	R					
Volume	0	34	1	35	3	46	0	49	2	0	3	5	2	0	5	7	96
PHF	0.00	0.57	0.25	0.55	0.38	0.82	0.00	0.82	0.25	0.00	0.38	0.42	0.50	0.00	0.42	0.44	0.73

### Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	24	0	24	3	41	0	44	2	0	2	4	6	2	3	11	83
7:15 AM	0	32	1	33	3	46	0	49	2	0	3	5	3	0	5	8	95
7:30 AM	0	38	3	41	3	45	0	48	0	0	2	2	2	0	4	6	97
7:45 AM	0	44	7	51	3	41	0	44	0	0	2	2	2	0	4	6	103
8:00 AM	0	50	7	57	3	46	0	49	0	0	2	2	2	0	4	6	114

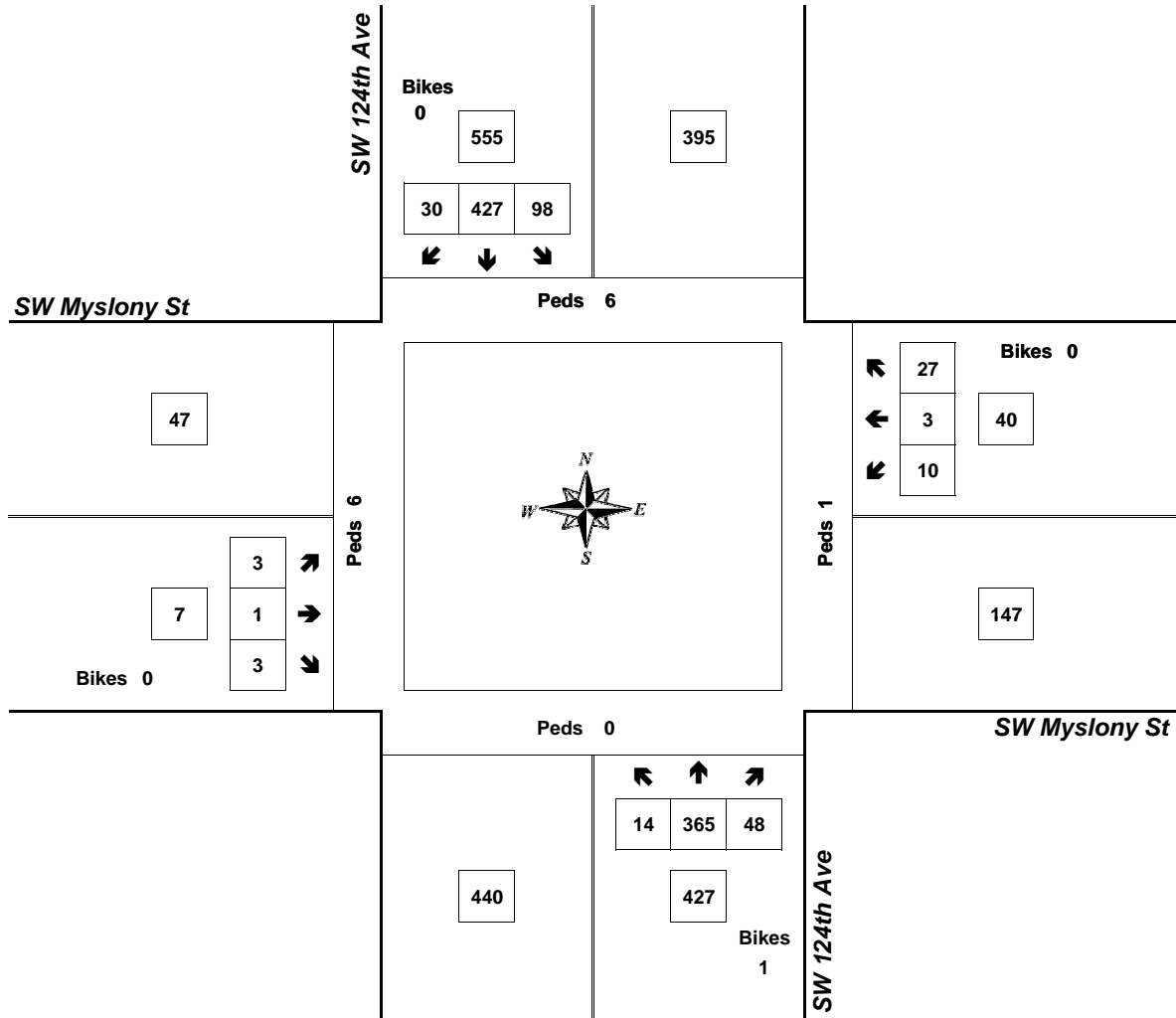
# Peak Hour Summary



Clay Carney  
(503) 833-2740

## SW 124th Ave & SW Myslony St

7:20 AM to 8:20 AM  
Tuesday, October 08, 2019



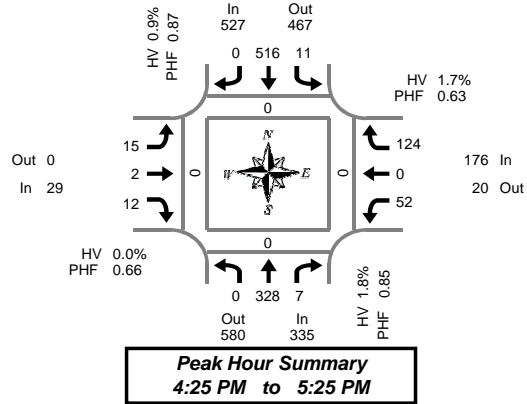
Approach	PHF	HV%	Volume
EB	0.58	71.4%	7
WB	0.71	17.5%	40
NB	0.78	8.2%	427
SB	0.80	8.8%	555
<b>Intersection</b>	<b>0.88</b>	<b>9.3%</b>	<b>1,029</b>

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

# Total Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 124th Ave & SW Myslony St

Tuesday, October 08, 2019

4:00 PM to 6:00 PM

### 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	13	0	0	0	44	0	0	4	0	1	0	16	0	14	0	92	0	0	0	2
4:05 PM	0	13	2	0	0	47	1	0	1	0	4	0	14	0	7	0	89	0	0	0	0
4:10 PM	1	30	0	0	3	44	0	0	1	0	2	0	11	0	4	0	96	0	0	0	0
4:15 PM	0	21	1	0	1	39	0	0	2	0	4	0	4	0	9	0	81	0	0	0	0
4:20 PM	0	17	1	0	1	32	1	0	0	1	1	0	6	0	10	0	70	0	0	0	0
4:25 PM	0	23	1	0	1	41	0	0	0	0	0	0	5	0	6	0	77	0	0	0	0
4:30 PM	0	19	0	0	1	49	0	0	4	1	2	0	2	0	5	0	83	0	0	0	0
4:35 PM	0	17	1	0	0	51	0	0	1	0	1	0	2	0	12	0	85	0	0	0	0
4:40 PM	0	25	0	0	0	51	0	0	1	0	1	0	5	0	14	0	97	0	0	0	0
4:45 PM	0	38	1	0	2	42	0	0	1	0	2	0	5	0	10	0	101	0	0	0	0
4:50 PM	0	28	1	0	1	36	0	0	0	0	1	0	1	0	5	0	73	0	0	0	0
4:55 PM	0	30	0	0	2	41	0	0	0	0	1	0	1	0	9	0	84	0	0	0	0
5:00 PM	0	23	1	0	0	35	0	0	2	0	1	0	9	0	13	0	84	0	0	0	0
5:05 PM	0	39	1	0	2	52	0	0	1	0	2	0	10	0	20	0	127	0	0	0	0
5:10 PM	0	24	1	0	1	46	0	0	1	0	1	0	7	0	11	0	92	0	0	0	0
5:15 PM	0	32	0	0	1	30	0	0	3	1	0	0	3	0	13	0	83	0	0	0	0
5:20 PM	0	30	0	0	0	42	0	0	1	0	0	0	2	0	6	0	81	0	0	0	0
5:25 PM	0	19	0	0	1	44	0	0	3	1	0	0	2	0	3	0	73	0	0	0	0
5:30 PM	0	23	0	0	0	48	0	0	1	0	0	0	1	0	2	0	75	0	0	1	0
5:35 PM	0	19	0	0	1	33	1	0	1	0	1	0	4	0	5	0	65	0	0	0	0
5:40 PM	0	27	0	0	2	48	0	0	0	0	1	0	0	0	6	0	84	0	0	0	0
5:45 PM	0	19	1	0	0	30	0	0	0	0	0	0	3	0	4	0	57	0	0	0	0
5:50 PM	0	33	0	0	0	34	0	0	1	0	0	0	2	1	1	0	72	0	0	0	0
5:55 PM	0	23	0	0	0	33	0	0	1	0	2	0	1	0	3	0	63	0	0	0	0
Total Survey	1	585	12	0	20	992	3	0	30	4	28	0	116	1	192	0	1,984	0	0	1	2

### 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	56	2	0	3	135	1	0	6	0	7	0	41	0	25	0	277	0	0	0	2
4:15 PM	0	61	3	0	3	112	1	0	2	1	5	0	15	0	25	0	228	0	0	0	0
4:30 PM	0	61	1	0	1	151	0	0	6	1	4	0	9	0	31	0	265	0	0	0	0
4:45 PM	0	96	2	0	5	119	0	0	1	0	4	0	7	0	24	0	258	0	0	0	0
5:00 PM	0	86	3	0	3	133	0	0	4	0	4	0	26	0	44	0	303	0	0	0	0
5:15 PM	0	81	0	0	2	116	0	0	7	2	0	0	7	0	22	0	237	0	0	0	0
5:30 PM	0	69	0	0	3	129	1	0	2	0	2	0	5	0	13	0	224	0	0	1	0
5:45 PM	0	75	1	0	0	97	0	0	2	0	2	0	6	1	8	0	192	0	0	0	0
Total Survey	1	585	12	0	20	992	3	0	30	4	28	0	116	1	192	0	1,984	0	0	1	2

### Peak Hour Summary

4:25 PM to 5:25 PM

By Approach	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	335	580	915	0	527	467	994	0	29	0	29	0	176	20	196	0	1,067	0	0	0	0
%HV	1.8%				0.9%				0.0%				1.7%				1.3%				
PHF	0.85				0.87				0.66				0.63				0.88				

By Movement	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	328	7	335	11	516	0	527	15	2	12	29	52	0	124	176	1,067
%HV	0.0%	1.8%	0.0%	1.8%	0.0%	1.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	1.7%	1.3%
PHF	0.00	0.85	0.58	0.85	0.55	0.85	0.00	0.87	0.63	0.50	0.75	0.66	0.50	0.00	0.70	0.63	0.88

### Rolling Hour Summary

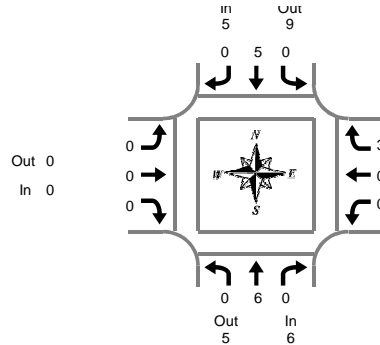
4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	274	8	0	12	517	2	0	15	2	20	0	72	0	105	0	1,028	0	0	0	2
4:15 PM	0	304	9	0	12	515	1	0	13	2	17	0	57	0	124	0	1,054	0	0	0	0
4:30 PM	0	324	6	0	11	519	0	0	18	3	12	0	49	0	121	0	1,063	0	0	0	0
4:45 PM	0	332	5	0	13	497	1	0	14	2	10	0	45	0	103	0	1,022	0	0	1	0
5:00 PM	0	311	4	0	8	475	1	0	15	2	8	0	44	1	87	0	956	0	0	1	0

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740



**Peak Hour Summary**  
4:25 PM to 5:25 PM

## SW 124th Ave & SW Myslony St

Tuesday, October 08, 2019

4:00 PM to 6:00 PM

### Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1	1	3
4:05 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	1	0	4
4:10 PM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	5	1	6	0	0	0	0	0	0	0	0	0	0	0	1	1	7
4:20 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1	3	3
4:25 PM	0	2	0	2	0	3	0	3	0	0	0	0	0	0	0	0	0	5
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:35 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:40 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2	2
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2	2
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:35 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	3
5:40 PM	0	1	0	1	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	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Total Survey	0	16	2	18	1	16	0	17	0	0	0	0	1	0	6	7	42	42

### Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 124th Ave			Total	Southbound SW 124th Ave			Total	Eastbound SW Myslony St			Total	Westbound SW Myslony St			Total	
	L	T	R		L	T	R		L	T	R		L	T	R		
4:00 PM	0	2	1	3	0	6	0	6	0	0	0	0	0	1	1	10	10
4:15 PM	0	7	1	8	0	5	0	5	0	0	0	0	1	0	1	15	15
4:30 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	3	3
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	2	3	3
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	2	0	2	1	0	0	1	0	0	0	0	0	1	1	4	4
5:30 PM	0	2	0	2	0	3	0	3	0	0	0	0	0	0	0	5	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Total Survey	0	16	2	18	1	16	0	17	0	0	0	0	1	0	6	7	42

### Heavy Vehicle Peak Hour Summary

4:25 PM to 5:25 PM

By Approach	Northbound SW 124th Ave			Total	Southbound SW 124th Ave			Total	Eastbound SW Myslony St			Total	Westbound SW Myslony St			Total	
	In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total		
Volume	6	5	11		5	9	14		0	0	0		3	0	3		14
PHF	0.38				0.42				0.00				0.38				0.50

By Movement	Northbound SW 124th Ave			Total	Southbound SW 124th Ave			Total	Eastbound SW Myslony St			Total	Westbound SW Myslony St			Total	
	L	T	R		L	T	R		L	T	R		L	T	R		
Volume	0	6	0	6	0	5	0	5	0	0	0	0	0	0	3	3	14
PHF	0.00	0.38	0.00	0.38	0.00	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.50

### Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 124th Ave				Southbound SW 124th Ave				Eastbound SW Myslony St				Westbound SW Myslony St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	11	2	13	0	13	0	13	0	0	0	0	1	0	4	5	31
4:15 PM	0	10	1	11	0	7	0	7	0	0	0	0	1	0	3	4	22
4:30 PM	0	5	0	5	1	2	0	3	0	0	0	0	0	0	3	3	11
4:45 PM	0	5	0	5	1	4	0	5	0	0	0	0	0	0	3	3	13
5:00 PM	0	5	0	5	1	3	0	4	0	0	0	0	0	0	2	2	11

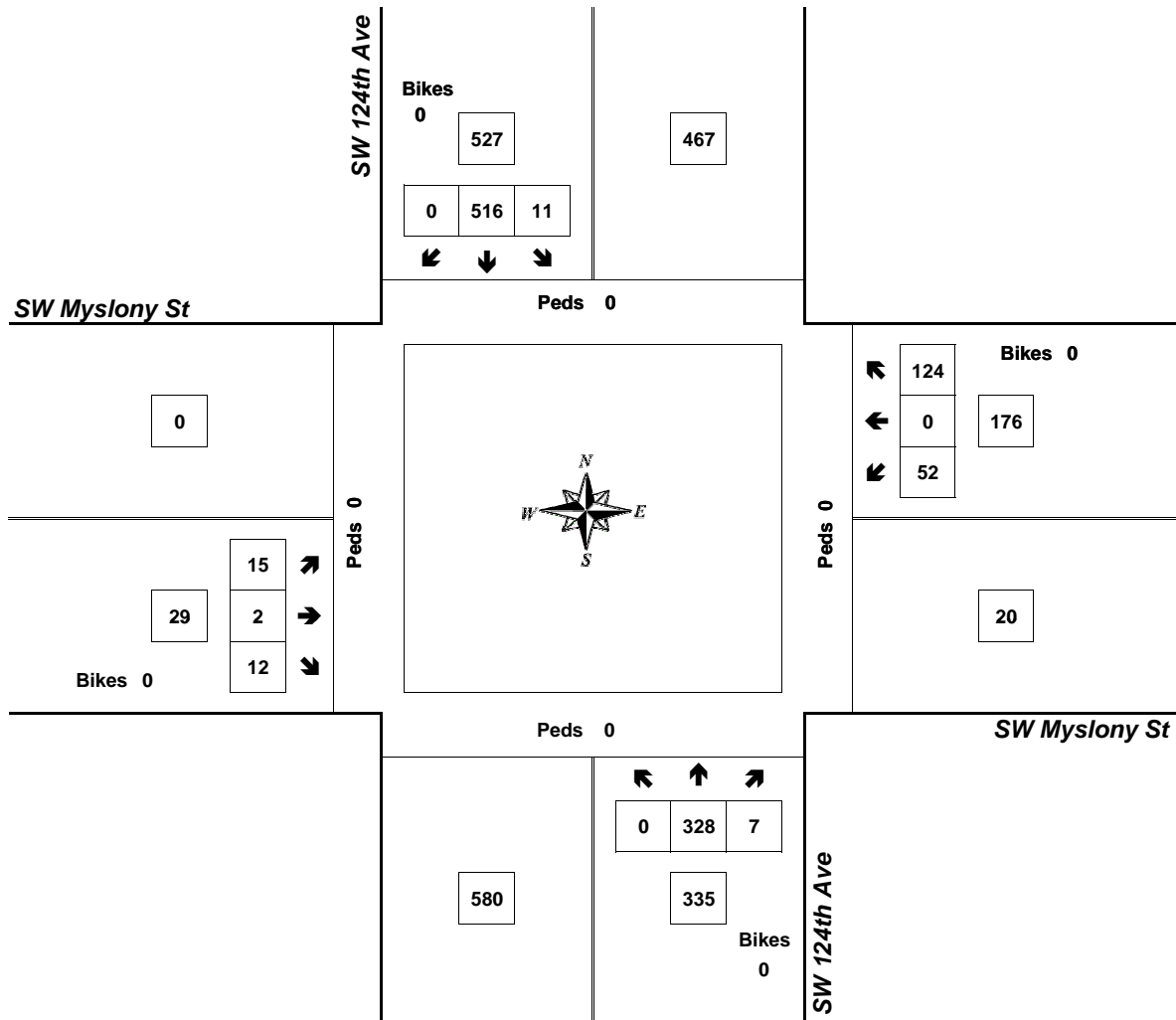
# Peak Hour Summary



Clay Carney  
(503) 833-2740

## SW 124th Ave & SW Myslony St

4:25 PM to 5:25 PM  
Tuesday, October 08, 2019



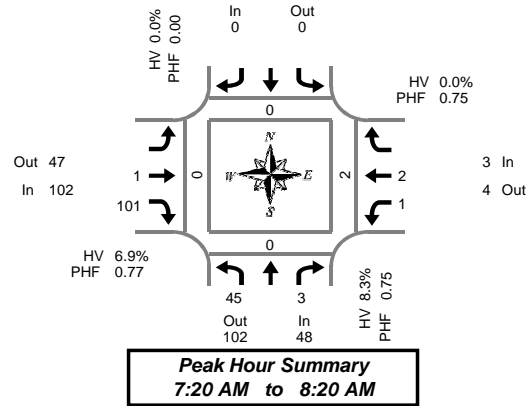
Approach	PHF	HV%	Volume
EB	0.66	0.0%	29
WB	0.63	1.7%	176
NB	0.85	1.8%	335
SB	0.87	0.9%	527
<b>Intersection</b>	<b>0.88</b>	<b>1.3%</b>	<b>1,067</b>

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

# Total Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & NW Myslony St

Tuesday, October 08, 2019

7:00 AM to 9:00 AM

**Peak Hour Summary**  
7:20 AM to 8:20 AM

### 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total	Pedestrians Crosswalk			
	L	R	Bikes			Bikes	T	R	Bikes	L	T	Bikes		North	South	East	West
7:00 AM	3	0	0			0	0	4	0	0	0	0	7	0	0	0	0
7:05 AM	6	0	0			0	0	5	0	0	0	0	11	0	0	0	0
7:10 AM	3	0	0			0	0	3	0	0	0	0	6	0	0	0	0
7:15 AM	4	0	0			0	0	2	0	0	0	0	6	0	0	0	0
7:20 AM	6	0	0			0	0	10	0	0	0	0	16	0	0	0	0
7:25 AM	1	0	0			0	0	11	0	0	0	0	12	0	0	0	0
7:30 AM	3	0	0			0	0	5	0	0	1	0	9	0	0	0	0
7:35 AM	3	0	0			0	1	3	0	0	0	0	7	0	0	0	0
7:40 AM	2	0	0			0	0	9	0	0	0	0	11	0	0	0	0
7:45 AM	2	0	0			0	0	10	0	1	0	0	13	0	0	0	0
7:50 AM	6	0	0			0	0	9	0	0	0	0	15	0	0	0	0
7:55 AM	4	0	0			0	0	8	0	0	0	0	12	0	0	0	0
8:00 AM	4	2	0			0	0	10	0	0	1	0	17	0	0	0	0
8:05 AM	4	0	0			0	0	15	0	0	0	0	19	0	0	0	0
8:10 AM	4	0	0			0	0	4	0	0	0	0	8	0	0	0	0
8:15 AM	6	1	0			0	0	7	0	0	0	0	14	0	0	2	0
8:20 AM	2	0	0			0	0	5	0	0	0	0	7	0	0	2	0
8:25 AM	2	0	0			0	0	8	0	0	1	0	11	0	0	0	0
8:30 AM	0	0	0			0	0	1	0	0	0	0	1	0	0	0	0
8:35 AM	1	0	0			0	0	2	0	0	0	0	3	0	0	0	0
8:40 AM	3	0	0			0	0	4	0	0	0	0	7	0	0	0	0
8:45 AM	2	0	0			0	1	3	0	0	0	0	6	0	0	0	0
8:50 AM	2	0	0			0	0	2	0	0	0	0	4	0	0	0	0
8:55 AM	2	0	0			0	0	3	0	1	1	0	7	0	0	0	0
Total Survey	75	3	0			0	2	143	0	2	4	0	229	0	0	4	0

### 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total	Pedestrians Crosswalk			
	L	R	Bikes			Bikes	T	R	Bikes	L	T	Bikes		North	South	East	West
7:00 AM	12	0	0			0	0	12	0	0	0	0	24	0	0	0	0
7:15 AM	11	0	0			0	0	23	0	0	0	0	34	0	0	0	0
7:30 AM	8	0	0			0	1	17	0	0	1	0	27	0	0	0	0
7:45 AM	12	0	0			0	0	27	0	1	0	0	40	0	0	0	0
8:00 AM	12	2	0			0	0	29	0	0	1	0	44	0	0	0	0
8:15 AM	10	1	0			0	0	20	0	0	1	0	32	0	0	4	0
8:30 AM	4	0	0			0	0	7	0	0	0	0	11	0	0	0	0
8:45 AM	6	0	0			0	1	8	0	1	1	0	17	0	0	0	0
Total Survey	75	3	0			0	2	143	0	2	4	0	229	0	0	4	0

### Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total	Pedestrians Crosswalk							
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West				
Volume	48	102	150	0	0	0	0	102	47	149	0	3	4	7	0	153	0	0	2	0	
%HV	8.3%				0.0%				6.9%				0.0%			7.2%					
PHF	0.75				0.00				0.77				0.75			0.80					

By Movement	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total				
	L	R	Total			Total	T	R	Total	L	T	Total					
Volume	45	3	48			0	1	101	102	1	2	3	153				
%HV	6.7%	NA	33.3%	8.3%	NA	NA	NA	0.0%	NA	0.0%	6.9%	6.9%	0.0%	0.0%	NA	0.0%	7.2%
PHF	0.80		0.38	0.75		0.00	0.25	0.77	0.77	0.25	0.50	0.75	0.80				

### Rolling Hour Summary

7:00 AM to 9:00 AM

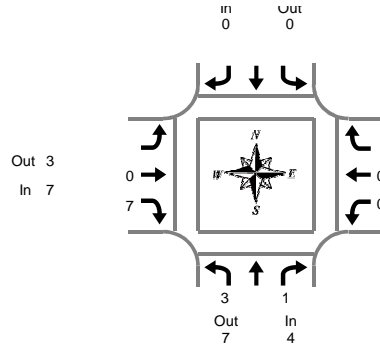
Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total	Pedestrians Crosswalk			
	L	R	Bikes			Bikes	T	R	Bikes	L	T	Bikes		North	South	East	West
7:00 AM	43	0	0			0	1	79	0	1	1	0	125	0	0	0	0
7:15 AM	43	2	0			0	1	96	0	1	2	0	145	0	0	0	0
7:30 AM	42	3	0			0	1	93	0	1	3	0	143	0	0	4	0
7:45 AM	38	3	0			0	0	83	0	1	2	0	127	0	0	4	0
8:00 AM	32	3	0			0	1	64	0	1	3	0	104	0	0	4	0



# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & NW Myslony St

Tuesday, October 08, 2019

7:00 AM to 9:00 AM

### Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total
	L	R	Total			Total	T	R	Total	L	T	Total	
7:00 AM	0	0	0			0			0	0	0	0	0
7:05 AM	1	0	1			0			0	0	0	0	1
7:10 AM	0	0	0			0			0	0	0	0	0
7:15 AM	0	0	0			0			0	0	0	0	0
7:20 AM	0	0	0			0			0	2	2	0	2
7:25 AM	0	0	0			0			0	1	1	0	1
7:30 AM	0	0	0			0			0	0	0	0	0
7:35 AM	0	0	0			0			0	0	0	0	0
7:40 AM	1	0	1			0			0	1	1	0	2
7:45 AM	0	0	0			0			0	0	0	0	0
7:50 AM	1	0	1			0			0	0	0	0	1
7:55 AM	0	0	0			0			0	0	0	0	0
8:00 AM	0	0	0			0			0	1	1	0	1
8:05 AM	0	0	0			0			0	1	1	0	1
8:10 AM	0	0	0			0			0	1	1	0	1
8:15 AM	1	1	2			0			0	0	0	0	2
8:20 AM	0	0	0			0			0	1	1	0	1
8:25 AM	0	0	0			0			0	0	0	1	1
8:30 AM	0	0	0			0			0	0	0	0	0
8:35 AM	1	0	1			0			0	0	0	0	1
8:40 AM	0	0	0			0			0	0	0	0	0
8:45 AM	2	0	2			0			0	1	1	0	3
8:50 AM	0	0	0			0			0	0	0	0	0
8:55 AM	1	0	1			0			0	0	0	1	2
Total Survey	8	1	9			0			0	9	9	0	20

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

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total
	L	R	Total			Total	T	R	Total	L	T	Total	
7:00 AM	1	0	1			0			0	0	0	0	1
7:15 AM	0	0	0			0			0	3	3	0	3
7:30 AM	1	0	1			0			0	1	1	0	2
7:45 AM	1	0	1			0			0	0	0	0	1
8:00 AM	0	0	0			0			0	3	3	0	3
8:15 AM	1	1	2			0			0	1	1	0	4
8:30 AM	1	0	1			0			0	0	0	0	1
8:45 AM	3	0	3			0			0	1	1	0	5
Total Survey	8	1	9			0			0	9	9	0	20

### Heavy Vehicle Peak Hour Summary 7:20 AM to 8:20 AM

By Approach	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	4	7	11	0	0	0	7	3	10	0	1	1	11
PHF	0.50			0.00			0.58			0.00			0.69

By Movement	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total
	L	R	Total			Total	T	R	Total	L	T	Total	
Volume	3	1	4			0	0	7	7	0	0	0	11
PHF	0.38	0.25	0.50			0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.69

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

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total
	L	R	Total			Total	T	R	Total	L	T	Total	
7:00 AM	3	0	3			0			0	4	4	0	7
7:15 AM	2	0	2			0			0	7	7	0	9
7:30 AM	3	1	4			0			0	5	5	0	10
7:45 AM	3	1	4			0			0	4	4	0	9
8:00 AM	5	1	6			0			0	5	5	0	13

# Peak Hour Summary



Clay Carney  
(503) 833-2740

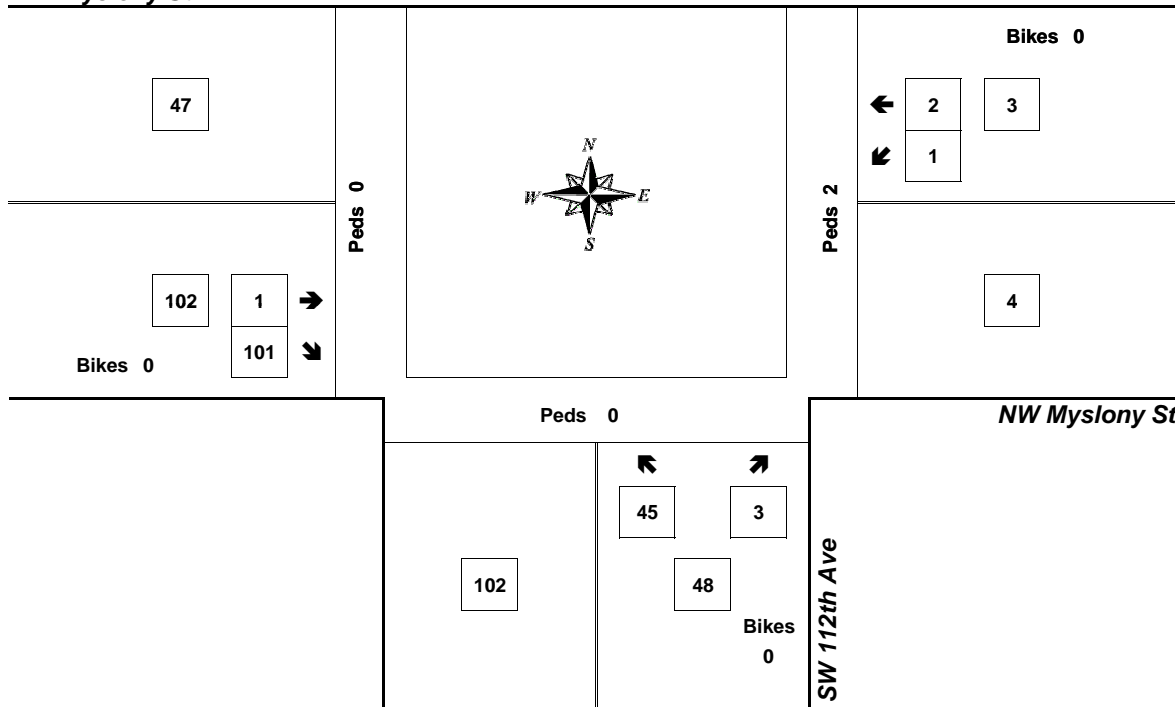
## SW 112th Ave & NW Myslony St

7:20 AM to 8:20 AM  
Tuesday, October 08, 2019

Bikes  
0

NW Myslony St

Peds 0



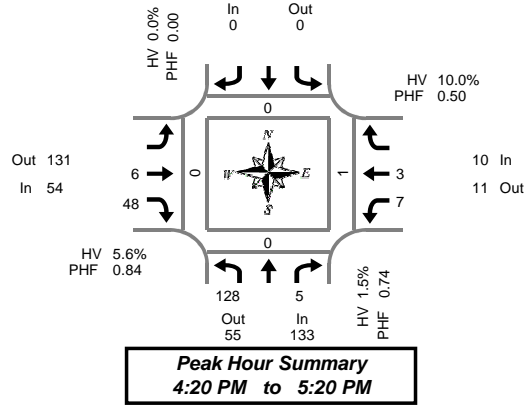
Approach	PHF	HV%	Volume
EB	0.77	6.9%	102
WB	0.75	0.0%	3
NB	0.75	8.3%	48
SB	0.00	0.0%	0
<b>Intersection</b>	<b>0.80</b>	<b>7.2%</b>	<b>153</b>

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

# Total Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & NW Myslony St

Tuesday, October 08, 2019

4:00 PM to 6:00 PM

### 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total	Pedestrians Crosswalk				
	L	R	Bikes			Bikes	T	R	Bikes	L	T	Bikes		North	South	East	West	
4:00 PM	9	0	0			0	0	8	0	0	0	0	17	0	0	0	0	
4:05 PM	7	0	0			0	0	8	0	1	0	0	16	0	0	2	0	
4:10 PM	5	0	0			0	0	5	0	0	0	0	10	0	0	0	0	
4:15 PM	4	0	0			0	0	4	0	0	0	0	8	0	0	0	0	
4:20 PM	8	0	0			0	1	8	0	1	0	0	18	0	0	0	0	
4:25 PM	6	0	0			0	0	3	0	0	0	0	9	0	0	0	0	
4:30 PM	7	0	0			0	0	1	0	0	0	0	8	0	0	0	0	
4:35 PM	15	0	0			0	1	4	0	0	0	0	20	0	0	0	0	
4:40 PM	16	1	0			0	1	4	0	0	0	0	22	0	0	0	0	
4:45 PM	11	0	0			0	1	5	0	1	0	0	18	0	0	0	0	
4:50 PM	9	0	0			0	1	2	0	1	0	0	13	0	0	0	0	
4:55 PM	4	0	0			0	0	3	0	1	1	0	9	0	0	0	0	
5:00 PM	14	1	0			0	1	2	0	1	0	0	19	0	0	0	0	
5:05 PM	13	0	0			0	0	10	0	1	1	0	25	0	0	0	0	
5:10 PM	15	2	0			0	0	2	0	1	0	0	20	0	0	1	0	
5:15 PM	10	1	0			0	0	4	0	0	1	0	16	0	0	0	0	
5:20 PM	3	0	0			0	0	1	0	0	0	0	4	0	0	0	0	
5:25 PM	2	0	0			0	0	4	0	0	0	0	6	0	0	0	0	
5:30 PM	3	0	1			0	0	1	0	0	0	0	4	0	0	0	0	
5:35 PM	7	0	0			0	0	5	0	0	0	0	12	0	0	0	0	
5:40 PM	4	0	0			0	0	0	0	0	3	0	7	0	0	0	0	
5:45 PM	7	0	0			0	0	3	0	0	2	0	12	0	0	0	0	
5:50 PM	1	0	0			0	0	0	0	0	0	0	1	0	0	0	0	
5:55 PM	4	0	0			0	0	1	0	0	0	0	5	0	0	0	0	
Total Survey	184		5	1			0	6	88	0	8	8	0	299	0	0	3	0

### 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total	Pedestrians Crosswalk				
	L	R	Bikes			Bikes	T	R	Bikes	L	T	Bikes		North	South	East	West	
4:00 PM	21	0	0			0	0	21	0	1	0	0	43	0	0	2	0	
4:15 PM	18	0	0			0	1	15	0	1	0	0	35	0	0	0	0	
4:30 PM	38	1	0			0	2	9	0	0	0	0	50	0	0	0	0	
4:45 PM	24	0	0			0	2	10	0	3	1	0	40	0	0	0	0	
5:00 PM	42	3	0			0	1	14	0	3	1	0	64	0	0	1	0	
5:15 PM	15	1	0			0	0	9	0	0	1	0	26	0	0	0	0	
5:30 PM	14	0	1			0	0	6	0	0	3	0	23	0	0	0	0	
5:45 PM	12	0	0			0	0	4	0	0	2	0	18	0	0	0	0	
Total Survey	184		5	1			0	6	88	0	8	8	0	299	0	0	3	0

### Peak Hour Summary

4:20 PM to 5:20 PM

By Approach	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	133	55	188	0	0	0	0	0	54	131	185	0	10	11	21	0	197
%HV	1.5%			0.0%			5.6%			10.0%			3.0%				
PHF	0.74			0.00			0.84			0.50			0.77				

By Movement	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total			
	L	R	Total			Total	T	R	Total	L	T	Total				
Volume	128	5	133			0	6	48	54	7	3	10	197			
%HV	1.6%	NA	0.0%	1.5%	NA	NA	0.0%	NA	16.7%	4.2%	5.6%	0.0%	33.3%	NA	10.0%	3.0%
PHF	0.76		0.42	0.74			0.00		0.50	0.75	0.84	0.58	0.38	0.50	0.77	

### Rolling Hour Summary

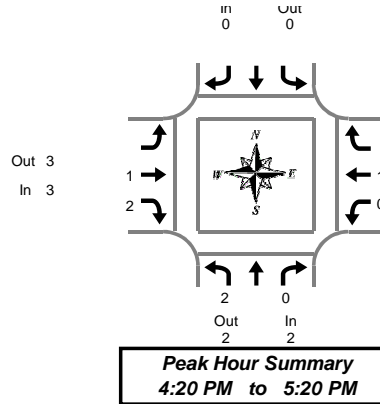
4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total	Pedestrians Crosswalk			
	L	R	Bikes			Bikes	T	R	Bikes	L	T	Bikes		North	South	East	West
4:00 PM	101	1	0			0	5	55	0	5	1	0	168	0	0	2	0
4:15 PM	122	4	0			0	6	48	0	7	2	0	189	0	0	1	0
4:30 PM	119	5	0			0	5	42	0	6	3	0	180	0	0	1	0
4:45 PM	95	4	1			0	3	39	0	6	6	0	153	0	0	1	0
5:00 PM	83	4	1			0	1	33	0	3	7	0	131	0	0	1	0

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & NW Myslony St

Tuesday, October 08, 2019

4:00 PM to 6:00 PM

### Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total		
	L	R	Total			Total	T	R	Total	L	T	Total			
4:00 PM	0	0	0			0			0	0	0	0	0		
4:05 PM	0	0	0			0			0	1	1	1	0		
4:10 PM	0	0	0			0			0	0	0	0	0		
4:15 PM	0	0	0			0			0	0	0	0	0		
4:20 PM	0	0	0			0			0	1	1	0	0		
4:25 PM	0	0	0			0			0	0	0	0	0		
4:30 PM	0	0	0			0			0	0	0	0	0		
4:35 PM	0	0	0			0			0	0	0	0	0		
4:40 PM	0	0	0			0			1	1	2	0	0		
4:45 PM	0	0	0			0			0	0	0	0	0		
4:50 PM	1	0	1			0			0	0	0	0	0		
4:55 PM	1	0	1			0			0	0	0	1	1		
5:00 PM	0	0	0			0			0	0	0	0	0		
5:05 PM	0	0	0			0			0	0	0	0	0		
5:10 PM	0	0	0			0			0	0	0	0	0		
5:15 PM	0	0	0			0			0	0	0	0	0		
5:20 PM	0	0	0			0			0	0	0	0	0		
5:25 PM	0	0	0			0			0	1	1	0	0		
5:30 PM	0	0	0			0			0	0	0	0	0		
5:35 PM	0	0	0			0			0	0	0	0	0		
5:40 PM	0	0	0			0			0	0	0	0	0		
5:45 PM	0	0	0			0			0	0	0	1	1		
5:50 PM	0	0	0			0			0	0	0	0	0		
5:55 PM	0	0	0			0			0	0	0	0	0		
Total Survey	2	0	2			0			1	4	5	1	2	3	10

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

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total		
	L	R	Total			Total	T	R	Total	L	T	Total			
4:00 PM	0	0	0			0			0	1	1	1	0	1	2
4:15 PM	0	0	0			0			0	1	1	0	0	0	1
4:30 PM	0	0	0			0			1	1	2	0	0	0	2
4:45 PM	2	0	2			0			0	0	0	0	1	1	3
5:00 PM	0	0	0			0			0	0	0	0	0	0	0
5:15 PM	0	0	0			0			0	1	1	0	0	0	1
5:30 PM	0	0	0			0			0	0	0	0	0	0	0
5:45 PM	0	0	0			0			0	0	0	0	1	1	1
Total Survey	2	0	2			0			1	4	5	1	2	3	10

### Heavy Vehicle Peak Hour Summary 4:20 PM to 5:20 PM

By Approach	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	2	4	0	0	0	3	3	6	1	1	2	6
PHF	0.25			0.00			0.38			0.25			0.50

By Movement	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Total
	L	R	Total			Total	T	R	Total	L	T	Total	
Volume	2	0	2			0	1	2	3	0	1	1	6
PHF	0.25	0.00	0.25			0.00	0.25	0.50	0.38	0.00	0.25	0.25	0.50

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

Interval Start Time	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound NW Myslony St			Westbound NW Myslony St			Interval Total		
	L	R	Total			Total	T	R	Total	L	T	Total			
4:00 PM	2	0	2			0			1	3	4	1	1	2	8
4:15 PM	2	0	2			0			1	2	3	0	1	1	6
4:30 PM	2	0	2			0			1	2	3	0	1	1	6
4:45 PM	2	0	2			0			0	1	1	0	1	1	4
5:00 PM	0	0	0			0			0	1	1	0	1	1	2

# Peak Hour Summary



Clay Carney  
(503) 833-2740

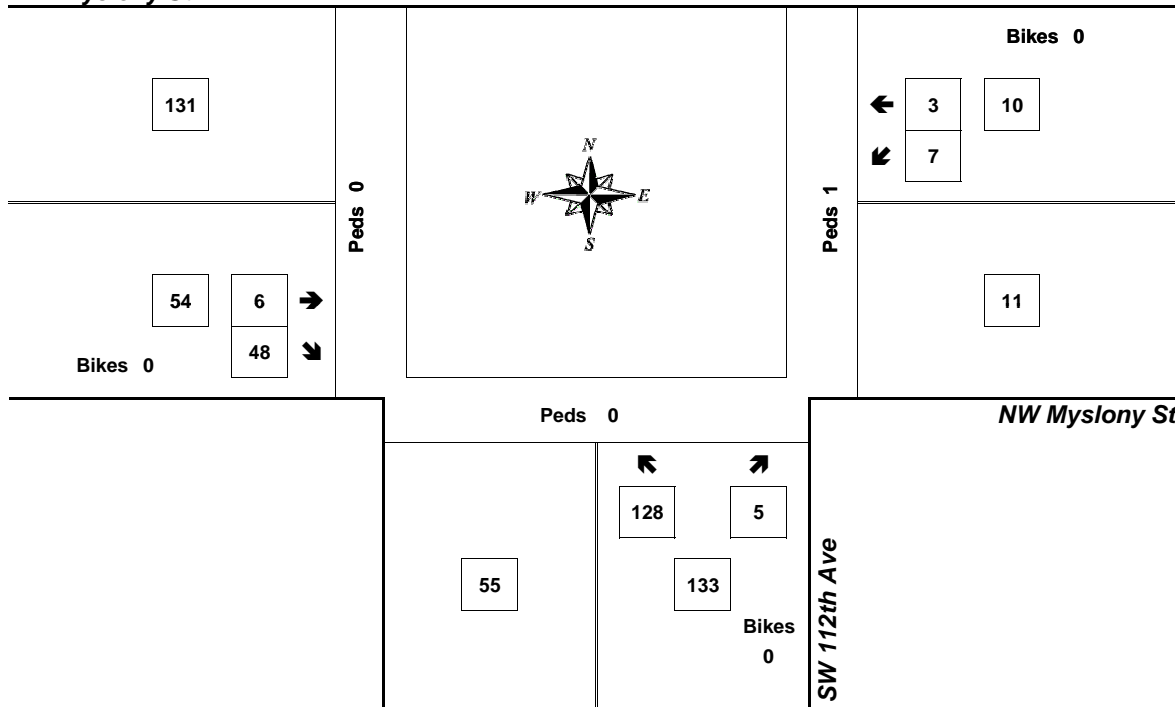
## SW 112th Ave & NW Myslony St

4:20 PM to 5:20 PM  
Tuesday, October 08, 2019

Bikes  
0

NW Myslony St

Peds 0



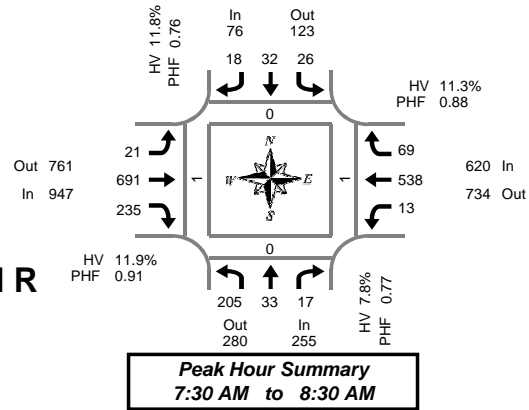
Approach	PHF	HV%	Volume
EB	0.84	5.6%	54
WB	0.50	10.0%	10
NB	0.74	1.5%	133
SB	0.00	0.0%	0
<b>Intersection</b>	<b>0.77</b>	<b>3.0%</b>	<b>197</b>

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

# Total Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & SW Tualatin Shderwood R

Tuesday, October 08, 2019

7:00 AM to 9:00 AM

### 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	17	3	0	0	1	0	1	0	3	56	15	1	0	49	7	0	152	0	0	0	0
7:05 AM	10	1	0	0	1	0	0	0	4	63	13	0	0	44	8	0	144	0	0	0	0
7:10 AM	11	3	0	0	2	2	0	0	2	53	29	0	0	26	3	0	131	0	0	0	0
7:15 AM	20	1	0	0	0	0	2	0	0	55	10	0	3	40	8	0	139	0	0	0	0
7:20 AM	11	3	0	0	3	2	1	0	2	55	16	0	3	44	6	0	146	0	0	0	0
7:25 AM	14	2	1	0	0	3	1	0	0	63	19	0	4	34	5	0	146	0	0	0	0
7:30 AM	27	3	0	0	4	2	1	0	0	50	18	1	0	44	2	0	151	0	0	0	0
7:35 AM	20	2	2	0	1	0	1	0	1	61	20	0	0	29	9	0	146	0	0	0	0
7:40 AM	25	2	2	0	2	3	2	0	2	57	24	0	1	44	1	0	165	0	0	0	0
7:45 AM	21	4	3	0	2	4	1	0	2	58	26	0	3	42	9	0	175	0	0	0	0
7:50 AM	9	7	0	0	0	6	1	0	6	58	27	0	2	46	7	0	169	0	0	0	0
7:55 AM	20	0	1	0	2	7	0	0	1	48	16	0	2	38	8	0	143	0	0	0	1
8:00 AM	23	1	0	0	1	3	4	0	2	60	22	0	1	39	6	0	162	0	0	0	0
8:05 AM	10	5	2	0	2	1	5	0	2	62	15	0	0	55	7	0	166	0	0	0	0
8:10 AM	10	1	4	0	4	2	0	0	2	56	12	0	2	57	7	0	157	0	0	0	0
8:15 AM	12	5	0	0	3	2	2	0	0	56	20	0	1	45	3	0	149	0	0	0	0
8:20 AM	20	2	0	0	2	2	1	0	2	51	19	0	1	43	4	0	147	0	0	1	0
8:25 AM	8	1	3	0	3	0	0	0	1	74	16	0	0	56	6	0	168	0	0	0	0
8:30 AM	13	0	0	0	3	1	1	0	1	64	18	0	1	37	5	0	144	0	0	0	0
8:35 AM	17	1	3	0	1	2	2	0	0	48	8	1	0	50	1	0	133	0	0	0	0
8:40 AM	13	3	0	0	3	2	1	0	1	56	19	1	0	52	6	0	156	0	0	0	0
8:45 AM	12	3	2	0	0	0	0	0	2	63	21	0	0	58	4	0	165	0	0	0	0
8:50 AM	15	6	2	0	2	1	4	0	1	67	14	0	2	68	2	0	184	0	0	0	0
8:55 AM	9	2	0	0	0	3	5	0	2	62	19	0	0	47	2	0	151	0	0	0	0
Total Survey	367	61	25	0	42	48	36	0	39	1,396	436	4	26	1,087	126	0	3,689	0	0	1	1

### 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	38	7	0	0	4	2	1	0	9	172	57	1	0	119	18	0	427	0	0	0	0
7:15 AM	45	6	1	0	3	5	4	0	2	173	45	0	10	118	19	0	431	0	0	0	0
7:30 AM	72	7	4	0	7	5	4	0	3	168	62	1	1	117	12	0	462	0	0	0	0
7:45 AM	50	11	4	0	4	17	2	0	9	164	69	0	7	126	24	0	487	0	0	0	1
8:00 AM	43	7	6	0	7	6	9	0	6	178	49	0	3	151	20	0	485	0	0	0	0
8:15 AM	40	8	3	0	8	4	3	0	3	181	55	0	2	144	13	0	464	0	0	1	0
8:30 AM	43	4	3	0	7	5	4	0	2	168	45	2	1	139	12	0	433	0	0	0	0
8:45 AM	36	11	4	0	2	4	9	0	5	192	54	0	2	173	8	0	500	0	0	0	0
Total Survey	367	61	25	0	42	48	36	0	39	1,396	436	4	26	1,087	126	0	3,689	0	0	1	1

### Peak Hour Summary

7:30 AM to 8:30 AM

By Approach	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	255	280	535	0	76	123	199	0	947	761	1,708	1	620	734	1,354	0	1,898	0	0	1	1
%HV	7.8%				11.8%				11.9%				11.3%				11.2%				
PHF	0.77				0.76				0.91				0.88				0.93				

By Movement	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	205	33	17	255	26	32	18	76	21	691	235	947	13	538	69	620	1,898
%HV	7.3%	3.0%	23.5%	7.8%	11.5%	0.0%	33.3%	11.8%	14.3%	14.3%	4.7%	11.9%	7.7%	12.3%	4.3%	11.3%	11.2%
PHF	0.71	0.63	0.61	0.77	0.72	0.47	0.50	0.76	0.53	0.95	0.76	0.91	0.46	0.86	0.72	0.88	0.93

### Rolling Hour Summary

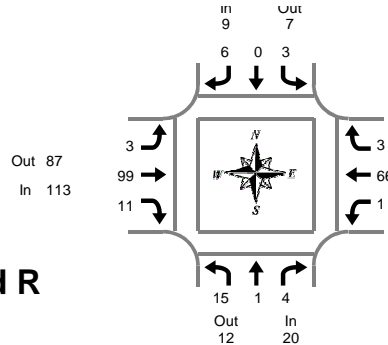
7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	205	31	9	0	18	29	11	0	23	677	233	2	18	480	73	0	1,807	0	0	0	1
7:15 AM	210	31	15	0	21	33	19	0	20	683	225	1	21	512	75	0	1,865	0	0	0	1
7:30 AM	205	33	17	0	26	32	18	0	21	691	235	1	13	538	69	0	1,898	0	0	1	1
7:45 AM	176	30	16	0	26	32	18	0	20	691	218	2	13	560	69	0	1,869	0	0	1	1
8:00 AM	162	30	16	0	24	19	25	0	16	719	203	2	8	607	53	0	1,882	0	0	1	0

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740



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

## SW 112th Ave & SW Tualatin Shderwood R

Tuesday, October 08, 2019

7:00 AM to 9:00 AM

### Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	7	0	7	0	9	0	3	0	16
7:05 AM	0	0	0	0	0	0	0	0	0	1	7	1	9	0	3	0	3	12
7:10 AM	0	0	0	0	0	0	0	0	0	8	1	9	0	2	0	2	11	
7:15 AM	0	0	0	0	0	0	0	0	0	9	0	9	1	7	1	9	18	
7:20 AM	0	0	0	0	1	0	1	2	0	14	0	14	0	9	0	9	25	
7:25 AM	2	0	1	3	0	0	1	1	0	5	0	5	0	12	0	12	21	
7:30 AM	2	0	0	2	0	0	0	0	0	7	0	7	0	3	0	3	12	
7:35 AM	3	0	2	5	0	0	0	0	0	11	0	11	0	6	1	7	23	
7:40 AM	2	0	0	2	1	0	0	1	1	8	1	10	0	7	0	7	20	
7:45 AM	0	0	0	0	1	0	0	1	0	7	0	7	0	4	0	4	12	
7:50 AM	0	1	0	1	0	0	0	0	1	9	0	10	0	2	0	2	13	
7:55 AM	3	0	0	3	0	0	0	0	0	9	2	11	0	6	1	7	21	
8:00 AM	0	0	0	0	0	0	2	2	1	3	0	4	0	6	0	6	12	
8:05 AM	0	0	1	1	0	0	3	3	0	9	2	11	0	6	0	6	21	
8:10 AM	2	0	1	3	0	0	0	0	0	10	0	10	1	6	0	7	20	
8:15 AM	0	0	0	0	1	0	0	1	0	7	1	8	0	5	1	6	15	
8:20 AM	2	0	0	2	0	0	1	1	0	9	2	11	0	3	0	3	17	
8:25 AM	1	0	0	1	0	0	0	0	0	10	3	13	0	12	0	12	26	
8:30 AM	0	0	0	0	2	0	0	2	1	2	1	4	0	5	2	7	13	
8:35 AM	1	0	0	1	0	0	0	0	0	7	1	8	0	11	0	11	20	
8:40 AM	0	0	0	0	0	0	0	0	0	6	0	6	0	7	0	7	13	
8:45 AM	0	0	0	0	0	0	0	0	1	2	2	5	0	10	2	12	17	
8:50 AM	0	1	1	2	0	0	1	1	1	10	5	16	0	14	0	14	33	
8:55 AM	0	0	0	0	0	0	2	2	0	11	1	12	0	13	0	13	27	
Total Survey	18	2	6	26	6	0	11	17	7	187	23	217	2	168	8	178	438	

### Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	1	22	2	25	0	14	0	14	39
7:15 AM	2	0	1	3	1	0	2	3	0	28	0	28	1	28	1	30	64
7:30 AM	7	0	2	9	1	0	0	1	1	26	1	28	0	16	1	17	55
7:45 AM	3	1	0	4	1	0	0	1	1	25	2	28	0	12	1	13	46
8:00 AM	2	0	2	4	0	0	5	5	1	22	2	25	1	18	0	19	53
8:15 AM	3	0	0	3	1	0	1	2	0	26	6	32	0	20	1	21	58
8:30 AM	1	0	0	1	2	0	0	2	1	15	2	18	0	23	2	25	46
8:45 AM	0	1	1	2	0	0	3	3	2	23	8	33	0	37	2	39	77
Total Survey	18	2	6	26	6	0	11	17	7	187	23	217	2	168	8	178	438

### Heavy Vehicle Peak Hour Summary

7:30 AM to 8:30 AM

By Approach	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound SW Tualatin Sherwood Rd			Westbound SW Tualatin Shderwood R			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	20	12	32	9	7	16	113	87	200	70	106	176	212
PHF	0.56			0.45			0.88			0.83			0.91

By Movement	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	15	1	4	20	3	0	6	9	3	99	11	113	1	66	3	70	212
PHF	0.54	0.25	0.50	0.56	0.38	0.00	0.30	0.45	0.38	0.95	0.46	0.88	0.25	0.83	0.75	0.83	0.91

### Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	12	1	3	16	3	0	2	5	3	101	5	109	1	70	3	74	204
7:15 AM	14	1	5	20	3	0	7	10	3	101	5	109	2	74	3	79	218
7:30 AM	15	1	4	20	3	0	6	9	3	99	11	113	1	66	3	70	212
7:45 AM	9	1	2	12	4	0	6	10	3	88	12	103	1	73	4	78	203
8:00 AM	6	1	3	10	3	0	9	12	4	86	18	108	1	98	5	104	234

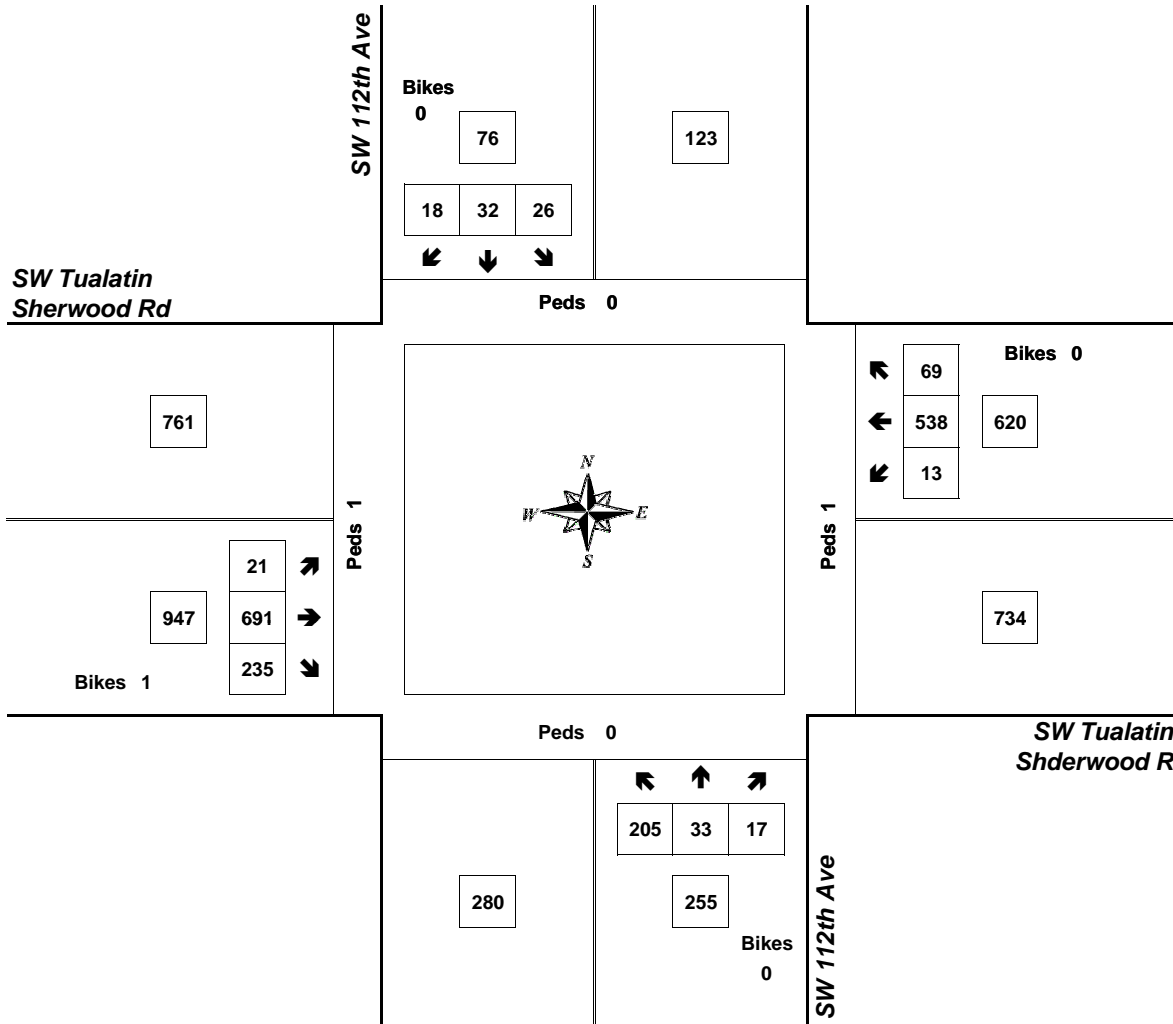
# Peak Hour Summary



Clay Carney  
(503) 833-2740

## SW 112th Ave & SW Tualatin Shderwood R

7:30 AM to 8:30 AM  
Tuesday, October 08, 2019



Approach	PHF	HV%	Volume
EB	0.91	11.9%	947
WB	0.88	11.3%	620
NB	0.77	7.8%	255
SB	0.76	11.8%	76
<b>Intersection</b>	<b>0.93</b>	<b>11.2%</b>	<b>1,898</b>

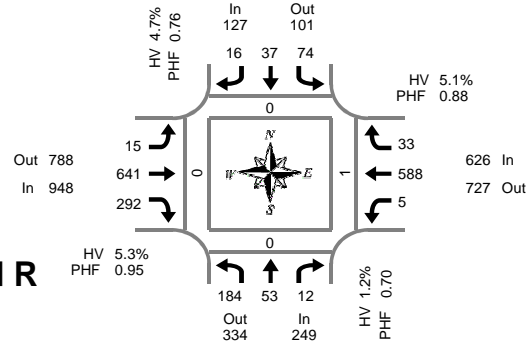
Count Period: 7:00 AM to 9:00 AM



# Total Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & SW Tualatin Shderwood R

Tuesday, October 08, 2019

4:00 PM to 6:00 PM

**Peak Hour Summary**  
4:00 PM to 5:00 PM

### 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	Pedestrians Crosswalk				
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West	
4:00 PM	13	2	0	0	17	4	1	0	1	57	20	0	0	43	4	0	0	162	0	0	0	0
4:05 PM	23	3	4	0	5	3	2	0	0	49	27	0	2	54	0	0	0	172	0	0	0	0
4:10 PM	15	2	2	0	6	2	2	0	3	71	20	0	0	62	2	0	0	187	0	0	0	0
4:15 PM	14	3	0	0	3	1	1	0	0	48	30	0	0	55	2	1	0	157	0	0	0	0
4:20 PM	14	6	0	0	4	2	1	0	0	57	21	1	0	39	5	0	0	149	0	0	0	0
4:25 PM	12	4	1	0	7	6	1	0	0	54	26	0	1	49	0	0	0	161	0	0	0	0
4:30 PM	15	7	2	1	4	5	1	0	1	48	19	0	0	35	1	0	0	138	0	0	1	0
4:35 PM	32	10	2	0	9	3	2	0	0	50	25	0	0	51	7	0	0	191	0	0	0	0
4:40 PM	15	6	0	0	2	4	1	0	2	50	29	0	0	42	1	0	0	152	0	0	0	0
4:45 PM	12	4	0	0	6	3	1	0	3	61	28	1	1	43	4	0	0	166	0	0	0	0
4:50 PM	10	2	0	0	5	2	1	0	3	45	18	0	1	59	5	0	0	151	0	0	0	0
4:55 PM	9	4	1	0	6	2	2	0	2	51	29	0	0	56	2	0	0	164	0	0	0	0
5:00 PM	8	7	2	0	0	6	2	0	1	50	21	0	0	53	0	0	0	150	0	0	0	0
5:05 PM	12	7	2	0	14	7	0	0	2	50	21	0	0	44	4	0	0	163	0	0	0	0
5:10 PM	18	5	3	0	1	3	1	0	1	35	29	0	0	45	2	0	0	143	0	0	0	0
5:15 PM	15	4	2	0	4	4	0	0	0	65	28	0	0	37	1	0	0	160	0	0	0	0
5:20 PM	10	1	0	0	2	1	1	0	3	63	22	0	0	55	3	0	0	161	0	0	0	0
5:25 PM	14	1	1	0	3	0	1	0	1	57	13	0	0	31	0	0	0	122	0	0	0	0
5:30 PM	10	3	2	1	2	3	0	0	1	61	21	0	0	44	1	0	0	148	0	0	0	0
5:35 PM	16	4	2	1	9	3	2	0	2	54	22	0	1	32	1	0	0	148	0	0	0	0
5:40 PM	14	3	1	0	1	1	2	0	2	58	16	0	0	49	0	0	0	147	0	0	0	0
5:45 PM	18	1	2	0	6	3	3	0	2	49	21	0	0	40	3	0	0	148	0	1	0	0
5:50 PM	7	2	1	0	4	0	0	0	0	55	25	0	0	43	2	0	0	139	1	0	0	0
5:55 PM	20	1	1	0	4	0	0	0	1	42	27	0	2	49	1	0	0	148	0	0	0	0
Total Survey	346	92	31	3	124	68	28	0	31	1,280	558	2	8	1,110	51	1	0	3,727	1	1	1	0

### 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	Pedestrians Crosswalk				
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West	
4:00 PM	51	7	6	0	28	9	5	0	4	177	67	0	2	159	6	0	0	521	0	0	0	0
4:15 PM	40	13	1	0	14	9	3	0	0	159	77	1	1	143	7	1	0	467	0	0	0	0
4:30 PM	62	23	4	1	15	12	4	0	3	148	73	0	0	128	9	0	0	481	0	0	1	0
4:45 PM	31	10	1	0	17	7	4	0	8	157	75	1	2	158	11	0	0	481	0	0	0	0
5:00 PM	38	19	7	0	15	16	3	0	4	135	71	0	0	142	6	0	0	456	0	0	0	0
5:15 PM	39	6	3	0	9	5	2	0	4	185	63	0	0	123	4	0	0	443	0	0	0	0
5:30 PM	40	10	5	2	12	7	4	0	5	173	59	0	1	125	2	0	0	443	0	0	0	0
5:45 PM	45	4	4	0	14	3	3	0	3	146	73	0	2	132	6	0	0	435	1	1	0	0
Total Survey	346	92	31	3	124	68	28	0	31	1,280	558	2	8	1,110	51	1	0	3,727	1	1	1	0

### Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	249	334	583	1	127	101	228	0	948	788	1,736	2	626	727	1,353	1	0	0	0	0	
%HV	1.2%				4.7%				5.3%				5.1%				4.7%				
PHF	0.70				0.76				0.95				0.88				0.94				

By Movement	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	184	53	12	249	74	37	16	127	15	641	292	2	5	588	33	1	1,950
%HV	1.1%	0.0%	8.3%	1.2%	5.4%	0.0%	12.5%	4.7%	6.7%	6.9%	1.7%	5.3%	20.0%	4.9%	6.1%	5.1%	4.7%
PHF	0.74	0.58	0.50	0.70	0.66	0.66	0.80	0.76	0.47	0.91	0.89	0.95	0.63	0.86	0.69	0.88	0.94

### Rolling Hour Summary

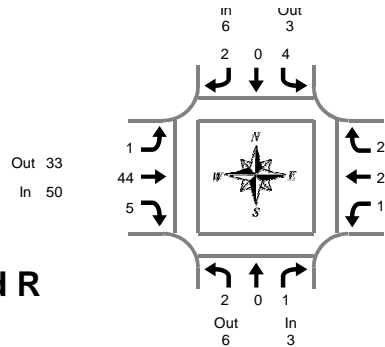
4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	184	53	12	1	74	37	16	0	15	641	292	2	5	588	33	1	1,950	0	0	1	0
4:15 PM	171	65	13	1	61	44	14	0	15	599	296	2	3	571	33	1	1,885	0	0	1	0
4:30 PM	170	58	15	1	56	40	13	0	19	625	282	1	2	551	30	0	1,861	0	0	1	0
4:45 PM	148	45	16	2	53	35	13	0	21	650	268	1	3	548	23	0	1,823	0	0	0	0
5:00 PM	162	39	19	2	50	31	12	0	16	639	266	0	3	522	18	0	1,777	1	1	0	0

# Heavy Vehicle Summary



Clay Carney  
(503) 833-2740



## SW 112th Ave & SW Tualatin Shderwood R

Tuesday, October 08, 2019

4:00 PM to 6:00 PM

**Peak Hour Summary**  
4:00 PM to 5:00 PM

### Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	1	0	0	1	0	2	1	3	0	3	1	4	8
4:05 PM	0	0	0	0	1	0	1	2	0	3	0	3	1	4	0	5	10
4:10 PM	0	0	1	1	0	0	1	1	0	5	0	5	0	1	0	1	8
4:15 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3
4:20 PM	0	0	0	0	0	0	0	0	0	6	1	7	0	3	0	3	10
4:25 PM	0	0	0	0	1	0	0	1	0	6	1	7	0	2	0	2	10
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
4:35 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	5	1	6	8
4:40 PM	1	0	0	1	0	0	0	0	0	7	0	7	0	2	0	2	10
4:45 PM	1	0	0	1	1	0	0	1	0	3	0	3	0	1	0	1	6
4:50 PM	0	0	0	0	0	0	0	0	1	4	0	5	0	4	0	4	9
4:55 PM	0	0	0	0	0	0	0	0	0	3	1	4	0	3	0	3	7
5:00 PM	1	0	1	2	0	0	0	0	0	3	0	3	0	1	0	1	6
5:05 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:10 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
5:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:25 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
5:40 PM	2	0	0	2	0	0	0	0	0	3	1	4	0	3	0	3	9
5:45 PM	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8
5:50 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	2	0	2	4
5:55 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3
Total Survey	6	0	2	8	4	1	2	7	1	67	8	76	1	44	2	47	138

### Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	1	1	2	0	2	4	0	10	1	11	1	8	1	10	26
4:15 PM	0	0	0	0	1	0	0	1	0	13	3	16	0	6	0	6	23
4:30 PM	1	0	0	1	0	0	0	0	0	11	0	11	0	7	1	8	20
4:45 PM	1	0	0	1	1	0	0	1	1	10	1	12	0	8	0	8	22
5:00 PM	2	0	1	3	0	0	0	0	0	4	0	4	0	3	0	3	10
5:15 PM	0	0	0	0	0	0	0	0	0	5	0	5	0	3	0	3	8
5:30 PM	2	0	0	2	0	1	0	1	0	6	1	7	0	4	0	4	14
5:45 PM	0	0	0	0	0	0	0	0	0	8	2	10	0	5	0	5	15
Total Survey	6	0	2	8	4	1	2	7	1	67	8	76	1	44	2	47	138

### Heavy Vehicle Peak Hour Summary

4:00 PM to 5:00 PM

By Approach	Northbound SW 112th Ave			Southbound SW 112th Ave			Eastbound SW Tualatin Sherwood Rd			Westbound SW Tualatin Shderwood R			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	3	6	9	6	3	9	50	33	83	32	49	81	91
PHF	0.38			0.38			0.78			0.80			0.88

By Movement	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	0	1	3	4	0	2	6	1	44	5	50	1	29	2	32	91
PHF	0.25	0.00	0.25	0.38	0.50	0.00	0.25	0.38	0.25	0.79	0.42	0.78	0.25	0.91	0.50	0.80	0.88

### Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SW 112th Ave				Southbound SW 112th Ave				Eastbound SW Tualatin Sherwood Rd				Westbound SW Tualatin Shderwood R				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	2	0	1	3	4	0	2	6	1	44	5	50	1	29	2	32	91
4:15 PM	4	0	1	5	2	0	0	2	1	38	4	43	0	24	1	25	75
4:30 PM	4	0	1	5	1	0	0	1	1	30	1	32	0	21	1	22	60
4:45 PM	5	0	1	6	1	1	0	2	1	25	2	28	0	18	0	18	54
5:00 PM	4	0	1	5	0	1	0	1	0	23	3	26	0	15	0	15	47

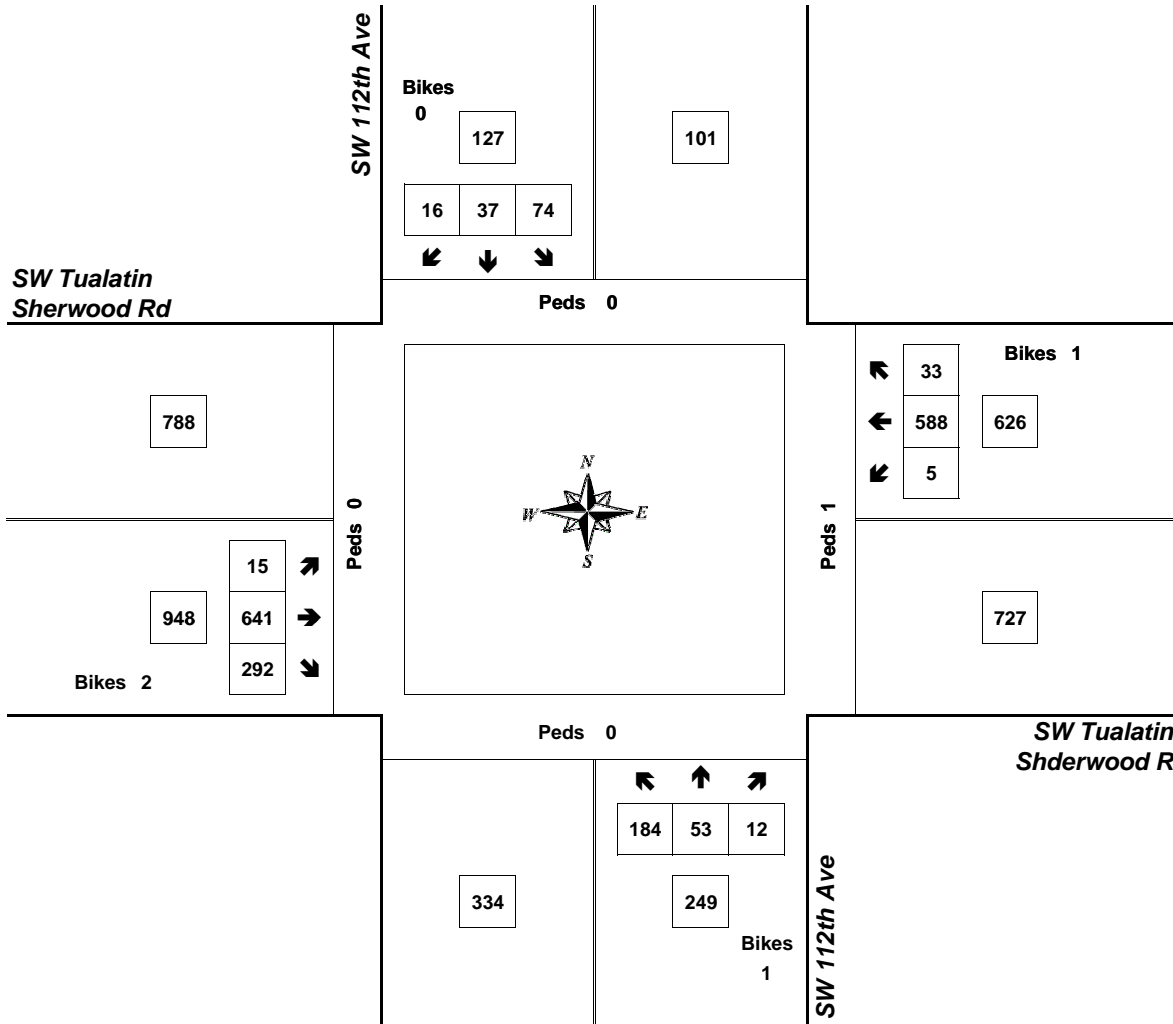
# Peak Hour Summary



Clay Carney  
(503) 833-2740

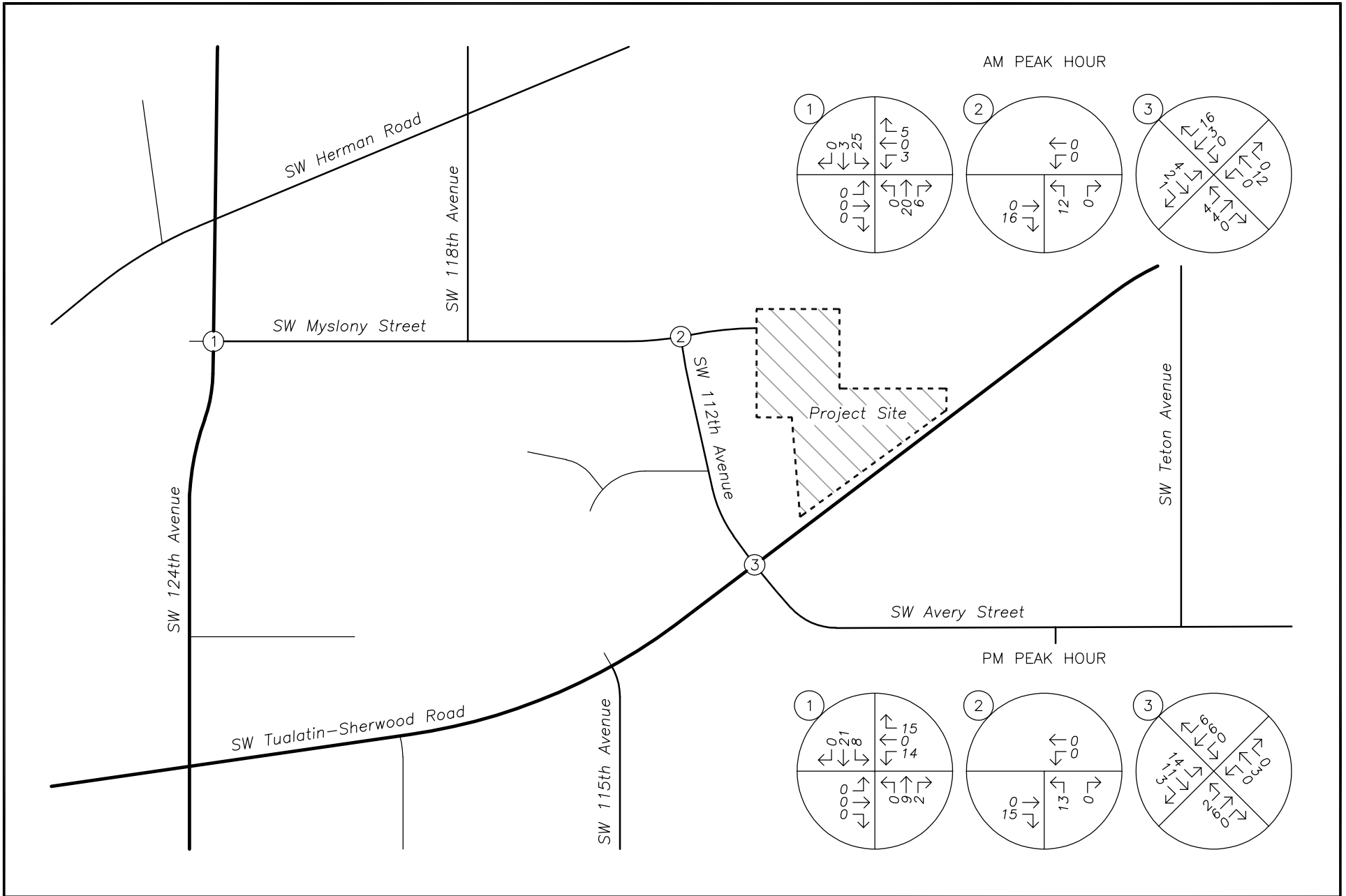
## SW 112th Ave & SW Tualatin Shderwood R

4:00 PM to 5:00 PM  
Tuesday, October 08, 2019



Approach	PHF	HV%	Volume
EB	0.95	5.3%	948
WB	0.88	5.1%	626
NB	0.70	1.2%	249
SB	0.76	4.7%	127
<b>Intersection</b>	<b>0.94</b>	<b>4.7%</b>	<b>1,950</b>

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



TRAFFIC VOLUMES  
 In-Process Development Trips  
 AM & PM Peak Hours



FIGURE  
 A

10/16/2019

## TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

## CRASH SUMMARIES BY YEAR BY COLLISION TYPE

124TH AVE at MYSLONY ST, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
<b>YEAR: 2016</b>														
SIDESWIPE - MEETING	0	1	0	1	0	2	0	1	0	0	1	1	0	0
<b>YEAR 2016 TOTAL</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>YEAR: 2015</b>														
TURNING MOVEMENTS	0	1	1	2	0	1	2	1	1	1	1	2	0	0
<b>YEAR 2015 TOTAL</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>
<b>FINAL TOTAL</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>

*Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.*

OREGON . DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

124TH AVE at MYSLONY ST, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

1 - 3 of 3 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	ACT	EVENT	CAUSE																	
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	A	S										
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED							
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRN	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE	
00601	N	N	N			02/02/2015	16	SW MYSLONY ST	INTER	3-LEG	N		N	RAIN	ANGL-OTH	01	NONE	0	TURN-R										02	
NONE						MO	0	SW 124TH AVE	CN			TRF SIGNAL	N	WET	TURN		PRVTE		E -N									015	00	
N						5A			02	0			N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		028	000		02	
N						45 22 35.33	-122 48	17.98																						
																	02	NONE	0	STRGHT										
																	PRVTE		S -N										000	00
																	TRUCK			01	DRVR	INJC	47	M	OR-Y		000	000		00
03338	N	N	N	N	N	06/16/2015	16	SW MYSLONY ST	INTER	3-LEG	N		N	CLR	ANGL-OTH	01	NONE	0	STRGHT										02	
CITY						TU	0	SW 124TH AVE	CN			STOP SIGN	N	DRY	TURN		PRVTE		S -N									000	00	
N						10A			02	0			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		000	000		00	
N						45 22 35.33	-122 48	17.98																						
																	01	NONE	0	STRGHT										
																	PRVTE		S -N										000	00
																	PSNGR CAR			01	PSNG	NO<5	01	M			000	000		00
																	01	NONE	0	STRGHT										
																	PRVTE		S -N										000	00
																	PSNGR CAR			02	PSNG	NO<5	04	M			000	000		00
																	02	NONE	0	TURN-L										
																	PRVTE		E -S									015	00	
																	TRUCK			01	DRVR	NONE	53	F	OR-Y		028	000		02
01826	N	N	N	N	N	03/18/2016	16	SW MYSLONY ST	INTER	3-LEG	N		N	CLR	O-1STOP	01	NONE	0	STRGHT										05	
CITY						FR	0	SW 124TH AVE	CN			TRF SIGNAL	N	DRY	SS-M		PRVTE		N -S									000	00	
N						4A			04	0			N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	47	M	NONE		044	000		05	
N						45 22 35.33	-122 48	17.98																						
																	02	NONE	0	STOP										
																	PRVTE		S -N										012	00
																	MTRCYCLE			01	DRVR	INJB	36	M	OR-Y		000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

10/16/2019

## TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

## CRASH SUMMARIES BY YEAR BY COLLISION TYPE

112TH AVE at TUALATIN-SHERWOOD, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	SECTION RELATED	OFF- ROAD
<b>YEAR: 2017</b>														
REAR-END	0	1	1	2	0	2	0	2	0	2	0	2	0	0
<b>YEAR 2017 TOTAL</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>
<b>YEAR: 2016</b>														
REAR-END	0	0	1	1	0	0	0	0	1	1	0	1	0	0
<b>YEAR 2016 TOTAL</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>YEAR: 2015</b>														
REAR-END	0	1	0	1	0	2	0	1	0	1	0	1	0	0
<b>YEAR 2015 TOTAL</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>YEAR: 2014</b>														
ANGLE	0	1	0	1	0	5	0	1	0	0	1	1	0	0
REAR-END	0	5	3	8	0	12	0	5	3	8	0	8	0	0
<b>YEAR 2014 TOTAL</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>9</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>8</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>
<b>YEAR: 2013</b>														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
<b>YEAR 2013 TOTAL</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>FINAL TOTAL</b>	<b>0</b>	<b>8</b>	<b>6</b>	<b>14</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>10</b>	<b>4</b>	<b>13</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>0</b>

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

112TH AVE at TUALATIN-SHERWOOD, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

1 - 3 of 14 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	ACT	EVENT	CAUSE																		
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	FROM	PRTC	INJ	G	E	LICNS	PED						
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	TO	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE	
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE	
00380	N	N	N	N	N	01/23/2014	16	SW TUALATIN-SHERWOOD	CROSS	NONE	0	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										013	07	
CITY						TH	0	SW 112TH AVE	NE			TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW											000	00		
N						11A			06	0			N	DAY	INJ	PSNGR	CAR			01	DRVR	NONE	73	M	OR-Y		043,026	000		07	
N						45 22	-122 47																								
						21.9063359	31.8607439																								
																02	NONE	0	STOP										011	013	00
																PRVTE	NE-SW			01	DRVR	INJC	67	M	OR-Y		000	000		00	
																PSNGR	CAR														
																02	NONE	0	STOP										011	013	00
																PRVTE	NE-SW			02	PSNG	INJC	71	F			000	000		00	
																PSNGR	CAR														
																03	NONE	0	STOP										011		00
																PRVTE	NE-SW			01	DRVR	NONE	65	M	OR-Y		000	000		00	
																PSNGR	CAR														
																03	NONE	0	STOP										011		00
																PRVTE	NE-SW			02	PSNG	INJC	85	F			000	000		00	
																PSNGR	CAR														
																03	NONE	0	STOP										011		00
																PRVTE	NE-SW			03	PSNG	INJC	61	F			000	000		00	
																PSNGR	CAR														
01437	N	N	N			03/11/2014	16	SW TUALATIN-SHERWOOD	CROSS	NONE	0	N	N	CLR	S-1STOP	01	NONE	0	STRGHT											29	
NONE						TU	0	SW 112TH AVE	NE			TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW											000	00		
N						6P			06	0			N	DAY	PDO	PSNGR	CAR			01	DRVR	NONE	34	F	OTH-Y		026	000		29	
N						45 22	-122 47																								
						21.9063359	31.8607439																								
																02	NONE	0	STOP										011		00
																PRVTE	NE-SW			01	DRVR	NONE	35	M	OR-Y		000	000		00	
																PSNGR	CAR														
06174	N	N	N			10/20/2014	16	SW TUALATIN-SHERWOOD	CROSS	NONE	0	N	N	CLD	S-1STOP	01	NONE	0	STRGHT										013	29	
NONE						MO	0	SW 112TH AVE	NE			TRF SIGNAL	N	WET	REAR	PRVTE	NE-SW											000	00		
N						4P			06	0			N	DAY	PDO	PSNGR	CAR			01	DRVR	NONE	18	M	OR-Y		026	000		29	
N						45 22	21.91 -122 47																								
						31.86																									
																02	NONE	0	STOP										011	013	00
																PRVTE	NE-SW			01	DRVR	NONE	40	M	OR-Y		000	000		00	
																PSNGR	CAR														
																03	NONE	0	STOP										011		00
																PRVTE	NE-SW			01	DRVR	NONE	30	M	OR-Y		000	000		00	
																PSNGR	CAR														

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CITY OF TUALATIN, WASHINGTON COUNTY

112TH AVE at TUALATIN-SHERWOOD, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

4 - 7 of 14 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	ACT	EVENT	CAUSE																			
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	A	S												
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED									
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE			
06844	N	N	N			11/14/2014	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N		N	CLR	S-1STOP	01	NONE	0	STRGHT											07		
NONE						FR	0	SW 112TH AVE	NE			TRF SIGNAL	N	DRY	REAR		PRVTE		NE-SW										000	00		
N						3P			06	0			N	DAY	INJ		PSNGR	CAR		01	DRVR	NONE	22	M	OR-Y		026	000		07		
N						45 22 21.91	-122 47	31.86																								
																	02	NONE	0	STOP												
																	PRVTE		NE-SW											011	00	
																	PSNGR	CAR		01	DRVR	INJC	46	M	OR-Y		000	000		000		
																	02	NONE	0	STOP											011	00
																	PRVTE		NE-SW												000	00
																	PSNGR	CAR		02	PSNG	INJC	52	F			000	000		000	00	
00692	N	N	N	N	N	01/30/2016	14	SW TUALATIN-SHERWOOD	INTER	CROSS	N		N	CLD	S-1STOP	01	NONE	9	STRGHT											07		
CITY						SA	0	SW 112TH AVE	NE			TRF SIGNAL	N	WET	REAR		N/A		NE-SW											000	00	
N						4P			06	0			N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		000	00	
N						45 22 21.91	-122 47	31.86																								
																	02	NONE	9	STOP											011	00
																	N/A		NE-SW												000	00
																	PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		000	00	
02477	N	N	N	N	N	04/29/2017	14	SW TUALATIN-SHERWOOD	INTER	CROSS	N		N	CLD	S-1STOP	01	NONE	9	STRGHT											27,29		
CITY						SA	0	SW 112TH AVE	NE			TRF SIGNAL	N	DRY	REAR		N/A		NE-SW											000	00	
N						5P			06	0			N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		000	00	
N						45 22 21.91	-122 47	31.86																								
																	02	NONE	9	STOP											011	00
																	N/A		NE-SW												000	00
																	PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		000	00	
01210	N	N	N	N	N	02/28/2014	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N		N	CLD	S-1STOP	01	NONE	0	STRGHT											07		
CITY						FR	0	SW 112TH AVE	SW			TRF SIGNAL	N	DRY	REAR		PRVTE		NE-SW											000	00	
N						2P			05	0			N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	35	M	OR-Y		043,026	000		000	07	
N						45 22 21.9063359	-122 47	31.8607439																								
																	01	NONE	0	STRGHT												
																	PRVTE		NE-SW												000	00
																	PSNGR	CAR		02	PSNG	NO<5	01	M			000	000		000	00	
																	02	NONE	0	STOP											011	00
																	PRVTE		NE-SW												000	00
																	PSNGR	CAR		01	DRVR	NONE	41	M	OR-Y		000	000		000	00	

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING

CITY OF TUALATIN, WASHINGTON COUNTY

112TH AVE at TUALATIN-SHERWOOD, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

8 - 9 of 14 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	ACT	EVENT	CAUSE																		
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	A	S											
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED								
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE		
01605	N	N	N	N	N	03/21/2014	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N	N	N	CLR	S-1STOP	01	NONE	0	STRGHT									013	27,07		
CITY						FR	0	SW 112TH AVE	SW			TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW										000	00			
N						3P			05	0			N	DAY	INJ	PSNGR	CAR		01	DRVR	NONE	38	F	OR-Y		016,043,026	038	27,07			
N						45 22	-122 47	21.9063359	31.8607439																						
																02	NONE	0	STOP									011	013	00	
																PRVTE	NE-SW										000	000	00		
																PSNGR	CAR		01	DRVR	INJC	33	F	OR-Y		000	000	00	00		
																03	NONE	0	STOP									011	00		
																PRVTE	NE-SW										000	000	00		
																PSNGR	CAR		01	DRVR	NONE	39	M	OR-Y		000	000	00	00		
06201	N	N	N	N	N	10/21/2014	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N	N	N	CLD	S-1STOP	01	NONE	0	STRGHT									013	07		
CITY						TU	0	SW 112TH AVE	SW			TRF SIGNAL	N	WET	REAR	PRVTE	SW-NE											000	00		
N						2P			06	0			N	DAY	INJ	PSNGR	CAR		01	DRVR	NONE	47	M	OR-Y		043,026	000	07			
N						45 22	21.91	-122 47	31.86																						
																02	NONE	0	STOP										011	013	00
																PRVTE	SW-NE										000	000	00	00	
																PSNGR	CAR		01	DRVR	INJC	44	F	OR-Y		000	000	00	00		
																03	NONE	0	STOP										011	013	00
																PRVTE	SW-NE										000	000	00	00	
																PSNGR	CAR		01	DRVR	INJC	58	M	OR-Y		000	000	00	00		
																04	NONE	0	STOP										011	00	
																PRVTE	SW-NE										000	000	00	00	
																PSNGR	CAR		01	DRVR	NONE	76	F	OR-Y		000	000	00	00		
07177	N	N	N	N	N	11/29/2014	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N	N	N	RAIN	S-1STOP	01	NONE	0	STRGHT									013	07		
CITY						SA	0	SW 112TH AVE	SW			TRF SIGNAL	N	WET	REAR	PRVTE	NE-SW												000	00	
N						1P			05	0			N	DAY	INJ	PSNGR	CAR		01	DRVR	INJB	51	M	OR-Y		043,026	000	07			
N						45 22	21.91	-122 47	31.86																						
																01	NONE	0	STRGHT										000	00	
																PRVTE	NE-SW											000	000	00	00
																PSNGR	CAR		02	PSNG	INJC	51	F			000	000	00	00		
																02	NONE	0	STOP										011	013	00
																PRVTE	NE-SW										000	000	00	00	
																PSNGR	CAR		01	DRVR	NONE	51	M	OR-Y		000	000	00	00		
																03	NONE	0	STOP										011	00	
																PRVTE	NE-SW										000	000	00	00	
																PSNGR	CAR		01	DRVR	NONE	49	M	OR-Y		000	000	00	00		

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CITY OF TUALATIN, WASHINGTON COUNTY

112TH AVE at TUALATIN-SHERWOOD, City of Tualatin, Washington County, 01/01/2013 to 12/31/2017

10 - 12 of 14 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE	ACT	EVENT	CAUSE																				
INVEST	E	A	U	I	C	O	DIST	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE	A	S														
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED										
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	F#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE				
																03	NONE	0	STOP														
																	PRVTE	NE-SW										011		00			
																	PSNGR	CAR	02	PSNG	INJC	48	F			000	000			00			
06395	N	N	N	N	N	10/13/2017	14	SW TUALATIN-SHERWOOD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE	0	STRGHT										013		07			
CITY								FR	0	SW 112TH AVE	SW		TRF SIGNAL	N	DRY	REAR	PRVTE	NE-SW									000		00				
N						11A				05	0		N	DAY	INJ		PSNGR	CAR								043	000		07				
N						45 22 21.91	-122 47																										
							31.86																										
																	02	NONE	0	STOP													
																	PRVTE	NE-SW										011	013		00		
																	PSNGR	CAR	01	DRVR	NONE	21	F	OR-Y		000	000			00			
																	02	NONE	0	STOP													
																	PRVTE	NE-SW										011	013		00		
																	PSNGR	CAR	02	PSNG	INJB	21	M			000	000			00			
																	03	NONE	0	STOP													
																	PRVTE	NE-SW															
																	PSNGR	CAR	01	DRVR	INJC	31	M	OR-Y		000	000			013		00	
																	04	NONE	0	STOP													
																	PRVTE	NE-SW															
																	PSNGR	CAR	01	DRVR	NONE	54	M	OR-Y		000	000			013		00	
																	05	NONE	0	STOP													
																	PRVTE	NE-SW															
																	PSNGR	CAR	01	DRVR	NONE	59	F	OTH-Y		000	000			022		00	
01760	N	N	N	N	N	04/10/2013	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	0	TURN-L															
CITY								WE	0	SW 112TH AVE	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	NW-NE										000		00			
N						11A				04	0		N	DAY	PDO		PSNGR	CAR									020	000		04			
N						45 22	-122 47																										
						21.9062999	31.860708																										
																	02	NONE	0	STRGHT													
																	PRVTE	SW-NE															
																	PSNGR	CAR	01	DRVR	NONE	31	M	OR-Y		000	000			00		00	
07909	N	N	N	N	N	12/29/2014	16	SW TUALATIN-SHERWOOD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	0	STRGHT											093,055		04,27		
CITY								MO	0	SW 112TH AVE	CN		TRF SIGNAL	N	DRY	ANGL	PRVTE	SW-NE										000		00			
N						11P				04	0		N	DLIT	INJ		PSNGR	CAR									000	000		00			
N						45 22 21.91	-122 47																										
							31.86																										
																	02	NONE	0	STRGHT													
																	PRVTE	NW-SE															
																	PSNGR	CAR	01	DRVR	INJB	17	F	OR-Y		020,016	000	055		00		00	

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# Traffic Signal Warrant Analysis



Project: Pascuzzi Industrial Buildings  
 Date: 10/21/2019  
 Scenario: 2021 Background Conditions

Major Street:	SW 124th Avenue	Minor Street:	SW Myslony Street
Number of Lanes:	2	Number of Lanes:	1
PM Peak Hour Volumes:	936	PM Peak Hour Volumes:	176

**Warrant Used:**

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

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

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

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	9,360	7,400	
Minor Street*	1,760	1,850	<b>No</b>
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	9,360	11,100	
Minor Street*	1,760	950	<b>No</b>
<i>Combination Warrant</i>			
Major Street	9,360	8,880	
Minor Street*	1,760	1,480	<b>Yes</b>

\* Minor street right-turning traffic volumes reduced by 25%



## LEVEL OF SERVICE

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

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

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

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

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

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

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

*LEVEL OF SERVICE CRITERIA  
FOR SIGNALIZED INTERSECTIONS*

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

*LEVEL OF SERVICE CRITERIA  
FOR UNSIGNALIZED INTERSECTIONS*

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

HCM 6th TWSC  
1: SW 124th Avenue & SW Myslony Street

10/21/2019

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	1	3	10	3	27	14	365	48	98	427	30
Future Vol, veh/h	3	1	3	10	3	27	14	365	48	98	427	30
Conflicting Peds, #/hr	6	0	0	0	0	6	6	0	1	1	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	71	71	71	18	18	18	8	8	8	9	9	9
Mvmt Flow	3	1	3	11	3	31	16	415	55	111	485	34

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	977	1233	266	941	1223	242	525	0	0	471	0	0
Stage 1	730	730	-	476	476	-	-	-	-	-	-	-
Stage 2	247	503	-	465	747	-	-	-	-	-	-	-
Critical Hdwy	8.92	7.92	8.32	7.86	6.86	7.26	4.26	-	-	4.28	-	-
Critical Hdwy Stg 1	7.92	6.92	-	6.86	5.86	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.92	6.92	-	6.86	5.86	-	-	-	-	-	-	-
Follow-up Hdwy	4.21	4.71	4.01	3.68	4.18	3.48	2.28	-	-	2.29	-	-
Pot Cap-1 Maneuver	127	102	561	195	157	712	997	-	-	1039	-	-
Stage 1	255	292	-	499	517	-	-	-	-	-	-	-
Stage 2	572	397	-	507	382	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	108	89	558	175	137	707	991	-	-	1038	-	-
Mov Cap-2 Maneuver	187	163	-	289	238	-	-	-	-	-	-	-
Stage 1	249	259	-	491	508	-	-	-	-	-	-	-
Stage 2	532	390	-	448	339	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	19.6		13.5		0.3		1.6	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	991	-	-	254	468	1038	-	-
HCM Lane V/C Ratio	0.016	-	-	0.031	0.097	0.107	-	-
HCM Control Delay (s)	8.7	-	-	19.6	13.5	8.9	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.4	-	-



Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	↻
Traffic Vol, veh/h	1	101	1	2	45	3
Future Vol, veh/h	1	101	1	2	45	3
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	7	7	0	0	8	8
Mvmt Flow	1	126	1	3	56	4
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.1	7.3	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	33%
Vol Thru, %	0%	0%	1%	67%
Vol Right, %	0%	100%	99%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	3	102	3
LT Vol	45	0	0	1
Through Vol	0	0	1	2
RT Vol	0	3	101	0
Lane Flow Rate	56	4	128	4
Geometry Grp	7	7	2	2
Degree of Util (X)	0.084	0.004	0.125	0.004
Departure Headway (Hd)	5.365	4.162	3.53	4.166
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	669	860	1002	848
Service Time	3.09	1.888	1.598	2.247
HCM Lane V/C Ratio	0.084	0.005	0.128	0.005
HCM Control Delay	8.6	6.9	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.4	0

# HCM Signalized Intersection Capacity Analysis

## 3: SW Tualatin-Sherwood Road & SW Avery Street/SW 112th Avenue

10/21/2019



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	26	32	18	205	33	17	21	691	235	13	538	69
Future Volume (vph)	26	32	18	205	33	17	21	691	235	13	538	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1612	1592		1671	1657		1612	1696	1420	1626	1712	1455
Flt Permitted	0.95	1.00		0.95	1.00		0.26	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)	1612	1592		1671	1657		448	1696	1420	259	1712	1455
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	28	34	19	220	35	18	23	743	253	14	578	74
RTOR Reduction (vph)	0	17	0	0	13	0	0	0	63	0	0	38
Lane Group Flow (vph)	28	36	0	220	40	0	23	743	190	14	578	36
Confl. Peds. (#/hr)	1		1	1		1						
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	12%	12%	12%	8%	8%	8%	12%	12%	12%	11%	11%	11%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4	5	3	8	
Permitted Phases							4		4	8		8
Actuated Green, G (s)	2.3	10.4		14.2	22.3		44.3	42.5	56.7	42.5	41.6	41.6
Effective Green, g (s)	2.3	10.4		14.2	22.3		44.3	42.5	56.7	42.5	41.6	41.6
Actuated g/C Ratio	0.03	0.12		0.17	0.26		0.52	0.49	0.66	0.49	0.48	0.48
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	43	192		275	429		255	838	1010	142	828	703
v/s Ratio Prot	0.02	c0.02		c0.13	0.02		c0.00	c0.44	0.03	0.00	0.34	
v/s Ratio Perm							0.04		0.10	0.05		0.02
v/c Ratio	0.65	0.19		0.80	0.09		0.09	0.89	0.19	0.10	0.70	0.05
Uniform Delay, d1	41.5	34.0		34.5	24.2		12.1	19.6	5.7	14.9	17.3	11.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	30.2	0.5		15.2	0.1		0.2	11.1	0.1	0.3	2.6	0.0
Delay (s)	71.6	34.5		49.8	24.3		12.2	30.7	5.8	15.2	19.9	11.8
Level of Service	E	C		D	C		B	C	A	B	B	B
Approach Delay (s)		47.3			44.8			24.1			18.9	
Approach LOS		D			D			C			B	

### Intersection Summary

HCM 2000 Control Delay	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th TWSC  
1: SW 124th Avenue & SW Myslony Street

10/21/2019

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	15	2	12	52	1	124	1	328	7	11	516	1
Future Vol, veh/h	15	2	12	52	1	124	1	328	7	11	516	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	2	2	2	2	2	2	1	1	1
Mvmt Flow	17	2	14	59	1	141	1	373	8	13	586	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	802	996	294	699	992	191	587	0	0	381	0	0
Stage 1	613	613	-	379	379	-	-	-	-	-	-	-
Stage 2	189	383	-	320	613	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.54	6.54	6.94	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.52	4.02	3.32	2.22	-	-	2.21	-	-
Pot Cap-1 Maneuver	279	246	708	327	244	818	984	-	-	1181	-	-
Stage 1	451	486	-	615	613	-	-	-	-	-	-	-
Stage 2	800	616	-	666	481	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	228	243	708	316	241	818	984	-	-	1181	-	-
Mov Cap-2 Maneuver	341	352	-	431	351	-	-	-	-	-	-	-
Stage 1	451	481	-	614	612	-	-	-	-	-	-	-
Stage 2	660	615	-	643	476	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	13.1	0	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	984	-	-	435	643	1181	-
HCM Lane V/C Ratio	0.001	-	-	0.076	0.313	0.011	-
HCM Control Delay (s)	8.7	-	-	14	13.1	8.1	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.3	0	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	↻
Traffic Vol, veh/h	6	48	7	3	128	5
Future Vol, veh/h	6	48	7	3	128	5
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	6	6	10	10	2	2
Mvmt Flow	8	62	9	4	166	6
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.3	7.8	9.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	70%
Vol Thru, %	0%	0%	11%	30%
Vol Right, %	0%	100%	89%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	5	54	10
LT Vol	128	0	0	7
Through Vol	0	0	6	3
RT Vol	0	5	48	0
Lane Flow Rate	166	6	70	13
Geometry Grp	7	7	2	2
Degree of Util (X)	0.239	0.007	0.077	0.017
Departure Headway (Hd)	5.179	3.978	3.958	4.757
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	693	896	910	756
Service Time	2.918	1.717	1.959	2.76
HCM Lane V/C Ratio	0.24	0.007	0.077	0.017
HCM Control Delay	9.5	6.7	7.3	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0	0.2	0.1

# HCM Signalized Intersection Capacity Analysis

## 3: SW Tualatin-Sherwood Road & SW Avery Street/SW 112th Avenue

10/21/2019



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	74	37	16	184	53	12	15	641	292	5	588	33
Future Volume (vph)	74	37	16	184	53	12	15	641	292	5	588	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	1727		1787	1820		1719	1810	1514	1719	1810	1506
Flt Permitted	0.95	1.00		0.95	1.00		0.21	1.00	1.00	0.16	1.00	1.00
Satd. Flow (perm)	1719	1727		1787	1820		373	1810	1514	284	1810	1506
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	79	39	17	196	56	13	16	682	311	5	626	35
RTOR Reduction (vph)	0	15	0	0	10	0	0	0	95	0	0	19
Lane Group Flow (vph)	79	41	0	196	59	0	16	682	216	5	626	16
Confl. Peds. (#/hr)	1						1					
Confl. Bikes (#/hr)							1		2			1
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4	5	3	8	
Permitted Phases							4		4	8		8
Actuated Green, G (s)	6.7	8.4		11.3	13.0		31.8	31.0	42.3	31.8	31.0	31.0
Effective Green, g (s)	6.7	8.4		11.3	13.0		31.8	31.0	42.3	31.8	31.0	31.0
Actuated g/C Ratio	0.10	0.12		0.16	0.19		0.46	0.45	0.61	0.46	0.45	0.45
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	165	208		290	340		186	807	1019	146	807	671
v/s Ratio Prot	0.05	0.02		c0.11	c0.03		c0.00	c0.38	0.03	0.00	0.35	
v/s Ratio Perm							0.04		0.11	0.02		0.01
v/c Ratio	0.48	0.20		0.68	0.17		0.09	0.85	0.21	0.03	0.78	0.02
Uniform Delay, d1	29.7	27.5		27.4	23.7		12.2	17.1	6.1	12.9	16.3	10.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.5		6.1	0.2		0.2	8.1	0.1	0.1	4.7	0.0
Delay (s)	31.9	28.0		33.5	24.0		12.4	25.2	6.2	13.0	21.0	10.8
Level of Service	C	C		C	C		B	C	A	B	C	B
Approach Delay (s)		30.3			31.0			19.2			20.4	
Approach LOS		C			C			B			C	

### Intersection Summary

HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	69.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th TWSC  
1: SW 124th Avenue & SW Myslony Street

10/21/2019

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	1	3	13	3	33	15	400	56	127	447	31
Future Vol, veh/h	3	1	3	13	3	33	15	400	56	127	447	31
Conflicting Peds, #/hr	6	0	0	0	0	6	6	0	1	1	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	71	71	71	18	18	18	8	8	8	9	9	9
Mvmt Flow	3	1	3	15	3	38	17	455	64	144	508	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1089	1374	278	1065	1359	267	549	0	0	520	0	0
Stage 1	820	820	-	522	522	-	-	-	-	-	-	-
Stage 2	269	554	-	543	837	-	-	-	-	-	-	-
Critical Hdwy	8.92	7.92	8.32	7.86	6.86	7.26	4.26	-	-	4.28	-	-
Critical Hdwy Stg 1	7.92	6.92	-	6.86	5.86	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.92	6.92	-	6.86	5.86	-	-	-	-	-	-	-
Follow-up Hdwy	4.21	4.71	4.01	3.68	4.18	3.48	2.28	-	-	2.29	-	-
Pot Cap-1 Maneuver	102	80	549	157	129	685	976	-	-	995	-	-
Stage 1	219	258	-	467	491	-	-	-	-	-	-	-
Stage 2	551	370	-	453	345	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	83	67	546	136	108	680	970	-	-	994	-	-
Mov Cap-2 Maneuver	157	131	-	247	204	-	-	-	-	-	-	-
Stage 1	214	219	-	459	482	-	-	-	-	-	-	-
Stage 2	505	363	-	383	293	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	22.2		14.8		0.3		1.9	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	970	-	-	217	423	994	-
HCM Lane V/C Ratio	0.018	-	-	0.037	0.132	0.145	-
HCM Control Delay (s)	8.8	-	-	22.2	14.8	9.2	-
HCM Lane LOS	A	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.5	0.5	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	↻
Traffic Vol, veh/h	1	121	1	2	59	3
Future Vol, veh/h	1	121	1	2	59	3
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	7	7	0	0	8	8
Mvmt Flow	1	151	1	3	74	4
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.3	7.3	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	33%
Vol Thru, %	0%	0%	1%	67%
Vol Right, %	0%	100%	99%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	3	122	3
LT Vol	59	0	0	1
Through Vol	0	0	1	2
RT Vol	0	3	121	0
Lane Flow Rate	74	4	152	4
Geometry Grp	7	7	2	2
Degree of Util (X)	0.111	0.004	0.151	0.005
Departure Headway (Hd)	5.41	4.207	3.56	4.324
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	662	849	988	833
Service Time	3.143	1.94	1.651	2.324
HCM Lane V/C Ratio	0.112	0.005	0.154	0.005
HCM Control Delay	8.8	7	7.3	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0	0.5	0

# HCM Signalized Intersection Capacity Analysis

## 3: SW Tualatin-Sherwood Road & SW Avery Street/SW 112th Avenue

10/21/2019



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	31	35	20	213	46	18	26	723	244	14	563	88
Future Volume (vph)	31	35	20	213	46	18	26	723	244	14	563	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.94		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1612	1590		1671	1675		1612	1696	1419	1626	1712	1455
Flt Permitted	0.95	1.00		0.95	1.00		0.26	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)	1612	1590		1671	1675		439	1696	1419	254	1712	1455
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	33	38	22	229	49	19	28	777	262	15	605	95
RTOR Reduction (vph)	0	20	0	0	15	0	0	0	58	0	0	47
Lane Group Flow (vph)	33	40	0	229	53	0	28	777	204	15	605	48
Confl. Peds. (#/hr)	1		1	1		1						
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	12%	12%	12%	8%	8%	8%	12%	12%	12%	11%	11%	11%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4	5	3	8	
Permitted Phases							4		4	8		8
Actuated Green, G (s)	3.8	9.6		14.1	19.9		47.6	45.7	59.8	45.6	44.7	44.7
Effective Green, g (s)	3.8	9.6		14.1	19.9		47.6	45.7	59.8	45.6	44.7	44.7
Actuated g/C Ratio	0.04	0.11		0.16	0.23		0.54	0.52	0.68	0.52	0.51	0.51
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	69	172		266	377		261	877	1033	145	866	736
v/s Ratio Prot	0.02	c0.03		c0.14	0.03		c0.00	c0.46	0.03	0.00	0.35	
v/s Ratio Perm							0.06		0.11	0.05		0.03
v/c Ratio	0.48	0.23		0.86	0.14		0.11	0.89	0.20	0.10	0.70	0.07
Uniform Delay, d1	41.3	36.0		36.1	27.4		11.6	19.0	5.3	14.6	16.7	11.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.1	0.7		23.6	0.2		0.2	10.7	0.1	0.3	2.5	0.0
Delay (s)	46.4	36.7		59.7	27.5		11.8	29.6	5.4	14.9	19.1	11.2
Level of Service	D	D		E	C		B	C	A	B	B	B
Approach Delay (s)		40.1			52.4			23.2			18.0	
Approach LOS		D			D			C			B	

### Intersection Summary



















HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	88.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



# HCM Signalized Intersection Capacity Analysis

## 1: SW 124th Avenue & SW Myslony Street

10/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1	3	13	3	33	15	400	56	127	447	31
Future Volume (vph)	3	1	3	13	3	33	15	400	56	127	447	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.94			0.91		1.00	0.98		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1023			1428		1669	3272		1656	3274	
Flt Permitted		0.87			0.91		0.45	1.00		0.35	1.00	
Satd. Flow (perm)		913			1323		790	3272		615	3274	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	3	1	3	15	3	38	17	455	64	144	508	35
RTOR Reduction (vph)	0	2	0	0	32	0	0	18	0	0	7	0
Lane Group Flow (vph)	0	5	0	0	24	0	17	501	0	144	536	0
Confl. Peds. (#/hr)	6					6	6		1	1		6
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	71%	71%	71%	18%	18%	18%	8%	8%	8%	9%	9%	9%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		6.7			6.7		14.8	13.9		23.2	18.1	
Effective Green, g (s)		6.7			6.7		14.8	13.9		23.2	18.1	
Actuated g/C Ratio		0.17			0.17		0.38	0.35		0.59	0.46	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		156			226		318	1160		499	1511	
v/s Ratio Prot							0.00	c0.15		c0.04	0.16	
v/s Ratio Perm		0.00			c0.02		0.02			0.13		
v/c Ratio		0.03			0.11		0.05	0.43		0.29	0.35	
Uniform Delay, d1		13.5			13.7		7.7	9.6		3.9	6.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			0.2		0.1	0.3		0.3	0.1	
Delay (s)		13.6			13.9		7.7	9.9		4.2	6.9	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		13.6			13.9			9.8			6.4	
Approach LOS		B			B			A			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			8.2				HCM 2000 Level of Service				A	
HCM 2000 Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			39.2				Sum of lost time (s)			13.5		
Intersection Capacity Utilization			37.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
1: SW 124th Avenue & SW Myslony Street

10/21/2019

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	16	2	12	68	1	144	1	350	9	19	558	1
Future Vol, veh/h	16	2	12	68	1	144	1	350	9	19	558	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	2	2	2	2	2	2	1	1	1
Mvmt Flow	18	2	14	77	1	164	1	398	10	22	634	1

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	881	1089	318	767	1084	204	635	0	0	408	0	0
Stage 1	679	679	-	405	405	-	-	-	-	-	-	-
Stage 2	202	410	-	362	679	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.54	6.54	6.94	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.52	4.02	3.32	2.22	-	-	2.21	-	-
Pot Cap-1 Maneuver	244	217	684	292	216	803	944	-	-	1154	-	-
Stage 1	412	454	-	593	597	-	-	-	-	-	-	-
Stage 2	787	599	-	629	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	191	213	684	280	212	803	944	-	-	1154	-	-
Mov Cap-2 Maneuver	306	324	-	400	324	-	-	-	-	-	-	-
Stage 1	412	445	-	592	596	-	-	-	-	-	-	-
Stage 2	625	598	-	602	440	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15	14.9	0	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	944	-	-	395	604	1154	-
HCM Lane V/C Ratio	0.001	-	-	0.086	0.401	0.019	-
HCM Control Delay (s)	8.8	-	-	15	14.9	8.2	-
HCM Lane LOS	A	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1.9	0.1	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	↻
Traffic Vol, veh/h	6	65	7	3	146	5
Future Vol, veh/h	6	65	7	3	146	5
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	6	6	10	10	2	2
Mvmt Flow	8	84	9	4	190	6
Number of Lanes	1	0	0	1	1	1























Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.5	7.9	9.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	70%
Vol Thru, %	0%	0%	8%	30%
Vol Right, %	0%	100%	92%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	146	5	71	10
LT Vol	146	0	0	7
Through Vol	0	0	6	3
RT Vol	0	5	65	0
Lane Flow Rate	190	6	92	13
Geometry Grp	7	7	2	2
Degree of Util (X)	0.275	0.007	0.103	0.017
Departure Headway (Hd)	5.219	4.017	4.012	4.85
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	686	885	899	742
Service Time	2.969	1.767	2.012	2.856
HCM Lane V/C Ratio	0.277	0.007	0.102	0.018
HCM Control Delay	10	6.8	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0	0.3	0.1

# HCM Signalized Intersection Capacity Analysis

## 3: SW Tualatin-Sherwood Road & SW Avery Street/SW 112th Avenue

10/21/2019

													
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations													
Traffic Volume (vph)	91	49	20	191	58	12	18	673	304	5	618	40	
Future Volume (vph)	91	49	20	191	58	12	18	673	304	5	618	40	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1719	1731		1787	1825		1719	1810	1513	1719	1810	1506	
Flt Permitted	0.95	1.00		0.95	1.00		0.19	1.00	1.00	0.16	1.00	1.00	
Satd. Flow (perm)	1719	1731		1787	1825		349	1810	1513	295	1810	1506	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	97	52	21	203	62	13	19	716	323	5	657	43	
RTOR Reduction (vph)	0	18	0	0	9	0	0	0	88	0	0	23	
Lane Group Flow (vph)	97	55	0	203	66	0	19	716	235	5	657	20	
Confl. Peds. (#/hr)	1						1						
Confl. Bikes (#/hr)							1		2			1	
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	5%	5%	5%	5%	5%	5%	
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm	
Protected Phases	1	6		5	2		7	4	5	3	8		
Permitted Phases							4		4	8		8	
Actuated Green, G (s)	7.3	8.9		11.5	13.1		37.8	36.1	47.6	36.2	35.3	35.3	
Effective Green, g (s)	7.3	8.9		11.5	13.1		37.8	36.1	47.6	36.2	35.3	35.3	
Actuated g/C Ratio	0.10	0.12		0.15	0.17		0.50	0.48	0.63	0.48	0.47	0.47	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	166	204		272	317		205	866	1045	158	847	705	
v/s Ratio Prot	0.06	c0.03		c0.11	c0.04		c0.00	c0.40	0.03	0.00	0.36		
v/s Ratio Perm							0.04		0.12	0.01		0.01	
v/c Ratio	0.58	0.27		0.75	0.21		0.09	0.83	0.22	0.03	0.78	0.03	
Uniform Delay, d1	32.6	30.3		30.6	26.7		12.0	17.0	6.0	13.1	16.7	10.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.2	0.7		10.6	0.3		0.2	6.5	0.1	0.1	4.5	0.0	
Delay (s)	37.8	31.0		41.2	27.0		12.2	23.5	6.1	13.2	21.2	10.8	
Level of Service	D	C		D	C		B	C	A	B	C	B	
Approach Delay (s)		34.9			37.4			18.0			20.5		
Approach LOS		C			D			B			C		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			22.5									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.69										
Actuated Cycle Length (s)			75.4									Sum of lost time (s)	18.0
Intersection Capacity Utilization			60.2%									ICU Level of Service	B
Analysis Period (min)			15										
c	Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 1: SW 124th Avenue & SW Myslony Street

10/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (vph)	16	2	12	68	1	144	1	350	9	19	558	1
Future Volume (vph)	16	2	12	68	1	144	1	350	9	19	558	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.94			0.91		1.00	1.00		1.00	1.00	
Flt Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1748			1666		1770	3526		1787	3573	
Flt Permitted		0.83			0.88		0.39	1.00		0.51	1.00	
Satd. Flow (perm)		1498			1490		727	3526		964	3573	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	18	2	14	77	1	164	1	398	10	22	634	1
RTOR Reduction (vph)	0	11	0	0	124	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	23	0	0	118	0	1	405	0	22	635	0
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.2			8.2		12.2	11.6		12.2	11.6	
Effective Green, g (s)		8.2			8.2		12.2	11.6		12.2	11.6	
Actuated g/C Ratio		0.24			0.24		0.36	0.34		0.36	0.34	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		362			360		280	1206		361	1222	
v/s Ratio Prot							0.00	0.11		c0.00	c0.18	
v/s Ratio Perm		0.02			c0.08		0.00			0.02		
v/c Ratio		0.06			0.33		0.00	0.34		0.06	0.52	
Uniform Delay, d1		9.9			10.6		7.0	8.3		7.0	8.9	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			0.5		0.0	0.2		0.1	0.4	
Delay (s)		10.0			11.1		7.0	8.5		7.1	9.3	
Level of Service		A			B		A	A		A	A	
Approach Delay (s)		10.0			11.1			8.4			9.2	
Approach LOS		A			B			A			A	

### Intersection Summary

HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	33.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th TWSC  
1: SW 124th Avenue & SW Myslony Street

10/21/2019

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	1	3	15	3	39	15	400	63	149	447	31
Future Vol, veh/h	3	1	3	15	3	39	15	400	63	149	447	31
Conflicting Peds, #/hr	6	0	0	0	0	6	6	0	1	1	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	71	71	71	18	18	18	8	8	8	9	9	9
Mvmt Flow	3	1	3	17	3	44	17	455	72	169	508	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1139	1432	278	1119	1413	271	549	0	0	528	0	0
Stage 1	870	870	-	526	526	-	-	-	-	-	-	-
Stage 2	269	562	-	593	887	-	-	-	-	-	-	-
Critical Hdwy	8.92	7.92	8.32	7.86	6.86	7.26	4.26	-	-	4.28	-	-
Critical Hdwy Stg 1	7.92	6.92	-	6.86	5.86	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.92	6.92	-	6.86	5.86	-	-	-	-	-	-	-
Follow-up Hdwy	4.21	4.71	4.01	3.68	4.18	3.48	2.28	-	-	2.29	-	-
Pot Cap-1 Maneuver	92	72	549	143	119	681	976	-	-	988	-	-
Stage 1	201	240	-	464	489	-	-	-	-	-	-	-
Stage 2	551	366	-	421	326	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	72	58	546	121	96	676	970	-	-	987	-	-
Mov Cap-2 Maneuver	142	115	-	227	189	-	-	-	-	-	-	-
Stage 1	196	198	-	456	480	-	-	-	-	-	-	-
Stage 2	499	359	-	345	269	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	23.9		15.5		0.3		2.2	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	970	-	-	198	408	987	-
HCM Lane V/C Ratio	0.018	-	-	0.04	0.159	0.172	-
HCM Control Delay (s)	8.8	-	-	23.9	15.5	9.4	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.6	0.6	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	30	121	14	10	59	46
Future Vol, veh/h	30	121	14	10	59	46
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	7	7	0	0	8	8
Mvmt Flow	38	151	18	13	74	58
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.9	7.7	8.3
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	58%
Vol Thru, %	0%	0%	20%	42%
Vol Right, %	0%	100%	80%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	46	151	24
LT Vol	59	0	0	14
Through Vol	0	0	30	10
RT Vol	0	46	121	0
Lane Flow Rate	74	58	189	30
Geometry Grp	7	7	2	2
Degree of Util (X)	0.113	0.069	0.205	0.038
Departure Headway (Hd)	5.518	4.314	3.91	4.537
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	643	818	923	793
Service Time	3.31	2.105	1.911	2.543
HCM Lane V/C Ratio	0.115	0.071	0.205	0.038
HCM Control Delay	9	7.4	7.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.8	0.1

# HCM Signalized Intersection Capacity Analysis

## 3: SW Tualatin-Sherwood Road & SW Avery Street/SW 112th Avenue

10/21/2019



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR		
Lane Configurations														
Traffic Volume (vph)	37	40	22	213	60	18	33	723	244	14	563	110		
Future Volume (vph)	37	40	22	213	60	18	33	723	244	14	563	110		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5		
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.98	1.00	1.00	1.00		
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.95		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85		
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1612	1592		1671	1691		1612	1696	1419	1626	1712	1455		
Flt Permitted	0.95	1.00		0.95	1.00		0.24	1.00	1.00	0.15	1.00	1.00		
Satd. Flow (perm)	1612	1592		1671	1691		413	1696	1419	258	1712	1455		
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		
Adj. Flow (vph)	40	43	24	229	65	19	35	777	262	15	605	118		
RTOR Reduction (vph)	0	21	0	0	11	0	0	0	59	0	0	60		
Lane Group Flow (vph)	40	46	0	229	73	0	35	777	203	15	605	58		
Confl. Peds. (#/hr)	1		1	1		1								
Confl. Bikes (#/hr)									1					
Heavy Vehicles (%)	12%	12%	12%	8%	8%	8%	12%	12%	12%	11%	11%	11%		
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm		
Protected Phases	1	6		5	2		7	4	5	3	8			
Permitted Phases							4		4	8		8		
Actuated Green, G (s)	4.1	9.8		14.1	19.8		48.7	45.8	59.9	44.7	43.8	43.8		
Effective Green, g (s)	4.1	9.8		14.1	19.8		48.7	45.8	59.9	44.7	43.8	43.8		
Actuated g/C Ratio	0.05	0.11		0.16	0.22		0.55	0.52	0.68	0.50	0.49	0.49		
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	74	176		265	377		266	876	1031	144	846	719		
v/s Ratio Prot	0.02	c0.03		c0.14	0.04		c0.00	c0.46	0.03	0.00	0.35			
v/s Ratio Perm							0.07		0.11	0.05		0.04		
v/c Ratio	0.54	0.26		0.86	0.19		0.13	0.89	0.20	0.10	0.72	0.08		
Uniform Delay, d1	41.3	36.1		36.3	27.9		11.6	19.1	5.4	14.9	17.5	11.8		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	7.8	0.8		24.1	0.3		0.2	10.8	0.1	0.3	2.9	0.0		
Delay (s)	49.2	36.9		60.4	28.2		11.8	29.8	5.5	15.2	20.4	11.8		
Level of Service	D	D		E	C		B	C	A	B	C	B		
Approach Delay (s)		41.5			51.7			23.3			18.9			
Approach LOS		D			D			C			B			
<b>Intersection Summary</b>														
HCM 2000 Control Delay			26.7									HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio			0.79											
Actuated Cycle Length (s)			88.6							18.0				
Intersection Capacity Utilization			64.0%										ICU Level of Service	C
Analysis Period (min)			15											
c Critical Lane Group														



# HCM Signalized Intersection Capacity Analysis

## 1: SW 124th Avenue & SW Myslony Street

10/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕↗		↗	↕↗	
Traffic Volume (vph)	3	1	3	15	3	39	15	400	63	149	447	31
Future Volume (vph)	3	1	3	15	3	39	15	400	63	149	447	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.94			0.91		1.00	0.98		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1023			1426		1669	3264		1656	3274	
Flt Permitted		0.87			0.91		0.45	1.00		0.34	1.00	
Satd. Flow (perm)		912			1321		790	3264		596	3274	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	3	1	3	17	3	44	17	455	72	169	508	35
RTOR Reduction (vph)	0	2	0	0	37	0	0	20	0	0	7	0
Lane Group Flow (vph)	0	5	0	0	27	0	17	507	0	169	536	0
Confl. Peds. (#/hr)	6					6	6		1	1		6
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	71%	71%	71%	18%	18%	18%	8%	8%	8%	9%	9%	9%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		6.8			6.8		15.0	14.2		24.2	18.9	
Effective Green, g (s)		6.8			6.8		15.0	14.2		24.2	18.9	
Actuated g/C Ratio		0.17			0.17		0.38	0.35		0.60	0.47	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		155			224		313	1158		506	1546	
v/s Ratio Prot							0.00	c0.16		c0.05	0.16	
v/s Ratio Perm		0.00			c0.02		0.02			0.16		
v/c Ratio		0.03			0.12		0.05	0.44		0.33	0.35	
Uniform Delay, d1		13.8			14.1		7.9	9.9		3.8	6.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			0.2		0.1	0.3		0.4	0.1	
Delay (s)		13.9			14.3		8.0	10.1		4.2	6.8	
Level of Service		B			B		A	B		A	A	
Approach Delay (s)		13.9			14.3			10.1			6.2	
Approach LOS		B			B			B			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			8.2								HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			40.0							13.5		
Intersection Capacity Utilization			38.8%								ICU Level of Service	A
Analysis Period (min)			15									
c Critical Lane Group												

HCM 6th TWSC  
1: SW 124th Avenue & SW Myslony Street

10/21/2019

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	16	2	12	76	1	166	1	350	12	28	558	1
Future Vol, veh/h	16	2	12	76	1	166	1	350	12	28	558	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	2	2	2	2	2	2	1	1	1
Mvmt Flow	18	2	14	86	1	189	1	398	14	32	634	1

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	901	1113	318	789	1106	206	635	0	0	412	0	0
Stage 1	699	699	-	407	407	-	-	-	-	-	-	-
Stage 2	202	414	-	382	699	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.54	6.54	6.94	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.52	4.02	3.32	2.22	-	-	2.21	-	-
Pot Cap-1 Maneuver	236	210	684	281	209	800	944	-	-	1151	-	-
Stage 1	401	445	-	592	596	-	-	-	-	-	-	-
Stage 2	787	597	-	612	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	176	204	684	268	203	800	944	-	-	1151	-	-
Mov Cap-2 Maneuver	291	314	-	389	315	-	-	-	-	-	-	-
Stage 1	401	433	-	591	595	-	-	-	-	-	-	-
Stage 2	600	596	-	580	428	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	15.4		16.1		0			0.4		
HCM LOS	C		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR	
Capacity (veh/h)	944	-	-	380	598	1151	-	-
HCM Lane V/C Ratio	0.001	-	-	0.09	0.462	0.028	-	-
HCM Control Delay (s)	8.8	-	-	15.4	16.1	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.4	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	18	65	50	33	146	24
Future Vol, veh/h	18	65	50	33	146	24
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	6	6	10	10	2	2
Mvmt Flow	23	84	65	43	190	31
Number of Lanes	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.9	8.8	10
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1
Vol Left, %	100%	0%	0%	60%
Vol Thru, %	0%	0%	22%	40%
Vol Right, %	0%	100%	78%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	146	24	83	83
LT Vol	146	0	0	50
Through Vol	0	0	18	33
RT Vol	0	24	65	0
Lane Flow Rate	190	31	108	108
Geometry Grp	7	7	2	2
Degree of Util (X)	0.291	0.037	0.128	0.147
Departure Headway (Hd)	5.533	4.328	4.27	4.914
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	650	827	841	731
Service Time	3.263	2.058	2.291	2.935
HCM Lane V/C Ratio	0.292	0.037	0.128	0.148
HCM Control Delay	10.5	7.2	7.9	8.8
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.2	0.1	0.4	0.5

# HCM Signalized Intersection Capacity Analysis

## 3: SW Tualatin-Sherwood Road & SW Avery Street/SW 112th Avenue

10/21/2019



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	113	62	28	191	65	12	21	673	304	5	618	49
Future Volume (vph)	113	62	28	191	65	12	21	673	304	5	618	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	1725		1787	1829		1719	1810	1513	1719	1810	1506
Flt Permitted	0.95	1.00		0.95	1.00		0.20	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	1719	1725		1787	1829		353	1810	1513	300	1810	1506
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	120	66	30	203	69	13	22	716	323	5	657	52
RTOR Reduction (vph)	0	20	0	0	9	0	0	0	88	0	0	28
Lane Group Flow (vph)	120	76	0	203	73	0	22	716	235	5	657	24
Confl. Peds. (#/hr)	1						1					
Confl. Bikes (#/hr)							1		2			1
Heavy Vehicles (%)	5%	5%	5%	1%	1%	1%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4	5	3	8	
Permitted Phases							4		4	8		8
Actuated Green, G (s)	8.9	8.6		11.5	11.2		37.9	36.2	47.7	36.3	35.4	35.4
Effective Green, g (s)	8.9	8.6		11.5	11.2		37.9	36.2	47.7	36.3	35.4	35.4
Actuated g/C Ratio	0.12	0.11		0.15	0.15		0.50	0.48	0.63	0.48	0.47	0.47
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	203	197		273	272		208	871	1050	161	852	708
v/s Ratio Prot	0.07	c0.04		c0.11	c0.04		c0.00	c0.40	0.03	0.00	0.36	
v/s Ratio Perm							0.05		0.12	0.01		0.02
v/c Ratio	0.59	0.38		0.74	0.27		0.11	0.82	0.22	0.03	0.77	0.03
Uniform Delay, d1	31.4	30.8		30.4	28.4		11.9	16.7	5.9	12.9	16.5	10.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.6	1.2		10.4	0.5		0.2	6.3	0.1	0.1	4.4	0.0
Delay (s)	36.0	32.1		40.9	28.9		12.1	23.0	6.0	13.0	20.9	10.7
Level of Service	D	C		D	C		B	C	A	B	C	B
Approach Delay (s)		34.3			37.4			17.6			20.1	
Approach LOS		C			D			B			C	

### Intersection Summary

HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

## 1: SW 124th Avenue & SW Myslony Street

10/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (vph)	16	2	12	76	1	166	1	350	12	28	558	1
Future Volume (vph)	16	2	12	76	1	166	1	350	12	28	558	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.94			0.91		1.00	0.99		1.00	1.00	
Flt Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1748			1665		1770	3521		1787	3573	
Flt Permitted		0.84			0.88		0.39	1.00		0.51	1.00	
Satd. Flow (perm)		1504			1492		718	3521		960	3573	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	18	2	14	86	1	189	1	398	14	32	634	1
RTOR Reduction (vph)	0	10	0	0	141	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	24	0	0	135	0	1	408	0	32	635	0
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.8			8.8		12.4	11.8		12.4	11.8	
Effective Green, g (s)		8.8			8.8		12.4	11.8		12.4	11.8	
Actuated g/C Ratio		0.25			0.25		0.36	0.34		0.36	0.34	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		381			378		274	1197		357	1215	
v/s Ratio Prot							0.00	0.12		c0.00	c0.18	
v/s Ratio Perm		0.02			c0.09		0.00			0.03		
v/c Ratio		0.06			0.36		0.00	0.34		0.09	0.52	
Uniform Delay, d1		9.8			10.6		7.2	8.5		7.3	9.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			0.6		0.0	0.2		0.1	0.4	
Delay (s)		9.9			11.2		7.2	8.7		7.4	9.6	
Level of Service		A			B		A	A		A	A	
Approach Delay (s)		9.9			11.2			8.7			9.5	
Approach LOS		A			B			A			A	

### Intersection Summary

HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	34.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			