KITTELSON & ASSOCIATES
851 SW 6th AVENUE, SUITE 600
PORTLAND, OR 97204
P 503.228.5230 F 503.273.8169

MEMORANDUM

Date:	August 29, 2022	Project #: 27266
To:	Jabra Khasho, PE, & Kate McQuillan, AICP City of Beaverton Jinde Zhu & Naomi Vogel, Washington County Ben Baldwin, TriMet Carrie Martin, Oregon Department of Transportation (ODOT) Rail Kali Bader & Chad Fackler, Rembold	
From:	Julia Kuhn, PE & Chris Brehmer, PE	
Project:	Elmonica Station Mixed Use Development	
Subject:	Transportation Impact Analysis & Access Management Report	

Rembold Properties is proposing to develop the 5.15 acre property located at 1065 SW 170th Avenue. This property is zoned Station Community – Multiple Use (SCMU) per the City of Beaverton Development Code (BDC). As currently contemplated, the site will be redeveloped to include three 5-story buildings housing up to 256 apartments and 3,000 square feet of ground floor retail. The change in trip generation associated with the redevelopment of the property triggers a Traffic Impact Analysis (TIA) per City of Beaverton Development Code Section (BDC) 60.55.20 as well as an Access Report per Washington County requirements. In addition, the proposed accesses on SW 170th Avenue and W Baseline Road necessitate preparation of an Access Management Plan (AMP) per Washington County Community Development Code Section 501-8.5.C. The enclosed report addresses both County and City requirements.

Based on the findings summarized herein, no capacity-based mitigation needs were identified at the study intersections but we do recommend that:

- Site landscaping, any above-ground utilities, and site signage should be located and maintained such that they provide minimum required sight lines within the site as well as at the site accesses on both W Baseline Road and SW 170th Avenue per City of Beaverton Code.
- Per City and County direction, Rembold Properties should dedicate the right-of-way along their site frontage for a future eastbound right-turn lane on W Baseline Road at the signalized intersection with SW 170th Avenue.
- Pending approval from Washington County and City of Beaverton, we recommend that the W Baseline Road access be restricted to right-in-right-out movements and the SW 170th Avenue access continue to allow for full movement ingress and egress.
- Rembold Properties should continue to collaborate with City, County, ODOT Rail, and TriMet regarding the final design and construction of a pedestrian crossing of SW 170th Avenue.

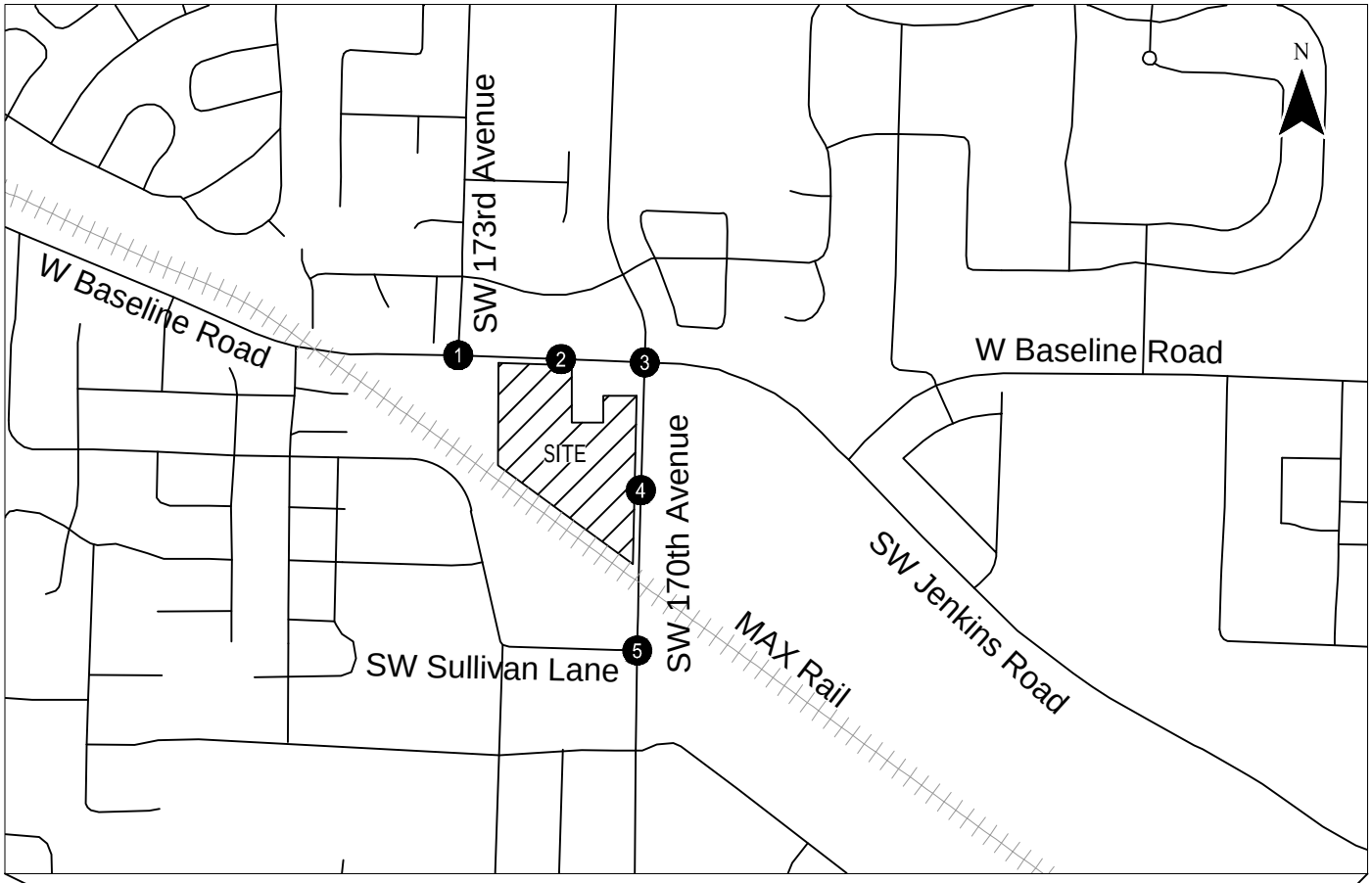
DESCRIPTION OF THE PROPOSED RE-DEVELOPMENT

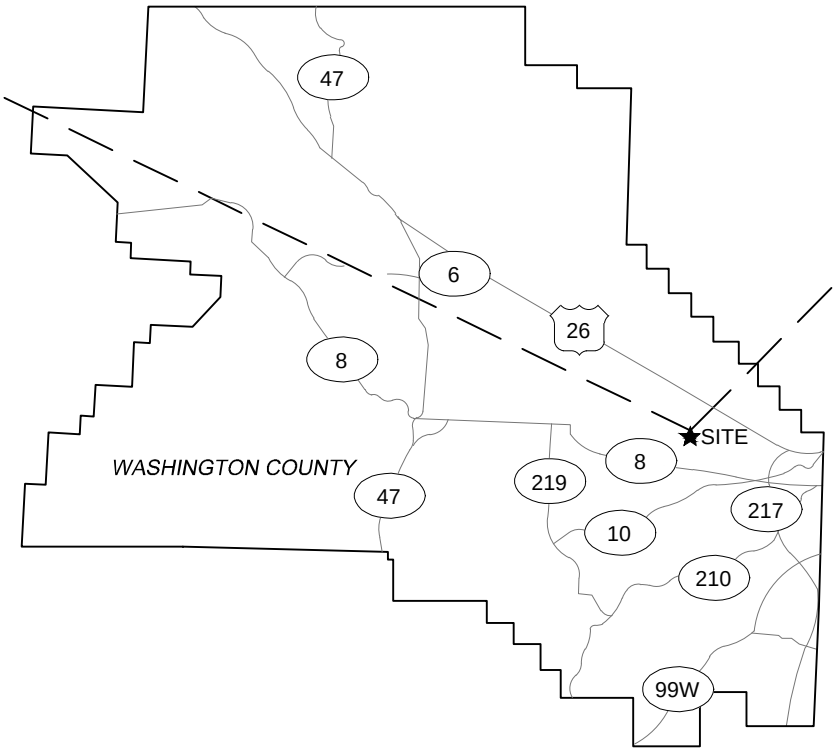
Today, the site is occupied by a single family home, 4,913 square feet of preschool and language immersion school, and buildings housing approximately 18,054 square feet of light industrial uses. Access to the property is currently provided at three locations on SW 170th Avenue and two on W Baseline Road. In addition, there is one existing access on SW 170th Avenue and one on W Baseline Road that serve the property in the southwest corner of the SW 170th Avenue/W Baseline Road.

As proposed, the Elmonica Station Mixed Use Development would include three 5-story buildings housing up to 256 apartments and 3,000 square feet of ground floor retail. Access would be provided at one location SW 170th Avenue opposite the existing TriMet park-and-ride access point and at one location on W Baseline Road approximately 300 feet west of the SW 170th Avenue signal.

The adjacent property is anticipated to be redeveloped as affordable housing units by REACH under a separate land use proposal. As will be discussed in a later section of this report, Rembold Properties is granting an easement to REACH to enable use of the W Baseline Road access. We do note it is reasonable to assume that the REACH trips will also use the SW 170th Avenue access given there are no restrictions on the internal driveway connecting the two access points. Accordingly, the analyses presented herein includes both the REACH and the Elmonica Station vehicular trips.

Occupancy of Elmonica Station apartments and retail is anticipated in the year 2025. Figure 1 provides the project vicinity map whereas Figure 2 provides the site plan.

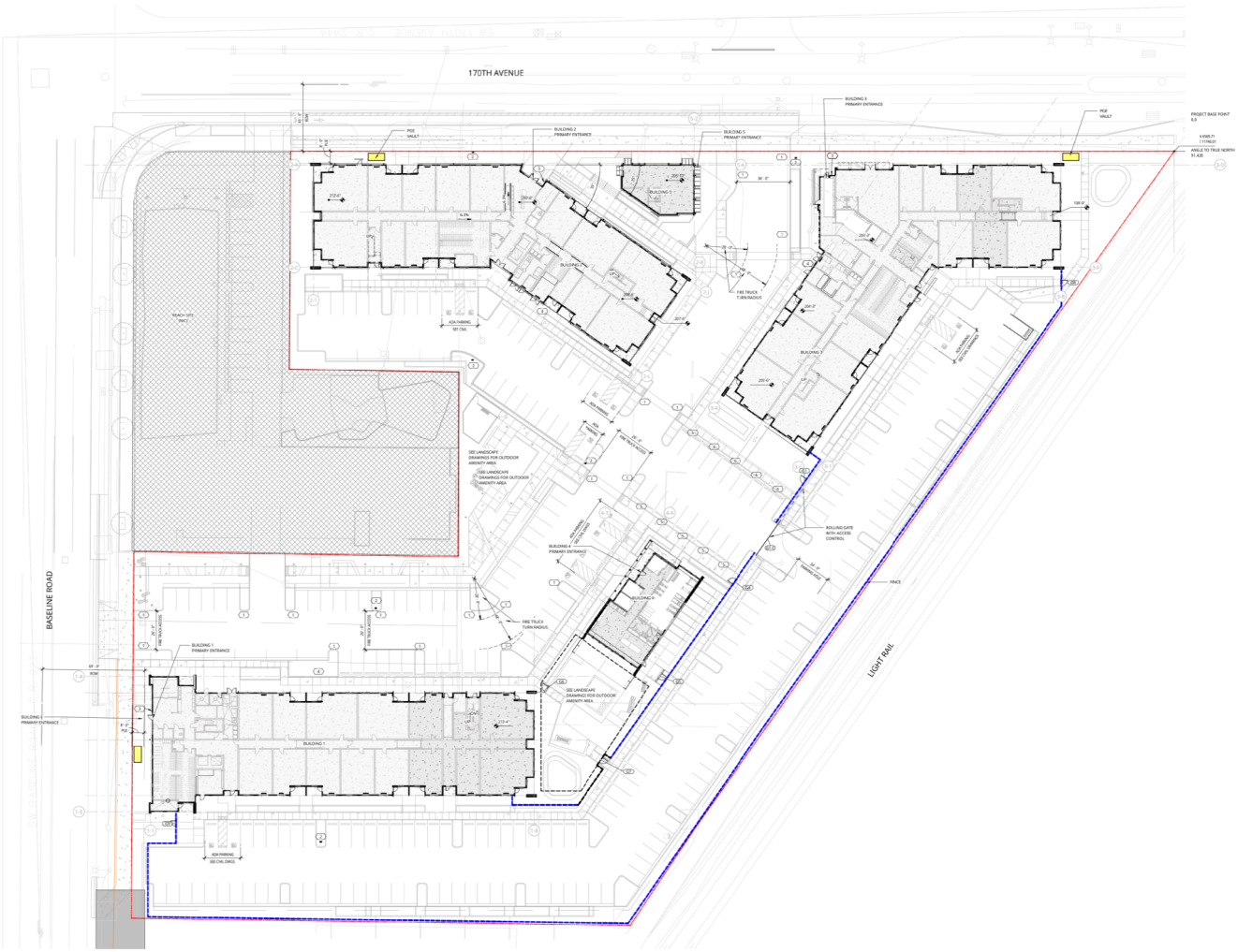




Site Vicinity Map
Beaverton, Oregon

Figure
1

(##) - Study Intersection



Site Plan provided by Ankrom Moisan dated August 23, 2022

Site Plan
Beaverton, Oregon

Figure
2

SCOPE OF THE REPORT

This report identifies the transportation-related impacts associated with the proposed Elmonica Station Mixed Use development to be located southwest of the SW 170th Avenue/W Baseline Road intersection. The study intersections and scope were selected per the requirements outlined in Section 60.55.20 of the Beaverton Development Code (BDC) and guidance provided by City and Washington County, TriMet and ODOT Rail staff related to both the Traffic Impact Analysis (TIA) and the Access Management Plan (AMP). A copy of the scoping memo is provided in Appendix A.

Weekday AM and PM peak hour operations were evaluated at the following intersections (numerical identification refers to figures in this report):

1. SW 173rd Avenue/W Baseline Road;
2. Proposed Right-in-right-out access on W Baseline Road;
3. SW 170th Avenue/W Baseline Road;
4. SW 170th Avenue/TriMet Access/Proposed full movement access;
5. SW 170th Avenue/SW Sullivan Lane; and,
6. Existing Access to the west of SW 173rd Avenue/W Baseline Road (for the purposes of the AMP only).

This report evaluates the following transportation issues:

- Existing land use and transportation system conditions within the site vicinity during the weekday AM peak and weekday PM peak periods;
- Crash data analysis for the recent five-year period;
- Forecast year 2025 background traffic conditions during the weekday AM peak and weekday PM peak periods, considering developments and transportation improvements planned in the study area;
- Trip generation and distribution estimates for the proposed mixed use development;
- Forecast year 2025 total traffic conditions during the weekday AM peak and weekday PM peak periods, including intersection operations and queuing considerations;
- Left-turn queuing considerations at the proposed access points;
- On-site access and circulation;
- Pedestrian crossing of SW 170th Avenue;
- Planning year considerations;
- Access Management Plan criteria; and,
- Conclusions and recommendations.

ANALYSIS METHODOLOGY

All intersection operational analyses were conducted using the procedures outlined in the 2000 *Highway Capacity Manual* per City of Beaverton requirements using PTV Vistro 2021 software.

City Intersection Operational Standards

Per BDC 60.55.7, the applicable intersection peak hour operational standards are:

- *Signalized intersections*: peak hour average control delay no greater than 65 seconds per vehicle and a volume-to-capacity (V/C) ratio for each lane group no greater than 0.98. If the intersection is under County or Oregon Department of Transportation (ODOT) jurisdiction, the V/C ratio for each lane group shall not exceed the V/C ratio imposed by that jurisdiction.
- *Unsignalized intersections*: peak hour average control delay of no greater than 45 seconds per vehicle.

In addition, BDC 60.55.7 states that "*if the existing control delay or volume-to-capacity ratio of an intersection is greater than the standards of this subsection, the impacts of development shall be mitigated to maintain or reduce the respective control delay or volume-to-capacity ratio*."

Washington County Standards

Washington County requires a volume-to-capacity ratio of less than 0.99 be maintained over the course of the peak hour at both signalized and unsignalized intersections. These standards apply to all of the study intersections as all streets are under County jurisdiction.

EXISTING CONDITIONS

This section summarizes the existing characteristics of the transportation system and adjacent land uses near the site as well as an evaluation of existing intersection operations for motor vehicles at the study intersections.

Site Conditions and Adjacent Land Uses

The Elmonica Mixed Use Site is within the Elmonica/Merlo Station Community Area per the City's Comprehensive Plan and Zoning Map. The development of this site helps the City to meet the Goals and Policies of the Merlo Station Community Plan,[1] particularly related to increased density to encourage the use of the nearby light rail and to develop lands in a way that encourages people to walk, ride bikes and take transit. Further, the development of this mixed use site is consistent with the permitted uses in the Beaverton Station Community Multiple Use (SC-MU) Zoning District.

[1] Microsoft Word - Merlo Station Community Plan.doc (beavertonoregon.gov)

Transportation Facilities

Table 1 identifies the characteristics of key streets located within the vicinity of the Elmonica Mixed Use site. Figure 3 identifies the existing lane configurations and traffic control devices at the study intersections.

Table 1. Existing Transportation Facilities

Street	Functional Classification[1]	Motor Vehicle Travel Lanes	Posted Speed (mph)	Sidewalks	Striped Bicycle Lanes	On-Street Parking
W Baseline Road	Arterial	5 lanes	45	Yes	Yes	No
SW 170th Avenue	Arterial	2 – 3 lanes	40	Eastside Only	No	No
SW 173rd Avenue	Neighborhood Route	2 lanes	30	Yes	No	Yes
SW Sullivan Lane	Local Street	1 – 2 lanes	25	Northside	No	No

[1] Source: Beaverton Transportation System Plan (TSP)

Pedestrian and Bicycle Facilities

Access for people walking and riding bikes to/from the Elmonica Mixed Use site is provided via SW 170th Avenue and W Baseline Road. As part of site redevelopment, sidewalks and bike lanes will be provided along the site frontage as per direction from City and County staff. The redevelopment of this site and connection of people with the Elmonica Transit Station is consistent with the Merlo Station Community goals and policies of encouraging development that promotes walking, cycling and taking transit.

Transit Facilities

The Elmonica Station is directly across SW 170th Avenue from the site and provides access to the MAX Blue Line. This access provides future residents with multiple options for taking transit to the rest of the Portland Metro area.

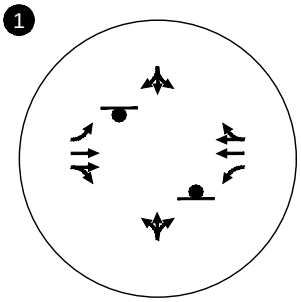
Existing Traffic Volumes and Peak Hour Operations

Weekday AM and PM peak traffic counts at the study intersections were collected on two weekdays in February 2022 when schools were in-person, no inclement weather occurred that would alter traffic patterns, and businesses were open. These counts were compared to those we previously collected in January 2020 (pre-COVID) when schools and businesses were fully open. The January 2020 counts are reflective of the detour in traffic that occurred during the construction of the County's Major Street Transportation Improvement Program (MSTIP) projects along SW Jenkins Road and SW 158th Avenue adjacent to the Nike World Headquarters campus. This detour affected travel behaviors along W Baseline Road in particular (i.e., more traffic using this route as a detour around construction).

In comparing the data, the 2022 traffic volumes generally indicate that traffic patterns are returning to "normal" but that the use of the TriMet park-and-ride at Elmonica Station is still reduced from pre-

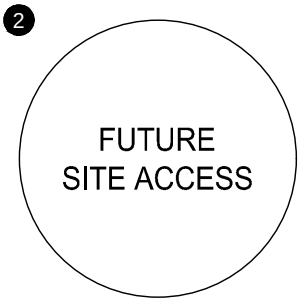
SW 173RD AVENUE/
W BASELINE ROAD

1



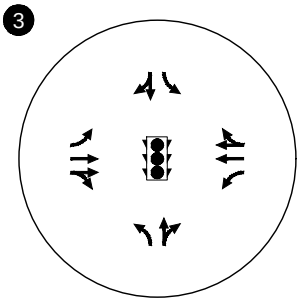
SITE ACCESS/
W BASELINE ROAD

2



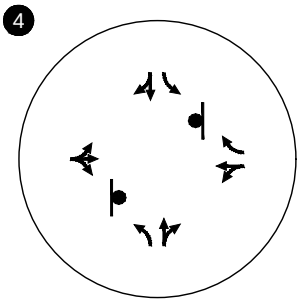
SW 170TH AVENUE/
W BASELINE ROAD

3



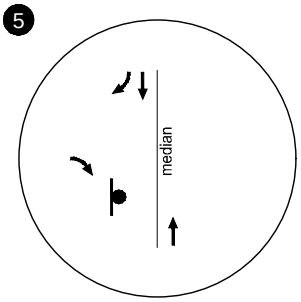
SW 170TH AVENUE/
TRIMET ACCESS/SITE ACCESS

4



SW 170TH AVENUE/
SW SULLIVAN LANE

5



- STOP SIGN

- TRAFFIC SIGNAL

Existing Lane Configurations
and Traffic Control Devices
Beaverton, Oregon

Figure
3

COVID. Based on a review of the volumes and discussions with County and City staff, the existing conditions volumes are reflective of the 2022 peak hour counts once the pre-COVID measured park-and-ride volumes as well as the existing driveway volumes are added back into the study intersections. The pre-COVID park-and-ride and driveway counts were then "balanced" to the SW 170th Avenue/W Baseline Road counts. The 2022 traffic counts and the information used to assess these counts versus pre-COVID conditions are provided in Appendix B.

Figure 4 provides a summary of the existing volumes during the weekday AM and PM peak hours. Table 2 summarizes the existing operations at the study intersections for both the peak 15 and peak one hour time periods. As shown, all the study intersections currently operate acceptably per the agency performance metrics except that the northbound approach delay on SW 173rd Avenue at W Baseline Road during the morning peak hour exceeds the City's threshold. All intersection operations satisfy the County's V/C ratio performance threshold. *Appendix "C" contains the existing conditions intersection analysis worksheets.*

Table 2. Existing Traffic Conditions – Weekday AM and PM Peak Hours

Study Intersection		Operating Requirement	60-Minute Results		Peak 15-Minute Results	
			V/C	Delay (sec)	V/C	Delay (sec)
Weekday AM Peak Hour						
1	SW 173rd Avenue/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.02 (NB)	**>45 (NB)**	0.02 (NB)	**>45 (NB)**
2	Site Access/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	-	-	-	-
3	SW 170th Avenue/ W Baseline Road	Intersection V/C ≤ 0.99	0.61	32.9	0.65	34.7
4	TriMet Access/Site Access/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.04 (WBLT/TH)	18.5 (WBLT/TH)	0.05 (WBLT/TH)	19.8 (WBLT/TH)
5	SW Sullivan Lane/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.04 (EB RT)	9.9 (EB RT)	0.04 (EB RT)	10.1 (EB RT)
Weekday PM Peak Hour						
1	SW 173rd Avenue/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.06 (NB)	32.0 (NB)	0.46 (SB)	37.8 (SB)
2	Site Access/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	-	-	-	-
3	SW 170th Avenue/ W Baseline Road	Intersection V/C ≤ 0.99	0.67	31.9	0.72	34.1
4	TriMet Access/Site Access/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.21 (WBLT/TH)	27.4 (WBLT/TH)	0.30 (WBLT/TH)	36.6 (WBLT/TH)
5	SW Sullivan Lane/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.06 (EB RT)	12.0 (EB RT)	0.07 (EB RT)	12.6 (EB RT)

WB = Westbound, SB = Southbound, EB = Eastbound, NB = Northbound, LT = Left, TH = Through, RT = Right, LT/TH = Shared left/through
V/C = Volume-to-capacity ratio, Delay = Intersection control delay (signalized), critical movement delay (unsignalized).
Bold indicates City standards exceeded.

SW 173RD AVENUE/W BASELINE ROAD

1

WEEKDAY AM PEAK	WEEKDAY PM PEAK
41 1242 1	53 946 0
42 0 10	73 0 13
8 586 4	43 1065 1
1 0 0	2 1 7

SITE ACCESS/W BASELINE ROAD

2

WEEKDAY AM PEAK	WEEKDAY PM PEAK
1252 →	966 →
← 598	← 1109

SW 170TH AVENUE/W BASELINE ROAD

3

WEEKDAY AM PEAK	WEEKDAY PM PEAK
48 1093 111	69 762 135
33 163 79	47 398 135
68 423 55	141 918 126
142 253 70	144 272 77

N

SW 170TH AVENUE/TRIMET ACCESS/SITE ACCESS

4

WEEKDAY AM PEAK	WEEKDAY PM PEAK
0 0 1	1 0 0
0 285 37	1 170 24
8 0 12	61 0 42
1 451 54	0 429 16

SW 170TH AVENUE/SW SULLIVAN LANE

5

WEEKDAY AM PEAK	WEEKDAY PM PEAK
30	30
15 283	69 543
506	444

(##) - Study Intersections
(X) - Site Access

Existing Traffic Volumes
Weekday AM & PM Peak Hour
Beaverton, OR

Figure
4

KITTELSON & ASSOCIATES

Crash Data

ODOT provided crash records at the study intersections for the period from January 1, 2015 through December 31, 2019. The crash type classifications at each intersection were reviewed to assess whether crash patterns might be identifiable. Table 3 shows the reported crashes by type and severity. *Appendix "D" contains the detailed crash summary worksheets.*

Table 3. Intersection Crash History (January 1, 2015 through December 31, 2019)

Study Intersection	Crash Type								Severity			Total
	Angle	Turn	Rear-End	Side Swipe	Fixed Object	Ped/ Bike	Backing	Other	PDO[1]	Injury	Fatal	
SW 173rd Avenue/ W Baseline Road	0	7	1	0	0	0	0	0	4	4	0	8
SW 170th Avenue/ W Baseline Road	4	7	13	0	1	5	0	0	10	20	0	30
SW 170th Avenue/ SW Sullivan Lane	0	0	6	0	0	0	0	0	1	5	0	6
SW 170th Avenue/ TriMet Access	0	1	4	1	0	3	1	0	4	6	0	10
W Baseline Road (SW 173rd to SW 170th)	0	0	11	2	0	0	0	0	4	9	0	13

[1] PDO – Property damage only

Washington County SPIS List

Washington County maintains a database of intersection crashes and ranks the listing on a biennial cycle. A review of the Washington County Safety Priority Index System (SPIS, 2017 – 2019) revealed the following:

- SW 170th Avenue/W Baseline Road is ranked 36th of 350 intersections listed. Per the SPIS information, signal timing at this intersection was changed in 2017 and again modified in 2020. The County also intends to add reflective backplates in 2022 to address identified deficiencies.
- SW Sullivan Lane/SW 170th Avenue is ranked 189th and no specific recommendations are identified.
- SW 173rd Avenue/W Baseline Road is ranked 238th and no specific recommendations are identified.

Critical Crash Rate

Intersection crash rates were calculated and compared to statewide crash rate performance thresholds. For this analysis, the critical crash rate was calculated and compared to the 90th percentile crash rates for urban intersections by traffic control and 3 versus 4-legged configurations (as appropriate). This is shown in Table 4.

Table 4. Intersection Crash Rate Assessment

Study Intersection	90th Percentile Rate[1,2]	Observed Crash Rate[1]	Observed Crash Rate > 90th Percentile Rate
SW 173rd Avenue/ W Baseline Road	0.29	0.20	No
SW 170th Avenue/ W Baseline Road	0.86	0.52	No
SW 170th Avenue/ SW Sullivan Lane	0.29	0.30	**Yes**
SW 170th Avenue/ TriMet Access	0.41	0.48	**Yes**

[1] Crash rate – Crashes per million entering vehicles (MEV)

[2] Values shown obtained from APM Exhibit 4-1, Intersection Crash Rates per MEV by Land Type and Traffic Control

Table 4 shows that the intersection crash rates are below the 90th percentile crash rates with the exception of the SW 170th Avenue / SW Sullivan Lane and SW 170th Avenue / TriMet Access intersections.

Based on the available ODOT crash data and Washington County SPIS data, no safety-based mitigations are recommended at the study intersections in conjunction with the site redevelopment. A future eastbound right-turn lane is planned along SW 170th Avenue at the SW 170th Avenue/W Baseline Road intersection that will add vehicle capacity. The right-of-way required along with the Elmonica Station Mixed Use Development project site frontage for this future turn lane will be dedicated in conjunction with project site development. Also, the proposed site access along SW Baseline Road will be limited to right-turns only (compared to full movement today) as discussed later in this report.

YEAR 2025 TRAFFIC IMPACT ANALYSIS

This traffic impact analysis identifies how the study intersections will operate in the buildout year 2025 when the site is redeveloped. The impact of traffic generated by the site redevelopment during the weekday AM and PM peak hours was examined as follows:

- In-process developments and funded transportation improvements in the site vicinity were identified.
- Year 2025 background traffic volumes (prior to site redevelopment) were developed assuming continued growth.
- Year 2025 background traffic conditions were assessed at each of the study intersections.
- Site-generated trips associated with the proposed mixed use development were added to the 2025 background traffic conditions to establish the total traffic volumes.
- Intersection improvement needs were identified to mitigate impacts where appropriate.

Year 2025 Background Traffic Conditions

The year 2025 background traffic analysis identifies how the study intersections will operate prior to the proposed mixed use development. This analysis includes traffic attributed to planned developments within the study area and to general growth in the region but does not include traffic from the proposed mixed use development.

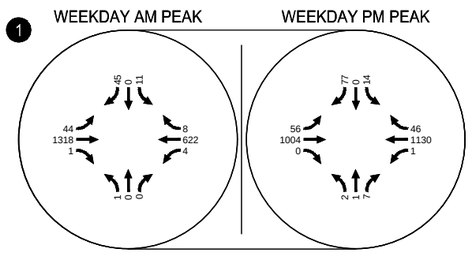
Planned Developments & Transportation Improvements

City and Washington County staff confirmed that there are no approved planned in-process developments in the study area that would materially impact study intersection operations. Accordingly, a two percent growth rate was applied to the existing volumes to account for continued growth in regional traffic.

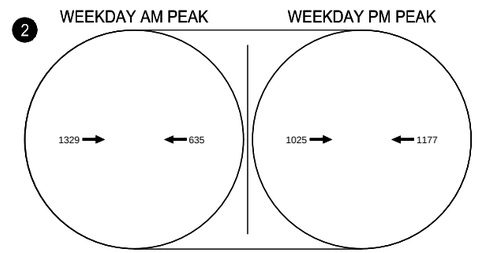
Although not approved yet, the analyses does include the vehicular trips associated with the proposed REACH housing directly adjacent to the site in the southwest quadrant of the SW 170th Avenue/W Baseline Road intersection. Further details on the trip generation and distribution associated with these trips is provided in Appendix E; these trips are only added into the site accesses under the total traffic conditions described below.

Figure 5 shows the projected 2025 turning movements for the weekday AM and PM peak hour and Table 5 shows the associated intersection analyses. As shown, all but one of the intersections are anticipated to continue to meet City and County standards. Consistent with existing conditions, the northbound approach delay on of SW 173rd Avenue at W Baseline Road continues to exceed the City delay threshold during the morning peak hour. Further, the southbound approach begins to exceed the City delay threshold during the weekday PM peak hour. All intersection operations continue to satisfy the County's V/C ratio performance threshold. *Appendix "E" contains the year 2025 background traffic analysis worksheets.*

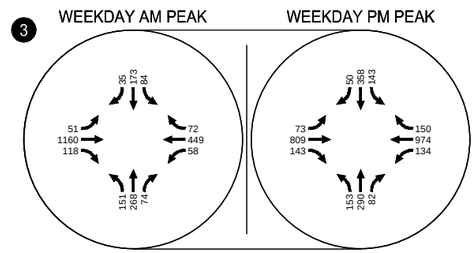
SW 173RD AVENUE/W BASELINE ROAD



SITE ACCESS/W BASELINE ROAD

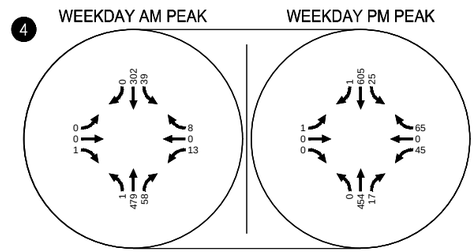


SW 170TH AVENUE/W BASELINE ROAD

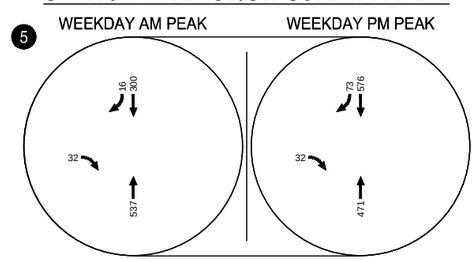


N

SW 170TH AVENUE/TRIMET ACCESS/SITE ACCESS



SW 170TH AVENUE/SW SULLIVAN LANE



- Study Intersections
X - Site Access

Year 2025 Background Traffic Volumes
Weekday AM & PM Peak Hour
Beaverton, OR

Figure
5

Table 5. Year 2025 Background Traffic Conditions – Weekday AM and PM Peak Hours

Study Intersection		Operating Requirement	60-Minute Results		Peak 15-Minute Results	
			V/C	Delay (sec)	V/C	Delay (sec)
Weekday AM Peak Hour						
1	SW 173rd Avenue/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.02 (NB)	**>45 (NB)**	0.03 (NB)	**>45 (NB)**
2	Site Access/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	-	-	-	-
3	SW 170th Avenue/ W Baseline Road	Intersection V/C ≤ 0.99	0.64	34.5	0.69	36.6
4	TriMet Access/Site Access/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.05 (WBLT/TH)	19.7 (WBLT/TH)	0.06 (WBLT/TH)	21.3 (WBLT/TH)
5	SW Sullivan Lane/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.04 (EB RT)	10.1 (EB RT)	0.05 (EB RT)	10.2 (EB RT)
Weekday PM Peak Hour						
1	SW 173rd Avenue/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.46 (SB)	38.2 (SB)	0.57 (SB)	**>45 (SB)**
2	Site Access/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	-	-	-	-
3	SW 170th Avenue/ W Baseline Road	Intersection V/C ≤ 0.99	0.72	35.2	0.78	38.1
4	TriMet Access/Site Access/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.25 (WBLT/TH)	31.1 (WBLT/TH)	0.32 (WBLT/TH)	39.1 (WBLT/TH)
5	SW Sullivan Lane/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.06 (EB RT)	12.4 (EB RT)	0.07 (EB RT)	13.0 (EB RT)

WB = Westbound, SB = Southbound, EB = Eastbound, NB = Northbound, LT = Left, TH = Through, RT = Right, LT/TH = Shared left/through
V/C = Volume-to-capacity ratio, Delay = Intersection control delay (signalized), critical movement delay (unsignalized).
Bold indicates City standards exceeded.

Proposed Development Plan and Trip Generation

The anticipated change in trip generation associated with the redevelopment of the property is shown in Table 6. The trip generation estimates for the existing and proposed uses were prepared based on rates included in the *Trip Generation Manual*, 11th Edition (Institute of Transportation Engineers, ITE, 2021). Note that no transit-based trip reduction was assumed despite the MAX light rail station located directly to the east across SW 170th Avenue.

As noted previously, the REACH affordable housing will have an easement to use the W Baseline Road access point and it is reasonable to assume that some of these trips will also use the SW 170th Avenue access point for Elmonica Station given there are no restrictions on the internal site roadway connecting these two access points. Accordingly, the total traffic conditions account for both proposed developments.

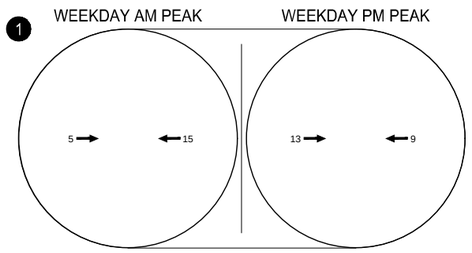
Table 6. Estimated Change in Trip Generation

Land Use	ITE Code	Size	Total Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total Trips	In	Out	Total Trips	In	Out
Proposed Uses									
Mid-rise Apartments	221	256 units	1,162	95	22	73	100	61	39
Retail	822	3,000 sq ft	164	7	4	3	20	10	10
Less pass-by trips (34%)			56	2	2	0	6	4	2
Net New Retail Trips			108	5	2	3	14	6	8
Total Proposed Site Trips			1,326	102	26	76	120	71	49
Total Net New Trips			1,270	100	24	76	114	67	47
Existing Uses									
Single Family	210	1 home	10	1	0	1	1	1	0
Day Care Center	565	4,913 sq ft	234	54	29	25	55	26	29
Light Industrial	110	18,054 sq ft	88	13	11	2	12	2	10
Existing Site Trips			332	68	40	28	68	29	39
Proposed Uses - Existing Uses									
Change in Net New Trips			938	32	-16	48	46	38	8

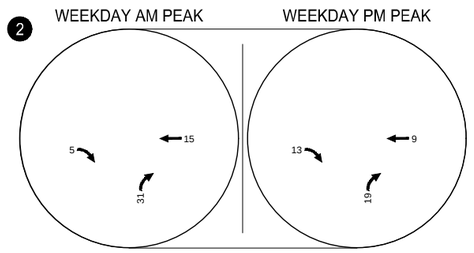
Trip Distribution and Assignment

The distribution of site-generated trips was estimated based on a review of existing traffic patterns as well as nearby employment and retail areas. For the purposes of the intersection analyses, no trip reduction was assumed for existing trips associated with the uses today (the total proposed site trips shown in Table 6 were assigned to the study intersections). Figure 6 illustrates the estimated trip distribution pattern and assignment of the trips associated with the proposed uses, as reflected in Table 6.

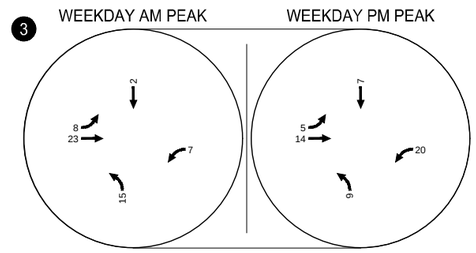
SW 173RD AVENUE/W BASELINE ROAD



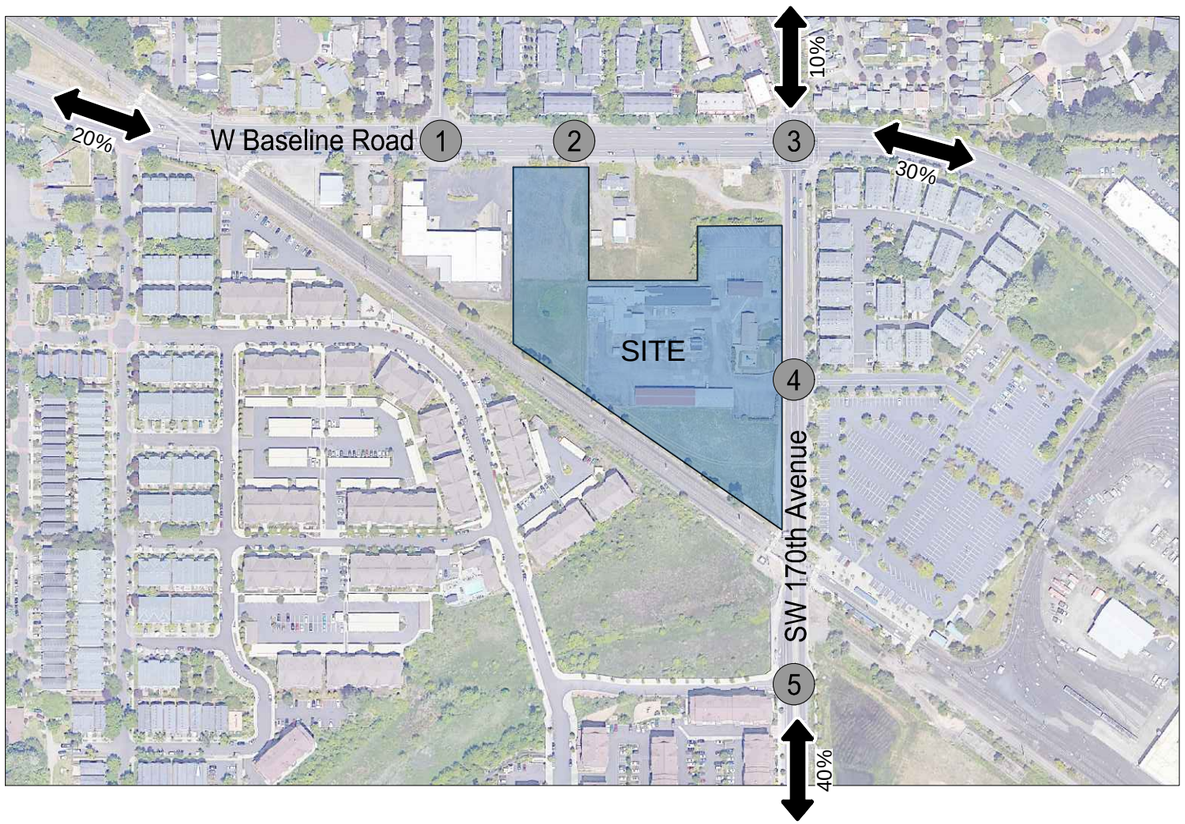
SITE ACCESS/W BASELINE ROAD



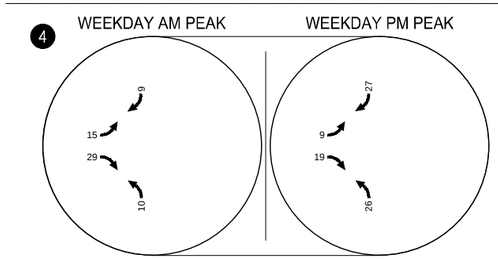
SW 170TH AVENUE/W BASELINE ROAD



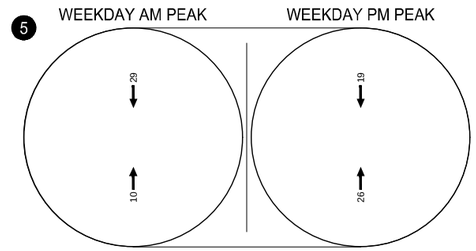
N



SW 170TH AVENUE/TRIMET ACCESS/SITE ACCESS



SW 170TH AVENUE/SW SULLIVAN LANE



(##) - Study Intersections
(X) - Site Access

Estimated Trip Distribution Pattern and Trip Assignment
Weekday AM & PM Peak Hour
Beaverton, OR

Figure 6

KITTELSON & ASSOCIATES

YEAR 2025 TOTAL TRAFFIC CONDITIONS

The total traffic conditions analysis forecasts how the study intersections will operate with the traffic associated with the proposed Elmonica Station site redevelopment as well as the REACH affordable housing. The site-generated trips shown in Figure 6 for Elmonica Station as well as the trips generated by REACH shown in Appendix E were added to the 2025 background traffic volumes reflected in Figure 5 to arrive at the 2025 total traffic volumes shown in Figure 7. Table 7 identifies the intersection operations under total traffic conditions.

Table 7. Year 2025 Total Traffic Conditions – Weekday AM and PM Peak Hours

Study Intersection		Operating Requirement	60-Minute Results		Peak 15-Minute Results	
			V/C	Delay (sec)	V/C	Delay (sec)
Weekday AM Peak Hour						
1	SW 173rd Avenue/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.02 (NB)	**>45.0 (NB)**	0.03 (NB)	**>45.0 (NB)**
2	Site Access/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.11 (NB RT)	15.0 (NB RT)	0.12 (NB RT)	15.9 (NB RT)
3	SW 170th Avenue/ W Baseline Road	Intersection V/C ≤ 0.99	0.66	35.3	0.71	37.7
4	TriMet Access/Site Access/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.06 (WBLT/TH)	21.6 (WBLT/TH)	0.07 (WBLT/TH)	23.6 (WBLT/TH)
5	SW Sullivan Lane/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.04 (EB RT)	10.3 (EB RT)	0.05 (EB RT)	10.4 (EB RT)
Weekday PM Peak Hour						
1	SW 173rd Avenue/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.47 (SB)	40.2 (SB)	0.59 (SB)	**>45.0 (SB)**
2	Site Access/ W Baseline Road	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.05 (NB RT)	12.49 (NB RT)	0.05 (NB RT)	13.0 (NB RT)
3	SW 170th Avenue/ W Baseline Road	Intersection V/C ≤ 0.99	0.74	36.6	0.80	39.8
4	TriMet Access/Site Access/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.29 (WBLT/TH)	38.3 (WBLT/TH)	0.39 (WBLT/TH)	**>45.0 (WBLT/TH)**
5	SW Sullivan Lane/ SW 170th Avenue	Critical Movement V/C ≤ 0.99 and average control delay ≤ 45 seconds per vehicle	0.06 (EB RT)	12.6 (EB RT)	0.07 (EB RT)	13.3 (EB RT)

WB = Westbound, SB = Southbound, EB = Eastbound, NB = Northbound, LT = Left, TH = Through, RT = Right, LT/TH = Shared left/through
V/C = Volume-to-capacity ratio, Delay = Intersection control delay (signalized), critical movement delay (unsignalized).
Bold indicates City standards exceeded.

SW 173RD AVENUE/W BASELINE ROAD

1

WEEKDAY AM PEAK			WEEKDAY PM PEAK		
44	1328	1	56	1024	0
45	0	11	77	0	14
8	643	4	46	1145	1
1	0	0	2	1	7

SITE ACCESS/W BASELINE ROAD

2

WEEKDAY AM PEAK			WEEKDAY PM PEAK		
1329	10		1025	20	
	656			1192	
	43			24	

SW 170TH AVENUE/W BASELINE ROAD

3

WEEKDAY AM PEAK			WEEKDAY PM PEAK		
60	1194	118	79	827	143
35	176	84	90	369	143
72	449	67	150	974	162
172	271	74	168	291	82

N

SW 170TH AVENUE/TRIMET ACCESS/SITE ACCESS

4

WEEKDAY AM PEAK			WEEKDAY PM PEAK		
24	0	31	18	0	21
13	303	39	42	425	25
8	0	13	65	0	45
14	478	58	31	457	17

SW 170TH AVENUE/SW SULLIVAN LANE

5

WEEKDAY AM PEAK			WEEKDAY PM PEAK		
	32			32	
16	332		73	398	
	549			500	

(##) - Study Intersections
(X) - Site Access

Year 2025 Total Traffic Volumes
Weekday AM & PM Peak Hour
Beaverton, OR

Figure 7

KITTELSON & ASSOCIATES

As shown in Table 7, all of the intersections are projected to continue to satisfy County standards. The following intersection movements are projected to exceed City delay standards.

- The northbound approach delay on SW 173rd Avenue at W Baseline Road continues to exceed the City delay threshold during the morning peak hour (consistent with background traffic conditions) but operates well under capacity. As shown in Figure 7, only one vehicle uses this approach during the morning peak hour.
- The southbound approach delay on SW 173rd Avenue at W Baseline Road continues to exceed the City delay threshold during the weekday PM peak hour (consistent with background traffic conditions) and operates at about 60 percent of its capacity. Southbound left-turns at this intersection could alternatively travel east to the nearby signalized SW 170th Avenue/W Baseline Road intersection to turn left onto W Baseline Road.
- The stop controlled westbound through/left-turn lane leaving the TriMet Park & Ride to access SW 170th Avenue is projected to exceed the City's delay threshold during the weekday PM peak hour but operate at less than 40% of its capacity. The overall westbound approach is projected to operate with 28.1 seconds of delay (Level of Service D). Drivers leaving the TriMet Park & Ride also have the option to access SW Baseline Road at a signalized second access and could then travel west to SW 170th Avenue.

Each of the individual stop controlled movements listed above that are projected to exceed the City delay standards continue to operate well under capacity and all major street turning and through movements at each intersection operate acceptably. Traffic signal warrants are not met at any of the three intersections listed. Accordingly, no capacity-based mitigations were identified for implementation in conjunction with the proposed site redevelopment.

Appendix "F" contains the year 2025 total traffic analysis worksheets.

ACCESS QUEUING CONSIDERATIONS

For reference purposes, *Appendix G* contains the results of the 95th percentile queuing for the existing, background and total traffic scenarios. Key queuing findings are summarized below as they relate to the proposed site access.

Projected 95th percentile queues associated with the signalized SW 170th Avenue/W Baseline Road intersection were reviewed under year 2025 total traffic conditions to assess the potential for queue impacts to the proposed site access. As proposed, trips to and from the Elmonica Station (and REACH property) would share one right-turn only access on W Baseline Road located between SW 170th Avenue and SW 173rd Avenue as well as one access on SW 170th Avenue located opposite the TriMet Park-and-Ride access. The W Baseline Road access is approximately 300 feet west of the SW 170th Avenue signal whereas the existing Park-and Ride Access on SW 170th Avenue intersection is approximately 410 feet to the south of the signal. Appendix G Exhibits 1A and 1B illustrate the projected 95th percentile queues during the weekday AM and PM peak hours, respectively.

W Baseline Road Access

The projected peak hour 95th percentile queues eastbound on W Baseline Road from the SW 170th Avenue signal are anticipated to extend to and beyond the shared access serving both developments. Given that this access is recommended to be right-in-right-out only and controlled via a center median, northbound queues at the W Baseline Road access can be accommodated on-site. Vehicles leaving the development site (northbound right-turns onto W Baseline Road) will queue on-site until a suitable gap becomes available eastbound on W Baseline Road.

The projected eastbound 95th percentile queues can be expected to be reduced in length in the future when the planned separate eastbound right turn lane on W Baseline Road is provided at SW 170th Avenue.

SW 170th Avenue Access

The projected northbound through/right movement 95th percentile queue on SW 170th Avenue associated with the W Baseline traffic signal is projected to extend beyond the existing TriMet park-and-ride/Elmonica site access during the weekday AM and PM peak hours. The projected 95th percentile northbound left-turn movement queues are not projected to reach the SW 170th Avenue site access.

Southbound left-turn queues on SE 170th Avenue entering the TriMet park-and-ride access and northbound queues entering the proposed redevelopment site are projected to be one vehicle long. As such, the projected left-turn queues can be accommodated within the center left turn lane without creating an interaction with the northbound left-turn queues at the W Baseline traffic signal and without extending to the MAX tracks to the south (refer to Appendix G Exhibits 1A and 1B).

W BASELINE ROAD RIGHT-TURN LANE

Per City and County direction, Rembold Properties should dedicate right-of-way along the redevelopment project site frontage on W Baseline Road for a future eastbound right-turn lane on W Baseline Road at the signalized intersection with SW 170th Avenue.

FUTURE PEDESTRIAN CROSSING NEEDS FOR SW 170TH AVENUE

TriMet, ODOT Rail Division, the City, the County and Rembold are continuing to collaborate to assess where the designated crossing of SW 170th Avenue should occur to the south of the W Baseline signal and north of the MAX tracks. We recommend that Rembold continue to collaborate with the agencies toward a final solution. At the time this report was prepared, this issue had not been resolved.

PLANNING YEAR TOTAL TRAFFIC CONDITIONS

The proposed site is located within Regional Transportation Analysis Zone (TAZ) 1158/City of Beaverton disaggregated TAZ 1158003. The impact of site redevelopment was reviewed in the context of the City's TSP to identify potential unanticipated impacts on the transportation system.

The TAZ is generally bound by the MAX tracks, W Baseline Road to the north and SW 170th Avenue to the east. TAZ 1158003 includes a growth of 185 households, 140 retail employees, and 150 other employees between 2005 and 2035. Per Beaverton Development Code, the proposed uses are permitted within the SC-MU zone. As such, we conclude that the proposed redevelopment is consistent with the existing zoning, the surrounding uses and the City's TSP.

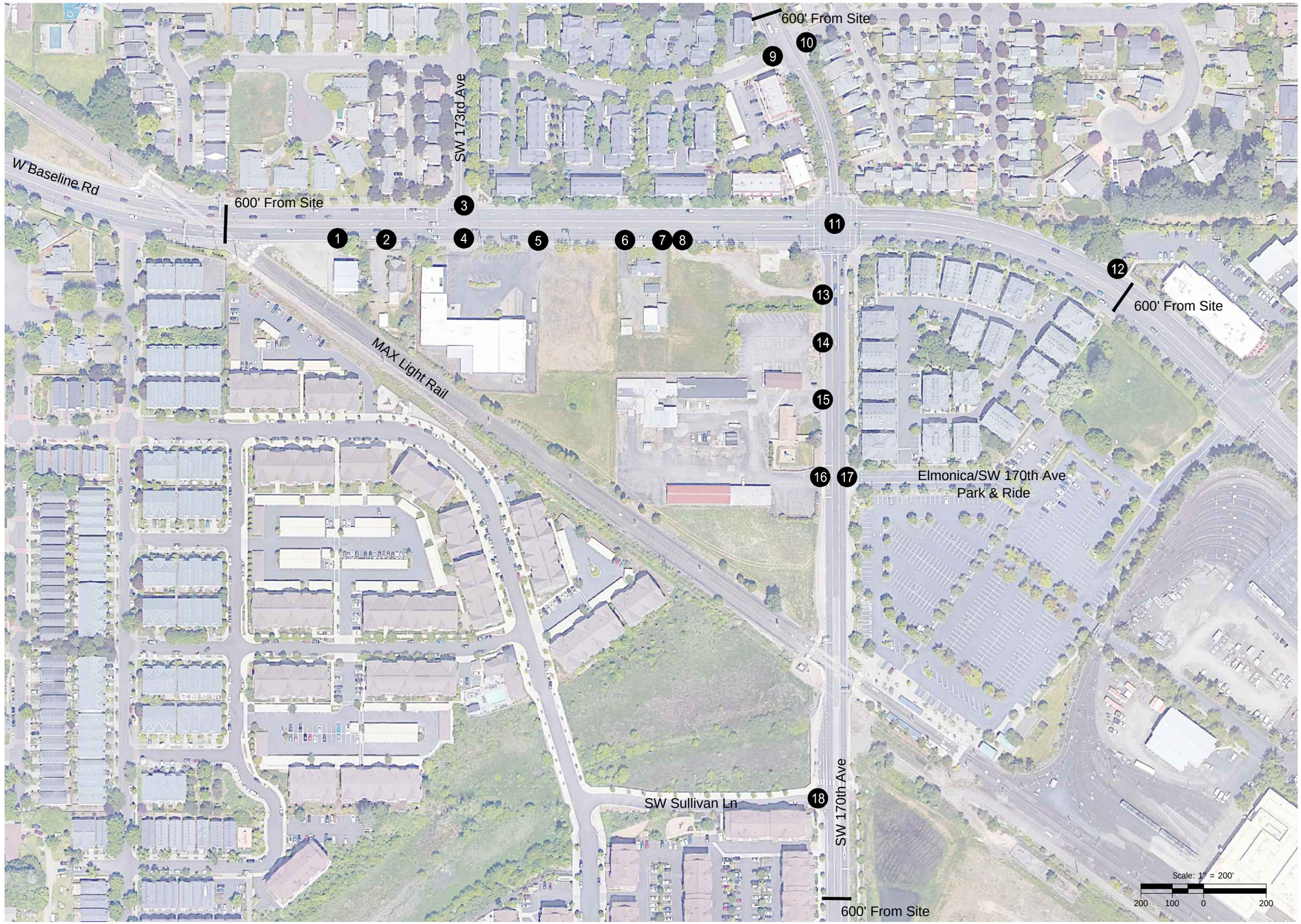
ACCESS MANAGEMENT FOR W BASELINE AND SW 170TH AVENUE

Washington County *Community Development Code* Section 501 provides standards for access spacing along arterial roads. Per the code, when allowed, accesses to arterial facilities such as SW 170th Avenue and W Baseline Road should be spaced at least 600 feet apart. Figure 8 is an influence area map that shows existing site driveways, the proposed site access points as well as other existing accesses in the vicinity within 600 feet of the redevelopment site frontage on the two roadways.

As shown in the figure, access to the Elmonica Station property is currently provided at three locations on SW 170th Avenue and two on W Baseline Road. In addition, there is one existing access on SW 170th Avenue and one on W Baseline Road that serve the REACH property in the southwest corner of the SW 170th Avenue/W Baseline Road.

Further, we note that a spacing of 600 feet along W Baseline Road from SW 170th Avenue extends west of the western Elmonica Station Property line and nearly to SW 173rd Avenue, thereby no access along W Baseline would meet the minimum standard.

Along SW 170th Avenue, the existing TriMet access is a little more than 400 feet south of the signal whereas the MAX tracks are more than 700 feet, thereby no access along SW 170th Avenue would meet the minimum standard either.



N

1. Existing Access - Private
2. Existing Access - Private
3. SW 173rd Avenue
4. Existing Access - Private
5. Existing Access - Private
6. Existing Private Access - To Be Removed
7. Existing Private Access - To Be Removed
8. Existing Private Access - To Be Removed
9. SW Whitley Way
10. SW Whitley Way
11. W Baseline Road / SW 170th Avenue
12. Existing Access - Private
13. Proposed REACH Access
14. Existing Private Access - To Be Removed
15. Existing Private Access - To Be Removed
16. Existing Private Access / Proposed Site Access
17. Elmonica Park & Ride Access
18. SW Sullivan Lane

Influence Area Map
Beaverton, OR

Figure
8

KITTELSON & ASSOCIATES

W Baseline Right-In-Right-Out Shared Access

As proposed, Elmonica Station will be served by one right-in-right-out access on W Baseline Road approximately 300 feet east of the SW 170th Avenue signal and will provide an easement for REACH to use the W Baseline access as well. As a result, the three existing accesses on W Baseline Road will be closed and one right-in-right-out location will be provided to serve the two properties. The operations at this access are described in the above sections (including queuing and turn lane considerations) and with the consolidation of three existing access points (including one from REACH) within 300 feet of the signal into one right-in-right-access point, the proposed plan moves toward meeting the County standards.

SW 170th Avenue Access

Further, along SW 170th Avenue, two of the three accesses currently serving the Elmonica Station property will be closed and only the existing access opposite the TriMet park-and-ride will remain. The REACH property is seeking approval for a right-out only access along their SW 170th Avenue frontage. The proposed REACH right-out only is addressed as part of their land use application. However, as noted previously it is reasonable to assume that some of the REACH trips will use the Elmonica Station SW 170th Avenue access given there will be no restrictions on the internal roadway connecting the two access points. The operations at this access are also described in the above sections (including queuing and turn lane considerations) and with the removal of two existing access points within approximately 400 feet of the signal and only maintaining one full movement access opposite the TriMet Park-and-Ride access, the proposed plan moves toward meeting the County standards.

Overall Findings related to the Proposed Exceptions to the Access Criteria

Per Washington County CDC Section 501-8.5.C, we conclude the County can grant an exception for both the proposed SW 170th Avenue and W Baseline Road access points. A summary of relevant provisions of the CDC is shown below in italics and are response follows.

C. Exception to Access Criteria

(1) Alternate points of access may be allowed if an access management plan which maintains the classified function and integrity of the applicable facility is reviewed and approved by the Review Authority after considering the applicant's compliance with this Article.

(2) An application for an Access Management Plan shall explain the need for the modification and demonstrate that the modification maintains the classified function and integrity of the facility. References to standards or publications used to prepare the Access Management Application shall be included with the application.

Response: Both SW 170th Avenue and W Baseline Road are arterial roadways and the consolidation of access points on the site frontage along each roadway helps to reduce the interruptions to the flow of

through traffic (prioritization of arterials is on mobility) and is consistent with the County's TSP Strategy 6.1.2 related to access consideration. We further note that the provision of apartments consistent with the Station Community Mixed Use zone for the property helps to support TSP Objective 8.5 by connecting housing with the transit service available via the adjacent MAX station. Rembold is also coordinating with all of the agencies to identify the appropriate pedestrian crossing treatment of SW 170th Avenue, which also supports the multiple TSP objectives and strategies to provide safe and convenient pedestrian travel.

(3) An access management plan shall address the safety and operational problems which would be encountered should a modification to the access spacing standards be granted.

Response: The above Access Report/Traffic Impact Analyses finding address safety and operations at the study intersections and access points.

(c) The access management plan shall include a comparison of all alternatives examined. At a minimum, the access management plan shall evaluate the proposed modification to the access spacing standard and the impacts of a plan utilizing the county standard for access spacing. Specifically, the access management plan shall identify any impacts on the operations and/or safety of the various alternatives.

Response: As noted above, there are no collector or local street alternatives that can provide access to the site and the site frontages. Further, achieving the 600 feet standard is not possible given the existing street infrastructure. Rather, the proposed plan moves toward meeting the standards through the reduction of access points.

(d) The access management plan shall include a list of improvements and recommendations necessary to implement the proposed access modification, specifically addressing all safety and operational concerns identified.

Response: As noted, we recommend that the W Baseline Road access be limited to right-in-right-out only and provide access to the REACH properties. The SW 170th Avenue full movement access is recommended opposite the TriMet Park-and-Ride and will also serve the REACH properties.

RECOMMENDATIONS

Subject to approval by the City of Beaverton and Washington County, the primary recommendations of this study are summarized below.

- Site landscaping, above-ground utilities, and site signage should be located and maintained such that they provide minimum required sight lines within the site as well as at the site accesses on both W Baseline Road and SW 170th Avenue per City of Beaverton Code.

- Per City and County direction, Rembold Properties should dedicate the right-of-way along their site frontage for a future eastbound right-turn lane on W Baseline Road at the signalized intersection with SW 170th Avenue.
- Pending approval from Washington County and City of Beaverton, we recommend that the W Baseline Road access be restricted to right-in-right-out movements and the SW 170th Avenue access continue to allow for full movement ingress and egress
- Rembold Properties should continue to collaborate with City, County, ODOT Rail, and TriMet regarding the final design and construction of a pedestrian crossing of SW 170th Avenue.

Please let us know if you have any questions regarding our analyses or findings.

LIST OF APPENDICES

A. Scoping Memo
B. Traffic Counts
C. Existing Conditions Analysis Worksheets
D. ODOT Crash Data
E. Year 2025 Background Traffic Conditions Analysis Worksheets
F. Year 2025 Total Traffic Conditions Analysis Worksheets
G. Queuing Analyses

Appendix A Scoping Memo

KITTELSON & ASSOCIATES

851 SW 6th AVENUE, SUITE 600
PORTLAND, OR 97204
P 503.228.5230 F 503.273.8169

MEMORANDUM

Date: January 6, 2022 Project #: 27266

To: Jabra Khasho, PE, & Kate McQuillan, AICP City of Beaverton
Jinde Zhu & Naomi Vogel, Washington County
Ben Baldwin, TriMet
Carrie Martin, ODOT Rail
Kali Bader, Rembold Properties
Frank Angelo, APG

From: Julia Kuhn, PE & Chris Brehmer, PE

Project: Elmonica Mixed Use Project

Subject: Traffic Impact Analysis Scope Finalized with City and County Comments

Rembold Properties is proposing to develop the 5.15 acre property located at 1065 SW 170th Avenue. This property is zoned Station Community – Multiple Use (SCMU) per the City of Beaverton Development Code (BDC). As currently contemplated, the site will be redeveloped to include three 5-story buildings housing up to 256 apartments and 3,000 square feet of ground floor retail. The change in trip generation associated with the redevelopment of the property triggers a Traffic Impact Analysis (TIA) per City of Beaverton Development Code Section (BDC) 60.55.20 as well as an Access Report per Washington County requirements. In addition, the proposed accesses on SW 170th Avenue and W Baseline Road necessitate preparation of an Access Management Plan (AMP) per Washington County Community Development Code Section 501-8.5.C. As such, this memorandum provides a proposed scope of work for each for your review.

Existing Site Uses

Today, the site is occupied by a single family home, 4,913 square feet of preschool and language immersion school, and buildings housing approximately 18,054 square feet of light industrial uses. Access to the property is currently provided at three locations on SW 170th Avenue and two on W Baseline Road. In addition, there is one existing access on SW 170th Avenue and one on W Baseline Road that serve the property in the southwest corner of the SW 170th Avenue/W Baseline Road. This adjacent property is anticipated to be redeveloped as affordable housing units by REACH under a separate land use proposal.

Estimated Change in Trip Generation

The anticipated change in trip generation associated with the redevelopment of the property is shown in Table 1. The trip generation estimates for the existing and proposed uses were prepared based on rates included in the *Trip Generation Manual*, 11th Edition (Institute of Transportation Engineers, ITE, 2021). Note that no transit-based trip reduction was assumed despite the MAX light rail station located directly to the east across SE 170th Avenue.

Table 1. Estimated Change in Trip Generation

Land Use	ITE Code	Size	Total Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total Trips	In	Out	Total Trips	In	Out
Proposed Uses									
Mid-rise	221	256	1,162	95	22	73	100	61	39
Retail	822	3,000	164	7	4	3	20	10	10
pass-by (34%)			56	2	2	0	6	4	2
Net New Retail Trips			108	5	2	3	14	6	8
Total Proposed Site Trips			1,326	102	26	76	120	71	49
Total Net New Trips			1,270	100	24	76	114	67	47
Existing Uses									
Single Family	210	1	10	1	0	1	1	1	0
Day Care Center	565	4,913	234	54	29	25	55	26	29
Light Industrial	110	18,054	88	13	11	2	12	2	10
Existing Site Trips			332	68	40	28	68	29	39
Proposed Uses - Existing Uses									
Change in Net New Trips			938	32	-16	48	46	38	8

Compliance with Beaverton Development Code Section 60.55.20

Based on the trip generation shown in Table 1, the proposed redevelopment of the site results in a daily trip increase exceeding 300 trips per day. As such, a TIA is required per BDC Section 60.55.20.

Compliance with Washington County CDC Requirements

The change in trip generation also necessitates preparation of an Access Report per Washington County Resolution & Order 86-95. The proposed access on both adjacent arterials also requires preparation of an Access Management Plan per Washington County CDC Section 501-8.5.C given the proximity to other accesses within 600 feet of the proposed locations.

ANALYSIS METHODOLOGY

All intersection operational analyses will be conducted using the procedures outlined in the *2000 Highway Capacity Manual* using the Vistro software.

City Intersection Operational Standards

Per BDC 60.55.7, the applicable intersection peak hour operational standards are:

- *Signalized intersections*: peak hour average control delay no greater than 65 seconds per vehicle and a volume-to-capacity (V/C) ratio for each lane group no greater than 0.98. If the intersection is under County or Oregon Department of Transportation (ODOT) jurisdiction, the V/C ratio for each lane group shall not exceed the V/C ratio imposed by that jurisdiction.
- *Unsignalized intersections*: peak hour average control delay of no greater than 45 seconds per vehicle.

In addition, BDC 60.55.7 states that "*if the existing control delay or volume-to-capacity ratio of an intersection is greater than the standards of this subsection, the impacts of development shall be mitigated to maintain or reduce the respective control delay or volume-to-capacity ratio*."

Washington County Intersection Operation Standards

Washington County requires a volume-to-capacity of less than 0.99 at both signalized and unsignalized intersections over the course of a 60-minute analysis period. Both SW 170th Avenue and W Baseline Road are owned and maintained by the County so a V/C of 0.99 applies to all study intersections.

Study Area Intersections

SW 170th Avenue and W Baseline Road are both classified as arterial streets per the City of Beaverton Transportation System Plan (TSP) and the Washington County TSP. Based on a review of City and County requirements, we propose to study the following intersections:

- SW 173rd Avenue/W Baseline Road;
- SW 170th Avenue/W Baseline Road
- SW Sullivan Lane/SW 170th Avenue;
- Proposed access on S Baseline Road;
- SW 170th Avenue/Tri Met Access/Proposed site access; and,
- Existing Access to the west of SW 173rd Avenue/W Baseline Road (for the purposes of the AMP only).

Study Time Periods

Construction completion and re-occupancy is anticipated by 2025. We propose to analyze existing and year 2025 conditions during the weekday AM and PM peak hours.

We propose to collect traffic counts during the weekday AM and PM peak hour in mid-January when school is in-session and review these counts with previously collected data in January 2020 to determine if any COVID-related adjustments are needed to represent typical conditions in 2022 (proxy counts).

We then propose to adjust the intersections to year 2025 conditions by applying a 2 percent annual growth rate. Would you please provide us with any in-process developments to include to add to the year 2025 volumes?

Trip Distribution

We propose to use the following trip distribution:

- 10 percent to/from the north;
- 20 percent to/from the west;
- 30 percent to/from the east; and,
- 40 percent to/from the south.

Access Review

We will review the vehicular queuing at the proposed access points to understand the need for turn lanes and associated storage lengths at each location. We will also evaluate queuing from the SW 170th Avenue/W Baseline Road intersection as well as the MAX light rail tracks, as applicable. Finally, we will compare the proposed access spacing relative to the County's access spacing requirements.

Safety Review

We will obtain and review the most recent crash records at the study intersections from the Oregon Department of Transportation. We will also review the County's Safety Priority Index System (SPIS) list to determine any safety-related trends.

Planning Year Considerations

The proposed site is located within Regional Transportation Analysis Zone (TAZ) 1158/City of Beaverton disaggregated TAZ 1158003. The impact of site redevelopment will be reviewed in the context of the City's TSP to identify potential unanticipated impacts on the transportation system.

The TAZ is generally bound by the MAX tracks, W Baseline Road to the north and SW 170th Avenue to the east. TAZ 1158003 includes a growth of 185 households, 140 retail employees, and 150 other employees between 2005 and 2035. Per Beaverton Development Code, the proposed uses are permitted within the

SC-MU zone. As such, we conclude that the proposed redevelopment is consistent with the existing zoning, the surrounding uses and the City's TSP. We will document this in the study.

Next Steps

We look forward to working with you on our study. Thank you for your assistance with this effort.

Appendix B Traffic Counts

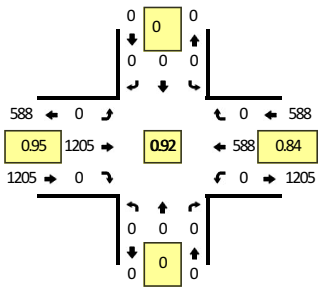
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

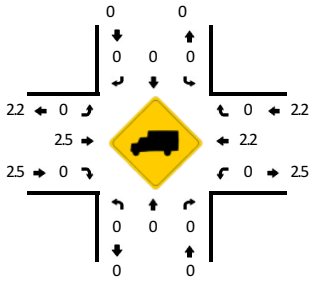
LOCATION: Existing Access -- W Baseline Rd
CITY/STATE: Beaverton, OR

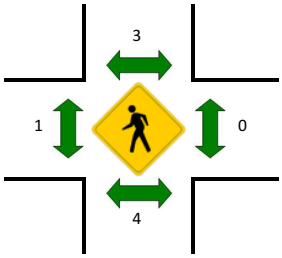
QC JOB #: 15677917
DATE: Tue, Feb 1 2022

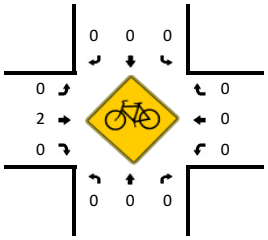
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

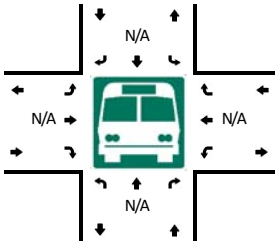


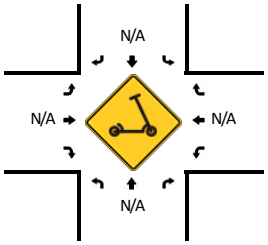
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	Existing Access (Northbound)				Existing Access (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	73	0	0	0	45	0	0	118	
7:05 AM	0	0	0	0	0	0	0	0	0	66	0	0	0	44	0	0	110	
7:10 AM	0	0	0	0	0	0	0	0	0	95	0	0	0	44	0	0	139	
7:15 AM	0	0	0	0	0	0	0	0	0	85	0	0	0	37	0	0	122	
7:20 AM	0	0	0	0	0	0	0	0	0	102	0	0	0	48	0	0	150	
7:25 AM	0	0	0	0	0	0	0	0	0	103	0	0	0	41	0	0	144	
7:30 AM	0	0	0	0	0	0	0	0	0	91	0	0	0	38	0	0	129	
7:35 AM	0	0	0	0	0	0	0	0	0	110	0	0	0	53	0	0	163	
7:40 AM	0	0	0	0	0	0	0	0	0	107	0	0	0	60	0	0	167	
7:45 AM	0	0	0	0	0	0	0	0	0	99	0	0	0	40	0	0	139	
7:50 AM	0	0	0	0	0	0	0	0	0	104	0	0	0	52	0	0	156	
7:55 AM	0	0	0	0	0	0	0	0	0	110	0	0	0	66	0	0	176	1713
8:00 AM	0	0	0	0	0	0	0	0	0	97	0	0	0	56	0	0	153	1748
8:05 AM	0	0	0	0	0	0	0	0	0	102	0	0	0	53	0	0	155	1793
8:10 AM	0	0	0	0	0	0	0	0	0	60	0	0	0	46	0	0	106	1760
8:15 AM	0	0	0	0	0	0	0	0	0	88	0	0	0	42	0	0	130	1768
8:20 AM	0	0	0	0	0	0	0	0	0	102	0	0	0	57	0	0	159	1777
8:25 AM	0	0	0	0	0	0	0	0	0	81	0	0	0	59	0	0	140	1773
8:30 AM	0	0	0	0	0	0	0	0	0	77	0	0	0	56	0	0	133	1777
8:35 AM	0	0	0	0	0	0	0	0	0	82	0	0	0	57	0	0	139	1753
8:40 AM	0	0	0	0	0	0	0	0	0	84	0	0	0	46	0	0	130	1716
8:45 AM	0	0	0	0	0	0	0	0	0	76	0	0	0	47	0	0	123	1700
8:50 AM	0	0	0	0	0	0	0	0	0	88	0	0	0	41	0	0	129	1673
8:55 AM	0	0	0	0	0	0	0	0	0	61	0	0	0	49	0	0	110	1607

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	1244	0	0	0	696	0	0	1940
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	16	0		40
Buses																	
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

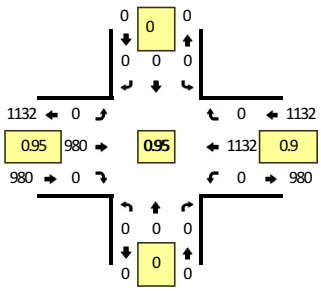
Type of peak hour being reported: Intersection Peak

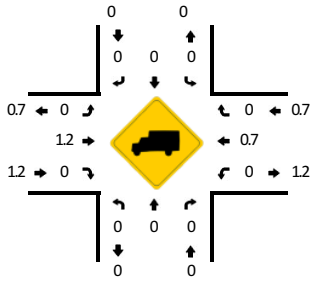
Method for determining peak hour: Total Entering Volume

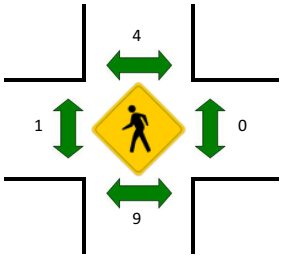
LOCATION: Existing Access -- W Baseline Rd
CITY/STATE: Beaverton, OR

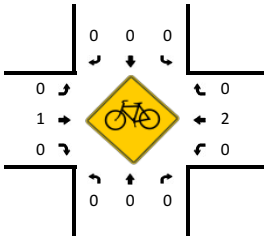
QC JOB #: 15677918
DATE: Tue, Feb 1 2022

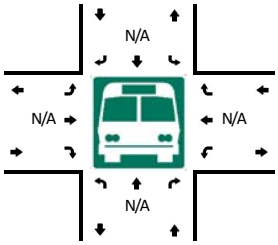
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

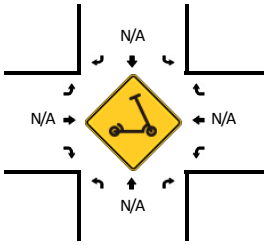












5-Min Count Period Beginning At	Existing Access (Northbound)				Existing Access (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	65	0	0	0	75	0	0	140	
4:05 PM	0	0	0	0	0	0	0	0	0	70	0	0	0	68	0	0	138	
4:10 PM	0	0	0	0	0	0	0	0	0	60	0	0	0	121	0	0	181	
4:15 PM	0	0	0	0	0	0	0	0	0	63	0	0	0	84	0	0	147	
4:20 PM	0	0	0	0	0	0	0	0	0	77	0	0	0	89	0	0	166	
4:25 PM	0	0	0	0	0	0	0	0	0	80	0	0	0	74	0	0	154	
4:30 PM	0	0	0	0	0	0	0	0	0	93	0	0	0	82	0	0	175	
4:35 PM	0	0	0	0	0	0	0	0	0	64	0	0	0	84	0	0	148	
4:40 PM	0	0	0	0	0	0	0	0	0	69	0	0	0	99	0	0	168	
4:45 PM	0	0	0	0	0	0	0	0	0	98	0	0	0	94	0	0	192	
4:50 PM	0	0	0	0	0	0	0	0	0	87	0	0	0	86	0	0	173	
4:55 PM	0	0	0	0	0	0	0	0	0	70	0	0	0	74	0	0	144	1926
5:00 PM	0	0	0	0	0	0	0	0	0	99	0	0	0	108	0	0	207	1993
5:05 PM	0	0	0	0	0	0	0	0	0	81	0	0	0	88	0	0	169	2024
5:10 PM	0	0	0	0	0	0	0	0	0	79	0	0	0	103	0	0	182	2025
5:15 PM	0	0	0	0	0	0	0	0	0	79	0	0	0	111	0	0	190	2068
5:20 PM	0	0	0	0	0	0	0	0	0	83	0	0	0	102	0	0	185	2087
5:25 PM	0	0	0	0	0	0	0	0	0	76	0	0	0	79	0	0	155	2088
5:30 PM	0	0	0	0	0	0	0	0	0	70	0	0	0	96	0	0	166	2079
5:35 PM	0	0	0	0	0	0	0	0	0	89	0	0	0	92	0	0	181	2112
5:40 PM	0	0	0	0	0	0	0	0	0	68	0	0	0	100	0	0	168	2112
5:45 PM	0	0	0	0	0	0	0	0	0	76	0	0	0	83	0	0	159	2079
5:50 PM	0	0	0	0	0	0	0	0	0	61	0	0	0	120	0	0	181	2087
5:55 PM	0	0	0	0	0	0	0	0	0	68	0	0	0	86	0	0	154	2097

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	1036	0	0	0	1196	0	0	2232
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	8	0		16
Buses																	
Pedestrians		8				12				4				0			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

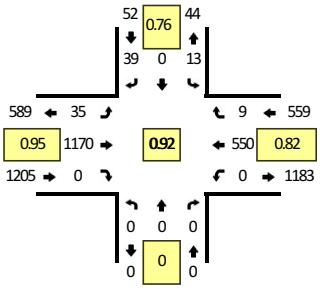
Type of peak hour being reported: Intersection Peak

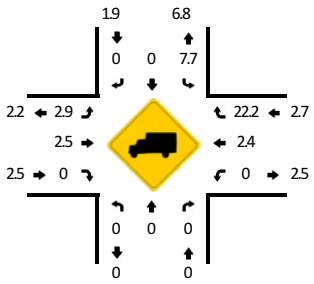
Method for determining peak hour: Total Entering Volume

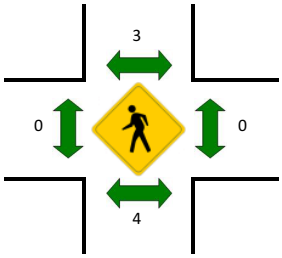
LOCATION: SW 173rd Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

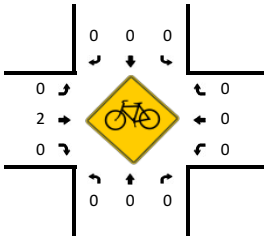
QC JOB #: 15677901
DATE: Tue, Feb 1 2022

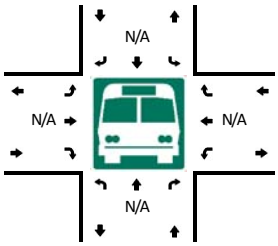
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

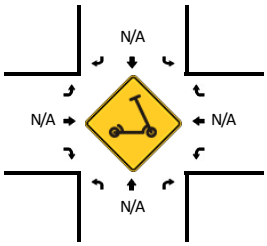












5-Min Count Period Beginning At	SW 173rd Ave (Northbound)				SW 173rd Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	4	0	1	71	0	0	0	44	2	0	123	
7:05 AM	0	0	0	0	0	0	3	0	3	64	0	0	0	38	0	0	108	
7:10 AM	0	0	0	0	1	0	2	0	1	94	0	0	0	43	3	0	144	
7:15 AM	0	0	0	0	4	0	4	0	2	83	0	0	0	32	0	0	125	
7:20 AM	0	0	0	0	1	0	3	0	5	98	0	0	0	45	2	0	154	
7:25 AM	0	0	0	0	0	0	5	0	0	102	0	0	0	37	0	0	144	
7:30 AM	0	0	0	0	2	0	5	0	3	88	0	0	0	32	1	0	131	
7:35 AM	0	0	0	0	0	0	5	0	4	106	0	0	0	48	0	0	163	
7:40 AM	0	0	0	0	0	0	4	0	2	105	0	0	0	56	1	0	168	
7:45 AM	0	0	0	0	1	0	1	0	5	94	0	0	0	42	0	0	143	
7:50 AM	0	0	0	0	0	0	2	0	4	100	0	0	0	46	0	0	152	
7:55 AM	0	0	0	0	1	0	1	0	3	107	0	0	0	66	0	0	178	1733
8:00 AM	0	0	0	0	2	0	5	0	5	92	0	0	0	50	2	0	156	1766
8:05 AM	0	0	0	0	1	0	2	0	1	101	0	0	0	53	0	0	158	1816
8:10 AM	0	0	0	0	2	0	4	0	2	58	0	0	0	41	2	0	109	1781
8:15 AM	0	0	0	0	0	0	5	0	7	81	0	0	0	39	0	0	132	1788
8:20 AM	0	0	0	0	2	0	6	0	5	97	0	0	0	51	1	0	162	1796
8:25 AM	0	0	0	0	0	0	4	0	4	76	0	0	0	55	0	0	139	1791
8:30 AM	0	0	0	0	0	0	4	0	6	71	0	0	0	52	3	0	136	1796
8:35 AM	0	0	0	0	1	0	9	0	5	76	0	1	0	47	1	0	140	1773
8:40 AM	0	0	0	0	3	0	3	0	4	80	0	0	0	44	0	0	134	1739
8:45 AM	0	0	0	0	0	0	4	0	2	74	0	0	0	43	1	0	124	1720
8:50 AM	0	0	0	0	1	0	3	0	4	85	0	0	0	37	3	0	133	1701
8:55 AM	0	0	0	0	0	0	2	0	3	59	0	0	0	47	0	0	111	1634

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	32	0	36	1200	0	0	0	676	8	0	1968
Heavy Trucks	0	0	0		0	0	0		0	32	0		0	12	8		52
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

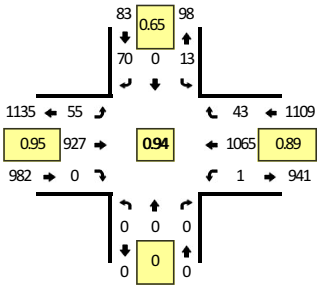
Type of peak hour being reported: Intersection Peak

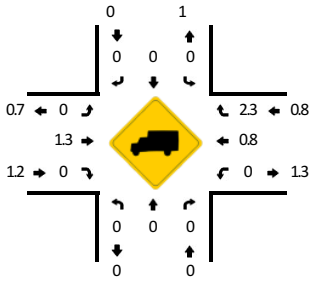
Method for determining peak hour: Total Entering Volume

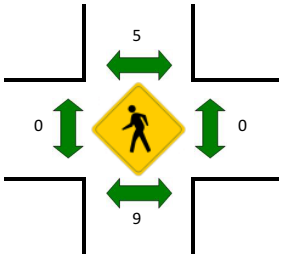
LOCATION: SW 173rd Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

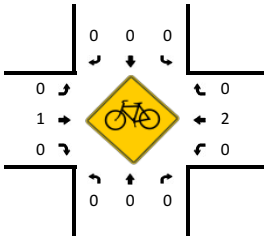
QC JOB #: 15677902
DATE: Tue, Feb 1 2022

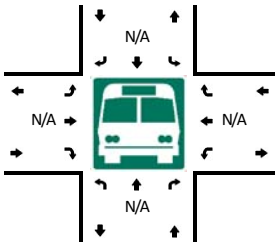
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

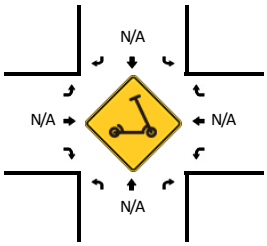












5-Min Count Period Beginning At	SW 173rd Ave (Northbound)				SW 173rd Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	1	0	5	0	3	61	0	0	0	74	2	0	146	
4:05 PM	0	0	0	0	2	0	8	0	5	65	0	0	0	57	3	0	140	
4:10 PM	0	0	0	0	0	0	11	0	2	59	0	0	0	110	0	0	182	
4:15 PM	0	0	0	0	1	0	3	0	3	59	0	0	0	82	0	0	148	
4:20 PM	0	0	0	0	1	0	8	0	5	72	0	0	0	86	2	0	174	
4:25 PM	0	0	0	0	0	0	4	0	5	76	0	0	0	64	2	0	151	
4:30 PM	0	0	0	0	0	0	3	0	3	89	0	0	0	81	1	0	177	
4:35 PM	0	0	0	0	1	0	5	0	4	60	0	0	0	77	1	0	148	
4:40 PM	0	0	0	0	2	0	2	0	7	62	0	0	0	100	4	0	177	
4:45 PM	0	0	0	0	1	0	10	0	4	95	0	0	0	82	1	0	193	
4:50 PM	0	0	0	0	0	0	5	0	5	81	0	0	0	82	6	1	180	
4:55 PM	0	0	0	0	2	0	5	0	4	68	0	0	0	68	3	0	150	1966
5:00 PM	0	0	0	0	1	0	3	0	7	91	0	0	0	107	5	0	214	2034
5:05 PM	0	0	0	0	1	0	16	0	2	80	0	0	0	70	4	0	173	2067
5:10 PM	0	0	0	0	2	0	4	0	3	76	0	0	0	105	1	0	191	2076
5:15 PM	0	0	0	0	2	0	7	0	3	76	0	0	0	98	7	0	193	2121
5:20 PM	0	0	0	0	2	0	3	0	5	78	0	0	0	99	3	0	190	2137
5:25 PM	0	0	0	0	0	0	7	0	4	71	0	0	0	73	7	0	162	2148
5:30 PM	0	0	0	0	0	0	2	0	4	67	0	0	0	96	2	0	171	2142
5:35 PM	0	0	0	0	0	0	6	0	7	82	0	0	0	85	0	0	180	2174
5:40 PM	0	0	0	0	2	0	5	0	5	63	0	0	0	95	4	0	174	2171
5:45 PM	0	0	0	0	0	0	4	0	3	73	0	0	0	79	0	0	159	2137
5:50 PM	0	0	0	0	0	0	5	0	1	59	0	0	0	119	0	0	184	2141
5:55 PM	0	0	0	0	0	0	5	0	0	68	0	0	0	76	2	0	151	2142

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	92	0	48	988	0	0	0	1128	40	0	2312
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	8	0		16
Buses																	
Pedestrians		8				8				0				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

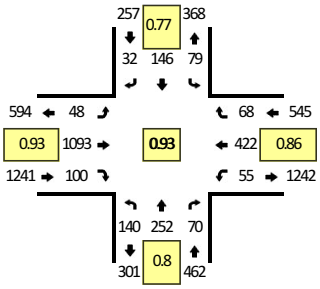
Type of peak hour being reported: Intersection Peak

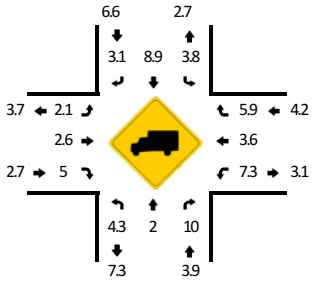
Method for determining peak hour: Total Entering Volume

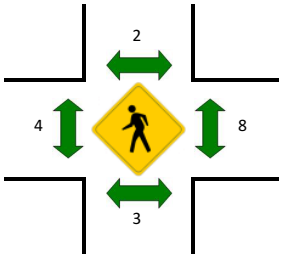
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

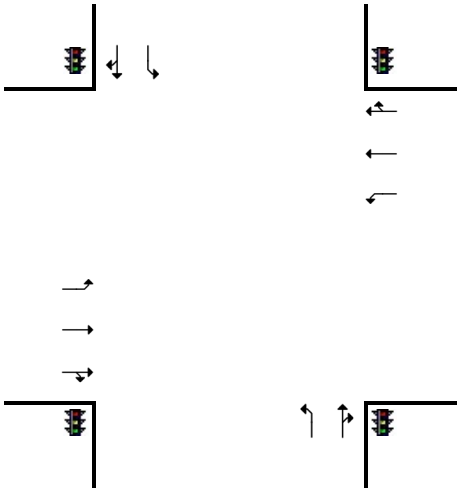
QC JOB #: 15677905
DATE: Tue, Feb 8 2022

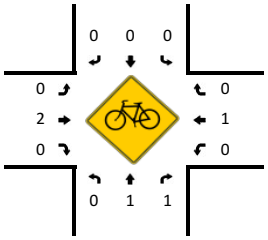
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

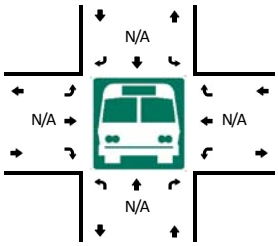


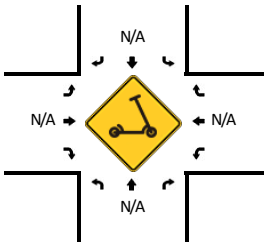












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	9	18	3	0	3	14	0	0	3	68	17	0	5	27	4	0	171	
7:05 AM	5	9	6	0	4	11	3	0	5	55	9	0	4	22	2	0	135	
7:10 AM	17	31	6	0	4	16	2	0	4	72	11	0	5	34	4	0	206	
7:15 AM	2	7	3	0	4	16	1	0	4	74	6	0	3	31	3	0	154	
7:20 AM	15	33	5	0	4	15	1	0	2	81	5	0	4	35	2	0	202	
7:25 AM	3	15	12	0	5	7	2	0	4	120	8	0	6	25	4	0	211	
7:30 AM	10	23	5	0	9	19	6	0	5	89	8	0	3	31	5	0	213	
7:35 AM	6	9	7	0	9	17	4	0	3	68	7	0	5	38	11	0	184	
7:40 AM	17	28	7	0	7	9	3	0	4	118	7	0	3	47	10	0	260	
7:45 AM	16	26	4	0	6	8	1	0	3	108	8	0	1	38	6	0	225	
7:50 AM	15	24	7	0	6	12	5	0	2	75	4	0	2	32	4	0	188	
7:55 AM	8	27	1	0	10	12	2	0	5	113	15	0	4	39	4	0	240	2389
8:00 AM	15	26	1	0	7	9	5	0	4	82	10	0	4	35	7	0	205	2423
8:05 AM	6	13	3	0	7	13	2	0	4	76	4	0	4	39	6	0	177	2465
8:10 AM	16	20	13	0	4	9	0	0	6	74	10	0	9	27	3	0	191	2450
8:15 AM	13	8	5	0	5	16	1	0	6	89	14	0	10	36	6	0	209	2505
8:20 AM	15	15	5	0	5	5	3	0	4	74	5	0	10	45	12	0	198	2501
8:25 AM	8	16	1	0	6	0	0	0	7	63	14	0	5	36	5	0	161	2451
8:30 AM	6	12	11	0	7	19	2	0	5	71	14	0	10	25	8	0	190	2428
8:35 AM	17	19	6	0	9	13	2	0	4	34	3	0	5	33	3	0	148	2392
8:40 AM	14	21	3	0	8	14	1	0	5	80	9	0	3	36	6	0	200	2332
8:45 AM	18	21	4	0	7	13	1	0	6	81	2	0	5	38	7	0	203	2310
8:50 AM	0	13	8	0	4	6	0	0	4	53	5	0	3	40	4	0	140	2262
8:55 AM	8	14	9	0	3	7	1	0	9	56	8	0	7	47	10	0	179	2201

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	192	312	72	0	76	116	36	0	36	1204	76	0	24	468	80	0	2692
Heavy Trucks	12	0	12		4	16	4		0	28	12		4	24	4		120
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	4		0	0	0		0	8	0		0	4	0		20
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

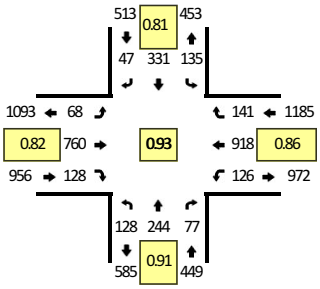
Type of peak hour being reported: Intersection Peak

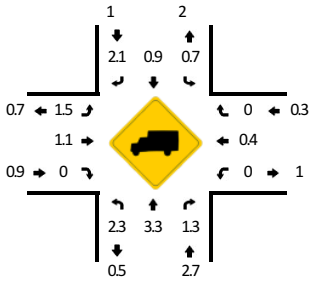
Method for determining peak hour: Total Entering Volume

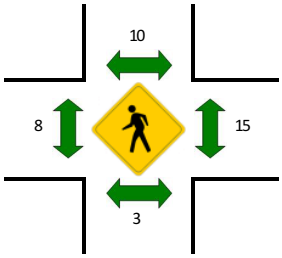
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

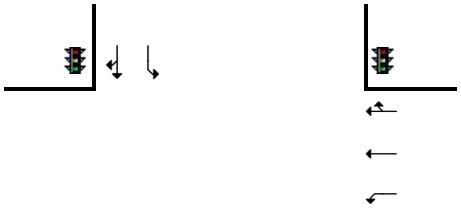
QC JOB #: 15677906
DATE: Tue, Feb 8 2022

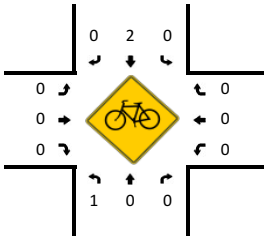
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

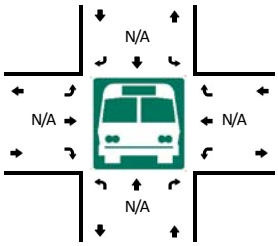


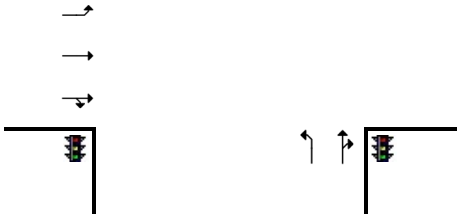


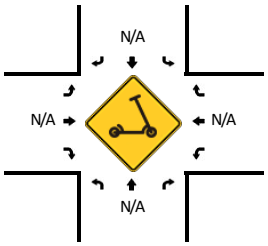












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	13	14	3	0	8	17	1	0	4	64	10	0	9	99	14	0	256	
4:05 PM	11	23	4	0	6	37	7	0	6	35	6	0	12	71	9	0	227	
4:10 PM	13	18	6	0	8	21	3	0	7	52	12	0	10	70	7	0	227	
4:15 PM	12	17	10	0	10	35	4	0	5	47	15	0	6	58	10	0	229	
4:20 PM	6	12	9	0	7	16	1	0	9	67	17	0	13	97	14	0	268	
4:25 PM	15	29	8	0	10	29	4	0	9	41	10	0	12	50	4	0	221	
4:30 PM	12	18	2	0	11	14	2	0	9	67	7	0	14	83	11	0	250	
4:35 PM	19	22	9	0	12	29	5	0	12	45	7	0	5	60	12	0	237	
4:40 PM	7	14	10	0	11	19	3	0	7	66	8	0	13	84	10	0	252	
4:45 PM	14	31	9	0	12	25	4	0	3	52	14	0	8	70	6	0	248	
4:50 PM	10	17	8	0	11	25	3	0	4	88	13	0	7	79	16	0	281	
4:55 PM	6	22	6	0	6	30	4	0	4	43	9	0	17	42	4	0	193	2889
5:00 PM	13	19	1	0	6	15	3	0	9	107	14	0	8	77	13	0	285	2918
5:05 PM	12	17	2	0	11	38	1	0	4	44	9	0	10	49	9	0	206	2897
5:10 PM	10	14	13	0	12	30	2	0	4	68	7	0	12	95	16	0	283	2953
5:15 PM	11	25	7	0	18	35	9	0	10	47	10	0	9	71	14	0	266	2990
5:20 PM	10	19	8	0	8	24	2	0	7	73	7	0	12	93	20	0	283	3005
5:25 PM	8	28	7	0	18	39	6	0	6	47	11	0	5	69	9	0	253	3037
5:30 PM	11	17	4	0	9	23	5	0	6	68	13	0	10	90	11	0	267	3054
5:35 PM	14	22	6	0	20	34	5	0	5	59	15	0	16	77	11	0	284	3101
5:40 PM	9	13	6	0	4	13	3	0	6	64	6	0	12	106	12	0	254	3103
5:45 PM	16	27	10	0	11	14	5	0	6	43	6	0	9	78	3	0	228	3083
5:50 PM	11	12	6	0	4	19	6	0	14	55	7	0	14	84	13	0	245	3047
5:55 PM	13	22	4	0	5	19	3	0	3	46	6	0	3	58	11	0	193	3047

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	124	232	112	0	152	356	52	0	84	752	96	0	132	1036	200	0	3328
Heavy Trucks	4	0	0		4	4	0		0	12	0		0	4	0		28
Buses																	
Pedestrians		8				8				4				8			28
Bicycles	0	0	0		0	8	0		0	0	0		0	0	0		8
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

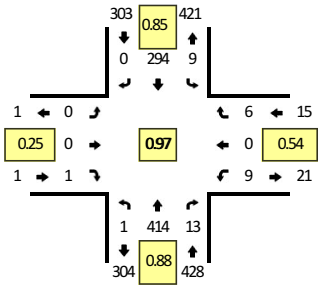
Type of peak hour being reported: Intersection Peak

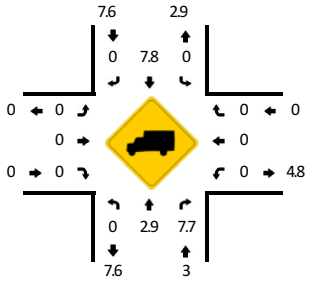
Method for determining peak hour: Total Entering Volume

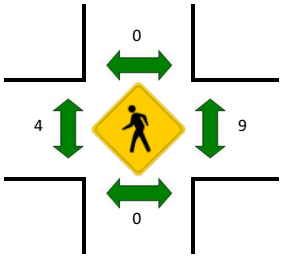
LOCATION: SW 170th Ave -- TriMet Access
CITY/STATE: Beaverton, OR

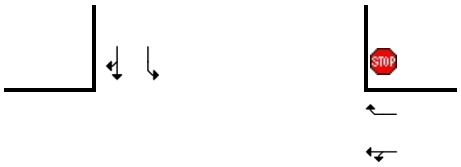
QC JOB #: 15677913
DATE: Tue, Feb 1 2022

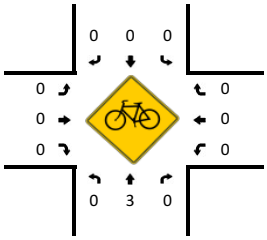
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

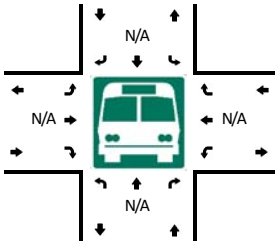


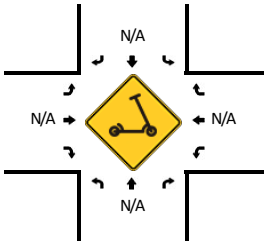












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				TriMet Access (Eastbound)				TriMet Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	30	0	0	1	21	0	0	0	0	0	0	0	0	0	0	52	
7:05 AM	0	30	0	0	1	23	0	0	0	0	0	0	1	0	1	0	56	
7:10 AM	0	41	0	0	1	23	0	0	0	0	0	0	0	0	1	0	66	
7:15 AM	0	42	0	0	0	26	0	0	0	0	0	0	0	0	0	0	68	
7:20 AM	0	23	1	0	0	12	0	0	0	0	0	0	2	0	1	0	39	
7:25 AM	0	40	0	0	0	27	0	0	0	0	0	0	1	0	0	0	68	
7:30 AM	1	26	3	0	0	23	0	0	0	0	0	0	0	0	1	0	54	
7:35 AM	0	35	2	0	0	20	0	0	0	0	0	0	3	0	1	0	61	
7:40 AM	0	42	0	0	1	31	0	0	0	0	0	0	0	0	0	0	74	
7:45 AM	0	37	1	0	1	14	0	0	0	0	0	0	1	0	0	0	54	
7:50 AM	0	36	1	0	1	25	0	0	0	0	0	0	0	0	0	0	63	
7:55 AM	0	42	0	0	0	20	0	1	0	0	1	0	1	0	3	0	68	723
8:00 AM	0	39	3	0	2	16	0	0	0	0	0	0	2	0	0	0	62	733
8:05 AM	0	24	2	0	0	35	0	0	0	0	0	0	0	0	1	0	62	739
8:10 AM	0	32	0	0	1	20	0	0	0	0	0	0	0	0	0	0	53	726
8:15 AM	0	32	0	0	2	31	0	0	0	0	0	0	0	0	0	0	65	723
8:20 AM	0	29	1	0	0	32	0	0	0	0	0	0	1	0	0	0	63	747
8:25 AM	0	34	1	0	0	23	0	0	0	0	0	0	1	0	1	0	60	739
8:30 AM	0	44	0	0	0	17	0	0	0	0	0	0	0	0	0	0	61	746
8:35 AM	0	24	1	0	1	16	0	0	0	0	0	0	0	0	0	0	42	727
8:40 AM	0	26	2	0	1	27	0	0	0	0	0	0	0	0	2	0	58	711
8:45 AM	0	44	1	0	1	17	0	0	0	0	0	0	0	0	1	0	64	721
8:50 AM	0	22	1	0	2	18	0	1	0	0	0	0	0	0	0	0	44	702
8:55 AM	0	30	0	0	1	13	0	0	0	0	0	0	0	0	1	0	45	679

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	468	16	0	12	244	0	4	0	0	4	0	12	0	12	0	772
Heavy Trucks	0	12	0		0	4	0		0	0	0		0	0	0		16
Buses																	
Pedestrians		0				0				4				16			20
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

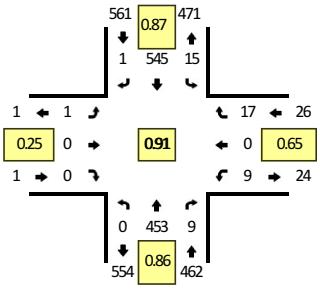
Type of peak hour being reported: Intersection Peak

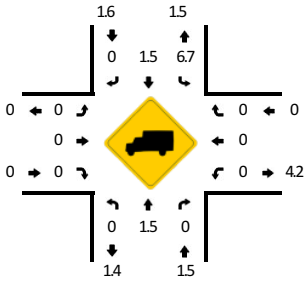
Method for determining peak hour: Total Entering Volume

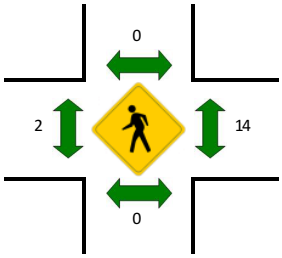
LOCATION: SW 170th Ave -- TriMet Access
CITY/STATE: Beaverton, OR

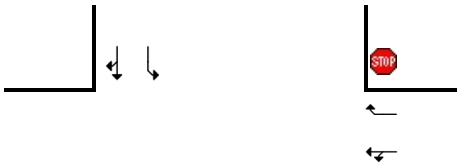
QC JOB #: 15677914
DATE: Tue, Feb 1 2022

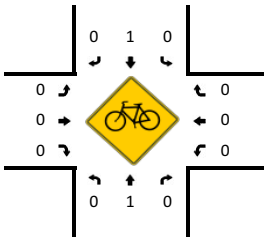
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

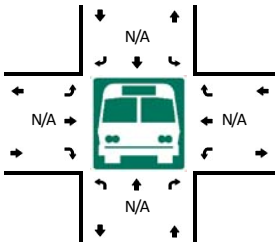


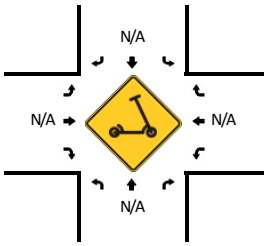












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				TriMet Access (Eastbound)				TriMet Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	22	1	0	4	31	0	0	0	0	0	0	1	0	2	0	61	
4:05 PM	0	37	0	0	1	52	0	0	0	0	0	0	3	0	5	0	98	
4:10 PM	0	34	1	0	2	46	0	0	0	0	0	0	1	0	1	0	85	
4:15 PM	0	31	1	0	1	48	0	0	0	0	0	0	0	0	0	0	81	
4:20 PM	0	27	1	0	1	37	0	0	0	0	0	0	3	0	1	0	70	
4:25 PM	0	27	0	0	2	25	0	0	0	0	0	0	0	0	0	0	54	
4:30 PM	0	44	0	0	1	39	0	0	0	0	0	0	2	0	2	0	88	
4:35 PM	0	43	0	0	1	41	0	0	0	0	0	0	0	0	2	0	87	
4:40 PM	0	43	1	0	1	42	0	0	0	0	0	0	0	0	1	0	88	
4:45 PM	0	46	1	0	1	47	0	0	0	0	0	0	2	0	0	0	97	
4:50 PM	0	35	0	0	0	47	0	0	0	0	0	0	1	0	3	0	86	
4:55 PM	0	32	0	0	1	45	0	0	0	0	0	0	1	0	2	0	81	976
5:00 PM	0	40	1	0	0	24	0	0	0	0	0	0	1	0	0	0	66	981
5:05 PM	0	42	2	0	1	56	0	0	0	0	0	0	0	0	1	0	102	985
5:10 PM	0	36	1	0	3	47	0	0	0	0	0	0	1	0	0	0	88	988
5:15 PM	0	41	0	0	2	53	0	0	0	0	0	0	0	0	1	0	97	1004
5:20 PM	0	24	1	0	1	54	0	0	0	0	0	0	2	0	2	0	84	1018
5:25 PM	0	30	1	0	2	45	1	0	0	0	0	0	0	0	1	0	80	1044
5:30 PM	0	41	1	0	2	44	0	0	1	0	0	0	1	0	4	0	94	1050
5:35 PM	0	18	1	0	0	51	0	0	0	0	0	0	1	0	2	0	73	1036
5:40 PM	0	27	1	0	1	27	0	0	0	0	0	0	2	0	0	0	58	1006
5:45 PM	0	37	2	0	0	32	0	0	0	0	0	0	2	0	3	0	76	985
5:50 PM	0	34	1	0	1	34	0	0	0	0	0	0	0	0	0	0	70	969
5:55 PM	0	35	1	0	1	34	0	0	0	0	0	0	0	0	0	0	71	959

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	476	12	0	24	624	0	0	0	0	0	0	4	0	8	0	1148
Heavy Trucks	0	8	0		0	4	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

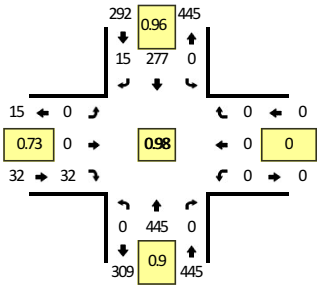
Type of peak hour being reported: Intersection Peak

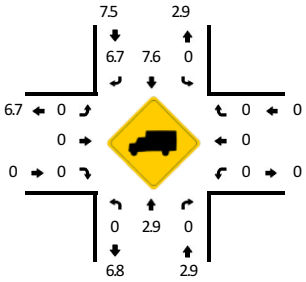
Method for determining peak hour: Total Entering Volume

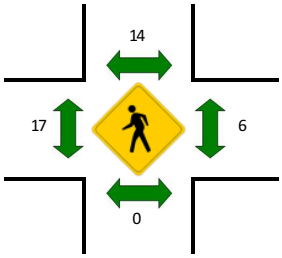
LOCATION: SW 170th Ave -- SW Sullivan Ln
CITY/STATE: Beaverton, OR

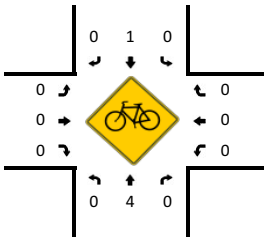
QC JOB #: 15677909
DATE: Tue, Feb 1 2022

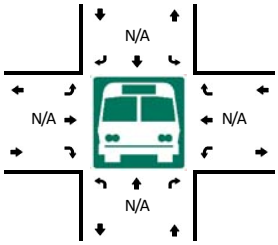
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

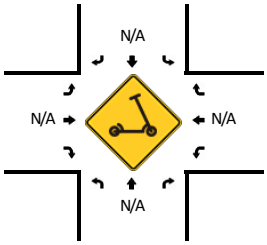












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				SW Sullivan Ln (Eastbound)				SW Sullivan Ln (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	31	0	0	0	20	1	0	0	0	5	0	0	0	0	0	57	
7:05 AM	0	30	0	0	0	15	0	0	0	0	1	0	0	0	0	0	46	
7:10 AM	0	40	0	0	0	32	1	0	0	0	4	0	0	0	0	0	77	
7:15 AM	0	43	0	0	0	25	1	0	0	0	3	0	0	0	0	0	72	
7:20 AM	0	24	0	0	0	15	0	0	0	0	3	0	0	0	0	0	42	
7:25 AM	0	41	0	0	0	27	0	0	0	0	2	0	0	0	0	0	70	
7:30 AM	0	37	0	0	0	20	2	0	0	0	1	0	0	0	0	0	60	
7:35 AM	0	32	0	0	0	22	1	0	0	0	4	0	0	0	0	0	59	
7:40 AM	0	42	0	0	0	29	2	0	0	0	3	0	0	0	0	0	76	
7:45 AM	0	36	0	0	0	15	1	0	0	0	1	0	0	0	0	0	53	
7:50 AM	0	39	0	0	0	21	3	0	0	0	0	0	0	0	0	0	63	
7:55 AM	0	43	0	0	0	20	1	0	0	0	3	0	0	0	0	0	67	742
8:00 AM	0	42	0	0	0	19	0	0	0	0	3	0	0	0	0	0	64	749
8:05 AM	0	26	0	0	0	32	3	0	0	0	5	0	0	0	0	0	66	769
8:10 AM	0	31	0	0	0	19	1	0	0	0	4	0	0	0	0	0	55	747
8:15 AM	0	33	0	0	0	30	1	0	0	0	1	0	0	0	0	0	65	740
8:20 AM	0	29	0	0	0	30	2	0	0	0	7	0	0	0	0	0	68	766
8:25 AM	0	36	0	0	0	25	0	0	0	0	0	0	0	0	0	0	61	757
8:30 AM	0	45	0	0	0	16	1	0	0	0	6	0	0	0	0	0	68	765
8:35 AM	0	24	0	0	0	16	0	0	0	0	6	0	0	0	0	0	46	752
8:40 AM	0	31	0	0	0	28	0	0	0	0	2	0	0	0	0	0	61	737
8:45 AM	0	42	0	0	0	14	1	0	0	0	0	0	0	0	0	0	57	741
8:50 AM	0	27	0	0	0	11	3	0	0	0	1	0	0	0	0	0	42	720
8:55 AM	0	26	0	0	0	16	3	0	0	0	2	0	0	0	0	0	47	700

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	444	0	0	0	284	16	0	0	0	44	0	0	0	0	0	788
Heavy Trucks	0	12	0		0	8	0		0	0	0		0	0	0		20
Buses																	
Pedestrians		0				8				40				4			52
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

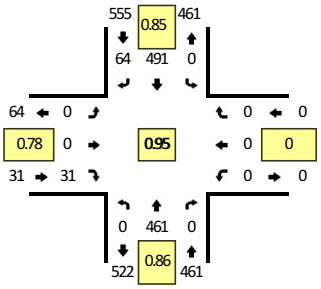
Type of peak hour being reported: Intersection Peak

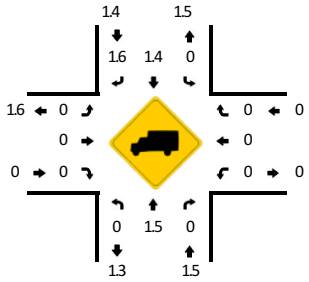
Method for determining peak hour: Total Entering Volume

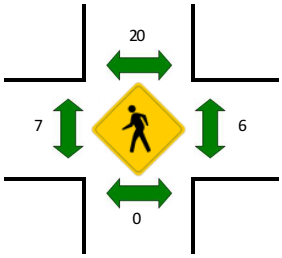
LOCATION: SW 170th Ave -- SW Sullivan Ln
CITY/STATE: Beaverton, OR

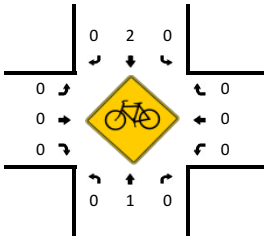
QC JOB #: 15677910
DATE: Tue, Feb 1 2022

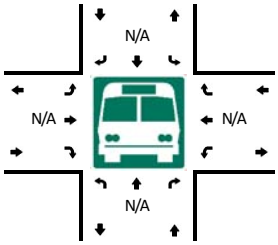
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

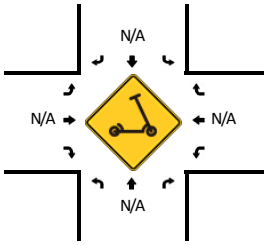












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				SW Sullivan Ln (Eastbound)				SW Sullivan Ln (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	24	0	0	0	33	3	0	0	0	1	0	0	0	0	0	61	
4:05 PM	0	37	0	0	0	42	7	0	0	0	4	0	0	0	0	0	90	
4:10 PM	0	35	0	0	0	52	2	0	0	0	0	0	0	0	0	0	89	
4:15 PM	0	32	0	0	0	40	6	0	0	0	2	0	0	0	0	0	80	
4:20 PM	0	28	0	0	0	39	5	0	0	0	0	0	0	0	0	0	72	
4:25 PM	0	26	0	0	0	19	3	0	0	0	0	0	0	0	0	0	48	
4:30 PM	0	45	0	0	0	35	7	0	0	0	1	0	0	0	0	0	88	
4:35 PM	0	44	0	0	0	34	5	0	0	0	4	0	0	0	0	0	87	
4:40 PM	0	43	0	0	0	38	6	0	0	0	1	0	0	0	0	0	88	
4:45 PM	0	47	0	0	0	40	5	0	0	0	2	0	0	0	0	0	94	
4:50 PM	0	35	0	0	0	46	6	0	0	0	2	0	0	0	0	0	89	
4:55 PM	0	32	0	0	0	40	1	0	0	0	2	0	0	0	0	0	75	961
5:00 PM	0	41	0	0	0	29	3	0	0	0	4	0	0	0	0	0	77	977
5:05 PM	0	45	0	0	0	40	10	0	0	0	4	0	0	0	0	0	99	986
5:10 PM	0	35	0	0	0	43	8	0	0	0	1	0	0	0	0	0	87	984
5:15 PM	0	41	0	0	0	44	3	0	0	0	1	0	0	0	0	0	89	993
5:20 PM	0	25	0	0	0	59	6	0	0	0	2	0	0	0	0	0	92	1013
5:25 PM	0	31	0	0	0	36	4	0	0	0	5	0	0	0	0	0	76	1041
5:30 PM	0	42	0	0	0	42	7	0	0	0	3	0	0	0	0	0	94	1047
5:35 PM	0	20	0	0	0	41	4	0	0	0	1	0	0	0	0	0	66	1026
5:40 PM	0	27	0	0	0	25	12	0	0	0	3	0	0	0	0	0	67	1005
5:45 PM	0	39	0	0	0	27	3	0	0	0	1	0	0	0	0	0	70	981
5:50 PM	0	36	0	0	0	26	6	0	0	0	0	0	0	0	0	0	68	960
5:55 PM	0	35	0	0	0	31	7	0	0	0	3	0	0	0	0	0	76	961

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	484	0	0	0	508	84	0	0	0	24	0	0	0	0	0	1100
Heavy Trucks	0	8	0		0	4	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				12				8				12			32
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/15/2022 1:09 PM

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

Appendix C Existing Conditions Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	83.5
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	0	0	10	0	42	41	1242	1	4	586	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	10.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	38.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	10	0	42	41	1242	1	4	586	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	0	12	11	341	0	1	161	2
Total Analysis Volume [veh/h]	1	0	0	11	0	46	45	1365	1	4	644	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.13	0.00	0.07	0.05	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	83.48	81.11	15.75	50.60	82.08	13.40	9.07	0.00	0.00	12.12	0.00	0.00
Movement LOS	F	F	C	F	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.72	0.72	0.72	0.15	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.62	1.62	1.62	18.07	18.07	18.07	3.81	0.00	0.00	0.59	0.00	0.00
d_A, Approach Delay [s/veh]	83.48			20.58			0.29			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	0.81											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	34.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	142	253	70	79	163	33	48	1093	111	55	423	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	4.00	9.00	3.00	2.00	3.00	5.00	7.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	253	70	79	163	33	48	1093	111	55	423	68
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	68	19	21	44	9	13	294	30	15	114	18
Total Analysis Volume [veh/h]	153	272	75	85	175	35	52	1175	119	59	455	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	0	14	35	0	12	47	0	12	47	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.50	5.00	4.75	5.50	5.50	4.00	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	39	29	39	29	63	53	53	63	30	30
g / C, Green / Cycle	0.35	0.26	0.35	0.26	0.58	0.48	0.48	0.58	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.11	0.19	0.07	0.12	0.04	0.35	0.36	0.09	0.15	0.15
s, saturation flow rate [veh/h]	1338	1801	1246	1714	1381	1855	1796	666	1840	1753
c, Capacity [veh/h]	362	468	260	447	703	892	863	294	502	478
d1, Uniform Delay [s]	50.20	46.61	42.87	34.28	18.85	22.94	23.00	33.87	34.08	34.13
k, delay calibration	0.11	0.19	0.11	0.11	0.13	0.50	0.50	0.50	0.04	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.78	4.02	0.73	0.77	0.05	5.37	5.63	1.53	0.36	1.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.74	0.33	0.47	0.07	0.74	0.74	0.20	0.54	0.54
d, Delay for Lane Group [s/veh]	50.99	50.63	43.59	35.05	18.90	28.31	28.63	35.40	34.44	35.28
Lane Group LOS	D	D	D	D	B	C	C	D	C	D
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.08	10.51	1.54	4.75	0.51	13.84	13.55	0.70	5.94	5.81
50th-Percentile Queue Length [ft/ln]	102.01	262.79	38.59	118.81	12.86	346.01	338.77	17.49	148.48	145.30
95th-Percentile Queue Length [veh/ln]	7.34	15.83	2.78	8.33	0.93	19.94	19.59	1.26	9.94	9.77
95th-Percentile Queue Length [ft/ln]	183.62	395.71	69.47	208.19	23.15	498.55	489.69	31.49	248.40	244.14

Movement, Approach, & Intersection Results

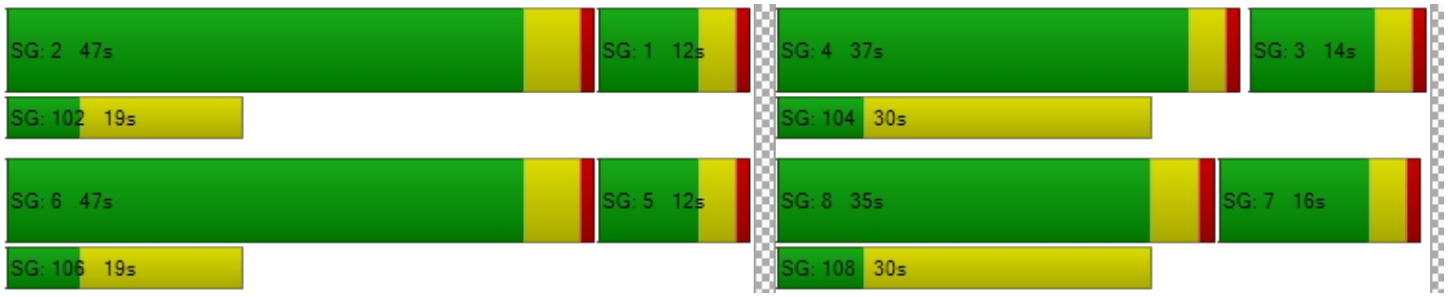
d_M, Delay for Movement [s/veh]	50.99	50.63	50.63	43.59	35.05	35.05	18.90	28.45	28.63	35.40	34.78	35.28
Movement LOS	D	D	D	D	D	D	B	C	C	D	C	D
d_A, Approach Delay [s/veh]	50.74			37.51			28.10			34.90		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	34.73											
Intersection LOS	C											
Intersection V/C	0.652											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	45.45	45.45	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersection	2.302	2.263	3.101	2.979
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	545	755	755
d_b, Bicycle Delay [s]	26.95	29.09	21.33	21.33
l_b,int, Bicycle LOS Score for Intersection	2.385	2.046	2.670	2.044
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.043

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		30.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	506	283	15	0	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	9.00	7.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	506	283	15	0	30
Peak Hour Factor	1.0000	0.9400	0.9400	0.9400	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	135	75	4	0	8
Total Analysis Volume [veh/h]	0	538	301	16	0	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.06
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.13
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	3.37
d_A, Approach Delay [s/veh]	0.00		0.00		10.06	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/Site Access/TriMet Park and Ride

Control Type:	Two-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.051

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	451	54	37	285	0	0	0	1	12	0	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	451	54	37	285	0	0	0	1	12	0	8
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	120	14	10	76	0	0	0	0	3	0	2
Total Analysis Volume [veh/h]	1	480	57	39	303	0	0	0	1	13	0	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.02
d_M, Delay for Movement [s/veh]	7.84	0.00	0.00	8.59	0.00	0.00	18.71	18.72	9.86	19.77	18.95	11.76
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.05
95th-Percentile Queue Length [ft/ln]	0.06	0.00	0.00	2.92	0.00	0.00	0.10	0.10	0.10	3.98	3.98	1.27
d_A, Approach Delay [s/veh]	0.01			0.98			9.86			16.49		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	0.79											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	63.3
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.016

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	0	0	10	0	42	41	1242	1	4	586	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	10.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	38.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	10	0	42	41	1242	1	4	586	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	0	11	10	311	0	1	147	2
Total Analysis Volume [veh/h]	1	0	0	10	0	42	41	1242	1	4	586	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.09	0.00	0.06	0.04	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	63.35	62.10	14.21	40.73	62.81	12.03	8.84	0.00	0.00	11.39	0.00	0.00
Movement LOS	F	F	B	E	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.54	0.54	0.54	0.13	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.21	1.21	1.21	13.54	13.54	13.54	3.28	0.00	0.00	0.53	0.00	0.00
d_A, Approach Delay [s/veh]	63.35			17.55			0.28			0.08		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	0.72											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	32.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.606

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	142	253	70	79	163	33	48	1093	111	55	423	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	4.00	9.00	3.00	2.00	3.00	5.00	7.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	253	70	79	163	33	48	1093	111	55	423	68
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	63	18	20	41	8	12	273	28	14	106	17
Total Analysis Volume [veh/h]	142	253	70	79	163	33	48	1093	111	55	423	68
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	0	14	35	0	12	47	0	12	47	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.50	5.00	4.75	5.50	5.50	4.00	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	38	28	38	28	64	54	54	64	30	30
g / C, Green / Cycle	0.34	0.25	0.34	0.25	0.58	0.49	0.49	0.58	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.11	0.18	0.06	0.11	0.03	0.33	0.33	0.08	0.14	0.14
s, saturation flow rate [veh/h]	1352	1801	1266	1714	1399	1855	1796	690	1840	1753
c, Capacity [veh/h]	363	455	268	435	728	907	878	317	502	478
d1, Uniform Delay [s]	49.43	46.42	42.43	34.60	17.61	21.42	21.44	29.42	33.67	33.72
k, delay calibration	0.11	0.15	0.11	0.11	0.13	0.50	0.50	0.50	0.04	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.69	2.82	0.61	0.73	0.05	4.07	4.23	1.19	0.29	0.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.71	0.30	0.45	0.07	0.67	0.68	0.17	0.50	0.50
d, Delay for Lane Group [s/veh]	50.12	49.25	43.03	35.33	17.65	25.48	25.68	30.61	33.96	34.72
Lane Group LOS	D	D	D	D	B	C	C	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.76	9.64	1.44	4.44	0.46	12.02	11.72	0.63	5.45	5.34
50th-Percentile Queue Length [ft/ln]	94.02	240.96	36.12	111.07	11.56	300.55	293.01	15.67	136.16	133.42
95th-Percentile Queue Length [veh/ln]	6.77	14.73	2.60	7.90	0.83	17.71	17.33	1.13	9.27	9.13
95th-Percentile Queue Length [ft/ln]	169.23	368.25	65.01	197.49	20.81	442.71	433.37	28.21	231.84	228.13

Movement, Approach, & Intersection Results

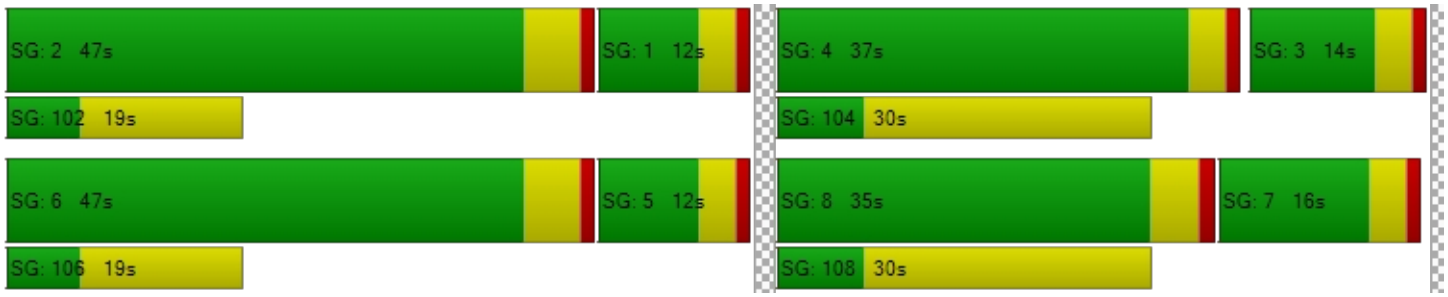
d_M, Delay for Movement [s/veh]	50.12	49.25	49.25	43.03	35.33	35.33	17.65	25.57	25.68	30.61	34.27	34.72
Movement LOS	D	D	D	D	D	D	B	C	C	C	C	C
d_A, Approach Delay [s/veh]	49.51			37.55			25.28			33.96		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	32.91											
Intersection LOS	C											
Intersection V/C	0.606											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	45.45	45.45	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersection	2.278	2.241	3.045	2.932
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	545	755	755
d_b, Bicycle Delay [s]	26.95	29.09	21.33	21.33
l_b,int, Bicycle LOS Score for Intersection	2.327	2.013	2.593	2.010
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 2000	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.039

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		30.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	506	283	15	0	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	9.00	7.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	506	283	15	0	30
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	127	71	4	0	8
Total Analysis Volume [veh/h]	0	506	283	15	0	30
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.93
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	3.08
d_A, Approach Delay [s/veh]	0.00		0.00		9.93	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/Site Access/TriMet Park and Ride

Control Type:	Two-way stop	Delay (sec / veh):	18.5
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.043

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	451	54	37	285	0	0	0	1	12	0	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	451	54	37	285	0	0	0	1	12	0	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	113	14	9	71	0	0	0	0	3	0	2
Total Analysis Volume [veh/h]	1	451	54	37	285	0	0	0	1	12	0	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
d_M, Delay for Movement [s/veh]	7.80	0.00	0.00	8.48	0.00	0.00	17.60	17.72	9.75	18.47	17.85	11.48
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.04
95th-Percentile Queue Length [ft/ln]	0.06	0.00	0.00	2.69	0.00	0.00	0.10	0.10	0.10	3.36	3.36	1.08
d_A, Approach Delay [s/veh]	0.02			0.97			9.75			15.67		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	0.76											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	109.0
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.028

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	2	1	7	13	0	73	53	946	0	1	1065	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	7	13	0	73	53	946	0	1	1065	43
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	2	3	0	19	14	252	0	0	283	11
Total Analysis Volume [veh/h]	2	1	7	14	0	78	56	1006	0	1	1133	46
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.03	0.01	0.29	0.00	0.17	0.09	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	82.81	109.00	14.64	94.60	117.61	27.56	11.62	0.00	0.00	10.18	0.00	0.00
Movement LOS	F	F	B	F	F	D	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.27	2.21	2.21	2.21	0.31	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.69	6.69	6.69	55.34	55.34	55.34	7.69	0.00	0.00	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	37.71			37.76			0.61			0.01		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	1.93											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	34.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.723

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	144	273	77	135	338	47	69	762	135	126	918	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	144	273	77	135	338	47	69	762	135	126	918	141
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	73	21	36	91	13	19	205	36	34	247	38
Total Analysis Volume [veh/h]	155	294	83	145	363	51	74	819	145	135	987	152
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	43	0	14	35	0	12	46	0	17	51	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	5.00	5.00	5.50	5.50	5.50	4.75	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	45	32	44	29	56	56	56	59	57	57
g / C, Green / Cycle	0.37	0.27	0.37	0.24	0.46	0.46	0.46	0.49	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21	0.12	0.22	0.11	0.26	0.26	0.15	0.31	0.31
s, saturation flow rate [veh/h]	1781	1786	1205	1845	654	1885	1788	874	1900	1813
c, Capacity [veh/h]	362	479	324	451	272	873	828	328	902	860
d1, Uniform Delay [s]	33.52	46.05	29.18	44.21	22.16	23.45	23.45	40.62	23.89	23.94
k, delay calibration	0.11	0.19	0.04	0.16	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.80	4.97	0.36	11.28	0.20	2.66	2.80	3.79	3.55	3.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.79	0.45	0.92	0.27	0.57	0.57	0.41	0.65	0.65
d, Delay for Lane Group [s/veh]	34.32	51.02	29.54	55.50	22.36	26.10	26.25	44.41	27.44	27.70
Lane Group LOS	C	D	C	E	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.81	11.83	2.88	13.21	1.12	10.24	9.75	2.32	12.57	12.11
50th-Percentile Queue Length [ft/ln]	95.37	295.83	71.99	330.13	27.98	256.06	243.72	57.92	314.20	302.81
95th-Percentile Queue Length [veh/ln]	6.87	17.47	5.18	19.16	2.01	15.49	14.87	4.17	18.38	17.82
95th-Percentile Queue Length [ft/ln]	171.66	436.86	129.58	479.12	50.37	387.27	371.73	104.26	459.55	445.51

Movement, Approach, & Intersection Results

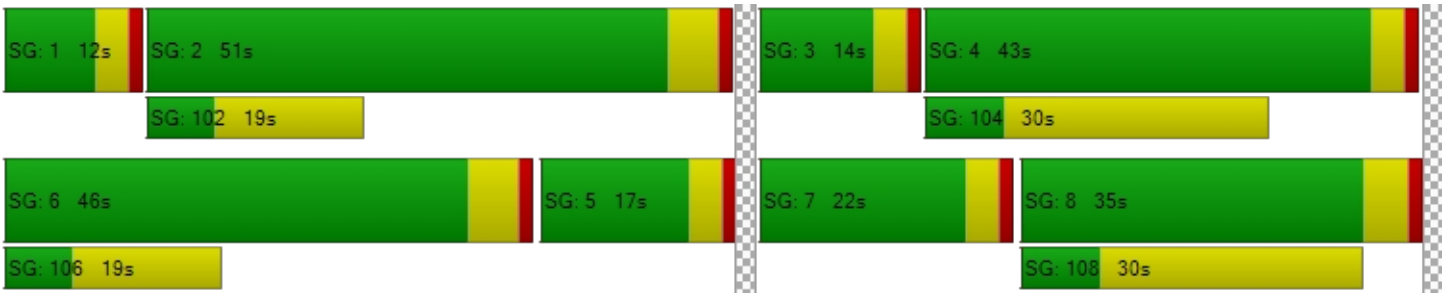
d_M, Delay for Movement [s/veh]	34.32	51.02	51.02	29.54	55.50	55.50	22.36	26.16	26.25	44.41	27.55	27.70
Movement LOS	C	D	D	C	E	E	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	46.16			48.76			25.90			29.35		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	34.12											
Intersection LOS	C											
Intersection V/C	0.723											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	50.43	50.43	49.52	49.52
l_p,int, Pedestrian LOS Score for Intersection	2.507	2.407	3.007	3.050
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	500	675	758
d_b, Bicycle Delay [s]	27.35	33.77	26.35	23.14
l_b,int, Bicycle LOS Score for Intersection	2.437	2.482	2.416	2.611
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.065

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		30.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	444	543	69	0	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	1.00	1.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	444	543	69	0	30
Peak Hour Factor	1.0000	0.9100	0.9100	0.9100	1.0000	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	122	149	19	0	8
Total Analysis Volume [veh/h]	0	488	597	76	0	33
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.60
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.21
d_A, Approach Delay [s/veh]	0.00		0.00		12.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.35					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/Site Access/TriMet Park and Ride

Control Type:	Two-way stop	Delay (sec / veh):	36.6
Analysis Method:	HCM 2000	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.298

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	428	16	24	570	1	1	0	0	42	0	61
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	428	16	24	570	1	1	0	0	42	0	61
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	122	5	7	162	0	0	0	0	12	0	17
Total Analysis Volume [veh/h]	0	486	18	27	648	1	1	0	0	48	0	69
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.00	0.00	0.30	0.00	0.12
d_M, Delay for Movement [s/veh]	8.80	0.00	0.00	8.45	0.00	0.00	31.64	25.16	12.80	36.57	33.95	12.06
Movement LOS	A	A	A	A	A	A	D	D	B	E	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.08	0.00	0.00	0.02	0.02	0.02	1.18	1.18	0.40
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.94	0.00	0.00	0.55	0.55	0.55	29.39	29.39	10.09
d_A, Approach Delay [s/veh]	0.00			0.34			31.64			22.12		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	2.19											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	88.9
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.023

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	2	1	7	13	0	73	53	946	0	1	1065	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	7	13	0	73	53	946	0	1	1065	43
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	2	3	0	18	13	237	0	0	266	11
Total Analysis Volume [veh/h]	2	1	7	13	0	73	53	946	0	1	1065	43
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.02	0.01	0.22	0.00	0.15	0.08	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	68.15	88.88	13.51	75.93	93.78	21.78	11.16	0.00	0.00	9.91	0.00	0.00
Movement LOS	F	F	B	F	F	C	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.22	1.75	1.75	1.75	0.27	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.60	5.60	5.60	43.80	43.80	43.80	6.79	0.00	0.00	0.10	0.00	0.00
d_A, Approach Delay [s/veh]	31.97			29.96			0.59			0.01		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	1.59											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	31.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.672

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	144	273	77	135	338	47	69	762	135	126	918	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	144	273	77	135	338	47	69	762	135	126	918	141
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	68	19	34	85	12	17	191	34	32	230	35
Total Analysis Volume [veh/h]	144	273	77	135	338	47	69	762	135	126	918	141
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	43	0	14	35	0	12	46	0	17	51	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	5.00	5.00	5.50	5.50	5.50	4.75	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	42	30	41	27	58	58	58	61	60	60
g / C, Green / Cycle	0.35	0.25	0.35	0.23	0.48	0.48	0.48	0.51	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.08	0.20	0.11	0.21	0.10	0.24	0.24	0.14	0.28	0.29
s, saturation flow rate [veh/h]	1781	1786	1229	1845	680	1885	1787	892	1900	1813
c, Capacity [veh/h]	355	448	318	422	306	912	865	362	941	898
d1, Uniform Delay [s]	34.50	46.86	30.26	45.16	19.71	21.18	21.18	35.12	21.38	21.40
k, delay calibration	0.11	0.15	0.04	0.13	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.75	4.29	0.33	10.67	0.14	2.01	2.12	2.66	2.58	2.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.78	0.42	0.91	0.23	0.50	0.51	0.35	0.58	0.58
d, Delay for Lane Group [s/veh]	35.24	51.15	30.59	55.82	19.85	23.19	23.30	37.77	23.96	24.12
Lane Group LOS	D	D	C	E	B	C	C	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.59	10.94	2.76	12.25	0.99	8.81	8.38	2.00	10.70	10.27
50th-Percentile Queue Length [ft/ln]	89.71	273.50	69.06	306.34	24.74	220.29	209.55	50.08	267.42	256.74
95th-Percentile Queue Length [veh/ln]	6.46	16.36	4.97	17.99	1.78	13.68	13.13	3.61	16.06	15.53
95th-Percentile Queue Length [ft/ln]	161.48	409.12	124.31	449.86	44.53	342.00	328.25	90.14	401.51	388.13

Movement, Approach, & Intersection Results

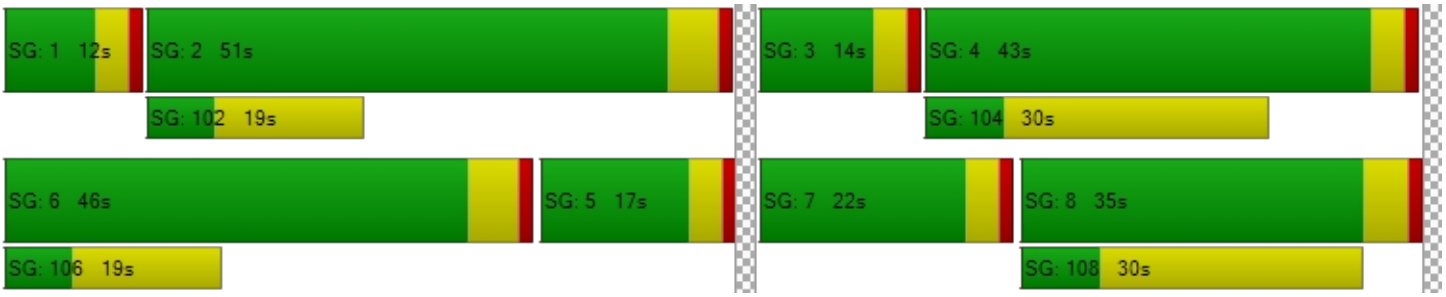
d_M, Delay for Movement [s/veh]	35.24	51.15	51.15	30.59	55.82	55.82	19.85	23.23	23.30	37.77	24.03	24.12
Movement LOS	D	D	D	C	E	E	B	C	C	D	C	C
d_A, Approach Delay [s/veh]	46.51			49.27			23.00			25.50		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	31.92											
Intersection LOS	C											
Intersection V/C	0.672											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	50.43	50.43	49.52	49.52
I_p,int, Pedestrian LOS Score for Intersection	2.469	2.377	2.956	2.995
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	500	675	758
d_b, Bicycle Delay [s]	27.35	33.77	26.35	23.14
I_b,int, Bicycle LOS Score for Intersection	2.375	2.418	2.357	2.537
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.055

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		30.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	444	543	69	0	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	1.00	1.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	444	543	69	0	30
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	111	136	17	0	8
Total Analysis Volume [veh/h]	0	444	543	69	0	30
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.01
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.18
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	4.38
d_A, Approach Delay [s/veh]	0.00		0.00		12.01	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.33					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/Site Access/TriMet Park and Ride

Control Type:	Two-way stop	Delay (sec / veh):	27.4
Analysis Method:	HCM 2000	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.208

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	428	16	24	570	1	1	0	0	42	0	61
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	428	16	24	570	1	1	0	0	42	0	61
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	107	4	6	143	0	0	0	0	11	0	15
Total Analysis Volume [veh/h]	0	428	16	24	570	1	1	0	0	42	0	61
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.21	0.00	0.10
d_M, Delay for Movement [s/veh]	8.56	0.00	0.00	8.26	0.00	0.00	25.56	21.45	11.98	27.44	25.82	11.39
Movement LOS	A	A	A	A	A	A	D	C	B	D	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.07	0.00	0.00	0.02	0.02	0.02	0.78	0.78	0.32
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.63	0.00	0.00	0.43	0.43	0.43	19.46	19.46	8.11
d_A, Approach Delay [s/veh]	0.00			0.33			25.56			17.93		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	1.81											
Intersection LOS	D											

Appendix D ODOT Crash Data

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
014	EMR V PKD	EMERGENCY VEHICLE LEGALLY PARKED IN THE ROADWAY
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER
51	FAIL LN	FAILED TO MAINTAIN LANE
52	OFF RD	RAN OFF ROAD

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED
4	EXP	EXPIRED
8	N-VAL	OTHER NON-VALID LICENSE
9	UNK	UNKNOWN IF DRIVER WAS LICENSED AT TIME OF CRASH

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY
134	TORRENTIAL	TORRENTIAL RAIN (EXCEPTIONALLY HEAVY RAIN)
135	RAIL OCC	INJURED OCCUPANT OF RAILWAY TRAIN, LIGHT RAIL, STREET CAR OR CABLE CAR

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY (K)
2	INJA	SUSPECTED SERIOUS INJURY (A)
3	INJB	SUSPECTED MINOR INJURY (B)
4	INJC	POSSIBLE INJURY (C)
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE
9	NONE	NO APPARENT INJURY (O)

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY
9	PARKNG	PARKING MANEUVER

NON-MOTORIST LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE
18	OTHER, NOT IN ROADWAY
99	UNKNOWN LOCATION

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	OTHR	OTHER TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
040	AUTO. FLAG	AUTOMATED FLAGGER ASSISTANCE DEVICE
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING
095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS

099 UNKNOWN UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

VEHICLE OWNERSHIP CODES

Code	Short Description	Long Description
0	N/A	Not collected for PDO Crashes
1	PRVTE	Private
2	GOVMT	Government
3	PUBLC	Public
4	RENTL	Rental vehicle
5	STOLN	Stolen vehicle
9	UNKN	Unknown ownership

VEHICLE TYPE CODES

Code	Short Description	Long Description
00	PDO	Not collected for PDO Crashes
01	PSNGR CAR	Passenger car, pickup, light delivery, etc.
02	BOBTAIL	Truck tractor with no trailers (bobtail)
03	FARM TRCTR	Farm tractor or self-propelled farm equipment
04	SEMI TOW	Truck Tractor with trailer/mobile home in tow
05	TRUCK	Truck with non-detachable bed, panel, etc.
06	MOPED	Moped, minibike, seated motor scooter, motor bike
07	SCHL BUS	School bus (includes van)
08	OTH BUS	Other bus
09	MTRCYCLE	Motorcycle, dirt bike
10	OTHER	Other: forklift, backhoe, etc.
11	MOTRHOME	Motorhome
12	TROLLEY	Motorized Street Car/Trolley (no rails/wires)
13	ATV	ATV
14	MTRSCTR	Motorized scooter (standing)
15	SNOWMOBILE	Snowmobile
99	UNKNOWN	Unknown vehicle type

CAUSE CODES

Code	Short Description	Medium Description	Long Description	Code Termination Date
00	NO CODE	NO CODE APPLICABLE	No cause associated at this level	
01	TOO-FAST	TOO FAST FOR COND	Too fast for conditions (not exceed posted speed)	
02	NO-YIELD	FAILED YIELD ROW	Did not yield right-of-way	
03	PAS-STOP	PASSED STOP SIGN	Passed stop sign or red flasher	
04	DIS SIG	DISREGRD TRAF SIGNAL	Disregarded traffic signal	
05	LEFT-CTR	LEFT OF CTR/STRADDLE	Drove left of center on two-way road; straddling	
06	IMP-OVER	IMPROPER PASSING	Improper overtaking	
07	TOO-CLOS	FOLLOW TOO CLOSE	Followed too closely	
08	IMP-TURN	IMPROPER TURN	Made improper turn	
09	DRINKING	ALC OR DRUGS	Alcohol or Drug Involved	12/31/2002
10	OTHR-IMP	OTHER DRIVE ERR	Other improper driving	
11	MECH-DEF	MECH DEFECT	Mechanical defect	
12	OTHER	OTHER	Other (not improper driving)	
13	IMP LN C	IMP LANE CHANGE	Improper change of traffic lanes	
14	DIS TCD	DISRG OTHR TCD	Disregarded other traffic control device	
15	WRNG WAY	WRONG WAY / 1-WAY RD	Wrong way on one-way road; wrong side divided road	
16	FATIGUE	DRIVER FATIGUED	Driver drowsy/fatigued/sleepy	
17	ILLNESS	PHYSICAL ILLNESS	Physical illness	
18	IN RDWY	ILLEGALLY IN RDWY	Non-motorist illegally in roadway	
19	NT VISBL	NOT VISIBLE	Non-motorist not visible; non-reflective clothing	
20	IMP PKNG	IMPROPER PARKING	Vehicle improperly parked	
21	DEF STER	DEFECTIVE STEERING	Defective steering mechanism	
22	DEF BRKE	DEFECTIVE BRAKES	Inadequate or no brakes	
24	LOADSHFT	LOAD SHIFTED	Vehicle lost load or load shifted	
25	TIREFAIL	TIRE FAILURE	Tire Failure	
26	PHANTOM	PHANTOM VEHICLE	Phantom / Non-contact Vehicle	
27	INATTENT	INATTENTION	Inattention	
28	NM INATT	NON-MTRST INATTENT	Non-Motorist Inattention	
29	F AVOID	FAIL AVOID VEH AHEAD	Failed to avoid vehicle ahead	
30	SPEED	EXCED POSTED SPEED	Driving in excess of posted speed	
31	RACING	SPEED RACING	Speed Racing (per PAR)	
32	CARELESS	CARELESS DRIVING	Careless Driving (per PAR)	
33	RECKLESS	RECKLESS DRIVING	Reckless Driving (per PAR)	
34	AGGRESV	AGGRESSIVE DRIVING	Aggressive Driving (per PAR)	
35	RD RAGE	ROAD RAGE	Road Rage (per PAR)	
40	VIEW OBS	VIEW OBSCURED	View obscured	
50	USED MDN	IMP USE MEDIAN/SHLDR	Improper use of median or shoulder	
51	FAIL LN	F MAINT LANE	Failed to maintain lane	12/31/2015
52	OFF RD	RAN OFF RD	Ran off road	12/31/2015

ERR CODES

Code	Short Description	Medium Description	Long Description
000	NONE	NO ERROR	No error
001	WIDE TRN	WIDE TURN	Wide turn
002	CUT CORN	CUT CORNER	Cut corner on turn
003	FAIL TRN	F OBEY TRN	Failed to obey mandatory traffic turn signal, sign or lane markings
004	L IN TRF	LTRN FNT TRAF	Left turn in front of oncoming traffic
005	L PROHIB	LTRN PROHIB	Left turn where prohibited
006	FRM WRNG	T FRM WRNG LN	Turned from wrong lane
007	TO WRONG	T TO WRONG LN	Turned into wrong lane
008	ILLEG U	ILLEG U-TURN	U-turned illegally
009	IMP STOP	IMP STOP	Improperly stopped in traffic lane
010	IMP SIG	IMP/FAIL SIG	Improper signal or failure to signal
011	IMP BACK	IMP BACKING	Backing improperly (not parking)
012	IMP PARK	IMP PARKED	Improperly parked
013	UNPARK	IMP STRT PARK	Improper start leaving parked position
014	IMP STRT	IMP STRT STOP	Improper start from stopped position
015	IMP LGHT	IMP/NO LIGHTS	Improper or no lights (vehicle in traffic)
016	INATTENT	INATTENTION	Inattention (Failure to Dim Lights prior to 4/1/97)
017	UNSF VEH	DR UNSAFE VEH	Driving unsafe vehicle (no other error apparent)
018	OTH PARK	PRK MAN N/CLR	Entering/exiting parked position w/ insufficient clearance; other improper parking maneuver
019	DIS DRIV	DISRG DR SIG	Disregarded other driver's signal
020	DIS SGNL	DISRG TRF SIG	Disregarded traffic signal
021	RAN STOP	DISRG STP SGN	Disregarded stop sign or flashing red
022	DIS SIGN	DISRG WRN SGN	Disregarded warning sign, flares or flashing amber
023	DIS OFCR	DISRG POL/FLG	Disregarded police officer or flagman
024	DIS EMER	DISRG SIR/EMR	Disregarded siren or warning of emergency vehicle
025	DIS RR	DISRG RR SIG	Disregarded RR signal, RR sign, or RR flagman
026	REAR-END	F AVOID STP V	Failed to avoid stopped or parked vehicle ahead other than school bus
027	BIKE ROW	F/YLD ROW BIK	Did not have right-of-way over pedalcyclist
028	NO ROW	NO R-O-W	Did not have right-of-way
029	PED ROW	F/YLD ROW PED	Failed to yield right-of-way to pedestrian
030	PAS CURV	PASS ON CURVE	Passing on a curve
031	PAS WRNG	PASS WRNG SID	Passing on the wrong side
032	PAS TANG	PASS TANGENT	Passing on straight road under unsafe conditions
033	PAS X-WK	PASS STP4PED	Passed vehicle stopped at crosswalk for pedestrian
034	PAS INTR	PASS AT INTER	Passing at intersection
035	PAS HILL	PASS ON HILL	Passing on crest of hill
036	N/PAS ZN	PASS N/PASSNG	Passing in "No Passing" zone
037	PAS TRAF	PASS ONC TRAF	Passing in front of oncoming traffic
038	CUT-IN	CUTTING IN	Cutting in (two lanes - two way only)
039	WRNGSIDE	DR WRONG SIDE	Driving on wrong side of the road (2-way undivided roadways)
040	THRU MED	DR THRU MEDN	Driving through safety zone or over island
041	F/ST BUS	F/STP SCHLBUS	Failed to stop for school bus
042	F/SLO MV	F/SLO SLO VEH	Failed to decrease speed for slower moving vehicle
043	TOO CLOSE	FOLLW TO CLOS	Following too closely (must be on officer's report)
044	STRDL LN	STRD/DR WRNG	Straddling or driving on wrong lanes
045	IMP CHG	IMP LANE CHG	Improper change of traffic lanes

ERR CODES

Code	Short Description	Medium Description	Long Description
046	WRNG WAY	WRNG WY/1 WAY	Wrong way on one-way roadway; wrong side divided road
047	BASCRULE	V BASIC RULE	Driving too fast for conditions (not exceeding posted speed)
048	OPN DOOR	OPN DOOR TRAF	Opened door into adjacent traffic lane
049	IMPEDING	IMPEDING TRAF	Impeding Traffic
050	SPEED	SPEED	Driving in excess of posted speed
051	RECKLESS	RECKLSS DRVNG	Reckless driving (per PAR)
052	CARELESS	CARELSS DRVNG	Careless driving (per PAR)
053	RACING	RACING	Speed Racing (per PAR)
054	X N/SGNL	X-INT NO SGNL	Crossing at intersection, no traffic signal present
055	X W/SGNL	X-INT W/ SGNL	Crossing at intersection, traffic signal present
056	DIAGONAL	X-INT DIAGNL	Crossing at intersection - diagonally
057	BTWN INT	X-BTWN INTER	Crossing between intersections
059	W/TRAF-S	W SHLD W/TRAF	Walking, running, riding, etc., on shoulder WITH traffic
060	A/TRAF-S	W SHLD A/TRAF	Walking, running, riding, etc., on shoulder FACING traffic
061	W/TRAF-P	W PAVE W/TRAF	Walking, running, riding, etc., on pavement WITH traffic
062	A/TRAF-P	W PAVE A/TRAF	Walking, running, riding, etc., on pavement FACING traffic
063	PLAYINRD	PLAY IN RDWY	Playing in street or road
064	PUSH MV	PUSH MV IN RD	Pushing or working on vehicle in road or on shoulder
065	WORK IN RD	WORK IN RD	Working in roadway or along shoulder
070	LAY ON RD	LYING IN RD	Standing or lying in roadway
071	NM IMP USE	N-M IMP USE	Improper use of traffic lane by non-motorist
073	ELUDING	ELUDING	Eluding / Attempt to elude
079	F NEG CURV	FAIL NEG CURV	Failed to negotiate a curve
080	FAIL LN	F MAINT LANE	Failed to maintain lane
081	OFF RD	RAN OFF RD	Ran off road
082	NO CLEAR	MISJUDGE CLR	Driver misjudged clearance
083	OVRSTEER	OVERSTEER	Over-correcting
084	NOT USED	NOT USED	Code not in use
085	OVRLOAD	OVERLOAD	Overloading or improper loading of vehicle with cargo or passengers
097	UNA DIS TC	UNA DISRG TCD	Unable to determine which driver disregarded traffic control device

EVENT CODES

Code	Short Description	Medium Description	Long Description
001	FEL/JUMP	FELL/JUMPED MV	Occupant fell, jumped or was ejected from moving vehicle
002	INTERFER	PSNGR INTERFERED	Passenger interfered with driver
003	BUG INTF	ANML INTERFERED	Animal or insect in vehicle interfered with driver
004	INDRCT PED	PED INDRCTLY INVLV	Pedestrian indirectly involved (not struck)
005	SUB-PED	SUBSEQUENT PED	"Sub-Ped": pedestrian injured subsequent to collision, etc.
006	INDRCT BIK	BIKE INDRCTLY INVLV	Pedalcyclist indirectly involved (not struck)
007	HITCHIKR	HITCHHIKER	Hitchhiker (soliciting a ride)
008	PSNGR TOW	PSNGR TOWED	Passenger or non-motorist being towed or pushed on conveyance
009	ON/OFF V	ON/OFF STOP VEH	Getting on/off stopped/parked vehicle (occupants only; must have physical contact w/ vehicle)
010	SUB OTRN	SUBSEQ OVERTURN	Overturned after first harmful event
011	MV PUSHD	VEH BEING PUSHED	Vehicle being pushed
012	MV TOWED	VEH TOWED/TOWING	Vehicle towed or had been towing another vehicle
013	FORCED	FORCED BY IMPACT	Vehicle forced by impact into another vehicle, pedalcyclist or pedestrian
014	SET MOTN	MV SET IN MOTION	Vehicle set in motion by non-driver (child released brakes, etc.)
015	RR ROW	RAILROAD ROW	At or on railroad right-of-way (not Light Rail)
016	LT RL ROW	LIGHT RAIL ROW	At or on Light-Rail right-of-way
017	RR HIT V	TRAIN HIT VEH	Train struck vehicle
018	V HIT RR	VEH HIT TRAIN	Vehicle struck train
019	HIT RR CAR	VEH HIT RR CAR	Vehicle struck railroad car on roadway
020	JACKNIFE	JACKKNIFE	Jackknife; trailer or towed vehicle struck towing vehicle
021	TRL OTRN	TRAILER O'TURN	Trailer or towed vehicle overturned
022	CN BROKE	TRLR CONN BROKE	Trailer connection broke
023	DETACH TRL	DETCHD TRLR STRKNG	Detached trailing object struck other vehicle, non-motorist, or object
024	V DOOR OPN	V DOOR OPN IN TRAF	Vehicle door opened into adjacent traffic lane
025	WHEELOFF	WHEEL CAME OFF	Wheel came off
026	HOOD UP	HOOD FLEW UP	Hood flew up
028	LOAD SHIFT	LOAD SHIFTED	Lost load, load moved or shifted
029	TIREFAIL	TIRE FAILURE	Tire failure
030	PET	PET	Pet: cat, dog and similar
031	LVSTOCK	LIVESTOCK	Stock: cow, calf, bull, steer, sheep, etc.
032	HORSE	HORSE	Horse, mule, or donkey
033	HRSE&RID	HORSE & RIDER	Horse and rider
034	GAME	GAME NO DEER/ELK	Wild animal, game (includes birds; not deer or elk)
035	DEER ELK	DEER OR ELK	Deer or elk, wapiti
036	ANML VEH	ANIMAL-DRAWN VEH	Animal-drawn vehicle
037	CULVERT	CULVERT/MANHOLE	Culvert, open low or high manhole
038	ATENUATN	IMPACT CUSHION	Impact attenuator
039	PK METER	PARKING METER	Parking meter
040	CURB	CURB	Curb (also narrow sidewalks on bridges)
041	JIGGLE	JIGGLE BAR N/MED	Jiggle bar or traffic snake for channelization

EVENT CODES

Code	Short Description	Medium Description	Long Description
042	GDRL END	GUARDRAIL END	Leading edge of guardrail
043	GARDRAIL	GUARDRAIL	Guard rail (not metal median barrier)
044	BARRIER	MEDIAN BARRIER	Median barrier (raised or metal)
045	WALL	WALL	Retaining wall or tunnel wall
046	BR RAIL	BRIDGE RAIL	Bridge railing or parapet (on bridge or approach)
047	BR ABUTMNT	BRIDGE ABUTMENT	Bridge abutment (included "approach end" thru 2013)
048	BR COLMN	BRIDGE COLUMN	Bridge pillar or column
049	BR GIRDR	BRIDGE GIRDER	Bridge girder (horizontal bridge structure overhead)
050	ISLAND	TRAFFIC ISLAND	Traffic raised island
051	GORE	GORE	Gore
052	POLE UNK	POLE-UNKNOWN	Pole – type unknown
053	POLE UTL	POLE-UTILITY	Pole – power or telephone
054	ST LIGHT	POLE-ST LIGHT	Pole – street light only
055	TRF SGNL	POLE-TRAF SIGNAL	Pole – traffic signal and ped signal only
056	SGN BRDG	POLE-SIGN BRIDGE	Pole – sign bridge
057	STOPSIGN	STOP/YIELD SIGN	Stop or yield sign
058	OTH SIGN	OTHER SIGN	Other sign, including street signs
059	HYDRANT	HYDRANT	Hydrant
060	MARKER	DELINEATOR	Delineator or marker (reflector posts)
061	MAILBOX	MAILBOX	Mailbox
062	TREE	TREE/STUMP	Tree, stump or shrubs
063	VEG OHED	VEGTN OVER RDWY	Tree branch or other vegetation overhead, etc.
064	WIRE/CBL	CABLE ACROSS RD	Wire or cable across or over the road
065	TEMP SGN	TEMP SIGN/BARR	Temporary sign or barricade in road, etc.
066	PERM SGN	PERM SIGN/BARR	Permanent sign or barricade in/off road
067	SLIDE	SLIDE/ROCKS	Slides, fallen or falling rocks
068	FRGN OBJ	FOREIGN OBJECT	Foreign obstruction/debris in road (not gravel)
069	EQP WORK	EQUIP WORKING	Equipment working in/off road
070	OTH EQP	OTHER EQUIPMENT	Other equipment in or off road (includes parked trailer, boat)
071	MAIN EQP	MAINTNCE EQUIP	Wrecker, street sweeper, snow plow or sanding equipment
072	OTHER WALL	OTHER WALL	Rock, brick or other solid wall
073	IRRGL PVMT	IRREGULAR PAVEMENT	Other bump (not speed bump), pothole or pavement irregularity (per PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJ	Other overhead object (highway sign, signal head, etc.); not bridge
075	CAVE IN	CAVE IN	Bridge or road cave in
076	HI WATER	HIGH WATER	High Water
077	SNO BANK	SNOW BANK	Snow Bank
078	LO-HI EDGE	LOW-HIGH PVMNT EDGE	Low or high shoulder at pavement edge
079	DITCH	CUT SLOPE/DITCH	Cut slope or ditch embankment
080	OBJ FRM MV	OBJ FRM OTHR VEH	Struck by rock or other object set in motion by other vehicle (incl. lost loads)
081	FLY-OBJ	OTHER MOVING OBJ	Struck by rock or other moving or flying object (not set in motion by vehicle)
082	VEH HID	VEH OBSCURE VIEW	Vehicle obscured view
083	VEG HID	VEG OBSCURE VIEW	Vegetation obscured view
084	BLDG HID	BLD OBSCURE VIEW	View obscured by fence, sign, phone booth, etc.

EVENT CODES

Code	Short Description	Medium Description	Long Description
085	WIND GUST	WIND GUST	Wind Gust
086	IMMERSED	IMMERSION	Vehicle immersed in body of water
087	FIRE/EXP	FIRE/EXPLOSION	Fire or explosion
088	FENC/BLD	FENCE/BUILDING	Fence or building, etc.
089	OTHR CRASH	REFER OTHR CRASH	Crash related to another separate crash
090	TO 1 SIDE	TWO WAY ONE SIDE	Two-way traffic on divided roadway all routed to one side
091	BUILDING	BUILDING	Building or other structure
092	PHANTOM	PHANTOM VEH	Other (phantom) non-contact vehicle
093	CELL PHONE	CELL PHONE PER PAR	Cell phone (on PAR or driver in use)
094	VIOL GDL	VIOL GRAD DR LIC	Teenage driver in violation of graduated license pgm
095	GUY WIRE	GUY WIRE	Guy wire
096	BERM	BERM	Berm (earthen or gravel mound)
097	GRAVEL	GRAVEL IN RDWY	Gravel in roadway
098	ABR EDGE	ABRUPT EDGE	Abrupt edge
099	CELL WTNSD	CELL PHONE WITNESSED	Cell phone use witnessed by other participant
100	UNK FIXD	UNK FIX OBJ	Fixed object, unknown type.
101	OTHER OBJ	OTHER OBJ NOT FIXED	Non-fixed object, other or unknown type
102	TEXTING	TEXTING	Texting
103	WZ WORKER	WZ WORKER	Work Zone Worker
104	ON VEHICLE	RIDE ON VEH EXTERIOR	Passenger riding on vehicle exterior
105	PEDAL PSGR	PSNGR ON PEDALCYCLE	Passenger riding on pedalcycle
106	MAN WHLCHR	NONMOTOR WHEELCHAIR	Pedestrian in non-motorized wheelchair
107	MTR WHLCHR	MOTORIZED WHEELCHAIR	Pedestrian in motorized wheelchair
108	OFFICER	POLICE OFFICER	Law Enforcement / Police Officer
109	SUB-BIKE	SUBSEQUENT BICYCLIST	"Sub-Bike": pedalcyclist injured subsequent to collision, etc.
110	N-MTR	NM STR VEH	Non-motorist struck vehicle
111	S CAR VS V	ST CAR STRUCK VEH	Street Car/Trolley (on rails or overhead wire system) struck vehicle
112	V VS S CAR	VEH STRUCK ST CAR	Vehicle struck Street Car/Trolley (on rails or overhead wire system)
113	S CAR ROW	STREET CAR ROW	At or on street car or trolley right-of-way
114	RR EQUIP	VEH STRUCK RR EQUIP	Vehicle struck railroad equipment (not train) on tracks
115	DSTRCT GPS	DISTRACT GPS DEVICE	Distracted by navigation system or GPS device
116	DSTRCT OTH	DISTRACT OTHR DEVICE	Distracted by other electronic device
117	RR GATE	RR DROP-ARM GATE	Rail crossing drop-arm gate
118	EXPNSN JNT	EXPANSION JOINT	Expansion joint
119	JERSEY BAR	JERSEY BARRIER	Jersey barrier
120	WIRE BAR	WIRE BARRIER	Wire or cable median barrier
121	FENCE	FENCE	Fence
123	OBJ IN VEH	LOOSE OBJ IN VEHICLE	Loose object in vehicle struck occupant
124	SLIPPERY	SLIPPERY SURFACE	Sliding or swerving due to wet, icy, slippery or loose surface (not gravel)
125	SHLDR	SHLDR GAVE	Shoulder gave way
126	BOULDER	ROCKS / BOULDER	Rock(s), boulder (not gravel; not rock slide)
127	LAND SLIDE	ROCK OR LAND SLIDE	Rock slide or land slide
128	CURVE INV	CURVE PRESENT	Curve present at crash location

EVENT CODES

Code	Short Description	Medium Description	Long Description
129	HILL INV	HILL PRESENT	Vertical grade / hill present at crash location
130	CURVE HID	CURVE OBSCURED VIEW	View obscured by curve
131	HILL HID	HILL OBSCURED VIEW	View obscured by vertical grade / hill
132	WINDOW HID	WINDOW VIEW OBSCURED	View obscured by vehicle window conditions
133	SPRAY HID	SPRAY OBSCURED VIEW	View obscured by water spray
134	TORRENTIAL	TORRENTIAL RAIN	Torrential Rain (exceptionally heavy rain)
135	RAIL OCC	RAIL/CABLE CAR OCC	Injured occupant of railway train, light rail, street car or cable car

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Intersectional Crashes at W Baseline Rd & SW 173rd Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

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
YEAR: 2019														
TURNING MOVEMENTS	0	3	1	4	0	3	0	3	1	4	0	4	0	0
2019 TOTAL	0	3	1	4	0	3	0	3	1	4	0	4	0	0
YEAR: 2016														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2016 TOTAL	0	1	1	2	0	1	0	2	0	2	0	2	0	0
YEAR: 2015														
TURNING MOVEMENTS	0	0	2	2	0	0	0	1	0	1	1	2	0	0
2015 TOTAL	0	0	2	2	0	0	0	1	0	1	1	2	0	0
FINAL TOTAL	0	4	4	8	0	4	0	6	1	7	1	8	0	0

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

A higher number of crashes may be reported as of 2011 compared to prior years. This does not necessarily reflect an increase in annual crashes. The higher numbers may result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics. For all disclaimers, see https://www.oregon.gov/ODOT/Data/documents/Crash_Data_Disclaimers.pdf.

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 173rd Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
03421	N	N	N	N	N	07/03/2019	16	W BASELINE RD	INTER	3-LEG	N	N	CLD	S-OTHER	01	NONE 9	TURN-L									121	08,33
CITY			N			Wed 7P	0	SW 173RD AVE	N		STOP SIGN	N	DRY	TURN		N/A	W N									000		00
No						*45 30 45.08 -122 51 17.14*		1	05	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9	TURN-L											
																N/A	W N									000		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
02245	N	N	N			04/06/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT									013	29
NONE			N			Wed 7A	0	SW 173RD AVE	W		STOP SIGN	N	DRY	REAR		PRVTE	W E									000		00
No						*45 30 45.08 -122 51 17.14*		1	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	73	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	W E									011	022	00
																PSNGR CAR		01	DRVR	INJC	39	F	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	W E									022		00
																PSNGR CAR		01	DRVR	NONE	89	M	OTH-Y N-RES		000	000		00
00871	N	N	N			02/16/2015	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										02
NO RPT			N			Mon 3P	0	SW 173RD AVE	CN		UNKNOWN	N	DRY	TURN		PRVTE	E W									000		00
No						*45 30 45.08 -122 51 17.14*		1	02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	44	F	OR-Y OR<25		000	000		00
															02	NONE 0	TURN-L											
																PRVTE	W N									000		00
																PSNGR CAR		01	DRVR	NONE	67	F	OR-Y OR<25		004,028	000		02
04194	N	N	N			06/21/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 9	TURN-L										02
NO RPT			N			Tue 3P	0	SW 173RD AVE	CN		STOP SIGN	N	DRY	TURN		N/A	W N									000		00
No						*45 30 45.08 -122 51 17.14*		1	02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9	STRGHT											
																N/A	E W									000		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
04480	N	N	N	N	N	09/04/2019	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L										02
CITY			N			Wed 10A	0	SW 173RD AVE	CN		STOP SIGN	N	DRY	TURN		UNKN	W N									000		00
No						*45 30 45.08 -122 51 17.14*		1	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	76	M	OR-Y OR<25		028,004	000		02

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 173rd Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	SWORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STRGHT E W									000	00
																PSNGR CAR		01	DRVR	INJB	39	F	OR-Y OR<25		000	000	00
07711 NO RPT	N	N	N N			12/08/2015 Tue 6P	16 0	W BASELINE RD SW 173RD AVE	INTER CN	3-LEG	N STOP SIGN	N	UNK UNK	ANGL-OTH TURN	01	NONE 0 PRVTE	TURN-L N E									000	02 00
No						*45 30 45.08 -122 51 17.14*		1	03	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	44	M	OR-Y OR<25		028	000	02
															02	UNKN 0 UNKN	TURN-L W N									000	00
																UNKNOWN		01	DRVR	NONE	00	U	UNK UNK		000	000	00
04771 CITY	N	N	N N	N	N	09/17/2019 Tue 6P	16 0	W BASELINE RD SW 173RD AVE	INTER CN	3-LEG	N STOP SIGN	N	RAIN WET	S-1TURN TURN	01	NONE 0 PRVTE	STRGHT W E									000	02 00
No						*45 30 45.08 -122 51 17.14*		1	03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y OR<25		028	000	02
															02	AMBLN 0 PRVTE	U-TURN W W									000	00
																PSNGR CAR		01	DRVR	INJC	25	M	OR-Y OR<25		000	000	00
05205 NO RPT	N	N	N N			10/10/2019 Thu 10A	16 0	W BASELINE RD SW 173RD AVE	INTER CN	3-LEG	N STOP SIGN	N	CLR DRY	S-1TURN TURN	01	NONE 0 PRVTE	STRGHT W E									000	08 00
No						*45 30 45.08 -122 51 17.14*		1	04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	47	F	OR-Y OR<25		000	000	00
															02	NONE 0 PRVTE	TURN-L W N									000	00
																PSNGR CAR		01	DRVR	INJB	26	M	OR-Y OR<25		006	000	08

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

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
YEAR: 2019														
FIXED / OTHER OBJECT	0	0	1	1	0	0	0	1	0	0	1	1	0	1
PEDESTRIAN	0	1	0	1	0	2	0	0	1	0	1	1	0	0
REAR-END	0	1	0	1	0	1	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	2	2	4	0	3	0	3	1	3	1	4	0	0
2019 TOTAL	0	4	3	7	0	6	0	4	3	4	3	7	0	1
YEAR: 2018														
REAR-END	0	2	0	2	0	2	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2018 TOTAL	0	3	0	3	0	3	0	3	0	3	0	3	0	0
YEAR: 2017														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	4	2	6	0	5	0	3	3	3	3	6	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2017 TOTAL	0	5	3	8	0	6	0	5	3	5	3	8	0	0
YEAR: 2016														
PEDESTRIAN	0	2	0	2	0	2	0	0	2	0	2	2	0	0
REAR-END	0	2	0	2	0	3	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	0	2	1	1	2	0	0
2016 TOTAL	0	5	1	6	0	6	0	2	4	3	3	6	0	0
YEAR: 2015														
ANGLE	0	1	0	1	0	8	0	1	0	1	0	1	0	0
PEDESTRIAN	0	1	0	1	0	1	0	0	1	0	1	1	0	0
REAR-END	0	0	2	2	0	0	0	1	0	1	1	2	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	1	1	2	0	0
2015 TOTAL	0	3	3	6	0	10	0	4	1	3	3	6	0	0
FINAL TOTAL	0	20	10	30	0	31	0	18	11	18	12	30	0	1

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

A higher number of crashes may be reported as of 2011 compared to prior years. This does not necessarily reflect an increase in annual crashes. The higher numbers may result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics. For all disclaimers, see https://www.oregon.gov/ODOT/Data/documents/Crash_Data_Disclaimers.pdf.

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
05993	N	N	N	N	N	11/15/2019	16	W BASELINE RD	INTER	CROSS	N	Y	CLD	FIX OBJ	01	NONE 9	STRGHT										062	10
CITY		N				Fri 11P	0	SW 170TH AVE	UN		TRF SIGNAL	N	DRY	FIX		N/A	UN UN									000		00
No						*45 30 45.14 -122 51 7.18*		1	00	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
06323	N	N	N	N	N	10/12/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 9	STRGHT											29
CITY		N				Thu 11P	0	SW 170TH AVE	N		TRF SIGNAL	N	WET	REAR		N/A	N S									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9	STOP											
																N/A	N S									011		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
01740	N	N	N			04/09/2018	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		N				Mon 5P	0	SW 170TH AVE	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N S									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																UNKN	N S									012		00
																PSNGR CAR		01	DRVR	INJC	32	N	OR-Y OR<25		000	000		00
04984	Y	N	N			07/25/2018	16	W BASELINE RD	INTER	CROSS	N	N	CLR	ANGL-STP	01	NONE 0	TURN-R											01,32
CITY		N				Wed 12P	0	SW 170TH AVE	N		TRF SIGNAL	N	DRY	TURN		UNKN	E N									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y OR<25		047,052	017		01,32
															02	NONE 0	STOP											
																PRVTE	N S									012		00
																PSNGR CAR		01	DRVR	INJB	51	M	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	N S									022		00
																PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25		000	000		00
08013	N	N	N			11/22/2016	16	W BASELINE RD	INTER	CROSS	N	N	RAIN	PED	01	NONE 0	TURN-L										124	02
CITY		N				Tue 6P	0	SW 170TH AVE	E		TRF SIGNAL	N	WET	PED		PRVTE	N E									000	124	00
No						*45 30 45.14 -122 51 7.18*		1	05	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y OR<25		029	000		02
																	STRGHT S N	01	PED	INJA	54	F		01	000	035		00
02800	N	N	N			05/25/2015	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE		N				Mon 10P	0	SW 170TH AVE	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E W									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	39	M	OR-Y OR<25		026	000		29

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STOP E W									011	00
																PSNGR CAR		01	DRVR	NONE	21	M	OR-Y OR<25		000	000	00
02304 NONE	N	N	N N			04/08/2016 Fri 9A	16 0	W BASELINE RD SW 170TH AVE	INTER E	CROSS	N TRF SIGNAL	N N	CLR DRY	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT E W									000	29 00
No	*45 30 45.14*			*-122 51 7.18*			1		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR>25		026	000		29
															02	NONE 0 PRVTE	STOP E W									011	00
																PSNGR CAR		01	DRVR	INJC	45	F	OR-Y OR<25		000	000	00
															02	PSNG		01	INJC		17	F			000	000		00
00138 COUNTY	N	N	N N			01/07/2017 Sat 2P	16 0	W BASELINE RD SW 170TH AVE	INTER E	CROSS	N TRF SIGNAL	N N	SNOW ICE	S-1STOP REAR	01	NONE 9 N/A	STRGHT E W									000	124	29 00
No	*45 30 45.14*			*-122 51 7.18*			1		06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STOP E W									011	00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
05474 CITY	N	N	N N	N	N	09/07/2017 Thu 6A	16 0	W BASELINE RD SW 170TH AVE	INTER E	CROSS	N TRF SIGNAL	N N	CLR DRY	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT E W									000	29,32 00
No	*45 30 45.14*			*-122 51 7.18*			1		06	0		N	DAWN	INJ		PSNGR CAR		01	DRVR	NONE	27	M	OR-Y OR<25		026,052	000		29,32
															02	NONE 0 PRVTE	STOP E W									011	00
																PSNGR CAR		01	DRVR	INJC	36	M	OR-Y OR<25		000	000		00
06340 NONE	N	N	N N			12/02/2019 Mon 7A	16 0	W BASELINE RD SW 170TH AVE	INTER E	CROSS	N TRF SIGNAL	N N	CLR ICE	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT E W									000	124 124	29 00
No	*45 30 45.14*			*-122 51 7.18*			1		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP E W									011	00
																PSNGR CAR		01	DRVR	INJA	28	M	OR-Y OR<25		000	000		00
00022 NO RPT	N	N	N N			01/02/2015 Fri 11A	16 0	W BASELINE RD SW 170TH AVE	INTER S	CROSS	N TRF SIGNAL	N N	UNK UNK	S-1STOP REAR	01	NONE 0 RENTL	STRGHT S N									000	29 00
No	*45 30 45.14*			*-122 51 7.18*			1		06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	46	F	OR-Y OR<25		026	000		29

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	SWORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STOP S N									011		00
																PSNGR CAR		01	DRVR	NONE	43	M	OR-Y OR<25		000	000		00
04659	N	N	N			07/15/2016	16	W BASELINE RD	INTER	CROSS	N		N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE			N			Fri 7P	0	SW 170TH AVE	S		TRF SIGNAL		N	DRY	REAR		PRVTE	S N								000		00
No	*45 30 45.14*					*-122 51 7.18*		1	06	0			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	F	OR-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP S N									011		00
																PSNGR CAR		01	DRVR	INJC	37	M	OR-Y OR<25		000	000		00
08652	N	N	N			12/14/2016	16	W BASELINE RD	INTER	CROSS	N		N	SNOW	ANGL-STP	01	NONE 9	TURN-R										124	08
NONE			N			Wed 5P	0	SW 170TH AVE	S		TRF SIGNAL		N	ICE	TURN		N/A	W S								000		00
No	*45 30 45.14*					*-122 51 7.18*		1	06	0			N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STOP S N									012		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
07425	N	N	N			11/22/2017	16	W BASELINE RD	INTER	CROSS	N		N	RAIN	S-1STOP	01	NONE 0	STRGHT											29
NONE			N			Wed 6P	0	SW 170TH AVE	S		TRF SIGNAL		N	WET	REAR		PRVTE	S N								000		00
No	*45 30 45.14*					*-122 51 7.18*		1	06	0			N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP S N									011		00
																PSNGR CAR		01	DRVR	INJC	22	F	OR-Y OR<25		000	000		00
07339	N	N	N	N	N	12/02/2015	16	W BASELINE RD	INTER	CROSS	N		N	RAIN	PED	01	NONE 0	TURN-L											18
CITY			N			Wed 4P	0	SW 170TH AVE	W		TRF SIGNAL		N	WET	PED		PRVTE	S W								000		00
No	*45 30 45.14*					*-122 51 7.18*		1	05	0			N	DUSK	INJ		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		000	000		00
																	STRGHT N S	01	PED	INJB	29	M		01	055	035		18
07807	N	N	N			11/14/2016	16	W BASELINE RD	INTER	CROSS	N		N	CLD	PED	01	NONE 0	TURN-L											02
CITY			N			Mon 9P	0	SW 170TH AVE	W		TRF SIGNAL		N	WET	PED		PRVTE	S W								000		00
No	*45 30 45.14*					*-122 51 7.18*		1	05	0			N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	39	F	OR-Y OR<25		029	000		02
																	STRGHT N S	01	PED	INJB	16	M		01	000	035		00

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00938	N	N	N	N	N	02/24/2019	16	W BASELINE RD	INTER	CROSS	N	N	RAIN	PED	01	NONE 0	TURN-L											02
CITY			N			Sun 2A	0	SW 170TH AVE	W		TRF SIGNAL	N	WET	PED		PRVTE	S W									000		00
No						*45 30 45.14 -122 51 7.18*		1	05	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	36	M	OR-Y OR<25		029	000		02
																	STRGHT S N	01	PED	INJC	24	M		01	000	035		00
																	STRGHT S N	02	PED	INJC	24	F		01	000	035		00
00910	N	N	N			02/18/2015	16	W BASELINE RD	INTER	CROSS	N	N	CLR	BIKE	01	NONE 0	TURN-L											02
NONE			N			Wed 6P	0	SW 170TH AVE	W		TRF SIGNAL	N	DRY	TURN		PRVTE	W N									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	83	M	OR-Y OR<25		027	000		02
																	STRGHT S N	01	BIKE	INJB	49	M		01	000	035		00
06602	N	N	N			10/22/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE			N			Sun 2P	0	SW 170TH AVE	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W E									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	W E									011		00
																PSNGR CAR		01	DRVR	INJC	38	F	OR-Y OR<25		000	000		00
07902	N	N	N			12/10/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT			N			Sun 11A	0	SW 170TH AVE	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W E									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	75	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	W E									011		00
																PSNGR CAR		01	DRVR	INJC	61	F	OR-Y OR<25		000	000		00
03858	N	N	N			07/26/2018	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE			N			Thu 5P	0	SW 170TH AVE	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W E									000		00
No						*45 30 45.14 -122 51 7.18*		1	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	W E									011		00
																PSNGR CAR		01	DRVR	INJC	35	F	OR-Y OR<25		000	000		00
01920	N	N	N			04/17/2019	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NONE			N			Wed 6P	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N S									000		00
No						*45 30 45.14 -122 51 7.18*		1	01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y OR<25		000	000		00

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	TURN-L S W								000		00
																PSNGR CAR		01	DRVR	INJC	33	F	OR-Y OR<25		028,004	000		02
05874 CITY	N N	N	N			11/09/2019 Sat 9P	16 0	W BASELINE RD SW 170TH AVE	INTER CN	CROSS	N TRF SIGNAL	N N	RAIN WET	O-1 L-TURN TURN	01	NONE 0 PRVTE	TURN-L S W									000	001	02 00
No						*45 30 45.14 -122 51 7.18*		1	01	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	39	M	OTH-Y N-RES		028,004	000		02
															02	NONE 0 PRVTE	STRGHT N S								000		00
																MOPED		01	DRVR	INJB	24	M	SUSP OR<25		000	000	001	00
01397 NO RPT	N N	N	N			03/15/2015 Sun 4P	16 0	W BASELINE RD SW 170TH AVE	INTER CN	CROSS	N TRF SIGNAL	N N	CLR DRY	ANGL-OTH ANGL	01	NONE 0 PRVTE	STRGHT S N									015	013	32 00
No						*45 30 45.14 -122 51 7.18*		1	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	34	F	OR-Y OR<25		000	000		00
																		02	PSNG	INJC	13	F			000	000		00
															02	NONE 0 PRVTE	STRGHT E W								000		00
																PSNGR CAR		01	DRVR	INJC	48	F	OR-Y OR<25		052	000		32
															03	NONE 0 PRVTE	STOP W E								022	013	00
																PSNGR CAR		01	DRVR	INJC	57	F	OR-Y OR<25		000	000		00
															04	NONE 0 PRVTE	STOP W E								022		00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y OR<25		000	000		00
															05	NONE 0 PRVTE	STOP W E								022		00
																PSNGR CAR		01	DRVR	INJC	59	M	OR-Y OR<25		000	000		00
																		02	PSNG	INJC	17	M			000	000		00
																		03	PSNG	INJC	23	F			000	000		00
																		04	PSNG	INJC	51	F			000	000		00
07891 CITY	N N	N	N			12/09/2017 Sat 11A	16 0	W BASELINE RD SW 170TH AVE	INTER CN	CROSS	N TRF SIGNAL	N N	CLR DRY	ANGL-OTH ANGL	01	NONE 0 PRVTE	STRGHT S N									000		27,04 00
No						*45 30 45.14 -122 51 7.18*		1	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y OR<25		000	000		00

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STRGHT E W									000		00
																PSNGR CAR		01	DRVR	INJC	27	M	OR-Y OR<25		016,020	038		27,04
04953	N	N	N			09/27/2019	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 9 N/A	TURN-L W N											02
CITY			N			Fri 6A	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN												000		00
No	*45*	*30*	*45.14*	*-122*	*51*	*7.18*	1		02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STRGHT E W									000		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
05574	N	N	N			10/19/2019	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 9 N/A	STRGHT E W											02
NONE			N			Sat 4P	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN												000		00
No	*45*	*30*	*45.14*	*-122*	*51*	*7.18*	1		02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	TURN-L W N									000		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
05260	N	N	N			08/28/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 9 N/A	STRGHT W E										087	02
CITY			N			Mon 2P	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN												000		00
No	*45*	*30*	*45.14*	*-122*	*51*	*7.18*	1		03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	TURN-L E S									000		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
01883	N	N	N			04/10/2015	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0 PRVTE	STRGHT S N											02
NO RPT			N			Fri 6P	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN												000		00
No	*45*	*30*	*45.14*	*-122*	*51*	*7.18*	1		04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	54	M	OR-Y OR<25		000	000		00
															02	NONE 0 PRVTE	TURN-L N E									000		00
																PSNGR CAR		01	DRVR	NONE	40	F	OR-Y OR<25		004,028	000		02
00300	N	N	N	N	N	01/12/2016	16	W BASELINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE 0 PRVTE	STRGHT S N											02
CITY			N			Tue 11A	0	SW 170TH AVE	CN		TRF SIGNAL	N	WET	TURN												000		00
No	*45*	*30*	*45.14*	*-122*	*51*	*7.18*	1		04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	28	F	OR-Y OR<25		000	000		00

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at W Baseline Rd & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	TURN-L N E										000		00
																PSNGR CAR		01	DRVR	INJC	83	F	OR-Y OR<25		028	000		02

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Crashes on SW 170th Ave within 500 Ft South of Intersection with W. Baseline Rd in Beaverton, OR.
January 1, 2015 through December 31, 2019

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
YEAR: 2019														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	0	1	0	0	1
2019 TOTAL	0	1	0	1	0	1	0	1	0	0	1	0	0	1
YEAR: 2018														
REAR-END	0	0	2	2	0	0	0	2	0	2	0	0	1	0
TURNING MOVEMENTS	0	2	0	2	0	3	0	2	0	2	0	0	0	0
2018 TOTAL	0	2	2	4	0	3	0	4	0	4	0	0	1	0
YEAR: 2017														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	0	1	0	0	1
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	0	1	1	0	0	0	0
2017 TOTAL	0	1	1	2	0	1	0	1	1	1	1	0	0	1
YEAR: 2016														
BACKING	0	0	1	1	0	0	0	0	1	1	0	0	0	0
REAR-END	0	1	0	1	0	1	0	0	1	1	0	0	1	0
2016 TOTAL	0	1	1	2	0	1	0	0	2	2	0	0	1	0
YEAR: 2015														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	0	0	0
2015 TOTAL	0	1	0	1	0	1	0	1	0	1	0	0	0	0
FINAL TOTAL	0	6	4	10	0	7	0	7	3	8	2	0	2	2

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

A higher number of crashes may be reported as of 2011 compared to prior years. This does not necessarily reflect an increase in annual crashes. The higher numbers may result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics. For all disclaimers, see https://www.oregon.gov/ODOT/Data/documents/Crash_Data_Disclaimers.pdf.

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on SW 170th Ave within 500 Ft South of Intersection with W. Baseline Rd in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / LAT/LONG	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
05634	N	N	N	N	N	10/22/2018	16	SW 170TH AVE	ALLEY		N	N	CLR	BIKE	01	NONE 0	TURN-L										02
CITY		N				Mon 5P	450	W BASELINE RD	S	(NONE)	L-TURN REF	N	DRY	TURN		PRVTE	E S								018	00
No	*45 30 40.37*		*-122 51 7.21*			1		01			N	DAY	INJ			PSNGR CAR		01	DRVR	NONE	60	M	OR-Y		027	000	02
										(03)													OR<25				
																	TURN-L	01	BIKE	INJC	28	M		04	000	000	00
																	N E										
02833	N	N	N			06/04/2018	16	SW 170TH AVE	STRGHT		Y	N	CLR	S-1STOP	01	NONE 9	STRGHT										29
NONE			N			Mon 5P	50	W BASELINE RD	S	(NONE)	UNKNOWN	N	DRY	REAR		N/A	S N								000	00
No	*45 30 44.16*		*-122 51 7.18*			1		06				N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
										(02)													UNK				
															02	NONE 9	STOP										
																N/A	S N								011	00	
																PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
																							UNK				
01107	N	N	N			03/01/2015	16	SW 170TH AVE	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										29
NONE			N			Sun 2P	100	W BASELINE RD	S	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	S N								000	00
No	*45 30 43.86*		*-122 51 7.18*			1		08				N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		026	000	29
										(04)													OR<25				
															02	NONE 0	STOP										
																PRVTE	S N								011	00	
																PSNGR CAR		01	DRVR	INJC	46	F	OR-Y		000	000	00
																							OR<25				
06710	N	N	N			10/04/2016	16	SW 170TH AVE	STRGHT		N	N	CLR	O-1STOP	01	NONE 9	BACK										10
NONE			N			Tue 4P	100	W BASELINE RD	S	(NONE)	UNKNOWN	N	WET	BACK		N/A	N S								000	00
No	*45 30 43.68*		*-122 51 7.18*			1		08				N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
										(02)													UNK				
															02	NONE 9	STOP										
																N/A	S N								011	00	
																PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
																							UNK				
06827	N	N	N			10/12/2017	16	SW 170TH AVE	STRGHT		N	N	RAIN	S-STRGHT	01	NONE 9	STRGHT										06
NO RPT			N			Thu 3P	100	W BASELINE RD	S	(NONE)	UNKNOWN	N	WET	SS-O		N/A	S N								000	00
No	*45 30 43.67*		*-122 51 7.18*			1		08				N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
										(02)													UNK				
															02	NONE 9	STRGHT										
																N/A	S N								000	00	
																PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
																							UNK				
03154	N	N	N			06/20/2018	16	SW 170TH AVE	STRGHT		N	N	CLR	S-STRGHT	01	NONE 9	STRGHT										29
NONE			N			Wed 2P	150	W BASELINE RD	S	(NONE)	UNKNOWN	N	DRY	REAR		N/A	S N								000	00
No	*45 30 43.18*		*-122 51 7.18*			1		08				N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000	00
										(02)													UNK				

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on SW 170th Ave within 500 Ft South of Intersection with W. Baseline Rd in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
															02	NONE 9 N/A	STRGHT S N									000	00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000	00
00949 NO RPT	N	N	N N			02/11/2016 Thu 2P	16 300	SW 170TH AVE W BASELINE RD	STRGHT S	(NONE)	Y UNKNOWN	N N	RAIN WET	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT S N									000	29 00
No	*45*	*30*	*41.70*	*-122*	*51* *7.18*		1		08	(02)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	45	F	OR-Y OR<25		026	000	29
															02	NONE 0 PRVTE	STOP S N									011	00
																PSNGR CAR		01	DRVR	INJC	31	F	OTH-Y N-RES		000	000	00
05607 NO RPT	N	N	N N			09/01/2017 Fri 8P	16 425	SW 170TH AVE W BASELINE RD	ALLEY S	(NONE)	N UNKNOWN	Y N	CLR DRY	PED PED	01	NONE 0 PRVTE	TURN-R E N										02 00
No	*45*	*30*	*40.46*	*-122*	*51* *7.19*		1		08	(02)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	58	M	OR-Y OR<25		029	000	02
																	STRGHT S N	01	PED	INJC	50	M		09	000	046	00
01925 CITY	N	N	N N	N	N	04/19/2018 Thu 6P	16 430	SW 170TH AVE W BASELINE RD	ALLEY S	(NONE)	N NONE	N N	CLR DRY	ANGL-OTH TURN	01	NONE 0 PRVTE	TURN-L E S										02 00
No	*45*	*30*	*40.41*	*-122*	*51* *7.19*		1		08	(02)		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	35	M	OR-Y OR<25		028	000	02
																		02	PSNG	INJC	32	F			000	000	00
															02	NONE 0 PRVTE	STRGHT S N									000	00
																PSNGR CAR		01	DRVR	NONE	16	M	OR-Y OR<25		000	000	00
06089 CITY	N	N	N N	N	N	11/20/2019 Wed 6A	16 455	SW 170TH AVE W BASELINE RD	ALLEY S	(NONE)	N UNKNOWN	Y N	CLR DRY	PED PED	01	NONE 0 PRVTE	TURN-R S E										02 00
No	*45*	*30*	*40.17*	*-122*	*51* *7.19*		1		08	(02)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	38	M	OR-Y OR<25		029	000	02
																	STRGHT N S	01	PED	INJC	57	F		09	000	047	00

Crashes on SW 170th Ave within 500 Ft South of Intersection with W. Baseline Rd in Beaverton, OR.
January 1, 2015 through December 31, 2019

WASHINGTON COUNTY

SERIAL NO	DATE	TIME	DAY	*COUNTY OR CITY NAME	CRASH LOCATION	COLL TYPE	EVENT	CAUSE	ERROR	SURF	TOT VEH	VEHICLE TYP/OWN #1	VEHICLE TYP/OWN #2	PEOPLE KILL	PEOPLE INJ	PEOPLE ALC	PEOPLE SPED
02833	06/04/2018	5P	MO	Beaverton	SW 170TH AVE 50 FT S OF W BASELINE RD	REAR		29		DRY	2	010	010	0	0	N	N
06710	10/04/2016	4P	TU	Beaverton	SW 170TH AVE 100 FT S OF W BASELINE RD	BACK		10		WET	2	010	010	0	0	N	N
01107	03/01/2015	2P	SU	Beaverton	SW 170TH AVE 100 FT S OF W BASELINE RD	REAR		29	026	DRY	2	011	011	0	1	N	N
06827	10/12/2017	3P	TH	Beaverton	SW 170TH AVE 100 FT S OF W BASELINE RD	SS-O		06		WET	2	010	010	0	0	N	N
03154	06/20/2018	2P	WE	Beaverton	SW 170TH AVE 150 FT S OF W BASELINE RD	REAR		29		DRY	2	010	010	0	0	N	N
00949	02/11/2016	2P	TH	Beaverton	SW 170TH AVE 300 FT S OF W BASELINE RD	REAR		29	026	WET	2	011	011	0	1	N	N
05607	09/01/2017	8P	FR	Beaverton	SW 170TH AVE 425 FT S OF W BASELINE RD	PED		02	029	DRY	1	011		0	1	N	N
01925	04/19/2018	6P	TH	Beaverton	SW 170TH AVE 430 FT S OF W BASELINE RD	TURN		02	028	DRY	2	011	011	0	2	N	N
05634	10/22/2018	5P	MO	Beaverton	SW 170TH AVE 450 FT S OF W BASELINE RD	TURN		02	027	DRY	1	011		0	1	N	N
06089	11/20/2019	6A	WE	Beaverton	SW 170TH AVE 455 FT S OF W BASELINE RD	PED		02	029	DRY	1	011		0	1	N	N

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

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
YEAR: 2019														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	0	1	0	0	0
REAR-END	0	4	0	4	0	5	0	3	1	4	0	0	1	0
SIDESWIPE - OVERTAKING	0	1	1	2	0	1	0	2	0	2	0	0	0	0
2019 TOTAL	0	6	1	7	0	7	0	6	1	6	1	0	1	0
YEAR: 2018														
REAR-END	0	1	3	4	0	2	0	4	0	4	0	0	1	0
2018 TOTAL	0	1	3	4	0	2	0	4	0	4	0	0	1	0
YEAR: 2017														
REAR-END	0	2	2	4	0	3	0	4	0	3	1	0	0	0
2017 TOTAL	0	2	2	4	0	3	0	4	0	3	1	0	0	0
YEAR: 2016														
REAR-END	0	4	0	4	0	4	0	2	2	3	1	0	1	0
2016 TOTAL	0	4	0	4	0	4	0	2	2	3	1	0	1	0
YEAR: 2015														
REAR-END	0	4	0	4	0	8	0	4	0	3	1	0	0	0
2015 TOTAL	0	4	0	4	0	8	0	4	0	3	1	0	0	0
FINAL TOTAL	0	17	6	23	0	24	0	20	3	19	4	0	3	0

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

A higher number of crashes may be reported as of 2011 compared to prior years. This does not necessarily reflect an increase in annual crashes. The higher numbers may result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics. For all disclaimers, see https://www.oregon.gov/ODOT/Data/documents/Crash_Data_Disclaimers.pdf.

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04873	N	N	N			04/12/2019	16	W BASELINE RD	STRGHT		Y	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE			N			Fri 5P	50	SW 170TH AVE	W	(NONE)	TRF SIGNAL	N	DRY	REAR		PRVTE	W E									000		00
Yes						*45 30 45.14 -122 51 8.43*	1		06	0 (04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	F	OR-Y OR<25		026	000		29
															02	NONE 0	STOP									011		00
																PRVTE	W E											
																PSNGR CAR		01	DRVR	INJC	51	F	OR-Y OR<25		000	000		00
00768	N	N	N	N	N	02/11/2015	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY			N			Wed 6P	200	SW 170TH AVE	W	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	E W									000		00
No						*45 30 45.13 -122 51 9.15*	1		07	(04)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	45	F	OR-Y OR<25		043	000		07
															02	NONE 0	STOP									011		00
																PRVTE	E W											
																PSNGR CAR		01	DRVR	INJC	67	F	OR-Y OR<25		000	000		00
																		02	PSNG	INJC	49	M			000	000		00
05683	Y	N	N	N	N	09/29/2015	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	01,29
CITY			N			Tue 8A	100	SW 170TH AVE	W	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	W E									000		00
No						*45 30 45.13 -122 51 9.11*	1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y OR<25		047,026	026		01,29
															02	NONE 0	STOP									011	013	00
																PRVTE	W E											
																PSNGR CAR		01	DRVR	INJC	22	F	OR-Y OR<25		000	000		00
															03	NONE 0	STOP									022		00
																PRVTE	W E											
																PSNGR CAR		01	DRVR	INJC	45	F	OR-Y OR<25		000	000		00
04899	N	N	N			09/17/2018	16	W BASELINE RD	STRGHT		Y	N	CLR	S-1STOP	01	NONE 9	STRGHT											29
NO RPT			N			Mon 4P	100	SW 170TH AVE	W	(NONE)	UNKNOWN	N	DRY	REAR		N/A	W E									000		00
No						*45 30 45.13 -122 51 9.07*	1		08	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9	STOP									011		00
																N/A	W E											
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
05422	N	N	N			09/19/2015	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT			N			Sat 5P	150	SW 170TH AVE	W	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	W E									000		00
No						*45 30 45.13 -122 51 9.80*	1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	F	OR-Y OR<25		026	000		29

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STOP W E								011		00
																PSNGR CAR		01	DRVR	INJC	42	M	OR-Y OR<25		000	000		00
																		02	PSNG	INJC	37	F			000	000		00
																		03	PSNG	INJC	05	F			000	000		00
																		04	PSNG	NO<5	02	M			000	000		00
01044 CITY	N N	N	N	N	N	03/01/2019 Fri 3P	16 150	W BASELINE RD SW 170TH AVE	STRGHT W	(NONE)	N NONE	N N	CLD DRY	S-STRGHT SS-O	01	NONE 9 N/A	STRGHT W E									031		06,32 00
No	*45 30 45.13*			*-122 51 9.83*		1			08	(05)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STRGHT W E								000		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
03604 NONE	N N	N	N			07/16/2019 Tue 6P	16 165	W BASELINE RD SW 170TH AVE	STRGHT W	(NONE)	N UNKNOWN	N N	CLR DRY	S-STRGHT SS-O	01	NONE 0 PRVTE	STRGHT W E									000	100	13 00
No	*45 30 45.12*			*-122 51 10.00*		1			08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	38	M	OR-Y OR<25		045	000		13
															02	NONE 0 PRVTE	STRGHT W E								031		00
																MTRCYCLE		01	DRVR	INJA	34	F	OR-Y OR<25		000	000		00
02443 COUNTY	N N	N	N	N	N	04/27/2017 Thu 7A	16 170	W BASELINE RD SW 170TH AVE	STRGHT W	(NONE)	N NONE	N N	CLD DRY	S-1STOP REAR	01	NONE 9 N/A	STRGHT W E									000		27,29 00
No	*45 30 45.13*			*-122 51 10.05*		1			08	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STOP W E								011		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
00783 NONE	N N	N	N			01/28/2016 Thu 7A	16 200	W BASELINE RD SW 170TH AVE	STRGHT W	(NONE)	Y UNKNOWN	N N	RAIN WET	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT W E									000		29 00
No	*45 30 45.12*			*-122 51 10.59*		1			08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	30	F	OR-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP W E								011		00
																PSNGR CAR		01	DRVR	INJC	85	F	OR-Y OR<25		000	000		00

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00797	N	N	N			02/02/2017	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 9	STRGHT										07
NONE			N			Thu 6A	250	SW 170TH AVE	W	(NONE)	UNKNOWN	N	DRY	REAR		N/A	W E								000		00
No						*45 30 45.12 -122 51 11.20*	1		08	(04)		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9	STOP										
																N/A	W E								011		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
04661	N	N	N	N	N	07/31/2017	16	W BASELINE RD	ALLEY		N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											29,13
CITY			N			Mon 10A	260	SW 170TH AVE	W	(NONE)	NONE	N	DRY	REAR		PRVTE	W E								000		00
No						*45 30 45.12 -122 51 11.32*	1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25		042,045	000		29,13
																		02	PSNG	INJC	19	F			000	000		00
															02	NONE 0	STRGHT										
																PRVTE	W E								000		00
																PSNGR CAR		01	DRVR	NONE	18	M	OR-Y OR<25		000	000		00
03969	N	N	N			08/05/2019	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	29
NONE			N			Mon 3P	75	SW 173RD AVE	E	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	E W								000		00
No						*45 30 45.08 -122 51 16.06*	1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y OR<25		026	000		29
															02	NONE 0	STOP										
																PRVTE	E W								011	013	00
																PSNGR CAR		01	DRVR	INJC	31	F	OR-Y OR<25		000	000		00
															03	NONE 0	STRGHT										
																PRVTE	W E								022		00
																PSNGR CAR		01	DRVR	NONE	24	F	OR-Y OR<25		000	000		00
04600	N	N	N			09/03/2018	16	W BASELINE RD	STRGHT		N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											29
NONE			N			Mon 2P	184	SW 173RD AVE	W	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	W E								000		00
No						*45 30 45.10 -122 51 20.01*	1		03	(04)		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJC	19	F	OR-Y OR<25		042	000		29
															02	NONE 0	STRGHT										
																PRVTE	W E								006		00
																PSNGR CAR		01	DRVR	INJC	56	F	OR-Y OR<25		000	000		00
04772	N	N	N			09/17/2019	16	W BASELINE RD	STRGHT		N	N	RAIN	S-STRGHT	01	NONE 0	STRGHT										013	29
NO RPT			N			Tue 6P	100	SW 173RD AVE	W	(NONE)	UNKNOWN	N	WET	REAR		PRVTE	E W								000		00
No						*45 30 45.09 -122 51 18.86*	1		07	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y OR<25		042	000		29

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STRGHT E W								000	013	00
																PSNGR CAR		01	DRVR	INJC	23	M	OR-Y OR<25		000	000		00
															03	NONE 0 PRVTE	STOP E W								022		00
																PSNGR CAR		01	DRVR	INJC	56	F	OR-Y OR<25		000	000		00
06678	N	N	N	N	N	12/16/2019	16	W BASELINE RD	STRGHT		N	N	CLR	PED	01	NONE 0	STRGHT										093	27,18
CITY		N				Mon 7P	150	SW 173RD AVE	W	(NONE)	UNKNOWN	N	DRY	PED		PRVTE	E W								000		00
No	*45 30 45.09*		*-122 51 19.55*				1		07	(04)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	63	M	OR-Y OR<25		000	000		00
																	STRGHT S N	01	PED	INJC	22	M		04	016,057	037	093	27,18
03130	N	N	N			06/08/2015	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										016	40,29
CITY		N				Mon 5P	415	SW 173RD AVE	W	(NONE)	WW W/ GATE	N	DRY	REAR		PRVTE	E W								000		00
No	*45 30 45.13*		*-122 51 23.53*				1		07	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	30	F	OR-Y OR<25		026	026		40,29
															02	NONE 0 PRVTE	STOP E W								011		00
																PSNGR CAR		01	DRVR	INJC	53	F	OR-Y OR<25		000	000		00
02964	N	N	N	N	N	06/01/2018	16	W BASELINE RD	STRGHT		N	N	CLR	S-STRGHT	01	NONE 9	STRGHT											29
COUNTY		N				Fri 3P	415	SW 173RD AVE	W	(RSDMD)	NONE	N	DRY	REAR		N/A	E W								000		00
No	*45 30 45.13*		*-122 51 23.28*				1		07	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STRGHT E W								006		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
06597	N	N	N	N	N	09/29/2016	16	W BASELINE RD	STRGHT		N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											07
CITY		N				Thu 1P	425	SW 173RD AVE	W	(RSDMD)	WW W/ GATE	N	DRY	REAR		PRVTE	E W								000		00
No	*45 30 45.13*		*-122 51 23.58*				1		07	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y OR<25		043	000		07
															02	NONE 0 PRVTE	STRGHT E W								006		00
																PSNGR CAR		01	DRVR	INJC	26	F	NONE OR<25		000	000		00
03953	N	N	N	N	N	08/09/2019	16	W BASELINE RD	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
CITY		N				Fri 9A	75	SW 173RD AVE	W	(NONE)	NONE	N	DRY	REAR		PRVTE	W E								000		00
No	*45 30 45.08*		*-122 51 18.52*				1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y OR<25		026	000		29

CITY OF BEAVERTON, WASHINGTON COUNTY

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STOP W E								011		00
																PSNGR CAR		01	DRVR	INJC	54	M	OR-Y OR<25		000	000		00
05790 NONE	N	N	N N			10/28/2018 Sun 10A	16 100	W BASELINE RD SW 173RD AVE	STRGHT W	(NONE)	N UNKNOWN	N	CLR DRY	S-1STOP REAR	01	NONE 9 N/A	STRGHT W E									000		29 00
No	*45 30 45.09*					*-122 51 18.91*	1		08	(04)		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9 N/A	STOP W E								011		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
00702 NO RPT	N	N	N N			01/21/2016 Thu 5P	16 120	W BASELINE RD SW 173RD AVE	STRGHT W	(NONE)	N UNKNOWN	N	RAIN WET	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT W E									000		29 00
No	*45 30 45.09*					*-122 51 19.35*	1		08	(04)		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	60	M	OR-Y OR<25		042	000		29
															02	NONE 0 PRVTE	STRGHT W E								006		00
																PSNGR CAR		01	DRVR	INJC	33	F	OR-Y OR<25		000	000		00
05098 NO RPT	N	N	N N			08/19/2017 Sat 11A	16 135	W BASELINE RD SW 173RD AVE	ALLEY W	(NONE)	N UNKNOWN	N	CLR DRY	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT W E									000	013	29 00
No	*45 30 45.09*					*-122 51 19.33*	1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	34	F	OR-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP W E								011	013	00
																PSNGR CAR		01	DRVR	INJC	63	F	OR-Y OR<25		000	000		00
															03	NONE 0 PRVTE	STOP W E								022		00
																PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		000	000		00
																		02	PSNG	NO<5	02	M			000	000		00
07768 COUNTY	N	N	N N	N	N	11/12/2016 Sat 4P	16 150	W BASELINE RD SW 175TH AVE	STRGHT E	(RSDMD)	N WW W/ GATE	N	CLD DRY	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT E W									000		29 00
No	*45 30 45.14*					*-122 51 23.66*	1		08	(04)		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	69	F	OR-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP E W								011		00
																PSNGR CAR		01	DRVR	NONE	24	M	OR-Y OR<25		000	000		00

Crashes on W Baseline Rd West of SW 170th Ave to Rail Road Tracks in Beaverton, OR.
January 1, 2015 through December 31, 2019

WASHINGTON COUNTY

SERIAL NO	DATE	TIME	DAY	*COUNTY OR CITY NAME	CRASH LOCATION	COLL TYPE	EVENT	CAUSE	ERROR	SURF	TOT VEH	VEHICLE TYP/OWN #1	VEHICLE TYP/OWN #2	PEOPLE KILL	PEOPLE INJ	PEOPLE ALC	PEOPLE SPEED
04873	04/12/2019	5P	FR	Beaverton	W BASELINE RD 50 FT W OF SW 170TH AVE	REAR		29	026	DRY	2	011	011	0	1	N	N
05683	09/29/2015	8A	TU	Beaverton	W BASELINE RD 100 FT W OF SW 170TH AVE	REAR	013	01,29	047,026	DRY	3	011	011	0	2	N	Y
04899	09/17/2018	4P	MO	Beaverton	W BASELINE RD 100 FT W OF SW 170TH AVE	REAR		29		DRY	2	010	010	0	0	N	N
05422	09/19/2015	5P	SA	Beaverton	W BASELINE RD 150 FT W OF SW 170TH AVE	REAR		29	026	DRY	2	011	011	0	3	N	N
01044	03/01/2019	3P	FR	Beaverton	W BASELINE RD 150 FT W OF SW 170TH AVE	SS-O		06,32		DRY	2	010	010	0	0	N	N
03604	07/16/2019	6P	TU	Beaverton	W BASELINE RD 165 FT W OF SW 170TH AVE	SS-O	100	13	045	DRY	2	011	091	0	1	N	N
02443	04/27/2017	7A	TH	Beaverton	W BASELINE RD 170 FT W OF SW 170TH AVE	REAR		27,29		DRY	2	010	010	0	0	N	N
00768	02/11/2015	6P	WE	Beaverton	W BASELINE RD 200 FT W OF SW 170TH AVE	REAR		07	043	DRY	2	011	011	0	2	N	N
00783	01/28/2016	7A	TH	Beaverton	W BASELINE RD 200 FT W OF SW 170TH AVE	REAR		29	026	WET	2	011	011	0	1	N	N
00797	02/02/2017	6A	TH	Beaverton	W BASELINE RD 250 FT W OF SW 170TH AVE	REAR		07		DRY	2	010	010	0	0	N	N
04661	07/31/2017	10A	MO	Beaverton	W BASELINE RD 260 FT W OF SW 170TH AVE	REAR		29,13	042,045	DRY	2	011	011	0	1	N	N
03969	08/05/2019	3P	MO	Beaverton	W BASELINE RD 75 FT E OF SW 173RD AVE	REAR	013	29	026	DRY	3	011	011	0	1	N	N
03953	08/09/2019	9A	FR	Beaverton	W BASELINE RD 75 FT W OF SW 173RD AVE	REAR		29	026	DRY	2	011	011	0	1	N	N
05790	10/28/2018	10A	SU	Beaverton	W BASELINE RD 100 FT W OF SW 173RD AVE	REAR		29		DRY	2	010	010	0	0	N	N
04772	09/17/2019	6P	TU	Beaverton	W BASELINE RD 100 FT W OF SW 173RD AVE	REAR	013	29	042	WET	3	011	011	0	2	N	N
00702	01/21/2016	5P	TH	Beaverton	W BASELINE RD 120 FT W OF SW 173RD AVE	REAR		29	042	WET	2	011	011	0	1	N	N
05098	08/19/2017	11A	SA	Beaverton	W BASELINE RD 135 FT W OF SW 173RD AVE	REAR	013	29	026	DRY	3	011	011	0	2	N	N
06678	12/16/2019	7P	MO	Beaverton	W BASELINE RD 150 FT W OF SW 173RD AVE	PED	093	27,18	016,057	DRY	1	011		0	1	N	N
04600	09/03/2018	2P	MO	Beaverton	W BASELINE RD 184 FT W OF SW 173RD AVE	REAR		29	042	DRY	2	011	011	0	2	N	N
03130	06/08/2015	5P	MO	Beaverton	W BASELINE RD 415 FT W OF SW 173RD AVE	REAR	016	40,29	026	DRY	2	011	011	0	1	N	N
02964	06/01/2018	3P	FR	Beaverton	W BASELINE RD 415 FT W OF SW 173RD AVE	REAR		29		DRY	2	010	010	0	0	N	N
06597	09/29/2016	1P	TH	Beaverton	W BASELINE RD 425 FT W OF SW 173RD AVE	REAR		07	043	DRY	2	011	011	0	1	N	N
07768	11/12/2016	4P	SA	Beaverton	W BASELINE RD 150 FT E OF SW 175TH AVE	REAR		29	026	DRY	2	011	011	0	1	N	N

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Intersectional Crashes at SW Sullivan Ln & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

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
YEAR: 2019														
REAR-END	0	1	0	1	0	1	0	0	1	1	0	1	0	0
2019 TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0
YEAR: 2018														
REAR-END	0	2	0	2	0	4	0	2	0	1	1	2	0	0
2018 TOTAL	0	2	0	2	0	4	0	2	0	1	1	2	0	0
YEAR: 2016														
REAR-END	0	2	1	3	0	2	0	2	1	3	0	3	0	0
2016 TOTAL	0	2	1	3	0	2	0	2	1	3	0	3	0	0
FINAL TOTAL	0	5	1	6	0	7	0	4	2	5	1	6	0	0

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

A higher number of crashes may be reported as of 2011 compared to prior years. This does not necessarily reflect an increase in annual crashes. The higher numbers may result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics. For all disclaimers, see https://www.oregon.gov/ODOT/Data/documents/Crash_Data_Disclaimers.pdf.

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at SW Sullivan Ln & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / LAT/LONG	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02706	N	N	N			04/25/2016	16	SW SULLIVAN LN	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 9	STRGHT											29
NONE			N			Mon 4P	0	SW 170TH AVE	N		STOP SIGN	N	DRY	REAR		N/A	N S									000		00
No	*45 30 34.38*		*-122 51 7.17*				1		06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
															02	NONE 9	STOP											
																N/A	N S									011		00
																PSNGR CAR		01	DRVR	NONE	00	U	UNK UNK		000	000		00
03105	N	N	N	N	N	05/11/2016	16	SW SULLIVAN LN	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
CITY			N			Wed 9A	0	SW 170TH AVE	N		SP PED SIG	N	DRY	REAR		PRVTE	N S									000		00
No	*45 30 34.38*		*-122 51 7.17*				1		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	N S									011		00
																PSNGR CAR		01	DRVR	INJC	42	F	OR-Y OR<25		000	000		00
05870	N	N	N	N	N	09/02/2016	16	SW SULLIVAN LN	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										013	29
COUNTY			N			Fri 4P	0	SW 170TH AVE	N		SP PED SIG	N	WET	REAR		UNKN	N S									000		00
No	*45 30 34.38*		*-122 51 7.17*				1		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	NONE OR<25		026	000		29
																		02	PSNG	NO<5	01	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	N S									011	013	00
																PSNGR CAR		01	DRVR	INJC	84	F	OR-Y OR<25		000	000		00
															03	NONE 0	STOP											
																PRVTE	N S									022		00
																PSNGR CAR		01	DRVR	NONE	54	F	OR-Y OR<25		000	000		00
05919	N	N	N			11/02/2018	16	SW SULLIVAN LN	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT			N			Fri 1P	0	SW 170TH AVE	N		STOP SIGN	N	DRY	REAR		PRVTE	N S									000		00
No	*45 30 34.38*		*-122 51 7.17*				1		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	60	M	OR-Y OR<25		043	000		07
															02	NONE 0	STOP											
																PRVTE	N S									011		00
																PSNGR CAR		01	DRVR	INJC	22	M	OR-Y OR<25		000	000		00
06604	N	N	N			12/02/2018	16	SW SULLIVAN LN	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	32,29
NO RPT			N			Sun 9P	0	SW 170TH AVE	N		STOP SIGN	N	DRY	REAR		PRVTE	N S									000		00
No	*45 30 34.38*		*-122 51 7.17*				1		06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	47	F	OR-Y OR<25		052,026	000		32,29

CITY OF BEAVERTON, WASHINGTON COUNTY

Intersectional Crashes at SW Sullivan Ln & SW 170th Ave in Beaverton, OR.
January 1, 2015 through December 31, 2019

SER# / INVEST / UNLOC?	SPED	ALC	DRUG/MJ	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE	STOP N S									011	013	00
																PSNGR CAR		01	DRVR	INJC	52	M	UNK OR<25		000	000		00
																		02	PSNG	INJC	45	F			000	000		00
															03	NONE 0 PRVTE	STOP N S									022		00
																PSNGR CAR		01	DRVR	INJA	59	M	OR-Y OR<25		000	000		00
03262 NONE	N	N	N N			06/25/2019 Tue	16 0	SW SULLIVAN LN SW 170TH AVE	INTER S	3-LEG	N STOP SIGN	N	RAIN WET	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT S N											29 00
No	*45*	*30*	*34.38*	*-122*	*51*	*7.17*	1	06	0			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OTH-Y OR<25		026	000		29
															02	NONE 0 PRVTE	STOP S N									011		00
																PSNGR CAR		01	DRVR	INJC	37	F	OR-Y OR<25		000	000		00

Appendix E Year 2025 Background Traffic Conditions Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	101.4
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	0	0	11	0	45	44	1318	1	4	622	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	10.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	38.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	11	0	45	44	1318	1	4	622	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	0	12	12	362	0	1	171	2
Total Analysis Volume [veh/h]	1	0	0	12	0	49	48	1448	1	4	684	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.17	0.00	0.07	0.05	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	101.38	97.85	17.17	59.27	99.27	14.94	9.23	0.00	0.00	12.67	0.00	0.00
Movement LOS	F	F	C	F	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.08	0.92	0.92	0.92	0.17	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.97	1.97	1.97	22.92	22.92	22.92	4.23	0.00	0.00	0.64	0.00	0.00
d_A, Approach Delay [s/veh]	101.38			23.66			0.30			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	0.90											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	36.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	151	268	74	84	173	35	51	1160	118	58	449	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	4.00	9.00	3.00	2.00	3.00	5.00	7.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	151	268	74	84	173	35	51	1160	118	58	449	72
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	72	20	23	47	9	14	312	32	16	121	19
Total Analysis Volume [veh/h]	162	288	80	90	186	38	55	1247	127	62	483	77
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	0	14	35	0	12	47	0	12	47	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.50	5.00	4.75	5.50	5.50	4.00	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	39	29	39	29	63	52	52	63	30	30
g / C, Green / Cycle	0.35	0.26	0.35	0.26	0.57	0.48	0.48	0.57	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.12	0.20	0.07	0.13	0.04	0.38	0.38	0.10	0.16	0.16
s, saturation flow rate [veh/h]	1327	1801	1231	1714	1368	1855	1796	645	1840	1753
c, Capacity [veh/h]	355	473	250	451	688	885	857	278	502	478
d1, Uniform Delay [s]	51.15	47.06	43.25	34.37	19.73	24.04	24.14	37.79	34.44	34.48
k, delay calibration	0.11	0.23	0.11	0.11	0.13	0.50	0.50	0.50	0.07	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.92	5.74	0.87	0.85	0.06	6.95	7.38	1.85	0.68	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.78	0.36	0.50	0.08	0.79	0.79	0.22	0.57	0.57
d, Delay for Lane Group [s/veh]	52.07	52.80	44.12	35.22	19.79	30.99	31.53	39.64	35.12	35.89
Lane Group LOS	D	D	D	D	B	C	C	D	D	D
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.24	11.32	1.64	5.10	0.55	15.55	15.31	0.75	6.41	6.25
50th-Percentile Queue Length [ft/ln]	106.03	283.04	40.92	127.51	13.75	388.79	382.71	18.83	160.25	156.21
95th-Percentile Queue Length [veh/ln]	7.62	16.84	2.95	8.80	0.99	22.02	21.73	1.36	10.56	10.35
95th-Percentile Queue Length [ft/ln]	190.47	420.99	73.65	220.11	24.74	550.47	543.13	33.90	264.06	258.70

Movement, Approach, & Intersection Results

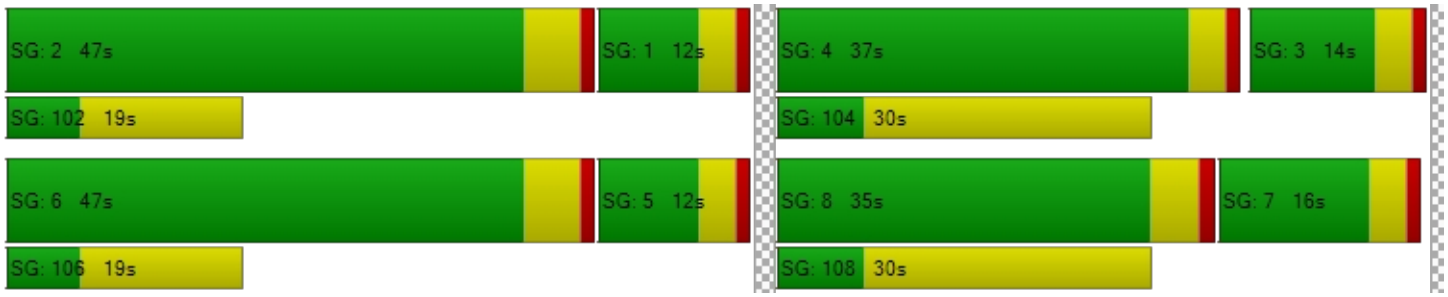
d_M, Delay for Movement [s/veh]	52.07	52.80	52.80	44.12	35.22	35.22	19.79	31.23	31.53	39.64	35.43	35.89
Movement LOS	D	D	D	D	D	D	B	C	C	D	D	D
d_A, Approach Delay [s/veh]	52.58			37.77			30.82			35.91		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	36.65											
Intersection LOS	D											
Intersection V/C	0.693											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	45.45	45.45	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersection	2.421	2.282	3.149	3.020
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	545	755	755
d_b, Bicycle Delay [s]	26.95	29.09	21.33	21.33
l_b,int, Bicycle LOS Score for Intersection	2.434	2.078	2.739	2.073
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.047

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	537	300	16	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	9.00	7.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	537	300	16	0	32
Peak Hour Factor	1.0000	0.9400	0.9400	0.9400	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	143	80	4	0	9
Total Analysis Volume [veh/h]	0	571	319	17	0	34
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.20
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	3.68
d_A, Approach Delay [s/veh]	0.00		0.00		10.20	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	B					

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.52	8.32	0.00	0.00	0.00	0.00
Movement LOS	A	A	A			A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.81					
Intersection LOS						

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	21.3
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.060

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	479	58	39	302	0	0	0	1	13	0	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	479	58	39	302	0	0	0	1	13	0	8
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	127	15	10	80	0	0	0	0	3	0	2
Total Analysis Volume [veh/h]	1	510	62	41	321	0	0	0	1	14	0	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.02
d_M, Delay for Movement [s/veh]	7.88	0.00	0.00	8.71	0.00	0.00	19.91	19.86	9.98	21.27	20.21	12.07
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.05
95th-Percentile Queue Length [ft/ln]	0.06	0.00	0.00	3.17	0.00	0.00	0.10	0.10	0.10	4.71	4.71	1.32
d_A, Approach Delay [s/veh]	0.01			0.99			9.98			17.67		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	0.81											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	75.3
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.019

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	0	0	11	0	45	44	1318	1	4	622	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	10.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	38.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	11	0	45	44	1318	1	4	622	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	0	11	11	330	0	1	156	2
Total Analysis Volume [veh/h]	1	0	0	11	0	45	44	1318	1	4	622	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.12	0.00	0.07	0.05	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	75.27	73.26	15.11	46.72	74.27	12.93	8.98	0.00	0.00	11.84	0.00	0.00
Movement LOS	F	F	C	E	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.68	0.68	0.68	0.15	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.46	1.46	1.46	16.91	16.91	16.91	3.65	0.00	0.00	0.57	0.00	0.00
d_A, Approach Delay [s/veh]	75.27			19.57			0.29			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	0.79											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.643

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	151	268	74	84	173	35	51	1160	118	58	449	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	4.00	9.00	3.00	2.00	3.00	5.00	7.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	151	268	74	84	173	35	51	1160	118	58	449	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	67	19	21	43	9	13	290	30	15	112	18
Total Analysis Volume [veh/h]	151	268	74	84	173	35	51	1160	118	58	449	72
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	0	14	35	0	12	47	0	12	47	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.50	5.00	4.75	5.50	5.50	4.00	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	39	29	39	29	63	53	53	63	30	30
g / C, Green / Cycle	0.35	0.26	0.35	0.26	0.58	0.48	0.48	0.58	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.11	0.19	0.07	0.12	0.04	0.35	0.35	0.09	0.14	0.15
s, saturation flow rate [veh/h]	1340	1801	1249	1714	1384	1855	1796	670	1840	1753
c, Capacity [veh/h]	362	467	262	445	707	894	865	298	502	478
d1, Uniform Delay [s]	50.07	46.53	42.76	34.31	18.63	22.69	22.74	33.05	34.00	34.05
k, delay calibration	0.11	0.18	0.11	0.11	0.13	0.50	0.50	0.50	0.04	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.77	3.78	0.70	0.77	0.05	5.25	5.51	1.46	0.32	1.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.73	0.32	0.47	0.07	0.72	0.73	0.19	0.53	0.53
d, Delay for Lane Group [s/veh]	50.84	50.31	43.46	35.08	18.68	27.94	28.25	34.50	34.33	35.17
Lane Group LOS	D	D	D	D	B	C	C	C	C	D
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.92	10.27	1.53	4.71	0.50	13.55	13.25	0.68	5.84	5.72
50th-Percentile Queue Length [ft/ln]	97.89	256.83	38.15	117.68	12.57	338.66	331.32	17.10	146.05	143.04
95th-Percentile Queue Length [veh/ln]	7.05	15.53	2.75	8.27	0.90	19.58	19.22	1.23	9.81	9.64
95th-Percentile Queue Length [ft/ln]	176.20	388.24	68.68	206.64	22.62	489.56	480.58	30.78	245.14	241.11

Movement, Approach, & Intersection Results

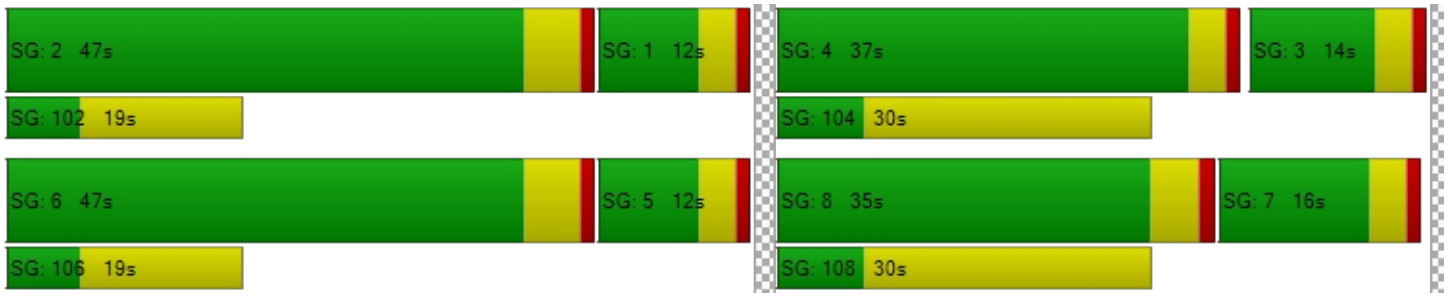
d_M, Delay for Movement [s/veh]	50.84	50.31	50.31	43.46	35.08	35.08	18.68	28.07	28.25	34.50	34.67	35.17
Movement LOS	D	D	D	D	D	D	B	C	C	C	C	D
d_A, Approach Delay [s/veh]	50.47			37.49			27.73			34.72		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	34.45											
Intersection LOS	C											
Intersection V/C	0.643											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	45.45	45.45	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersection	2.389	2.259	3.091	2.971
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	545	755	755
d_b, Bicycle Delay [s]	26.95	29.09	21.33	21.33
l_b,int, Bicycle LOS Score for Intersection	2.373	2.041	2.656	2.037
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.043

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	537	300	16	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	9.00	7.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	537	300	16	0	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	134	75	4	0	8
Total Analysis Volume [veh/h]	0	537	300	16	0	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.05
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.13
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	3.37
d_A, Approach Delay [s/veh]	0.00		0.00		10.05	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	19.7
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.051

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	479	58	39	302	0	0	0	1	13	0	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	479	58	39	302	0	0	0	1	13	0	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	120	15	10	76	0	0	0	0	3	0	2
Total Analysis Volume [veh/h]	1	479	58	39	302	0	0	0	1	13	0	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01
d_M, Delay for Movement [s/veh]	7.84	0.00	0.00	8.59	0.00	0.00	18.63	18.70	9.86	19.73	18.92	11.75
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.04
95th-Percentile Queue Length [ft/ln]	0.06	0.00	0.00	2.92	0.00	0.00	0.10	0.10	0.10	3.98	3.98	1.12
d_A, Approach Delay [s/veh]	0.01			0.98			9.86			16.69		
Approach LOS	A			A			A			C		
d_I, Intersection Delay [s/veh]	0.78											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	135.7
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	2	1	7	14	0	77	56	1004	0	1	1130	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	7	14	0	77	56	1004	0	1	1130	46
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	2	4	0	20	15	267	0	0	301	12
Total Analysis Volume [veh/h]	2	1	7	15	0	82	60	1068	0	1	1202	49
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.04	0.01	0.38	0.00	0.19	0.11	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	102.11	135.69	16.31	122.47	152.46	38.64	12.15	0.00	0.00	10.46	0.00	0.00
Movement LOS	F	F	C	F	F	E	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.33	0.33	0.33	3.02	3.02	3.02	0.36	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.19	8.19	8.19	75.57	75.57	75.57	8.89	0.00	0.00	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	45.41			51.61			0.65			0.01		
Approach LOS	E			F			A			A		
d_I, Intersection Delay [s/veh]	2.49											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	38.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	153	290	82	143	358	50	73	809	143	134	974	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	290	82	143	358	50	73	809	143	134	974	150
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	78	22	38	96	13	20	217	38	36	262	40
Total Analysis Volume [veh/h]	165	312	88	154	385	54	78	870	154	144	1047	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	43	0	14	35	0	12	46	0	17	51	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	5.00	5.00	5.50	5.50	5.50	4.75	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	48	35	47	31	52	52	52	55	54	54
g / C, Green / Cycle	0.40	0.29	0.39	0.26	0.44	0.44	0.44	0.46	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.09	0.22	0.13	0.24	0.12	0.28	0.28	0.17	0.32	0.33
s, saturation flow rate [veh/h]	1781	1786	1179	1845	640	1885	1788	867	1900	1813
c, Capacity [veh/h]	384	524	333	475	241	822	780	293	848	809
d1, Uniform Delay [s]	36.65	50.12	27.72	43.44	25.42	26.45	26.46	44.70	27.23	27.32
k, delay calibration	0.11	0.22	0.04	0.21	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.76	4.66	0.37	13.71	0.29	3.78	4.00	5.80	5.40	5.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.76	0.46	0.92	0.32	0.64	0.64	0.49	0.73	0.73
d, Delay for Lane Group [s/veh]	37.41	54.78	28.09	57.15	25.71	30.24	30.46	50.50	32.63	33.10
Lane Group LOS	D	D	C	E	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.67	13.20	2.92	14.28	1.26	11.94	11.38	2.73	14.83	14.37
50th-Percentile Queue Length [ft/ln]	116.65	330.03	73.10	357.01	31.49	298.57	284.62	68.33	370.67	359.22
95th-Percentile Queue Length [veh/ln]	8.21	19.16	5.26	20.48	2.27	17.61	16.92	4.92	21.14	20.59
95th-Percentile Queue Length [ft/ln]	205.22	478.99	131.58	511.95	56.68	440.26	422.96	122.99	528.55	514.63

Movement, Approach, & Intersection Results

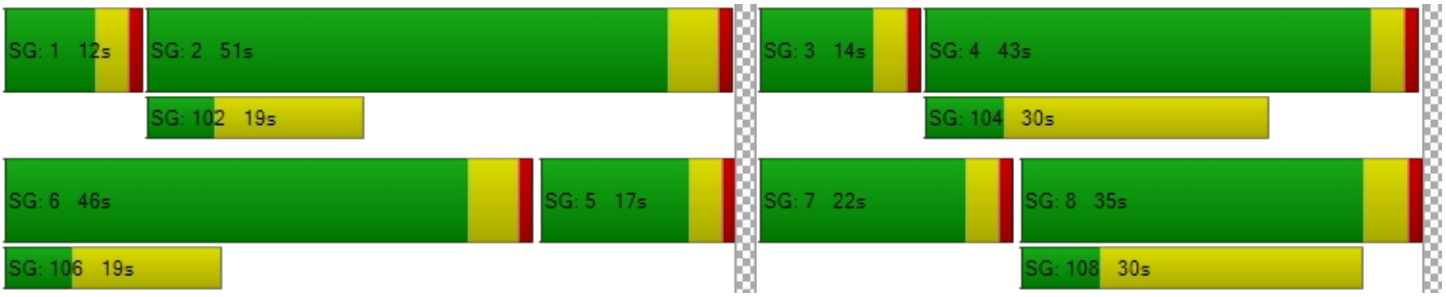
d_M, Delay for Movement [s/veh]	37.41	54.78	54.78	28.09	57.15	57.15	25.71	30.33	30.46	50.50	32.82	33.10
Movement LOS	D	D	D	C	E	E	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	49.71			49.60			30.02			34.74		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	38.08											
Intersection LOS	D											
Intersection V/C	0.778											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	50.43	50.43	49.52	49.52
l_p,int, Pedestrian LOS Score for Intersection	2.664	2.431	3.029	3.100
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	500	675	758
d_b, Bicycle Delay [s]	27.35	33.77	26.35	23.14
l_b,int, Bicycle LOS Score for Intersection	2.492	2.538	2.469	2.675
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.072

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	471	576	73	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	1.00	1.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	471	576	73	0	32
Peak Hour Factor	1.0000	0.9100	0.9100	0.9100	1.0000	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	129	158	20	0	9
Total Analysis Volume [veh/h]	0	518	633	80	0	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.03
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.23
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.83
d_A, Approach Delay [s/veh]	0.00		0.00		13.03	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	39.1
Analysis Method:	HCM 2000	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.319

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	454	17	25	605	1	1	0	0	45	0	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	454	17	25	605	1	1	0	0	45	0	65
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	125	5	7	166	0	0	0	0	12	0	18
Total Analysis Volume [veh/h]	0	499	19	27	665	1	1	0	0	49	0	71
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.00	0.00	0.32	0.00	0.12
d_M, Delay for Movement [s/veh]	8.86	0.00	0.00	8.49	0.00	0.00	33.17	26.05	12.99	39.10	36.21	12.23
Movement LOS	A	A	A	A	A	A	D	D	B	E	E	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.08	0.00	0.00	0.02	0.02	0.02	1.28	1.28	0.43
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.96	0.00	0.00	0.59	0.59	0.59	32.04	32.04	10.63
d_A, Approach Delay [s/veh]	0.00			0.33			33.17			23.20		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	2.29											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	108.2
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.028

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	2	1	7	14	0	77	56	1004	0	1	1130	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	7	14	0	77	56	1004	0	1	1130	46
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	2	4	0	19	14	251	0	0	283	12
Total Analysis Volume [veh/h]	2	1	7	14	0	77	56	1004	0	1	1130	46
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.03	0.01	0.29	0.00	0.17	0.09	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	82.09	108.21	14.60	94.43	117.25	27.92	11.60	0.00	0.00	10.17	0.00	0.00
Movement LOS	F	F	B	F	F	D	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.27	2.42	2.42	2.42	0.31	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.73	6.73	6.73	60.57	60.57	60.57	7.70	0.00	0.00	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	37.46			38.15			0.61			0.01		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	1.93											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	35.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.723

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	153	290	82	143	358	50	73	809	143	134	974	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	290	82	143	358	50	73	809	143	134	974	150
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	73	21	36	90	13	18	202	36	34	244	38
Total Analysis Volume [veh/h]	153	290	82	143	358	50	73	809	143	134	974	150
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	43	0	14	35	0	12	46	0	17	51	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	5.00	5.00	5.50	5.50	5.50	4.75	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	45	33	44	29	55	55	55	58	57	57
g / C, Green / Cycle	0.38	0.27	0.37	0.24	0.46	0.46	0.46	0.48	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21	0.12	0.22	0.11	0.26	0.26	0.15	0.30	0.30
s, saturation flow rate [veh/h]	1781	1786	1203	1845	661	1885	1788	881	1900	1813
c, Capacity [veh/h]	376	488	327	444	273	865	820	327	894	852
d1, Uniform Delay [s]	37.67	50.74	28.82	44.42	22.33	23.72	23.72	40.70	24.14	24.18
k, delay calibration	0.11	0.18	0.04	0.17	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.71	4.18	0.34	13.73	0.19	2.69	2.84	3.80	3.60	3.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.76	0.44	0.92	0.27	0.56	0.56	0.41	0.64	0.65
d, Delay for Lane Group [s/veh]	38.38	54.92	29.16	58.15	22.53	26.41	26.56	44.49	27.74	28.00
Lane Group LOS	D	D	C	E	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.33	12.24	2.81	13.33	1.11	10.18	9.69	2.32	12.47	12.01
50th-Percentile Queue Length [ft/ln]	108.22	305.92	70.33	333.16	27.86	254.46	242.20	58.04	311.80	300.31
95th-Percentile Queue Length [veh/ln]	7.74	17.97	5.06	19.31	2.01	15.41	14.79	4.18	18.26	17.70
95th-Percentile Queue Length [ft/ln]	193.52	449.34	126.59	482.84	50.15	385.26	369.81	104.47	456.59	442.41

Movement, Approach, & Intersection Results

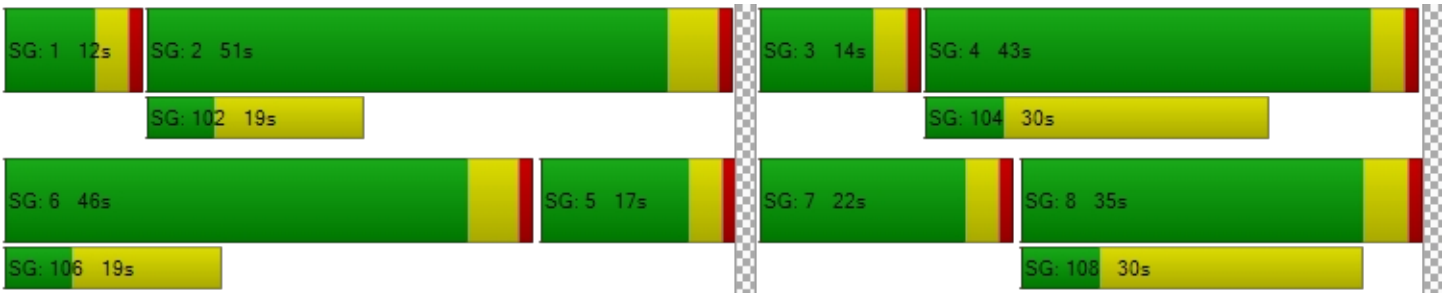
d_M, Delay for Movement [s/veh]	38.38	54.92	54.92	29.16	58.15	58.15	22.53	26.47	26.56	44.49	27.85	28.00
Movement LOS	D	D	D	C	E	E	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	50.10			50.62			26.20			29.64		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	35.23											
Intersection LOS	D											
Intersection V/C	0.723											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	50.43	50.43	49.52	49.52
l_p,int, Pedestrian LOS Score for Intersection	2.627	2.400	2.977	3.041
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	500	675	758
d_b, Bicycle Delay [s]	27.35	33.77	26.35	23.14
l_b,int, Bicycle LOS Score for Intersection	2.426	2.469	2.405	2.597
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.061

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	471	576	73	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	1.00	1.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	471	576	73	0	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	118	144	18	0	8
Total Analysis Volume [veh/h]	0	471	576	73	0	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.37
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	4.91
d_A, Approach Delay [s/veh]	0.00		0.00		12.37	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	31.1
Analysis Method:	HCM 2000	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.246

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	454	17	25	605	1	1	0	0	45	0	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	454	17	25	605	1	1	0	0	45	0	65
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	114	4	6	151	0	0	0	0	11	0	16
Total Analysis Volume [veh/h]	0	454	17	25	605	1	1	0	0	45	0	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.25	0.00	0.11
d_M, Delay for Movement [s/veh]	8.67	0.00	0.00	8.34	0.00	0.00	28.07	22.99	12.33	31.07	29.05	11.68
Movement LOS	A	A	A	A	A	A	D	C	B	D	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.07	0.00	0.00	0.02	0.02	0.02	0.97	0.97	0.36
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.74	0.00	0.00	0.48	0.48	0.48	24.13	24.13	9.04
d_A, Approach Delay [s/veh]	0.00			0.33			28.07			19.62		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	1.97											
Intersection LOS	D											

Appendix F Year 2025 Total Traffic Conditions Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	105.6
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	0	0	11	0	45	44	1328	1	4	643	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	10.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	38.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	11	0	45	44	1328	1	4	643	8
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	0	12	12	365	0	1	177	2
Total Analysis Volume [veh/h]	1	0	0	12	0	49	48	1459	1	4	707	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.17	0.00	0.08	0.05	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	105.57	102.79	17.47	62.32	104.40	15.47	9.32	0.00	0.00	12.74	0.00	0.00
Movement LOS	F	F	C	F	F	C	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.08	0.96	0.96	0.96	0.17	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.06	2.06	2.06	24.09	24.09	24.09	4.32	0.00	0.00	0.64	0.00	0.00
d_A, Approach Delay [s/veh]	105.57			24.69			0.30			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	0.92											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	37.7
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.707

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	172	271	74	84	176	35	60	1194	118	67	449	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	4.00	9.00	3.00	2.00	3.00	5.00	7.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	172	271	74	84	176	35	60	1194	118	67	449	72
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	73	20	23	47	9	16	321	32	18	121	19
Total Analysis Volume [veh/h]	185	291	80	90	189	38	65	1284	127	72	483	77
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	0	14	35	0	12	47	0	12	47	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.50	5.00	4.75	5.50	5.50	4.00	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	39	29	39	29	63	52	52	63	30	30
g / C, Green / Cycle	0.35	0.26	0.35	0.26	0.57	0.47	0.47	0.57	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.14	0.21	0.07	0.13	0.05	0.38	0.39	0.11	0.16	0.16
s, saturation flow rate [veh/h]	1325	1801	1229	1714	1367	1855	1797	639	1840	1753
c, Capacity [veh/h]	353	473	249	451	687	881	853	273	502	478
d1, Uniform Delay [s]	51.90	47.13	43.29	34.42	20.01	24.65	24.78	39.67	34.44	34.48
k, delay calibration	0.11	0.23	0.11	0.11	0.13	0.50	0.50	0.50	0.07	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.21	6.02	0.88	0.87	0.07	7.98	8.54	2.34	0.68	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.78	0.36	0.50	0.09	0.81	0.82	0.26	0.57	0.57
d, Delay for Lane Group [s/veh]	53.11	53.15	44.17	35.29	20.08	32.64	33.32	42.01	35.12	35.89
Lane Group LOS	D	D	D	D	C	C	C	D	D	D
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.96	11.45	1.64	5.18	0.65	16.46	16.28	0.89	6.41	6.25
50th-Percentile Queue Length [ft/ln]	123.92	286.26	40.91	129.46	16.36	411.60	406.89	22.29	160.29	156.18
95th-Percentile Queue Length [veh/ln]	8.61	17.00	2.95	8.91	1.18	23.12	22.89	1.60	10.56	10.35
95th-Percentile Queue Length [ft/ln]	215.20	425.00	73.63	222.76	29.45	577.96	572.30	40.12	264.10	258.65

Movement, Approach, & Intersection Results

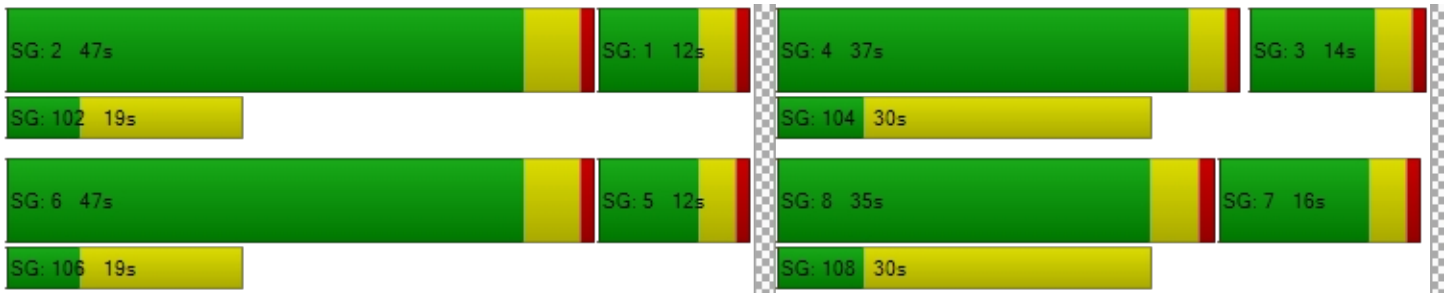
d_M, Delay for Movement [s/veh]	53.11	53.15	53.15	44.17	35.29	35.29	20.08	32.94	33.32	42.01	35.44	35.89
Movement LOS	D	D	D	D	D	D	C	C	C	D	D	D
d_A, Approach Delay [s/veh]	53.14			37.81			32.41			36.24		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	37.66											
Intersection LOS	D											
Intersection V/C	0.707											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	45.45	45.45	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersection	2.450	2.298	3.201	3.034
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	545	755	755
d_b, Bicycle Delay [s]	26.95	29.09	21.33	21.33
l_b,int, Bicycle LOS Score for Intersection	2.477	2.083	2.777	2.081
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	549	332	16	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	9.00	7.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	549	332	16	0	32
Peak Hour Factor	1.0000	0.9400	0.9400	0.9400	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	146	88	4	0	9
Total Analysis Volume [veh/h]	0	584	353	17	0	34
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.44
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	3.85
d_A, Approach Delay [s/veh]	0.00		0.00		10.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Site Access/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.123

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	43	1329	10	5	656
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	3.00	0.00	0.00	3.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	43	1329	10	5	656
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	12	357	3	1	176
Total Analysis Volume [veh/h]	0	46	1429	11	5	705
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.12	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	15.94	0.00	0.00	0.00	0.00
Movement LOS		C	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.42	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	10.38	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.94		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.33					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	23.5
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.067

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	14	478	58	39	303	13	24	0	31	13	0	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	478	58	39	303	13	24	0	31	13	0	8
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	127	15	10	81	3	6	0	8	3	0	2
Total Analysis Volume [veh/h]	15	509	62	41	322	14	26	0	33	14	0	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.04	0.00	0.00	0.11	0.00	0.05	0.07	0.00	0.02
d_M, Delay for Movement [s/veh]	7.95	0.00	0.00	8.71	0.00	0.00	22.75	22.62	11.89	23.55	21.50	12.06
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.04	0.00	0.00	0.13	0.00	0.00	0.57	0.57	0.57	0.21	0.21	0.05
95th-Percentile Queue Length [ft/ln]	0.92	0.00	0.00	3.16	0.00	0.00	14.15	14.15	14.15	5.36	5.36	1.32
d_A, Approach Delay [s/veh]	0.20			0.95			16.67			19.05		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.82											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	78.0
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.020

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	1	0	0	11	0	45	44	1328	1	4	643	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	10.00	0.00	0.00	2.00	3.00	0.00	0.00	3.00	38.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	11	0	45	44	1328	1	4	643	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	3	0	11	11	332	0	1	161	2
Total Analysis Volume [veh/h]	1	0	0	11	0	45	44	1328	1	4	643	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.12	0.00	0.07	0.05	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	77.99	76.50	15.28	48.78	77.61	13.23	9.06	0.00	0.00	11.90	0.00	0.00
Movement LOS	F	F	C	E	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.71	0.71	0.71	0.15	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.52	1.52	1.52	17.65	17.65	17.65	3.72	0.00	0.00	0.57	0.00	0.00
d_A, Approach Delay [s/veh]	77.99			20.22			0.29			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	0.79											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	35.3
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.657

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	172	271	74	84	176	35	60	1194	118	67	449	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	4.00	9.00	3.00	2.00	3.00	5.00	7.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	172	271	74	84	176	35	60	1194	118	67	449	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	68	19	21	44	9	15	299	30	17	112	18
Total Analysis Volume [veh/h]	172	271	74	84	176	35	60	1194	118	67	449	72
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lag	-	-	Lag	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	0	14	35	0	12	47	0	12	47	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.50	5.00	4.75	5.50	5.50	4.00	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	39	29	39	29	63	53	53	63	30	30
g / C, Green / Cycle	0.35	0.26	0.35	0.26	0.58	0.48	0.48	0.58	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.13	0.19	0.07	0.12	0.04	0.36	0.36	0.10	0.14	0.15
s, saturation flow rate [veh/h]	1338	1802	1247	1715	1383	1855	1797	665	1840	1753
c, Capacity [veh/h]	361	469	262	447	705	888	860	293	502	478
d1, Uniform Delay [s]	50.89	46.55	42.78	34.30	18.90	23.30	23.37	35.51	34.00	34.05
k, delay calibration	0.11	0.19	0.11	0.11	0.13	0.50	0.50	0.50	0.04	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.98	3.94	0.70	0.78	0.06	5.96	6.28	1.82	0.32	1.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.74	0.32	0.47	0.09	0.75	0.75	0.23	0.53	0.53
d, Delay for Lane Group [s/veh]	51.87	50.49	43.49	35.08	18.97	29.26	29.64	37.33	34.33	35.17
Lane Group LOS	D	D	D	D	B	C	C	D	C	D
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.55	10.38	1.52	4.78	0.60	14.31	14.04	0.80	5.84	5.72
50th-Percentile Queue Length [ft/ln]	113.75	259.61	38.09	119.47	14.92	357.65	350.96	20.12	146.08	143.01
95th-Percentile Queue Length [veh/ln]	8.05	15.67	2.74	8.36	1.07	20.51	20.18	1.45	9.81	9.64
95th-Percentile Queue Length [ft/ln]	201.21	391.73	68.56	209.09	26.85	512.73	504.58	36.21	245.18	241.07

Movement, Approach, & Intersection Results

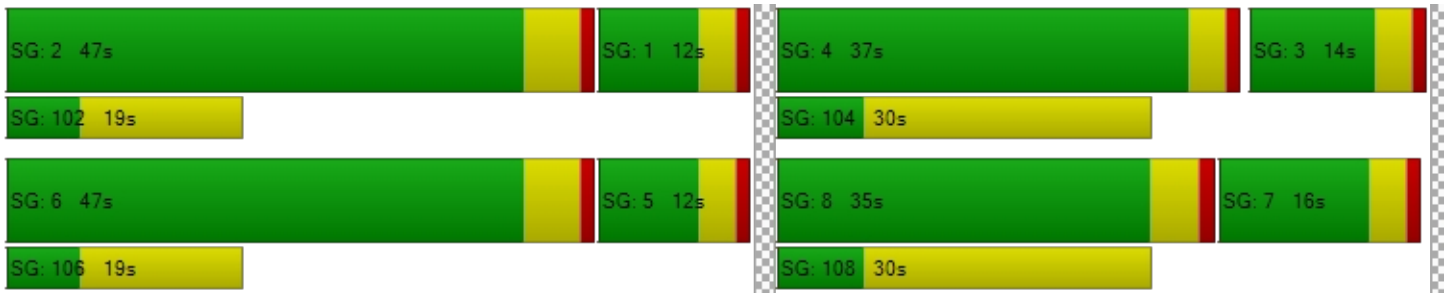
d_M, Delay for Movement [s/veh]	51.87	50.49	50.49	43.49	35.08	35.08	18.97	29.43	29.64	37.33	34.67	35.17
Movement LOS	D	D	D	D	D	D	B	C	C	D	C	D
d_A, Approach Delay [s/veh]	50.95			37.47			28.99			35.04		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	35.27											
Intersection LOS	D											
Intersection V/C	0.657											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	45.45	45.45	44.55	44.55
I_p,int, Pedestrian LOS Score for Intersection	2.415	2.273	3.138	2.983
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	545	755	755
d_b, Bicycle Delay [s]	26.95	29.09	21.33	21.33
I_b,int, Bicycle LOS Score for Intersection	2.413	2.046	2.692	2.045
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.045

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	549	332	16	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	9.00	7.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	549	332	16	0	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	137	83	4	0	8
Total Analysis Volume [veh/h]	0	549	332	16	0	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.28
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	3.52
d_A, Approach Delay [s/veh]	0.00		0.00		10.28	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.35					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Site Access/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.106

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	43	1329	10	5	656
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	3.00	0.00	0.00	3.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	43	1329	10	5	656
Peak Hour Factor	0.9300	1.0000	1.0000	1.0000	0.9300	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	11	332	3	1	164
Total Analysis Volume [veh/h]	0	43	1329	10	5	656
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.11	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	14.96	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.36	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	8.90	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.96		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.32					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	21.6
Analysis Method:	HCM 2000	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.057

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	14	478	58	39	303	13	24	0	31	13	0	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	478	58	39	303	13	24	0	31	13	0	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	120	15	10	76	3	6	0	8	3	0	2
Total Analysis Volume [veh/h]	14	478	58	39	303	13	24	0	31	13	0	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.04	0.00	0.00	0.10	0.00	0.04	0.06	0.00	0.01
d_M, Delay for Movement [s/veh]	7.90	0.00	0.00	8.59	0.00	0.00	20.90	20.91	11.35	21.61	19.96	11.74
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.12	0.00	0.00	0.48	0.48	0.48	0.18	0.18	0.04
95th-Percentile Queue Length [ft/ln]	0.85	0.00	0.00	2.91	0.00	0.00	12.02	12.02	12.02	4.49	4.49	1.12
d_A, Approach Delay [s/veh]	0.20			0.94			15.52			17.85		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	1.71											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	143.5
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	2	1	7	14	0	77	56	1024	0	1	1145	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	7	14	0	77	56	1024	0	1	1145	46
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	2	4	0	20	15	272	0	0	305	12
Total Analysis Volume [veh/h]	2	1	7	15	0	82	60	1089	0	1	1218	49
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.04	0.01	0.40	0.00	0.19	0.11	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	107.75	143.47	16.87	129.95	162.37	41.58	12.27	0.00	0.00	10.56	0.00	0.00
Movement LOS	F	F	C	F	F	E	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.34	0.34	0.34	3.18	3.18	3.18	0.36	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.62	8.62	8.62	79.59	79.59	79.59	9.03	0.00	0.00	0.12	0.00	0.00
d_A, Approach Delay [s/veh]	47.70			55.25			0.64			0.01		
Approach LOS	E			F			A			A		
d_I, Intersection Delay [s/veh]	2.61											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	39.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.798

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	168	291	82	143	369	50	79	827	143	162	974	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	168	291	82	143	369	50	79	827	143	162	974	150
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	78	22	38	99	13	21	222	38	44	262	40
Total Analysis Volume [veh/h]	181	313	88	154	397	54	85	889	154	174	1047	161
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	43	0	14	35	0	12	46	0	17	51	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	5.00	5.00	5.50	5.50	5.50	4.75	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	50	37	49	32	51	51	51	53	52	52
g / C, Green / Cycle	0.41	0.31	0.41	0.26	0.42	0.42	0.42	0.44	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.10	0.22	0.13	0.24	0.13	0.28	0.28	0.20	0.32	0.33
s, saturation flow rate [veh/h]	1781	1786	1167	1846	654	1885	1789	874	1900	1813
c, Capacity [veh/h]	403	552	348	486	236	795	754	280	817	780
d1, Uniform Delay [s]	36.18	48.91	26.53	43.09	26.76	28.02	28.03	46.45	28.84	28.95
k, delay calibration	0.11	0.22	0.04	0.23	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.78	3.63	0.33	15.07	0.34	4.52	4.77	10.01	6.37	6.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.73	0.44	0.93	0.36	0.67	0.67	0.62	0.75	0.76
d, Delay for Lane Group [s/veh]	36.97	52.54	26.86	58.16	27.11	32.54	32.81	56.46	35.21	35.82
Lane Group LOS	D	D	C	E	C	C	C	E	D	D
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.16	13.03	2.84	14.83	1.42	12.71	12.14	3.67	15.50	15.06
50th-Percentile Queue Length [ft/ln]	128.92	325.86	71.06	370.83	35.56	317.75	303.44	91.71	387.59	376.58
95th-Percentile Queue Length [veh/ln]	8.88	18.96	5.12	21.15	2.56	18.56	17.85	6.60	21.96	21.43
95th-Percentile Queue Length [ft/ln]	222.02	473.88	127.91	528.74	64.01	463.92	446.28	165.08	549.02	535.71

Movement, Approach, & Intersection Results

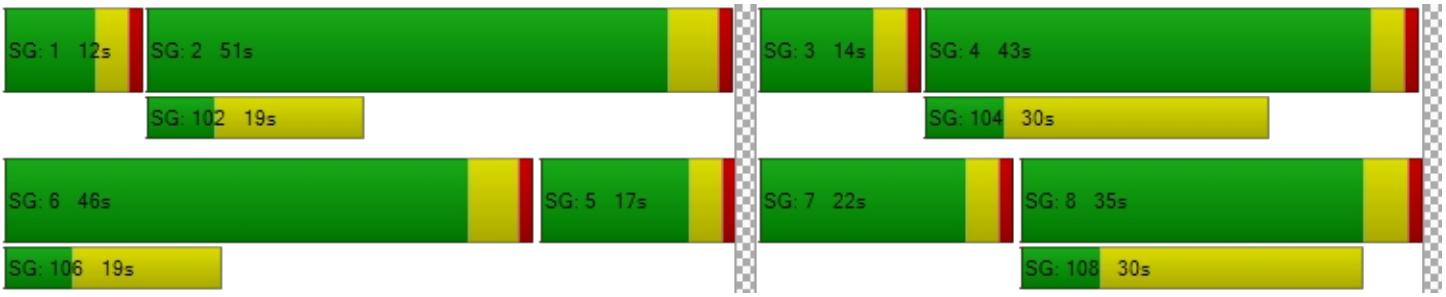
d_M, Delay for Movement [s/veh]	36.97	52.54	52.54	26.86	58.16	58.16	27.11	32.65	32.81	56.46	35.46	35.82
Movement LOS	D	D	D	C	E	E	C	C	C	E	D	D
d_A, Approach Delay [s/veh]	47.70			50.19			32.25			38.15		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	39.82											
Intersection LOS	D											
Intersection V/C	0.798											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	50.42	50.42	49.51	49.51
I_p,int, Pedestrian LOS Score for Intersection	2.669	2.440	3.045	3.118
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	500	675	758
d_b, Bicycle Delay [s]	27.34	33.75	26.34	23.13
I_b,int, Bicycle LOS Score for Intersection	2.520	2.558	2.490	2.700
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.075

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	500	598	73	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	1.00	1.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	500	598	73	0	32
Peak Hour Factor	1.0000	0.9100	0.9100	0.9100	1.0000	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	137	164	20	0	9
Total Analysis Volume [veh/h]	0	549	657	80	0	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.31
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.24
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	6.03
d_A, Approach Delay [s/veh]	0.00		0.00		13.31	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.35					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Site Access/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.055

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	9	24	1025	20	14	1192
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	2.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	24	1025	20	14	1192
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	6	276	5	4	320
Total Analysis Volume [veh/h]	10	26	1102	22	15	1282
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.05	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	13.01	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.17	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	4.33	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.01		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	51.2
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.392

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	31	452	17	25	605	42	18	0	21	45	0	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	452	17	25	605	42	18	0	21	45	0	65
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	124	5	7	166	12	5	0	6	12	0	18
Total Analysis Volume [veh/h]	34	497	19	27	665	46	20	0	23	49	0	71
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.03	0.01	0.00	0.18	0.00	0.05	0.39	0.00	0.12
d_M, Delay for Movement [s/veh]	9.17	0.00	0.00	8.48	0.00	0.00	44.05	35.41	18.95	51.20	47.35	12.21
Movement LOS	A	A	A	A	A	A	E	E	C	F	E	B
95th-Percentile Queue Length [veh/ln]	0.12	0.00	0.00	0.08	0.00	0.00	0.88	0.88	0.88	1.65	1.65	0.42
95th-Percentile Queue Length [ft/ln]	2.95	0.00	0.00	1.96	0.00	0.00	21.95	21.95	21.95	41.17	41.17	10.60
d_A, Approach Delay [s/veh]	0.57			0.31			30.63			28.13		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	3.61											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: SW 173rd Ave/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	113.9
Analysis Method:	HCM 2000	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.029

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	2	1	7	14	0	77	56	1024	0	1	1145	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	7	14	0	77	56	1024	0	1	1145	46
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	2	4	0	19	14	256	0	0	286	12
Total Analysis Volume [veh/h]	2	1	7	14	0	77	56	1024	0	1	1145	46
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.03	0.01	0.30	0.00	0.17	0.09	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	86.23	113.91	14.98	99.38	123.97	29.48	11.70	0.00	0.00	10.26	0.00	0.00
Movement LOS	F	F	B	F	F	D	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.28	2.56	2.56	2.56	0.31	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.07	7.07	7.07	64.10	64.10	64.10	7.81	0.00	0.00	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	39.12			40.23			0.61			0.01		
Approach LOS	E			E			A			A		
d_I, Intersection Delay [s/veh]	1.99											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SW 170th Ave/W Baseline Rd

Control Type:	Signalized	Delay (sec / veh):	36.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.741

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	180.00	100.00	100.00	250.00	100.00	100.00	100.00	100.00	100.00	225.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	168	291	82	143	369	50	79	827	143	162	974	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	168	291	82	143	369	50	79	827	143	162	974	150
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	73	21	36	92	13	20	207	36	41	244	38
Total Analysis Volume [veh/h]	168	291	82	143	369	50	79	827	143	162	974	150
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis	ProtPer	Permis	Permis
Signal Group	7	4	0	3	8	0	1	6	0	5	2	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lag	-	-
Minimum Green [s]	5	6	0	5	6	0	5	10	0	6	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	4.0	0.0	3.0	4.5	0.0	3.0	4.5	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	43	0	14	35	0	12	46	0	17	51	0
Vehicle Extension [s]	2.0	3.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Walk [s]	0	7	0	0	7	0	0	6	0	0	6	0
Pedestrian Clearance [s]	0	23	0	0	23	0	0	13	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	3.0	0.0	2.0	3.5	0.0	2.0	3.5	0.0
Minimum Recall	No	No		No	No		No	Yes		No	Yes	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	5.00	5.00	5.50	5.50	5.50	4.75	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	0.00	3.00	0.00	3.50	3.50	0.00	3.50	3.50
g_i, Effective Green Time [s]	47	35	46	30	53	53	53	56	55	55
g / C, Green / Cycle	0.39	0.29	0.38	0.25	0.45	0.45	0.45	0.47	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.09	0.21	0.12	0.23	0.12	0.26	0.26	0.18	0.30	0.30
s, saturation flow rate [veh/h]	1781	1786	1194	1846	671	1885	1789	884	1900	1813
c, Capacity [veh/h]	387	514	339	455	264	839	796	312	865	825
d1, Uniform Delay [s]	37.24	49.66	27.75	44.09	23.64	25.13	25.13	43.47	25.52	25.57
k, delay calibration	0.11	0.18	0.04	0.19	0.04	0.50	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.77	3.30	0.31	15.56	0.23	3.12	3.28	6.19	4.07	4.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.73	0.42	0.92	0.30	0.59	0.59	0.52	0.66	0.67
d, Delay for Lane Group [s/veh]	38.01	52.96	28.06	59.66	23.87	28.25	28.42	49.66	29.59	29.89
Lane Group LOS	D	D	C	E	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.79	12.11	2.74	13.90	1.25	10.81	10.30	3.05	12.96	12.50
50th-Percentile Queue Length [ft/ln]	119.65	302.73	68.54	347.51	31.25	270.24	257.57	76.36	323.93	312.47
95th-Percentile Queue Length [veh/ln]	8.37	17.82	4.93	20.02	2.25	16.20	15.57	5.50	18.86	18.30
95th-Percentile Queue Length [ft/ln]	209.35	445.40	123.37	500.38	56.24	405.04	389.17	137.45	471.51	457.43

Movement, Approach, & Intersection Results

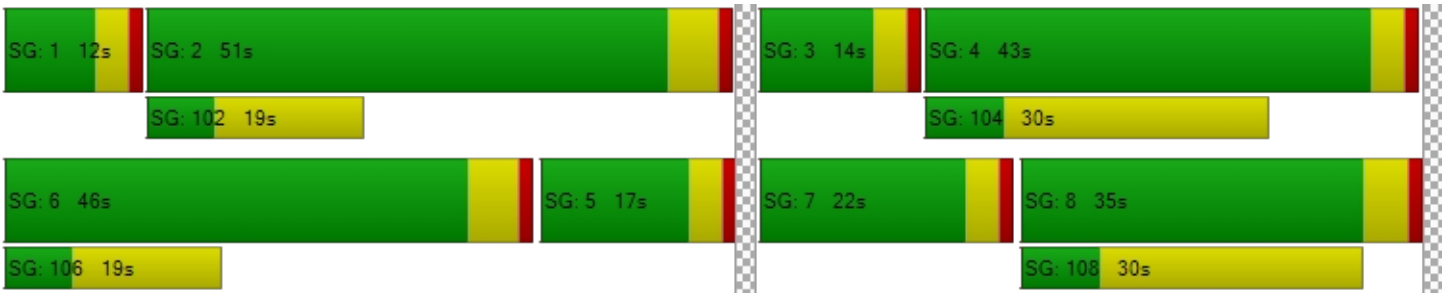
d_M, Delay for Movement [s/veh]	38.01	52.96	52.96	28.06	59.66	59.66	23.87	28.31	28.42	49.66	29.71	29.89
Movement LOS	D	D	D	C	E	E	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	48.32			51.62			27.99			32.25		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	36.64											
Intersection LOS	D											
Intersection V/C	0.741											

Other Modes

g_Walk,mi, Effective Walk Time [s]	10.0	10.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	50.43	50.43	49.52	49.52
I_p,int, Pedestrian LOS Score for Intersection	2.676	2.409	2.992	3.058
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	650	500	675	758
d_b, Bicycle Delay [s]	27.35	33.77	26.35	23.14
I_b,int, Bicycle LOS Score for Intersection	2.452	2.487	2.425	2.621
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: SW 170th Ave/SW Sullivan Ln

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.063

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	125.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	500	598	73	0	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	1.00	1.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	500	598	73	0	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	125	150	18	0	8
Total Analysis Volume [veh/h]	0	500	598	73	0	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.60
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.06
d_A, Approach Delay [s/veh]	0.00		0.00		12.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Site Access/W Baseline Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 2000	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.048

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	9	24	1025	20	14	1192
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	2.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	24	1025	20	14	1192
Peak Hour Factor	0.9300	1.0000	1.0000	1.0000	0.9300	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	6	256	5	4	298
Total Analysis Volume [veh/h]	10	24	1025	20	15	1192
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.05	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	12.49	0.00	0.00	0.00	0.00
Movement LOS		B	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.15	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	3.75	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.49		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.13					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 6: SW 170th Ave/TriMet Access

Control Type:	Two-way stop	Delay (sec / veh):	38.3
Analysis Method:	HCM 2000	Level Of Service:	E
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.295

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name												
Base Volume Input [veh/h]	31	452	17	25	605	42	18	0	21	45	0	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	452	17	25	605	42	18	0	21	45	0	65
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	113	4	6	151	11	5	0	5	11	0	16
Total Analysis Volume [veh/h]	31	452	17	25	605	42	18	0	21	45	0	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.02	0.01	0.00	0.13	0.00	0.04	0.29	0.00	0.11
d_M, Delay for Movement [s/veh]	8.93	0.00	0.00	8.34	0.00	0.00	35.16	29.08	15.86	38.33	35.72	11.67
Movement LOS	A	A	A	A	A	A	E	D	C	E	E	B
95th-Percentile Queue Length [veh/ln]	0.10	0.00	0.00	0.07	0.00	0.00	0.64	0.64	0.64	1.23	1.23	0.36
95th-Percentile Queue Length [ft/ln]	2.53	0.00	0.00	1.74	0.00	0.00	15.96	15.96	15.96	30.63	30.63	9.01
d_A, Approach Delay [s/veh]	0.55			0.31			24.77			22.58		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	2.98											
Intersection LOS	E											

Appendix G Queuing Analyses

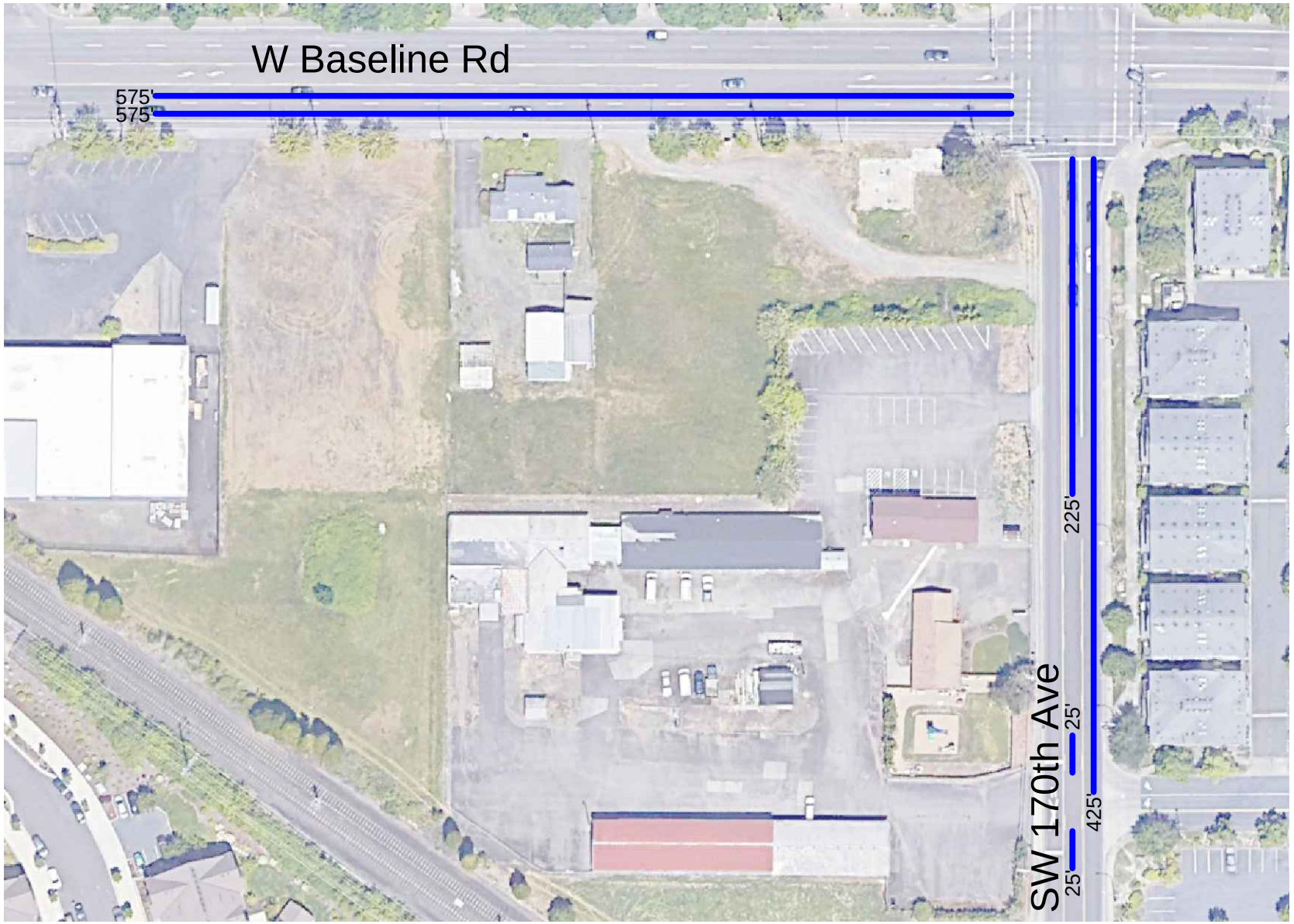
Table 1. Summary of 95th-percentile Queues – 15-Minute Analysis Results

Study Intersection		Movement	Storage (feet)	95th-percentile Queue (feet)					
				Existing Traffic Conditions		Background Traffic Conditions		Total Traffic Conditions	
				AM	PM	AM	PM	AM	PM
1	SW 173rd Avenue/ W Baseline Road	EBL	250	25	25	25	25	25	25
		SBLR	Continuous (225[1])	25	50	25	75	25	75
2	Site Access/ W Baseline Road	EBTR	Continuous (350[1])	-	-	-	-	0	0
		NBR	100	-	-	-	-	25	25
3	SW 170th Avenue/ W Baseline Road	EBL	100[2]	25	50	25	50	25	75
		EBTR	Continuous (650[1])	500	375	550	425	575	450
		WBL	225[2]	25	100	25	125	50	175
		WBTR	475[1]	250	450	250	525	250	525
		NBL	175[2]	175	175	200	200	225	225
		NBTR	Continuous (400[1])	400	425	425	475	425	475
		SBL	250	75	125	75	125	75	125
		SBTR	Continuous (275[1])	200	475	225	500	225	525
4	TriMet Access/Site Access/ SW 170th Avenue	EBLTR	100	0	25	0	25	25	25
		WBLT	200	25	25	25	25	25	50
		WBR	200	25	25	25	25	25	25
		NBL	150	0	0	0	0	25	25
		SBL	150	25	25	25	25	25	25
		SBTR	400	0	0	0	0	0	0
5	SW Sullivan Lane/ SW 170th Avenue	EBR	100	25	25	25	25	25	25

EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, L = left-turn, T = through, R = right-turn, TR = shared through/right, LTR = shared left/through/right

[1] Distance until blocking access or intersection

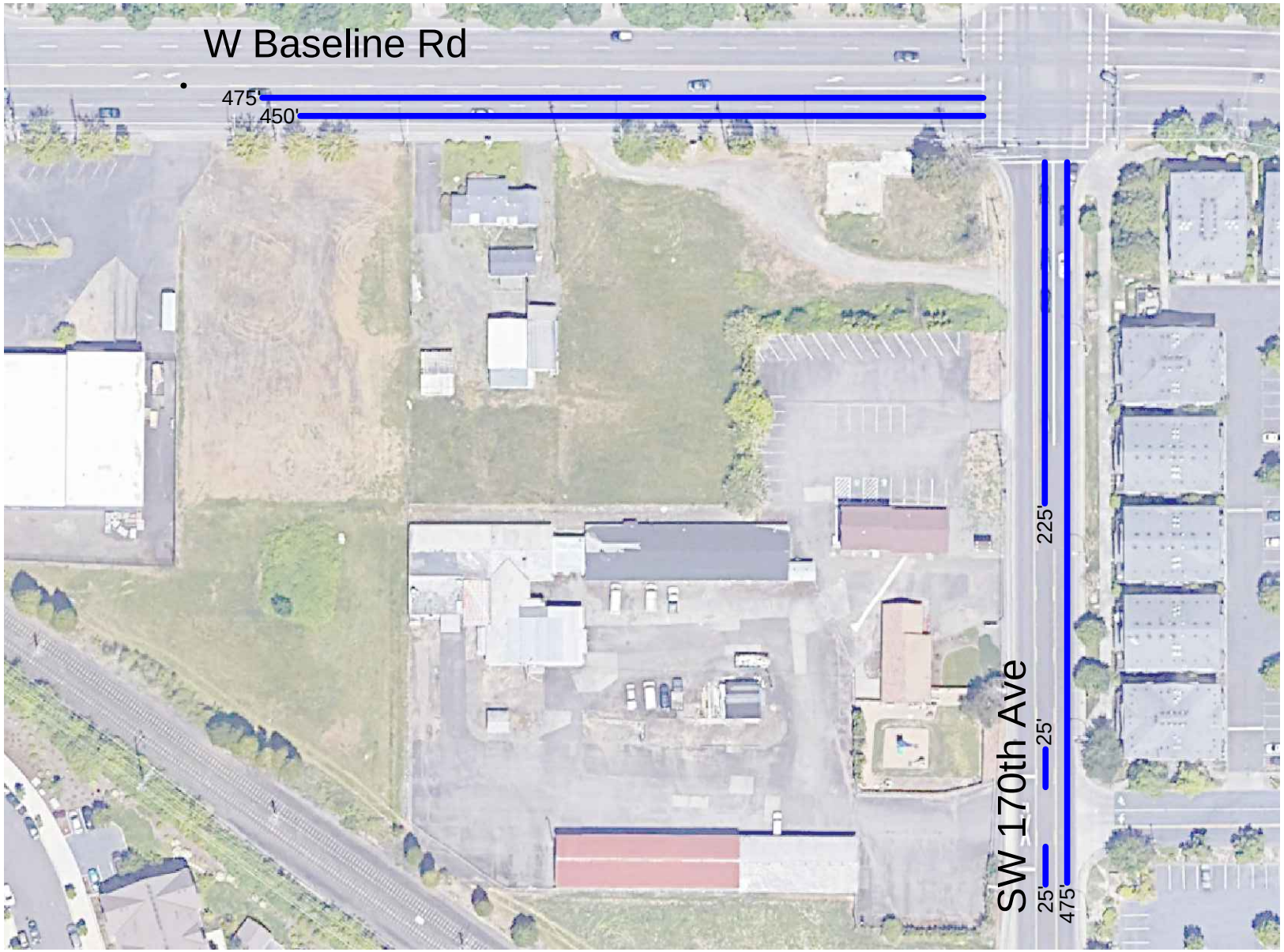
[2] Additional storage available in center two-way left-turn lane



95th Percentile Queue
Weekday AM Peak Hour
Beaverton, OR

Exhibit
1A

KITTELSON & ASSOCIATES



95th Percentile Queue
Weekday PM Peak Hour
Beaverton, OR

Exhibit
1B

KITTELSON & ASSOCIATES