

EXHIBIT E

Traffic Impact Analysis, Gibson Traffic Consultants, Inc.

(March 2020)



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POULSBO PLACE DIVISION 8 DEVELOPMENT Traffic Impact Analysis

Jurisdiction: City of Poulsbo

March 2020



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1. INTRODUCTION

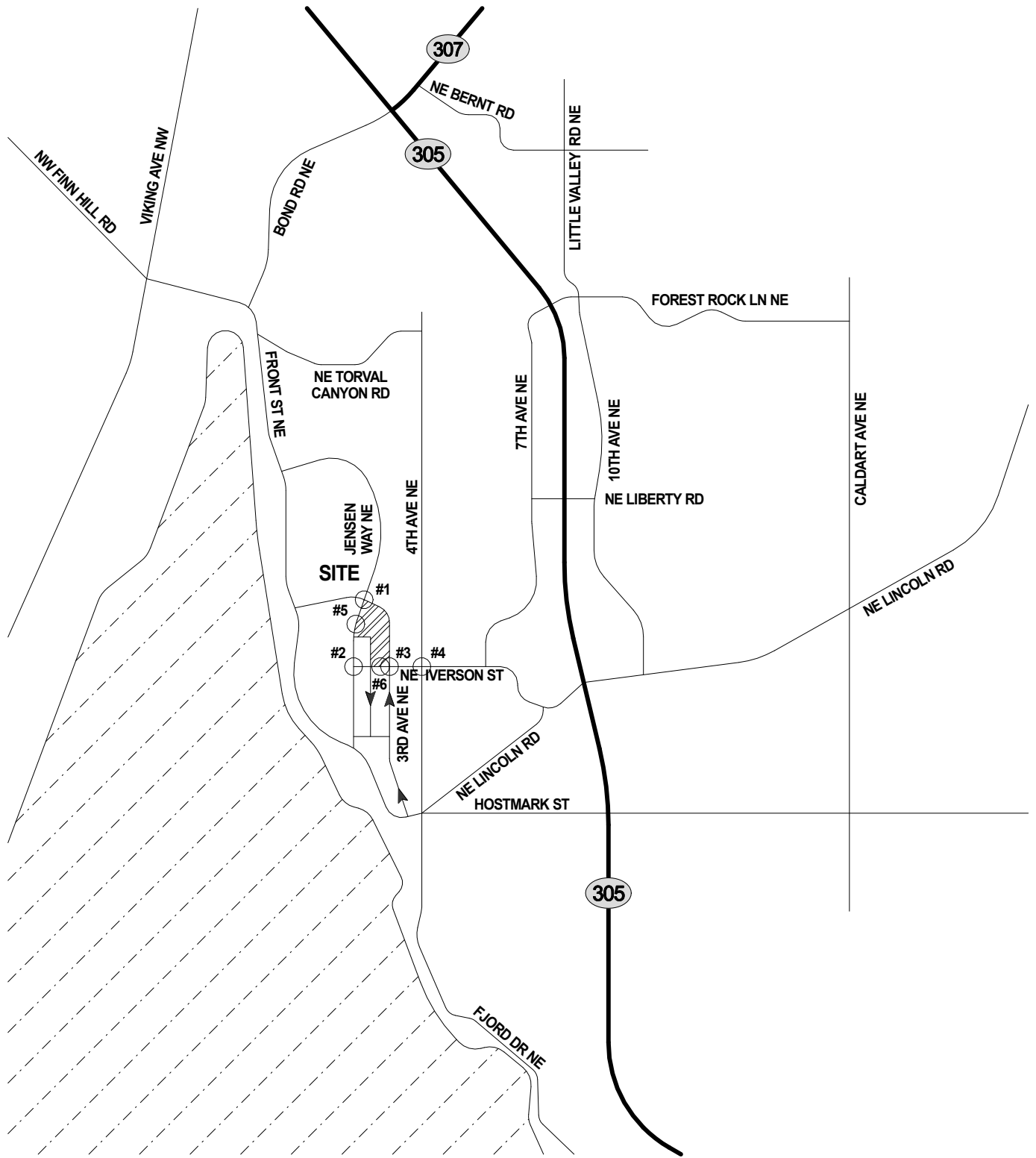
Gibson Traffic Consultants, Inc. (GTC) has been retained to complete a traffic impact analysis (TIA) for the proposed Poulsbo Place Division 8 development. The development is located between Jensen Way NE and 3rd Avenue NE, north of NE Iverson Street, in City of Poulsbo. The proposed development will consist of 49 multifamily low-rise units and 4,800 SF of commercial space. As the commercial use is undecided between office and shopping use, the space was analyzed as 50% office and 50% shopping center. The site is currently undeveloped. A site vicinity map is included in Figure 1.

The scoping and analysis methodology for the Poulsbo Place Division 8 development follows the City of Poulsbo's TIA Guidelines. This memorandum report summarizes GTC's traffic analysis and findings that include:

- 1) Proposed site development and access
- 2) Existing site conditions
- 3) Trip generation, trip distribution, and trip assignment of the development trips
- 4) Existing and future without development volumes and LOS
- 5) Future with development volumes and LOS
- 6) Collision Analysis
- 7) Mitigation fee identification

2. PROPOSED SITE DEVELOPMENT & ACCESS

The proposed Poulsbo Place Division 8 development is proposing to construct 49 multifamily low-rise units and 4,800 SF of commercial space. The site is currently undeveloped. The development is proposed to be located between Jensen Way NE and 3rd Avenue NE, north of NE Iverson Street. The development is proposing two accesses, one access to NE Iverson Street which will be restricted to right-in, right-out only, the second access will be to Jensen Way NE and will be a full access. The accesses are not interconnected to each other. The development is scheduled for occupancy by the end of 2022. The City requires a minimum of 5-years after build-out/occupancy for the horizon year; therefore, the year 2027 has been used as the horizon year in the analysis.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY
GTC #18-293

POULSBO DIVISION 8

CITY OF POULSBO

LEGEND



DEVELOPMENT SITE
STUDY INTERSECTION

FIGURE 1
SITE VICINITY MAP

3. METHODOLOGY & ANALYSIS SCOPING

Peak-hour level of service (LOS) at the study intersections is determined using the methodology described in the *Highway Capacity Manual, 6th Edition* (HCM) and *Synchro 10.2* software developed by Trafficware. Site traffic generation estimates for the new use is based on data in the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition* (2017). Average trip generation rates were utilized to estimate the weekday daily, AM and PM peak-hour trips.

GTC utilized a 2.5-percent annual compounded growth rate and pipeline trips from four developments (Jensen Way Mixed-Use, Mesford Preliminary Plat, Crystal Glen Preliminary Plat and Langaunet Preliminary Plat) to account for background traffic growth in the site vicinity based on scoping discussions with the City of Poulsbo.

Poulsbo has an analysis horizon year of 5-years after full build-out and occupancy. The Poulsbo Place Division 8 development will start construction in 2021 and is expected to be fully built out and occupied by 2022; therefore, a horizon year of 2027 was used.

Traffic congestion on roadways is generally measured in terms of LOS at critical intersections. In accordance with the *Highway Capacity Manual 6th Edition*, roadway facilities and intersections are rated between LOS A and F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. The LOS at signalized intersections and all-way stop-controlled intersections are based on the average stopped delay for all entering vehicles. The LOS at two-way stop-controlled intersections is based on stopped delay times for the critical approach or movement(s). Geometric characteristics and conflicting traffic movements are taken into consideration when determining LOS values. A summary of the level of service criteria has been included in Table 1.

Table 1: Level of Service Criteria for Intersections

Level of ¹ Service	Expected Delay	Intersection Control Delay (Seconds per Vehicle)	
		Unsignalized Intersections	Signalized Intersections
A	Little/No Delay	≤ 10	≤ 10
B	Short Delays	>10 and ≤ 15	>10 and ≤ 20
C	Average Delays	>15 and ≤ 25	>20 and ≤ 35
D	Long Delays	>25 and ≤ 35	>35 and ≤ 55
E	Very Long Delays	>35 and ≤ 50	>55 and ≤ 80
F	Extreme Delays ²	>50	>80

Per scoping discussions, six intersections were identified for existing, baseline, and future with development analysis:

1. Jensen Way NE at NE Sunset Street/3rd Avenue NE – All-Way Stop-Controlled
2. Jensen Way NE at NE Iverson Street - All-Way Stop-Controlled
3. 3rd Avenue NE at NE Iverson Street – All-Way Stop-Controlled
4. 4th Avenue NE at NE Iverson Street – All-Way Stop-Controlled
5. Jensen Way NE at Site Access – Two-Way Stop-Controlled
6. Site Access at NE Iverson Street – Two-Way Stop-Controlled

It is important to note that the site accesses will only be analyzed in the future with development scenario only.

Matthew Palmer, responsible for the traffic analysis and report, is a licensed professional engineer (Civil) in the State of Washington and a current member of the Washington State section of ITE.

¹ **Source:** *Highway Capacity Manual 6th Edition*.

LOS A: Free-flow traffic conditions, with minimal delay to stopped vehicles (no vehicle is delayed longer than one cycle at signalized intersection).

LOS B: Generally stable traffic flow conditions.

LOS C: Occasional back-ups may develop, but delay to vehicles is short term and still tolerable.

LOS D: During short periods of the peak hour, delays to approaching vehicles may be substantial but are tolerable during times of less demand (i.e. vehicles delayed one cycle or less at signal).

LOS E: Intersections operate at or near capacity, with long queues developing on all approaches and long delays.

LOS F: Jammed conditions on all approaches with excessively long delays and vehicles unable to move at times.

² When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection.

4. EXISTING CONDITIONS

4.1. Transit Service

Kitsap Transit, route 333 and 334, which travels from Silverdale to Bainbridge and within Poulsbo respectively, have stops within the site vicinity.

4.2. Road Network

The proposed mixed-use development is located between Jensen Way NE and 3rd Avenue NE, north of NE Iverson Street.

Jensen Way NE is a 2-lane roadway with a posted speed limit of 25 mph. It is classified as a collector arterial along and south of the site and a local roadway north of the site per the Transportation Element. There is parking, curb, gutter, and sidewalk on both sides in the site vicinity.

NE Iverson Street is a 2-lane roadway with a posted speed limit of 25 mph. NE Iverson Street is classified as a collector arterial per the Transportation Element. There is curb, gutter and sidewalk along the both sides of the roadway in the site vicinity.

3rd Avenue NE is a 2-lane roadway with a posted speed limit of 25 mph. 3rd Avenue NE is classified as a local road along the site and a collector arterial south of the site per the Transportation Element. There is parking, curb, gutter and sidewalk along the east side of the roadway in the site vicinity.

4.3. Collision Analysis

Collision data near the study intersections was requested from WSDOT from January 2016 through December 2018. Table 2 summarizes the data received by WSDOT. The study intersections not listed below are due to the intersection having no reported collisions within the latest full three years of data. Additionally, there were no reported collisions between any of the study intersections.

Table 2: 3-Year Collision Data Summary

Intersection	Collision Type							Total Collisions	Collisions Per Year
	Rear-End	Entering at Angle	Opp. Dir.	Sideswipe	Same Dir.	Ped. / Cyclist	Fixed Object/ Other		
Jensen Way NE at NE Iverson Street	0	0	0	0	0	0	2	2	0.7
3 rd Avenue NE at NE Iverson Street	1	0	1	0	0	0	0	2	0.7
4 th Avenue NE at NE Iverson Street	0	1	0	0	0	0	0	1	0.3

The 3-year collision rate has been calculated using PM peak-hour volumes and a K-factor of 10 for conversion to average daily traffic. The 3-year collision rates for the intersections are summarized in Table 3.

Table 3: 3-Year Collision Rate Calculation

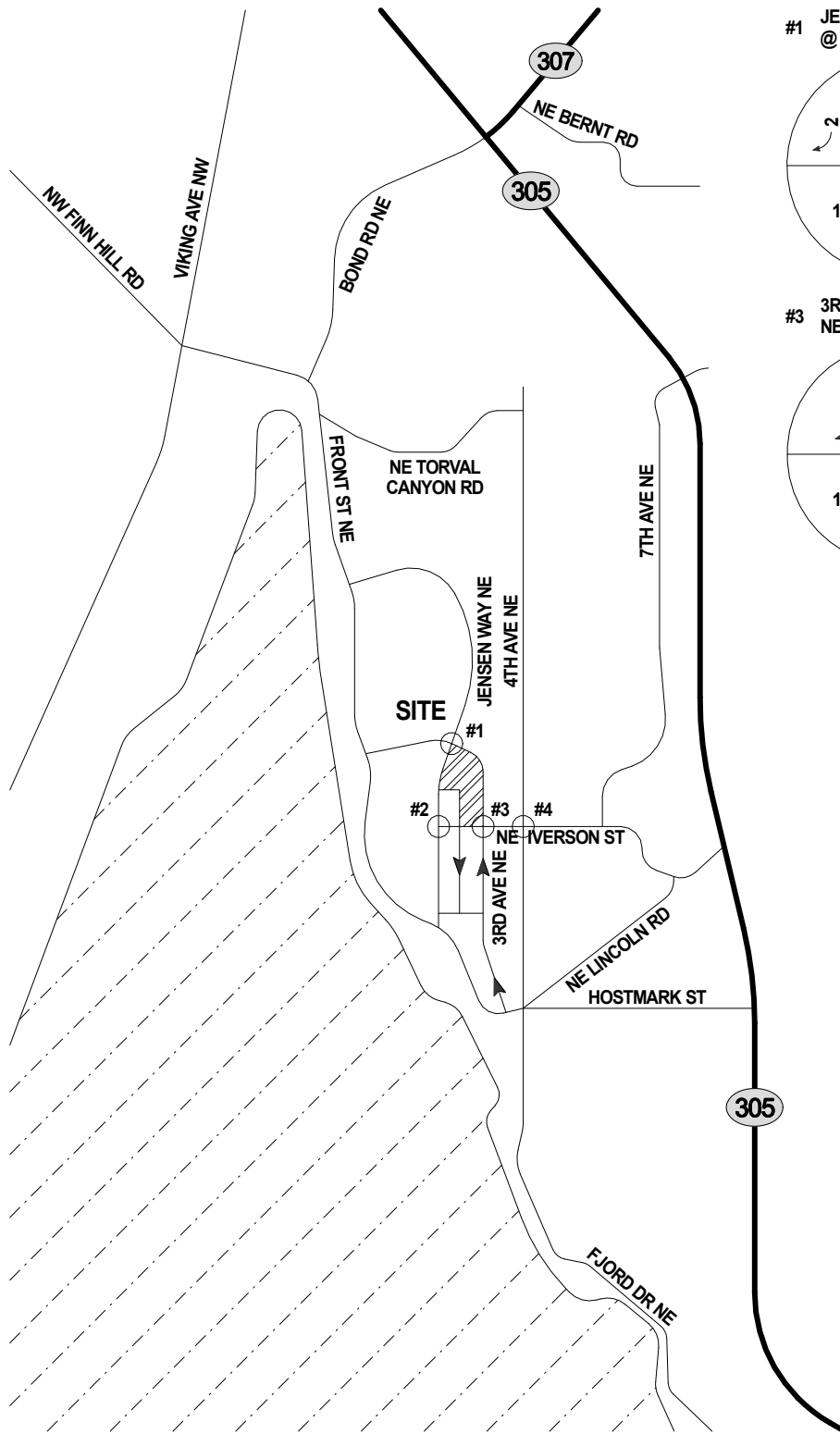
Intersection	PM Peak-Hour Intersection Vol.	K-Factor	Total Collisions	Collision Rate ³
Jensen Way NE at NE Iverson Street	400	10	2	0.46
3 rd Avenue NE at NE Iverson Street	689	10	2	0.26
4 th Avenue NE at NE Iverson Street	810	10	1	0.11

The intersection of Jensen Way NE at NE Iverson Street had the highest collision rate of the study area and had fixed object/other collisions as the most common. WSDOT has published collision data for the Olympic Region in the *2011 Annual Collision Summary* (the latest report that provides data for different road types). The average collision rate for State Routes in the Olympic Region is 1.82 collisions per Million Vehicle Miles (equivalent to Million Entering Vehicles at an intersection) for principal arterials. All the intersections have collision rates per million entering vehicles below 0.50, which is below the average rate for the area. There were no pedestrian collisions or collision involving fatalities.

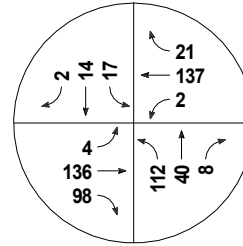
4.4. Existing Volumes and Level of Service

Existing turning movement count at the study intersection was conducted by the independent count firm, Traffic Count Consultants, on March 5, 2020. The existing PM peak-hour turning movement volumes at the study intersections are shown in Figure 2. It is important to note that at the intersection of 3rd Avenue NE at NE Iverson Street, the south leg is restricted to northbound only trips. However, there was one westbound right and eastbound left trip that traveled south on 3rd Avenue NE. Due to these being illegal movements, they were changed to through trips along NE Iverson Street to retain the total intersection volume traveling through the all-way stop-controlled intersection. Based on the existing counts, channelization and intersection control, the study intersections operate at LOS B or better. It is important to note that AM counts were also collected at the study intersections. However, due to the AM peak-hour street volumes being approximately half as much as the PM peak-hour and the expected trip generation during the AM peak-hour being less than the PM peak-hour, only PM peak-hour intersection analysis was performed. The existing level of service is summarized in Table 4.

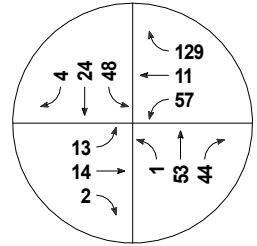
³ The collision rate is based on Million Entering Vehicles.



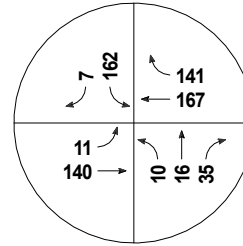
#1 JENSEN WAY NE @ 3RD AVE NE



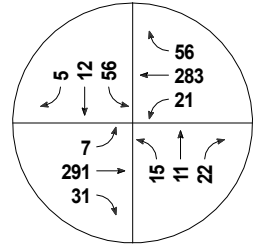
#2 JENSEN WAY NE @ NE IVERSON ST



#3 3RD AVE NE @ NE IVERSON ST



#4 4TH AVE NE @ NE IVERSON ST



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xxx → PM PEAK HOUR
TURNING MOVEMENT VOLUMES

FIGURE 2
2020 EXISTING
TURNING MOVEMENTS
PM PEAK-HOUR

Table 4: Existing Level of Service Summary – Weekday PM Peak-Hour

Intersections	Existing Conditions	
	LOS	Delay
1. Jensen Way NE at 3 rd Avenue NE	B	10.6 sec
2. Jensen Way NE at NE Iverson Street	A	8.2 sec
3. 3 rd Avenue NE at NE Iverson Street	B	10.1 sec
4. 4 th Avenue NE at NE Iverson Street	B	11.7 sec

5. FUTURE CONDITIONS

5.1. Trip Generation – Division 8

Trip generation calculations for the Poulsbo Place Division 8 development are based on national statistics contained in the Institute of Transportation Engineers' (ITE) *Trip Generation, 10th Edition (2017)*. The average trip generation rates for the ITE Land Use Code (LUC) LUC 220, Multifamily (Low-Rise), ITE LUC 710, General Office and ITE LUC 820, Shopping Center have been used. The Poulsbo Place Division 8 development is proposing to construct a total of 49 multifamily (low-rise) units and 4,800 SF of commercial space. As the use for the proposed commercial space will either be retail or office use, trip generation was performed as if the 4,800 SF area was split 50/50 between retail and office use. Per data contained in the ITE *Trip Generation* manual, a pass-by rate of 34% was applied to the shopping center use. The trip generation is summarized in Table 5.

Table 5: Trip Generation Summary – Division 8

Land Use	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
ITE LUC 220, Multifamily (Low-Rise), 49 Units	179.34	179.34	358.68	5.18	17.36	22.54	17.29	10.15	27.44
ITE LUC 710, General Office, 2,400 SF	11.69	11.69	23.38	2.39	0.39	2.78	0.44	2.32	2.76
ITE LUC 820, Shopping Center, 2,400 SF	45.30	45.30	90.60	1.40	0.86	2.26	4.38	4.76	9.14
Pass-By	-15.40	-15.40	-30.80	-0.48	-0.29	-0.77	-1.49	-1.62	-3.11
Net New Trips	220.93	220.93	441.86	8.49	18.32	26.81	20.62	15.61	36.23

The Poulsbo Place Division 8 development are anticipated to generate 441.86 new daily trips, 26.81 new AM peak-hour trips and 36.23 new PM peak-hour trips. The trip generation calculations are included in the attachments.

5.2. Trip Generation – Original Master Plan Comparison

Per information in the latest approved update to the Poulsbo Place Master Plan dated April 28, 2015, 300 single-family detached units and 10,000 SF of retail use have been built of the original 1995 Master Plan. No additional structures have been built since that report. As no TIAs have been performed for the site, trip generation for the built 300 single-family detached units and 10,000 SF of retail use have been calculated using the same methodology as the Poulsbo Place Division 8 development. This equates to the updated Poulsbo Place Master Plan generating a total of 3,523.01 average daily trips and 358.38 PM peak-hour trips. The original 1995 Master plan anticipated there to be 3,505 average daily trips and 402 PM peak-hour trips generated by the site. The trip generation comparison for the Poulsbo Place Master Plan is summarized in Table 6.

Table 6: Trip Generation Summary – Master Plan Comparison

Land Use	Average Daily Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total
Division 8 (Proposed), Multifamily (Low-Rise), 49 Units	179.34	179.34	358.68	17.29	10.15	27.44
Division 8 (Proposed), General Office, 2,400 SF	11.69	11.69	23.38	0.44	2.32	2.76
Division 8 (Proposed), Shopping Center, 2,400 SF	45.30	45.30	90.60	4.38	4.76	9.14
Division 1-7 (Existing), Single-Family Detached, 300 Units	1,416.00	1,416.00	2,832.00	187.11	109.89	297.00
Division 1-7 (Existing), Shopping Center, 10,000 SF	188.76	188.74	377.50	18.29	19.81	38.10
Division 1-8 (Existing), Pass-By	-79.58	-79.57	-159.15	-7.71	-8.35	-16.06
1995 Original Master Plan	-1,752.50	-1,752.50	-3,505.00	-180.90	-221.10	-402.00
Net New Trips	9.01	9.00	18.01	38.90	-82.52	-43.62

In comparison to the original 1995 master plan, the proposed final development of the Poulsbo Place Master Plan will generate 18.01 **more** average daily trips and 43.62 **less** PM peak-hour trips. As the original master plan only had average daily trip and PM peak-hour trip generation, AM peak-hour trips were not compared. The trip generation comparison for the proposed Poulsbo Place Master Plan and the original 1995 Master Plan are included in the attachments.

5.3. Trip Distribution

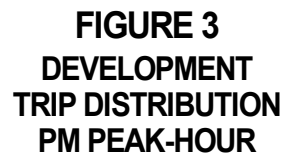
Trip distribution is based on prior approved projects in the site area and local/commercial draw areas as well as the Master Plan. It is anticipated that 35% of the site traffic is expected to travel to and from the north, fifteen percent along NW Finn Hill Road, five percent along Viking Avenue NW, five percent on Bond Road NW and ten percent along SR-305. Approximately 15% of the site traffic is expected to travel to and from the east, ten percent along NE Lincoln Road and five percent along Hostmark Street. An estimated 40% of the site traffic is expected to travel to and from the south, fifteen percent along Viking Avenue NW, five percent along 4th Avenue NE and twenty percent along SR-305. The final 10% is expected to be local trips. A detailed trip distribution for PM peak-hour is shown in Figure 3.

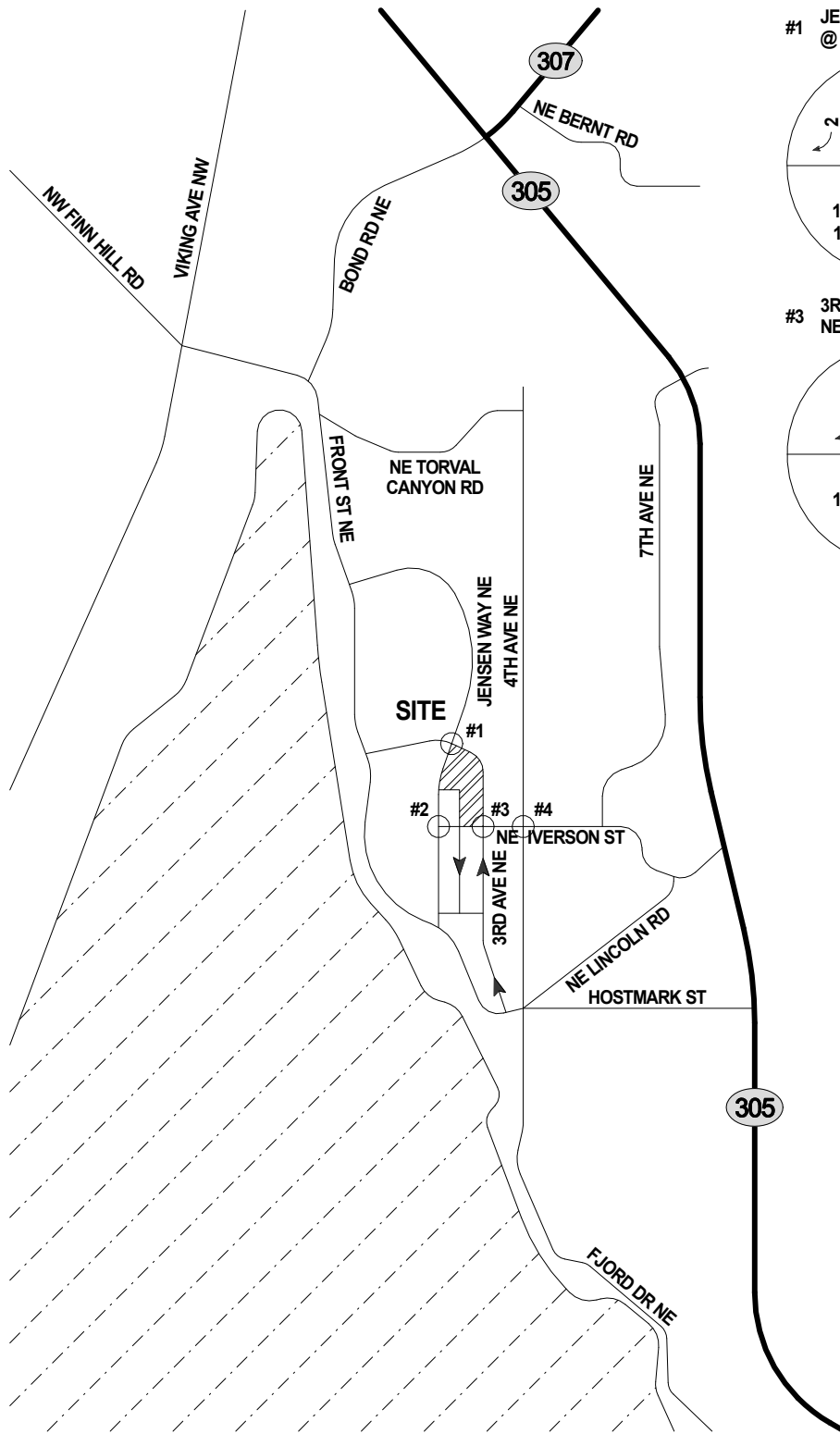
5.4. 2027 Baseline Volumes and Level of Service

The 2027 baseline (future without development) turning movement volumes are estimated by applying a 2.5% annual compounded growth rate and trips from four pipeline projects (Jensen Way Mixed-Use, Mesford Preliminary Plat, Crystal Glen Preliminary Plat and Langaunet Preliminary Plat) to the existing turning movement volumes per discussions with City Staff. It is important to note that the growth rate of 2.5% is conservatively high, especially when used with pipeline projects; therefore, it should be considered more as a worst-case scenario. The 2027 future without development PM peak-hour turning movement volumes are shown in Figure 4. Under the 2027 baseline conditions, the study intersections will all continue to operate at LOS B or better. The level of service is summarized in Table 7.

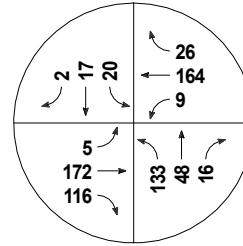
5.5. 2027 Future with Development Volumes and Level of Service

The 2027 future with development turning movement volumes are derived by adding development trips to the 2027 future without development turning movement volumes. The 2027 future with development PM peak-hour turning movement volumes are shown in Figure 5. Under the 2027 future with development conditions, the study intersections will all continue to operate at acceptable LOS C or better. The development will add less than 1 second of delay to all of the existing study intersections. The level of service is summarized in Table 7.

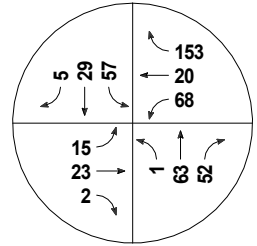




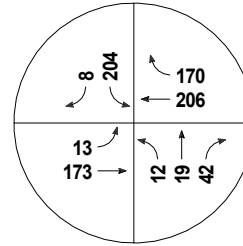
#1 JENSEN WAY NE @ 3RD AVE NE



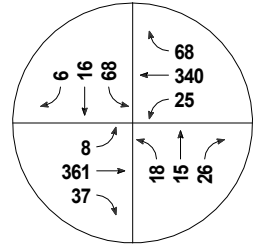
#2 JENSEN WAY NE @ NE IVERSON ST



#3 3RD AVE NE @ NE IVERSON ST



#4 4TH AVE NE @ NE IVERSON ST



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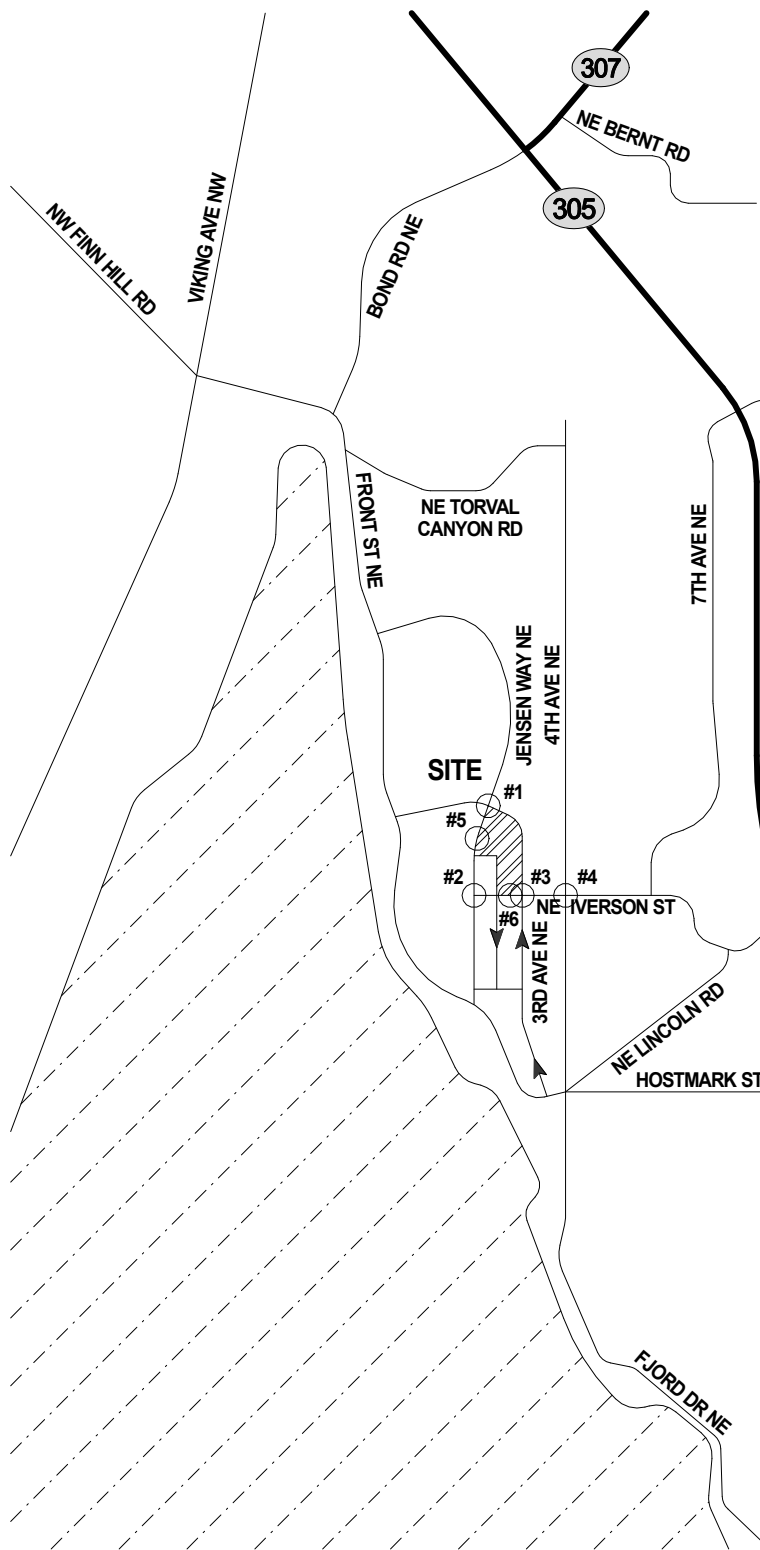
POULSBO DIVISION 8

CITY OF POULSBO

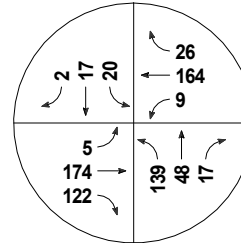
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xxx → PM PEAK HOUR
TURNING MOVEMENT VOLUMES

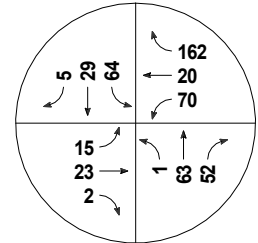
FIGURE 4
2027 BASELINE
TURNING MOVEMENTS
PM PEAK-HOUR



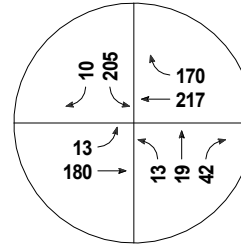
#1 JENSEN WAY NE @ 3RD AVE NE



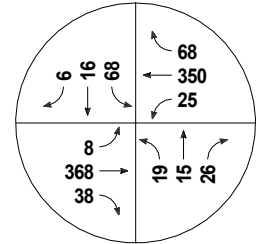
#2 JENSEN WAY NE @ NE IVERSON ST



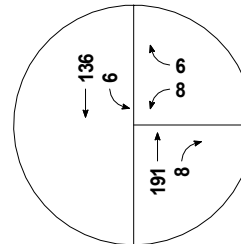
#3 3RD AVE NE @ NE IVERSON ST



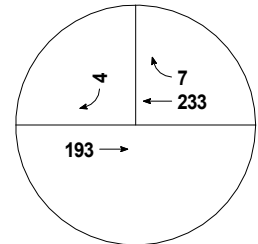
#4 4TH AVE NE @ NE IVERSON ST



#5 JENSEN WAY NE @ SITE ACCESS



#6 SITE ACCESS @ NE IVERSON ST



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xxx → PM PEAK HOUR
TURNING MOVEMENT VOLUMES

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FIGURE 5
2027 FUTURE WITH
DEVELOPMENT
TURNING MOVEMENTS
PM PEAK-HOUR

Table 7: Future Level of Service Summary – Weekday PM Peak-Hour

Intersections	Existing Conditions		2027 Future Conditions			
			without Development		with Development	
	LOS	Delay	LOS	Delay	LOS	Delay
1. Jensen Way NE at 3 rd Avenue NE	B	10.6 sec	B	12.3 sec	B	11.9 sec
2. Jensen Way NE at NE Iverson Street	A	8.2 sec	A	8.7 sec	A	8.8 sec
3. 3 rd Avenue NE at NE Iverson Street	B	10.1 sec	B	12.0 sec	B	12.3 sec
4. 4 th Avenue NE at NE Iverson Street	B	11.7 sec	B	15.0 sec	C	15.6 sec
5. Jensen Way NE at Site Access	---	---	---	---	B	10.3 sec
6. Site Access at NE Iverson Street	---	---	---	---	A	9.6 sec

Is it important to note that the delay at the intersections of Jensen Way NE at 3rd Avenue NE decreases in the 2027 future with development conditions when compared to the 2027 future without development conditions. This is due to the installation of a left-turn lane on the south leg as a part of this development. This will increase the capacity of the intersection, reducing the overall delay felt by trips through the intersection.

5.6. Construction Traffic

The development is anticipated to have a maximum of 2,300 cubic yards of earth removed from the site during the grading process. As a worst case with all of the removal occurring within one month, this would generate 8 truck trips per day. Additionally, a maximum of 50 workers are anticipated to be on-site constructing houses. As the anticipated construction daily trips and PM peak-hour trips are anticipated to be less than the development after full build out, the level of service performed earlier in this report would represent a worst-case scenario of what the study intersections will operate at during the construction phase.

It is anticipated that construction traffic to and from the site will utilize NE Iverson to travel to and from the site due to the direct path to the site.

5.7. Pedestrian Connectivity

There are currently sidewalks along both sides of Jensen Way NE, both sides of 3rd Avenue except along the site frontage. There are currently no sidewalks along the east side of the site along 3rd Avenue NE. The development will be constructing sidewalks along the development's perimeter, connecting the site with pedestrian routes near the site.

Additionally, due to the accesses from the site being minor leg stop controlled, vehicles exiting the site would be traveling slow enough when approaching the sidewalk to see any approaching pedestrians on the sidewalks.

6. TRANSPORTATION FINDINGS AND CONCURRENCY

Per Poulsbo Municipal Code 17.60.040, subdivisions may be approved by review authorities if certain criteria are met. The following two criteria related to transportation must be met; the development must have adequate provisions for streets, roads, other public ways and transit stops; provide safe, orderly and efficient circulation for traffic and make adequate provisions for sidewalks and other planning features that provide safe walking conditions for students who walk to and from school. As a part of the development, streets bordering the site that do not have sidewalks currently installed will have sidewalks constructed, connecting pedestrians to the city's pedestrian routes. Additionally, the Gateway Fellowship Park and Ride where Kitsap Transit Routes 333 and 334 stop is located within a half-mile of the site.

Per Poulsbo Municipal Code 14.04, since the development generates more than 300 average daily trips, the impacted existing roadway intersections must be analyzed to determine if they fall below the City's level of service standards. As none of the study intersection fall below the acceptable level of service standard set forth by the city, the development should be deemed concurrent per Poulsbo Municipal Code 14.04.

7. TRAFFIC MITIGATION

The Poulsbo Place Division 8 development is anticipated to generate 18.01 more average daily trips than the original Master Plan and will therefore pay mitigation fees for the difference. The City of Poulsbo has a traffic mitigation fee of \$564 per new average daily trip. This would result in a traffic mitigation fees of \$10,157.64. The development should not be responsible for off-site improvements due to the study intersections operating at acceptable level of service for the City of Poulsbo threshold for off-site analysis.

Trip Generation – Division 8

Trip Generation for: Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)

NET EXTERNAL TRIPS BY TYPE														
IN BOTH DIRECTIONS										DIRECTIONAL ASSIGNMENTS				
LAND USES	VARIABLE	ITE LU code	Gross Trips			Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	
			Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips		In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	NEW
Multifamily (Low-Rise)	49 units	220	7.32	50%	50%	358.68	0%	358.68	0.00	0%	0.00	0%	358.68	179.34
General Office	2,400 KSF	710	9.74	50%	50%	23.38	0%	23.38	0.00	0%	0.00	0%	23.38	11.69
Shopping Center	2,400 KSF	820	37.75	50%	50%	90.60	0%	90.60	30.80	34%	0.00	0%	59.80	29.90
Total						472.66		472.66	30.80		0.00		441.86	220.93

Trip Generation for: Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM
(a.k.a.): Weekday AM Peak Hour

NET EXTERNAL TRIPS BY TYPE																						
IN BOTH DIRECTIONS										DIRECTIONAL ASSIGNMENTS												
			Gross Trips				Internal Crossover			TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW		
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	% of Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In	Out	In	Out	In	Out	
Multifamily (Low-Rise)	49 units	220	0.46	23%	77%	22.54	0%	0.00	0.00	22.54	0%	0.00	0%	0.00	22.54	0.00	0.00	0.00	0.00	5.18	17.36	
General Office	2,400 KSF	710	1.16	86%	14%	2.78	0%	0.00	0.00	2.78	0%	0.00	0%	0.00	2.78	0.00	0.00	0.00	0.00	2.39	0.39	
Shopping Center	2,400 KSF	820	0.94	62%	38%	2.26	0%	0.00	0.00	2.26	34%	0.77	0%	0.00	1.49	0.48	0.29	0.00	0.00	0.92	0.57	
Total						27.58		0.00	0.00	27.58		0.77		0.00	26.81	0.48	0.29	0.00	0.00	8.49	18.32	

Trip Generation for: Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM
(a.k.a.): Weekday PM Peak Hour

NET EXTERNAL TRIPS BY TYPE														
IN BOTH DIRECTIONS										DIRECTIONAL ASSIGNMENTS				
LAND USES	VARIABLE	ITE LU code	Gross Trips			Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	NEW
			Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips		In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips		
Multifamily (Low-Rise)	49 units	220	0.56	63%	37%	27.44	0%	27.44	0%	0%	0.00	0%	27.44	10.15
General Office	2,400 KSF	710	1.15	16%	84%	2.76	0%	2.76	0%	0%	0.00	0%	2.76	2.32
Shopping Center	2,400 KSF	820	3.81	48%	52%	9.14	0%	9.14	34%	0%	0.00	0%	6.03	3.14
Total						39.34		39.34	3.11		0.00		36.23	15.61

1-MONTHS TRIP GENERATION

2,300 yards total in 1 years

2,300 yards/year

yards of fill/truck	24 T & T	70%	In a Year	In + Out
yards of fill/truck	12 Single	30%	2,300 yards	per day
Hours per Day	10		113 fill truck trips	8
Days/Year	30			
			Total	8

	Total	In	Out
Daily	8	4	4
15% of Daily is AM peak-hour	1	1	0
15% of Daily is PM peak-hour	1	0	1

Trip Generation Comparison – Master Plan

Poulsbo Place Division 8
GTC #18-293

Trip Generation for: Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM (a.k.a.): Weekday PM Peak Hour

NET EXTERNAL TRIPS BY TYPE																					
IN BOTH DIRECTIONS										DIRECTIONAL ASSIGNMENTS											
				Gross Trips			Internal Crossover			TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES		VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	% of In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In	Out	In	Out	In	Out	
Multifamily (Low-Rise)		49 units	220	0.56	63%	37%	27.44	0%	0.00	27.44	0%	0.00	0%	0.00	0.00	0.00	0.00	0.00	17.29	10.15	
General Office		2,400 KSF	710	1.15	16%	84%	2.76	0%	0.00	2.76	0%	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.44	2.32	
Shopping Center		2,400 KSF	820	3.81	48%	52%	9.14	0%	0.00	9.14	34%	3.11	0%	0.00	1.49	1.62	0.00	0.00	2.89	3.14	
Division 1-7 (Existing SFD)		300 units	210	0.99	63%	37%	297.00	0%	0.00	297.00	0%	0.00	0%	0.00	0.00	0.00	0.00	0.00	187.11	109.89	
Division 1-7 (Existing Retail)		10 units	820	3.81	48%	52%	38.10	0%	0.00	38.10	34%	12.95	0%	0.00	6.22	6.73	0.00	0.00	12.07	13.08	
Original Master Plan		---	---	Stdy	45%	55%	-402.00	0%	0.00	-402.00	0%	0.00	0%	0.00	0.00	0.00	0.00	0.00	-180.90	-21.10	
Total							-27.56		0.00	-27.56		16.06		0.00	7.71	8.35	0.00	0.00	38.90	-82.52	

TRAFFIC IMPACT ANALYSIS

POULSBO PLACE DEVELOPMENT

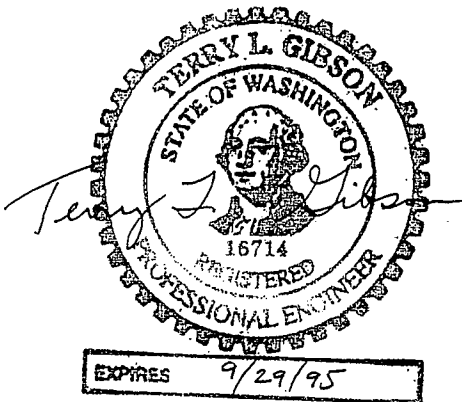
POULSBO, WASHINGTON

Expanded SEPA Checklist - Transportation

Prepared for: Poulsbo Place Partners

Submitted to: City of Poulsbo
Washington State Department of
Transportation, Olympic Region

Prepared by: Gibson Traffic Consultants, Inc. PS



July 19, 1995

GIBSON
TRAFFIC
CONSULTANTS

Table 3
TRIP GENERATION SUMMARY

Land Use	Trip Type	AWDT	PM Peak Hour		
			Total	Inbound	Outbound
Proposed Commercial Area Development Subtotals	Total	4,060	495	209	286
	Pass-By	570	70	43	27
	Crossover	405	49	20	29
	Transit	610	74	32	42
	New	2,475	302	114	188
Proposed Residential Area Development Subtotals (including existing trips)	Total	2,285	221	149	72
	Pass-By	0	0	0	0
	Crossover	230	21	15	6
	Transit	340	33	22	11
	New	1,715	167	112	55
- Existing Trips Subtotals (occupied residential units) 10%	Total	805	79	51	28
	Pass-By	0	0	0	0
	Crossover	0	0	0	0
	Transit	812	812	57	35
	New	724	716	46	23
Net Trips Grand Totals (Total Proposed Development - Existing Occupied Units)	Total	5,540	637	307	330
	Pass-By	570	70	43	27
	Crossover	635	70	35	35
	Transit	830	95	47	48
	New	3,505	402	182	220

Counts and Turning Movement Calculations



Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

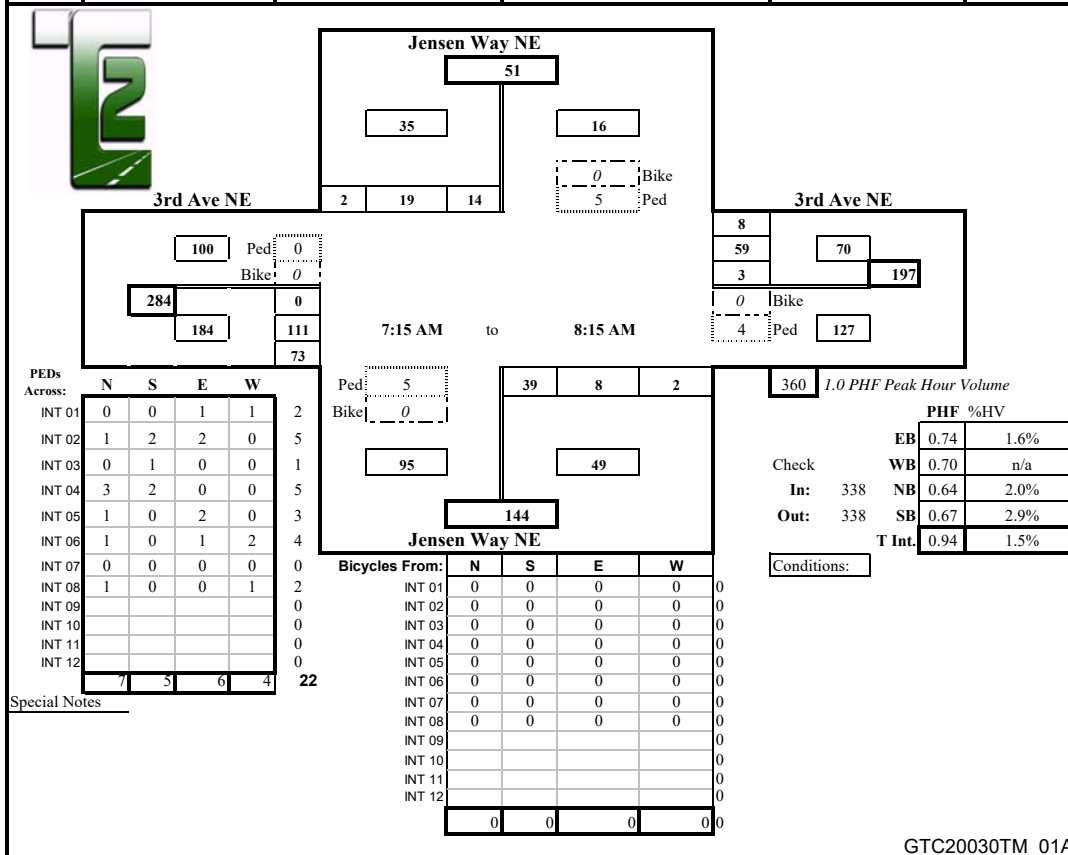
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Jensen Way NE & 3rd Ave NE
Location: Poulsbo, WA

Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) Jensen Way NE				From South on (NB) Jensen Way NE				From East on (WB) 3rd Ave NE				From West on (EB) 3rd Ave NE				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
7:15 A	0	7	1	0	1	9	1	1	0	0	13	0	0	0	18	19	69
7:30 A	1	2	4	1	0	7	0	0	0	1	8	0	0	0	38	24	85
7:45 A	0	3	8	1	0	8	0	0	0	1	15	2	2	0	36	16	90
8:00 A	0	6	7	0	0	11	7	1	0	0	17	1	0	0	20	17	87
8:15 A	0	3	0	0	1	13	1	1	0	1	19	5	1	0	17	16	76
8:30 A	0	3	4	1	0	9	1	1	0	0	13	2	0	0	21	11	66
8:45 A	0	3	5	0	1	17	3	2	0	0	16	1	1	1	20	18	86
9:00 A	0	7	6	0	0	9	4	0	0	2	13	2	0	0	18	20	81
9:15 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey																	
Peak Hour: 7:15 AM to 8:15 AM																	
Total																	
Approach																	
%HV																	
PHF																	





Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

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WBE/DBE

Intersection: Jensen Way NE & 3rd Ave NE
Location: Poulsbo

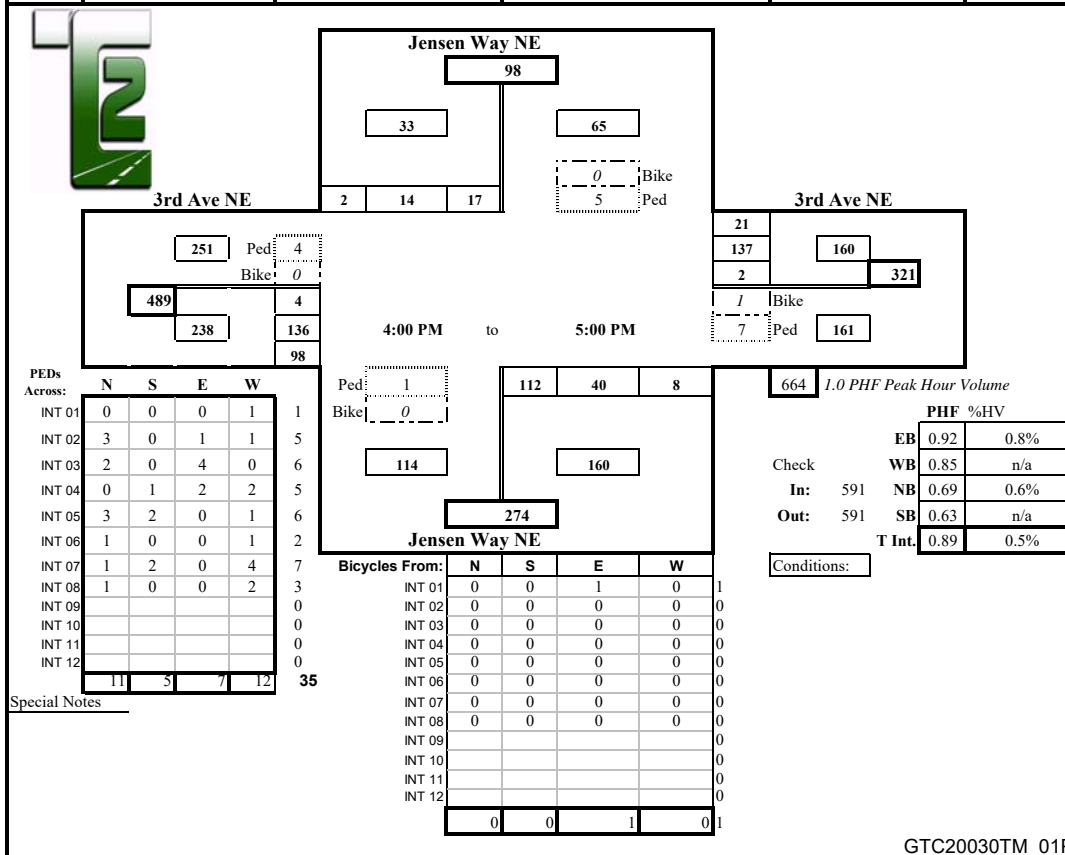
Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) Jensen Way NE				From South on (NB) Jensen Way NE				From East on (WB) 3rd Ave NE				From West on (EB) 3rd Ave NE				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	0	7	2	1	1	29	12	2	0	0	35	8	0	3	36	19	154
4:30 P	0	1	5	1	0	29	4	2	0	1	34	3	1	1	34	30	145
4:45 P	0	8	5	0	0	15	9	0	0	0	29	3	1	0	31	26	126
5:00 P	0	1	2	0	0	39	15	4	0	1	39	7	0	0	35	23	166
5:15 P	0	2	3	0	1	35	7	2	0	1	50	7	1	0	25	18	150
5:30 P	0	5	5	0	1	28	9	2	1	2	32	3	1	1	30	17	134
5:45 P	0	2	4	0	1	30	5	2	0	1	31	0	0	1	22	15	113
6:00 P	0	4	3	0	0	20	7	0	0	0	32	2	1	0	28	6	102
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Survey	0	30	29	2	4	225	68	14	1	6	282	33	5	6	241	154	1090
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Peak Hour: 4:00 PM to 5:00 PM

Total	0	17	14	2	1	112	40	8	0	2	137	21	2	4	136	98	591
Approach	33				160				160				238				591
%HV	n/a				0.6%				n/a				0.8%				0.5%
PHF	0.63				0.69				0.85				0.92				0.89





Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

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WBE/DBE

Intersection: Jensen Way NE & NE Iverson St
Location: Poulsbo, WA

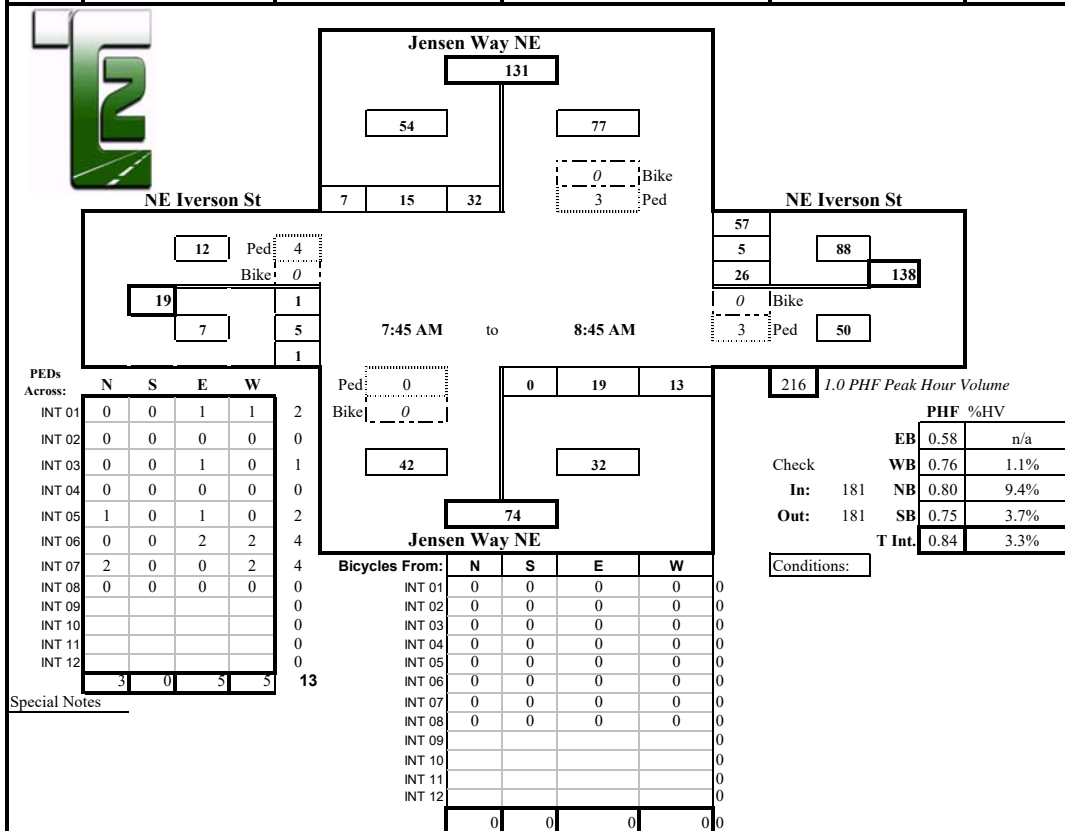
Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) Jensen Way NE				From South on (NB) Jensen Way NE				From East on (WB) NE Iverson St				From West on (EB) NE Iverson St				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
7:15 A	0	5	0	4	0	0	1	1	1	4	0	11	1	3	0	0	29
7:30 A	0	11	6	0	1	0	0	4	0	5	0	7	0	0	1	1	35
7:45 A	1	10	6	1	0	0	2	1	1	6	2	5	0	2	2	0	37
8:00 A	0	12	4	2	0	0	6	3	1	4	1	15	0	0	2	1	50
8:15 A	1	3	3	3	1	0	6	2	0	8	0	11	0	0	1	0	37
8:30 A	0	9	3	1	1	0	1	4	0	5	1	14	0	0	2	0	40
8:45 A	1	8	5	1	1	0	6	4	0	9	3	17	0	1	0	0	54
9:00 A	0	12	5	2	0	0	5	2	0	12	1	8	0	0	0	1	48
9:15 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Survey	3	70	32	14	4	0	27	21	3	53	8	88	1	6	8	3	330
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Peak Hour: 7:45 AM to 8:45 AM

Total	2	32	15	7	3	0	19	13	1	26	5	57	0	1	5	1	181
Approach	54				32				88				7				181
%HV	3.7%				9.4%				1.1%				n/a				3.3%
PHF	0.75				0.80				0.76				0.58				0.84



GTC20030TM_02A



Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

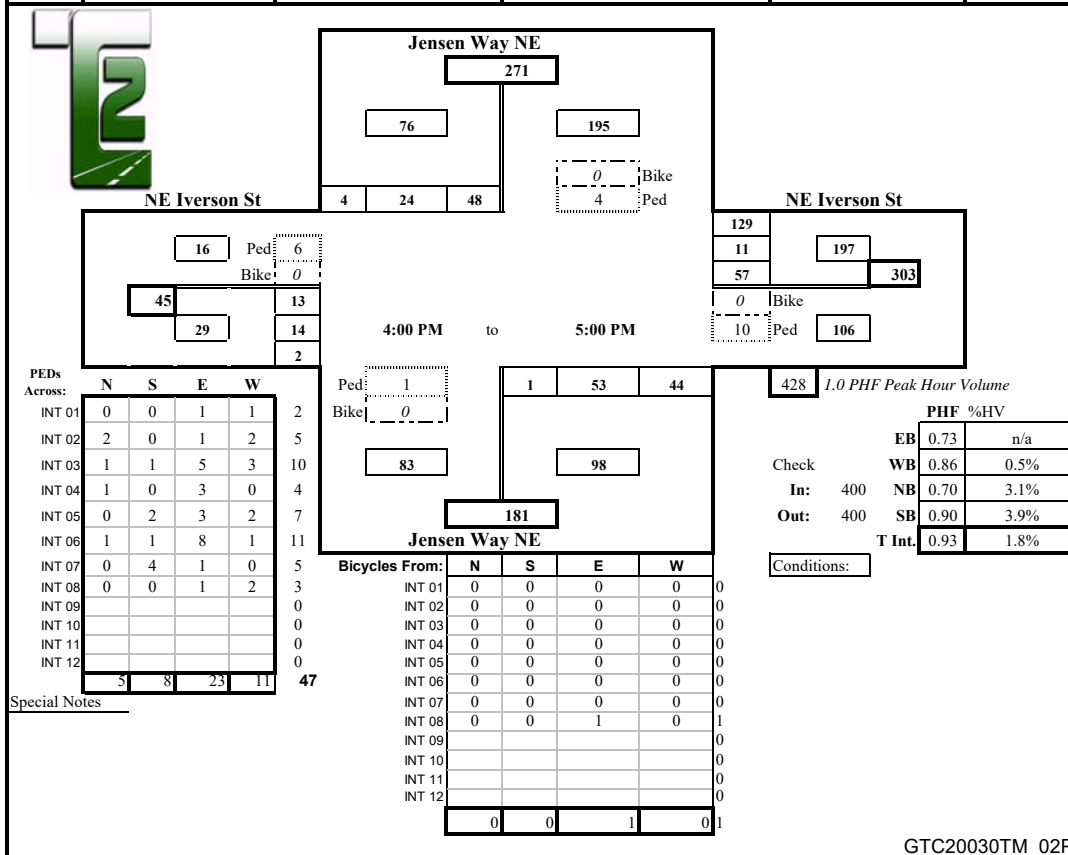
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Jensen Way NE & NE Iverson St
Location: Poulsbo, WA

Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) Jensen Way NE				From South on (NB) Jensen Way NE				From East on (WB) NE Iverson St				From West on (EB) NE Iverson St				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	1	11	5	1	1	0	11	13	0	13	2	36	0	5	4	1	102
4:30 P	1	13	7	1	0	0	8	7	0	13	4	33	0	3	2	0	91
4:45 P	1	11	5	2	2	1	21	13	1	15	1	23	0	2	5	1	100
5:00 P	0	13	7	0	0	0	13	11	0	16	4	37	0	3	3	0	107
5:15 P	1	10	5	2	1	0	16	12	0	11	2	34	0	1	4	1	98
5:30 P	0	8	8	0	0	0	7	17	0	12	1	31	0	3	3	1	91
5:45 P	1	9	2	0	1	1	13	9	0	15	1	24	0	0	2	0	76
6:00 P	1	2	1	0	0	0	2	15	0	6	1	20	0	1	5	1	54
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	6	77	40	6	5	2	91	97	1	101	16	238	0	18	28	5	719
Peak Hour: 4:00 PM to 5:00 PM																	
Total	3	48	24	4	3	1	53	44	1	57	11	129	0	13	14	2	400
Approach	76				98				197				29				400
%HV	3.9%				3.1%				0.5%				n/a				1.8%
PHF	0.90				0.70				0.86				0.73				0.93





Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

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WBE/DBE

Intersection: 3rd Ave NE & NE Iverson St
Location: Poulsbo, WA

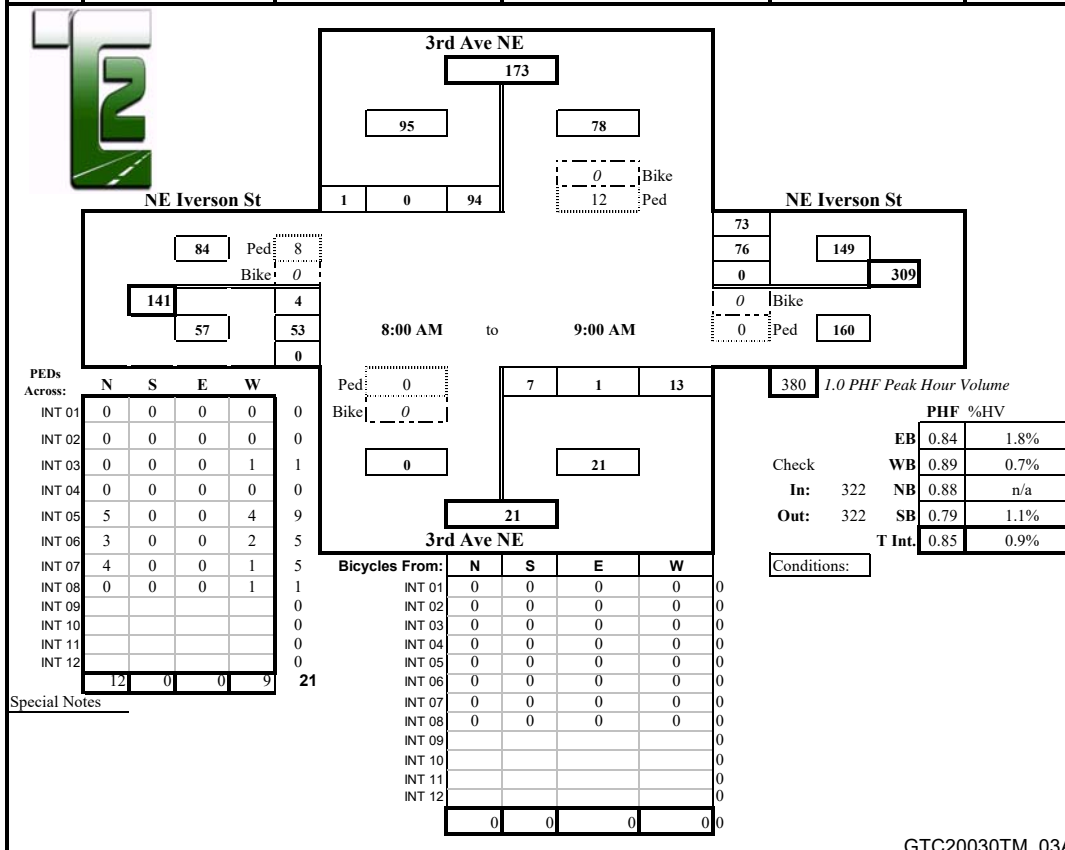
Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) 3rd Ave NE				From South on (NB) 3rd Ave NE				From East on (WB) NE Iverson St				From West on (EB) NE Iverson St				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
7:15 A	1	20	0	0	0	0	0	1	2	0	15	11	0	1	7	0	55
7:30 A	0	41	0	3	1	0	1	5	0	0	10	7	1	0	13	0	80
7:45 A	1	37	0	1	0	1	0	2	1	0	11	16	1	2	11	0	81
8:00 A	0	26	0	1	1	2	1	2	1	0	14	16	0	0	14	0	76
8:15 A	0	18	0	0	0	2	0	2	0	0	17	22	0	1	10	0	72
8:30 A	0	21	0	1	0	1	0	4	0	0	18	15	1	2	13	0	75
8:45 A	0	30	0	0	0	3	1	2	1	0	24	18	0	0	17	0	95
9:00 A	1	25	0	0	0	1	0	5	0	0	17	18	0	1	13	0	80
9:15 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Survey	3	218	0	6	2	10	3	23	5	0	126	123	3	7	98	0	614
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Peak Hour: 8:00 AM to 9:00 AM

Total	1	94	0	1	0	7	1	13	1	0	76	73	1	4	53	0	322
Approach	95				21				149				57				322
%HV	1.1%				n/a				0.7%				1.8%				0.9%
PHF	0.79				0.88				0.89				0.84				0.85





Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: 3rd Ave NE & NE Iverson St
Location: Poulsbo, WA

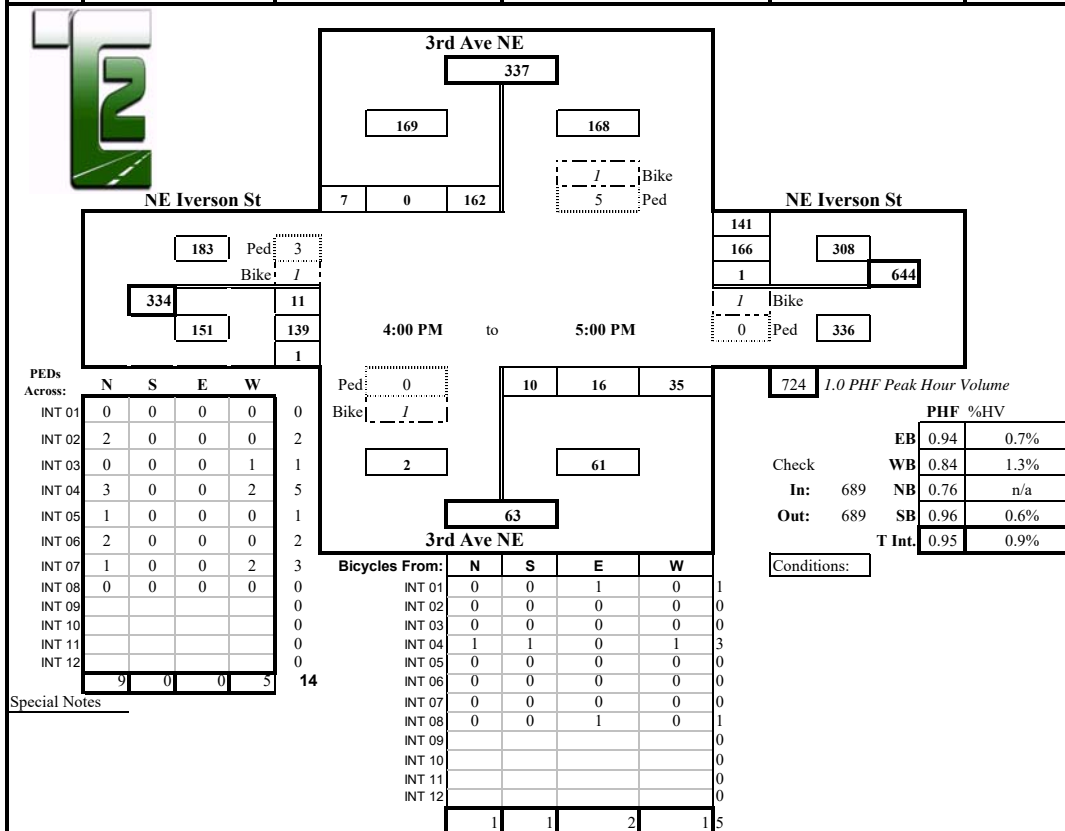
Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) 3rd Ave NE				From South on (NB) 3rd Ave NE				From East on (WB) NE Iverson St				From West on (EB) NE Iverson St				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	0	43	0	1	0	3	1	9	2	0	42	41	0	1	37	0	178
4:30 P	1	40	0	0	0	3	8	9	1	1	45	31	0	4	33	1	175
4:45 P	0	36	0	6	0	1	4	12	1	0	30	26	1	4	36	0	155
5:00 P	0	43	0	0	0	3	3	5	0	0	49	43	0	2	33	0	181
5:15 P	0	29	0	3	0	4	8	12	0	0	41	40	0	2	27	0	166
5:30 P	0	40	0	2	1	3	8	9	0	0	38	33	0	1	35	0	169
5:45 P	0	24	0	1	0	4	3	5	0	0	34	28	1	0	30	0	129
6:00 P	0	31	0	1	0	2	4	5	0	0	27	30	0	1	24	0	125
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Survey	1	286	0	14	1	23	39	66	4	1	306	272	2	15	255	1	1278
--------------	---	-----	---	----	---	----	----	----	---	---	-----	-----	---	----	-----	---	------

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

Total	1	162	0	7	0	10	16	35	4	1	166	141	1	11	139	1	689
Approach	169				61				308				151				689
%HV	0.6%				n/a				1.3%				0.7%				0.9%
PHF	0.96				0.76				0.84				0.94				0.95





Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: 4th Ave NE & NE Iverson St
Location: Poulsbo, WA

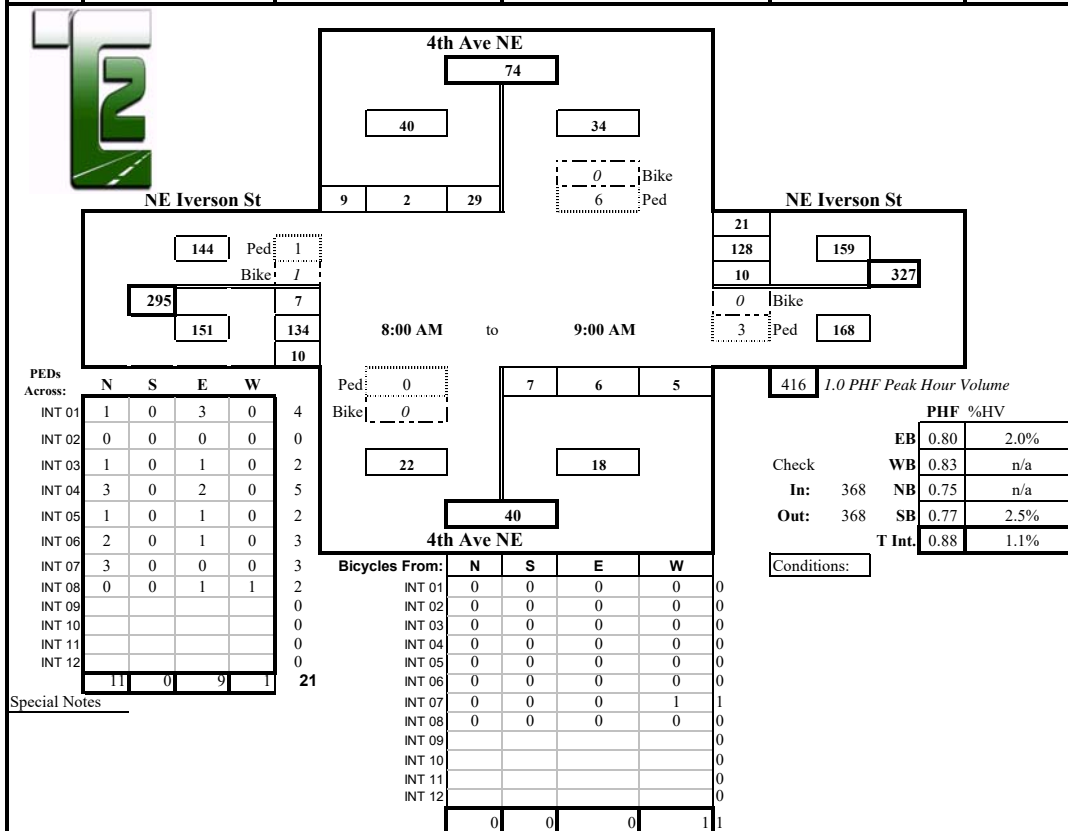
Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) 4th Ave NE				From South on (NB) 4th Ave NE				From East on (WB) NE Iverson St				From West on (EB) NE Iverson St				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
7:15 A	1	0	6	1	0	2	1	1	4	1	22	0	1	0	27	1	62
7:30 A	0	7	2	0	0	2	0	5	1	1	16	2	2	0	53	2	90
7:45 A	0	11	1	0	0	3	0	0	1	1	23	4	2	0	50	5	98
8:00 A	0	6	0	1	0	6	0	2	1	1	21	6	0	0	43	1	87
8:15 A	0	8	1	2	0	1	0	2	0	4	34	10	0	0	29	1	92
8:30 A	0	6	0	2	0	0	3	1	0	1	31	3	2	2	28	2	79
8:45 A	1	4	1	3	0	3	2	1	0	3	37	3	0	1	42	4	104
9:00 A	0	11	0	2	0	3	1	1	0	2	26	5	1	4	35	3	93
9:15 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Survey	2	53	11	11	0	20	7	13	7	14	210	33	8	7	307	19	705
--------------	---	----	----	----	---	----	---	----	---	----	-----	----	---	---	-----	----	-----

Peak Hour: 8:00 AM to 9:00 AM

Total	1	29	2	9	0	7	6	5	0	10	128	21	3	7	134	10	368
Approach	40				18				159				151				368
%HV	2.5%				n/a				n/a				2.0%				1.1%
PHF	0.77				0.75				0.83				0.80				0.88



GTC20030TM_04A



Prepared for: **Gibson Traffic Consultants**
Traffic Count Consultants, Inc.

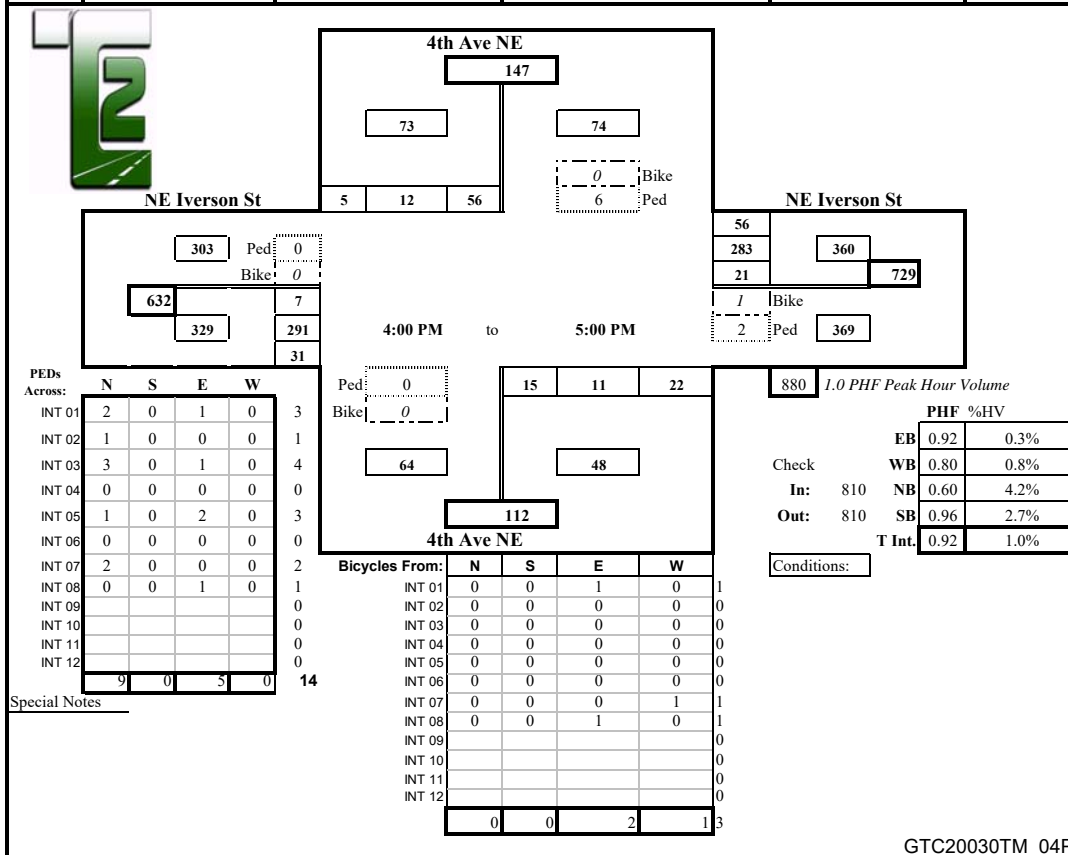
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: 4th Ave NE & NE Iverson St
Location: Poulsbo, WA

Date of Count: Thur 03/05/2020
Checked By: Cameron

Time Interval Ending at	From North on (SB) 4th Ave NE				From South on (NB) 4th Ave NE				From East on (WB) NE Iverson St				From West on (EB) NE Iverson St				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	0	14	3	2	1	9	5	6	1	8	66	17	0	3	79	7	219
4:30 P	1	13	3	1	0	1	1	5	1	2	74	13	1	2	72	8	195
4:45 P	1	16	2	1	0	3	2	3	1	6	53	9	0	1	71	9	176
5:00 P	0	13	4	1	1	2	3	8	0	5	90	17	0	1	69	7	220
5:15 P	0	5	0	1	0	6	1	4	1	10	75	11	0	0	58	8	179
5:30 P	0	5	1	1	0	5	3	4	0	5	66	14	0	1	69	15	189
5:45 P	0	5	2	0	0	2	3	5	0	1	59	13	1	2	59	1	152
6:00 P	0	8	4	0	0	4	1	7	0	3	55	12	0	1	53	7	155
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey																	
Peak Hour: 4:00 PM to 5:00 PM																	
Total	2	56	12	5	2	15	11	22	3	21	283	56	1	7	291	31	810
Approach	73				48				360				329				810
%HV	2.7%				4.2%				0.8%				0.3%				1.0%
PHF	0.96				0.60				0.80				0.92				0.92



1 Jensen Way NE @ 3rd Ave NE

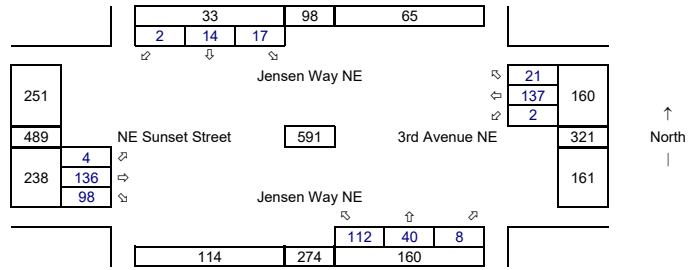
Synchro ID: 1

Existing

Average Weekday
PM Peak Hour

Year: 3/5/20

Data Source: TC2

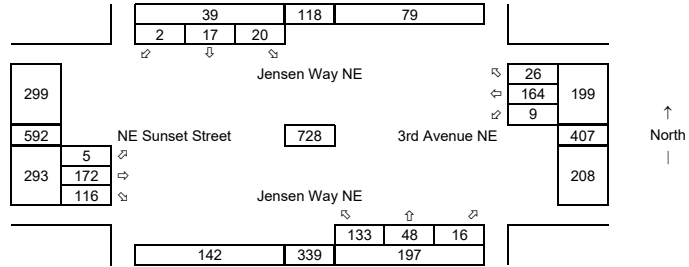


Future without Project

Average Weekday
PM Peak Hour

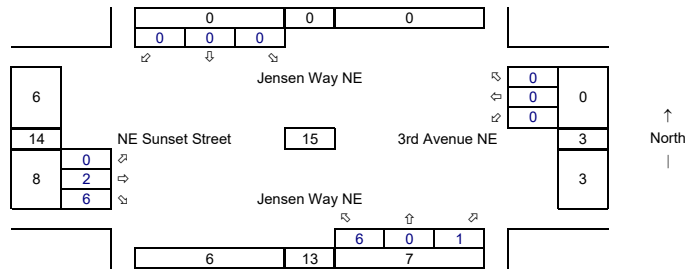
Year: 2027

Growth Rate = 2.5%
Years of Growth = 7
Total Growth = 1.1887



Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

Average Weekday
PM Peak Hour



Total Pipeline Project Trips

Average Weekday
PM Peak Hour

Jensen Way Mixed-Use
Mesford Preliminary Plat
Crystal Glen Preliminary Plat
Langaunet Preliminary Plat



Pass-By Project Trips

Average Weekday
PM Peak Hour



2 Jensen Way NE @ NE Iverson St

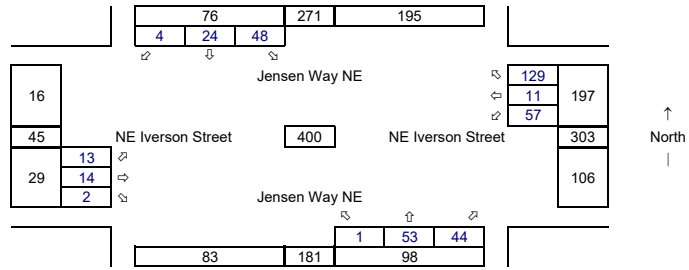
Synchro ID: 2

Existing

Average Weekday
PM Peak Hour

Year: 3/5/20

Data Source: TC2

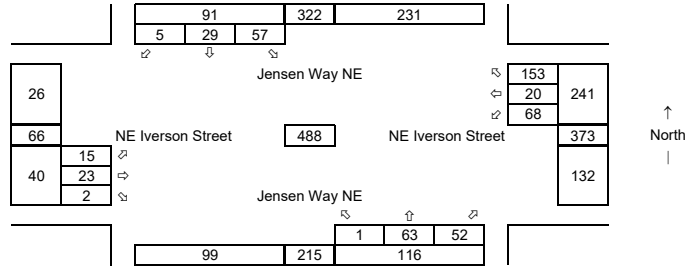


Future without Project

Average Weekday
PM Peak Hour

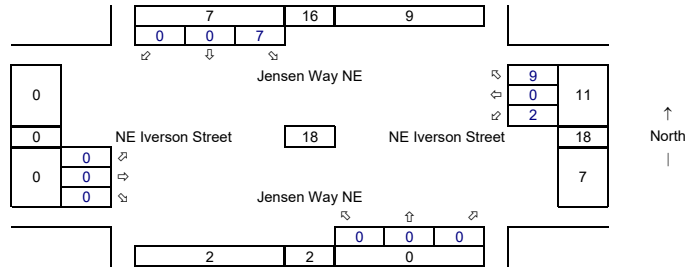
Year: 2027

Growth Rate = 2.5%
Years of Growth = 7
Total Growth = 1.1887



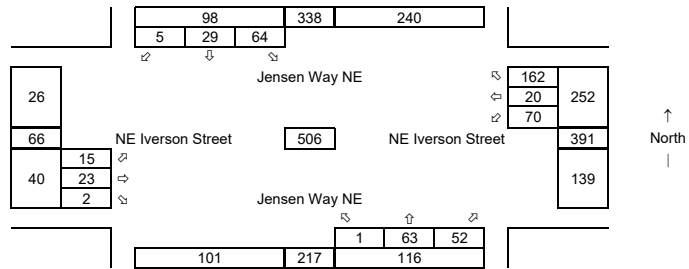
Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

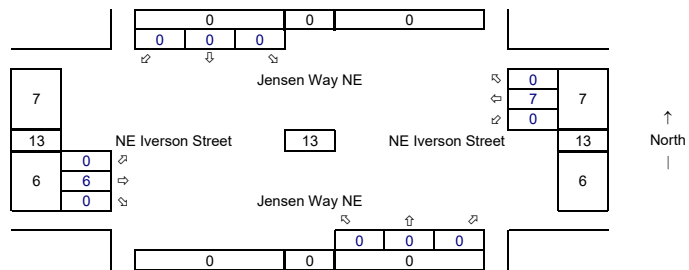
Average Weekday
PM Peak Hour



Total Pipeline Project Trips

Average Weekday
PM Peak Hour

Jensen Way Mixed-Use
Mesford Preliminary Plat
Crystal Glen Preliminary Plat
Langaunet Preliminary Plat



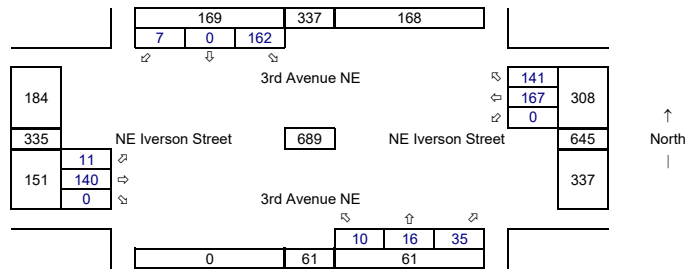
Pass-By Project Trips

Average Weekday
PM Peak Hour

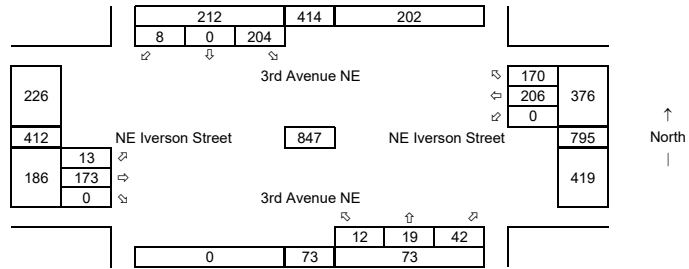


3 3rd Ave NE @ NE Iverson St

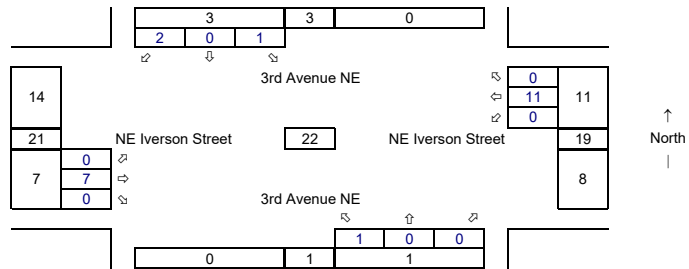
Synchro ID: 3
Existing
 Average Weekday
 PM Peak Hour
 Year: 3/5/20
 Data Source: TC2



Future without Project
 Average Weekday
 PM Peak Hour
 Year: 2027
 Growth Rate = 2.5%
 Years of Growth = 7
 Total Growth = 1.1887



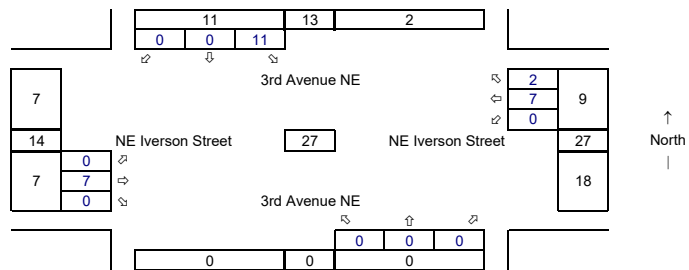
Total Project Trips
 Average Weekday
 PM Peak Hour



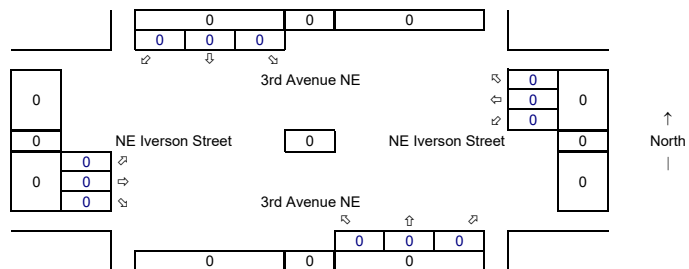
Future with Project
 Average Weekday
 PM Peak Hour



Total Pipeline Project Trips
 Average Weekday
 PM Peak Hour

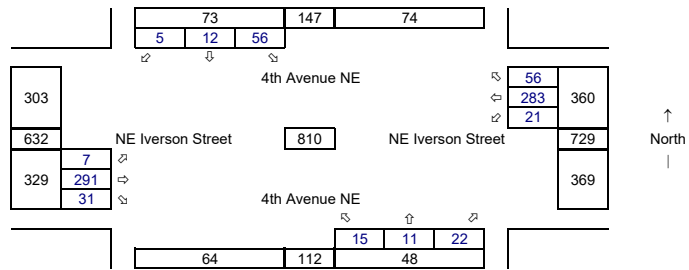


Pass-By Project Trips
 Average Weekday
 PM Peak Hour

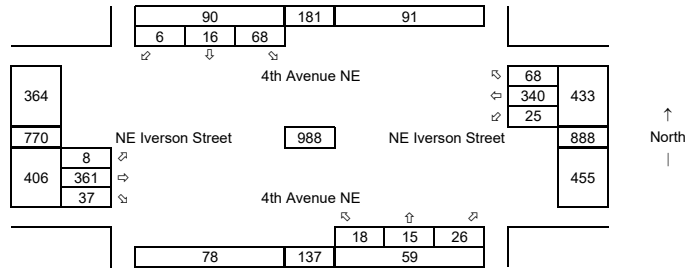


4 4th Ave NE @ NE Iverson St

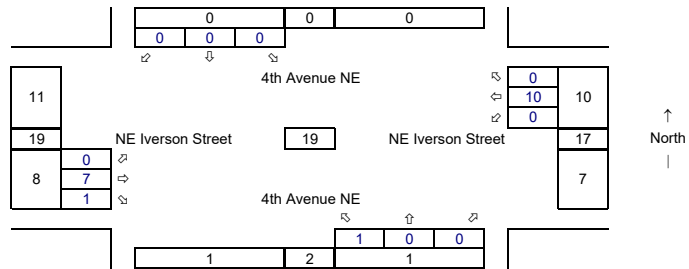
Synchro ID: 4
Existing
 Average Weekday
 PM Peak Hour
 Year: 3/5/20
 Data Source: TC2



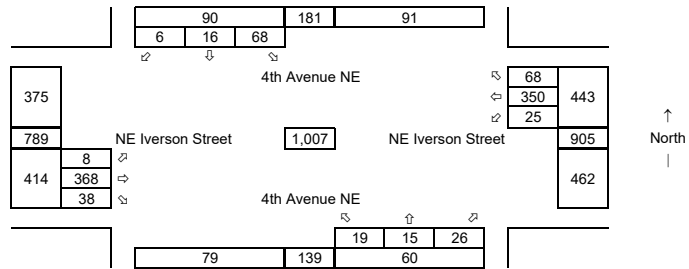
Future without Project
 Average Weekday
 PM Peak Hour
 Year: 2027
 Growth Rate = 2.5%
 Years of Growth = 7
 Total Growth = 1.1887



Total Project Trips
 Average Weekday
 PM Peak Hour

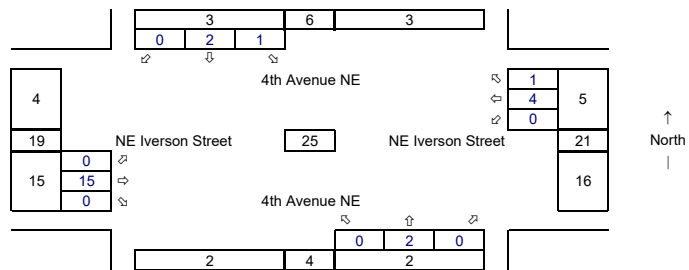


Future with Project
 Average Weekday
 PM Peak Hour



Total Pipeline Project Trips
 Average Weekday
 PM Peak Hour

Jensen Way Mixed-Use
 Mesford Preliminary Plat
 Crystal Glen Preliminary Plat
 Langaunet Preliminary Plat



Pass-By Project Trips
 Average Weekday
 PM Peak Hour



5 Jensen Way NE @ Site Access

Synchro ID: 5

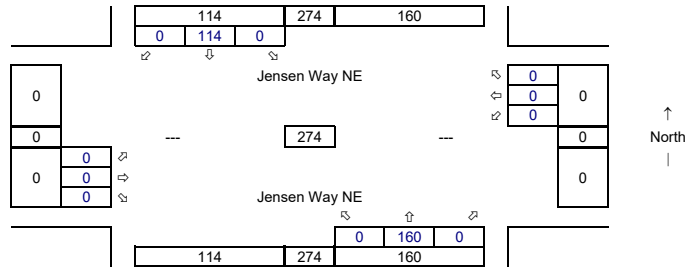
Existing

Average Weekday
PM Peak Hour

Year: 3/5/20

Data Source: GTC

Volumes extrapolated based on
the northbound approach at the
intersection of Jensen Way NE
at 3rd Avenue NE/NE Sunset
Street.



Future without Project

Average Weekday
PM Peak Hour

Year: 2027

Growth Rate = 2.5%

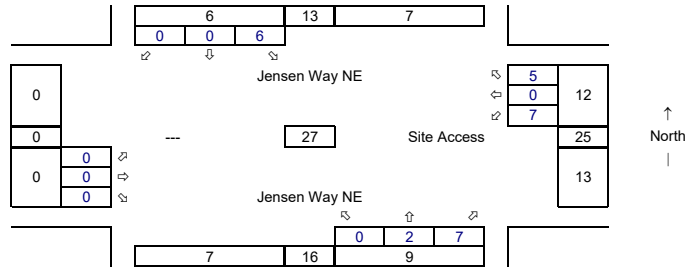
Years of Growth = 7

Total Growth = 1.1887



Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

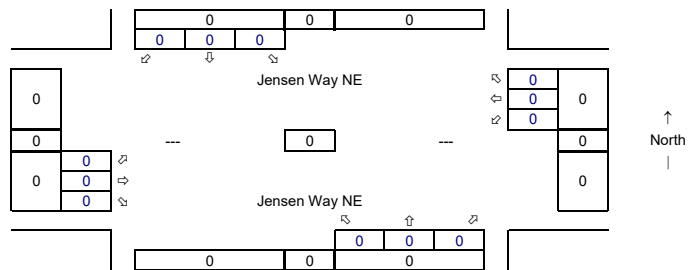
Average Weekday
PM Peak Hour



Total Pipeline Project Trips

Average Weekday
PM Peak Hour

Jensen Way Mixed-Use
Mesford Preliminary Plat
Crystal Glen Preliminary Plat
Langaunet Preliminary Plat



Pass-By Project Trips

Average Weekday
PM Peak Hour



6 Site Access @ NE Iverson St

Synchro ID: 6

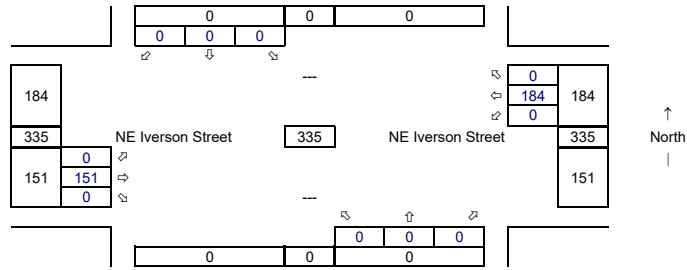
Existing

Average Weekday
PM Peak Hour

Year: 3/5/20

Data Source: GTC

Volumes extrapolated based on
the eastbound approach at the
intersection of 3rd Avenue NE at
NE Iverson Street.



Future without Project

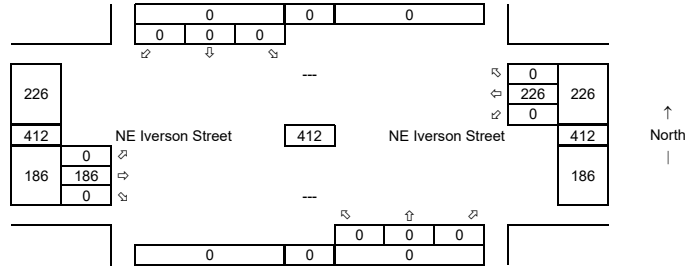
Average Weekday
PM Peak Hour

Year: 2027

Growth Rate = 2.5%

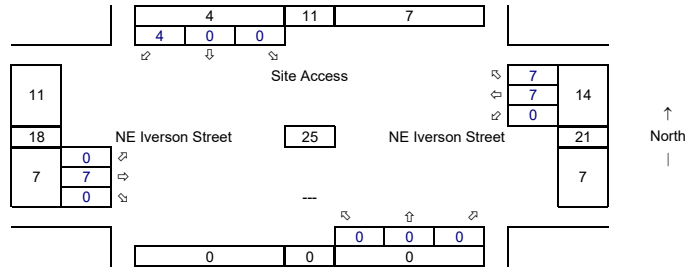
Years of Growth = 7

Total Growth = 1.1887



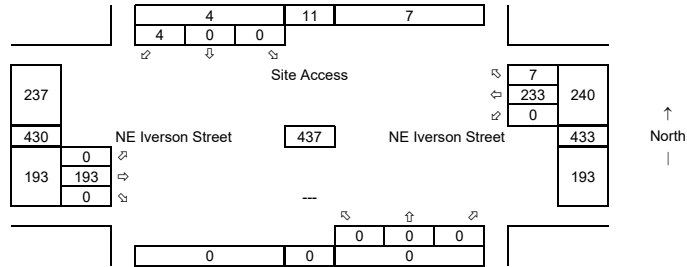
Total Project Trips

Average Weekday
PM Peak Hour



Future with Project

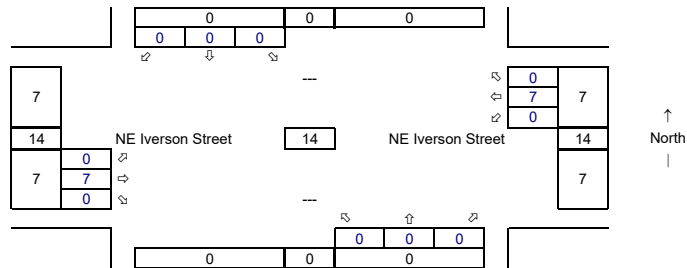
Average Weekday
PM Peak Hour



Total Pipeline Project Trips

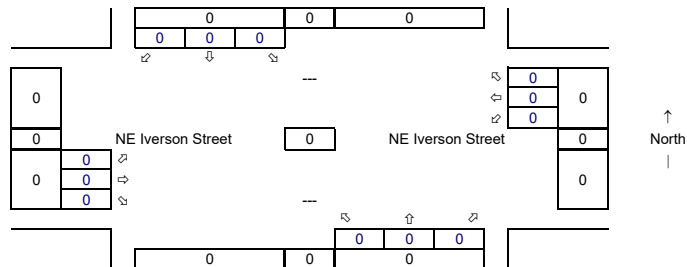
Average Weekday
PM Peak Hour

Jensen Way Mixed-Use
Mesford Preliminary Plat
Crystal Glen Preliminary Plat
Langaunet Preliminary Plat



Pass-By Project Trips

Average Weekday
PM Peak Hour



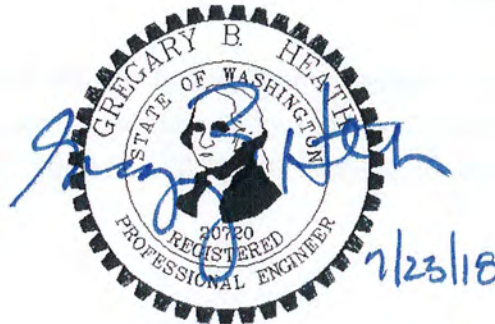
Pipeline Projects



JENSEN WAY MIXED-USE
TRAFFIC IMPACT ANALYSIS – UPDATE

City of Poulsbo, WA

RECEIVED
JUL 23 2018
PED Department

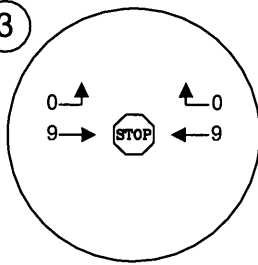


Prepared for: c/o Matt King
Blue Architecture
247 Fourth Street
Bremerton, WA 98337

3RD AVE & FRONT 4TH AVE/FJORD/LINCOLN

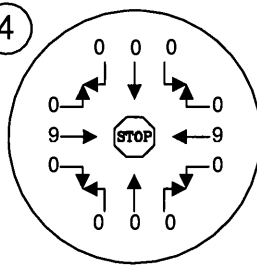


③



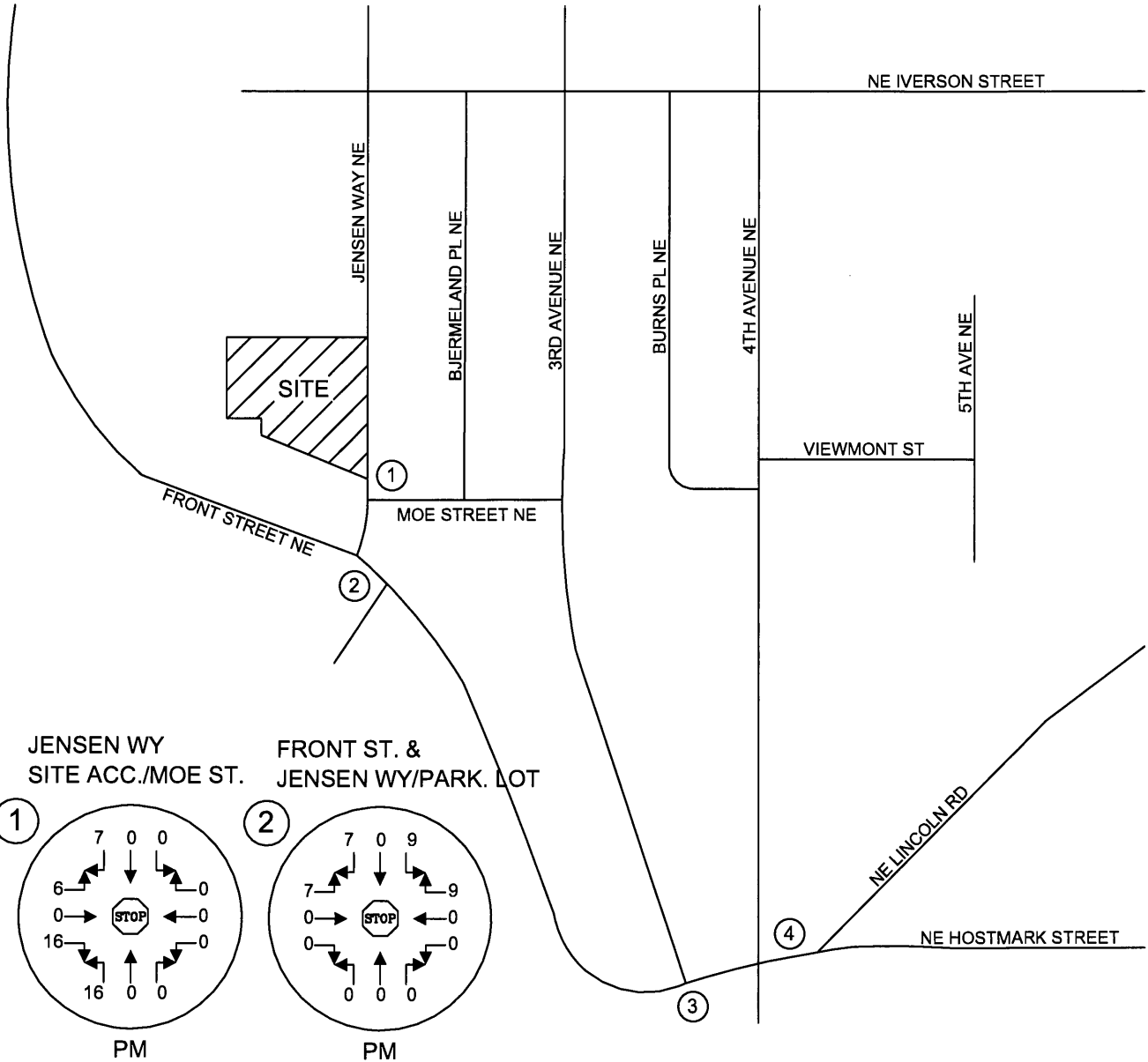
PM

④



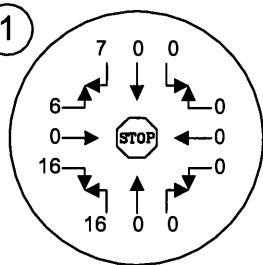
PM

NEW PM PEAK HOUR TRIPS
INBOUND: 23 VPH
OUTBOUND: 22 VPH



①

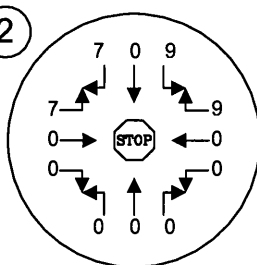
JENSEN WY
SITE ACC./MOE ST.



PM

②

FRONT ST. &
JENSEN WY/PARK. LOT



PM

HEATH & ASSOCIATES
TRAFFIC AND CIVIL ENGINEERING

JENSEN WAY MIXED-USE - POULSBORO
PM PEAK HOUR TRIP DISTRIBUTION
FIGURE 5

Technical Memorandum

DATE: July 28, 2009

TO: Mr. Jim Groh
Senior Engineering Technician
City of Poulsbo
P.O. Box 98
Poulsbo, WA 98370

FROM: Michael Birdsall
Senior Transportation Planning Engineer

SUBJECT: Traffic Mitigation and Concurrency for **Mesford Preliminary Plat for 90 Detached Single-Family Dwelling Units**
TMR2009-16

PROJECT: Traffic Analysis Services

PROJECT NO.: POUL0000-0005

COPIES: File

This Technical Memorandum reports the results of adding the proposed development to the City of Poulsbo's pipeline forecast of previously-considered developments.

The Summary of Results section briefly describes the findings of the analysis. Subsequent sections provide additional details of assumptions, conclusions, and methodology. The attachments provide detailed information for each road section in Poulsbo and each monitored intersection. Special conditions, if any, are identified and discussed in the text.

SUMMARY OF RESULTS

The development has traffic impacts that can be mitigated by a combination of:

- (a) **Proportional share payments** (in lieu of direct mitigation) of projects covered by the Transportation Improvement Program (TIP); and
- (b) **Remedies for concurrency deficiencies** at locations where the forecast demand with the development exceeds the allowable volume based on the City's level of service (LOS) standard. Concurrency remedies may take several forms. The City may require a direct improvement to remove the deficiency; however, where possible to do so, a pro-rata share approach is suggested in lieu of direct improvements.

The following table summarizes the results detailed in later sections of this report. The sum of parts (a) and (b) is given in line (c) for the total development, based on the size stated. The equivalent average per unit is also stated below. Lines (d) and (e) suggest other conditions the City may require.

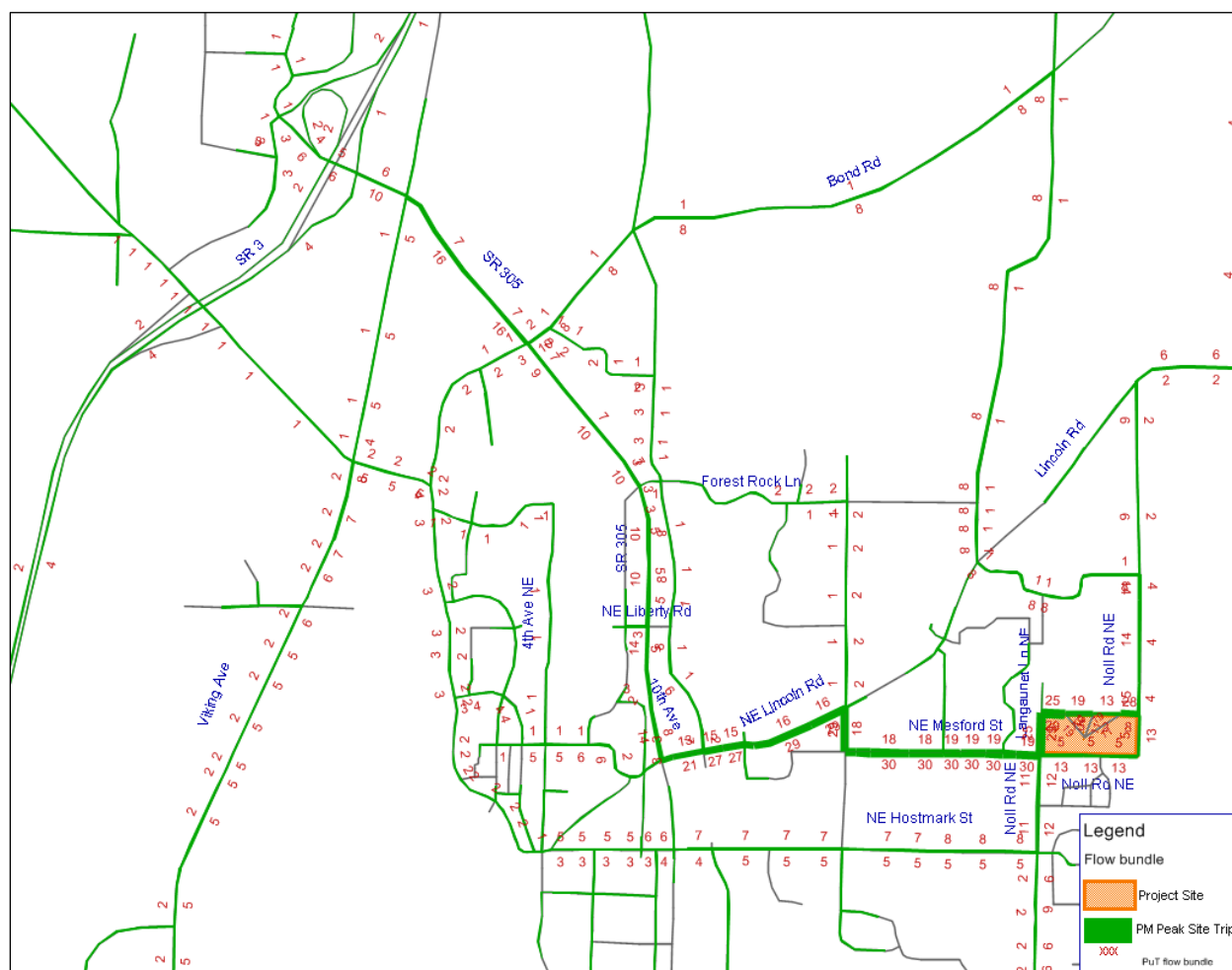


Table 1. Proportional Share Calculation

Sub-area of Poulsbo	Proportional Share	Percent	Principal TIP Projects Affected
Northeast Poulsbo	\$237,908	66.5%	#3 – Noll Rd E-W #4 – Mesford
Southeast Poulsbo	\$79,771	22.3%	#17, 18 – Hostmark #3, 301 – Noll Rd south
Highway Commercial	\$23,793	6.7%	#10 – 10th Ave #14 – 8th Ave #18 – Hostmark
Old Poulsbo	\$5,895	1.6%	#201 – Hostmark #16 – 4th Ave
West Poulsbo	\$10,407	2.9%	#1, 7 – Viking Way
Total	\$357,773	100%	

Source: Attachment A

Figure 1. Citywide PM Peak Hour Site Trip Distribution – Mesford Preliminary Plat



Technical Memorandum

DATE: July 28, 2009

TO: Mr. Jim Groh
Senior Engineering Technician
City of Poulsbo
P.O. Box 98
Poulsbo, WA 98370

FROM: Michael Birdsall
Senior Transportation Planning Engineer

SUBJECT: Traffic Mitigation and Concurrency for **Crystal Glen Preliminary Plat for 48 Detached Single-Family Dwelling Units**
TMR2009-17

PROJECT: Traffic Analysis Services

PROJECT NO.: POUL0000-0005

COPIES: File

This Technical Memorandum reports the results of adding the proposed development to the City of Poulsbo's pipeline forecast of previously-considered developments.

The Summary of Results section briefly describes the findings of the analysis. Subsequent sections provide additional details of assumptions, conclusions, and methodology. The attachments provide detailed information for each road section in Poulsbo and each monitored intersection. Special conditions, if any, are identified and discussed in the text.

SUMMARY OF RESULTS

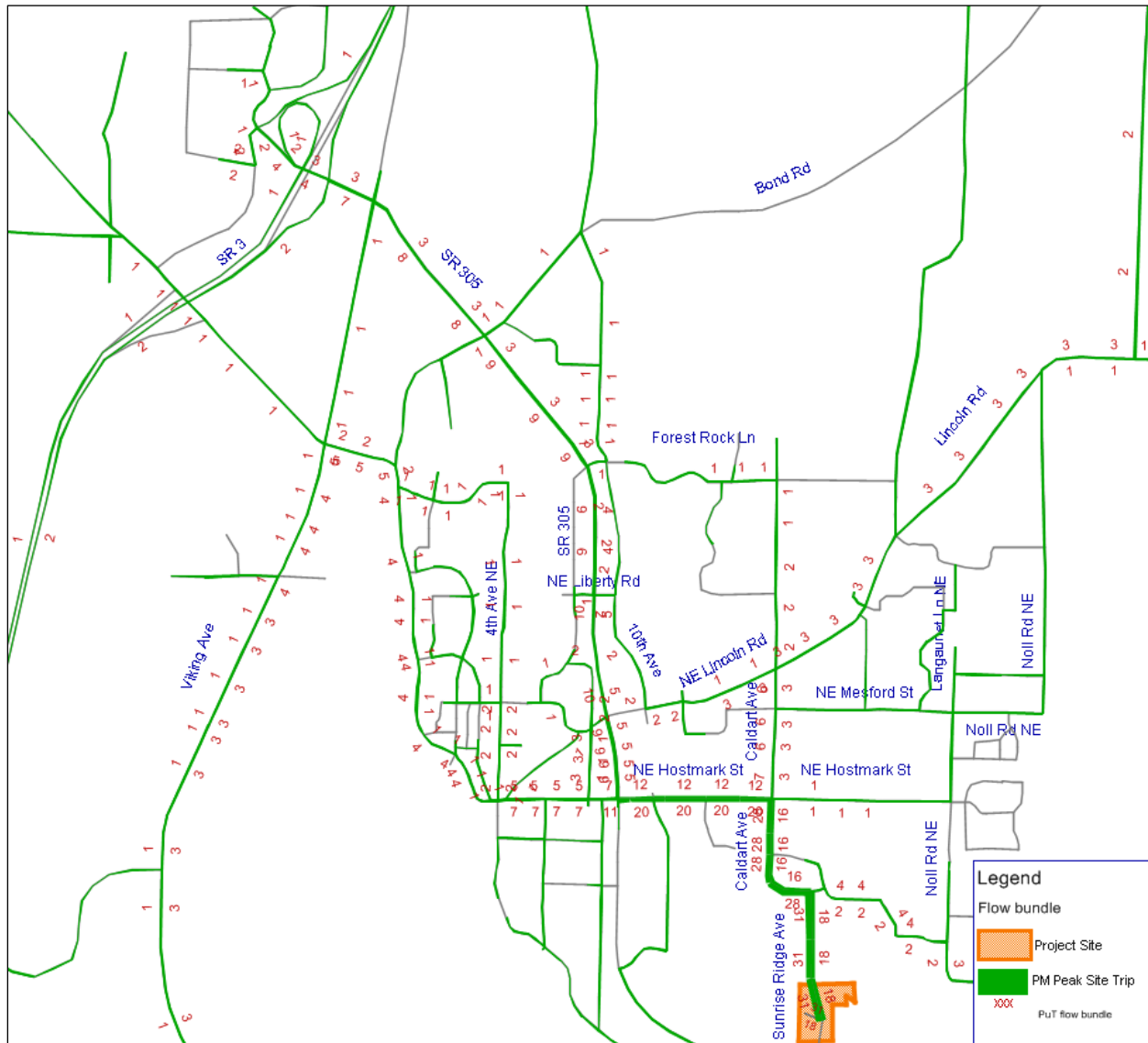
The development has traffic impacts that can be mitigated by a combination of:

- (a) **Proportional share payments** (in lieu of direct mitigation) of projects covered by the Transportation Improvement Program (TIP); and
- (b) **Remedies for concurrency deficiencies** at locations where the forecast demand with the development exceeds the allowable volume based on the City's level of service (LOS) standard. Concurrency remedies may take several forms. The City may require a direct improvement to remove the deficiency; however, where possible to do so, a pro-rata share approach is suggested in lieu of direct improvements.

The following table summarizes the results detailed in later sections of this report. The sum of parts (a) and (b) is given in line (c) for the total development, based on the size stated. The equivalent average per unit is also stated below. Lines (d) and (e) suggest other conditions the City may require.



Figure 1. Citywide PM Peak Hour Site Trip Distribution – Crystal Glen Preliminary Plat





Technical Memorandum

DATE: February 11, 2009

TO: Mr. Jim Groh
Senior Engineering Technician
City of Poulsbo
P.O. Box 98
Poulsbo, WA 98370

FROM: Michael Birdsall
Senior Transportation Planning Engineer

SUBJECT: Traffic Mitigation and Concurrency for **Langaunet Preliminary Plat TMR2009-13**

PROJECT: Traffic Analysis Services

PROJECT NO.: POUL0000-0003

COPIES: File

This Technical Memorandum reports the results of adding the proposed development to the City of Poulsbo's pipeline forecast of previously-considered developments.

The "Summary of Results" section briefly describes the findings of the analysis. Subsequent sections provide additional details of assumptions, conclusions, and methodology. The attachments provide detailed information for each road section in Poulsbo and each monitored intersection. Special conditions, if any, are identified and discussed in the text.

Enclosures:

Attachment A – Proportional Impact Cost Calculations
Attachment B – Concurrency Analysis, Links
Attachment C – Concurrency Analysis, Intersections

MIBI:bhs

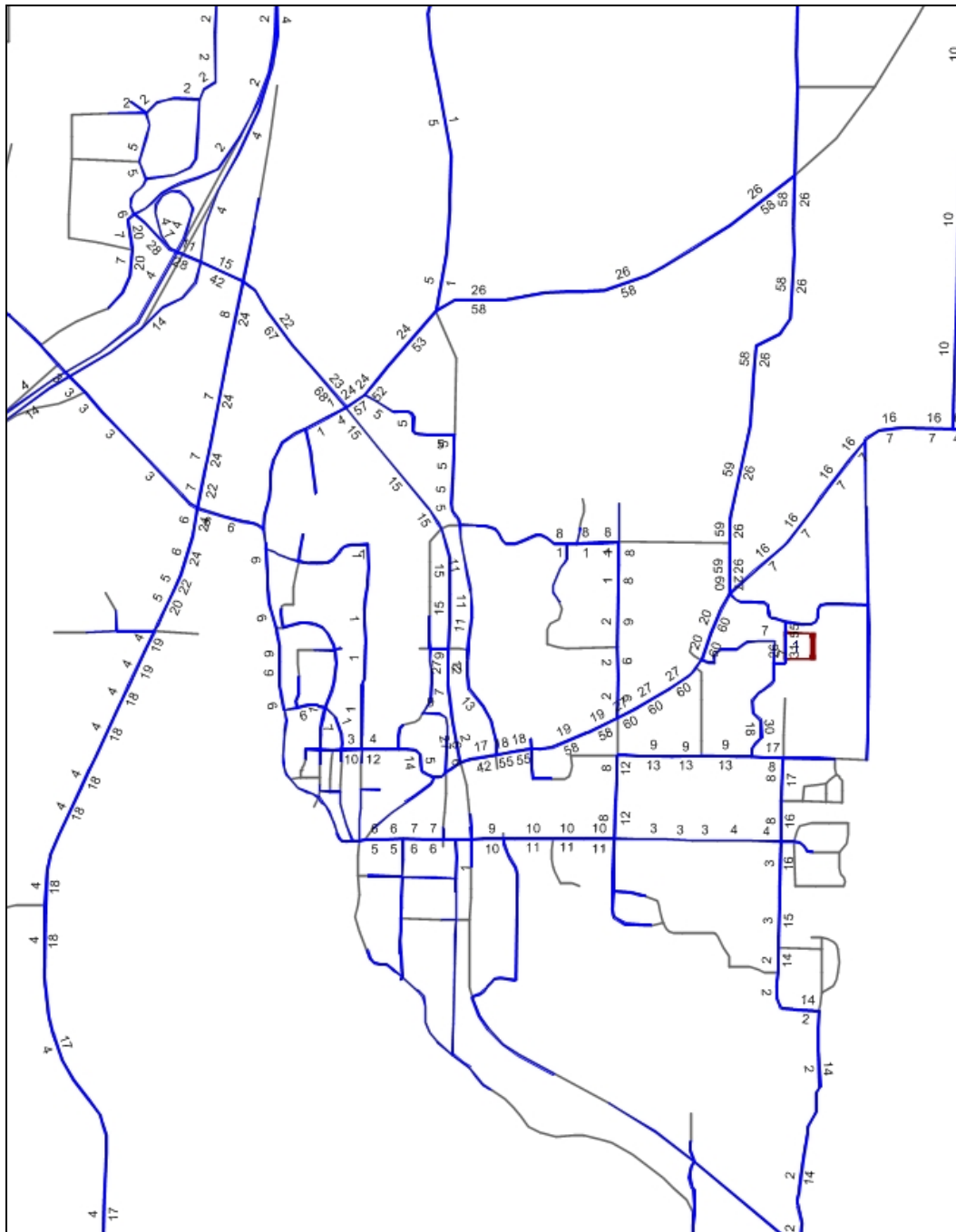
P:\P\POUL00000003\0600INFO\DEVELOPMENT REVIEWS\TR2009-01 LANGAUNET\TR2008-13 LANGAUNET REPORT\TR2009-13 LANGAUNET 09-FEB09.DOC



ADDITIONAL ANALYSIS

This report does not address other potential SEPA-based issues such as traffic safety; compliance with design standards for on-site development and site frontage; and compliance with city policies regarding circulation of pedestrians, bicycles, and transit. If the City of Poulsbo requires additional assistance in those areas, DEA is available to conduct additional analysis.

Figure 1. Citywide Site Trip Distribution – Langaunet Preliminary Plat










Level of Service Calculations

Poulsbo Division 8 (18-293)
 1: Jensen Way NE & NE Sunset Street/3rd Avenue NE

2020 Existing Conditions
 PM Peak-Hour

Intersection

Intersection Delay, s/veh 10.6
 Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	136	98	2	137	21	112	40	8	17	14	2
Future Vol, veh/h	4	136	98	2	137	21	112	40	8	17	14	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	153	110	2	154	24	126	45	9	19	16	2
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	10.8	10	11.2	9.1
HCM LOS	B	A	B	A





Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	70%	100%	0%	100%	0%	100%	0%
Vol Thru, %	25%	0%	58%	0%	87%	0%	88%
Vol Right, %	5%	0%	42%	0%	13%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	4	234	2	158	17	16
LT Vol	112	4	0	2	0	17	0
Through Vol	40	0	136	0	137	0	14
RT Vol	8	0	98	0	21	0	2
Lane Flow Rate	180	4	263	2	178	19	18
Geometry Grp	6	7	7	7	7	7	7
Degree of Util (X)	0.289	0.007	0.368	0.004	0.263	0.034	0.029
Departure Headway (Hd)	5.788	5.841	5.042	5.923	5.325	6.489	5.895
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	615	609	707	600	669	555	611
Service Time	3.873	3.609	2.81	3.696	3.097	4.189	3.595
HCM Lane V/C Ratio	0.293	0.007	0.372	0.003	0.266	0.034	0.029
HCM Control Delay	11.2	8.7	10.8	8.7	10	9.4	8.8
HCM Lane LOS	B	A	B	A	A	A	A
HCM 95th-tile Q	1.2	0	1.7	0	1.1	0.1	0.1

Poulsbo Division 8 (18-293)
2: Jensen Way NE & NE Iverson Street

2020 Existing Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 8.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	14	2	57	11	129	1	53	44	48	24	4
Future Vol, veh/h	13	14	2	57	11	129	1	53	44	48	24	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	15	2	61	12	139	1	57	47	52	26	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.8			8.4			7.9			8.2		
HCM LOS	A			A			A			A		





Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	45%	29%	63%
Vol Thru, %	54%	48%	6%	32%
Vol Right, %	45%	7%	65%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	29	197	76
LT Vol	1	13	57	48
Through Vol	53	14	11	24
RT Vol	44	2	129	4
Lane Flow Rate	105	31	212	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.126	0.04	0.239	0.106
Departure Headway (Hd)	4.289	4.634	4.067	4.671
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	774	885	769
Service Time	2.308	2.655	2.081	2.691
HCM Lane V/C Ratio	0.125	0.04	0.24	0.107
HCM Control Delay	7.9	7.8	8.4	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.9	0.4

Poulsbo Division 8 (18-293)
3: 3rd Avenue NE & NE Iverson Street

2020 Existing Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 10.1
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	140	0	0	167	141	10	16	35	162	0	7
Future Vol, veh/h	11	140	0	0	167	141	10	16	35	162	0	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	12	147	0	0	176	148	11	17	37	171	0	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9.4			10.6			8.6			10.2		
HCM LOS	A			B			A			B		






Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	7%	0%	96%
Vol Thru, %	26%	93%	54%	0%
Vol Right, %	57%	0%	46%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	151	308	169
LT Vol	10	11	0	162
Through Vol	16	140	167	0
RT Vol	35	0	141	7
Lane Flow Rate	64	159	324	178
Geometry Grp	1	1	1	1
Degree of Util (X)	0.089	0.218	0.403	0.26
Departure Headway (Hd)	4.972	4.934	4.47	5.267
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	722	801	676
Service Time	3.067	3.006	2.528	3.348
HCM Lane V/C Ratio	0.09	0.22	0.404	0.263
HCM Control Delay	8.6	9.4	10.6	10.2
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.3	0.8	2	1

Poulsbo Division 8 (18-293)
4: 4th Avenue NE & NE Iverson Street

2020 Existing Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 11.7
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	291	31	21	283	56	15	11	22	56	12	5
Future Vol, veh/h	7	291	31	21	283	56	15	11	22	56	12	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	8	316	34	23	308	61	16	12	24	61	13	5
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	12.2	12	9.2	9.8
HCM LOS	B	B	A	A








Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	31%	2%	7%	0%	77%
Vol Thru, %	23%	88%	93%	0%	16%
Vol Right, %	46%	9%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	329	304	56	73
LT Vol	15	7	21	0	56
Through Vol	11	291	283	0	12
RT Vol	22	31	0	56	5
Lane Flow Rate	52	358	330	61	79
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.082	0.475	0.479	0.076	0.13
Departure Headway (Hd)	5.66	4.783	5.218	4.478	5.917
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	637	747	684	792	609
Service Time	3.663	2.856	2.993	2.252	3.92
HCM Lane V/C Ratio	0.082	0.479	0.482	0.077	0.13
HCM Control Delay	9.2	12.2	12.8	7.6	9.8
HCM Lane LOS	A	B	B	A	A
HCM 95th-tile Q	0.3	2.6	2.6	0.2	0.4

Poulsbo Division 8 (18-293)
1: Jensen Way NE & NE Sunset Street/3rd Avenue NE

2027 Baseline Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 12.3
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	172	116	9	164	26	133	48	16	20	17	2
Future Vol, veh/h	5	172	116	9	164	26	133	48	16	20	17	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	6	193	130	10	184	29	149	54	18	22	19	2
Number of Lanes	1	1	0	1	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	2
HCM Control Delay	13	11.2	13	9.7
HCM LOS	B	B	B	A





Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	68%	100%	0%	100%	0%	100%	0%
Vol Thru, %	24%	0%	60%	0%	86%	0%	89%
Vol Right, %	8%	0%	40%	0%	14%	0%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	5	288	9	190	20	19
LT Vol	133	5	0	9	0	20	0
Through Vol	48	0	172	0	164	0	17
RT Vol	16	0	116	0	26	0	2
Lane Flow Rate	221	6	324	10	213	22	21
Geometry Grp	6	7	7	7	7	7	7
Degree of Util (X)	0.381	0.01	0.485	0.018	0.338	0.043	0.038
Departure Headway (Hd)	6.193	6.19	5.399	6.309	5.706	6.95	6.367
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	582	579	667	568	630	515	562
Service Time	4.227	3.918	3.127	4.041	3.438	4.696	4.113
HCM Lane V/C Ratio	0.38	0.01	0.486	0.018	0.338	0.043	0.037
HCM Control Delay	13	9	13.1	9.2	11.3	10	9.4
HCM Lane LOS	B	A	B	A	B	A	A
HCM 95th-tile Q	1.8	0	2.7	0.1	1.5	0.1	0.1

Poulsbo Division 8 (18-293)
2: Jensen Way NE & NE Iverson Street

2027 Baseline Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 8.7
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	23	2	68	20	153	1	63	52	57	29	5
Future Vol, veh/h	15	23	2	68	20	153	1	63	52	57	29	5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	25	2	73	22	165	1	68	56	61	31	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8.1			9			8.3			8.6		
HCM LOS	A			A			A			A		





Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	38%	28%	63%
Vol Thru, %	54%	57%	8%	32%
Vol Right, %	45%	5%	63%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	40	241	91
LT Vol	1	15	68	57
Through Vol	63	23	20	29
RT Vol	52	2	153	5
Lane Flow Rate	125	43	259	98
Geometry Grp	1	1	1	1
Degree of Util (X)	0.154	0.057	0.301	0.132
Departure Headway (Hd)	4.456	4.785	4.185	4.84
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	748	858	741
Service Time	2.488	2.82	2.21	2.872
HCM Lane V/C Ratio	0.155	0.057	0.302	0.132
HCM Control Delay	8.3	8.1	9	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	1.3	0.5

Poulsbo Division 8 (18-293)
3: 3rd Avenue NE & NE Iverson Street

2027 Baseline Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 12
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	173	0	0	206	170	12	19	42	204	0	8
Future Vol, veh/h	13	173	0	0	206	170	12	19	42	204	0	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	182	0	0	217	179	13	20	44	215	0	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	10.6			13.2			9.3			11.9		
HCM LOS	B			B			A			B		






Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	7%	0%	96%
Vol Thru, %	26%	93%	55%	0%
Vol Right, %	58%	0%	45%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	186	376	212
LT Vol	12	13	0	204
Through Vol	19	173	206	0
RT Vol	42	0	170	8
Lane Flow Rate	77	196	396	223
Geometry Grp	1	1	1	1
Degree of Util (X)	0.118	0.292	0.53	0.354
Departure Headway (Hd)	5.532	5.362	4.823	5.714
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	646	670	748	629
Service Time	3.578	3.399	2.854	3.752
HCM Lane V/C Ratio	0.119	0.293	0.529	0.355
HCM Control Delay	9.3	10.6	13.2	11.9
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.4	1.2	3.2	1.6

Poulsbo Division 8 (18-293)
4: 4th Avenue NE & NE Iverson Street

2027 Baseline Conditions
PM Peak-Hour

Intersection









Intersection Delay, s/veh 15
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	361	37	25	340	68	18	15	26	68	16	6
Future Vol, veh/h	8	361	37	25	340	68	18	15	26	68	16	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	9	392	40	27	370	74	20	16	28	74	17	7
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			2			1		
HCM Control Delay	16.4			15.2			10			10.8		
HCM LOS	C			C			A			B		

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	31%	2%	7%	0%	76%
Vol Thru, %	25%	89%	93%	0%	18%
Vol Right, %	44%	9%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	406	365	68	90
LT Vol	18	8	25	0	68
Through Vol	15	361	340	0	16
RT Vol	26	37	0	68	6
Lane Flow Rate	64	441	397	74	98
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.11	0.627	0.611	0.098	0.174
Departure Headway (Hd)	6.175	5.111	5.54	4.797	6.387
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	579	706	651	747	561
Service Time	4.229	3.141	3.269	2.526	4.436
HCM Lane V/C Ratio	0.111	0.625	0.61	0.099	0.175
HCM Control Delay	10	16.4	16.6	8	10.8
HCM Lane LOS	A	C	C	A	B
HCM 95th-tile Q	0.4	4.4	4.2	0.3	0.6

Intersection

Intersection Delay, s/veh 11.9
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	174	122	9	164	26	139	48	17	20	17	2
Future Vol, veh/h	5	174	122	9	164	26	139	48	17	20	17	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	6	196	137	10	184	29	156	54	19	22	19	2
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			2			2			2		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	2			2			2			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	2			2			2			2		
HCM Control Delay	13.2			11.2			11.2			9.8		
HCM LOS	B			B			B			A		

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	74%	0%	59%	0%	86%	0%	89%
Vol Right, %	0%	26%	0%	41%	0%	14%	0%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	65	5	296	9	190	20	19
LT Vol	139	0	5	0	9	0	20	0
Through Vol	0	48	0	174	0	164	0	17
RT Vol	0	17	0	122	0	26	0	2
Lane Flow Rate	156	73	6	333	10	213	22	21
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.287	0.12	0.01	0.497	0.018	0.338	0.044	0.038
Departure Headway (Hd)	6.625	5.933	6.18	5.384	6.307	5.705	6.986	6.403
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	605	580	672	568	632	513	559
Service Time	4.358	3.666	3.908	3.111	4.038	3.435	4.728	4.145
HCM Lane V/C Ratio	0.287	0.121	0.01	0.496	0.018	0.337	0.043	0.038
HCM Control Delay	12	9.5	9	13.3	9.2	11.3	10.1	9.4
HCM Lane LOS	B	A	A	B	A	B	B	A
HCM 95th-tile Q	1.2	0.4	0	2.8	0.1	1.5	0.1	0.1





Poulsbo Division 8 (18-293)
2: Jensen Way NE & NE Iverson Street

2027 Future with Development Conditions

PM Peak-Hour

Intersection

Intersection Delay, s/veh 8.8
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	23	2	70	20	162	1	63	52	64	29	5
Future Vol, veh/h	15	23	2	70	20	162	1	63	52	64	29	5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	25	2	75	22	174	1	68	56	69	31	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	9.2	8.4	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	38%	28%	65%
Vol Thru, %	54%	57%	8%	30%
Vol Right, %	45%	5%	64%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	40	252	98
LT Vol	1	15	70	64
Through Vol	63	23	20	29
RT Vol	52	2	162	5
Lane Flow Rate	125	43	271	105
Geometry Grp	1	1	1	1
Degree of Util (X)	0.156	0.058	0.316	0.143
Departure Headway (Hd)	4.495	4.823	4.202	4.877
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	797	741	856	734
Service Time	2.53	2.861	2.23	2.914
HCM Lane V/C Ratio	0.157	0.058	0.317	0.143
HCM Control Delay	8.4	8.2	9.2	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	1.4	0.5





Poulsbo Division 8 (18-293)
3: 3rd Avenue NE & NE Iverson Street

2027 Future with Development Conditions

PM Peak-Hour

Intersection

Intersection Delay, s/veh 12.3
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	180	0	0	217	170	13	19	42	205	0	10
Future Vol, veh/h	13	180	0	0	217	170	13	19	42	205	0	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	14	189	0	0	228	179	14	20	44	216	0	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	10.8			13.7			9.4			12.1		
HCM LOS	B			B			A			B		






Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	7%	0%	95%
Vol Thru, %	26%	93%	56%	0%
Vol Right, %	57%	0%	44%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	193	387	215
LT Vol	13	13	0	205
Through Vol	19	180	217	0
RT Vol	42	0	170	10
Lane Flow Rate	78	203	407	226
Geometry Grp	1	1	1	1
Degree of Util (X)	0.121	0.305	0.551	0.363
Departure Headway (Hd)	5.609	5.405	4.865	5.768
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	636	664	741	622
Service Time	3.664	3.448	2.9	3.81
HCM Lane V/C Ratio	0.123	0.306	0.549	0.363
HCM Control Delay	9.4	10.8	13.7	12.1
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.4	1.3	3.4	1.7

Poulsbo Division 8 (18-293)
4: 4th Avenue NE & NE Iverson Street

2027 Future with Development Conditions
PM Peak-Hour

Intersection

Intersection Delay, s/veh 15.6
Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	368	38	25	350	68	19	15	26	68	16	6
Future Vol, veh/h	8	368	38	25	350	68	19	15	26	68	16	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	9	400	41	27	380	74	21	16	28	74	17	7
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			2		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			2			1		
HCM Control Delay	17			15.9			10.1			10.9		
HCM LOS	C			C			B			B		




Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	32%	2%	7%	0%	76%
Vol Thru, %	25%	89%	93%	0%	18%
Vol Right, %	43%	9%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	414	375	68	90
LT Vol	19	8	25	0	68
Through Vol	15	368	350	0	16
RT Vol	26	38	0	68	6
Lane Flow Rate	65	450	408	74	98
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.113	0.642	0.629	0.099	0.175
Departure Headway (Hd)	6.238	5.135	5.559	4.818	6.444
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	573	702	652	744	556
Service Time	4.292	3.166	3.289	2.547	4.493
HCM Lane V/C Ratio	0.113	0.641	0.626	0.099	0.176
HCM Control Delay	10.1	17	17.3	8.1	10.9
HCM Lane LOS	B	C	C	A	B
HCM 95th-tile Q	0.4	4.7	4.4	0.3	0.6

Poulsbo Division 8 (18-293)
5: Jensen Way NE & Site Access

2027 Future with Development Conditions

PM Peak-Hour

Intersection

Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	6	191	8	6	136
Future Vol, veh/h	8	6	191	8	6	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	7	208	9	7	148

Major/Minor	Minor1	Major1		Major2	
Conflicting Flow All	375	213	0	0	217
Stage 1	213	-	-	-	-
Stage 2	162	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	626	827	-	-	1353
Stage 1	823	-	-	-	-
Stage 2	867	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	622	827	-	-	1353
Mov Cap-2 Maneuver	622	-	-	-	-
Stage 1	818	-	-	-	-
Stage 2	867	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	696	1353
HCM Lane V/C Ratio	-	-	0.022	0.005
HCM Control Delay (s)	-	-	10.3	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Poulsbo Division 8 (18-293)
6: NE Iverson Street & Site Access

2027 Future with Development Conditions
PM Peak-Hour

Intersection

Int Delay, s/veh 0.1

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations

Traffic Vol, veh/h 0 193 233 7 0 4

Future Vol, veh/h 0 193 233 7 0 4

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - - 0

Veh in Median Storage, # - 0 0 - 0 -

Grade, % - 0 0 - 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 210 253 8 0 4

Major/Minor Major1 Major2 Minor2

Conflicting Flow All - 0 - 0 - 257

Stage 1 - - - - -

Stage 2 - - - - -

Critical Hdwy - - - - - 6.22

Critical Hdwy Stg 1 - - - - -

Critical Hdwy Stg 2 - - - - -

Follow-up Hdwy - - - - - 3.318

Pot Cap-1 Maneuver 0 - - - 0 782

Stage 1 0 - - - 0 -

Stage 2 0 - - - 0 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - - - - 782

Mov Cap-2 Maneuver - - - - -

Stage 1 - - - - -

Stage 2 - - - - -

Approach EB WB SB

HCM Control Delay, s 0 0 9.6

HCM LOS A

Minor Lane/Major Mvmt EBT WBT WBR SBLn1

Capacity (veh/h) - - - 782

HCM Lane V/C Ratio - - - 0.006

HCM Control Delay (s) - - - 9.6

HCM Lane LOS - - - A

HCM 95th %tile Q(veh) - - - 0

Collision Data

PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	# I N J	# F A T	# V E H	# P E D	# B I K E S	FIRST COLLISION TYPE / OBJECT STRUCK
JENSEN WAY NE	NE IVERSON ST	E572438	2016-07-13	10:40	0	0	1	0	0	Signal Pole
JENSEN WAY NE	NE IVERSON ST	E613231	2016-11-26	16:55	0	0	2	0	0	Entering at angle
NE IVERSON ST	3RD AVE NE	E521178	2016-03-02	18:41	1	0	2	0	0	From same direction - both going straight - one stopped - rear-end
3RD AVE NE	NE IVERSON ST	E588597	2016-09-20	15:59	0	0	2	0	0	From opposite direction - one left turn - one right turn
NE IVERSON ST	4TH AVE NE	E778050	2018-02-10	20:00	0	0	2	0	0	Entering at angle



**Washington State
Department of Transportation**



2011 Washington State Collision Data Summary



Olympic Region



2011 AVERAGE COLLISION RATES BY FUNCTIONAL CLASS

Olympic Region (State Routes only)

RURAL AREAS	PRINCIPAL ARTERIAL	MINOR ARTERIAL	COLLECTOR	INTERSTATE	ALL HIGHWAYS
Vehicle Miles of Travel (Millions)	1,140.51	371.66	127.49	399.54	2,039.20
Miles of Highway	414.20	178.47	192.00	16.07	800.74
Total Collisions	1,051	584	194	177	2,006
Collision Rate (1)	0.92	1.57	1.52	0.44	0.98
Property Damage Only Collisions	670	352	110	130	1,262
Property Damage Only Collision Rate (1)	0.59	0.95	0.86	0.33	0.62
Injury Collisions	374	223	80	46	723
Injury Collision Rate (1)	0.33	0.60	0.63	0.12	0.35
Fatal Collisions	7	9	4	1	21
Fatal Collision Rate (2)	0.61	2.42	3.14	0.25	1.03

URBAN AREAS	PRINCIPAL ARTERIAL	MINOR ARTERIAL	COLLECTOR	INTERSTATE	ALL HIGHWAYS
Vehicle Miles of Travel (Millions)	2,491.59	248.84	0.00	1,761.96	4,502.39
Miles of Highway	204.71	60.66	0.00	39.41	304.78
Total Collisions	4,536	522	0	2,597	7,655
Collision Rate (1)	1.82	2.10	0.00	1.47	1.70
Property Damage Only Collisions	3,032	320	0	1,794	5,146
Property Damage Only Collision Rate (1)	1.22	1.29	0.00	1.02	1.14
Injury Collisions	1,493	201	0	796	2,490
Injury Collision Rate (1)	0.60	0.81	0.00	0.45	0.55
Fatal Collisions	11	1	0	7	19
Fatal Collision Rate (2)	0.44	0.40	0.00	0.40	0.42

ALL AREAS	PRINCIPAL ARTERIAL	MINOR ARTERIAL	COLLECTOR	INTERSTATE	ALL HIGHWAYS
Vehicle Miles of Travel (Millions)	3,632.10	620.50	127.49	2,161.50	6,541.59
Miles of Highway	618.91	239.13	192.00	55.48	1,105.52
Total Collisions	5,587	1,106	194	2,774	9,661
Collision Rate (1)	1.54	1.78	1.52	1.28	1.48
Property Damage Only Collisions	3,702	672	110	1,924	6,408
Property Damage Only Collision Rate (1)	1.02	1.08	0.86	0.89	0.98
Injury Collisions	1,867	424	80	842	3,213
Injury Collision Rate (1)	0.51	0.68	0.63	0.39	0.49
Fatal Collisions	18	10	4	8	40
Fatal Collision Rate (2)	0.50	1.61	3.14	0.37	0.61

(1) Per Million Vehicle Miles of Travel
(2) Per 100 Million Vehicle Miles of Travel