Skagit County Strategic Risk-Based Assessment

developed using the

Systemic Safety Project Selection Tool



TABLE OF CONTENTS

Introduction2
Reasons for Conducting Data Analysis 2
Washington State Target Zero Plan (Strategic Highway Safety Plan)
Target Zero Priorities
Identification of Relevant Risk/Crash Types3
Data Sourcing3
Methodology
System Crash Evaluation
Analysis of WSDOT data4
Analysis of County Data
Evaluation of County Road System
Priority Level 1
Priority Level 27
Priority Level 3
Selection of Countermeasures
Project Priority Selection10
Conclusion11
Appendix A: 2015 – 2019 Skagit County Crash Data 12
Appendix B: 2021 Priority Array15
Appendix C: Vicinity Map
Appendix D: Cost Estimates

Introduction

Skagit County is committed to reducing fatalities and serious injury crashes on County maintained roads. As outlined in the <u>Target Zero Washington State Strategic Highway Safety</u> <u>Plan</u>, the identification of crash trends and contributing factors is key to implementing successful crash reduction strategies.

Reasons for Conducting Data Analysis

Skagit County collects detailed crash information and retains it over time. This allows us to return to the data and review it to determine if crash trends exist for some period of time. Skagit County also uses a priority array; this is one of several criteria used to develop the local road safety plan. Additionally, the State of Washington has provided statewide crash data. With the two data sources, we can compare crash type incidents, predict where crashes may occur and work to reduce crash types exceeding the average rate of occurrence. Targeting crash types and connecting factors allows Skagit County to be efficient and cost-effective in identifying and implementing crash reduction strategies.

2019 Washington State Target Zero Plan (Strategic Highway Safety Plan)

Washington State's Strategic Highway Safety Plan highlights the importance of "a data driven strategic plan used to identify priorities and solutions, help create common goals, and develop a common language so we can work together across disciplines." Through the Strategic Highway Safety Plan, low-cost, near-term projects can be identified which will improve roadway safety through systemic, meaningful action. As once stated in the plan "the greatest challenge in addressing fatalities and serious injuries on rural roads is the geographic randomness of collisions scattered over tens of thousands of miles."

Target Zero Priorities

Skagit County utilized the Target Zero Priority matrix to identify locations and specific strategies, for three priority levels. This is based off traffic safety priorities on the latest data. It focuses efforts on eliminating deaths and serious injuries on our roadways by analyzing the latest crash data available to determine the highest priorities for immediate efforts. The levels are based on the percentage of traffic fatalities and serious injuries associated with each factor.

- **Priority level one** includes the factors associated with the largest number of fatalities and serious injuries in Skagit County. Each of these factors were involved in at least 30% of the traffic fatalities or serious injuries between 2015 and 2019.
- **Priority level two** factors, while frequent, are not as common as priority level one factors. Level two factors were seen in at least 10% of traffic fatalities or serious injuries, but fewer than 30%.
- Priority level three factors are associated with less than 10% of fatalities and serious injuries.

Identification of Relevant Risk/Crash Types

Data Sourcing

Data for the analysis was provided by Washington State Department Of Transportation (WSDOT) or was retrieved from the County Road Administration Board (CRAB) online system for dates January 1, 2015 through December 31, 2019. The data was reviewed, verified and entered from collision reports provided by the Skagit County Sheriff's Department or Washington State Patrol for crashes occurring in Skagit County.

Methodology

The three E's are being used to address safety topics: Education, Enforcement, and Engineering. This report focuses on engineering strategies, but also acknowledges that partnerships with law enforcement and other public safety agencies can result in a real and beneficial safety gain for the targeted risk group, as well as other motorists.

System Crash Evaluation

Our data analysis began with data provided by Washington State Department Of Transportation. Highlighted are factors that exceed the state average for crashes involving fatalities or serious injury crashes. By determining contributing factors, establishing a risk rating, and prioritizing sites with multiple features connected with higher risk rates, low cost safety projects can be targeted to provide the maximum benefit to the traveling public, reducing the risk of serious injury or fatality crashes on Skagit County roads.

The next table (Table 1) compares Washington State overall average percentage rates for the state, compared to the same accident types for only Skagit County. The table highlights areas where Skagit County's rates exceed the average rates and point towards crash types and features, which Skagit County has investigated further. Priority Level 1 items are shown in red bold.

Appendix A includes the 2015 – 2019 Skagit County Data that was provided by WSDOT. Areas highlighted in the data are those areas where the Skagit County data is overrepresented compared to the percentage of crashes in other Washington Counties or on all Washington Public Roads. Percentage of crashes from the WSDOT provided data that are overrepresented are also included in the next table (Table 1).

	Fatal/Serious	Injury Crashes	Total	Crashes
	Statewide All Counties Avg	Skagit County	Statewide All Counties Avg	Skagit County
By Collision Type				
Hit Fixed Object	43.5	44.0	39.4	55.8
Angle (Left Turn)	4.6	7.1	5.0	2.6
Sideswipe (Same Dir)	2.1	5.1	5.2	4.2
By Junction Relationship				
Non-Intersection	67.1	69.4	53.3	67.1
Intersection-Related	22.4	19.4	33.0	20.2
Driveway Related	5.6	9.2	9.4	8.1
By Roadway Curvature	-			
Straight Level	42.7	57.1	51.6	50.1
Horizontal Curve	37.7	33.7	24.3	29.3
Hit Fixed Object Crashes		1	1	
Tree / Stump	23.2	27.9	11.8	11.1
Over Embankment	8.0	18.6	6.5	4.4
Utility Pole	10.2	16.3	12.2	16.8
Guardrail	6.3	9.3	5.0	8.3
By Functional Class				
Rural Major Collector	33.2	53.1	23.4	49.0
Rural Minor Collector	10.5	15.3	7.9	16.0
Rural Local Access	11.7	13.3	9.9	13.9
By Contributing Circumstance				
Inattention / Distraction	23.2	23.0	32.6	27.9
Under Influence of Alcohol/Drugs	14.9	23.0	6.7	10.6
Exceeding Safe / Posted Speed	25.1	14.3	15.3	18.1
Failing to Yield	6.3	9.5	10.0	7.1
By Vehicle Type				
Light Truck / SUV	41.5	45.7	46.2	47.6
Passenger Car	37.4	30.4	46.6	44.7
Motorcycle	15.4	17.4	1.8	2.7
By Speed Limit				
50 MPH	26.2	63.7	16.9	38.1
35 MPH	36.3	22.6	44.2	45.5

Table 1 – Analysis based on WSDOT provided data.

The WSDOT or state data was used in determining the contributing factors for each priority level as follows:

- Priority Level 1 Contributing factors that are involved in 30% or more of fatality or serious injury crashes. These contributing factors are Hit Fixed Object type collisions, Non-Intersection related, occurring on Straight Level roads and Horizontal Curves on functional class Rural Major Collector roads with speed limits of 50 MPH.
- Priority Level 2 Contributing factors that are involved in between 10% and 30% of fatality or serious injury crashes. These contributing factors are: collisions involving Tree Stump, Over Embankment, and Utility Pole, functional class Minor Collector and Local Access roads, Intersection-related, Distracted, Impaired, and Exceeding Safe/Posted Speed drivers, roads with a posted speed of 35 MPH, and collisions involving Motorcycles.
- Priority Level 3 Contributing factors that are involved in less than 10% of fatality or serious injury crashes but are common factors that will improve traffic safety for all users. These contributing factors are: Driveway Related collisions, Angle (left turn), Sideswipe (same direction), and Wildlife collision types, collisions involving Guardrail, and contributing circumstance of Failing to Yield.

Analysis of County Data

In order to target higher volume roads, we analyzed County data that is entered and maintained in our Road Log database, Mobility, which is used to create the County's Priority Array. Skagit County's Priority Array takes into account traffic volumes, roadway conditions, geometrics, accidents per million vehicle miles, and matters of significant local importance. The Priority array is one of several criteria used to develop the local road safety plan. The goal is to reduce the amount of fatal/serious injury crashes that could occur anywhere on our system. The data is pulled from 1,660 total crashes, including 98 serious injury collisions and 17 fatalities on 800 miles of Skagit County roads system. Corresponding to the Washington State data, Skagit County analysis shows that: hit fixed objects, rural major collectors, and speed limits of 50 MPH represent a majority of both injury and fatality crashes at 43.9%, 53.1% and 63.7% respectfully.

The following Priority Level factors were developed by combining the state and county data. The data analyzed by the County was also used to determine the possible contributing factors for each priority level and comparing it with the highest rated within the County's Priority Array that meets the contributing circumstances and/or does not have a current or proposed project assigned to the segment. Note that the following is for all injury and fatality crashes, not just serious injury/fatality crashes:

 Priority Level 1 – Combined contributing factors that are involved in 30% or more of fatality or injury crashes. These contributing factors are Hit Fixed Object type collisions, Non-Intersection related, occurring on Straight Level and Horizontal Curve segments of Rural Major Collector roads with speed limits of 50 MPH. Using the Mobility database, we prioritized rural collector roads and roads with ADT's greater than 3,000. We then crosschecked these types of roads with our 2021 Priority Array to narrow down areas of concern for Priority Level 1 types of roads and contributing factors.

The factors rated for Priority Level 1 will include Rural Arterials & Collectors speed limits of 50 MPH and greater than 3,000 ADT, roads that are straight and level with horizontal curves,

roads with a high number of fixed objects in the clear zone. The risk of severe injury/fatality is based on the priority array criteria and rating that takes into account factors such as collisions, ADT, functional class, heavy vehicles, and curves.

Proposed countermeasures for the Priority Level 1 locations will include those that are appropriate for reducing fatal and serious injury crashes on 50 MPH major collector roads involving hitting fixed objects.

Priority Level 2 - Contributing factors that are involved in between 10% and 30% of fatality
or injury crashes. These contributing factors are collisions involving Tree Stump, Over
Embankment, and Utility Pole, functional class Minor Collector and Local Access roads,
Intersection-related, Distracted, Impaired, and Exceeding Safe/Posted Speed drivers, roads
with a posted speed of 35 MPH, and collisions involving Motorcycles. We have crosschecked
these types of roads with our 2021 Priority Array to narrow down areas of concern for priority
level 2 types of roads and contributing factors.

The factors that will be considered in ratings for priority level 2 will include Hit Fixed Object type collisions involving Tree Stump, Over Embankment, and Utility Pole, functional class Minor Collector and Local Access roads, collisions involving distracted and/or impaired drivers, roads with a posted speed of 35 MPH, intersection-related collisions, and collisions involving Motorcycles. Based on the priority array criteria and rating that considers factors such as collisions, ADT's greater than 1,000, functional class, heavy vehicles, and horizontal curves.

Proposed countermeasures for the Priority Level 2 locations will include those that are appropriate for reducing fatal and serious injury crashes on 35 MPH Minor Collector and Local Access roads with a high number of distracted and impaired drivers, and a high number of tree stumps, embankments, and utility pole risks, and 2-Way STOP controlled intersections.

 Priority Level 3: Contributing factors that are associated with less than 10% of fatality or injury crashes but are common factors that will improve traffic safety for all users. These contributing factors include Driveway Related collisions, Angle (left turn) collision types, collisions involving Guardrail, and contributing circumstance of Failing to Yield. We have crosschecked these types of roads with our 2021 Priority Array to narrow down areas of concern for Priority Level 3 types of roads and contributing factors.

Proposed countermeasures for Priority Level 3 locations will include those that are appropriate for reducing fatal and serious injury crashes at driveway related crashes (angle left turn), failing to yield collisions type locations. The priority array, which takes factors into account, such as collisions, ADT, functional class, will be used to identify and prioritize these locations.

Evaluation of County Road System

Once the contributing factors have been determined, the next step in the plan is to evaluate the existing Priority Array and County road system to determine where the high-risk factors currently occur and to determine the appropriate countermeasures to employ. Locations are then prioritized based on how many of the high-risk factors are present. A priority array is prepared that includes the high-risk factors and a yes or no if the risk factor is present. For every yes answer a point is given to that location. The following tables contain the result of the road evaluation.

Priority Level 1

Road Name	FFC	AADT	APMVM	Pave Width	45+ MPH	H Curve	Fixed Obj/ Embank	Priority Array	Status
BOW HILL ROAD	07	3625	8.5	28	No	Yes	Yes	39	Awarded 2017 HSIP
OLD HWY 99 NORTH	07	4635	12.0	34	Yes	Yes	Yes	35	
MCLEAN ROAD	06	4139	12.4	36	Yes	No	Yes	31	
ALGER-CAIN LAKE ROAD	07	4286	1.7	22	Yes	Yes	Yes	30	Awarded 2017 HSIP
FIR ISLAND ROAD	07	4350	1.5	32	Yes	Yes	Yes	30	
MARINE DRIVE	17	4776	0.4	22	No	Yes	No	29	Awarded 2019 HSIP
BENNETT ROAD	17	4038	4.4	20	No	Yes	Yes	29	
BEST ROAD	07	3552	8.7	32	Yes	No	No	28	Awarded 2019 HSIP
ROSARIO ROAD	07	3793	0.9	28	No	Yes	Yes	28	
COOK ROAD	07	15101	1.1	40	Yes	No	No	28	
HAVEKOST ROAD	07	5180	1.5	32	No	Yes	No	27	Awarded 2019 HSIP
FRANCIS ROAD	17	5056	2.0	22	Yes	Yes	Yes	25	Awarded 2019 HSIP
LAKE SAMISH ROAD	08	6310	1.6	28	No	Yes	No	25	
WEST BIG LAKE BOULEVARD	18	3725	1.0	20	No	Yes	Yes	24	
LACONNER WHITNEY ROAD	07	5037	1.2	34	Yes	Yes	No	24	
PIONEER HIGHWAY	07	9516	1.5	32	Yes	No	Yes	24	
FARM TO MARKET ROAD	06	3306	3.1	24	Yes	No	Yes	22	
JOSH WILSON ROAD	06	4706	0.6	22	Yes	No	No	22	
PETERSON ROAD	16	4068	2.8	36	No	No	No	21	

Priority Level 2

				35+		Tree/Pole	Priority	
Road Name	FFC	AADT	APMVM	MPH	H Curve	/Embank	Array	Status
PRAIRIE ROAD	08	1756	8.788	Yes	Yes	Yes	35	Awarded 2019 HSIP
SNEE-OOSH ROAD	08	2256	4.829	Yes	Yes	Yes	31	
LAKE CAVANAUGH ROAD	08	605	2.2663	Yes	Yes	Yes	29	
OLD DAY CREEK ROAD	08	1710	2.437	Yes	Yes	Yes	27	
CONWAY FRONTAGE ROAD	08	1734	4.272	Yes	Yes	No	26	
GRIP ROAD	08	975	2.7452	Yes	Yes	Yes	26	
EAST HICKOX ROAD	17	1434	2.9827	Yes	No	Yes	25	
AVON ALLEN ROAD	16	1883	1.856	Yes	Yes	Yes	25	
PETERSON ROAD	16	2039	2.523	Yes	Yes	No	24	
HIGGINS AIRPORT WAY	16	1707	0.977	Yes	Yes	No	23	
GIBRALTER ROAD	08	1867	0.851	Yes	Yes	Yes	22	
MINKLER ROAD	08	1830	3.995	Yes	No	No	20	
HELMICK ROAD	18	1626	2.3914	Yes	Yes	No	17	
PARSON CREEK ROAD	08	1507	0.975	Yes	No	Yes	15	
MUD LAKE ROAD	09	1014	2.8218	Yes	Yes	Yes	N/A	
SWAN ROAD	19	1421	2.2497	Yes	Yes	Yes	N/A	

Priority Level 3

Skagit Cour	nty Intersections			2015 - 20	20 Crash	Data (100	Radius)	
Major	Minor	Posted Speeds	ADT's	Property Damage	Injury	Fatal	Total	Status
Bow Hill Rd	N Daark Ln	35 / 25	6780 / 4694	11	1	0	12	Signalized
Bow Hill Rd	Ershig Rd	50 / 50	2172 / 681	4	3	0	7	
Josh Wilson	Pulver Rd	50 / 50	4784 / 832	7	9	0	16	
Josh Wilson	Avon Allen Rd	50 / 50	4706 / 1373	2	3	0	5	
Josh Wilson	Farm To Market Rd	50 / 50	3486 / 3306	9	7	1	17	2021 Roundabout Const.
Peterson Rd	Pulver Rd	35 / 50	4068 / 1224	2	5	0	7	
Reservation Rd	Snee-Oosh Rd	25 / 25	1937 / 2256	4	2	0	6	Safety Countermeasures Installed by Tribe
McLean Rd	LaConner Whitney	50 / 35	3259 / 4982	3	2	0	5	
McLean Rd	Best Rd	50 / 50	3444 / 3340	7	1	0	8	
McLean Rd	Bradshaw Rd	50 / 35	3509 / 233	3	2	0	5	
McLean Rd	Beaver Marsh Rd	35 / 35	4074 / 510	8	2	0	10	
Best Rd	Chilberg	35 / 50	3394 / 2001	7	0	0	7	
Old Hwy 99	Bow Hill Rd	50 / 35	3350 / 3625	10	8	0	18	
Old Hwy 99	Alger-Cain Lake	35 / 35	2079 / 5682	3	3	0	6	
Cook Rd	Old Hwy 99	35 / 35	15101 / 4372	32	8	0	40	Signalized
Cook Rd	Collins Rd	50 / 35	14040 / 1359	7	3	0	10	

Selection of Countermeasures

When locations that are at higher risk of fatal/serious injury crashes have been determined, we then considered countermeasures that are effective at reducing the risk of these types of crashes. Countermeasures have been evaluated through FHWA's Crash Modification Factors (CMF) clearinghouse. The CMF clearinghouse contains safety countermeasures and the effectiveness at reducing crashes. If a CMF has a rating of less than 1 then it has been shown or is expected to reduce the quantity of crashes. For example, if the CMF is 0.80, then the amount of crashes would be expected to be 80% of the existing number of crashes. Another term used is Crash Reduction Factor (CRF), which is the percent reduction in crashes. For the CMF of 0.8 the CRF is 0.2, which means the crashes are reduced by 20%.

The countermeasures considered as a part of this plan are as follows:

Objective	Countermeasure
Reduce vehicles leaving roadway	Install chevron signs, curve warning signs
	Install center line and/or edge line profile stripes
	Install delineation along travel way or fixed objects
	Increase lane and shoulder widths
Reduce opposite direction crashes	Install center line rumble stripes
	Install RPM's or profiled center lines
Minimize severity of lane departures	Install new and/or upgrade existing guardrail
	Remove/relocate objects in hazardous locations in the clear zone
	Install delineation on fixed objects that cannot be removed from clear zone
Reduce crashes at intersections	Convert intersections to roundabouts
	Install left turn lanes
	Install lighting
Improve driver awareness of intersection	Increase visibility of signs at intersections

Project Priority Selection

The list below contains the project priorities with an estimated cost for each.

Priority Level 1:

- Lane Departure Reduction Project
 - Pioneer Highway
 - MP 0.00 3.05 •
 - Edge and C/L profile stripes and/or raised pavement markers
 - Alger-Cain Lake Road
 - MP 0.05 2.6 •
 - Edge and C/L profile stripes and/or raised pavement markers •
 - Improve Curve Signage & Placement
 - Old Highway 99 North
 - MP 5.27 9.8
 - Edge and C/L profile stripes and/or raised pavement markers
- **Priority Level 2:**
 - Intersection Awareness Improvements Cost Estimate: \$78,100
 - Install Solar-powered Flashing LED STOP Signs
 - Josh Wilson Rd & Pulver Rd (2) •
 - Josh Wilson Rd & Avon Allen Rd (2) •
 - Peterson Rd & Pulver Rd (2)
 - Bow Hill Rd & Ershig Rd (2)
 - Best Rd & Chilberg/Calhoun Rd (2) •
 - Old Hwy 99 & Prairie/Bow Hill Rd (2) •
 - VOID if Roundabout receives funding
 - **Guardrail Installations** 0
 - Cost Estimate: \$655,100 Mud Lake Road, MP(s) 0.73 – 0.84, 1.05 – 1.62
 - Baker Lake Road, MP 5.17 5.33 •
 - South Skagit Hwy, MP 6.98 7.06

Signage & Delineation Improvements 0

- Lake Cavanaugh Rd MP 0.05 10.2
- Snee-Oosh Rd, MP 0.00 5.16
- Rosario Rd, MP 2.7 4.3
- Priority Level 3:
 - Intersection Conversion to Roundabout Cost Estimate: \$2,200,000 Old Highway 99 / Bow Hill / Prairie Road Intersection

Cost Estimate: \$200,800

Cost Estimate: \$575,500

.

Conclusion

A majority of the crashes in Skagit County are strongly associated with higher speed roads with curves combined with driving under the influence or inattentive drivers. Skagit County proposes to implement countermeasures with visual and audio alerts to increase awareness for the driver that they are leaving their lane on some of the County's highest traveled roads (Priority 1). The County also identified a number of intersections where drivers disregard the STOP signs and will benefit from high visibility LED Blinker STOP signs. The County also proposes to improve signage and roadway delineation of some of our high speed, lesser traveled roads to reduce lane departure crashes, as well as install guardrail to reduce the severity of run off the road lane departure crashes when they do occur (Priority 2). Failure to Yield and entering at angle crashes (Priority 3) can most efficiently be addressed with the installation of a roundabout. We identified the intersection is also part of the Upper Skagit Indian Tribe's National Tribal Transportation Facilities Inventory.

The 800 miles of Skagit County rural roads experience collisions throughout for many different reasons, but, with the help of the 2015-2019 Collision Data provided by Washington State Local Programs, we are able to identify the problem areas and prioritize mitigation measures. This strategic risk-based assessment identified numerous road segments that meet all or some of the risk factors highlighted by the collision data. These segments were thoroughly analyzed and vetted among Public Works staff to properly address the issues and mitigate the risk. With the Highway Safety Improvement Program now being offered every odd numbered year; this plan shall be updated every two years to evaluate the success of the program and identify additional risk factors and employ new countermeasures as needed. Skagit County appreciates the assistance of the Highway Safety Improvement Program and hopes to continue to build on the success of the many previously funded highway safety improvements.

Appendix A: 2015 – 2019 Skagit County Crash Data

					F	atal/	Serio	us In	iurv	Crash	les O	n v												-	otal C	rashe	š							
2012-2018 Skagit	All Ro	ads	All	8	West	ŝ					Skagi	t Cou	ηtγ					All R	oads	AII	Co	Wes	it Co					Skag	it Cou	nty				
County Data	2015- 2019	%	2015- 2019	%	2015- 2019	*	2015- 2019	%	2019	2018 2	01.7 20)16 20	15 201	4 2013	3 2012	2011	2010	2015- 2019	%	2015- 2019	%	2015- 2019	%	2015- 2019	%	2019	2018	2017 2	1016 20	115 20	14 203	13 201	2 2013	2010
Overall Numbers											-																							
Total # of Collisions	12,008		2,714		1,976		8		14	17	25	23	, o , o	, 16	23	9	5	588,324		73,172		55,979		1,660		296	302	343	394 3	25 24	12 27	3 25	9 260	273
# of Serious Injury Collisions	9,470	78.9%	2.044	75.3%	1.543	78.1%	<u>۳</u> :	82.7%	6	8	23 '	2 0 1 1	6 r	v ط	21	7	ب ۳	9,470	1.6%	2.044	2.8%	1.543	2.8%	2; 81	4.9%	10	12	23	20 4	6			7	13
# of Alcohol-Related Collisions	2,594	21.6%	674	24.8%	472	23.9%	29	29.6%	7	4	4	7 7	3	7	9	з	თ	37,912	6.4%	7,086	9.7%	5,316	9.5%	219	13.2%	47	41	47	43 4	11 3	9 40	9 44	45	55
Total # of Fatalities	2,730		704		454		18		4	6	2	ω 	3 2	ω	2	2	2	2,730		704		454		18		4	6	2	ω	ω	ω.	2	2	2
Total # of Injuries	16,359		3,465		2,517		141		14	8	33	37 3	7 10	26	33	10	21	240,286	Γ	32,694		25,259		700		101	119	130	180 1	70 10	17 11	4 12:	1 129	141
By Collision Type											-																							
Hit Fixed Object	3,310	27.6%	1,181	43.5%	847	42.9%	43	43.9%	7	9	9	8	о 5	000	13	4	6	106,889	18.2%	28,376	38.8%	20,023	35.8%	911	54.9%	161	161	185	217 1	87 1:	36 15	4 13	5 156	151
Angle (I) Overturn	1,360 873	11.3%	292	10.8% o 1%	ž 26	10.4%	» «	8.2%			- 0				ـــــــــــــــــــــــــــــــــــــ	. c	4 c	101,286	17.2%	3 114	16.2% 4 3%	9,745	1/.4%	1/8	3 9%	11	ۍ ۲	17	1, 46	4	- u	2 4	17	32
Angle (Left Turn)	740	6.2%	124	4.6%	103	5.2%	7	7.1%	-	2	2	2	0	1	0	1	<u>н</u>	35,475	6.0%	3,686	5.0%	3,250	5.8%	43	2.6%	9	11	∞ !	∞ !	7	~ 5	7	6 !	σ
Hit Pedestrian	2,086	17.4%	213	7.8%	181	9.2%	7	7.1%	2	0	ω	2 (0	0	ω	0	0	10,476	1.8%	774	1.1%	685	1.2%	6	0.5%	з	0	4	2	0	0	ω	1	4
Sideswipe (Same Direction)	408	3.4%	57	2.1%	4	2.2%	л	5.1%	•	1	2	2	0	1	0	1	0	65,025	11.1%	3,783	5.2%	3,004	5.4%	70	4.2%	10	15	12	15	18 6	1	4 14	11	12
Rearend	909	7.6%	110	4.1%	8	4.4%	4	4.1%	•	4	2	•	0	1	1	0	0	176,451	30.0%	11,780	16.1%	10,466	18.7%	160	9.6%	28	33	8	44	23 2	2 2	1 26	20	19
Wildlife	8	0.7%	8	1.5%	25	1.3%	ω	3.1%	•	0	2	1	0	0	0	0	1	10,788	1.8%	2,112	2.9%	1,214	2.2%	83	5.0%	15	10	21	17	20	1	2 7	9	12
Head On Hit Cvdist	677	5.1%	월 월	5.7%	66 120	5.1% 3.3%	ωu	3.1%	• •	0 +	2		0 4	н с	0 4	0 0	0 0	3,136 6.704	0.5%	/92 513	0.7%	619 447	1.1%	712	0.4%	1	1 4	2 2	2 2	μ μ	2 1	1 4	0 0	1 U
Hit Parked Car	208	1.7%	8	1.1%	24	1.2%	1	1.0%	0	0	1	•	0	0	0	0	0	32,359	5.5%	2,539	3.5%	2,069	3.7%	34	2.0%	л	9	∞	л	7 5	ω	2	ω	1
Sideswipe (Opposite Direction)	192	1.6%	ន	1.9%	41	2.1%	1	1.0%	4	•	•	•	0	0	1	1	0	4,033	0.7%	1,113	1.5%	835	1.5%	18	1.1%	6	თ	ω	4	0	4	5	ω	4
Hit Train	19	0.2%	4	0.1%	•	0.0%	•	0.0%	•	•	0	0	0	0	0	0	•	196	0.0%	24	0.0%	∞	0.0%	1	0.1%	0	0	0	0	1	0	0	0	0
Other By Roadway Surface	0/0	4.0%	C3	4.0%	y	4.0%	U	%T.C	c	ŀ		- -		-	c	c	-	20,500	4.3%	2,707	3./70	2,040	3./%	60	4.2%	77	77	8	5	LO LO	L L	-	UT .	0
Dry	9,025	75.2%	2,035	75.0%	1,426	72.2%	72	73.5%	12	11	20	14 1	3 7	11	15	4	8	400,675	68.1%	47,111	64.4%	35,323	63.1%	1,069	64.4%	206	193	214	242 2	14 14	19 16	9 161	1 145	172
Wet	2,462	20.5%	543	20.0%	487	24.6%	21	21.4%	2	ω	4	6	1	ω	6	ω	ω	150,391	25.6%	18,395	25.1%	16,902	30.2%	426	25.7%	52	90	82	113 8	37 7	00	1 79	80	81
Snow / Slush	127	1.1%	21	0.8%	12	0.6%	2	2.0%	•	•	•	2	0	0	0	0	0	13,434	2.3%	1,934	2.6%	805	1.4%	41	2.5%	14	ω	14	10	0	-	6	∞	л
	214	1.8%	s و	2.5%	2	70%	•	0.0%	, c	• •	• •				, c	~ ~		15,109	2.0%	4,503	0.2%	2,181	3.9%	26	5.5%	14	5	2	- 4	2	4	1 0	24	51
By Light Condition	UST	1.5%	ð	1.8%	5	T0%	u	3.1%	-	F	-			-	~	c	F	cT / '8	1.5%	1,229	1./%	20/	1.4%	32	1.9%	Ŀ	σ	ų	U				u	~
Daylight	6,599	55.0%	1,506	55.5%	1,091	55.2%	57	58.2%	6	н	16	5 51	9 6	6	11	4	11	390,838	66.4%	43,890	60.0%	33,997	60.7%	924	55.7%	167	164	187	228 1	78 14	13 15	8 14-	1 134	158
Dark - No Street Lights	1,863	15.5%	755	27.8%	518	26.2%	8	33.7%	7	6	7	6	1	6	11	ω	2	46,936	8.0%	15,379	21.0%	10,505	18.8%	537	32.3%	84	99	120	128 1	7 90	8 6	1 84	68	72
Dark - Street Lights On	2,792	23.3%	259	9.5%	240	12.1%	2	2.0%	4	•	•	•	0	0	1	0	•	115,041	19.6%	8,161	11.2%	7,428	13.3%	56	3.4%	13	7	8	16 :	12	1	3 11	9	16
Dusk	374	3.1%	3 12	3.4%	: 59	3.0%	2	2.0%	• •	• •	> N			• •	, 0			15,628	2.7%	2,211	3.0%	1,697	3.0%	50	3.0%	13	~ ~	; œ	ა ი	16		, œ	: 11	, 11
Dark - Street Lights Off	101	0.8%	8 8	2.4%	17	2.1%	• •	0.0%	0	0	0		0 -	0 +	0	0 +	0	3,403	0.6%	2,090 597	2.9%	1,376 464	2.5%	8 /c	3.4% 0.5%	0 10	0 1	ω k	ωα	2 0		0 0	2	6 a
Other	64	0.5%	17	0.6%	10	0.5%	ω	3.1%	•	•	•	2	0	0	0	0	1	5,396	0.9%	838	1.1%	512	0.9%	28	1.7%	9	4	ъ	л	5	7	6	4	2
By Junction Relationship											-	-																						
Non-Intersection (Not Related) Intersection-Related	3 950	37 9%	1,821	67.1% 22 4%	1,288	65.2%	19 68	69.4% 19.4%	- 12	4	۳ 17	7 I5 2 1	2 7	, 11	۲ ۲	0	2 2	278,286	47.3% 39.0%	39,003	33.3%	27,688	49.5% 36.1%	1,114	67.1%	202	211 49	88	256 2	16 18 1	57 17 1 67	73 16	5 193	179
Driveway-Related	755	6.3%	51	5.6%	125	6.3%	9	9.2%			4		0	ω	2	2	ω	54,054	9.2%	6,887	9.4%	5,582	10.0%	135	8.1%	20	щ	8	28	26	6 20	5 23	12	26
By Roadway Curvature												-																	-					
Straight & Level	6,356	52.9%	1,160	42.7%	831	42.1%	56	57.1%	∞	6	13	1	4 2	7	Ħ	6	7	356,830	60.7%	37,741	51.6%	29,381	52.5%	831	50.1%	165	139	151	206 1	70 11	15 14	6 132	3 136	147
Horizontal Curve	2,968	24.7%	1,022	37.7%	743	37.6%	ж	33.7%	4	7	∞	0	5	∞	9	ω	6	78,752	13.4%	17,756	24.3%	12,782	22.8%	487	29.3%	75	78	8	124 1	14 9	2 8	1 79	94	93
Straight & Grade	1,888	15.7%	350	12.9%	276	14.0%	∞	8.2%	2	0	ω	2	1	1	2	0	2	97,606	16.6%	10,610	14.5%	8,361	14.9%	120	7.2%	18	19	8	30	23 2	2 3	4 24	17	22
Vertical Curve	379	3.2%	: E	4.2%	3 8	4.1%	• •	0.0%	• •	• •	• 0		4	, o		, o	, 0	13,344	2.3%	2,542	3.5%	1,969	3.5%	50	3.0%	7	2 10	14	3 00	, 11	1 3	3 6	1 1	» س
	TCC	4.070	Ę	4.270	č	0.770	•	T.0.0	•	4	-			,	•	•	<	4U, LUU	1.170	وردرد	0/ 6. /	4,000	0/ 5. /	TCT	0/0.71	U.F	Ļ	5	J2	12	E E	1	77	c

					ľ	5	/cori										_							5	5	odac	n							
2015-2019 Skagit	A	Roads	A	II Co	We	st Co	000	000	y ny y	9	Skag	it Cou	ntv					All Ro:	spe	A	8	West	ŝ	-				Skagi	t Coun	ŧ				
County Data	2015-	%	2015	%	2015	%	2015-	%	2019	2018	2017 20	016 20	15 201	4 2013	2012	2011	2010	2015-	%	2015-	%	2015-	%	2015-	%	2019	2018 2	017 20	16 201	5 2014	1 2013	2012	2011	2010
Hit Fixed Object Crashes Only - By F	-ixed C) bject I	÷	Ī						_	-	-	-	-	Ī		-										-	-	-		Ī			
Tree / Stump (Stationary)	611	18.59	6 274	23.2%	6 229	27.0%	12	27.9%	2	з	1	4	0 2	2	з	2	0	9,833	9.2%	3,357	11.8%	2,697	13.5%	101	11.1%	13	22	19 2	<u>i</u> 0 27	7 14	14	16	20	11
Over Embankment Utility Pole	224	6.8%	121	8.0%	5 102 53	6.3%	7	18.6% 16.3%		1 2	μ Η	ο ω	N 0	2 0		• •		4,425 7.517	4.1%	1,854 3,467	6.5% 12.2%	1,050	5.2%	5 40	4.4% 16.8%	36 5	7	10 j	5 5	16	30 6	7	₩ ∞	14
Roadway Ditch	369	11.19	6 178	15.1%	6 123	14.5%	л	11.6%	0	2	•	•	0	1	2	1	2 1	.3,512	12.6%	5,904	20.8%	4,232	21.1%	226	24.8%	43	48	46 4	9 40	33	30	36	27	37
Mail Box	515	9.5%	31 /4	b. <i>3</i> %	18 %	b.8% 2.1%	2 4	9.3%	1 0	0 +	0 +	0 +		0 4	• •	0		3,995 2,480	8.4%	1,412	5.0%	982	4.8%	29 6	8.3% 3.2%	5	9 12	2	9 10 4 H	6 10	14	σ α	7	6
Fence	173	5.2%	8	7.2%	57	6.7%	1	2.3%	1	•	•	•	1	0	0	0	•	3,327	7.8%	3,110	11.0%	2,058	10.3%	8	9.1%	14	10	15 2	8 16	15	24	14	18	11
Earth Bank	288	8.7%	132	11.2%	6 77	9.1%	1	2.3%	•	•	4	•	4	4	4	0	•	5,525	6.1%	2,500	8.8%	1,389	6.9%	64	7.0%	13	9	14 1	3 15	11	11	ω	6	ы
Wood Sign Post Metal Sign Post	х 28	1.8%	5 22	1.9%	13	2.1%		2.3%	• •	• •				0	0	1		2,818	2.6% 3.9%	5 <u>4</u> 1	2.7%	421	3.0%	18	2.0%	2	υw	ω (π	4	5 6	0 7	о б	7	0 6
Culvert	£;	1.3%	2	1.9%	16	1.9%	•	0.0%	0	•	•	•	0	н (•	0	н (*, 101	0.8%	495	1.7%	397	2.0%	12 ·	2.4%	6	6	ω ι	6 0	ω		4	2	ω
Fallen Rock / Tree	ω	0.1%	2	0.2%	2	0.2%	0	0.0%	•	•	•	•	0	0	0	0	•	599	0.6%	141	0.5%	123	0.6%	12	1.3%	0	0	4	5 2	0	0	1	0	0
Boulder (Stationary)	51	1.5%	25	2.1%	, 12	1.4%	。。	0.0%	• •	• •	• •) O		, 0	, <mark>1</mark>	• •	0	1,096	1.0%	437	1.5%	239	1.2%	5	1.2%	υ	2	2	3	. 0	, 0	, 1	, 0	
Concrete Barrier	156	0.b% 4.7%	10 4	0.3%	8 2	0.9%	0 0	0.0%	0 0	• •	0 0	• •	0 0	0 0	0 0	0		864 9,534	0.8%	181	1.1%	131	1.2%	∞ ∞	0.9%	2	2 4	ω C	1 1	1 1	1 0	1	0 4	0 1
Linear Curb	140	4.2%	9	0.8%	9	1.1%	•	0.0%	•	•	•	•	0	0	0	0	•	3,233	3.0%	263	0.9%	213	1.1%	л	0.5%	2	0	1	1	0	0	1	0	0
Building	36	1.1%	7	0.6%	5	0.6%	0	0.0%	0	0	0	0	0	0	0	0	•	1,445	1.4%	180	0.6%	145	0.7%	5	0.5%	0	1	1	2 1	1	1	1	0	1
Bridge Rail Railway Crossing Gate	41	1.2%	ο σ	0.5%	. .	0.4%		0.0%		-								2,709	2.5%	169	0.6%	» 84	0.4%	л о	0.5%	n h	- 0		 	- J		0 2	0 1	ы н
Into River / Lake	12	0.4%	6	0.5%	ω	0.4%	0	0.0%	•	•	•	•	0	0	0	0	•	318	0.3%	155	0.5%	65	0.3%	4	0.4%	1	0	1	1	1	ω	2	ω	2
Falling Rock / Tree Fell on Vehicle	5 5	0.3%	ч 5	0.4%	ა თ	0.6%	• •	0.0%	• •	• •	• •	• •		• •	• •	• •	• •	261	0.2%	13 7	0.2%	61	0.3%	4 4	0.4%	1	0 2	- 0	- 1	-	0 0	0	- 0	0
Retaining Wall	65	2.0%	16	1.4%	10	1.2%	0	0.0%	0	•	•	•	0	0	0	0	•	1,837	1.7%	273	1.0%	210	1.0%	ω	0.3%	0	0	1	1	1	2	0	1	2
Luminaire Pole	• 8	1.9%	4	0.3%	4	0.5%	• •	0.0%	• •	• •	•	0		, o	, o	• •	0	3,613	3.4%	196	0.7%	165	0.8%	υu	0.3%	0		• 0		- o		0	- 1	0
Traffic Island	8	1.0%	ω	0.3%	ω ι	0.4%	0	0.0%	0	•	•	•	0	0	0	0	•	1,021	1.0%	79	0.3%	69	0.3%	1	0.1%	0	1	0	0	0	0	0	0	0
Snow Bank	7	0.2%		0.2%	• •	0.0%	• •	0.0%	• •	•	• •	• •	0	0	• •	• •	• •	648	0.6%	87	0.3%	9	0.0%		0.1%	0	0	-	0	0 0	0	- 1	0	0
Other	174	5.3%	29 0	2.5%	19	2.2%	0	0.0%	0	0	0	•	0	0	н с	0	0	9,368	8.8%	3 1,057	3.7%	3 734	3.7%	12	1.3%		0	ω -	6 0	6 0	0	4 +	н с	9 0
By Functional Class									•										2															
Rural Minor Collector	1,182 285	4.7%	285	33.Z%	532 6 167	26.9%	5 X	53.1% 15.3%	1 6	2	~ 5	7 1	³⁰ 0	4 ~	6	2	φ 4 σ	5,832	8.7%	17,114 5,799	23.4% 7.9%	9,993 3,318	17.9%	814 266	49.0% 16.0%	145 14	56	168 49 8	4 15	4 136	50	119 49	126	120
Rural Local Access	318	5.2%	318	11.7%	5 193	9.8%	13	13.3%	ω	4	4	4	-	л	4	0	4	7,276	2.7%	7,271	9.9%	4,360	7.8%	231	13.9%	54	28	52 5	12 45	32	53	43	37	46
Urban Local Access	614 163	2.7%	6 116 162	4. <i>3</i> %	10/	5.4%	ωσ	6.1% 3.1%	• •	0 4	н н	• +		0 C	н с	0		.1,921 5,786	4.4% 2.5%	2,286 6,731	3.1% 9.2%	2,053	3.7%	87 6	4.b% 5.2%	9 12	1/	17 2	6 18	13	19	1 12	11 0	14
Urban Minor Arterial	755	12.49	6 398	14.7%	364	18.4%	ω	3.1%	0	1	1	•	0	0	ω	0	2 3	2,884	12.1%	13,969	19.1%	12,894	23.0%	\$	2.7%	2	10	15	5 12		19	15	20	17
Urban Interstate	781	12.8%	6 46	1.7%	25	1.3%	υw	3.1%	- ω	• •	• •	0	, o	, o	, o	• •	• •	4,730	31.2%	1,116	1.5%	652 7 E A A	1.2%	3	2.3%	01 99	• •	-	, o	0	• •	3 0	0	0
Rural Other Freeway/Expressway	300	4.8%	32 248	9.1%	27	11.4%	1	1.0%	0 +	•	•		0	0	0	0	0 F	9,751 8,477	3.1%	8,453	11.0% 2.1%	7,544 1,311	2.3%	3 <u>1</u>	3.3% 1.9%	11	7	6 14	5 F	2	0 0	0	0 4	0 5
Urban Other Principal Arterial	1,413	23.29	6 182	6.7%	173	8.8%	•	0.0%	•	•	•	•	0	•	•	•	•	0,001	29.5%	8,315	11.4%	7,614	13.6%	7	0.4%	0	2		2 2	0	0	0	0	0
By Contributing Circumstance	3.390	21.99	6 841	23.2%	574	22.0%	8	23.0%	Þ	<u>ه</u>	∞	4	0	υ	2	0	1 2	18.888	30.3%	27.811	32.6%	22.101	33.5%	540	27.9%	8	8	97 1	26 13	8	91	49	42	57
Under Influence of Alcohol / Drugs	2,298	14.89	6 542	14.9%	6 371	14.2%	29	23.0%	∞	4	U.	6	ω	6	Ħ	ω	4	1,871	4.4%	5,721	6.7%	4,303	6.5%	205	10.6%	44	34	43 4	-8 36	33	36	#	39	45
Exceeding sale / stated speed	3,U38	2 d%	80.6 5T6	%c 9 %T 'C7	° 0/3	6.7%	1)	14.3% q 5%	-1 +	0 0	u u				ہ م	- u	0 0 0	10,113	13.3%	13,094 8 5.47	10.0%	8,972 7 1 9,4	10.9%	137	18.1%	27 6C	2 00	5 72	2 2	1C	56	2 2 0	77	26 26
Apparently Asleep / Fatigued	372	2.4%	8	2.7%	67	2.6%	6	4.8%	0	н	<u>н</u>		0	0	4	0	0	.3,229	1.8%	2,878	3.4%	2,065	3.1%	114	5.9%	17	19	24 3	14 20	16	14	21	13	14
Over Centerline	574 200	3.7%	176	4.8%	144	5.5%	<u>ہ</u>	4.8%	• •	•	ω	- 2	- -	0 2	ა დ	υ	4 0	5,730	0.8%	1,521	1.8%	1,115	1.7%	2 8	2.1%	1/ 5	1 6	5 00	12 9	9	21	16	1° 54	58
Improper Passing	295	1.9%	82 2	2.3%	62 ⁴ 5	2.4%	4 ω	3. <i>2</i> %	0	•	н с	2	0 0	0	1	2		.2,393 7,031	1.7%	1,931 1,278	2.3% 1.5%	1,389 923	2.1% 1.4%	39 I a	3.1% 2.0%	5	6 11	8 1	1 4	6 ~	7	6 ar	د د۲	5 14
Disregard Stop Sign	228	1.5%	95	2.6%	52	2.0%	2	1.6%	0	0	0	2	1	0	1	0	1	7,589	1.0%	1,516	1.8%	1,098	1.7%	31	1.6%	5	4	5	8	5	11	7	12	14
On Wrong Side of Road Following Too Close	331	2.1%	37 88	2.4%	62 24	2.4%	2	1.6%	0 1	• •	- 0	4 0	0 0	0 0	• •	• •	0 0	2,791	0.4%	5.301	0.8%	458 4.364	0.7% 6.6%	116	0.8% 6.0%	4	0	26	0 8	17	11 0	11 0	16	18
Improper Turn	250	1.6%	29	0.8%	24	0.9%	1	0.8%	1	•	•	•	0	<u>ь</u>	0	0	н н	.8,958	2.6%	1,703	2.0%	1,450	2.2%	29	1.5%	6	σ !	4	3	ω !	σ	ر س	6	6
Failing to Yield to Ped / Cyclist	461	3.0%	31	0.9%	29	1.1%	1	0.8%	0	•	4	•	0	0	0	0	0	4,330	0.6%	219	0.3%	196	0.3%	ω	0.2%	2	0	1	0	0	0	0	0	ω
Failing to Signal Improper Backing	23 8	0.1%	6 1	0.0%	5 р	0.0%	0	0.8%	• •	0 14	• •	• •	0 0	0 0	• •	0 0	• •	624 7.173	0.1%	123	0.1%	555	0.1%	28	0.2% 1.4%	з О	4 2	∞ O	9 0 4 1	2	4 1	6 1	2	6 0
Apparently III	128	0.8%	27	0.7%	20	0.8%	0	0.0%	0	•	•	•	1	1	0	0	•	2,558	0.4%	510	0.6%	422	0.6%	15	0.8%	4	σ	0	4 2	6	7	1	л	2
Improper U-Turn	74	0.5%	9	0.2%	- 7	0.3%	• •	0.0%	• •	•	•	•	0	• •	• •	0	0	3,440	0.5%	460	0.5%	398	0.6%	6	0.3%	3	0	2	1	2	2	0	4	1
Disregard Signal	291	1.9%	14	0.4%	14	0.5%	0	0.0%	0	0	0	•	0	0	0	0	0 0 1	400	1.8%	692	0.1%	658 9	1.0%	11	0.1%	0		0		1 1	0	0		
Disregard Yield Sign	24	0.2%	6	0.2%	4	0.2%	0	0.0%	0	•	•	•	0	0	0	0	0	888	0.1%	95	0.1%	77	0.1%	1	0.1%	0	0	1	0	0	0	0	0	0
Other	1,802	11.69	6 335	9.2%	261	10.0%	Ħ	8.7%	2	1	u	2	1	1	ω	1	ω ∞	14,873	11.7%	10,419	12.2%	8,055	12.2%	202	10.4%	36	27	48 4	18 43	3 37	33	37	26	23

					70	atal/S	Serio	us Inj	ury C	rashe	es On	γl												То	tal Cr	ashe	S							
2012-2013 Skagit	All Ro	ads	AILO	8	West	ŝ			•		Skagit	Count	ų.				Þ	II Roa	sp	All C	٥	West	ŝ					Skagi	t Cou	τţ				
County Data	2015- 2019	%	2015- 2019	%	2015- 2019	% N N	015- 2019	%	2019 2	018 20	17 201	.6 2015	2014	2013	2012	2011 20	20 20	19 19	%	2015- 2019	%	2015- 2019	%	2015- 2019	%	2019 2	2018 2	017 20	116 20:	15 201	4 2013	3 2012	2011	2010
By Vehicle Type																																		
Light Truck / SUV	7,462	39.4%	1,591 4	11.5%	1, 164 4	1.1%	63 4	15.7%	9	10 1	.1 17	7 16	σ	∞	12	7	7 473	,115 4	2.8% 5	53,708	46.2%	11, 709	45.2%	1,094	47.6%	200	202	223 2	60 2C)9 15.	2 159	150	150	146
Passenger Car	7,644	40.4%	1,431	37.4%	1,087 3	8.4%	42 3	0.4%	6	9 1	.3 7	7	5	6	11	1	7 548	,606 4	9.7% 5	54,181	46.6%	14,555	48.3%	1,028	44.7%	180	199	201 2	51 19	17 16u	0 177	172	166	189
Motorcycle	2,391	12.6%	591	15.4%	468 1	6.5%	24 1	.7.4%	1	4 1	0	з	0	6	5	З	4 11	231 1	0%	2,083	1.8%	1,629	1.8%	63	2.7%	4	9	21	15 1	4 4	12	16	9	12
Heavy Truck	841	4.4%	105	2.7%	53	1.9%	5	3.6%	1	•	1 1	2	0	1	0	0	1 36	.724 3	1.3%	2,936	2.5%	1,915	2.1%	70	3.0%	16	15	14	10 1.	5 11	. 13	11	14	6
School Bus	32	0.2%	7	0.2%	5	0.2%	1	0.7%	0	0	0	1	0	0	0	0	1 2,	000).2%	407	0.4%	312	0.3%	4	0.2%	1	1	0	2	0	1	1	0	1
Bus	84	0.4%	6	0.2%	З	0.1%	0	0.0%	0	0	0	0	0	0	0	0	0 3,	993 C).4%	190	0.2%	168	0.2%	ω	0.1%	2	0	0	0 1		0	1	0	1
Other	473	2.5%	100	2.6%	54	1.9%	3	2.2%	0	2 (0 1	0	0	1	1	1	1 29	006 2	.6%	2,756	2.4%	2,030	2.2%	36	1.6%	7	8	6	11 4	8	10	6	3	5
By Speed Limit																																		
20 MPH	113	0.7%	17	0.5%	14 (0.6%	0	0.0%	0	0	0	0	0	0	0	0	,0 9,	035 1	0%	530	0.5%	355	0.5%	1	0.1%	1	0	0	0) 1	0	0	0	1
25 MPH	1,858	11.6%	244	7.3%	194	7.9%	4	3.2%	0	0	2 0	2	0	0	3	0	1 136	,120 1	5.3% 1	10,602	10.9%	8,797	11.4%	120	6.5%	15	22	29	25 2	9 15	5 19	20	16	15
30 MPH	1,753	11.0%	81	2.4%	69	2.8%	•	0.0%	0	0	0	0	0	0	0	0	0 125	,737 1	4.2%	4,295	4.4%	3,630	4.7%	ω	0.2%	0	0	0	2 1	. 1	ω	1	2	0
35 MPH	4,093	25.6%	1, 207	36.3%	1,057 4	3.2%	28 2	2.6%	5	4	3 10) 6	4	12	10	ω	7 246	,101 2	7.7% 4	43,175	44.2%	37,997	49.3%	835	45.5%	175	133	150 2	01 17	76 131	9 177	155	147	160
40 MPH	1,110	6.9%	341	10.3%	318 1	3.0%	л	4.0%	0	•	2	ω	2	ω	2	0	0 53	.343 6	5.0% 1	10,540	10.8%	9,585	12.4%	108	5.9%	13	14	25	28 2	8 12	2 16	17	19	17
45 MPH	945	5.9%	387	1.6%	323 1	3.2%	∞	6.5%	2	1	0	0	0	2	0	0	0 39	037 4	1.4%	9,165	9.4%	7,650	9.9%	63	3.4%	9	17	10	17 1.	0 13	3 10	6	∞	2
50 MPH	1,735	10.8%	872	26.2%	457 1	8.7%	79 6	3.7%	∞	20 2	0 16	15	4	თ	12	9	11 40	.282 4	1.5% 1	16,454	16.9%	8,795	11.4%	700	38.1%	108	132	132 1	83 14	15 10:	5 112	125	132	131
55 MPH	1,301	8.1%	140	4.2%	13	0.5%	0	0.0%	0	0	0	0	0	0	0	0	0 31	832 3	1.6%	2,247	2.3%	199	0.3%	6	0.3%	1	ω	0	1	0	2	0	1	0
By Roadway Surface Type	-			ļ																			ļ											
Blacktop	15,669	82.7%	3,314 8	36.4%	2,470 8	7.1%	113 8	\$1.9%	15	21 2	9 28	3 20	6	18	25	10	19 879	,148 7	9.6% 1	.00,054	86.0%	79,799	86.4%	1,780	77.5%	325	313	364 4	73 30	15 230	0 263	289	285	310
Concrete	2,321	12.2%	204	5.3%	183	5.5%	9	6.5%	0	1	1 2	б	0	1	4	0	0 173	,113 1	5.7%	6,703	5.8%	6,118	6.6%	217	9.4%	42	57	47	21 5	0 17	7 27	19	21	23
Gravel	140	0.7%	56	1.5%	16 0	0.6%	0	0.0%	0	0	0	0	0	2	0	0	1 3,	570 O).3%	1,736	1.5%	421	0.5%	18	0.8%	1	ω	4	3	7 1	6	1	ω	7
Dirt	88	0.5%	32	0.8%	4	0.1%	•	0.0%	0	0	0	0	0	0	2	0	0 1,	387 0).1%	533	0.5%	86	0.1%	ω	0.1%	1	0	1	0	1	0	2	1	0
Brick/Wood Block	11	0.1%	1	0.0%	•	0.0%	•	0.0%	0	0	0	0	0	0	0	0	0 1,	J55 0).1%	99	0.1%	79	0.1%	1	0.0%	0	0	0	1	0	1	0	0	0
Other	199	1.0%	148	3.9%	105	3.7%	14 1	.0.1%	2	3	4 2	ω	4	1	0	2	1 5,	0 660).5%	3,301	2.8%	2,668	2.9%	223	9.7%	29	44	38 4	6 01	6 77	7 66	31	19	12
Unknown	527	2.8%	80	2.1%	59	2.1%	2	1.4%	0	•	0	1	0	0	4	0	0 41	.337 3	1.7%	3,859	3.3%	3,153	3.4%	56	2.4%	12	17	11	4 1	2 9	9	19	14	13
By Contributing Circumstance (Ped C	Only)																						ļ											
Inattention / Distraction	353	21.7%	58	31.2%	51 3	3.8%	4 5	0.0%	•	•	3 1	0	0	0	0	0	0 1,	436 2.	7.1%	159	32.1%	140	33.3%	4	36.4%	0	0	ω	1	0	0	0	0	1
Under Influence of Alcohol / Drugs	152	9.3%	23	12.4%	16 1	0.6%	1	.2.5%	1	•	0	0	0	0	0	0	0 4	31 8	3.1%	45	9.1%	32	7.6%	1	9.1%	1	0	0	0	0	0	0	0	4
Failing to Yield	375	23.0%	29	15.6%	25 1	6.6%	•	0.0%	•	•	0	0	0	0	2	0	0 1,	115 2:	1.0%	76	15.3%	64	15.2%	1	9.1%	11	0	0	0	0	0	2	0	0
On Wrong Side of Road	14	0.9%	ω	1.6%	2	1.3%	•	0.0%	0	0	0	0	0	0	0	0	0	54 1	2%	24	4.8%	17	4.0%	1	9.1%	1	0	0	0	0	0	0	0	1
Other	477	29.3%	47	25.3%	35 2	3.2%	ω ω	17.5%	1	•	1	0	0	0	4	0	0 1,	366 2!	5.8%	115	23.2%	97	23.1%	4	36.4%	1	0	2		1	0	1	1	1
By Facility Used (Ped Only)							_		_	-																		-						
Roadway	1,103	46.1%	136	57.6%	107 5	4.0%	8 1	00.0%	2	0	¢ 2	0	0	0	ω	0	0 3,	142 2	9.3%	405	45.5%	339	43.7%	9	90.0%	ω	0	4	2 (1	0	ω	1	2
Other	153	6.4%	11	4.7%	10	5.1%	0	0.0%	0	0	0	0	0	0	0	0	0	34 5	.4%	56	6.3%	46	5.9%	1	10.0%	0	0	1	0	0	0	0	0	0
By Contributing Circumstance (Bike (Only)																																	
Inattention / Distraction	140	26.1%	24	30.4%	18 2	9.0%	2 1	00.0%	0	•	1	0	0	1	0	0	0 1,	126 2	7.3%	128	34.1%	112	34.0%	2	66.7%	0	0	1	1	0	2	0	0	0
Improper Turn	11	2.0%	2	2.5%	2	3.2%	•	0.0%	•	0	0	•	0	0	0	0	0	76 1	8%	10	2.7%	10	3.0%	1	33.3%	0	1	0		0	0	0	0	0
By Facility Used (Bike Only)							-		_	-	-																	-						
Roadway	353	50.7%	57 (54.8%	43 6	1.4%	3 1	00.0%	0	•	2 1	0	0	0	0	0	02,	597 33	8.2%	288	54.1%	249	53.5%	∞	100.0%	1	1	2	3	1	1	0	0	0



SKAGIT COUNTY PRIORITY ARRAY 2021 Update – April 2021

INTRODUCTION

Skagit County's Priority Array has been developed based on three Washington Administrative Codes or WAC's. WAC 136-14-020 states "Priority programming techniques shall be applied in the ranking of all potential projects on the arterial road system of each County . . . Priority programming will not be required, but is recommended, for the local access road system." WAC 136-14-030 goes on to state "Items to be included in the technique shall include, but not be limited to the following:

- 1) Traffic Volume
- 2) Roadway Conditions
- 3) Geometrics
- 4) Matters of significant local importance

Finally, WAC 136-14-040 states "The resulting Priority Array . . . shall be consulted together with the bridge priorities by the legislative authority and county engineer during the preparation of the proposed six year program".

The 2021 Priority Array that Skagit County has developed is based on previous Priority Arrays developed since the 2002 Priority Array. The basic approach in its development was to utilize the information that is already available from current programs and existing computerized databases that are maintained on an ongoing basis by Skagit County Public Works. All the base data for the 2021 Priority Array came from the "Roadlog" database and from the "Pavement Management" database, both of which are a part of the County Road Administration Board's (CRAB) **Mobility** infrastructure database. Data has been transferred electronically from **Mobility** to a spreadsheet program where the data was transformed into the 2021 Priority Array.

SUMMARY

The following seven factors (and their point ranges) were used in Skagit County's 2021 Priority Array:

Traffic	=	(Square Root of Average Daily Traffic) / 10; (0.6 to 12.5)
Trucks	=	2 * (6 – FGTS Rating); (0.0 to 10.0)
Collisions	=	Accidents Per Million Vehicle Miles (APMVM); (0.0 to 25.0)
Pavement	=	(100 – PSC Rating) / 10; (0.0 to 10.0)
Width	=	(Design Standard Width – Current Width) / 2; (0.0 to 4.0)
H Curve	=	Horizontal Curve Rating * 3; (3.0 to 9.0)
V Curve	=	Vertical Curve Rating * 3; (3.0 to 9.0)

Total Rating = Sum of above ratings – a higher rating means a higher priority for potential improvement.

DISCUSSION

<u>Traffic</u> Traffic Counts are systematically taken by Engineering Staff using traffic data counters as part of the County's Traffic Program. From these counts the Average Annualized Daily Traffic (AADT) is calculated and input into the "Roadlog" database of **Mobility**. While traffic volume is a factor that is required for the County's Priority Array, using AADT directly presents a problem. AADT on the functionally classified system can range from under 100 to over 15,000. Simply dividing the AADT by 1,000 would give a scoring range of about 0.1 to about 15, but would have very few roads with high ratings. For example, the median for AADT (half of the segments are higher and half are lower) is about 1,000. Thus, the segment with the median AADT would have Traffic rating of 1.0 (quite low to be a middle rating). In order to get a better distribution, the square root of AADT divided by 10 was chosen for the Traffic factor. This gives a similar range of ratings (0.6 to 12.5) but increases the median Traffic rating to 3.8.

<u>Trucks</u> Truck routes on city streets, county roads and state highways in Skagit County are rated by the State based on the freight tonnage carried in a given period of time. These ratings range from 20,000 tons in a 2-month period to 10,000,000 tons in a year. These rated facilities are referred as the Freight and Good Transportation System (or FGTS). The FGTS ratings, which came from the "Roadlog" database within **Mobility**, range from 1 to 5, highest to lowest. They were converted to a 2 to 10, lowest to highest rating for the Priority Array Truck factor. Non-truck route roads were given a 0 rating factor.

<u>Collisions</u> The collision data item in the "Roadlog" database is Accidents Per Million Vehicle Miles or APMVM. This collision factor uses the reported collisions, road segment length, and traffic volume to calculate the collision rate. This is the Collision factor used in the 2021 Priority Array. APMVM is calculated in Mobility. While this factor ranges from 0 to 25, only about 3.5% of the segments have a factor greater than 10.

<u>Pavement</u> The Pavement Surface Condition (PSC) is a quality rating of the pavement surface from 0 to 100. A low rating represents a road surface that is in poor condition and in need of repair, resurfacing, or reconstruction. A high rating (near 100) usually represents a road surface that has recently been improved. Public Works staff bi-annually field inspects and rates all road segments in the County on several surface condition factors. Together, these factors produce an initial PSC. These ratings are entered and calculated in **Mobility**. In order for the Pavement rating for the Priority Array to be on a 0 to 10 scale from good to bad, the PSC is subtracted from 100 and the result is divided by 10.

<u>Width</u> The Washington state Department of Transportation (WSDOT) and Skagit County have design standards for new construction and reconstruction of roadways based on the traffic level. For each road segment, the design standard for total lane width (currently 12 feet per lane) was input by hand into the Priority Array spreadsheet. By comparing this design standard with the current pavement width from the "roadlog" in **Mobility**, a pavement width deficit for each road segment was created. This deficit gives the width deficit for each side of the road. If the pavement width is actually greater than the standard, the factor is set at 0.

<u>H Curve</u> This is short for Horizontal Curve Rating and is resident in **Mobility**. This rating is from 1 to 3 (no curves to very curvy) and was produced by field inspection of each road segment. The rating is multiplied by three to give a final rating range of 3 to 9.

<u>V Curve</u> This is short for Vertical Curve (hilly terrain) Rating and mirrors the Horizontal Curve Rating. This rating is from 1 to 3 (flat to hilly) and was produced by field inspection of each road segment. The rating is multiplied by three to give a final rating range of 3 to 9.

TABLES

The Skagit County 2021 Priority Array is listed in four different tables. They each represent the full Priority Array but with the data sorted in differing ways. Details for each table are shown below.

TABLE 1 – LIST BY RATING

This Table presents the Priority Array in the traditional manner, showing all the functionally classified road segments in order of priority from highest to lowest by Total Rating.

TABLE 2 – LIST BY ROAD NAME

This Table presents the Priority Array in alphabetical order. In this listing, it is easy to find the final rating of any specific roadway segment.

TABLE 3 – LIST BY COMMISSIONER DISTRICT & RATING

This list is similar to Table 1 except that it provides three lists by ratings, one for each Commissioner District.

TABLE 4 – LIST BY COMMISSIONER DISTRICT & ROAD NAME

This list is similar to Table 2 except that it provides three alphabetical lists, one for each Commissioner District.

Below is the key for the Table column headings:

Road # - The official Skagit County Road Number

Road Name – The officially established Road Name

BMP – The Beginning Milepost for the listed road segment

EMP – The Ending Milepost for the listed road segment

BMP Description – The location description for Beginning Milepost (BMP) for the listed road segment

Comm Dist – The Commissioner District number for the listed road segment

FFC – The Federal Functional Class of the listed road segment (all non-Local Access roads)

Traffic – the Traffic Volume factor rating as described above

Truck - the Truck Traffic Volume factor rating as described above

Pave - the Pavement Surface Condition factor rating as described above

Collisions– the Collision factor rating as described above

PW - the Pavement Width factor rating as described above

H Curve - the Horizontal Curvature factor rating as described above

V Curve - the Vertical Curvature factor rating as described above

Total – the road segment's overall Priority Array rating – the sum of the above 7 factors

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
53540	ALGER-CAIN LAKE ROAD	0.000	0.638	at OLD HWY 99 NORTH	3	07	6.5	6	1	2	1	9	6	31
53540	ALGER-CAIN LAKE ROAD	0.638	2.670	465 ft. NE of COAL BUNKER ROAD	3	07	6.5	6	0	2	1	9	6	30
53540	ALGER-CAIN LAKE ROAD	2.670	2.790	0.12 mi. South of CAMP 2 ROAD	3	07	6.5	6	0	0	1	3	3	20
36300	ALLEN WEST ROAD	0.000	0.576	at FARM TO MARKET ROAD	1	07	3.7	6	1	6	1	3	3	23
36300	ALLEN WEST ROAD	0.576	1.548	21 ft. East of BENSON ROAD	1	07	3.3	6	1	2	1	3	3	19
36300	ALLEN WEST ROAD	1.548	3.090	48 ft. East of THOMAS ROAD	1	07	3.3	6	0	3	1	3	3	19
33110	AVON ALLEN ROAD	0.000	0.490	at MCLEAN ROAD	2	16	3.5	6	0	0	2	3	3	17
33110	AVON ALLEN ROAD	0.490	0.840	26 ft. South of DUNBAR ROAD	2	16	3.5	6	0	2	2	3	3	20
33110	AVON ALLEN ROAD	0.840	1.070	290 ft. South of NILSON ROAD	2	16	3.5	6	0	0	2	3	3	18
33110	AVON ALLEN ROAD	1.070	1.500	16 ft. South of STATE ROUTE 536	2	16	4.1	6	0	4	1	3	3	21
33110	AVON ALLEN ROAD	1 500	2 560	16 ft North of BENNETT ROAD	2	16	43	6	0	2	0	9	3	25
33110	AVON ALLEN ROAD	2 560	2 650	at STATE ROUTE 20	-	16	40	6	0	7	0	3	3	23
33110	AVON ALLEN ROAD	2 650	3 030	222 ft NW of OVENELL ROAD	1	16	40	6	1	0	0	6	3	20
33110	AVON ALLEN ROAD	3 030	3 750		1	16	39	6	0	0	0 0	6	3	19
33110		3 750	4 154	at PETERSON ROAD	1	06	37	6	Õ	2	2	3	3	19
33110		4 154	4 840	0.40 mi North of PETERSON ROAD	1	00	3.2	6	0	0	2	3	3	17
33110		4.104	5 908		1	07	37	6	0	1	2	3	3	18
33110		5 908	6 3 3 0	253 ft North of BENSON ROAD	1	07	3.7	6	0	2	2	3	3	10
22110		5.300	6 270	211 ft South of COOK BOAD	1	07	27	6	0	2	2	2	2	19
33110		6.330	6 950		1	07	J.1 1 2	6	0	0	2	2	3 2	10
22110		6.370	6.030	al COUR ROAD 21 ff. North of ALLEN WEST BOAD	1	07	4.3	0	0	0	2	ວ າ	ა ა	10
07000		0.000	0.910	21 IL NOLLI OLALLEN WEST ROAD	1 2	07	4.3	C C	0	0	2	ა 2	ა ა	12
97000		0.000	0.020	at STATE ROUTE 20	3	07	3.8	6	2	0	0	3	3	18
97000		0.020	1.210		3	07	3.8	6	1	1	0	0	3	20
97000		1.210	0.090		3	07	2.7	0	U	1	0	9	6	25
97000		6.690	9.860		3	07	2.7	6	0	0	0	6	6	21
97000	BAKER LAKE ROAD	9.860	11.900		3	07	2.7	6	0	1	0	9	6	24
16310	BARTHOLOMEW ROAD	0.000	0.260	at SOUTH MARCH'S POINT ROAD & THOMPSON ROAD (CITY)	1	17	3.9	0	0	0	0	3	3	10
31210	BAY VIEW-EDISON ROAD	0.047	0.370	at END STATE TURNBACK	1	07	3.0	4	2	3	0	9	3	24
31210	BAY VIEW-EDISON ROAD	0.370	0.425	0.32 mi. NE of END STATE TURNBACK	1	07	3.0	4	1	0	2	9	6	24
31210	BAY VIEW-EDISON ROAD	0.425	1.950	0.38 mi. NE of END STATE TURNBACK	1	07	3.0	4	0	0	2	9	6	24
31210	BAY VIEW-EDISON ROAD	1.950	2.140	at EGBERS KALSO ROAD	1	07	3.0	4	0	0	2	9	6	24
31210	BAY VIEW-EDISON ROAD	2.140	2.920	at BAY VIEW ROAD	1	07	2.3	4	0	5	2	6	6	25
31210	BAY VIEW-EDISON ROAD	2.920	3.080	370 ft. NW of BAYSIDE TERRACE	1	07	2.3	4	0	0	2	6	6	20
31210	BAY VIEW-EDISON ROAD	3.080	3.340	at SECOND STREET (BAY VIEW)	1	07	2.3	4	0	0	0	6	6	18
31210	BAY VIEW-EDISON ROAD	3.340	3.640	at JOSH WILSON ROAD	1	07	2.4	4	0	0	0	3	6	15
31210	BAY VIEW-EDISON ROAD	3.640	3.700	at BAY VIEW STATE PK. ENT.	1	07	3.0	4	1	0	0	3	6	17
31210	BAY VIEW-EDISON ROAD	3.700	4.120	317 ft. North of BAY VIEW STATE PK. ENT.	1	07	2.4	4	0	0	0	6	6	18
31210	BAY VIEW-EDISON ROAD	4.120	4.273	0.31 mi. South of BAY VIEW CEMETERY ROAD	1	07	2.4	4	0	0	2	9	6	23
31210	BAY VIEW-EDISON ROAD	4.273	4.430	0.16 mi. South of BAY VIEW CEMETERY ROAD	1	07	2.4	4	0	0	2	9	6	23
31210	BAY VIEW-EDISON ROAD	4.430	6.150	at BAY VIEW CEMETERY ROAD	1	07	2.4	4	0	1	2	9	6	24
31210	BAY VIEW-EDISON ROAD	6.150	8.140	37 ft. North of D'ARCY ROAD	1	07	3.2	4	0	1	2	3	3	16
31210	BAY VIEW-EDISON ROAD	8.140	8.160	79 ft. South of SAMISH ISLAND ROAD	1	07	3.2	4	0	0	2	9	3	21
31210	BAY VIEW-EDISON ROAD	8.160	9.366	26 ft. East of SAMISH ISLAND ROAD	1	07	2.9	4	0	4	2	9	3	26
31210	BAY VIEW-EDISON ROAD	9.366	9.798	at ACCESS TO WEST EDISON	1	07	3.1	4	0	2	2	6	3	21
05110	BEAVER LAKE ROAD	0.000	0.290	at STATE ROUTE 9	3	08	2.9	6	1	0	2	9	3	24
05110	BEAVER LAKE ROAD	0.290	0.585	169 ft. SE of AUSTIN ROAD	3	08	2.9	6	1	4	2	9	3	27
05110	BEAVER LAKE ROAD	0.585	1.330	at FOX ROAD	3	08	2.9	6	0	0	2	9	3	23
05110	BEAVER LAKE ROAD	1.330	2.660	26 ft. South of FONK ROAD	3	08	2.9	6	0	0	2	9	3	23
05110	BEAVER LAKE ROAD	2.660	3.080	74 ft. West of POWER LINES	2	08	2.9	6	1	0	2	9	3	24
05110	BEAVER LAKE ROAD	3.080	3.110	37 ft. South of BENHAM ROAD	2	08	2.9	0	4	0	0	9	3	19
05110	BEAVER LAKE ROAD	3.110	3.400	195 ft. South of BENHAM ROAD	2	08	2.9	0	0	4	2	9	3	21
05110	BEAVER LAKE ROAD	3.400	4.260	0.33 mi. South of BENHAM ROAD	2	08	2.9	0	0	0	2	9	3	17
44610	BEAVER MARSH ROAD	0.000	0.500	at STATE ROUTE 536	2	08	2.2	4	1	0	2	3	3	15
44610	BEAVER MARSH ROAD	0.500	1.510	at DONNELLY ROAD	2	08	2.3	4	0	0	2	3	3	14
44610	BEAVER MARSH ROAD	1.510	3.010	at MCLEAN ROAD	2	08	2.9	4	2	1	0	3	3	15
44610	BEAVER MARSH ROAD	3.010	4.020	at CALHOUN ROAD	2	08	2.1	4	2	0	0	6	3	17

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
44610	BEAVER MARSH ROAD	4.020	5.100	at WEST KAMB ROAD	2	08	2.1	4	0	6	2	9	3	26
30000	BENNETT ROAD	0.000	0.548	at STATE ROUTE 536	2	07	4.5	6	0	0	2	9	3	25
30000	BENNETT ROAD	0.548	0.620	at AVON ALLEN ROAD	2	17	4.5	6	2	0	2	9	3	26
30000	BENNETT ROAD	0.620	0.830	63 ft. East of HOLLY LANE	2	17	6.4	4	0	4	2	9	3	29
30000	BENNETT ROAD	0.830	1.779	312 ft. SW of AVON STREET	2	17	6.4	6	0	1	2	9	3	28
44010	BEST ROAD	0.000	0.250	at STATE ROUTE 20	1	07	4.8	6	1	2	0	3	3	19
44010	BEST ROAD	0.250	1.760	5 ft. South of YOUNG ROAD	1	07	5.0	6	1	1	0	3	3	19
44010	BEST ROAD	1.760	3.180	at MCLEAN ROAD	1	07	5.8	6	3	0	0	3	3	21
44010	BEST ROAD	3.180	3.270	444 ft. North of CHILBERG ROAD	1	07	6.0	6	2	9	0	3	3	28
44010	BEST ROAD	3.270	3.730	32 ft. South of CHILBERG ROAD	1	07	5.8	6	3	0	0	3	3	21
44010	BESTROAD	3 730	4 821	317 ft North of VALENTINE ROAD	1	07	5.8	6	3	1	0	6	6	28
44010	BESTROAD	4 821	5 078	111 ft South of LESLIE LANE	1	07	5.8	6	3	2	Õ	3	6	26
44010	BESTROAD	5 078	5 392	5 ft South of VIEW MOOR DRIVE	1	07	6.0	6	3	0	Õ	3	3	21
44010	BEST ROAD	5 392	5 500	32 ft North of DODGE VALLEY ROAD	1	07	6.2	6	1	2	ů N	3	3	21
44010		5.552	5.300	0.10 mi South of DODGE VALLET ROAD	1	07	6.2	6	1	0	0	2	2	22
44010	DEST ROAD	5.500	5.775		1	07	6.2	6	0	1	0	2	О	20
44010	DEST ROAD	5.//J	6 247	0.27 mi NW of EIR ISLAND BOAD	1	07	0.2	6	0	1	0	ວ າ	9	20
44010	DEST ROAD	0.100	0.247	0.27 IIII. NW OI FIR ISLAND ROAD	1	07	0.2	0	2	0	0	ა ი	9	20
44010	BESTROAD	6.247	6.370		1	07	6.2	6	1	0	0	3	6	22
44010	BESTROAD	6.370	6.379	48 ft. NW OF FIR ISLAND ROAD	1	07	6.2	6	0	0	0	3	6	21
21200	BOW HILL ROAD	0.000	0.060	at OLD HWY 99 NORTH	1	07	6.0	6	3	0	0	3	3	21
21200	BOW HILL ROAD	0.060	0.500	11 ft. East of NORTH GREEN ROAD	1	07	6.0	6	8	1	0	9	6	36
21200	BOW HILL ROAD	0.500	0.530	385 ft. East of NORTH DARRK LANE	1	07	6.0	6	7	9	0	6	6	39
21200	BOW HILL ROAD	0.530	0.800	227 ft. East of NORTH DARRK LANE	1	07	8.2	6	6	3	0	3	3	29
21200	BOW HILL ROAD	0.800	0.910	26 ft. West of NB I-5 On/Off Ramps	1	07	6.9	6	2	0	0	3	3	21
21200	BOW HILL ROAD	0.910	0.930	69 ft. East of SB I-5 On/Off Ramps	1	07	5.0	6	0	0	0	3	3	17
21200	BOW HILL ROAD	0.930	1.057	37 ft. West of SB I-5 On/Off Ramps	1	07	5.4	6	0	5	0	6	3	25
21200	BOW HILL ROAD	1.057	1.430	0.11 mi. West of BOW HILL FRONTAGE ROAD	1	07	5.4	6	0	5	0	6	3	26
21200	BOW HILL ROAD	1.430	2.180	at HOBSON ROAD	1	07	4.7	6	0	2	0	6	3	22
21200	BOW HILL ROAD	2.180	2.584	at ERSHIG ROAD	1	07	2.9	4	0	3	0	9	6	25
21200	BOW HILL ROAD	2.584	3.000	0.12 mi. East of CEDAR DRIVE	1	07	2.9	4	0	3	0	9	6	25
21200	BOW HILL ROAD	3.000	3.050	74 ft. NW of CATTAIL PLACE	1	07	2.9	4	0	0	0	3	3	13
21200	BOW HILL ROAD	3.050	3.280	53 ft. East of CEDAR STREET	1	07	2.9	4	0	0	0	6	3	16
21200	BOW HILL ROAD	3.280	3.620	at WORLINE ROAD	1	07	2.9	4	0	0	0	9	3	19
21200	BOW HILL ROAD	3.620	4.570	at BOW CEMETERY ROAD	1	07	3.6	4	0	1	0	9	3	20
70110	BRITT ROAD	0.000	1.470	at DIKE ROAD	2	08	1.6	0	0	0	2	9	3	16
70110	BRITT ROAD	1.470	1.720	at ROAD ENTERS UGA	2	07	1.6	0	2	0	2	9	3	17
80750	BULSON ROAD	0.750	1.500	at STARBIRD ROAD	2	08	1.8	0	0	0	2	9	6	19
80750	BULSON ROAD	1.500	3.830	at TYEE ROAD	2	08	2.6	0	0	1	2	9	9	23
20030	CAIN'S COURT	0.000	0.053	at FARM TO MARKET ROAD	1	07	4.1	0	2	11	1	9	3	29
20030	CAIN'S COURT	0.053	0.085	121 ft. North of MACCOY'S COURT	1	07	4.1	0	2	0	1	3	3	13
43200	CALHOUN ROAD	0.000	0.500	at BEST ROAD	1	08	2.2	0	0	0	2	3	3	10
43200	CALHOUN ROAD	0.500	1.500	0.49 mi. West of BRADSHAW ROAD	2	08	2.2	0	0	2	2	3	3	12
43200	CALHOUN ROAD	1.500	1.981	0.48 mi, West of BEAVER MARSH ROAD	2	08	2.3	0	0	4	2	3	3	14
43200		1 981	2 735	at BEAVER MARSH ROAD	2	08	17	Ő	Õ	0	2	3	3	10
43200		2 735	3 570	at KAMB ROAD	2	08	17	Õ	Õ	0	2	ğ	3	16
13900		0.000	0.760	at STATE POLITE 20	- 1	07	13	1	ů n	1	1	å	6	25
13900		0.000	1 562		1	07	 // 3	-	0	1	4	6	6	20
97950		0.700	0 710	at FODEIC LARE ACCESS at STATE DOUTE 20	3	07	4.J 2.5	4	2	0	י 2	6	2	15
97950		0.000	2 060		3	00	2.5	0	4	1	2	0	5	10
97950		2.000	3.900		Э	00	2.0	0	1	1	2	9	0	40
97950		3.960	4.000	148 ft. East of CASCADE RIVER PARK TRACTS	3	00	1.1	0	0	0	2	0	3	12
9/950		4.000	0./10	JOJ IL EAST OF LADLADE RIVER PARK TRAUTS	3	υð	1.1	U	U	5	2	9	3	18
/0550		0.000	0.930		2	80	2.3	4	1	2	U	6	6	21
/0550		0.930	1.640		2	80	2.3	4	3	5	U	3	6	23
70550		1.640	2.610		2	80	2.4	4	2	0	0	9	3	21
70550	CEDARDALE ROAD	2.610	4.690	at STATE ROUTE 534	2	07	3.5	6	2	2	0	6	3	22
70550	CEDARDALE ROAD	4.690	5.548	at EAST STACKPOLE ROAD	2	07	3.8	6	1	1	0	9	3	24

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
70550	CEDARDALE ROAD	5.548	5.769	at OLD HWY 99 SOUTH	2	07	4.8	6	0	0	0	9	3	23
42200	CHILBERG ROAD	0.000	0.943	at BEST ROAD	1	07	4.5	6	2	0	0	9	3	25
42200	CHILBERG ROAD	0.943	1.280	at CHILBERG LANE	1	07	4.5	6	1	0	0	9	3	24
42200	CHILBERG ROAD	1.280	2.378	0.34 mi. West of CHILBERG LANE	1	07	5.1	6	1	0	0	3	3	18
42200	CHILBERG ROAD	2.378	2.431	11 ft. East of LACONNER WHITNEY ROAD	1	07	5.1	6	0	14	0	3	3	31
63310	COLLINS ROAD	0.220	1.250	at STATE ROUTE 20	3	17	3.7	0	1	1	1	3	3	13
63310	COLLINS ROAD	1.250	1.770	at COOK ROAD	3	08	2.7	6	0	0	2	3	3	17
63310	COLLINS ROAD	1.770	2.750	84 ft. North of RATCHFORD ROAD	3	08	2.0	4	0	0	2	3	3	14
24000	COLONY ROAD	0.000	0.250	at STATE ROUTE 11	1	08	2.1	4	1	0	2	3	3	15
24000	COLONY ROAD	0.250	1.440	at LEGG ROAD	3	08	2.1	4	0	0	2	9	3	20
24000	COLONY ROAD	1.440	2.500	at KALLSTROM ROAD	3	08	2.7	4	0	1	2	9	9	28
24000	COLONY ROAD	2.500	2.810	306 ft. SW of DEERHAVEN LANE	3	08	2.7	4	1	0	2	9	3	21
24000	COLONY ROAD	2.810	4.968	42 ft. West of ERSHIG ROAD	3	08	2.3	4	0	3	2	9	6	27
24000	COLONY ROAD	4.968	5.780	63 ft. South of WOOD ROAD	3	08	2.3	4	0	4	2	9	3	25
24000	COLONY ROAD	5.780	6.170	0.31 mi, West of OVERPASS ROAD	1	08	2.5	4	0	0	0	9	6	21
24000	COLONY ROAD	6.170	6.330	417 ft. East of OVERPASS ROAD	3	08	2.5	4	0	0	2	6	3	17
24000	COLONY ROAD	6.330	6.750	0.24 mi, East of OVERPASS ROAD	3	08	2.5	4	0	0	2	3	6	17
08000	CONCRETE SAUK VALLEY ROAD	0.000	0.030	at STATE ROUTE 20	3	07	5.1	6	0	0	0	3	3	17
08000	CONCRETE SAUK VALLEY ROAD	0.030	0.999	158 ft. South of STATE ROUTE 20	3	07	4.7	6	0	0	1	6	3	21
08000	CONCRETE SAUK VALLEY ROAD	0.999	1.010	at SOUTH SKAGIT HWY	3	07	4.7	6	0	0	1	6	3	21
08000	CONCRETE SAUK VALLEY ROAD	1.010	1.131	58 ft. SE of SOUTH SKAGIT HWY	3	08	3.6	4	0	0	1	9	3	21
08000	CONCRETE SAUK VALLEY ROAD	1 131	2 1 3 0	0 13 mi SE of SOUTH SKAGIT HWY	3	08	3.6	4	0	1	1	9	3	22
08000	CONCRETE SAUK VALLEY ROAD	2 1 3 0	2 770	16 ft West of ARNOLD LANE	3	08	3.6	4	õ	1	1	6	3	19
08000	CONCRETE SAUK VALLEY ROAD	2 770	5 330	at CEDAR GROVE AVENUE	3	08	3.6	4	Õ	1	1	9	3	21
08000		5 330	7 070	1 14 mi West of HOOPER CREEK	3	08	3.6	4	Õ	0	1	9	3	21
08000		7 070	7 800	370 ft SE of SKAGIT RIDGE ROAD	3	08	3.6	4	0	1	1	9	3	22
08000		7 800	8 870	0.55 mi SE of COLONY LANE	3	08	3.6	4	0	0	1	6	3	18
08000		8 870	9 920	153 ft South of MILLER LANE	3	00	3.6	4	0	1	1	a	6	24
08000		9 920	13 220	164 ft East of FINNEY CREEK ROAD	3	00	3.6	-	0	0	1	9	6	24
08000		13 220	13 810	2 34 mi SE of HOPKINS HILL LANE	3	08	3.6	4	Ő	ů 0	1	9	3	21
08000		13 810	15.610	2.49 mi. North of SALIK RIVER PARK	3	08	3.6	4	Ő	ů 0	1	6	3	18
08000		15.650	16 810	0.65 mi. North of SAUK RIVER PARK	3	00	3.6	-	0	1	1	a	3	21
08000		16.810	16 904	211 ff NW of RIVER ACCESS	3	00	13	-	0	0	0	6	3	1/
80070		0.000	0 1 2 5		2	00	1.5	6	0	4	ñ	6	6	26
80070		0.000	1 920	0.13 mi South of OLD HWY 99 SOUTH	2	00	4.2 12	6	0	4 0	ñ	3	3	17
80070		1 020	2 610	53 ft North of DETED IOHNSON BOAD	2	00	4.2	6	0	2	0	3	3	24
80070		2 610	2.010	0.36 mi. North of KAYTONS SLOUGH	2	00		6	1	1	ñ	9	3	24
63000		0.000	0.440		1	00	4.1	6	0	1	1	3	2	24 10
63000		0.000	1 570	at AVON ALLEN ROAD at STATE POULTE 11	1	07	 / 8	6	0	0	0	3	3	17
63000		1 570	1.570	0.12 mi West of L5 SOUTHBOUND PAMPS	1	07	4.0	6	0	0	0	3	5	20
63000		1.570	1 800	264 ft West of L5 NORTHBOUND RAMPS	1	07	127	8	0	0	ñ	3	6	20
63000		1.7.50	1.000		1	07	12.7	0 8	1	7	0	3	3	30
63000		1.000	1.000		3	07	12.7	0 8	2	7 8	0	3	3	36
63000		1.000	3 080	at OED HWT 33 NORTH	3	07	12.3	0 8	1	1	0	3	2	20
63000		3 080	3.000	0.14 mi West of CAPDNEP POAD	3	07	12.3	0 8	0	1	0	3	2	20
63000		3 360	3 8 2 0	0.14 mi East of GADDNED POAD	3	07	14.0	8	0	0	0	3	3	20
63000		3.300	J.020	0.15 mi West of DISTRICT LINE POAD	3	07	11.0	0 8	0	1	0	3	2	20
63000		J.020	4.100	0.13 mi. West of DISTRICT LINE ROAD	3	07	11.0	0 8	0	0	0	3	2	21
63000		4.100	4.520	422 ft East of S.V. GRANGE HALL	3	07	11.0	0	0	2	0	2	2	20
63000		4.520	4.000	422 IL East of S.V. GRANGE HALL	3	07	11.0	0	1	2	0	2	2	20
63000		4.000 5 000	5.000	0.15 mi. Last of COLLING ROAD 0.26 mi. Wast of CI ENWOOD ACRES BOAD	3	07	11.3	o Q	1	0	0	2	3 2	21 07
63000		5.000	5.200		ວ າ	07	11.9	0	1 A	4	0	ა ი	ა ი	21
63000		J.20U	5.32U	al GLENWOOD AGRES ROAD	ა ი	07	11.9	0	1	1	0	ა ი	ა ი	20
03000		J.J∠U	5.39U	140 IL WESLUI ADRIAN LANE	ు	U/ 46	11.9	õ	1	U	0	3 2	5	21
63000		5.39U	5.51U	222 IL CASLUI AURIAN LANE 5 ft Woot of WINTED LANE	ა ი	10	11.9	0	0	0	0	ა ი	ა ი	20
26000		0.000	J.020		<u>э</u>	10	11.9	0	0	0	0	ა ი	ა ი	20
20200	D ARUT RUAD	0.000	1.260	al DAT VIEW-EDIOUN KUAD	1	υö	2.9	4	U	U	2	5	5	19

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dis	t FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
12710	DECEPTION ROAD	0.000	0.510	at STATE ROUTE 20	1	18	2.0	0	0	5	2	9	9	27
12710	DECEPTION ROAD	0.510	0.750	at CENTRAL AVENUE	1	18	2.3	0	0	0	2	9	6	19
80050	DIKE ROAD	0.000	0.120	at FIR ISLAND ROAD	2	08	2.0	0	0	0	2	6	6	16
80050	DIKE ROAD	0.120	3.480	0.12 mi. North of FIR ISLAND ROAD	2	08	2.0	0	0	1	2	9	3	17
80050	DIKE ROAD	3.480	3.840	0.15 mi. North of HICKOX ROAD	2	08	1.8	0	0	0	2	6	3	13
70020	EAST HICKOX ROAD	0.208	1.130	at CITY LIMITS	2	17	3.8	6	2	1	0	3	9	25
19600	EDENS ROAD	0.000	1.060	at SOUTH SHORE ROAD	1	08	1.5	0	1	0	2	3	3	11
19600	EDENS ROAD	1.060	2.080	69 ft. East of GUEMES ISLAND ROAD	1	08	1.6	0	0	0	2	3	3	10
19600	EDENS ROAD	2.080	2.200	at WEST SHORE DRIVE	1	07	1.6	0	0	0	2	3	3	10
23210	ERSHIG ROAD	0.000	0.090	at STATE ROUTE 11	1	07	2.6	4	1	0	3	3	3	16
23210	ERSHIG ROAD	0.090	0.310	475 ft. North of STATE ROUTE 11	1	07	2.6	4	1	0	2	3	3	15
23210	ERSHIG ROAD	0.310	1.270	0.31 mi. North of STATE ROUTE 11	1	07	2.6	4	0	0	2	3	3	15
23210	ERSHIG ROAD	1.270	1.440	42 ft. North of WORLINE ROAD	1	07	2.8	4	0	0	0	3	3	13
23210	ERSHIG ROAD	1.440	1.532	48 ft. North of BNRR	1	07	2.8	4	2	0	0	3	3	14
23210	ERSHIG ROAD	1.532	1.540	153 ft. North of ALLEN ROAD	1	07	2.8	4	1	0	0	3	3	13
23210	ERSHIG ROAD	1.540	2.780	195 ft. North of ALLEN ROAD	1	07	2.8	4	0	3	0	3	6	19
23210	ERSHIG ROAD	2,780	2.910	0.15 mi. South of BOW HILL ROAD	1	07	2.6	4	0	0	0	3	3	13
23210	ERSHIG ROAD	2.910	2.940	121 ft. South of BOW HILL ROAD	1	07	2.6	4	0	0	0	3	3	13
23210	ERSHIG ROAD	2.940	3.930	37 ft. North of BOW HILL ROAD	1	08	2.7	4	0	0	2	3	3	15
62500	F & S GRADE ROAD	0.000	0.140	at PRAIRIE ROAD	3	07	2.5	4	0	0	2	9	3	21
62500	F & S GRADE ROAD	0.140	2.830	0.14 mi. SE of PRAIRIE ROAD	3	07	2.5	4	0	1	2	9	3	21
62500	F & S GRADE ROAD	2 830	3 450	0.26 mi NW of AVALON HEIGHTS WAY	3	07	28	4	0	2	2	6	3	20
62500	F & S GRADE ROAD	3 450	3 500	42 ft SE of KELLEHER ROAD	3	07	2.0	4	1	0	2	3	3	15
62500	F & S GRADE ROAD	3 500	4 870	106 ft SE of COLLINS ROAD	3	07	3.6	6	0	1	2	3	3	18
62500	F & S GRADE ROAD	4 870	4 946	at BEGIN LIRBAN	3	16	3.6	6	Õ	0	2	3	3	18
31010	FARM TO MARKET ROAD	0 104	0 270	at STATE TURN BACK LINE	0 1	06	6.6	6	1	Ő	0	3	3	20
31010	FARM TO MARKET ROAD	0.104	0.530	at END ACCI FRATION I ANE	1	06	6.6	6	1	Ő	0	3	3	19
31010		0.530	0.000		1	00	6.6	6	2	ů 0	ů 0	3	6	23
31010		0.000	0.779	100 ft South of OVENELL ROAD	1	00	5.7	6	2	Ő	ñ	3	3	20
31010	FARM TO MARKET ROAD	0 789	0.700		1	06	57	6	2	3	Õ	3	3	22
31010	FARM TO MARKET ROAD	0.700	1 373	0.11 mi South of SARGENT PLACE	1	06	57	6	ō	1	2	3	3	20
31010	FARM TO MARKET ROAD	1 373	1 878	0.30 mi North of SARGENT PLACE	1	06	57	6	Õ	0	2	3	3	20
31010	FARM TO MARKET ROAD	1 878	2 053	343 ft North of BAY VIEW ROAD	1	06	57	6	Ő	Ő	2	3	3	20
31010	FARM TO MARKET ROAD	2 053	2 704	480 ft South of MALLORFELANE	1	06	57	6	Õ	0	2	3	3	20
31010	FARM TO MARKET ROAD	2 704	2 805	0 10 mi. South of JOSH WILSON ROAD	1	06	57	6	Ő	0	0	3	3	18
31010	FARM TO MARKET ROAD	2 805	2 892	at JOSH WILSON ROAD	1	07	47	6	Õ	25	2	3	3	44
31010	FARM TO MARKET ROAD	2.892	3.145	459 ft. North of JOSH WILSON ROAD	1	07	4.7	6	Õ	0	2	3	3	19
31010	FARM TO MARKET ROAD	3 145	3 653	0 16 mi South of RECTOR ROAD	1	07	47	6	õ	0	2	3	3	19
31010	FARM TO MARKET ROAD	3 653	3 665	0.35 mi North of RECTOR ROAD	1	07	47	6	0	0	2	3	6	22
31010	FARM TO MARKET ROAD	3 665	3 670	0.36 mi North of RECTOR ROAD	1	07	47	6	Õ	0	2	3	6	22
31010	FARM TO MARKET ROAD	3.670	4.318	0.36 mi. North of RECTOR ROAD	1	07	4.7	6	0	1	2	3	9	25
31010	FARM TO MARKET ROAD	4 318	4 667	at HILL WOOD DRIVE	1	07	3.8	6	Ő	0	1	3	9 9	23
31010	FARM TO MARKET ROAD	4 667	5 170	0.16 mi. South of ALLEN WEST ROAD	1	07	41	6	Õ	0	1	3	3	17
31010	FARM TO MARKET ROAD	5.170	5.663	491 ft. North of D'ARCY ROAD	1	07	4.4	6	Õ	0	1	3	3	17
31010	FARM TO MARKET ROAD	5.663	5.900	0.18 mi. South of BOE ROAD	1	07	3.5	4	0	3	1	3	3	18
31010	FARM TO MARKET ROAD	5.900	6.163	317 ft. North of BOE ROAD	1	07	3.5	4	0	3	0	3	3	16
31010	FARM TO MARKET ROAD	6,163	7.796	385 ft. North of FIELD ROAD	1	07	3.4	4	0	1	2	3	3	17
31010	FARM TO MARKET ROAD	7.796	7.860	0.11 mi. North of BGN BRIDGE (#40026)	1	07	3.9	4	0	0	2	3	3	16
31010	FARM TO MARKET ROAD	7.860	7.963	0.12 mi. West of CAIN'S COURT	1	07	3.9	4	1	0	2	9	3	23
31010	FARM TO MARKET ROAD	7.963	7.980	90 ft. West of CAIN'S COURT	1	07	3.9	4	1	0	0	9	3	21
40200	FIR ISLAND ROAD	0.000	0.410	at PIONEER HIGHWAY	2	07	7.7	6	1	0	0	6	3	24
40200	FIR ISLAND ROAD	0 410	0.580	0.11 mi. West of DIKE ROAD	- 2	07	6.8	6	0	0	0	3	3	19
40200	FIR ISLAND ROAD	0 580	0.640	317 ft. East of MANN ROAD	- 2	07	6.8	6	0	3	0	3	3	22
40200	FIR ISLAND ROAD	0.640	0.873	at MANN ROAD	- 2	07	6.5	6	1	- 1	0	3	3	20
40200	FIR ISLAND ROAD	0.873	2.300	0.23 mi. West of MANN ROAD	2	07	6.5	6	0	0	0	3	3	19
40200	FIR ISLAND ROAD	2.300	3.790	at DRY SLOUGH ROAD	- 2	07	6.8	6	1	0	0	9	3	26
					-	••		-	-	-	-	-	-	

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
40200	FIR ISLAND ROAD	3.790	3.961	at MAUPIN ROAD	2	07	6.6	6	1	1	0	9	3	27
40200	FIR ISLAND ROAD	3.961	4.860	0.17 mi. North of MAUPIN ROAD	2	07	6.6	6	1	1	0	9	3	26
40200	FIR ISLAND ROAD	4.860	5.150	at RAWLINS ROAD	2	07	6.6	6	1	1	0	9	6	30
79000	FRANCIS ROAD	1.484	1.670	at MT VERNON CITY LIMITS	2	17	7.9	6	0	1	1	9	6	31
79000	FRANCIS ROAD	1.670	1.761	396 ft. North of ERIKA LANE	2	17	7.1	6	0	2	1	3	6	25
79000	FRANCIS ROAD	1.761	1.770	at LINDEGREN ROAD	2	07	7.1	6	0	0	1	3	6	23
79000	FRANCIS ROAD	1.770	2.410	48 ft. North of LINDEGREN ROAD	2	07	7.1	6	0	0	1	9	3	26
79000	FRANCIS ROAD	2.410	2.610	317 ft. West of THILLBERG ROAD	2	07	7.1	6	0	1	0	9	3	26
79000	FRANCIS ROAD	2.610	2.820	0.14 mi, North of THILLBERG ROAD	3	07	7.1	6	1	1	0	9	3	27
79000	FRANCIS ROAD	2.820	2.920	0.35 mi. North of THILLBERG ROAD	3	07	7.1	6	1	0	1	3	3	21
79000	FRANCIS ROAD	2 920	3 794	0.45 mi North of THILL BERG ROAD	3	07	71	6	0	2	1	9	3	29
79000	FRANCIS ROAD	3 794	5 052	0.15 mi SE of FRANCIS LANE	3	07	71	6	Õ	0	0	3	3	20
79000	FRANCIS ROAD	5 052	5 675	0.23 mi NE of DEBAY'S ISI E ROAD	3	07	7.0	6	2	Õ	1	9	3	28
91110		0.000	0.880	at RIVER ROAD	3	07	1.8	0 0	0	Õ	1	3	6	12
91110		0.000 n qqn	1 770		3	17	1.0	0	0	1	2	3	3	12
63110		0.550	0.850		3	08	3.4	0	0	1	1	3	3	12
63110		0.000	1 010	0.16 mi North of DETED ANDEDSON DOAD	3	00	3.4	0	0	0	1	3	2	14
63110		1 010	1 740		3	17	24	0	0	2	1	2	2	12
62110		1.010	1.740	at STATE DOUTE 20	3	16	J.4 4 0	0	0	2	1	3	່ ວ	10
42640		0.000	0.440	al STATE ROUTE 20	3 1	10	4.5	0	4	0	ו ס	о О	ວ ວ	12
13010		0.000	0.110	al STATE ROUTE 20 0.44 mil SE of STATE DOUTE 20	1	00	4.3	0	1	0	2	3	с С	19
13010		0.110	0.230		1	00	4.3	0	0	0	2	3 0	0	15
13610		0.230	1.25/	at SATTERLEE ROAD	1	00	4.3	0	0	0	2	9	6	22
13610		1.257	1.840		1	00	4.3	0	0	1	2	9	6	22
13610		1.840	2.240		1	80	2.3	U	U	9	0	6	6	23
13610		2.240	2.370		1	80	2.3	0	U	0	2	6	6	16
13610	GIBRALTER ROAD	2.370	3.060		1	18	2.3	0	0	3	2	9	6	22
96400		0.950	1.020	370 ft. West of CONCRETE CITY LIMITS	3	80	1.8	0	U	0	3	9	3	17
66000	GRIP ROAD	0.000	0.090	at PRAIRIE ROAD	3	80	2.6	0	0	15	2	3	3	26
66000	GRIP ROAD	0.090	2.830	475 ft. SE of PRAIRIE ROAD	3	08	2.5	0	0	2	2	9	6	21
66000	GRIP ROAD	2.830	3.470	at HOOGDAL ROAD	3	08	2.8	0	0	2	2	9	6	22
18410	GUEMES ISLAND ROAD	0.000	0.010	at ANACORTES / GUEMES FERRY LANDINGS	1	07	2.4	0	0	0	0	3	3	8
18410	GUEMES ISLAND ROAD	0.010	0.210	at SOUTH SHORE ROAD	1	07	2.4	0	0	0	0	3	6	11
18410	GUEMES ISLAND ROAD	0.210	1.500	238 ft. South of PHEASANT RUN LANE	1	07	2.3	0	0	1	2	3	6	15
18410	GUEMES ISLAND ROAD	1.500	3.770	at EDENS ROAD	1	07	1.7	0	0	0	2	6	6	16
06000	GUNDERSON ROAD	0.000	1.020	at STATE ROUTE 9	3	08	2.6	0	1	0	0	9	9	21
06000	GUNDERSON ROAD	1.020	1.530	0.12 mi. East of F. STEVENS ROAD	3	08	2.6	0	0	3	0	9	6	20
06000	GUNDERSON ROAD	1.530	2.440	0.39 mi. South of OLD GUNDERSON ROAD	2	08	2.6	0	0	0	0	9	6	18
06000	GUNDERSON ROAD	2.440	4.308	111 ft. North of OTTER POND DRIVE	2	08	1.4	0	0	5	0	9	6	22
10910	HAVEKOST ROAD	0.000	0.119	at MARINE DRIVE	1	07	7.2	6	0	2	0	6	6	27
10910	HAVEKOST ROAD	0.119	1.410	121 ft. NE of HAVEKOST LANE	1	07	6.5	4	0	1	0	6	6	23
11210	HEART LAKE ROAD	0.000	0.431	at ROSARIO ROAD	1	08	3.0	0	0	0	2	6	6	17
95510	HELMICK ROAD	0.000	0.600	at STATE ROUTE 20	3	17	3.1	0	3	3	0	3	3	15
95510	HELMICK ROAD	0.600	0.872	at FFC CHANGE FROM 17 TO 18	3	18	3.1	0	3	4	0	3	3	15
95510	HELMICK ROAD	0.872	1.098	5 ft. NE of ALPINE LANE	3	18	2.4	0	2	7	0	3	3	17
95510	HELMICK ROAD	1.098	1.126	at BGN RED CREEK BRIDGE	3	18	2.4	0	2	0	0	3	3	10
95510	HELMICK ROAD	1.126	1.283	at END RED CREEK BRIDGE	3	18	2.4	0	3	0	0	3	3	11
70000	HICKOX ROAD	0.000	0.852	at DIKE ROAD	2	08	0.7	0	0	0	2	3	3	9
31150	HIGGINS AIRPORT WAY	0.000	0.015	at STATE ROUTE 20	1	16	4.2	6	1	0	0	3	3	18
31150	HIGGINS AIRPORT WAY	0.015	0.500	at BNRR	1	16	4.2	6	0	0	0	3	3	17
31150	HIGGINS AIRPORT WAY	0.500	1.610	at OVENELL ROAD	1	16	4.1	6	0	1	0	9	3	23
33000	JOSH WILSON ROAD	0.000	0.850	at STATE ROUTE 11	1	06	6.9	6	2	3	1	3	3	24
33000	JOSH WILSON ROAD	0.850	1.830	at PULVER ROAD	1	06	6.9	6	1	0	0	3	3	20
33000	JOSH WILSON ROAD	1.830	2.880	at AVON ALLEN ROAD	1	06	6.9	6	5	0	0	3	3	24
33000	JOSH WILSON ROAD	2.880	3.860	37 ft. East of JENSEN LANE	1	06	6.9	6	1	1	1	3	3	22
33000	JOSH WILSON ROAD	3.860	4.880	63 ft. West of HIGGINS AIRPORT WAY	1	06	5.9	6	0	1	1	3	3	20
33000	JOSH WILSON ROAD	4.880	5.510	42 ft. West of FARM TO MARKET ROAD	1	07	3.3	4	0	0	0	6	3	16

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
33000	JOSH WILSON ROAD	5.510	5.770	53 ft. West of CRESTVIEW DRIVE	1	07	3.3	4	0	0	2	6	3	18
33000	JOSH WILSON ROAD	5.770	5.780	11 ft. East of RECTOR ROAD	1	07	3.3	4	0	0	2	3	3	15
33000	JOSH WILSON ROAD	5.780	6.420	42 ft. West of RECTOR ROAD	1	07	2.4	4	0	3	2	3	3	17
33000	JOSH WILSON ROAD	6.420	6.470	at SECOND STREET (BAY VIEW)	1	07	2.4	4	1	0	2	3	3	15
91140	KALLOCH ROAD	0.000	0.170	at STATE ROUTE 9	3	07	0.4	0	0	0	2	3	3	8
63400	KELLEHER ROAD	0.000	0.020	at OLD HWY 99 NORTH	3	08	2.7	6	0	0	0	9	3	21
63400	KELLEHER ROAD	0.020	1.800	106 ft. SE of OLD HWY 99 NORTH	3	08	2.9	6	0	1	0	9	3	21
63400	KELLEHER ROAD	1.800	2.060	0.43 mi. West of BUTLER PIT	3	08	2.1	6	0	16	0	9	3	36
63400	KELLEHER ROAD	2.060	2.710	0.58 mi. West of DISTRICT LINE ROAD	3	08	2.1	6	0	0	0	3	3	14
63400	KELLEHER ROAD	2.710	3.070	370 ft. East of DISTRICT LINE ROAD	3	08	2.5	6	0	0	0	3	3	15
63400	KELLEHER ROAD	3.070	3.137	354 ft. West of F & S GRADE ROAD	3	08	2.5	6	0	22	0	3	3	36
42410	LACONNER WHITNEY ROAD	0.000	0.980	at STATE ROUTE 20	1	07	6.8	6	1	1	0	3	3	21
42410	LACONNER WHITNEY ROAD	0.980	1.573	0.63 mi. South of YOUNG ROAD	1	07	6.8	6	1	0	0	6	3	23
42410	LACONNER WHITNEY ROAD	1.573	2.190	0.28 mi. North of MCLEAN ROAD	1	07	7.1	6	1	1	0	6	3	24
42410		2 190	3 866	0.34 mi. South of MCLEAN ROAD	1	07	71	6	0	0	0	3	3	19
42410		3 866	4 030	0 15 mi NE of CHILBERG BOAD	1	07	71	6	0	1	Ő	3	3	20
00200		0.000	1 800	at STATE ROUTE 9	2	08	2.5	Ő	1	2	Ô	9	6	20
00200		1 800	3 599	0.75 mi SE of CAVANAUGH COURT	2	08	2.5	ů 0	0	0	1	9	6	19
00200		3 599	1 850		2	00	2.0	0	ñ	2	1	9 Q	6	20
00200		4 850	5 100	264 ft East of HOLMGREN HILLS	2	08	2.2	ñ	ñ	15	0	6	6	20
00200		5 100	7 270	0.30 mi East of HOLMGREN HILLS	2	00	2.2	0	0	3	1	a a	2	23 18
00200		7 270	7 4 4 0	42 ft Wost of CAMP 7 POAD	2	00	2.2	0	2	0	4	5	3	10
00200		7.270	10 227	42 II. West of CAMP 7 ROAD 10.000	2	00	2.2	0	2 1	1	1	0	5	20
25610		7.440	0 220		2	00	Z.Z 7 /	6	0	1	0	9	2	20
25010		0.000	0.230	121 ft Woot of AZUDE WAY	3 2	07	7.4	6	0	1	0	9 E	ວ າ	20
25010		0.230	0.400	AT COLONY BOAD	с 2	07	7.7	6	0	1	0	6	ວ າ	24
25010		0.460	0.000		3	07	7.9	C C	0	1	0	o c	ა ი	24
25010		0.800	0.090	330 IL SE OI SOUTH FREEWAY ACCESS	3	00	7.9	0	0	2	4	0	3	25
25610		0.890	1.280		3	80	2.8	0	0	U	1	9	3	16
25610		1.280	1.390		3	00	2.2	0	0	0	4	3	0	13
25610		1.390	1.840	116 π. NORTH OF ULD LAKE SAMISH RUAD	3	80	2.2	0	0	U	1	9	6	18
25610		1.840	2.540		3	80	2.2	0	U	U	1	9	6	18
25610		2.540	2.740		3	80	2.2	0	0	0	2	6	3	13
72000		0.000	0.387	at WEST BIG LAKE BOULEVARD	2	17	3.5	4	3	2	0	9	9	31
72000		0.387	0.450		2	07	3.5	4	4	12	0	9	9	42
72000		0.450	2.600	26 ft. NE Of AMICK ROAD	2	07	3.9	4	1	2	0	9	6	25
72000	LITTLE MOUNTAIN ROAD	3.100	3.240	at MOUNT VERNON CITY LIMITS	2	16	3.9	6	2	0	0	3	3	18
72000		3.240	3.310	370 ft. South of LITTLE MOUNTAIN PARK	2	16	3.9	6	1	0	0	6	6	22
72000		3.310	3.581		2	16	3.9	6	1	2	0	9	6	28
94020	LYMAN HAMILTON HWY	0.000	0.020	at STATE ROUTE 20	3	80	1.4	0	3	0	0	3	3	10
94020		0.020	0.120	at CAPE HORN ROAD	3	80	1.4	0	3	25	0	9	3	41
94020		0.120	0.980	0.10 mi. West of CAPE HORN ROAD	3	80	1.4	0	0	0	0	3	3	8
94020	LYMAN HAMILTON HWY	1.790	2.700	at HAMILTON CITY LIMITS	3	08	1.4	0	0	0	1	6	3	12
94020	LYMAN HAMILTON HWY	2.700	4.430	at COCKREHAM ISLAND ROAD	3	08	1.6	0	0	2	1	9	3	17
94020	LYMAN HAMILTON HWY	5.390	6.910	at LYMAN CITY LIMITS	3	08	2.3	0	2	2	1	9	3	19
20020	MACTAGGART AVENUE	0.000	0.137	at CAIN'S COURT	1	07	4.1	0	1	0	1	9	3	18
16610	MARCH'S POINT ROAD	0.983	2.060	at CITY OF ANACORTES	1	16	3.2	6	0	0	0	3	3	15
16610	MARCH'S POINT ROAD	2.060	2.130	401 ft. SW of TESORO OIL MAIN ENTRANCE	1	16	3.4	6	0	0	0	3	3	15
16610	MARCH'S POINT ROAD	2.130	2.150	32 ft. SW of TESORO OIL MAIN ENTRANCE	1	16	1.4	4	0	0	0	3	3	11
16610	MARCH'S POINT ROAD	2.150	3.270	74 ft. NE of TESORO OIL MAIN ENTRANCE	1	16	1.4	4	0	0	2	3	3	13
16610	MARCH'S POINT ROAD	3.270	3.500	at PUBLIC BOAT LAUNCH	1	16	0.9	4	0	0	2	3	3	13
16610	MARCH'S POINT ROAD	3.500	4.940	0.23 mi. South of PUBLIC BOAT LAUNCH	1	16	1.7	4	2	2	2	3	3	18
16610	MARCH'S POINT ROAD	4.940	5.760	26 ft. South of NORTH TEXAS ROAD	1	16	2.4	4	0	2	2	3	3	16
10610	MARINE DRIVE	0.000	1.080	at ROSARIO ROAD	1	17	6.9	6	0	0	1	9	6	29
10610	MARINE DRIVE	1.080	1.100	317 ft. NW of HAVEKOST ROAD	1	17	5.4	6	0	0	0	3	3	17
10610	MARINE DRIVE	1.100	1.190	422 ft. NW of HAVEKOST ROAD	1	17	5.4	4	0	3	0	3	6	22
10610	MARINE DRIVE	1.190	1.310	0.14 mi. South of MARINE VIEW LANE	1	18	5.4	4	0	0	0	3	6	18

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
10610	MARINE DRIVE	1.310	1.760	127 ft. South of MARINE VIEW LANE	1	18	4.8	4	0	2	0	6	6	23
10610	MARINE DRIVE	1.760	2.100	0.11 mi. NW of ESTHER LANE	1	18	4.7	6	0	0	0	9	6	26
10610	MARINE DRIVE	2.100	2.160	63 ft. NW of PEACE CLIFF LANE	1	18	4.7	6	0	7	0	6	6	30
10610	MARINE DRIVE	2.160	2.510	201 ft. South of MARINE LANE	1	18	4.7	6	0	1	0	9	9	30
10650	MARINE WYE DRIVE	0.000	0.170	at ROSARIO ROAD	1	18	3.1	6	0	0	1	3	3	16
44000	MCLEAN ROAD	0.000	0.290	at LACONNER WHITNEY ROAD	1	07	5.7	6	0	0	0	3	3	18
44000	MCLEAN ROAD	0.290	1.260	0.29 mi. East of LACONNER WHITNEY ROAD	1	07	5.9	6	0	1	0	3	3	19
44000	MCLEAN ROAD	1.260	1.640	at BEST ROAD	1	07	5.9	6	0	0	0	3	3	18
44000	MCLEAN ROAD	1.640	2.740	0.13 mi. West of VAN PELT LANE	1	07	5.9	6	0	1	0	3	3	19
44000	MCLEAN ROAD	2.740	3.156	0.20 mi, East of PRODUCE LANE	1	07	6.3	6	0	2	0	3	3	20
44000	MCLEAN ROAD	3 156	3 250	444 ft West of BEAVER MARSH ROAD	1	07	64	6	0	7	0	3	3	26
44000	MCLEAN ROAD	3 250	3 460	53 ft East of BEAVER MARSH ROAD	1	07	67	6	Ő	2	Õ	3	3	21
44000	MCLEAN ROAD	3 460	4 260	0 13 mi East of GINTHNER DRIVE	2	07	7.0	6	Ő	2	Ő	3	3	21
44000		1 260	1 862		2	06	6.4	6	0	1	0	3	3	10
44000		4.200	4.002		2	00	6.4	6	0	12	0	3	3	21
44000		4.002	4.000	of DENNI DOAD	2	00	0.4	6	0	12	0	ა ა	ა 2	31 40
44000		4.000	4.940	al PENN RUAD	2	40	0.4	0	0	0	0	Э	ა ი	10
44000		4.948	5.470		2	10	6.4 0.0	0	0	2	0	3	3	20
80260		0.000	1.160		2	80	2.0	U	0	2	2	3	6	15
80260		1.160	1.210		2	80	2.9	0	0	0	0	6	6	15
80260	MILLTOWN ROAD	1.210	1.550	401 ft. West of BONNIE VIEW ROAD	2	80	2.9	0	0	0	0	3	3	9
80260	MILLTOWN ROAD	1.550	1.690	0.10 mi. East of INTERSTATE 5 RAMP	2	80	3.3	0	2	0	0	3	3	11
93500	MINKLER ROAD	0.000	0.240	at FRUITDALE ROAD	3	17	4.8	6	0	0	0	3	3	17
93500	MINKLER ROAD	0.240	0.340	211 ft. SW of CHASE ROAD	3	17	4.3	6	0	0	0	3	3	16
93500	MINKLER ROAD	0.340	1.100	at HANSEN CREEK	3	08	4.3	6	0	4	0	3	3	20
93500	MINKLER ROAD	1.100	2.640	at BURMASTER ROAD	3	08	3.4	4	0	4	0	6	3	21
93500	MINKLER ROAD	2.640	3.650	0.24 mi. West of SIMS ROAD	3	08	3.4	4	1	4	0	6	3	21
93500	MINKLER ROAD	3.650	4.550	53 ft. East of HOEHN ROAD	3	08	3.3	0	0	7	0	9	3	22
40800	MOORE ROAD	0.000	0.021	at BEST ROAD	2	08	1.5	0	0	0	1	3	6	12
40800	MOORE ROAD	0.021	0.106	111 ft. NE of BEST ROAD	2	08	1.5	0	0	0	1	9	3	15
40800	MOORE ROAD	0.106	0.337	at BEGIN CONCRETE	2	08	1.5	0	5	0	0	9	3	18
40800	MOORE ROAD	0.337	0.360	at END CONCRETE	2	08	1.5	0	0	25	0	9	3	39
40800	MOORE ROAD	0.360	0.860	121 ft. NE of END CONCRETE	2	08	1.5	0	0	0	2	9	3	16
40800	MOORE ROAD	0.860	2.200	at POLSON ROAD	2	08	0.9	0	0	0	2	9	3	15
40800	MOORE ROAD	2.200	2.970	at DRY SLOUGH ROAD	2	08	1.1	0	0	0	2	3	3	9
65000	MOSIER ROAD	0.350	0.445	26 ft. East of STATE ROUTE 9	3	08	2.4	0	2	0	2	3	3	12
65000	MOSIER ROAD	0.445	1.390	290 ft. East of WOODBURY LANE	3	08	2.4	0	1	2	2	3	3	13
76000	MOUNT VERNON BIG LAKE ROAD	0.000	0.313	at STATE ROUTE 9	2	17	4.2	4	0	0	1	9	9	27
76000	MOUNT VERNON BIG LAKE ROAD	0.313	0.730	0.19 mi. NW of MOUNTAIN VIEW ROAD	2	17	4.2	4	0	5	1	3	3	20
91050	NORTH FRUITDALE ROAD	2.650	3.330	at KALLOCH ROAD	3	07	1.8	0	0	4	2	9	3	20
01000	NORTH SHORE DRIVE	0.000	1.440	at LAKE CAVANAUGH ROAD	2	08	1.4	0	0	6	2	6	3	19
01000	NORTH SHORE DRIVE	1.440	2.040	0.35 mi, SE of BAMBOO LANE	2	08	1.4	0	0	0	2	6	3	13
01000	NORTH SHORE DRIVE	2.040	2.430	0.95 mi. SE of BAMBOO LANE	2	08	1.4	0	1	0	4	6	3	16
01000	NORTH SHORE DRIVE	2 4 3 0	4 280	0.80 mi NW of PHIPPS DRIVE	2	08	21	0	1	0	4	6	3	16
17800	NORTH TEXAS ROAD	0.000	1 420	at MARCH'S POINT ROAD	- 1	17	0.9	4	0	0	2	3	3	13
06700		0.000	1 803		3	08	1 2	0	0	11	2	6	6	26
06700		1 803	2 823		3	00	1.2	0	0	0	2	9	6	18
06700		1.000	2.023		3	00	1.Z	0	0	0	2	9	6	10
06700		2.023	2.000		3	00	2.4	0	0	2	2	C C	C C	19
06700		3.300	5.500		ა ი	00	4.1	0	0	0	2	0	0	10
06700		3.900	5.053		ა ი	00	4.1	0	0	3	2	9	9	21
06700		5.053	5.2/8		3	80	4.1	0	U	2	2	3	6	18
06700		5.278	5.780		3	80	4.1	U	U	2	2	3	3	14
50510	OLD HWY 99 NORTH	0.660	1.423	at BURLINGTON CITY LIMITS	3	07	6.8	6	2	0	0	6	3	23
50510	OLD HWY 99 NORTH	1.423	1.690	0.27 ml. South of COOK ROAD	3	07	6.8	6	1	12	0	6	3	35
50510	OLD HWY 99 NORTH	1.690	1.870	at COOK ROAD	3	07	6.6	6	0	1	0	3	6	23
50510	OLD HWY 99 NORTH	1.870	2.095	0.18 mi. North of COOK ROAD	3	07	6.6	6	0	0	0	3	6	22
50510	OLD HWY 99 NORTH	2.095	2.228	0.12 mi. South of DAHLSTEDT ROAD	3	07	6.6	6	0	3	0	3	3	22
50510	OLD HWY 99 NORTH	2.228	2.680	84 ft. North of DAHLSTEDT ROAD	3	07	6.6	6	0	0	0	3	3	19

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
50510	OLD HWY 99 NORTH	2.680	3.280	0.47 mi. North of DAHLSTEDT ROAD	3	07	6.6	6	3	0	0	6	3	24
50510	OLD HWY 99 NORTH	3.280	4.350	127 ft. North of BUTLER HILL ROAD	3	07	5.8	6	2	1	0	6	3	24
50510	OLD HWY 99 NORTH	4.350	5.270	0.13 mi. North of STEELHEAD LANE	3	07	5.8	6	4	3	0	3	3	25
50510	OLD HWY 99 NORTH	5.270	7.890	69 ft. North of BOW HILL ROAD	3	07	5.1	6	3	2	0	6	6	27
50510	OLD HWY 99 NORTH	7.890	9.170	143 ft. North of PARSON CREEK ROAD	3	07	4.6	6	3	1	0	6	6	26
50510	OLD HWY 99 NORTH	9.170	9.850	0.26 mi, NW of MINNIE ROAD	3	07	4.0	6	1	4	0	6	6	27
50510	OLD HWY 99 NORTH	9.850	10.269	148 ft. NW of LAKE SAMISH ROAD	3	07	3.0	4	2	0	2	6	6	23
50510	OLD HWY 99 NORTH	10.269	11.280	0.21 mi, NW of SILVER RUN LANE	3	07	3.0	4	4	0	2	6	6	25
50510	OLD HWY 99 NORTH	11.280	11.770	0.31 mi. South of SQUIRES PARK INGRESS	3	07	3.0	4	2	2	2	6	3	22
70210	OLD HWY 99 SOUTH	0.000	0.150	at CEDARDALE ROAD	2	07	3.8	4	6	0	0	3	6	23
70210	OLD HWY 99 SOUTH	0.150	0.352	at I-5	2	17	3.8	4	0	0	0	9	6	23
31500	OVENELL ROAD	0.000	0.310	at AVON ALLEN ROAD	1	16	3.3	0	1	0	0	9	3	16
31500	OVENELL ROAD	0.310	0.330	0.10 mi. West of HONEY LANE	1	16	3.3	0	3	0	1	3	3	13
31500	OVENELL ROAD	0.330	0.650	502 ft. East of EAGLE DRIVE	1	16	3.3	0	1	0	2	9	3	18
31500		0 650	1 720	0 16 mi West of NORTH OVENELL LANE	1	16	17	0	1	3	2	9	3	19
31500		1 720	3 050	370 ft West of HIGGINS AIRPORT WAY	1	16	3.5	6	1	1	0	3	6	20
52000	PARSON CREEK ROAD	0 000	0.000	at PRAIRIE ROAD	3	08	29	Ő	0	0	1	3	3	10
52000	PARSON CREEK ROAD	0 220	0.330	0.22 mi NW of PRAIRIE ROAD	3	08	29	Ő	0	0	1	6	3	13
52000	PARSON CREEK ROAD	0.220	0.000	0.22 mi. NV OF RAINE ROAD	3	08	2.0	Ő	1	2	1	6	6	18
52000	PARSON CREEK ROAD	0.000	1 610	42 ft East of SKAARIJP ROAD	3	08	39	ů ů	0	1	1	3	6	15
52000	PARSON CREEK ROAD	1 610	1 890	63 ft West of BITLER CREEK ROAD	3	08	39	ů n	0	0	1	6	6	17
52000		1 890	1 950	312 ft East of OLD HWY 99 NORTH	3	00	30	0	1	0	2	6	6	18
J5810		0.000	0 470	at MCI EAN ROAD	2	07	2.5	0	0	3	2	3	3	13
45810		0.000	1 570		2	07	2.0	0	0	1	2	9	3	18
32400		0.470	0.180		1	16	2.0 1.5	6	1	3	4	5	3	24
32400		0.000	1 1 2 0	350 ft East of WESTAD ANE	1	16	4.5	6	0	5	ו 2	2	3	24 10
32400		1 1 2 0	1.130	185 ft Wast of RAVHILL DRIVE	1	10	4.5	6	2	0	2	2	Э	20
32400		1.150	1.001	AVON ALLEN BOAD	1	10	5.0	6	~	1	0	3 2	ວ າ	20
32400		1 910	2 159	at AVON ALLEN ROAD	1	16	0.4 6 /	6	4	0	0	2	2	24
32400		2 458	2.400		1	16	6.4	6	0	3	0	3	2	24
32400		2.450	2.020	201 ft East of COUNTRY LANE	3	10	0.4	6	0	5	0	2	ວ າ	2 I 10
90000		2.020	2.340		3	07	0.3	6	2	0	0	3 2	ວ າ	10
80090		0.000	0.005		2	07	9.7	6	4	1	0	3 2	ວ ວ	23
80090		0.003	1.410	al MILLIOWN ROAD	2	07	9.0 0.0	6	ו 2	1	0	ວ ວ	ວ ວ	24
80090		1.410	2.065	0.34 mil. North of MILLTOWN ROAD	2	07	9.0 0.7	6	4	1	0	5	ວ າ	24
80090		1./40	3.005		2	07	9.1 11 1	6	1	1 2	0	6	ວ າ	20
60090		3.005	3.009	at PESEDVATION BOAD	2	07	F C	0	0	3	0	2	ა ი	29
42000		0.000	0.020	al RESERVATION ROAD	1	07	5.0 5.6	0	0	0	0	ა ა	с С	12
42000		0.020	0.220	100 IL SOUTH OF RESERVATION ROAD	1	07	5.0 7.0	0	0	6	0	с С	o c	21
42000		0.220	0.370	11 II. SOULI OF SHELLER DAT DRIVE	1	07	7.2	0	0	1	0	2	0	20
42000		0.370	0.520	20 II. NOILII OI BGN RAINDOW BRIDGE (#40033)	1	07	7.0	0	0	1	0	5 6	S C	10
42000		0.030	0.050	at CLD LIMY OR NORTH	1 2	07	7.0	C C	4	0	0	2	0	19
50000		0.000	1 000	at OLD HWT 55 NORTH	3	07	5.5 E 2	6	1	2	2	О	ວ າ	22
50000		4 900	1.030	of E & C CRADE BOAD	3	07	5.5	6	0	2	2	9	S C	21
50000		1.090	2.500	ALF & S GRADE RUAD	ు	00	4.0	o c	0	ა 2	2	9	0	31
50000		2.500	4.120	0.30 mil. NE OF GRIF ROAD	3	00	4.0	0	4	3	2	9	ა ი	27
50000		4.120	4.390		3	00	4.1	4	ו 2	4	2	9	ວ ວ	21
50000		4.390	4.450	53 II. NE OF PARSON CREEK ROAD	ు	00	4.2	o c	2	9	2	9	3 C	35 07
50000		4.450	0.750		ు	00	4.2	0	0	2	4	9	0	21
50000		0.750	0.990	0.22 IIII. SW OI UPPER SAMISH ROAD	ు	00	3.0 2.0	0	0	11	1	9	0	37
50000		0.990	7.280	100 IT. East of UPPER SAMISH RUAD	3	00	3.0	4	0	0	1	3	3	14
50000		1.200	1.190	JZ/ IL WEST OF DLAINT KUAD	.5 ∡	UQ	3.0	4	U A	U	1	3	9	26
34410		0.500	1.040	aLUUUN KUAU	1	00	2.ŏ	U	U A	U	2	5	5	11
3441U 24440		1.040	1.500	al JIAIE KUUIE II At MAIDEN DOAD	1 4	07	2.9	U	1	0	2	ა ი	5	11
3441U 24440		1.500	2.000		1 4	07	2.9	U	U A	۲ ۸	2	ა ი	ა ი	13
34410		2.000	2.000		1	07	3.5	0	0	1	2	ა ი	5	13
34410	PULVEK KUAD	2.550	3.000	U.40 IIII. NORTH OF PETERSUN KUAD	1	U/	3.5	U	U	U	2	3	3	12

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
34410	PULVER ROAD	3.000	3.430	at PETERSON ROAD	1	17	3.5	0	1	2	2	3	3	14
34410	PULVER ROAD	4.230	4.491	at WEST MCCORQUEDALE ROAD	2	17	4.4	4	0	0	2	3	3	17
40210	RESERVATION ROAD	0.000	0.316	at PIONEER PARKWAY	1	07	4.4	6	0	0	0	3	3	16
40210	RESERVATION ROAD	0.316	1.208	0.32 mi. North of PIONEER PARKWAY	1	07	4.4	6	0	1	0	6	6	23
40210	RESERVATION ROAD	1.208	2.138	0.33 mi. SE of GARLAND LANE	1	07	4.1	6	0	0	0	6	6	22
40210	RESERVATION ROAD	2.138	4.218	48 ft. South of WILBUR ROAD	1	07	4.1	6	0	3	2	6	6	27
40210	RESERVATION ROAD	4.218	5.162	312 ft. North of SNEE-OOSH ROAD	1	07	5.2	6	0	0	0	6	6	23
40210	RESERVATION ROAD	5.162	5.430	143 ft. South of SIMILK BAY ROAD	1	07	4.6	6	3	0	0	6	6	26
62300	RHODES ROAD	0.130	0.700	at SEDRO WOOLLEY CITY LIMITS	3	17	4.5	0	0	1	2	3	3	13
62300	RHODES ROAD	0.700	0.820	at SUENIC STREET	3	17	4.8	0	0	0	2	3	3	13
08700	ROCKPORT CASCADE ROAD	0.000	0.370	at CASCADE RIVER ROAD	3	08	1.8	0	1	15	1	6	3	27
08700	ROCKPORT CASCADE ROAD	0.370	1.370	0.21 mi. South of FISH HATCHERY ROAD	3	08	1.8	0	0	0	1	9	3	15
08700	ROCKPORT CASCADE ROAD	1.370	2.429	1.02 mi. NE of MARBLEGATE ROAD	3	08	1.5	0	0	8	1	9	6	26
08700	ROCKPORT CASCADE ROAD	2 4 2 9	8 720	153 ft SW of MARBI EGATE RIVER DEVI FOPMENT	3	08	1.5	Ő	Ő	0	1	9	6	18
08700	ROCKPORT CASCADE ROAD	8 720	10 150	37 ft SW of MARTIN RANCH ROAD	3	08	1.5	Ő	0	0	1	6	3	12
10310	ROSARIO ROAD	0.720	0 020		1	07	4 1	4	ů n	0	1	6	3	18
10310		0.000	0.020		1	07	4.1	4	ñ	2	1	6	6	22
10310		0.020	1 107		1	07	4.0 6.2	- -	0	2	0	6	6	25
10310		1 107	2 4 4 0		1	07	6.1	6	0	2	0	6	6	20
10310		2 4 4 0	2.440	30 II. NE OI DURROWS VIEW LANE	1	07	6.1	6	0	0	0	0	2	24
10310		2.440	2.909	0.47 mi South of DENINGTON LANE	1	07	0.2	6	0	1	0	9	ა ი	20
10310		2.959	3.200	of COLICAR CAR BOAD	1	07	0.2	0	0	1	0	9	3	25
10310		3.200	4.330		1	07	0.2	6	0	1	0	9	0	28
30910		0.000	1.3/0	at BAY VIEW-EDISON ROAD	1	00	3.0	4	0	5	2	9	3	21
30910		1.370	1./10	0.83 ml. South of SCOTT ROAD	1	80	3.6	4	U	2	2	9	3	24
30910	SAMISH ISLAND ROAD	1./10	2.075	0.49 ml. South of SCOTT ROAD	1	80	3.6	4	0	2	2	9	3	24
30910	SAMISH ISLAND ROAD	2.075	2.201	0.13 ml. South of SCOTT ROAD	1	80	3.6	4	1	6	2	9	3	28
30910	SAMISH ISLAND ROAD	2.201	2.655	at SCOTT ROAD	1	80	3.5	4	0	0	0	9	6	23
45610	SKAGIT CITY ROAD	0.000	1.150	at FIR ISLAND ROAD	2	08	2.2	0	0	3	1	9	3	19
45610	SKAGIT CITY ROAD	1.150	2.230	at POLSON ROAD	2	08	2.2	0	0	2	1	6	3	14
40010	SNEE-OOSH ROAD	0.000	1.370	at RESERVATION ROAD	1	08	3.3	6	0	1	2	9	6	28
40010	SNEE-OOSH ROAD	1.370	2.531	354 ft. South of SNEE-OOSH LANE	1	08	3.3	6	0	2	2	6	6	25
40010	SNEE-OOSH ROAD	2.531	3.460	185 ft. South of LONE TREE ROAD	1	08	3.0	6	0	0	2	6	6	23
40010	SNEE-OOSH ROAD	3.460	3.790	470 ft. SE of CHILBERG AVENUE	1	08	3.1	4	0	0	2	9	6	24
40010	SNEE-OOSH ROAD	3.790	4.861	21 ft. NW of DI-AL-TSA LANE	1	08	4.7	4	0	1	2	9	6	27
40010	SNEE-OOSH ROAD	4.861	5.106	132 ft. West of SWINOMISH AVENUE	1	08	5.4	4	0	1	2	9	6	28
40010	SNEE-OOSH ROAD	5.106	5.191	at FIRST STREET (PVT Swinomish)	1	08	4.7	4	3	5	0	9	6	31
63120	SOUTH GARDNER ROAD	0.000	0.047	at GARDNER ROAD	3	16	4.9	0	3	8	2	3	3	24
71500	SOUTH LAVENTURE ROAD	0.000	0.063	at EAST BLACKBURN ROAD (MV City Limits)	2	14	9.1	0	2	4	0	3	3	20
71500	SOUTH LAVENTURE ROAD	0.063	0.274	333 ft. South of EAST BLACKBURN ROAD (MV City Limits)	2	14	9.1	0	1	0	0	3	3	16
71500	SOUTH LAVENTURE ROAD	0.545	0.553	264 ft. South of SOUTH 19TH ST (MV)	2	14	9.1	0	0	0	0	3	3	16
71500	SOUTH LAVENTURE ROAD	0.553	0.701	306 ft. South of SOUTH 19TH ST (MV)	2	14	9.1	0	1	0	0	3	3	16
71500	SOUTH LAVENTURE ROAD	0.701	0.715	380 ft. East of BLODGETT ROAD	2	14	9.1	0	1	0	0	3	3	16
71500	SOUTH LAVENTURE ROAD	0.715	0.730	306 ft. East of BLODGETT ROAD	2	14	9.1	0	1	0	0	3	3	16
71500	SOUTH LAVENTURE ROAD	0.730	0.773	227 ft. East of BLODGETT ROAD	2	14	9.1	0	1	0	0	3	3	16
19050	SOUTH SHORE DRIVE	0.000	1.110	at WEST SHORE DRIVE	1	07	1.4	0	0	0	2	3	3	9
01500	SOUTH SHORE DRIVE	0.000	0.160	at DEER CREEK ROAD	2	08	2.0	0	2	0	2	3	3	12
01500	SOUTH SHORE DRIVE	0.160	2.020	0.16 mi. West of DEER CREEK ROAD	2	08	2.0	0	1	0	2	3	3	11
01500	SOUTH SHORE DRIVE	2.020	3.670	1.14 mi. SW of WEST SHORE DRIVE	2	08	2.0	0	0	1	2	3	3	12
01500	SOUTH SHORE DRIVE	3.670	3.820	0.15 mi. South of NORTH SHORE DRIVE	2	08	2.0	0	0	0	2	3	3	10
19000	SOUTH SHORE ROAD	0.000	0.720	at GUEMES ISLAND ROAD	1	08	1.9	0	1	0	2	3	3	11
19000	SOUTH SHORE ROAD	0.720	1.530	at OLD SOUTH SHORE DRIVE	1	08	1.3	0	0	0	2	3	3	9
19000	SOUTH SHORE ROAD	1.530	2.460	444 ft. SW of CHANNEL VIEW DRIVE	1	08	1.5	0	1	0	2	3	3	11
19000	SOUTH SHORE ROAD	2.460	2.540	422 ft. South of EDENS ROAD	1	08	1.5	0	0	0	2	3	3	9
07000	SOUTH SKAGIT HWY	0.000	0.390	at STATE ROUTE 9	3	07	3.8	6	0	5	1	9	3	28
07000	SOUTH SKAGIT HWY	0.390	5.520	53 ft. SW of SR9 OVERPASS	3	07	3.8	6	0	2	1	9	3	24
07000	SOUTH SKAGIT HWY	5.520	7.290	63 ft. West of GILLIGAN CREEK	3	07	3.8	6	0	2	1	6	3	22

Road Number	Road Name	BMP	EMP	BMP Description	Comm Dist	FFC	Traffic	Truck	Pave	Collisions	PW	H Curve	V Curve	TOTAL
07000	SOUTH SKAGIT HWY	7.290	7.783	0.24 mi. SW of WALBERG ROAD	3	07	3.8	6	0	1	1	6	3	21
07000	SOUTH SKAGIT HWY	7.783	9.500	0.25 mi. NE of WALBERG ROAD	3	07	3.8	6	0	4	1	9	3	27
07000	SOUTH SKAGIT HWY	9.500	9.719	275 ft. West of POTTS ROAD	3	07	2.9	4	0	5	1	6	3	22
07000	SOUTH SKAGIT HWY	9.719	10.340	206 ft. East of BARBEN ROAD	3	07	2.9	4	0	0	1	6	3	17
07000	SOUTH SKAGIT HWY	10.340	11.150	264 ft. NE of SOUTH LYMAN FERRY ROAD	3	07	2.9	4	0	0	1	6	3	17
07000	SOUTH SKAGIT HWY	11.150	11.780	275 ft. East of BLAIR ROAD	3	07	2.9	4	0	2	1	9	3	22
07000	SOUTH SKAGIT HWY	11.780	12.890	391 ft. West of FINNEY CUMBERLAND WYE	3	07	2.9	4	0	1	1	9	3	21
07000	SOUTH SKAGIT HWY	12.890	18.360	0.16 mi. East of CUMBERLAND CREEK ROAD	3	07	2.5	4	0	2	1	9	3	21
07000	SOUTH SKAGIT HWY	18.360	23.835	0.72 mi. East of BOYD CREEK CULVERT 36	3	07	3.7	4	0	1	1	9	3	22
17200	SOUTH TEXAS ROAD	0.000	0.150	at MARCH'S POINT ROAD	1	17	2.6	6	0	0	0	3	3	15
17200	SOUTH TEXAS ROAD	0.150	0.290	at BN RAILROAD CROSSING	1	17	2.6	6	0	0	0	3	3	15
17200	SOUTH TEXAS ROAD	0.290	0.500	0.14 mi. East of BN RAILROAD CROSSING	1	17	2.6	6	0	0	0	3	3	15
82000	STARBIRD ROAD	0.000	0.030	at CEDARDALE ROAD	2	08	3.1	0	3	0	0	3	3	12
82000	STARBIRD ROAD	0.030	0.070	158 ft. East of CEDARDALE ROAD	2	08	3.1	0	3	0	2	3	3	14
82000	STARBIRD ROAD	0.070	0.960	370 ft. East of CEDARDALE ROAD	2	08	2.7	0	0	1	0	3	9	16
89500	WEST BIG LAKE BOULEVARD	0.000	0.020	at STATE ROUTE 9	2	17	4.1	0	2	0	2	3	3	14
89500	WEST BIG LAKE BOULEVARD	0.020	0.870	at LAKE VIEW BOULEVARD	2	17	4.1	0	0	1	0	9	6	21
89500	WEST BIG LAKE BOULEVARD	0.870	0.890	127 ft. NE of LITTLE MOUNTAIN ROAD	2	17	3.9	0	0	0	0	9	6	19
89500	WEST BIG LAKE BOULEVARD	0.890	1.140	21 ft. NE of LITTLE MOUNTAIN ROAD	2	18	6.1	0	0	1	2	9	6	24
89500	WEST BIG LAKE BOULEVARD	1.140	1.990	211 ft. NW of WEST LAKEVIEW LANE	2	18	6.1	0	0	1	2	9	6	24
89500	WEST BIG LAKE BOULEVARD	1.990	2.252	at FISHING ACCESS	2	18	2.2	0	0	0	2	9	6	19
89500	WEST BIG LAKE BOULEVARD	2.252	2.302	74 ft. NW of BLACKBERRY LANE	2	08	2.2	0	0	0	2	9	6	19
89500	WEST BIG LAKE BOULEVARD	2.302	2.720	190 ft. SE of BLACKBERRY LANE	2	08	2.2	0	0	0	2	9	6	19
89500	WEST BIG LAKE BOULEVARD	2.720	4.370	253 ft. NW of FOXGLOVE LANE	2	08	1.4	0	0	0	2	9	6	18
21180	WEST BOW HILL ROAD	0.000	0.169	at STATE ROUTE 11	1	07	4.5	0	0	0	0	3	3	11
21180	WEST BOW HILL ROAD	0.169	0.389	16 ft. West of EAST EDISON ROAD	1	07	4.5	0	0	0	0	6	3	14
21180	WEST BOW HILL ROAD	0.389	0.910	at EAST EDISON ROAD	1	07	4.5	0	0	0	0	9	3	17
31200	WEST MCCORQUEDALE ROAD	0.000	0.480	at PULVER ROAD	3	17	4.9	4	0	0	2	3	3	17
17530	WEST SHORE DRIVE	0.000	1.510	at EDENS ROAD	1	07	0.8	0	0	0	2	3	3	9
17510	WEST SHORE ROAD	0.000	1.170	at GUEMES ISLAND ROAD	1	07	1.3	0	0	0	2	3	3	9
17510	WEST SHORE ROAD	1.170	1.894	26 ft. West of SALMON RUN ROAD	1	07	1.2	0	0	0	2	3	3	9
17510	WEST SHORE ROAD	1.894	1.990	507 ft. NE of LERVICK AVENUE	1	07	1.2	0	0	0	2	3	3	9
17510	WEST SHORE ROAD	1.990	2.690	at LERVICK AVENUE	1	07	1.4	0	0	0	2	3	3	9
90700	WICKER ROAD	0.000	0.430	at FRUITDALE ROAD	3	17	2.4	0	0	0	2	3	3	11
90700	WICKER ROAD	0.430	0.500	37 ft. East of CLAYBROOK ROAD	3	17	2.4	0	0	0	2	3	3	10

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

2021 SKAGIT COUNTY PRIORITY 1 SAFETY PROJECT VICINITY MAP



ALGER-CAIN LAKE RD FOG & CENTERLINE PROFILE PAINT IMPROVED CURVE SIGNAGE

OLD HIGHWAY 99 NORTH FOG & CENTERLINE PROFILE PAINT

PIONEER HIGHWAY FOG & CENTERLINE PROFILE PAINT



HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

2021 SKAGIT COUNTY PRIORITY 2 SAFETY PROJECT VICINITY MAP



HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

2021 SKAGIT COUNTY PRIORITY 3 SAFETY PROJECT VICINITY MAP



ENGINEER'S ESTIMATE OF COST

SKAGIT COUNTY PUBLIC WORKS

ITEM FOR BID: LANE DEPARTURE REDUCTION PROJECT

PROJECT NO.:	
DATE OF ESTIMATE:	April
ESTIMATED BY:	TORE

	DATE OF ESTIMATE: ESTIMATED BY:	April 2 TORE	20, 2021 Y NELSO	N	
	PIONEER HIGHWAY				
	ITEM DESCRIPTION	ΟΤΥ	UNIT	UNIT PRICE	ΤΟΤΑΙ
1	Mobilization	1.00	LS	\$11.610	\$11.610
2	SPCC Plan	1.00	LS	\$1,500	\$1,500
3	Traffic Control Supervisor	1	LS	\$5,000	\$5,000
4	Traffic Control Labor	120	HR	\$80	\$9,600
5	Other Temporary Traffic Control	1	LS	\$1,500	\$1,500
6	Profiled Plastic Line (Fog & C/L)	48500	LF	\$2.00	\$97,000
7	Trimming and Cleanup	1	LS	\$1,500	\$1,500
				TOTAL	\$127,710
	ALGER-CAIN LAKE RC	DAD			
	ITEM DESCRIPTION	ΟΤΥ	UNIT	UNIT PRICE	τοται
1	Mobilization	1 00		\$8,870	\$8 870
2	SPCC Plan	1.00	IS	\$1,500	\$1,500
3	Traffic Control Supervisor	1	IS	\$4,000	\$4,000
4	Traffic Control Labor	90	HR	\$80	\$7.200
5	Other Temporary Traffic Control	1	LS	\$1.500	\$1,500
6	Profiled Plastic Line (Fog & C/L)	33500	LF	\$2.00	\$67,000
9	Permanent Signing (Chevrons)	1.00	LS	\$6,000	\$6,000
7	Trimming and Cleanup	1	LS	\$1,500	\$1,500
			-	TOTAL	\$97,570
	OLD HIGHWAY 99 NOF	RTH			
ITEM					
NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
1	Mobilization	1.00	LS	\$16,890	\$16,890
2	SPCC Plan	1.00	LS	\$1,500	\$1,500
3	Traffic Control Supervisor	1	LS	\$6,000	\$6,000
4	Traffic Control Labor	180	HR	\$80	\$14,400
5	Other Temporary Traffic Control	1	LS	\$1,500	\$1,500
6	Profiled Plastic Line (Fog & C/L)	72000	LF	\$2.00	\$144,000
7	Trimming and Cleanup	1	LS	\$1,500	\$1,500
				TOTAL	\$185,790
		C	ONSTRUC	CTION SUBTOTAL	\$411,070
			PER	MITTING (5%)	\$20,554
		DES	IGN/CON	ST ENG (25%)	\$102,768
			CONTIN	GENCY (10%)	\$41,107

TOTAL ESTIMATE

\$575,498

ENGINEER'S ESTIMATE OF COST SKAGIT COUNTY PUBLIC WORKS ITEM FOR BID: Flashing LED STOP Signs **PROJECT NO:** DATE OF ESTIMATE: April 7, 2021 ESTIMATED BY: T. Nelson

VARIOUS LOCATIONS											
ITEM											
NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL						
1	Mobilization	LS	10%	\$5,068	\$5,068						
2	SPCC Plan	LS	1	\$375	\$375						
3	Unanticipated Underground Conflics	EST	1	\$5,500	\$5,500						
4	Other Traffic Control Labor	HR	60	\$80	\$4,800						
5	Traffic Control Supervisor	LS	1	\$1,000	\$1,000						
8	Solar Flashing LED STOP Sign (Post and Labor Incl)	EA	12	\$3,000	\$36,000						
10	Trimming and Cleanup	LS	1	\$3,000	\$3,000						
TOTAL \$55,743											

PERMITTING DESIGN CONTINGENCY

25% \$13,936 10% \$5,574 \$78,040

\$2,787

TOTAL PROJECT ESTIMATE

5%

ENGINEER'S ESTIMATE OF COST SKAGIT COUNTY PUBLIC WORKS ITEM FOR BID: 2021 Guardrail Installation **PROJECT NO:** DATE OF ESTIMATE: April 14, 2021 ESTIMATED BY: T. Nelson

BAKER LAKE RD

ITEM			Schedule A		
NO.	ITEM DESCRIPTION	UNIT	Quantity	UNIT PRICE	TOTAL
1	Mobilization	LS	10%	\$12,600	\$12,600.00
2	SPCC Plan	LS	1	\$750	\$750
3	Unanticipated Underground Conflics	EST	1	\$2,500	\$2,500
4	Other Traffic Control Labor	HR	500	\$80	\$40,000
5	Traffic Control Supervisor	LS	1	\$3,000	\$3,000
6	Other Temporary Traffic Control	LS	1	\$1,500	\$1,500
7	Construction Signs Class A	SF	700	\$40	\$28,000
8	Trimming and Cleanup	LS	1	\$3,000	\$3,000
9	Beam Guardrail Type 31	LF	850	\$45	\$38,250
10	Beam Guardrail Type 31 Non-Flared Terminal	EA	2	\$4,500	\$9,000
	TOTAL				\$138,600

S. SKAGIT HWY

ITEM			Schedule B		
NO.	ITEM DESCRIPTION	UNIT	Quantity	UNIT PRICE	TOTAL
1	Mobilization	LS	10%	\$8,300	\$8,300.00
2	SPCC Plan	LS	1	\$750	\$750
3	Unanticipated Underground Conflics	EST	1	\$2,500	\$2,500
4	Other Traffic Control Labor	HR	300	\$80	\$24,000
5	Traffic Control Supervisor	LS	1	\$3,000	\$3,000
6	Other Temporary Traffic Control	LS	1	\$1,500	\$1,500
7	Construction Signs Class A	SF	700	\$40	\$28,000
8	Trimming and Cleanup	LS	1	\$3,000	\$3,000
9	Beam Guardrail Type 31	LF	450	\$45	\$20,250
10	Beam Guardrail Type 31 Non-Flared Terminal	EA	2	\$4,500	\$9,000
	TOTAL				\$91,300

MUD LAKE RD

ITEM			Schedule B		
NO.	ITEM DESCRIPTION	UNIT	Quantity	UNIT PRICE	TOTAL
1	Mobilization	LS	10%	\$21,638	\$21,637.50
2	SPCC Plan	LS	1	\$375	\$375
3	Unanticipated Underground Conflics	EST	1	\$2,500	\$2,500
4	Other Traffic Control Labor	HR	300	\$80	\$24,000
5	Traffic Control Supervisor	LS	1	\$3,000	\$3,000
6	Other Temporary Traffic Control	LS	1	\$1,500	\$1,500
7	Construction Signs Class A	SF	500	\$40	\$20,000
8	Trimming and Cleanup	LS	1	\$3,000	\$3,000
9	Beam Guardrail Type 31	LF	3,600	\$45	\$162,000
10	Beam Guardrail Type 31 Non-Flared Terminal	EA	6	\$4,500	\$27,000
	TOTAL				\$238,013
	CONSTRUCTION SUBTOTAL				\$467,913

PERMITTING
DESIGN
CONTRACTOR

5%

25%

10%

CONTINGENCY

\$23,396 \$116,978 \$46,791 TOTAL PROJECT ESTIMATE \$655,078

ENGINEER'S ESTIMATE OF COST

SKAGIT COUNTY PUBLIC WORKS

ITEM FOR BID: SIGNAGE AND DELINEATION IMPROVEMENTS

PROJECT NO .:

DATE OF ESTIMATE: ESTIMATED BY:

April 20, 2021 TOREY NELSON

LAKE	CAVANAUGH ROAD	

ITEM					
NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
1	Mobilization	1.00	LS	\$6,605	\$6,605
2	SPCC Plan	1.00	LS	\$750	\$750
3	Unanticipated Underground Conflicts	EST	DOL	\$2,500	\$2,500
4	Traffic Control Supervisor	1	LS	\$3,000	\$3,000
5	Traffic Control Labor	160	HR	\$80	\$12,800
6	Other Temporary Traffic Control	1	LS	\$1,500	\$1,500
7	Flexible guide post - Carsonite White	400	EA	\$55	\$22,000
8	Raised Pavement Markers - Type 2 Yellow (100 per box)	20	HUND	\$600	\$12,000
9	Permanent Signing (Chevrons)	1.00	LS	\$10,000	\$10,000
10	I rimming and Cleanup	1	LS =	\$1,500	\$1,500
				TOTAL	\$72,655
	SNEE-OOSH ROAD				
ITEM					
NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
1	Mobilization	1.00	LS	\$3,975	\$3,975
2	SPCC Plan	1.00	LS	\$750	\$750
3	Unanticipated Underground Conflicts	EST	DOL	\$2,500	\$2,500
4	Traffic Control Supervisor	1	LS	\$3,000	\$3,000
5	Traffic Control Labor	100	HR	\$80	\$8,000
6	Other Temporary Traffic Control	1	LS	\$1,500	\$1,500
7	Flexible guide post - Carsonite White	200	EA	\$55	\$11,000
8	Raised Pavement Markers - Type 2 Yellow (100 per box)	10	HUND	\$600	\$6,000
9	Permanent Signing (Chevrons)	1.00	LS	\$6,000	\$6,000
10	I rimming and Cleanup	1	LS =	\$1,000	\$1,000
				TOTAL	\$43,725
	ROSARIO ROAD				
ITEM		OT V			7074
NO.		QTY	UNIT		TOTAL
1	Mobilization	1.00	LS	\$2,455	\$2,455
2	SPCC Plan	1.00	LS	\$750	\$750
3	Unanticipated Underground Conflicts	EST	DOL	\$2,500	\$2,500
4	I raffic Control Supervisor	1	LS	\$3,000	\$3,000
5	Traffic Control Labor	60	HR	\$80	\$4,800
6	Other Temporary Traffic Control	1	LS	\$1,500	\$1,500
1	Flexible guide post - Carsonite White	100	EA	\$55	\$5,500
8	Raised Pavement Markers - Type 2 Yellow (100 per box)	5	HUND	\$600	\$3,000
9 10	Permanent Signing (Chevrons)	1.00	LS	\$3,000	\$3,000
10	Inmming and Cleanup	1	LS =	\$500	\$500
				TOTAL	\$27,005
		CONSTRUCTION SUBTOTAL			\$143,385
			PER	MITTING (5%)	\$7.169
		DES	GN/CON	ST ENG (25%)	\$35.846
	CONTINGENCY (10%)				\$14,339
	-			TOTAL ESTIMATE	\$200,739

ENGINEER'S ESTIMATE OF COST

SKAGIT COUNTY PUBLIC WORKS

ITEM FOR BID: Old Hwy 99 N / Bow Hill Rd Roundabout **PROJECT NO:**

DATE OF ESTIMATE: April 26, 2021

ESTIMATED	BY: T. Nelson
VARIOUS LC	CATIONS

VARIOUS LOCATIONS					
ITEM					
NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
1	Mobilization	LS	10%	\$138,047	\$138,047
2	SPCC Plan	LS	1	\$2,000	\$2,000
3	Project Temp Traffic Control	LS	1	\$50,000	\$50,000
4	Clearing & Grubbing	Acre	0.10	\$50,000	\$5,000
5	Silt Fence	LF	3000	\$5	\$15,000
6	Roadside Cleanup	LS	1	\$10,000	\$10,000
7	Removal of Structures and Obstructions	LS	1	\$50,000	\$50,000
8	Roadway Excavation Incl Haul	CY	3000	\$40	\$120,000
9	Gravel Borrow Incl Haul	TN	3500	\$50	\$175,000
10	Trimming & Cleanup	LS	1	\$10,000	\$10,000
11	Crushed Surfacing Base Course	TN	5500	\$35	\$192,500
12	Crushed Surfacing Top Course	TN	1100	\$50	\$55,000
13	HMA CL. 1/2 IN	TN	2500	\$130	\$325,000
14	Cement Conc Truck Apron	SY	700	\$135	\$94,500
15	Cement Conc Traffic Curb	LF	160	\$75	\$12,000
16	Curb & Gutter	LF	300	\$40	\$12,000
17	Conc Pipe Arch	LF	100	\$175	\$17,500
18	C.B. Type 2	EA	2	\$5,000	\$10,000
19	Permanent Signing	LS	1	\$5,000	\$5,000
20	Illumination System	LS	1	\$150,000	\$150,000
21	Plastic Line	LF	6000	\$4	\$24,000
22	Plastic Wide Lane Line	LF	365	\$8	\$2,920
23	Plastic Yield Symbol	EA	24	\$200	\$4,800
24	8 IN Quarry Spalls	TN	70	\$75	\$5,250
25	Trimming and Cleanup	LS	1	\$3,000	\$3,000
26	Seeding & Fertilizing	Acre	1.5	\$10,000	\$15,000
27	Landscaping	LS	1	\$15,000	\$15,000
	TOTAL				\$1,518,517

PERMITTING	5%	\$75,926
RIGHT-OF-WAY	LS	\$150,000
PRELIMINARY ENGINEERING	15%	\$227,778
CONSTRUCTION ENGINEERING	5%	\$75,926
CONTINGENCY	10%	\$151,852
	TOTAL PROJECT ESTIMATE	\$2,199,998

Т