SNOHOMISH COUNTY COUNCIL
PUBLIC HEARING PACKET

BUDGET MOTION 21-359 **2022-2027 Six-Year Transportation Improvement Program (TIP)**

ECAF: 2021-0718

Date/Time: October 25, 2021, at 10:30 a.m. and 6:00 p.m.

Staff Person: Deb Bell

EXHIBIT LIST

Click on Exhibit No. to view document

Exhibit No.	Date	Exhibit Description
1.	09/28/21	ECAF
2.	09/28/21	2020 Annual Bridge Report
3.	09/28/21	Motion Assignment Slip

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

MOTION NO. 21-359

MOTION ADOPTING THE 2022-2027 SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS, RCW 36.81.121 directs the county to prepare and adopt an annual update of a comprehensive six-year transportation improvement program; and

WHEREAS, the annual update of the six-year transportation improvement program has been prepared in accordance with WAC 136-14-050; and

WHEREAS, an engineer's bridge condition report has been made available to the County Council as required by WAC 136-20-060; and

WHEREAS, this update of the six-year transportation improvement program is based on and is consistent with the county's long-range transportation plan as contained in the Transportation Element for the Snohomish County Comprehensive Plan, adopted in Amended Ordinance No. 14-137 on June 10, 2015, as amended; and

WHEREAS, the needs identified in the Transportation Element are reflected in this annual update of the six-year transportation improvement program; and

WHEREAS, the Department of Public Works considered during the preparation of this annual update of the six-year transportation improvement program the following additional reports, inventories, and other supporting documents:

Snohomish County Transportation Needs Report (TNR) (1995-2013), originally published in September 1995 and last revised in August 2013;

Snohomish County Traffic Mitigation Account Reports; and

2020 Concurrency Report: An Annual Report on the Level of Service (LOS) of the County's Arterial Road Network from April 1, 2019 to March 31, 2020; and

WHEREAS, on _____, 2021, a public hearing was held on the six-year transportation improvement program in accordance with RCW 36.81.121;

NOW, THEREFORE, ON MOTION:

1. The Snohomish County 2022-2027 Six-Year Transportation Improvement Program submitted by the Snohomish County Engineer, attached hereto as Exhibit A and by this reference incorporated herein, is hereby adopted.

2. The Snohomish County Engineer shall cause a copy of the Snohomish County 2022-2027 Six-Year Transportation Improvement Program to be filed with the Washington State County Road Administration Board and the Secretary of the Washington State Department of Transportation.

DATED this ____ day of _____, 2021.

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

_____
Council Chair

ATTEST:

_____
Clerk of the Council

	2022 - 2027	2022	2023	2024	2025	2026	2027	All projections are in $1,000's
Grand Totals	243,376	40,214	40,384	45,614	44,887	35,890	36,387	

A. Miscellaneous Engineering and Studies

	2022 - 2027	2022	2023	2024	2025	2026	2027
Group Totals	4,419	3,044	355	255	255	255	255

A.01 **Preliminary Engineering: General** — TSA: N/A; Cncl Dist: All; Type: 07; LFC: All; FFC: All; Mgr: SG
1660
Preliminary engineering for unanticipated projects.

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	180	30	30	30	30	30	30
	180	30	30	30	30	30	30

A.01.01 **Miscellaneous Drainage: Review** — TSA: N/A; Cncl Dist: All; Type: 06; LFC: All; FFC: All; Mgr: LT
1279
Minor internal drainage review on capital road projects.

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	90	15	15	15	15	15	15
	90	15	15	15	15	15	15

A.02 **Right of Way: General** — TSA: N/A; Cncl Dist: All; Type: N/A; LFC: All; FFC: All; Mgr: KGL
XA02
General right of way activities.

	2022 - 2027	2022 RW	2023 RW	2024 RW	2025 RW	2026 RW	2027 RW
County	180	30	30	30	30	30	30
	180	30	30	30	30	30	30

A.03 **Project Close Out and Funding Audit** — TSA: N/A; Cncl Dist: All; Type: N/A; LFC: N/A; FFC: N/A; Mgr: BJT
1212
Minor expenses associated with project close-out or audits.

	2022 - 2027	2022 CE	2023 CE	2024 CE	2025 CE	2026 CE	2027 CE
County	180	30	30	30	30	30	30
	180	30	30	30	30	30	30

A.13 **Contribution to WSDOT Projects** — TSA: N/A; Cncl Dist: All; Type: N/A; LFC: SR; FFC: SR; Mgr: MP
XA13
Contributions to and coordination with WSDOT for countywide projects.

	2022 - 2027	2022 CN	2023 CN	2024 CN	2025 CN	2026 CN	2027 CN
County	300	50	50	50	50	50	50
	300	50	50	50	50	50	50

A.13.08 **SR 524 Widening at Yew Way: Paradise Lake Rd to SR 524** | TSA N/A | Cncl Dist 5 | Type 05 | LFC SR | FFC 07 | Mgr JR

1777

Widen SR 524 between Yew Way and Paradise Lake Road from the existing 2 lane section to a 3 lane section with 1' shoulders on both sides

	2022 - 2027	2022 PE CE CN	2023	2024	2025	2026	2027
County	315	315					
	315	315					

A.17.04 **SR 530/Smokey Pt Blvd Roundabout** | TSA N/A | Cncl Dist 1 | Type 12 | LFC SR | FFC SR | Mgr MP

XA1704

Contribution to the City of Arlington for intersection improvements and roundabout construction.

	2022 - 2027	2022 CN	2023	2024	2025	2026	2027
County	350	350					
	350	350					

A.18 **Sound Transit 3 Coordination** | TSA N/A | Cncl Dist All | Type 23 | LFC N/A | FFC N/A | Mgr JGL

XA18

Coordination with Sound Transit on Sound Transit 3.

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	600	100	100	100	100	100	100
	600	100	100	100	100	100	100

A.19 **Advanced Mitigation Site Development** | TSA N/A | Cncl Dist 5 | Type 13 | LFC N/A | FFC N/A | Mgr OF

1730

Design Report, site plan, engineering, and construction for development of advanced mitigation site.

	2022 - 2027	2022 CE CN	2023	2024	2025	2026	2027
County	1,424	1,424					
REET II	600	600					
	2,024	2,024					

A.21.02 **148 St SW I-5 Overcrossing Feasibility Study** | TSA D | Cncl Dist All | Type 23 | LFC N/A | FFC N/A | Mgr MP

XA2102

Study the feasibility of constructing a bridge over I-5 on the 148th St SW corridor and select the roadway alignment between Jefferson Way and Meadow Road.

	2022 - 2027	2022 PE	2023	2024	2025	2026	2027
TDM/DD	100	100					
	100	100					

A.21.03 **128 St SW / 130 St SW High Capacity Transit Access Study** | TSA D | Cncl Dist All | Type 23 | LFC N/A | FFC N/A | Mgr MP

XA2103

Study the feasibility of constructing a bridge over I-5 on the 130th St SW corridor including the corridor alignment and number of lanes.

	2022 - 2027	2022	2023 PE	2024	2025	2026	2027
County	100		100				
	100		100				

B. Pavement Preservation and Rehabilitation Program (PPRP)

	2022 - 2027	2022	2023	2024	2025	2026	2027
Group Totals	38,706	4,936	5,445	7,182	6,607	7,321	7,215

B.01 **Countywide Pavement Rating: Arterials and Local Access Roads**
1000
TSA N/A | Cncl Dist All | Type 07 | LFC All | FFC All | Mgr JOB
Rating of county arterials and local access roads to determine priority of annual road paving and resurfacing work.

	2022 - 2027	2022 PE CE	2023 PE CE	2024 PE CE	2025 PE CE	2026 PE CE	2027 PE CE
County	540	90	90	90	90	90	90
	540	90	90	90	90	90	90

B.01.01 **ADA Ramps (Overlay Program)**
7303
TSA ALL | Cncl Dist All | Type 06 | LFC All | FFC All | Mgr MGF
Rebuild ramps associated with annual overlay program to meet ADA requirements.

	2022 - 2027	2022 CE	2023	2024	2025	2026	2027
County	7	7					
	7	7					

B.01.02 **Countywide Resurfacing: Contract Overlays**
1267
TSA N/A | Cncl Dist All | Type 07 | LFC All | FFC All | Mgr MGF
Annual overlay program for paving countywide arterials and local roads.

	2022 - 2027	2022 CE	2023	2024	2025	2026	2027
County	18	18					
	18	18					

B.01.13 **Rural Roads Preservation: Pioneer Highway**
XB0113
TSA N/A | Cncl Dist 1 | Type 07 | LFC 06 | FFC 07 | Mgr JOB
Full width asphalt overlay, restriping in kind, and all incidentals necessary for overlay work.

	2022 - 2027	2022 PE	2023 PE CE CN	2024	2025	2026	2027
County	217	62	155				
STP(R)	750		750				
	967	62	905				

B.01.14 **132 St SE/134 Pl SE/Cathcart Way Overlay: Seattle Hill Road to SR9**
XB0114
TSA N/A | Cncl Dist 4 | Type 07 | LFC 14 | FFC 14 | Mgr TBA
Overlay, pavement repair, and ADA ramp upgrades.

	2022 - 2027	2022	2023 PE CE CN	2024 PE CE CN	2025 CE	2026	2027
CAPP	1,068		318	750			
County	828			818	10		
FFTI	275			275			
NHS	5,000		732	4,239	29		
	7,171		1,050	6,082	39		

B.01.15 **164 St SW Overlay: Spruce Way to Ash Way** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Overlay, pavement repair, and ADA ramp upgrades.
XB0115 | N/A | 3 | 07 | 14 | 14 | TBA

	2022 - 2027	2022 PE CE CN	2023 PE CE CN	2024 CE	2025	2026	2027
CAPP	413		413				
County	82	79		3			
NHS	2,806	449	2,340	17			
	3,301	528	2,753	20			

B.03 **ADA Transition Upgrades** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Spot improvements selected annually from the ADA Transition Plan.
1572 | N/A | All | 06 | All | All | SG

	2022 - 2027	2022 PE CE CN	2023 PE CE CN	2024 PE CE CN	2025 PE CE CN	2026 PE CE CN	2027 PE CE CN
County	3,527	565	348	638	614	681	681
FFTI	275		275				
	3,802	565	623	638	614	681	681

B.22.01 **2022 Countywide Resurfacing: Contract Overlay** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | 2022 overlay program for paving countywide arterials and local roads.
XB2201 | N/A | All | 07 | All | All | MGF

	2022 - 2027	2022 PE CE CN	2023 CE	2024	2025	2026	2027
CAPP	769	750	19				
County	1,936	1,935	1				
FFTI	275	275					
	2,980	2,960	20				

B.22.02 **2022 ADA Ramps (Overlay Program)** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Rebuild ramps associated with 2022 overlay program to meet ADA requirements.
XB2202 | N/A | All | 06 | All | All | MGF

	2022 - 2027	2022 PE CE CN	2023 CE	2024	2025	2026	2027
County	710	706	4				
	710	706	4				

B.25.01 **2025 Countywide Resurfacing: Contract Overlay** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | 2025 overlay program for paving countywide arterials and local roads.
XB2501 | N/A | All | 07 | All | All | MGF

	2022 - 2027	2022	2023	2024 PE	2025 PE CE CN	2026 CE	2027
CAPP	750				750		
County	2,926			237	2,665	24	
FFTI	275				275		
	3,951			237	3,690	24	

B.25.02	**2025 ADA Ramps (Overlay Program)**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Rebuild ramps associated with 2025 overlay program to meet ADA requirements.
XB2502		N/A	All	06	All	All	MGF	

	2022 - 2027	**2022**	**2023**	**2024** PE	**2025** PE CE CN	**2026** CE	**2027**
County	1,907			115	1,781	11	
	1,907			115	1,781	11	

B.26.01	**2026 Countywide Resurfacing: Contract Overlay**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	2026 overlay program for paving countywide arterials and local roads.
XB2601		N/A	All	07	All	All	MGF	

	2022 - 2027	**2022**	**2023**	**2024**	**2025** PE	**2026** PE CE CN	**2027** CE
CAPP	750					750	
County	3,135				250	2,860	25
FFTI	275					275	
	4,160				250	3,885	25

B.26.02	**2026 ADA Ramps (Overlay Program)**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Rebuild ramps associated with 2026 overlay program to meet ADA requirements.
XB2602		N/A	All	06	All	All	MGF	

	2022 - 2027	**2022**	**2023**	**2024**	**2025** PE	**2026** PE CE CN	**2027** CE
County	2,375				143	2,218	14
	2,375				143	2,218	14

B.27.01	**2027 Countywide Resurfacing: Contract Overlay**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	2027 overlay program for paving countywide arterials and local roads.
XB2701		N/A	All	07	All	All	MGF	

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026** PE	**2027** PE CE CN
CAPP	750						750
County	3,317					263	3,054
FFTI	275						275
	4,342					263	4,079

B.27.02	**2027 ADA Ramps (Overlay Program)**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Rebuild ramps associated with 2027 overlay program to meet ADA requirements.
XB2702		N/A	All	06	All	All	MGF	

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026** PE	**2027** PE CE CN
County	2,475					149	2,326
	2,475					149	2,326

C. Non-Motorized / Transit / HOV

	2022 - 2027	2022	2023	2024	2025	2026	2027
Group Totals	14,494	2,869	954	2,279	1,412	3,162	3,818

C.00 **Pedestrian Facilities and School Safety Program** — TSA: ALL | Cncl Dist: All | Type: 06 | LFC: All | FFC: All | Mgr: SG

1573

Build on existing efforts to improve non-motorized facilities in Snohomish County. Facilities will be designed and constructed to current ADA standards.

	2022 - 2027	2022	2023	2024	2025 PE	2026 PE	2027 PE
County	1,505				105	700	700
TDM/DD	295						295
TDM/FF	50						50
	1,850				105	700	1,045

C.00.67 **Hilltop Elementary School Sidewalk Gap Improvements** — TSA: F | Cncl Dist: 3 | Type: 32 | LFC: 17 | FFC: 17 | Mgr: SG

XC0067

Construct curb/gutter/sidewalk, planter strip where two gaps exist on Damson Rd. and Logan Rd.

	2022 - 2027	2022	2023	2024	2025 PE	2026 CE CN	2027
County	515				90	425	
	515				90	425	

C.00.72 **52 Ave W: Lynnwood C/L to 164 St SW Pedestrian Improvements** — TSA: D | Cncl Dist: 3 | Type: 32 | LFC: 16 | FFC: 16 | Mgr: DL

1752

Construct 600 LF of curb, gutter, sidewalk and planter strip on the west side of 52nd Ave W.

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE CE CN	2027
County	1,956	90	90	90	90	1,596	
TDM/DD	141					141	
	2,097	90	90	90	90	1,737	

C.00.77 **Center Rd Pedestrian Improvements: 10 Ave W to 8 Ave W** — TSA: D | Cncl Dist: 3 | Type: 32 | LFC: 17 | FFC: 17 | Mgr: SG

XC0077

Construct curb, gutter, and sidewalk to improve the school walk route and enhance pedestrian safety on the north side of Center Rd between 10 Ave W and 8 Ave W.

	2022 - 2027	2022	2023 PE	2024 PE RW	2025 CE CN	2026	2027
County	873		100	25	748		
TDM/DD	362			190	172		
	1,235		100	215	920		

C.00.78 **18 Ave W Walkway: 151 St SW to Jefferson Way** — TSA: D | Cncl Dist: 3 | Type: 32 | LFC: 19 | FFC: 19 | Mgr: SG

XC0078

Construct 350 LF asphalt walkway on the west side of 18th Ave W between 151st St SW and Jefferson Way.

	2022 - 2027	2022 PE	2023 CE CN	2024	2025	2026	2027
TDM/DD	600	105	495				
	600	105	495				

C.00.79 **39 Ave SE Sidewalk: 228 St SE to 226 St SE** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Construct 900 LF sidewalk on the west side of 39th Ave from 228th St to 226th St.
XC0079 | E | 4 | 32 | 16 | 16 | SG

	2022 - 2027	2022	2023 PE	2024 CE CN	2025	2026	2027
TDM/EE	151		26	125			
	151		26	125			

C.00.80 **Damson Rd Sidewalk at 213 St SW** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Construct 300 LF sidewalk on the east side of Damson Rd from 214th St to 213th St.
XC0080 | F | 4 | 32 | 17 | 17 | SG

	2022 - 2027	2022	2023	2024	2025	2026 PE	2027 PE CE CN
County	490					60	430
	490					60	430

C.01.01 **Pedestrian Facility Feasibility Studies** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Preliminary pedestrian facility feasibility studies.
1502 | N/A | All | 32 | All | All | SG

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	180	30	30	30	30	30	30
	180	30	30	30	30	30	30

C.09.03.02 **Transportation Demand Management on Regional Corridors** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Corridor TDM on 5 corridors to reduce trips, reduce emissions, and improve mobility.
1595 | D/F | 2,3,4,5 | 24 | N/A | N/A | NH

	2022 - 2027	2022 CN	2023 CN	2024	2025	2026	2027
CMAQ	195	173	22				
TDM/DD	19	17	2				
TDM/FF	12	10	2				
	226	200	26				

C.41 **Interurban Trail Improvements: 167 Pl SW to 160 St SW** | TSA | Cncl Dist | Type | LFC | FFC | Mgr | Construct missing links in Interurban Trail along Meadow Rd and 13 Ave W, between 160 St SW and 167 Pl SW.
1778 | N/A | 4 | 32 | 17 | 17 | OF

	2022 - 2027	2022 PE RW	2023 PE	2024 CE CN	2025	2026	2027
County	1,236	230	62	944			
PED/BIKE SAFETY?	411			411			
	1,647	230	62	1,355			

C.42.01 **North Creek Trail Phase 1: SR 524 to Sprague Dr** | TSA N/A | Cncl Dist 4 | Type 32 | LFC N/A | FFC N/A | Mgr DL

1776

Construct a 10-12 foot wide trail from SR 524 to Sprague Drive and construct the trail mitigation site.

	2022 - 2027	2022 CE CN	2023	2024	2025	2026	2027
County	2,214	2,214					
	2,214	2,214					

C.42.02 **North Creek Trail Phase 2: Waxen Rd to 183 St SE** | TSA N/A | Cncl Dist 4 | Type 32 | LFC N/A | FFC N/A | Mgr DL

XC4202

Construct the north phase of NCT between Waxen Rd and 183 St SE.

	2022 - 2027	2022	2023	2024 PE	2025	2026	2027
County	10			10			
	10			10			

C.42.03 **North Creek Trail Phase 3: Sprague Dr to Waxen Rd** | TSA N/A | Cncl Dist 4 | Type 32 | LFC N/A | FFC N/A | Mgr DL

XC4203

Construct an elevated structure to connect NCT between Sprague Dr and Waxen Rd.

	2022 - 2027	2022	2023	2024	2025	2026 PE	2027
County	10					10	
	10					10	

C.44 **128 St SW: 8 Ave W to Interurban Trail Multimodal Improvements** | TSA D | Cncl Dist 3,4 | Type 06 | LFC 14 | FFC 14 | Mgr TBA

XC44

Install bicycle facilities between 8 Ave W and Interurban Trail.

	2022 - 2027	2022	2023 PE	2024 PE	2025 PE RW	2026 PE RW	2027 CE CN
County	2,790		50	100	177	150	2,313
	2,790		50	100	177	150	2,313

C.45 **S Lk Stevens Rd: 123 Ave SE to S Machias Rd Non-Motorized Improvements** | TSA N/A | Cncl Dist 5 | Type 06 | LFC 07 | FFC 17 | Mgr TBA

XC45

Design non-motorized improvements to maintain continuity of pathways planned by the City of Lake Stevens.

	2022 - 2027	2022	2023	2024	2025	2026 PE	2027
County	50					50	
	50					50	

C.56 **Lakewood Rd Pedestrian Improvements near Lk Goodwin County Park** | TSA N/A | Cncl Dist 1 | Type 32 | LFC 06 | FFC 06 | Mgr SG

XC56

Extend the separated walkway approx. 325 ft from the county park to the store.

	2022 - 2027	2022	2023 PE	2024 CE CN	2025	2026	2027
County	429		75	354			
	429		75	354			

D. Traffic Safety / Intersections

	2022 - 2027	2022	2023	2024	2025	2026	2027
Group Totals	38,967	13,269	8,151	6,480	3,627	3,568	3,872

D.01.01 **Project Development / Preliminary Engineering Spot Safety/ Operational Improvements**
XD0101

TSA: N/A | Cncl Dist: All | Type: 12 | LFC: All | FFC: All | Mgr: MD

Development and preliminary engineering of spot safety/operational projects.

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	300	50	50	50	50	50	50
	300	50	50	50	50	50	50

D.01.02 **New Plats-Signage/Channelization by Work Order**
7016

TSA: N/A | Cncl Dist: All | Type: 12 | LFC: All | FFC: All | Mgr: DV

Provide signing and striping for new plats.

	2022 - 2027	2022 CF	2023 CF	2024 CF	2025 CF	2026 CF	2027 CF
PLATS	390	65	65	65	65	65	65
	390	65	65	65	65	65	65

D.01.03 **Private Roads-Improvements by Work Order**
7013

TSA: N/A | Cncl Dist: All | Type: 12 | LFC: All | FFC: All | Mgr: DV

Provide signing and striping for private roads.

	2022 - 2027	2022 CF	2023 CF	2024 CF	2025 CF	2026 CF	2027 CF
County	42	7	7	7	7	7	7
	42	7	7	7	7	7	7

D.01.04 **Arterial Roads-Improvements by Work Order**
7014

TSA: N/A | Cncl Dist: All | Type: 12 | LFC: All | FFC: All | Mgr: DV

Provide signing and striping for arterial roadways.

	2022 - 2027	2022 CF	2023 CF	2024 CF	2025 CF	2026 CF	2027 CF
County	390	65	65	65	65	65	65
	390	65	65	65	65	65	65

D.01.05 **Access Roads-Improvements by Work Order**
7015

TSA: N/A | Cncl Dist: All | Type: 12 | LFC: All | FFC: All | Mgr: DV

Provide signing and striping for access roads.

	2022 - 2027	2022 CF	2023 CF	2024 CF	2025 CF	2026 CF	2027 CF
County	300	50	50	50	50	50	50
	300	50	50	50	50	50	50

D.01.06 **Safety Project Contingency** | TSA N/A | Cncl Dist All | Type 12 | LFC All | FFC All | Mgr MD | Contingency for unanticipated safety projects.
XD0106

	2022 - 2027	2022 PE RW CE CF	2023 PE RW CE CF	2024 PE RW CE CF	2025 PE RW CE CF	2026 PE RW CE CF	2027 PE RW CE CF
County	312	52	52	52	52	52	52
	312	52	52	52	52	52	52

D.02.01 **Project Development / Preliminary Eng Traffic Signal and Intersection Improvements** | TSA N/A | Cncl Dist All | Type 12 | LFC All | FFC All | Mgr MD | Project development and/or preliminary traffic engineering for signal and intersection improvements.
XD0201

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	300	50	50	50	50	50	50
	300	50	50	50	50	50	50

D.02.03 **Larch Way/Logan Rd and Locust Way Intersection Improvements** | TSA F | Cncl Dist 3,4 | Type 12 | LFC 17 | FFC 16 | Mgr MGF | Construct full intersection improvements to include roundabout, bicycle lanes, curbs, gutters and sidewalks.
1591

	2022 - 2027	2022 PE RW	2023 PE CE CN	2024 CE CN	2025	2026	2027
County	592		592				
MIT FUND	148		148				
REET II	500		500				
TDM/FF	75	75					
TIF F-BOTHELL	121	121					
TIF-F	2,094	229	1,285	580			
	3,530	425	2,525	580			

D.02.21 **Miscellaneous Signal Upgrades - Contract** | TSA N/A | Cncl Dist All | Type 12 | LFC All | FFC All | Mgr MD | Contract to upgrade traffic signals/equipment throughout the County.
1039

	2022 - 2027	2022 PE CE CN	2023 PE CE CN	2024 PE CE CN	2025 PE CE CN	2026 PE CE CN	2027 PE CE CN
County	216	36	36	36	36	36	36
	216	36	36	36	36	36	36

D.03 **Neighborhood Traffic Calming Locations** | TSA N/A | Cncl Dist All | Type 12 | LFC All | FFC All | Mgr MD | Install neighborhood traffic calming devices (locations selected annually).
7020

	2022 - 2027	2022 PE CE CF	2023 PE CE CF	2024 PE CE CF	2025 PE CE CF	2026 PE CE CF	2027 PE CE CF
County	330	55	55	55	55	55	55
	330	55	55	55	55	55	55

D.04	**Guardrail Project Locations**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Design and install guardrails (locations selected annually).
7380		N/A	All	12	All	All	SG	

	2022 - 2027	**2022** PE CE CF	**2023** PE CE CF	**2024** PE CE CF	**2025** PE CE CF	**2026** PE CE CF	**2027** PE CE CF
County	1,140	190	190	190	190	190	190
	1,140	190	190	190	190	190	190

D.05	**Emergent Road Bank Stabilization Projects**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Stabilize road banks (locations selected annually).
XD05		N/A	All	12	All	All	DT	

	2022 - 2027	**2022** PE	**2023** PE CE CF	**2024** PE CE CF	**2025** PE CE CF	**2026** PE CE CF	**2027** PE CE CF
County	630	5	125	125	125	125	125
	630	5	125	125	125	125	125

D.10	**Road Safety Plan**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Traffic studies, development, and implementation of county road safety plan.
XD10		N/A	All	12	All	All	MD	

	2022 - 2027	**2022** PE	**2023** PE	**2024** PE	**2025** PE	**2026** PE	**2027** PE CE CN
County	3,850	175	175	175	175	175	2,975
	3,850	175	175	175	175	175	2,975

D.41.02A	**Index Galena Flood Repair MP 6.4-6.9 Group 1**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct new roadway to replace previously washed out section.
1532		N/A	5	03	09	07	MCR	

	2022 - 2027	**2022** CE CN	**2023** CE CN	**2024**	**2025**	**2026**	**2027**
County	3,407	914	2,493				
ER	5,973	5,973					
FLAP	1,409	1,409					
	10,789	8,296	2,493				

D.41.02B	**Index Galena Flood Repair MP 6.4-6.9 Group 2**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct new roadway to replace previously washed out section. For work that FHWA-ER funds will not reimburse.
1774		N/A	5	03	09	07	MCR	

	2022 - 2027	**2022** CE CN	**2023** CE CN	**2024**	**2025**	**2026**	**2027**
County	345	81	264				
FLAP	1,033	1,033					
	1,378	1,114	264				

D.41.11	**Riverview Rd Flood Repair near 6323**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Repair 100 feet of embankment/dike.
1764		N/A	5	06	09	19	MCR	

	2022 - 2027	**2022** CE CN	**2023**	**2024**	**2025**	**2026**	**2027**
County	32	32					
FEMA	222	222					
	254	254					

D.41.12	**Rivershore Rd Flood Repair near 6725**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Repair 200 feet of embankment/dike.
1765		N/A	5	06	09	19	MCR	

	2022 - 2027	**2022** CE CN	**2023**	**2024**	**2025**	**2026**	**2027**
County	61	61					
FEMA	429	429					
	490	490					

D.41.14	**Goodman Creek Culvert Flood Repair at MLH MP 46.5**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Repair culvert, embankment, and subgrade damage.
1767		N/A	1	06	07	07	IXT	

	2022 - 2027	**2022** PE	**2023** PE	**2024** PE CE CN	**2025**	**2026**	**2027**
County	986	20	124	842			
ER	2,422	130	26	2,266			
FLAP	1,090			1,090			
	4,498	150	150	4,198			

D.41.17	**Woods Creek Rd Flood Repair at Yeager Rd**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Repair slide, embankment and shoulder damage.
1770		N/A	5	06	07	06	MGF	

	2022 - 2027	**2022** CE CN	**2023**	**2024**	**2025**	**2026**	**2027**
County	100	100					
FEMA	697	697					
	797	797					

D.41.19	**Nicks Rd Flood Repair at MP 0.08**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Repair embankment failure, pavement cracking, subgrade fail.
1772		N/A	1	06	09	09	MCR	

	2022 - 2027	**2022** PE RW CE CN	**2023**	**2024**	**2025**	**2026**	**2027**
County	43	43					
FEMA	298	298					
	341	341					

D.60	**Adaptive Signal System - SR 527, SR 96, 128, Airport Rd Corridor**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replace signal controls with an adaptive signal control system on SR526 / Airport Rd, 128 St SW, SR 96 to Seattle Hill Rd, and on SR 527 from SR 96 to 228 St SE.	
1579		N/A	2,3,4,5	12	N/A	N/A	MD		

	2022 - 2027	**2022** CN	**2023** CN	**2024** CN	**2025** CN	**2026**	**2027**
BOTHELL	4	1	1	1	1		
County	8	2	2	2	2		
EVERETT	4	1	1	1	1		
STP(U)	172	43	43	43	43		
WSDOT	12	3	3	3	3		
	200	50	50	50	50		

D.60.01	**Adaptive Signal Systems Phase II**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replace signal controls with an adaptive signal control system on SR 527, SR 522, I-5, 240th St SE, 44th Ave W and 164th St SW corridors (45 signal locations).
1418		N/A	3,4	12	N/A	N/A	MD	

	2022 - 2027	**2022** CE CN	**2023**	**2024**	**2025**	**2026**	**2027**
BOTHELL	15	15					
County	12	12					
LYNNWOOD	10	10					
MILL CREEK	2	2					
MTLK TERRACE	2	2					
STP(U)	133	133					
WSDOT	6	6					
	180	180					

D.64	**S Machias Rd / Dubuque Rd Intersection Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct intersection improvements to include traffic signal and southbound left turn channelization, re-configure Centennial Trail crossing.
1742		B	5	12	06	16	TBA	

	2022 - 2027	**2022** PE	**2023** PE RW	**2024** PE RW	**2025** PE RW CE CN	**2026** CE CN	**2027**
County	60	60					
TDM/BB	6					6	
TIF B-G FALLS	412		25		335	52	
TIF-B	1,170		96	372	657	45	
	1,648	60	121	372	992	103	

D.67.01	**84 St NE / 163 Ave NE Intersection Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct full intersection improvements to improve safety.
1758		N/A	1	12	06	16	MCR	

	2022 - 2027	**2022** PE RW	**2023** CE CN	**2024**	**2025**	**2026**	**2027**
County	171	35	136				
HSIP	1,359	137	1,222				
	1,530	172	1,358				

D.67.02	**84 St NE / 123 Ave NE Intersection Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct full intersection improvements to improve safety.	
XD6702		N/A	1	12	06	06	TBA		

	2022 - 2027	**2022** PE	**2023** PE RW	**2024** PE RW	**2025** PE RW CE CN	**2026** CE CN	**2027**
County	44	14	13	13	4		
HSIP?	1,677		131	154	242	1,150	
RAP	1,449	126	126	53	1,144		
	3,170	140	270	220	1,390	1,150	

D.68	**Woods Creek Rd / Wagner Rd Intersection Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct full intersection improvements to improve safety.
XD68		N/A	5	12	07	06	TBA	

	2022 - 2027	**2022**	**2023**	**2024** PE	**2025**	**2026**	**2027**
County	10			10			
	10			10			

D.69	**S Machias Rd / Three Lakes Rd Intersection Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct major intersection improvements
XD69		C	5	04	16	16	TBA	

	2022 - 2027	**2022**	**2023**	**2024** PE RW	**2025** PE RW	**2026** PE CE CN	**2027** CE CN
County	424					424	
TDM/CC	56					56	
TIF-C	1,472			130	275	915	152
	1,952			130	275	1,395	152

E. Capacity

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Group Totals	105,441	12,036	21,715	18,903	19,217	14,804	18,766

E.28.05	**35 Ave SE / 39 Ave SE (York Rd): SR 524 to 180 St SE Ph II**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Widen corridor to 3 lane urban standards with bike lanes; intersection upgrades per traffic analysis.
1629		D/E/F	4,5	04	16	16	DL	

	2022 - 2027	**2022** CE CN	**2023** CE CN	**2024**	**2025**	**2026**	**2027**
County	2,000	2,000					
TIB-UAP	2,710	2,710					
TIF-D	51		51				
TIF-F	344	120	224				
	5,105	4,830	275				

E.36	Broadway Ave Realignment: Yew Way to SR 524	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Realign Broadway Ave: Yew Way to SR 524 to accommodate future WSDOT interchange on SR 522.
1315		E	5	02	17	17	DL	

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 PE	2026 PE	2027 PE
County	18	3	3	3	3	3	3
	18	3	3	3	3	3	3

E.40.01	36 Ave W / 35 Ave W: 164 St SW to SR 99	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Complete design and acquire right-of-way to widen corridor to 3 lane urban standards with bike lanes.
1491		D	3	04	17	17	DL	

	2022 - 2027	2022 PE RW	2023 PE RW	2024	2025	2026	2027
County	50		50				
PWTFL?	200		200				
TIF-D	1,200	1,200					
	1,450	1,200	250				

E.40.02	36 Ave W / 35 Ave W Phase 1: 164 St SW to 156 St SW	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Widen corridor to three lane urban standard with bike lanes.
XE4002		D	3	04	16	17	DL	

	2022 - 2027	2022	2023 CE CN	2024 CE CN	2025	2026	2027
County	20			20			
PWTFL?	2,000		1,560	440			
STP(U)	2,580		2,580				
	4,600		4,140	460			

E.40.03	35 Ave W Phase 2: 156 St SW to SR 99	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Widen corridor to three lane urban standard with bike lanes.
XE4003		D	3	04	16	17	DL	

	2022 - 2027	2022	2023 CE CN	2024 CE CN	2025	2026	2027
County	5			5			
PWTFL?	800		725	75			
TIB-UAP?	3,220		2,898	322			
	4,025		3,623	402			

E.41.06	180 St SE Phase 2: Brook Blvd to 35 Ave SE	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Design and acquire right of way to widen corridor to 5 lane urban standards.
1581		D	4	04	16	16	DL	

	2022 - 2027	2022 PE RW	2023 PE	2024	2025	2026	2027
TIF D-MILL CRK	222	222					
TIF-D	1,134	928	206				
	1,356	1,150	206				

E.48	**88 St NE: 44 Dr NE to 61 Dr NE**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Joint project with City of Marysville (lead) for improvements to 3 lane urban standards.	
1619		A	1	04	16	16	SG		
	2022 - 2027	**2022** RW		**2023** RW		**2024** RW		**2025**	**2026**	**2027**
TIF A-MSVL	27			27						
TIF-A	1,552	400		573		579				
	1,579	400		600		579				
E.51	**140 ST NE: 23 Ave NE to 34 Ave NE**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Prepare design report for intersection and bridge improvements.	
1679		A	1,2	04	07	16	TBA		
	2022 - 2027	**2022**		**2023**		**2024**		**2025**	**2026** PE	**2027**
TIF A-MSVL	49								49	
TIF-A	148								148	
	197								197	
E.52.01	**Ash Way: 164 St SW to Gibson Rd**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Complete design and right-of-way plan to widen to 3 lane urban standards.	
1638		D	3	04	17	17	OF		
	2022 - 2027	**2022** PE		**2023** PE		**2024** PE		**2025** PE	**2026**	**2027**
REET II	1,000	500				500				
ST-SAF	285	285								
TIF-D	1,961	65		850		350		696		
	3,246	850		850		850		696		
E.52.05	**Ash Way/Gibson Rd Phase 2: Admiralty Way to 134 St SW**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct intersection improvements and widen corridor to 3 lane urban standards with bike lanes.	
XE5205		D	3	04	17	17	OF		
	2022 - 2027	**2022**		**2023** RW		**2024** RW		**2025** PE RW	**2026** PE CE CN	**2027** CE CN
County	2,092							1,109		983
REET II	1,700								1,100	600
STP(U)?	3,000								3,000	
TIB-UAP?	4,000								2,852	1,148
TIF-D	6,808			499		1,500		598		4,211
	17,600			499		1,500		1,707	6,952	6,942
E.53.01	**148 St SW: 35 Ave W to Jefferson Way**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Prepare design report and right of way plan to widen corridor to 3 lane urban standards with bike lanes.	
1590		D	3	05	17	17	DL		
	2022 - 2027	**2022** PE		**2023**		**2024**		**2025**	**2026**	**2027**
TIF-D	300	300								
	300	300								

E.53.02	148 St SW: Jefferson Wy to Ash Wy	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct new urban three-lane with bike lanes, curb, gutter, and sidewalk.
XE5302		D	3	01	17	17	TBA	

	2022 - 2027	2022 PE	2023 PE	2024 PE RW	2025 PE RW	2026 PE RW	2027 PE RW
County	699				98	601	
REET II	1,200			600	600		
TIF D-MILL CRK	50					50	
TIF-D	4,960	100	456	405	760	1,199	2,040
	6,909	100	456	1,005	1,458	1,850	2,040

E.54	Poplar Way: Larch Way to Lynnwood City Limits	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Prepare design report and right of way plan for 3 lane urban standards.
XE54		F	3	04	17	17	TBA	

	2022 - 2027	2022 PE	2023 PE	2024 PE RW	2025 PE RW	2026 PE RW	2027 PE RW CE CN
County	3,710	100	182		868	1,432	1,128
MIT FUND	241		100	100	41		
REET II	500						500
TIB-UAP?	2,279						2,279
TIF F-BOTHELL	50				50		
TIF-F	3,829		118	910	319	312	2,170
	10,609	100	400	1,010	1,278	1,744	6,077

E.55	39 Ave SE: 228 St SE to 207 St SE	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Prepare design report and right of way plan to widen to three lane urban standards.
XE55		E/F	4	04	16	16	TBA	

	2022 - 2027	2022	2023	2024	2025 PE	2026 PE	2027 PE RW
County	750					100	650
TIF-E	600				100	500	
TIF-F	500						500
	1,850				100	600	1,150

E.56	67 Ave NE / 152 St NE Intersection Improvements	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct major intersection improvements.
1749		A	1	04	07	16	MGF	

	2022 - 2027	2022 PE	2023 PE RW	2024 PE RW	2025 PE RW CE CN	2026 CE CN	2027
County	861		374	223	264		
HSIP?	4,000			308	3,334	358	
TIF A-MSVL	44				15	29	
TIF-A	242	140			91	11	
	5,147	140	374	531	3,704	398	

E.59	43 Ave SE: SR 524 to 180 St SE	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct arterial improvements on 43rd Ave SE including widening and new connections.
1592		E	4,5	01	08	19	MCR	

	2022 - 2027	2022 PE RW	2023 CE CN	2024 CE CN	2025 CE CN	2026	2027
County	2,625		800	1,741	84		
FHWA?	2,938			2,938			
MIT FUND	1,478		1,478				
REET II	600		600				
STP(U)?	2,580			2,580			
TDM/EE	212	55	76		81		
TIB-UAP?	4,000		4,000				
TIF-E	5,023	1,210	1,777	1,290	746		
	19,456	1,265	8,731	8,549	911		

E.60	Alderwood Mall Parkway: SR 525 to 168 St SW	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Widen to five lanes with bicycle and pedestrian facilities from 168th St to SR 525 NB ramps.
1750		D	3	04	16	16	MCR	

	2022 - 2027	2022 PE RW	2023 PE RW	2024 PE RW CE CN	2025 CE CN	2026 CE CN	2027
County	428	168				260	
PWTFL?	3,000				2,754	246	
REET II	500				500		
STP(U)	2,580			2,580			
TIB-UAP?	4,000			875	3,125		
TIF-D	2,384	1,350	1,034				
	12,892	1,518	1,034	3,455	6,379	506	

E.61	Larch Wy: 212 St SW to Cypress Wy (N)	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Prepare design report and right of way plan for urban three-lane with bicycle and pedestrian facilities.
XE61		F	3	04	16	16	TBA	

	2022 - 2027	2022	2023	2024 PE	2025 PE	2026 PE	2027 PE
County	1,539			147	93	599	700
MIT FUND	183				107	76	
TIF F-BOTHELL	25					25	
TIF-F	253			53			200
	2,000			200	200	700	900

E.62	**Maple Rd / Butternut Rd Intersection Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Construct full intersection improvements.	
1759		D/F	4	04	17	17	OF		

	2022 - 2027	**2022** PE	**2023** PE RW	**2024** PE RW	**2025** PE RW CE CN	**2026** CE CN	**2027**
County	364				364		
TDM/FF	54				54		
TIF F-BOTHELL	63				63		
TIF-D	2,323	80	250	162	1,559	272	
TIF-F	674			162	512		
	3,478	80	250	324	2,552	272	

E.63	**228 St SE: 35 Ave SE to 39 Ave SE**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Joint project with City of Bothell (lead) for improvements to urban standards.	
1757		F	4,5	04	16	16	MP		

	2022 - 2027	**2022** PE	**2023** RW	**2024** RW	**2025** CN	**2026** CN	**2027** CN
County	210					206	4
TIF-F	514	100	24	35	229	126	
	724	100	24	35	229	332	4

E.64	**Manor Way: 164 St SW to 148 St SW**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Widen corridor to three lane urban standards with bicycle & pedestrian facilities.	
XE64		D	3	04	N/A	N/A	TBA		

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026** PE	**2027** PE
TIF-D	1,800					900	900
	1,800					900	900

E.65	**Lincoln Way: Beverly Park Rd to SR 525 Corridor Widening**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Design Report and right of way plan for corridor widening to urban standards.	
XE65		N/A	2,3	04	17	17	TBA		

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026** PE	**2027** PE
County	1,100					350	750
	1,100					350	750

F. Bridge Replacement and Rehabilitation

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Group Totals	27,452	2,352	1,380	8,372	9,437	5,190	721

F.01	**Miscellaneous Bridge Projects**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Miscellaneous bridge projects.	
XF01		N/A	All	11	All	All	PAH		

	2022 - 2027	**2022** PE	**2023** PE	**2024** PE	**2025** PE	**2026** PE	**2027** PE
County	940	110	110	120	200	200	200
	940	110	110	120	200	200	200

F.01.04 **Bridge Load Rating** | TSA N/A | Cncl Dist All | Type 14 | LFC All | FFC All | Mgr PAH | Bridge load rating and analysis.
1302

	2022 - 2027	**2022** PE	**2023** PE	**2024** PE	**2025** PE	**2026** PE	**2027** PE
County	258	36	36	36	50	50	50
	258	36	36	36	50	50	50

F.01.15 **Bridge Scoping** | TSA N/A | Cncl Dist All | Type 14 | LFC All | FFC All | Mgr DA | Bridge scoping.
1541

	2022 - 2027	**2022** PE	**2023** PE	**2024** PE	**2025** PE	**2026** PE	**2027** PE
County	240	40	40	40	40	40	40
	240	40	40	40	40	40	40

F.01.18 **Jordan Creek Bridge #214 Replacement** | TSA N/A | Cncl Dist 1 | Type 14 | LFC 07 | FFC 07 | Mgr TJT | Replace existing bridge with single span buried concrete structure or longer girder bridge.
1369

	2022 - 2027	**2022** PE RW	**2023** PE RW	**2024** CE CN	**2025**	**2026**	**2027**
BROS	4,092	342	258	3,492			
County	923	23	27	873			
	5,015	365	285	4,365			

F.01.20 **Schweitzer Creek Bridge #576 Rehabilitation** | TSA N/A | Cncl Dist 1 | Type 11 | LFC 07 | FFC 07 | Mgr TBA | Grind off the asphalt road surface down to the concrete bridge deck; lay down a thin asphalt wearing course
XF0120

	2022 - 2027	**2022**	**2023**	**2024**	**2025** PE CE CN	**2026**	**2027**
County	26				26		
FLAP	165				165		
	191				191		

F.01.21 **Wisconsin Creek Bridge #620 Rehabilitation** | TSA N/A | Cncl Dist 1 | Type 11 | LFC 07 | FFC 07 | Mgr TBA | Grind off the asphalt road surface down to the concrete bridge deck; lay down a thin asphalt wearing course.
XF0121

	2022 - 2027	**2022**	**2023**	**2024**	**2025** PE CE CN	**2026**	**2027**
County	26				26		
FLAP	165				165		
	191				191		

F.38 **Richardson Creek Bridge #300 (Woods Crk Rd) Replacement** | TSA: N/A | Cncl Dist: 5 | Type: 09 | LFC: 07 | FFC: 06 | Mgr: NWA | Replace short-span bridge.
1419

	2022 - 2027	2022	2023	2024 PE	2025 PE	2026 CE CN	2027 CE CN
County	370			10	50	297	13
STPR?	1,988					1,903	85
	2,358			10	50	2,200	98

F.39 **Granite Falls Bridge #102 (Mtn Loop Hwy) Replacement** | TSA: N/A | Cncl Dist: 1 | Type: 09 | LFC: 07 | FFC: 16 | Mgr: LB | Design and acquire RW for Granite Falls Bridge #102 replacement.
1622

	2022 - 2027	2022 PE	2023	2024	2025	2026	2027
County	10	10					
	10	10					

F.50 **Trout Creek Bridge #494 (Index-Galena Rd) Replacement** | TSA: N/A | Cncl Dist: 5 | Type: 09 | LFC: 09 | FFC: 07 | Mgr: TJT | Replace structurally deficient bridge.
1684

	2022 - 2027	2022 PE	2023 PE	2024 PE RW	2025 CE CN	2026	2027
County	1,022	190	250	220	362		
FLAP?	3,300				3,300		
RAP	960	160			800		
	5,282	350	250	220	4,462		

F.51 **Red Bridge #537 (Mtn Loop Hwy) Preventative Maintenance** | TSA: N/A | Cncl Dist: 1 | Type: 11 | LFC: 07 | FFC: 07 | Mgr: PAH | Replace failing paint system.
XF51

	2022 - 2027	2022 PE	2023 PE	2024 PE	2025 CE CN	2026	2027
BROS	1,845	130	83	83	1,549		
County	46	20	13	13			
	1,891	150	96	96	1,549		

F.54 **Swamp Creek Bridge #503 Replacement** | TSA: N/A | Cncl Dist: 4 | Type: 09 | LFC: 17 | FFC: 16 | Mgr: NWA | Replace functionally obsolete and structurally deficient high volume bridge.
1420

	2022 - 2027	2022 PE RW	2023 PE RW	2024 CE CN	2025	2026	2027
BROS	3,030	323	321	2,386			
County	1,004	27	28	949			
	4,034	350	349	3,335			

F.56	**Larson Road Bridge #101 Seismic Retrofit**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Seismic retrofit two in-span hinges and two intermediate piers and pier caps.
XF56		N/A	1	09	08	08	TBA	

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026**	**2027** PE RW
BROS?	183						183
	183						183

F.57	**Pilchuck Creek Bridge #626 Replacement**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replace bridge.
XF57		N/A	1	10	09	09	NWA	

	2022 - 2027	**2022**	**2023**	**2024**	**2025** PE RW	**2026** CE CN	**2027** CE CN
BROS?	2,496				216	2,160	120
RAP?	674				104	540	30
	3,170				320	2,700	150

F.58	**Madden Bridge #58 Rehabilitation**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Rehabilitate existing bridge with deck repair, rail replacement, and approach improvements.
1760		N/A	1	09	07	07	DA	

	2022 - 2027	**2022** PE CE CN	**2023**	**2024**	**2025**	**2026**	**2027**
BROS	709	709					
County	18	18					
	727	727					

F.59	**Snohomish River Bridge #1 Scour Mitigation**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Scour mitigation
XF59		N/A	5	11	16	16	TBA	

	2022 - 2027	**2022** PE	**2023** PE	**2024** PE	**2025** CE CN	**2026**	**2027**
BROS	2,884	185	185	130	2,384		
County	78	29	29	20			
	2,962	214	214	150	2,384		

G. Drainage

	2022 - 2027	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Group Totals	13,897	1,708	2,384	2,143	4,332	1,590	1,740

G.01	**Misc Road Drainage Improvements**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Improve drainage infrastructure on County road (locations selected annually).
XG01		N/A	All	03	All	All	JSB	

	2022 - 2027	**2022** CF	**2023** CF	**2024** CF	**2025** CF	**2026** CF	**2027** CF
SWM	5,400	900	900	900	900	900	900
	5,400	900	900	900	900	900	900

G.02.09 7893 — **19 Ave NE Culvert Replacement near 6304 (Hibulb Crk) MP 0.09**

TSA: N/A | Cncl Dist: 2 | Type: 06 | LFC: 09 | FFC: 09 | Mgr: GKA

Replace culvert.

	2022 - 2027	2022	2023	2024 PE	2025 PE CE CN	2026	2027
County	795			35	760		
	795			35	760		

G.02.17 1726 — **Mann Rd and Ben Howard Rd Improvements**

TSA: N/A | Cncl Dist: 5 | Type: 03 | LFC: 07 | FFC: 07 | Mgr: OF

Raise Ben Howard Rd and Mann Rd in three locations to reduce road flooding. Construction in 2023 Surface Water Management CIP.

	2022 - 2027	2022 CN	2023	2024	2025	2026	2027
County	410	410					
	410	410					

G.02.18 1775 — **67 Ave NE at 112 St NE Drainage Improvement (Phase 1)**

TSA: N/A | Cncl Dist: 1 | Type: 06 | LFC: 09 | FFC: 19 | Mgr: GKA

Replace failing culverts at 67 Ave NE and 112 St NE intersection. SWM funding design.

	2022 - 2027	2022	2023 CE CN	2024	2025	2026	2027
County	920		920				
	920		920				

G.02.19 XG0219 — **67 Ave NE at 112 St NE Drainage Improvement (Phase 2)**

TSA: N/A | Cncl Dist: 1 | Type: 06 | LFC: 09 | FFC: 09 | Mgr: GKA

Replace three failing driveway culverts along 67 Ave NE north of 112 St NE intersection. SWM funding design.

	2022 - 2027	2022	2023 CE CN	2024	2025	2026	2027
County	400		400				
	400		400				

G.02.20 XG0220 — **Elliott Rd Flood Reduction at Anderson Creek MP 0.48**

TSA: N/A | Cncl Dist: 5 | Type: 06 | LFC: 07 | FFC: 07 | Mgr: GKA

Culvert replacement and downstream channel restoration to reduce flooding.

	2022 - 2027	2022	2023	2024 CE CN	2025	2026	2027
County	1,095			1,095			
	1,095			1,095			

G.05.22 XG0522 — **Fish Creek Culvert Replacement MP 0.63**

TSA: N/A | Cncl Dist: 1 | Type: 06 | LFC: 08 | FFC: 08 | Mgr: GKA

Replace fish barrier culvert.

	2022 - 2027	2022	2023	2024	2025 PE	2026 PE	2027 PE CE CN
County	895				40	15	840
	895				40	15	840

G.05.24	**Miller Creek Culvert Replacement @ 28 Ave NW MP.91**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replacement of the fish barrier and failing CMP culvert at 28th Ave NW.
XG0524		N/A	1	32	09	09	GKA	

	2022 - 2027	**2022**	**2023**	**2024** PE	**2025** PE	**2026** PE CE CN	**2027**
County	730			40	15	675	
	730			40	15	675	

G.10.01	**111 St SE Culvert Replacement at MP 0.35**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replace failing infrastructure causing potholes in roadway.
XG1001		N/A	5	03	09	09	TBA	

	2022 - 2027	**2022** PE	**2023**	**2024** RW	**2025** CE CN	**2026**	**2027**
County	1,107	183		73	851		
	1,107	183		73	851		

G.10.02	**220 St NW Culvert Replacement at MP 3.3**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replace failing infrastructure.
XG1002		N/A	1	03	08	08	TBA	

	2022 - 2027	**2022** PE	**2023** PE	**2024**	**2025** CE CN	**2026**	**2027**
County	1,860	164	164		1,532		
	1,860	164	164		1,532		

G.10.03	**38 St SE Culvert Replacement at 13100**	TSA	Cncl Dist	Type	LFC	FFC	Mgr	Replace failing infrastructure.
XG1003		N/A	5	03	09	09	TBA	

	2022 - 2027	**2022** PE	**2023**	**2024**	**2025** CE CN	**2026**	**2027**
County	285	51			234		
	285	51			234		

Grand Totals for Snohomish County Transportation Improvement Program

	2022-2027	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Total	243,376	40,214	40,384	45,614	44,887	35,890	36,387

Grand Totals by Type of Funding

	2022-2027	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
COUNTY	104,051	16,401	14,090	13,949	20,072	18,265	21,274
MITIGATION	46,582	6,927	9,822	6,943	7,460	4,912	10,518
OTHER	92,743	16,886	16,472	24,722	17,355	12,713	4,595
Total	243,376	40,214	40,384	45,614	44,887	35,890	36,387

Executive/Council Action Form (ECAF) **SNOHOMISH COUNTY COUNCIL**

EXHIBIT # 1

FILE MOT. 21-359

ITEM TITLE:
..Title
Motion 21-359, adopting the 2022-2027 Six-Year Transportation Improvement Program
..body
DEPARTMENT: Public Works

ORIGINATOR: Alexander Hamm

EXECUTIVE RECOMMENDATION: Approved Ken Klein 09/28/21

PURPOSE: To adopt the 2022-2027 six-year Transportation Improvement Program.

BACKGROUND: RCW 36.81.121 requires each county to prepare and adopt a comprehensive transportation program that contains information as to how the county will expend its money for transportation projects. The County Road Engineer is required by RCW 36.81.121 to file an adopted six-year Transportation Improvement Program (TIP) with the County Road Administration Board (CRAB) by December 31, 2021. The TIP is prepared annually to specify the transportation construction program in accordance with the adopted Comprehensive Plan, which sets the stage for future land use and growth through the year 2035. The Department of Public Works prepares the six-year TIP as part of their budget process and it is used for development of the 2022 Annual Construction Program (ACP). This Transportation Improvement Program includes all County Districts.

FISCAL IMPLICATIONS:

EXPEND: FUND, AGY, ORG, ACTY, OBJ, AU	CURRENT YR	2ND YR	1ST 6 YRS
TOTAL			

REVENUE: FUND, AGY, ORG, REV, SOURCE	CURRENT YR	2ND YR	1ST 6 YRS
TOTAL			

DEPARTMENT FISCAL IMPACT NOTES: This program does not appropriate any funds or authorize any expenditures. The 2022 ACP for Transportation is developed from the first year of this six-year TIP. The ACP is used to develop the 2022 Road Fund Budget which will appropriate the funds.

CONTRACT INFORMATION:

ORIGINAL _____ CONTRACT# _____ AMOUNT _____
AMENDMENT _____ CONTRACT# _____ AMOUNT _____

Contract Period

ORIGINAL START _____ END _____
AMENDMENT START _____ END _____

OTHER DEPARTMENTAL REVIEW/COMMENTS: Approved Finance Nathan Kennedy 09/28/21

SNOHOMISH COUNTY COUNCIL

EXHIBIT # 2

FILE MOT. 21-359

2020 Annual Bridge Report

Prepared by: Snohomish County Public Works
Engineering Services Bridge Group

Submitted: April 2021

Snohomish County
Public Works

Cover Photo

Riley Slough Bridge 155 was replaced in 2020.
The bridge is located on Tualco Road
south of Monroe, WA.

Credits

Tim Tipton, P.E., S.E., County Bridge Engineer

Darrell Ash, P.E., S.E., Advisor to the County Bridge Engineer

Larry Brewer, P.E., Supervisor

Paul Heitman, P.E., C.B.I., Engineer

Mike Zitkovich, E.I.T., C.B.I., Inspector

Kelly Kauk, Engineering Tech IV

Deb Harvey, Graphic Designer

This document is available online at
www.snohomishcountywa.gov/206

Title VI and Americans with Disabilities Act (ADA) Information: *It is Snohomish County's policy to assure that no person shall on the grounds of race, color, national origin, or sex, as provided by Title VI of the Civil Rights Act of 1964, as amended, be excluded from participation in, be denied the benefits of, or otherwise be discriminated against under any county-sponsored program or activity. For questions regarding Snohomish County Public Works' Title VI Program, or for interpreter or translation services for non-English speakers, or otherwise making materials available in an alternate format, contact the Department Title VI Coordinator via email at spw-titlevi@snoco.org or phone 425-388-6660. Hearing/speech impaired may call 711.*

Información sobre el Titulo VI y sobre la Ley de Americanos con Discapacidades (ADA por sus siglas en inglés): *Es la política del Condado de Snohomish asegurar que ninguna persona sea excluida de participar, se le nieguen beneficios o se le discrimine de alguna otra manera en cualquier programa o actividad patrocinada por el Condado de Snohomish en razón de raza, color, país de origen o género, conforme al Título VI de la Enmienda a la Ley de Derechos Civiles de 1964. Comuníquese con el Department Title VI Coordinator (Coordinador del Título VI del Departamento) al correo electrónico spw-titlevi@snoco.org, o al teléfono 425-388-6660 si tiene preguntas referentes al Snohomish County Public Works' Title VI Program (Programa del Título VI de Obras Publicas del Condado de Snohomish), o para servicios de interpretación o traducción para los no angloparlantes, o para pedir que los materiales se hagan disponibles en un formato alternativo. Los que tienen necesidades comunicativas especiales pueden llamar al 711.*

ES.23.0421

Snohomish County

2020 Bridge Report

Submitted: April 2021

This bridge report is prepared by Snohomish County Public Works Engineering Services Bridge Group each year to fulfill requirements of the Washington Administrative Code (WAC) 136-20-060. This WAC requires the County Engineer's report of bridge inspections as follows:

"Each county engineer shall furnish the county legislative authority with a written report of the findings of the bridge inspection effort. This report shall be made available to said authority and shall be consulted during the preparation of the proposed six-year transportation program revision. The report shall include the county engineer's recommendations as to replacement, repair or load restriction for each deficient bridge. The resolution of adoption of the six year transportation program shall include assurances to the effect that the county engineer's report with respect to deficient bridges was available to said authority during the preparation of the program. It is highly recommended that deficient short span bridges, drainage structures and large culverts be included in said report."

Prepared by: Paul Heitman 4/22/2021
Paul Heitman, P.E., C.B.I.
Bridge Condition Project Manager

Reviewed by: 4/22/21
Tim Tipton, P.E., S.E.
Bridge Engineer

Approved by: Douglas W. McCormick 4/22/2021
Douglas W. McCormick, P.E.
Deputy Director/County Engineer

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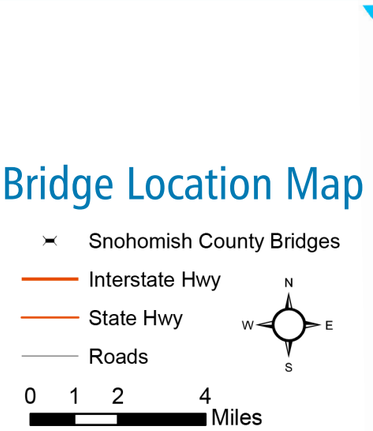
Contents

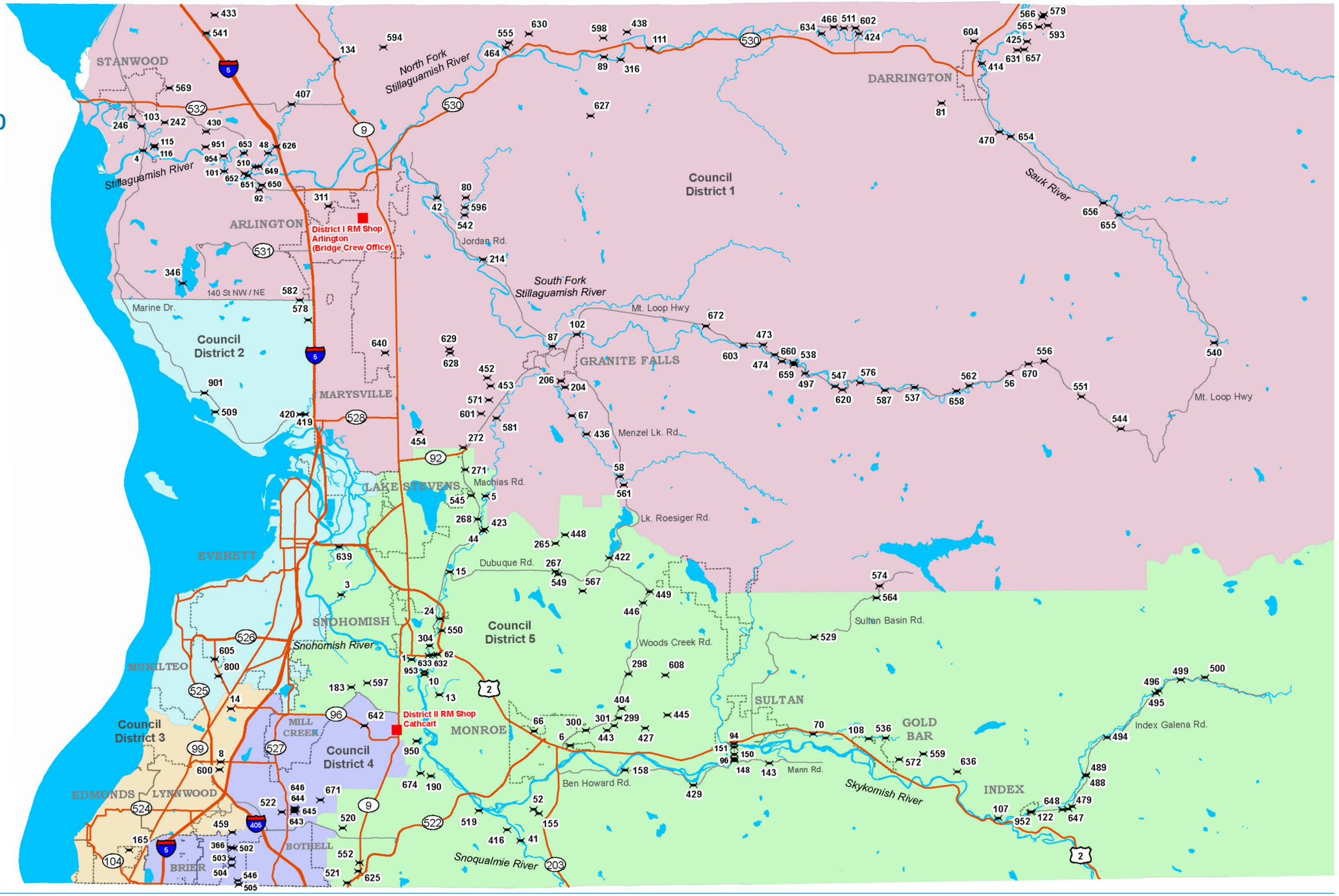
Acronyms

The following is a list of common acronyms widely used in the bridge inspection field:

ADT	Average Daily Traffic
BIRM	Bridge Inspector's Reference Manual
EV	Emergency Vehicles
FC	Fracture Critical
FHWA	Federal Highway Administration
FO	Functionally Obsolete
HBRRP	Highway Bridge Replacement and Rehabilitation Program
NBIS	National Bridge Inspection Standard
RCW	Revised Code of Washington
RID	Road Improvement District
SD	Structurally Deficient
SID	Structure Identification Number
SR	Sufficiency Rating
SUV	Single Unit Vehicles
UBIT	Under Bridge Inspection Truck
WAC	Washington Administrative Code
WSBIM	Washington State Bridge Inspection Manual
WSBIS	Washington State Bridge Inventory System
WSDOT	Washington State Department of Transportation

Bridge Location Map





Blank back side of 11 x 17 map.

Executive Summary

This report has been completed in compliance with WAC 136-20-060, which requires that each County Road Engineer furnish a written report of the county's bridge inspection efforts to the county legislative authority. It is also the intention of this report that information presented here be incorporated into a comprehensive program strategy to preserve the county's roadways.

Summary of bridge inventory

As of the end of 2020, the unincorporated Snohomish County road system contained 202 bridges which provided continuity between 1,599 miles of roads. Three of our bridges are considered structurally deficient. We have secured federal bridge funds to replace or improve these bridges. Appendix A on page 31 includes a complete list of county bridges and key information.

Highlights in 2020

- A total of 114 Snohomish County bridge condition inspections were completed by county forces.
- Snohomish County provided bridge inspection services for 35 city-owned bridges.
- A total of 14 major bridge repair work orders were completed by Snohomish County Maintenance crews.
- South Lake Stevens Bridge 200, Little Pilchuck Creek Bridge 270 and Little Pilchuck Creek Bridge 426 were annexed to the City of Lake Stevens.
- Bridge replacement construction was finished for Riley Slough Bridge 155 on Tualco Road.
- Both concrete approach slabs were replaced on Woods Creek Bridge 427 on Florence Acres Road.
- Abutment embankment scour repair was designed and constructed for Thomas Creek Bridge 642 on Cathcart Way.
- Despite a challenging year due to COVID-19, the Inspection Team completed all required bridge inspections.

Riley Slough Bridge 155, a 12-span timber trestle with a concrete deck built in 1930, was replaced with a new three-span concrete bridge that was completed and opened in the summer of 2020. It is located on Tualco Road across Riley Slough southwest of Monroe.

Bridge Inventory

Bridge inventory

7	culverts
23	steel
29	combination
38	timber
105	concrete
202	total bridges

Out of the 202 bridges in Snohomish County, 38 are of timber construction, 105 are of concrete construction, and 23 are predominately of steel construction (11 of which are fracture-critical), 29 are a combination of wood, concrete and steel construction and 7 are culverts.

Overall, 68 of our 202 bridges are at least partially timber. This is a significant improvement from 1976, when nearly 90% of our bridge spans were timber.

See Appendix A on page 31 for a complete list of Snohomish County bridges and some of their key information.

Bridge 14 (Culvert C14) carrying Swamp Creek at the intersection of Gibson Road and Admiralty Way. A work order is planned for 2021 to repair voids under the sidewalk located just upstream of the bridge.

Short span bridges

The Highway Bridge Replacement and Rehabilitation Program (HBRRP) excludes short span bridges (NBIS length of 20 feet or less; see diagram on page 36) and non-NBIS bridges (railroad, pedestrian and privately owned bridges) from receiving federal funding. Out of the 202 bridges in Snohomish County's inventory, 33 of these bridges are classified as short span bridges and they are listed at the end of Appendix A on pages 36 and 37.

Portage Creek Bridge 311 on 43rd Ave NE in Arlington is a short span built in 1972. It's an example of one of our bridges that is a combination of wood and concrete construction.

Other local agency bridges

Snohomish County provides inspection services to cities upon request and staff availability. The county works with cities under Interlocal Agreements (ILA), with conditions set forth in the Revised Code of Washington (RCW) Chapter 39.34. In 2020 the county provided inspection services on 35 bridges for local agencies.

In addition, the Road Maintenance Division contracts with local agencies for the maintenance of city bridges. The county's services are provided primarily to cities that lack resources and expertise to inspect and maintain their bridge inventory.

Bridge Inspection and Findings

Bridge inspections on Snohomish County bridges are performed in accordance with the National Bridge Inspection Standards (NBIS) in conformance with 23 CFR 650.3. The standards mandate that public agencies inspect all of their bridges, except short span structures, at least once every two years. These regularly scheduled inspections are defined as routine inspections and are reported to the Federal Highway Administration (FHWA) upon their completion. A small number of bridges are inspected more frequently due to certain deficiencies that require additional monitoring.

A certain number of our bridges require specific access assistance, equipment and professional services during the inspection process. There are three types of special inspections that may be performed. Under-Bridge Inspection Truck (UBIT) is required for bridges that cannot be given an adequate visual inspection from the ground. Steel bridges with fracture critical members (FCM) may require special inspection equipment. Underwater inspections are required every five years for bridges with piers that extend below ordinary low-water levels (see Exhibit B on page 12).

The inspector uses the NBIS standards to document the current condition of each bridge element listed. The deficiencies are coded to NBIS standards and show the degree of deterioration in various elements. The three primary elements being (see the "Basic Bridge Parts" drawing on page 28): deck, superstructure and substructure.

Wes Smith Bridge 122 over the N.F. Skykomish River in Index. County and WSDOT bridge inspectors inspecting the bridge's steel arch and cables via a WSDOT UBIT.

A bridge is classified as structurally deficient (SD) if any of these important elements are rated as follows: being in poor condition due to damage and/or deterioration, its load carrying capacity is lower than current design standards, or the waterway below frequently overtops the bridge during floods.

As deterioration accelerates, the coding values drop and work orders for repairs are issued. In the case where the coding factors are extremely low, recommendations are made for repair, replacement or rehabilitation. Bridges with identified deficiencies may be inspected at more frequent intervals.

The results of our inspection program are forwarded to the Washington State Department of Transportation (WSDOT) Highway and Local Programs Division for review. Once the report has been accepted by WSDOT it is available for Federal Highway Administration (FHWA) review.

The NBIS also has other factors which contribute to developing the overall rating of a bridge. Sufficiency Rating (SR) is a calculated score based on numbers assigned to all factors reviewed by the inspector. The SR is a number from 0 to 100, with 100 being an entirely sufficient bridge, and 0 being an entirely insufficient or deficient bridge. Items that go into the determination of the SR include: load bearing capacity, average daily traffic, availability and length of detour, the geometry of the bridge and the risk of scour on bridge foundations at waterway crossings.

During 2020, yearly routine inspections were performed on 149 bridges, including 35 city bridges.

Bridges are classified as functionally obsolete (FO) if they are too narrow for the volume of traffic they carry, narrower than the road approaches, or have limited sight distance. Appendix A on page 31 shows the bridges in our inventory that are FO.

Bridges must be SD to be eligible for federal rehabilitation or replacement funds. The amount of available grant funds is never enough to be allocated to bridges that are FO unless they are also SD.

See our master list of special inspections (Exhibit B, page 12) for details on inspection frequencies and schedules for all of our UBIT and underwater bridge inspections, as well as special inspections done on suspended spans.

Additional findings and recommendations as a result of bridge inspections are described more fully in the following sections:

- Load Restricted Bridges
- Width and Height Restricted Bridges
- Bridge Replacement Plan
- Bridge Maintenance and Repairs

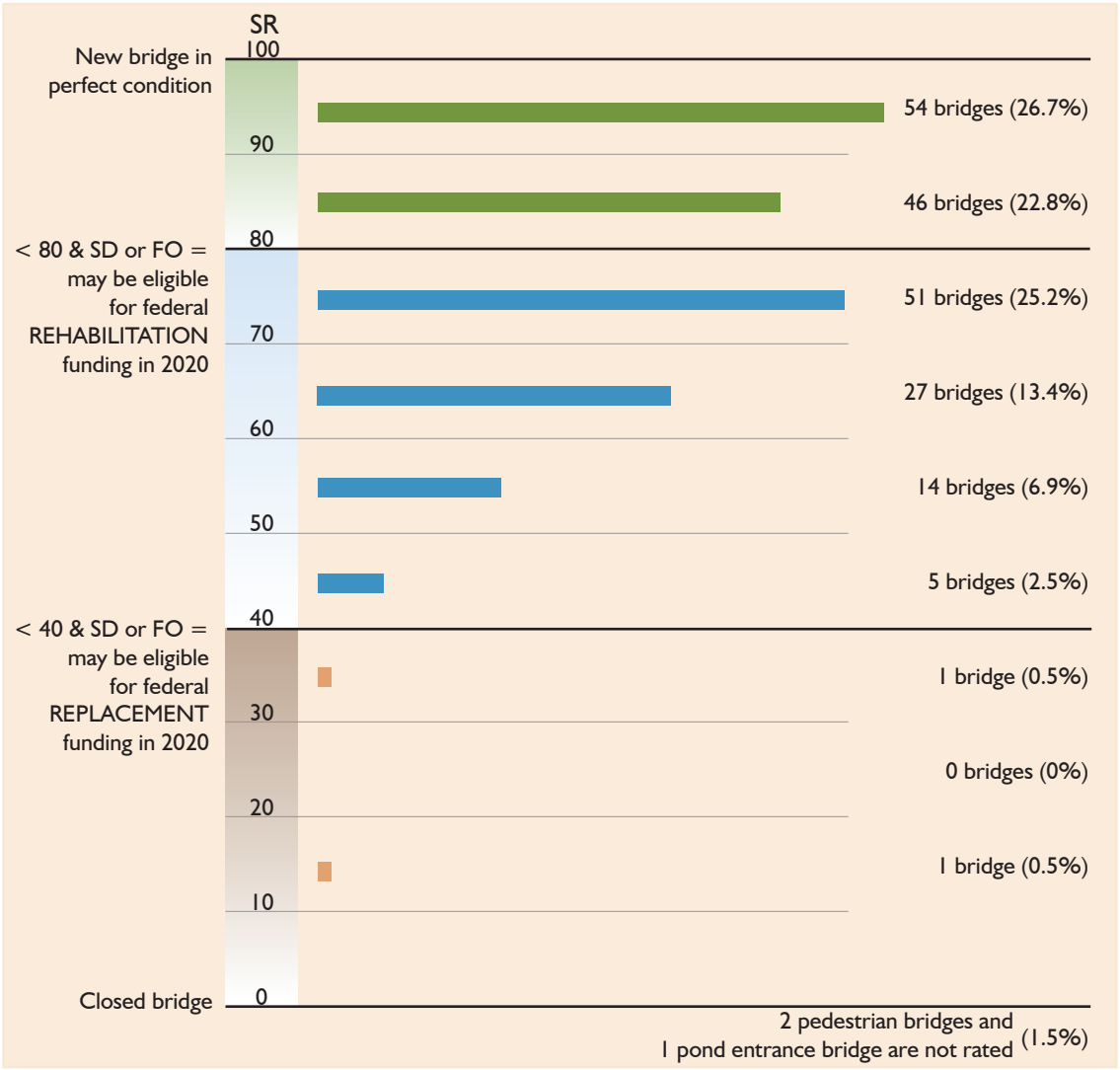
Snohomish River Bridge 1 on Airport Way in Snohomish. County inspector setting marker to monitor gap between mechanically stabilized earth (MSE) wall and Abutment 1.

Sauk River Bridge 414 on Sauk Prairie Road. County and WSDOT bridge inspectors inspecting the bridge's steel truss via a WSDOT UBIT.

Fisher Creek Bridge 433 on English Grade Road. County bridge inspector examining timber piles and braces.

Exhibit A

Snohomish County Bridge Sufficiency Ratings (SR) – 2020 (including short spans)



SD = structurally deficient | FO = functionally obsolete

Exhibit B

2020 Snohomish County Special Bridge Inspections

Bridge Number	Bridge Name	2022 UBIT	2024 UBIT	UW	UT	FC
1	Snohomish River	April	April	2024		Yes
3	Ebey Slough	May		2021		
4	Hatt Slough	May		2021		
10	Pilchuck River	May				
15	Dubuque		May			
41	High Bridge	May				
44	Machias-OK	June	June			Yes
48	Jackson Gulch	May				
56	Silverton	May				
58	Madden	May				
67	Pilchuck River	May				
80	Vos Creek	Sept				
87	Chappell	June	June			
89	Oso Bridge	June				
94	Sultan	May	May			
101	Larson	June	June		2022	
102	Granite Falls	June	June			Yes
103	Thomle	July				
111	Halterman Spur	May				
115	Peterson	June				
122	Wes Smith Bridge	June	June		2022	Yes
151	Shinglebolt Slough	May				
165	Chase Lake	July				
204	Robe-Menzel	June				
206	Robe-Menzel	June				
214	Jordan	June	June			
304	6th Street	June	June			Yes
414	Sauk River	June	June			Yes
416	Crescent	May	May			
424	Swede Heaven	May				
427	Woods Creek	June				
430	Norman Slough	July	July			
433	Fisher Creek	June	June			

FC = fracture critical inspection (11 bridges)
UW = under water inspection (5 bridges)
* UBIT scheduled for odd year shown

UBIT = under-bridge inspection truck
UT = ultrasonic testing (3 bridges)

(chart continues on next page)

2020 Snohomish County Special Bridge Inspections

Bridge Number	Bridge Name	2022 UBIT	2024 UBIT	UW	UT	FC
499	N.F. Skykomish River	July				
509	Battle Creek	May				
537	Red Bridge	June	June	2021		Yes
538	S.F. Stillaguamish River	June	June			Yes
540	S.F. Sauk River		*2021 (June)			Yes
581	Pilchuck River		*2021 (June)			Yes
626	Pilchuck Creek	July	July		2022	
633	Pilchuck River	June	June			
642	Thomas Creek	May				
650	Thomsen Slough	July				
651	Silvana	May				
653	Old Stillaguamish River		Aug	2025		
655	Sauk River		May			
656	Dutch Creek		May			
660	Monte Cristo	June	June			Yes

FC = fracture critical inspection (11 bridges)
UW = under water inspection (5 bridges)
* UBIT scheduled for odd year shown

UBIT = under-bridge inspection truck
UT = ultrasonic testing (3 bridges)

Machias-OK Bridge 44 over the Pilchuck River is one of nine steel trusses in the county and was built in 2005 on OK Mill Road in Snohomish. It is one of 11 fracture critical bridges in the county and it underwent a biennial special inspection in 2020.

Load Restricted Bridges

Each bridge is required by NBIS standards to have a "Load Rating" calculation. The Load Rating establishes how much weight the bridge can carry compared to a series of standard trucks. A bridge that can't safely carry the full load of any of the standard trucks is classified as a "Load Restricted Bridge" and is required to be posted with load limit signs. The photograph below illustrates a typical load limit sign.

Currently there are 13 bridges on the list of load restricted bridges.

South Fork Sauk River Bridge 540 on Reece's Hideout Road has a both a width and weight restriction.

Prior to 2017 there were three standard load rating trucks. In 2017 eight additional standard load rating trucks were added. All bridges need to be load rated for the new standard trucks by 2022. The new standard load rating trucks are a result of new trucks that have been introduced by manufacturers over the last decade.

Four of the new standard trucks are designated SU4 – SU7. The SU designation stands for Single Unit and the number represents the total number of axles. The new trucks have "lift axles" in addition to the standard front and rear axles. Lift axles are raised when the truck is empty and lowered when the truck is loaded. Photographs of a Single Unit 4 Axle Truck and Single Unit 7 Axle Truck are shown to the right.

The remaining two new standard trucks are designated EV2 and EV3. The EV designation stands for Emergency Vehicle and the number represents the total number of axles. The emergency vehicles are heavily loaded at all times; therefore, they do not have lift axles.

Exhibit C on page 15 lists all the load restricted bridges, has a table of the maximum allowable loads for each of the standard load rating trucks, and has photographs of EV2 and EV3 vehicles.

Example of a SU4.

Example of a SU7.

Exhibit C

Snohomish County Bridges with Weight Restrictions

Bridges listed below have a load rating below the legal limit. The maximum legal load tonnages are shown below in Table 1660a from the January 2019 WSBIM page 2-C-41. See the WSDOT Bridge Design Manual M23-50, Chapter 13 for more information.

Bridge #	Bridge Name	Tonnage						
		AASHTO Type 3	AASHTO Type 352	AASHTO Type 3-3	SU4	SU5	SU6	SU7
111	Halterman Spur				24	26	27	29
143	Haystack Creek				25	26	27	30
148	South Slough							36
214	Jordan Creek	22	32	36	22	25	28	31
433	Fisher Creek				24	24	27	30
464	Grant Creek						32	32
503	Swamp Creek	21	35	39	19	22	25	28
540*	S.F. Sauk River				23	26	29	32
544	Buck Creek				25	27	27	29
551	Perry Creek				24	25	25	26
576	Schweitzer Creek					29	29	31
620	Wisconsin Creek	22	34	40	20	22	22	24
634	Swede Creek	21	33	40	19	21	22	24

* Bridge 540 also has a width restriction. See Exhibit D on page 16.

Table 1660a - Legal Loads

Configuration	Tonnage
AASHTO Type 3	25 tons
AASHTO Type 352	36 tons
AASHTO Type 3-3	40 tons
SU4	27 tons
SU5	31 tons
SU6	34.7 tons
SU7	38.7 tons
EV2	28.7 tons
EV3	43 tons

Snohomish County Fire Department District 5 Engine 51 is an example of an EV2.

Snohomish County Fire Department District 5 Tender (Tanker) 51 is an example of an EV3.

Width and Height Restricted Bridges

Bridges that have traffic portals of 15 feet or less are required to be posted with the allowable height limit. Snohomish County has seven roads passing through posted height restricted bridge structures, four of which are railroad under crossings.

Width and height restricted bridges are listed in Exhibit D below and also on the Snohomish County website, along with a vicinity map, aerial photo and picture of each bridge. See www.snohomishcountywa.gov/494.

Exhibit D

Snohomish County Crossings with Width and Height Restrictions

Bridge #	Bridge Name	Width	Height
56	Silverton Bridge	16'0"	
81	Brown Creek	15'0"	
107	Deer Creek	16'0"	
214	Jordan Creek	16'0"	
304	6th St (Snohomish)		14'3"
448	Carpenter Creek	11'0"	
537	Red Bridge		14'9"
538	S.F. Stillaguamish River		14'9"
540*	S.F. Sauk River	13'2"	
627	Lake Riley	15'0"	
660	S.F. Stillaguamish River	12'0"	
950	Connelly Road (BNRR 1G34.7U)		12'0"
951	Olson Road (BNRR 2B51.5U)		9'4"
952	Index-Galena Road (BNRR 2A1746.2U)		15'6"
954	Norman Road (BNRR 2B50.8U)		10'5"

* Bridge 540 also has a weight restriction. See Exhibit C on page 15.

Olsen Road Railroad Underpass is height restricted.
In 2019 BNSF replaced an all timber trestle with a steel and concrete bridge.

Bridge Replacement and Rehabilitation Plan

The county's current focus is to replace or rehabilitate bridges that are classified as structurally deficient (SD) and/or functionally obsolete (FO) per NBIS.

Since 2000, 52 bridges have been replaced or re-built in Snohomish County. Lists of future replacement/rehabilitation candidates, including short-span bridges, are shown in Exhibit E on page 19.

2019/20 replacement construction

Riley Slough Bridge 155 replacement
The 12-span timber trestle with a concrete deck built in 1930 was replaced with a new three-span concrete bridge that was completed and opened in the summer of 2020. It is located on Tualco Road across Riley Slough southwest of Monroe.

Riley Slough Bridge 155.

Riley Slough Bridge 155.

2020 replacement/rehabilitation design projects

Swamp Creek Bridge 503 replacement
This 41-foot long two span bridge was built in 1960 and carries Locust Way over Swamp Creek between Bothell and Brier. Federal bridge replacement funds for the replacement project were received in 2020 and construction is planned for 2024.

Swamp Creek Bridge 503.

Jordan Creek Bridge 214 replacement
This 107-foot long trestle style multi-span bridge was last re-built in 1981 and carries Jordan Road over Jordan Creek between Granite Falls and Arlington. Federal bridge replacement funds for the project were received in 2020 and construction is planned for 2024.

Jordan Creek Bridge 214.

Richardson Creek Bridge 300 replacement
This 18-foot long short span bridge was built in 1961 and is located on Woods Creek Road north of Monroe. Design for the replacement project has been funded and was started in 2018. County staff hosted a public meeting in October 2019 to discuss the proposed project. Construction is planned for 2024 pending permit approvals and construction funding

Richardson Creek Bridge 300.

Granite Falls Bridge 102 replacement
The 340-foot long steel arch truss bridge was built in 1934 and is located 1.5 miles east of Granite Falls. It carries Mountain Loop Highway traffic 90 feet above the South Fork of the Stillaguamish River. This structure is considered fracture critical and rated functionally obsolete; large trucks have difficulty passing by each other. A design report was completed and we continue to seek project funding.

Granite Falls Bridge 102.

Madden Bridge 58 rehabilitation
This 138-foot long three span bridge was built in 1956 and carries Menzel Lake Road over Pilchuck River between Granite Falls and Lake Stevens. Federal bridge funds for the rehabilitation project were received in 2020 and construction is planned for 2022. The proposed work includes a concrete overlay for the bridge deck, and improvements to the bridge rail and adjacent pavement.

Madden Bridge 58.

Trout Creek Bridge 494 replacement
This 138-foot long three span bridge was built in 1956 and is located on Index-Galena Road over Trout Creek northeast of Index. The proposal is to replace this bridge with a single span structure. This project currently has Rural Arterial Program (RAP) funds from the state, and we will continue to seek additional funding.

Trout Creek Bridge 494.

Exhibit E

Future Replacement and Rehabilitation Candidates

Future rehabilitation candidates
The following county bridges are rehabilitation candidates.

Bridge	Name	Deficiencies/Concerns	Sufficiency Rating	Road Name	Rd Func Class	SD
547	Black Creek	Rotten piles and pile caps, scour	59	Mt. Loop Hwy	7	N/A
556	Coal Creek	Rotten timber piles and caps	62	Mt. Loop Hwy	7	N/A
626	Pilchuck Creek	Steel girders with laminar rust. Concrete deck worn to aggregate. Concrete abutments, pier walls and caps with significant cracking throughout.	68	Old SR 99	9	N/A
670	Deer Creek	Rotten timber piles	57	Mt. Loop Hwy	7	N/A

Future short span replacement bridges
Bridges with a length of 20' or less are classified as short span bridges and are not eligible for federal replacement or rehabilitation grant funding. Of the county's 33 short span bridges, the following three are planned for replacement using County Road Fund dollars. Two of the bridges are functionally obsolete (FO) and one is a fish passage (FP) restriction.

Bridge #	Name	Deficiencies/Concerns	Sufficiency Rating	Road Name	Rd Func Class	FP/FO
158	Barr Creek	Narrow bridge deck	55	Ben Howard Rd	7	FO
565*	Everett Creek	Fish passage	73	Crawford Loop	9	FP
582	Quilceda Creek	Narrow bridge deck	42	140th NE	16	FO

* As a condition of the last deck and stringers replacement, Washington Department of Fish & Wildlife required a complete replacement of Bridge 565.

Everett Creek Bridge 565 located 3.5 miles northeast of Darrington on Crawford Loop Road was built in 1985. It is a short span with an overall length of 15 feet (NBIS length of 12 feet) and has a fish passage restriction. The bridge is planned to be replaced with a longer structure.

Future Rehabilitation Candidates

Pilchuck Creek Bridge 626 on Old 99 North and built in 1933. Rusting steel girders, exposed aggregate on concrete deck and significant cracking of many other concrete elements classifies this bridge as a future rehabilitation candidate.

Black Creek Bridge 547 built in 1952 on Mountain Loop Highway. Exposure of shallow concrete spread footings classifies this scour critical bridge as a future rehabilitation candidate.

Deer Creek Bridge 670 built in 1949 on Mountain Loop Highway. Currently has 13 lines of 6 spans of original 8 x 24-inch treated timber sawn girders, and original concrete deck and railing.

Coal Creek Bridge 556 built in 1949 on Mountain Loop Highway. It has 13 lines of 3 spans of original 6 x 20-inch (spans 1 and 3) and 8 x 24-inch (span 2) treated timber sawn girders, and original cast-in-place concrete piers, deck and railing.

Bridge Maintenance and Repairs

Routine repairs and preventive maintenance are an essential part of our overall bridge program. They are vital in preventing bridge service disruptions and deterioration of bridge components. Thus, they significantly extend a structure's lifespan and save valuable time, money and resources.

The majority of bridge repair and maintenance work is done by county forces, with occasional support from various vendors. General maintenance includes annual functions such as cleaning, minor painting, guardrail repairs, debris removal, brush cutting and tree trimming.

Routine repairs include restoring and replacing damaged, worn, missing or defective elements whose failure can significantly affect bridge service. Common examples are repairing rotten and split timber, concrete cracks and spalls, pier and abutment scour, rusting steel and asphalt failures.

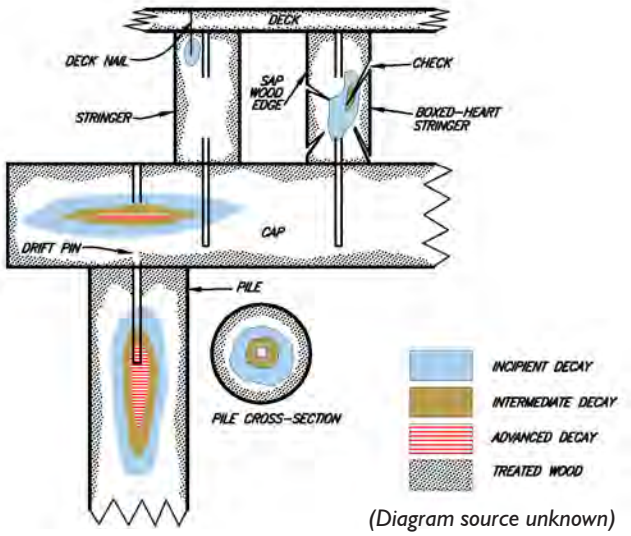
In 2020, maintenance crews completed 14 major work orders which are listed in Exhibit F.

Work planned for 2021 includes routine repairs and maintenance, as well as major work orders. The major work orders include repairing approach slab settlements, removing under bridge debris, repairing pile scour, installing sheet piling behind bridge abutments, cleaning bridge components, reinforcing piles, restoring bridge embankments and replacing expansion joints, piles, caps, bracing and deck/abutment planks.

Snohomish County Public Works will apply for Federal Highway Bridge Program funding in 2021 to apply a preventative maintenance overlay to four bridge decks. The proposed system is a thin polyester polymer concrete overlay that will help increase live load capacities, tensile strength and resistance to impact. One goal is that this work will reduce long-term maintenance costs. The bridges are Chase Lake Bridge 165, Quilceda Creek Bridge 419, Sturgeon Creek Bridge 420 and Thomas Creek Bridge 642.

Wallace River Bridge 536 built in 1970 in Gold Bar. The rock abutment wall wrapped in geogrid at the south end of the bridge was punctured by a log during a highwater event causing the wraps to collapse and roadway pavement to settle.

Typical Timber Bridge Decay Types



(Diagram source unknown)

Exhibit F

Major Work Orders Completed in 2020

Bridge #	Name	Date		Description of Work
366	Scriber Creek	20-366	April	Subgrade Repair.
41	High Bridge	20-041	June	Bridge Rail Repair.
505	Swamp Creek	19-505	June	Asphalt Repair.
510	Koch's Slough	20-510	June	Cross-brace Replacments.
509	Battle Creek	20-509	June	Girder Access Cable Removal.
103	Thomle Bridge	19-103	June	Asphalt Repair.
204	Robe Menzel Bridge	20-204	June	Asphalt Repair.
56	Silverton Bridge	20-056	July	Bridge Rail Repair.
551	Perry Creek	20-551	July	Wing Wall Repair.
648	Lewis Creek	19-648	September	Scour Repair.
593	Green Creek	20-593	September	Spreader Strut Replacements.
642	Thomas Creek	20-642	November	Conduit Wire Removal.
427	Woods Creek	19-427	December	Approach Slab Replacements.
416	Crescent Bridge	20-416	December	Pier Erosion Repair.

Miller Road Cattle Pass Bridge 116, a short span bridge built in 1963 and located south of Stanwood. It also serves as a flood relief channel for the adjoining valley. In 2021 one cap and four abutment boards will be replaced and three structural piles will be reinforced due to advanced to intermediate decay.

Bridge 642 Thomas Creek erosion repair

At Thomas Creek Bridge 642 located on Cathcart Way near the city of Mill Creek there were heavy winter rains and snow melt at the beginning of 2020 that caused a significant increase in creek erosion under the bridge. The embankment of the bridge's west abutment footing was damaged considerably by the erosion.

Public Works designed and inspected an embankment repair that included a boulder buttress throughout most of the embankment and erosion control measures to help protect the creek running along the toe of the slope. A contractor performed the work and the project was completed in October 2020 at a cost of $212,000.

BEFORE construction.

AFTER construction.

Bridge 427 Woods Creek approach slabs replacement

Woods Creek Bridge 427 is located on Florence Acres Road east of Monroe, WA and was built in 1990. Recently it experienced one to two inches of post construction settlement at the east and west concrete approach slabs. This created an abrupt dip at the connection between the slabs and the asphalt roadway. In addition, the approach slabs only extended to the edge of each travel lane and not to the outer edge of the bridge surface.

A county geotechnical investigation in 2020 found that the settlement was likely caused by poorly compacted fill soils and water infiltration due to ponding at the bridge corners. As recommended by our geotechnical engineer, the County Bridge Maintenance crew demolished the existing slabs and replaced them with ones that were almost twice the length as the existing and that extended out to the barriers of the bridge. As a result, the slabs and asphalt transition points provide significantly smoother rides. The project was completed in December 2020 and cost $138,000.

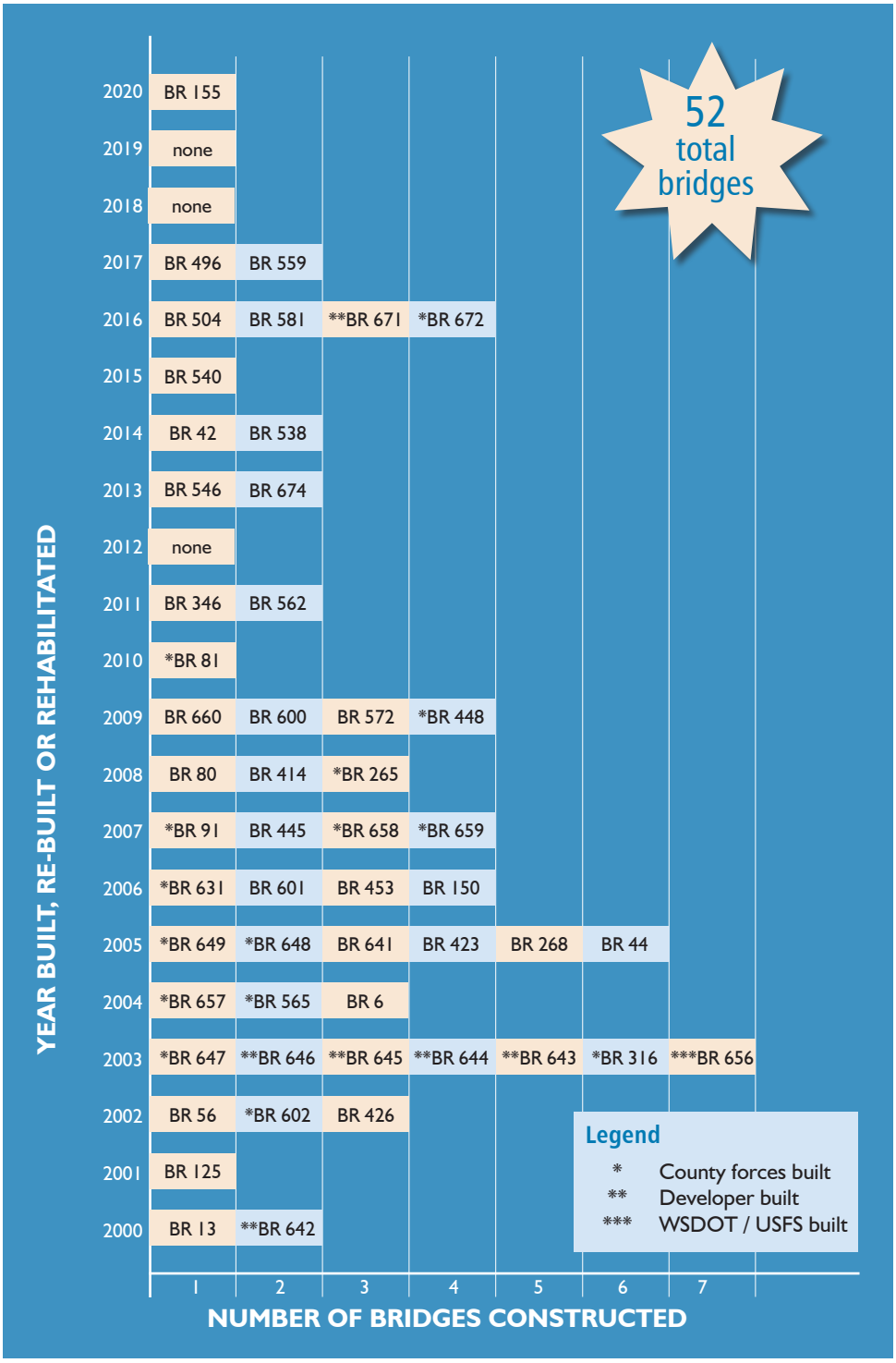
Straight edge shows abrupt dip at connection between concrete approach slab and asphalt roadway.

County Bridge Maintenance demolishing existing slab at the northwest corner of the bridge.

County Bridge Maintenance preparing to pour the new slab at the northeast corner of the bridge.

New slab at the east end of the bridge.

Bridge Construction 2000-2020



Emergency Preparedness Bridges

The county has developed a list of priority routes as part of its Emergency Preparedness Plan. There are 67 bridges located on the priority routes. Many of these bridges are in flood prone or seismically vulnerable areas.

Flood prone bridges

The county has many roads and bridges located in flood zones. Due to the high frequency of flooding, the county also has a lot of experience responding to flood damage. The biggest concern for bridges is the washing away of soil at bridge pier foundations, which can create a potentially unstable situation. The washing away of soil is known as "scour."

Scour is often caused by the accumulation of flood debris at bridge piers. The flood debris reduces the waterway opening which results in higher water elevations, higher water velocities and potentially scour.

If the bridge's foundational elements are a possible scour risk, the bridge may be categorized as scour critical. If a bridge is determined to be scour critical, then a scour plan of action is developed. A plan of action outlines actions to be taken in the event scour damage is observed after a flood event.

Snohomish County also maintains a list of "Flood Watch" bridges shown in Appendix B (page 38). These are bridges that have historically had accumulations of debris or have been submerged by flood events. During and after flood events these bridges are monitored, and road closures are implemented as conditions warrant. The Flood Watch list is not limited to priority route bridges.

Seismic vulnerable bridges

An increased understanding of how bridges react to an earthquake has led to an effort to identify and protect seismically vulnerable bridges. The upper layer of soils along most county rivers is liquefiable, which means that in the event of an earthquake, the upper layer of soils will temporarily liquify. When the soils liquify, they cease to provide full support to bridge foundations located in the liquefiable zone.

All county bridges are in the zone of influence for the Seattle Fault Line and Cascadia Subduction Zone, and a few of them are also located in the Southern Whidbey Island Fault. Many bridge foundations are also located in liquefiable soils. Other factors affecting seismic vulnerability are types of construction, number of spans, levels of redundancy and geometric constraints.

Appendix C

The 67 county bridges that are on lifeline routes are listed in Appendix C (page 40). The list is sorted first by Priority Route and second by Bridge No. Each Priority Route has a common background color.

Ebey Slough Bridge 3 built in 1976 on Home Acres Road is one of the county's 69 Lifeline Route bridges. It is located in Everett in the Snohomish River valley 1.3 miles east of Lowell and the Snohomish River.

Sultan Bridge 94 on Mann Road and over the Skykomish River in Sultan was built in 1961. WSDOT maintenance crew members were hired by the county to break up some of the trapped wood debris at Pier 2.

Glossary of Bridge Terms

Abutment – a substructure supporting the end of a super-structure and, in general, retaining or supporting the bridge approach fill.

Approach span – the span or spans connecting the abutment with the main span or spans.

Beam – a linear structural member designed to span from one support to another.

Bent – a supporting unit of the beams of a span made up of one or more columns connected at their top-most ends by a cap.

Bracing – a system of tension or compression members connected to beams or columns. It transfers wind, impact, vibratory and dynamic stresses to the substructure, and gives rigidity throughout the complete assemblage.

Cap – the horizontally-oriented, top-most piece or member of a bent.

Cast-in-place (CIP) – concrete poured within form work on site to create a structural element in its final position.

Chord – in a truss, the upper-most and the lower-most longitudinal members, extending the full length of the truss.

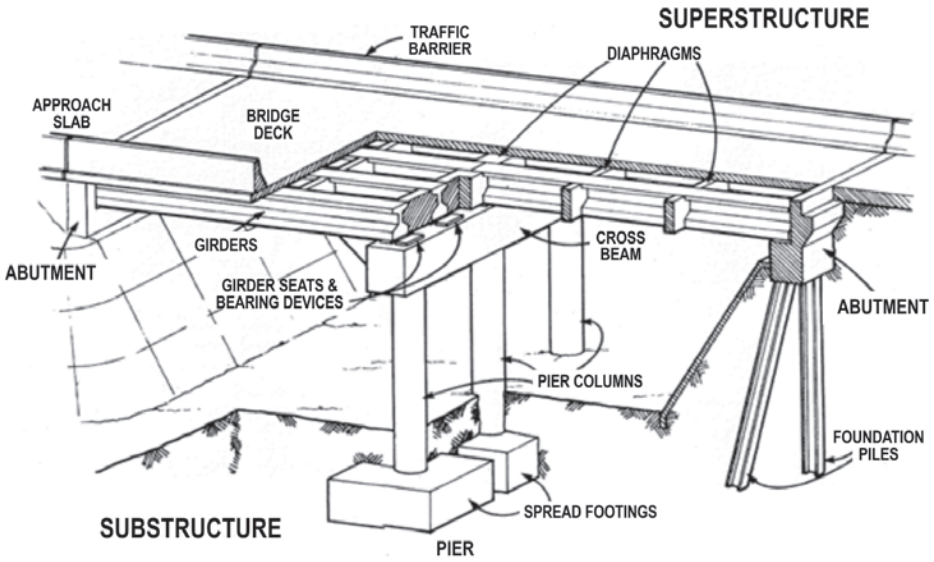
Column – a vertical structural member that transfers dead and live load from the bridge deck and girders to the footings or shafts.

Compression – a type of stress involving a pressing or squeezing together; tends to shorten a member; opposite of tension.

Culvert – a pipe or structure used for drainage under an embankment. A culvert with a diameter greater than 20 feet is included in the National Bridge Inventory.

Dead load – a static load due to the weight of the structure itself.

Basic Bridge Parts



Deck – the roadway portion of a bridge that provides direct support for vehicular and pedestrian traffic.

Diagonal – a sloping structural member of a truss or bracing system.

Elastomeric pads – rectangular pads made of neoprene, found between the sub-structure and superstructure that bear the entire weight of the superstructure. Elastomeric pads can deform to allow for thermal movements of the superstructure.

End wall – the wall located directly under each end of a bridge that holds back approach roadway fills. The end wall is part of the abutment.

Expansion joint – a joint designed to provide means for expansion and contraction movements produced by temperature changes, load, or other forces.

Fatigue – cause of structural deficiencies, usually due to repetitive loading alternating between tension and compression over time.

Footing – the enlarged, lower portion of a concrete sub-structure that distributes structure load to the earth.

Fracture critical member – a member in tension or with a tension element whose failure would probably cause a portion of, or the entire bridge, to collapse.

Functionally Obsolete – a status used to describe a bridge that is no longer by design functionally adequate for its task. Reasons for this status include that the bridge doesn't have enough lanes to accommodate the traffic flow or it may not have space for emergency shoulders. Functionally obsolete does not communicate anything of a structural nature. A functionally obsolete bridge may be perfectly safe and structurally sound, but may be the source of traffic jams or may not have enough clearance to allow an oversized vehicle.

Girder – a main support member for the structure that usually receives loads from floor beams and stringers.

Hanger – a tension member serving to suspend an attached member.

Hinge – a point in a structure at which a member is free to rotate.

Live load – vehicular traffic, wind, water, and/or earthquakes.

Lower chord – the bottom horizontal member of a truss.

Pier – a vertical structure comprised of concrete, steel, or wood that supports the spans of a multi-span superstructure between abutments. A pier is usually a solid structure as opposed to a bent, which is usually made up of columns.

Pile – a linear (vertical) member of timber, steel, concrete, or composite materials driven into the earth to carry structure loads into the soil.

Pile bent – a row of driven or placed piles with a pile cap to hold them in their correct positions; see "Bent."

Plate girder – a large, solid web steel plate with flange plates attached to the web plate by flange angles or fillet welds.

Post or column – a member resisting compressive stresses, in a vertical or near vertical position.

Scour – erosive action of removing streambed material around bridge substructure due to water flow. Scour is of particular concern during high-water events.

Short span bridge – these bridges have a single NBIS span length of 20 feet or less.

Spall – a deficiency wherein a portion of the concrete surface is popped off from the main structure due to the expansive forces of corroding steel rebar.

Span – the distance between piers or abutments.

Stringer – a longitudinal beam (less than 30 feet long) supporting the bridge deck, and in large bridges, framed into or upon the floor beams.

Structurally Deficient (SD) Status – a highway bridge is classified as structurally deficient if the deck, superstructure, substructure or culvert is rated in "poor" condition (0 to 4 on the NBI rating scale). A bridge can also be classified as structurally deficient if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods.

Sufficiency rating – the sufficiency rating is a numeric value from 100 (a bridge in new condition) to 0 (a bridge incapable of carrying traffic). The sufficiency rating is the summation of four calculated values: Structural Adequacy and Safety, Serviceability and Functional Obsolescence, Essentiality for Public Use, and Special Reductions.

Substructure – the abutment, piers, or other structure built to support the span or spans of a bridge superstructure, and distributes all bridge loads to the ground. Includes abutments, piers, bents and foundations.

Superstructure – the entire portion of a bridge structure which primarily supports traffic loads and in turn transfers loads to the bridge substructure; usually consists of the deck and beams or trusses.

Tension – type of stress involving an action which pulls apart; opposite of compression.

Tie – a member carrying tension.

Torsion – a twisting force or action.

Trestle – a bridge structure consisting of beam spans supported upon bents. Trestles are usually made of timber and have numerous diagonal braces, both within each bent and from bent to bent.

Truss – a rigid, jointed structure made up of individual straight pieces arranged and connected, usually in a triangular pattern, so as to support longer spans.

Web – the portion of a beam located between and connected to the flanges.

Welded joint – a joint in which the assembled elements and members are united through fusion of metal.

Wing wall – walls connected to the abutment ends that support roadway fill of the approach.

Source of glossary and bridge parts diagram is unknown.

Appendix A

2020 Snohomish County Bridge Inventory | 202 Bridges

Bridge #	Bridge Name	Overall Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Functionally Obsolete	Year Built
1	Snohomish River	359	36	3	18,119	3	70	Y	1983
3	Ebey Slough	714	28	2	1,116	9	72		1976
4	Jim Donner Bridge	800	40	2	5,836	13	94		1985
5	Pilchuck River	213	34	2	773	8	99		1996
6	Woods Creek	82	40	2	10,027	4	93		2004
8	Culvert CB	23/21**	65	5	29,286	4	89		1960
10	Pilchuck River	138	39	2	4,211	13	92		1999
13	French Creek	116	40	2	4,129	13	95		2000
14	Culvert C14	21/21**	65	2	9,000	2	92		1995
15	Dubuque	284	40	2	4,997	7	98		1991
24	Pilchuck River	212	40	2	4,922	4	98		1992
41	High Bridge	426	34	2	2,317	13	95		1996
42	Jim Creek	113	44	2	1,683	26	96		2014
44	Machias-O.K. Mill Road	244	40	2	8,018	10	90		2005
48	Jackson Gulch	185	26	2	1,445	5	86		1968
52	Riley Slough	77	17	2	146	3	78	Y	1970
56	Silverton	275	16	1	15	none	81	Y	1989
58	Madden	138	24	2	1,168	12	69	SD	1956
62	Culvert C62	50	36	2	13,397	6	96		1986
66	Fairgrounds Entrance	51	21	2	3,540	5	98		1985
67	Pilchuck River	190	28	2	2,055	13	79		1978
70	Startup	227	28	2	333	none	87	Y	1993
80	Vos Creek	293	28	2	145	none	93		2008
87	Chappell	297	26	2	4,263	22	51	Y	1966
89	Oso Bridge	580	24	2	410	4	88		1990
92	Portage Creek	129	34	2	1,307	9	99		1990
94	Sultan	469	26	2	1,793	18	74	Y	1961
96	Skykomish River Slough	90	21	2	1,852	18	66	Y	1970
101	Larson	302	26	2	3,883	12	72	Y	1963
102	Granite Falls	340	20	2	5,380	94	61	Y	1934
103	Thomle	255	28	2	5,524	5	62		1959
107	Deer Creek	37	16	2	117	14	80	Y	1978
108	Whiteman	161	24	2	306	none	74		1988

SD = Structurally Deficient
* NBIS length (see diagram on page 36)

(chart continues on next page)

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory

Bridge #	Bridge Name	Overall Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Functionally Obsolete	Year Built
111	Halterman Spur	230	26	2	135	none	73		1980
115	Peterson	206	26	2	459	9	87		1963
122	Wes Smith Bridge	271	26	2	842	15	81		1999
134	"Pilchuck Creek - Old SR 9"	120	17	1	50	1	87	Y	1916
143	Haystack Creek	26	34	2	1,166	none	64		1991
148	South Slough	188	34	2	1,852	18	81		1984
150	Skykomish River Slough	92	34	2	1,874	18	92	Y	2006
151	Shinglebolt Slough	140	26	2	1,793	18	67	Y	1962
155	Riley Slough	207	32	2	1,136	3	98		2020
165	Chase Lake	455	30	2	6,011	1	67		1968
183	Cattle Pass	61	23	2	5,034	4	56	Y	1972
190	Cattle Pass	30	23	2	4,155	8	63	Y	1970
204	Robe-Menzel	211	28	2	2,473	12	82		1997
206	Robe-Menzel	117	27	2	2,828	12	77	Y	1997
214	Jordan Creek	107	21	2	1,001	26	31	SD	1981
246	Jorgenson Slough	61	25	2	5,697	8	61	Y	1967
265	Carpenter Creek	25	24	2	812	7	80		1964
267	Woods Creek	31	19	2	2,461	7	68	Y	1935
268	Little Pilchuck Creek	85	40	2	5,803	5	96		2005
272	Gregory Road	40	23	2	1,013	1	59	Y	1961
298	Woods Creek	50	34	2	1,537	5	99		1991
299	Woods Creek	60	26	2	1,335	3	87		1968
301	Woods Creek	61	26	2	1,425	3	86		1968
304	6th Street	228	18	2	421	3	59	Y	1924
316	Fry Creek	30	18	2	158	4	73	Y	2003
404	Woods Creek	60	23	2	1,444	5	70	Y	1967
407	Pilchuck Creek	280	34	2	3,290	12	96		1996
414	Sauk River	472	34	2	801	none	82		2008
416	Crescent	277	28	2	1,754	22	86		1983
419	Quilceda Creek	907	48	4	16,438	4	76	Y	1988
420	Sturgeon Creek	432	48	3	15,627	24	73		1988
422	Roesiger	28	19	2	57	1	97		1985
423	Dubuque Creek	62	40	2	8,018	7	94		2005

SD = Structurally Deficient

* = *Under construction*

(chart continues on next page

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory

Bridge #	Bridge Name	Overall Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Functionally Obsolete	Year Built
424	Swede Heaven	308	34	2	863	none	86		1991
425	Dan Creek	95	28	2	555	none	75		1971
427	Woods Creek	165	40	2	3,232	7	97		1990
429	Elwell Creek	101	28	2	953	17	81		1973
430	Norman Slough	167	19	2	50	1	76		1979
433	Fisher Creek	129	21	2	163	4	72		1987
436	Scherrer Road	88	21	2	37	none	91		1985
438	Brooks Creek	57	26	2	72	none	92		1984
443	Woods Creek	81	17	2	51	none	82	Y	1989
445	Woods Creek	82	34	2	1,783	7	99		2007
446	Woods Creek	41	23	2	1,341	19	68	Y	1966
448	Carpenter Creek	41	11	1	15	none	71	Y	1984
449	Woods Creek	27	23	2	1,336	19	75	Y	1963
453	Little Pilchuck Creek	34	28	2	9,511	3	78	Y	2006
459	Swamp Creek	25	23	2	10,486	2	78	Y	1963
464	Grant Creek	83	30	2	348	none	70		1978
466	Swede Creek	31	24	2	435	none	74		1985
470	Backman Creek	44	33	2	526	94	72		1979
473	Turlo Creek	114	35	2	1,962	94	82		1995
474	Benson Creek	67	34	2	1,907	94	79		1995
479	Lewis Creek	30	22	2	186	none	74		1968
488	South Bitter Creek	52	22	2	132	none	82		1967
489	North Bitter Creek	51	23	2	132	none	83		1967
494	Trout Creek	120	19	2	128	none	49	Y	1966
496	Howard Creek	82	28	2	31	none	93		2017
497	Twentytwo Creek	31	26	2	1,380	94	70		1952
499	N.F. Skykomish River	173	26	2	54	none	86		1970
500	Troublesome Creek	204	28	2	86	none	91		1973
502	Swamp Creek	55	30	2	3,514	4	79		1993
503	Swamp Creek	41	23	2	10,203	4	14	SD	1960
504	Swamp Creek	70	32	2	11,382	2	96		2016
505	Swamp Creek	40	26	2	4,739	5	71	Y	1968
509	Battle Creek	143	36	2	1,224	2	99		1989
510	Koch's Slough	52	21	2	77	none	87		1981

SD = Structurally Deficient

(chart continues on next page)

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory

Bridge #	Bridge Name	Overall Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Functionally Obsolete	Year Built
511	Segelson Creek	55	28	2	599	none	81		1981
519	Ricci Creek	93	34	2	1,688	19	97		1994
520	Bear Creek	55	29	2	1,048	none	73		1993
521	Bear Creek	31	23	2	1,340	3	78	Y	1969
522	North Creek	31	23	2	556	none	75		1969
529	Olney Creek	86	28	2	174	none	93		1990
536	Wallace River	106	28	2	851	none	77		1970
537	Red Bridge	209	26	2	824	94	67		1954
538	S.F. Stillagaumish River	211	26	2	1,756	94	57	Y	1954
540	S.F. Sauk River	205	14	1	11	none	76		2015
542	Jim Creek	87	19	2	29	none	88		1987
544	Buck Creek	91	26	1	377	94	57		1960
545	Hjort Road	30	19	2	67	none	85		1985
546	Swamp Creek	92	33	2	3,021	3	97		2013
547	Black Creek	91	26	2	1,118	94	59		1952
550	Sexton Creek	23	23	2	36	none	87		1964
551	Perry Creek	61	26	2	444	94	47		1958
552	Bear Creek	41	53	4	8,175	3	81		1989
555	Grant Creek	48	26	2	31	none	88		1984
556	Coal Creek	70	26	2	686	94	62		1949
559	May Creek	103	28	2	416	7	98		2017
561	Purdy Creek	86	24	2	73	none	94		1980
562	Marten Creek	135	38	2	757	94	90		2011
564	Olney Creek	100	24	4	77	none	86		1991
567	Woods Creek	28	21	2	24	none	93		1985
572	May Creek	79	26	2	215	none	91		2009
574	Olney Creek	47	26	2	77	none	91		1991
576	Schweitzer Creek	31	26	2	1,025	94	54		1952
581	Pilchuck River	184	15	1	73	none	74		2016
587	Boardman Creek	91	26	2	824	94	61		1952
596	Jim Creek	101	22	2	22	none	92		1981
597	Marshland	54	36	2	8,322	5	94		1994
600	Swamp Creek	30	32	2	8,808	2	96		2009
601	Little Pilchuck Creek	43	18	2	289	none	72	Y	2006

(chart continues on next page)

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory

Bridge #	Bridge Name	Overall Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Functionally Obsolete	Year Built
602	Black Creek	25	21	2	657	none	65	Y	2002
605	Airport Road	32	73	6	25,094	2	75	Y	1967
608	Woods Creek	31	23	2	529	10	84		1960
620	Wisconsin Creek	31	26	2	1,118	94	45	Y	1960
625	Bear Creek	31	28	2	2,930	3	68		1973
626	Pilchuck Creek	181	24	2	428	6	68		1933
631	Mouse Creek	30	26	2	599	none	82		2006
632	Pilchuck Overflow	84	36	2	13,746	6	91		1948
633	Pilchuck River	230	28	2	13,708	6	68		1948
634	Swede Creek	25	24	2	139	none	86		1992
639	Homeacres Road	206	44	2	1,160	10	99		1994
640	Lauck Road	113	34	2	4,270	6	96		1998
642	Thomas Creek	127	66	5	12,492	3	96		2000
643	Glengarry PRD 1	70	24	2	86	1	92		2003
644	Glengarry PRD 2	88	24	2	86	1	92		2003
645	Glengarry PRD 3	66	36	2	857	2	97		2003
647	Lewis Creek	40	22	2	186	none	76		2003
648	Lewis Creek	30	24	2	186	none	85		2005
649	North Meander	80	23	2	77	none	70		2005
650	Thomsen Slough	80	28	2	4,110	6	80		1919
651	Silvana	236	39	2	4,105	6	97		1998
653	Old Stillaguamish River	352	32	2	2,426	6	86		1979
654	Clear Creek	125	28	2	464	94	90		1960
655	Sauk River	169	28	2	414	94	89		1983
656	Dutch Creek	108	27	2	427	94	88		2003
657	Bob Lewis Creek	29	23	2	589	none	76		2004
659	Mt. Pilchuck Road	24	23	2	810	none	68		2007
660	Monte Cristo Grade Road	249	12	1	44	none	71		2009
670	Deer Creek	187	26	2	1,402	94	57		1949
671	Lidera Bridge	139	36	2	954	2	99		2015
674	Elliott Creek	28	25	2	2476	7	97		2013
800	CRTA Access Road	71	27	2	687	none	85		2002

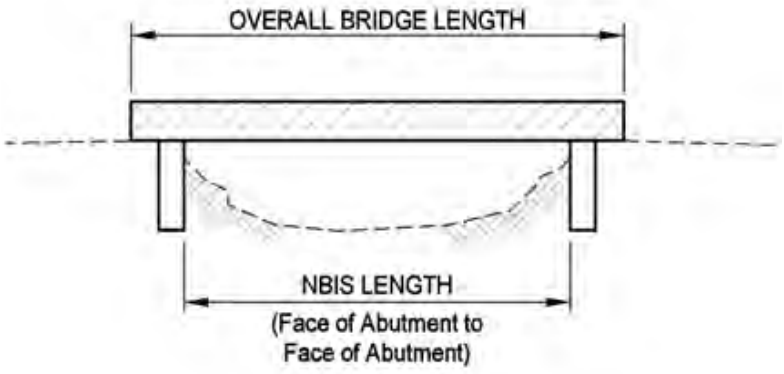
(chart continues on next page, showing short span bridges)

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory - Short Span Bridges

Bridge #	Bridge Name	Overall Length (ft)	NBIS Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Year Built
81	Brown Creek	17	(N/A)	15	1	44	none	82	1951
116	Miller Road Cattle Pass	19	16	24	2	91	none	78	1963
158	Barr Creek	21	18	23	2	1,731	18	55	1956
271	Hyland Road	21	18	23	2	2,186	3	70	1957
300	Richardson Creek	21	18	23	2	6,911	3	68	1961
311	Portage Creek	21	18	23	2	1,501	2	57	1972
346	West Lake Goodwin	18	(N/A)	24	2	1,329	3	48	1944
366	Scriber Creek	21	17	23	2	1,191	2	70	1963
452	Little Pilchuck Creek	21	18	21	2	448	3	71	1970
454	Catherine Creek	19	16	22	2	1,484	6	70	1985
495	Lost Creek	16	(N/A)	22	2	31	none	90	1972
541	Brandstrom Road	20	17	21	2	312	5	71	1985
549	Woods Creek	21	19	19	2	134	none	62	1984
565	Everett Creek	15	(N/A)	21	2	129	4	73	1985
566	Green Creek	20	17	21	2	91	4	80	1984
569	Church Creek	20	17	22	2	118	3	72	1990
571	Little Pilchuck Creek	20	18	23	2	732	3	75	1961
578	Quilceda Creek	21	18	23	2	1,086	3	56	1967
579	Dutch Creek	18	(N/A)	21	2	97	4	86	1985
582	Quilceda Creek	20	17	21	2	12,265	3	42	1940
593	Green Creek	18	(N/A)	21	2	286	4	66	1985
594	Harvey Creek	20	18	20	2	65	3	70	1974

NBIS length only applies to bridges 19-23 feet long
N/A = not applicable because overall length is <19'

(chart of short span bridges continues on next page)



(Diagram source unknown)

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory - Short Span Bridges

Bridge #	Bridge Name	Overall Length (ft)	NBIS Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Year Built
598	Merritt Creek	20	17	21	2	85	none	68	1935
603	Trout Creek	21	19	21	2	43	none	63	1984
604	Giles Road	20	17	21	2	91	none	82	1984
627	Lake Riley	18	(N/A)	16	1	32	none	59	1985
628	Star Creek	20	17	21	2	1,845	4	63	1984
629	Star Creek	21	18	21	2	145	4	66	1984
630	McGovern Creek	20	18	21	2	53	2	83	1985
636	Hogarty Creek	20	18	23	2	342	14	74	1997
652	Johnson Slough	20	20	39	2	4,100	6	67	1919
658	Little Beaver Creek	22	20	28	2	757	94	53	2007
672	Cranberry Creek	20	20	60	2	3,270	94	80	2016

NBIS length only applies to bridges 19-23 feet long
N/A = not applicable because overall length is <19'

(chart continues below, showing non-vehicle bridges)

Barr Creek Bridge 158 is a short span bridge on Ben Howard Road and built in 1956 in the Monroe area. It is functionally obsolete due to its narrow deck width and high ADT which classifies it as a future replacement candidate.

Appendix A (cont.) – 2020 Snohomish County Bridge Inventory - Non-Vehicle Bridges

Bridge #	Bridge Name	Overall Length (ft)	Overall Width (ft)	# of Lanes	Traffic (ADT)	Detour (miles)	Suff. Rating	Year Built
242	Woodland	146	21	0	0	4	N/A	1984
646	Glengarry PRD4	39	15	1	2	none	N/A	2003
901	Big Shot Cyrus James Undercrossing	102	10	0	8,243	2	N/A	1997

N/A = not applicable because bridge is not open to vehicles

Appendix B

2020 Snohomish County Flood Watch Bridges (see explanation on page 26)

Bridge #	Bridge Name	Road Name	Equipment	Road Maint.	Plan of Action Engr. Services
1	Snohomish River	Avenue D	Crane	Yes	Yes
4	Hatt Slough	Marine Drive	Crane	Yes	
6	Woods Creek	Old Owen Road		Yes	
10	Pilchuck River	Snohomish Mnro Road		Yes	
67	Pilchuck River	Robe Menzel Road		Yes	Yes
89	Oso Bridge	Oso Loop Road	Crane	Yes	
94	Snohomish River	311th Avenue SE	Crane	Yes	Yes
101	Larson	Larson Road		Yes	
111	Halterman Spur	Whitman Road		Yes	
158	Barr Creek	Ben Howard Road		Yes	
268	Little Pilchuck Creek	28th Street NE		Yes	
271	Hyland Road	28th Street NE		Yes	
299	Woods Creek	Yeager Road		Yes	
300	Richardson Creek	Woods Creek Road		Yes	
301	Woods Creek	Yeager Road		Yes	
304	6th Street	86th Street SE		Yes	Yes
407	Pilchuck Creek	Stanwood Bryant		Yes	
414	Sauk River	Sauk Prairie Road		Yes	
429	Elwell Creek	Ben Howard Road		Yes	
443	Woods Creek	Van Ess Farm Road		Yes	
446	Woods Creek	Woods Creek Road		Yes	
448	Carpenter Creek	Sanders Road		Yes	
466	Swede Creek	Swede HeavenRoad		Yes	
494	Trout Creek	Index-Galena Road	Load Rating	Yes	Yes
497	Twenty Two Creek	Mt. Loop Hwy		Yes	Yes
510	Koch's Slough	Hevly Road		Yes	
521	Bear Creek	58th Avenue SE		Yes	
522	North Creek	196th Street SE		Yes	
536	Wallace River	Ley Road		Yes	
537	Red Bridge	Mt. Loop Hwy		Yes	Yes
538	Blue Bridge	Mt. Loop Hwy		Yes	
540	SF Sauk River	Mt. Loop Hwy			Yes
542	Jim Creek	Nicks Road		Yes	

(chart continues on next page)

Appendix B (cont.) – 2020 Snohomish County Flood Watch Bridges

Bridge #	Bridge Name	Road Name	Equipment	Road Maint.	Plan of Action Engr. Services
544	Buck Creek	Mt. Loop Hwy			Yes
547	Black Creek	Mt. Loop Hwy		Yes	Yes
551	Perry Creek	Mt. Loop Hwy		Yes	Yes
556	Coal Creek	Mt. Loop Hwy			Yes
564	Olney Creek	Sultan Basin Road		Yes	
572	May Creek	419th Avenue SE		Yes	
576	Schweitzer Creek	Mt. Loop Hwy			Yes
587	Boardman Creek	Mt. Loop Hwy		Yes	
625	Bear Creek	233rd Place SE		Yes	
626	Pilchuck Creek	Old Hwy 99		Yes	
633	Pilchuck River	92nd Street SE		Yes	
636	Hogarty Creek	Reiter Road		Yes	
648	Lewis Creek	Index-Galena Road			Yes
C14	Culvert	Admiralty Way		Yes	

Jim Donner Bridge 4 with a log jam at one of the internal piers due to flood waters. Bridge was built over the Stillaguamish River on Marine Drive in 1985.

Appendix C

2020 Snohomish County Seismic Lifeline Route Bridges (see explanation on page 26)

Route Priority	Road Name	Bridge Number	Bridge Name	Structure Type	Bridge Length	Scour Critical
Priority 1						
1	44th St. NE	272	Gregory Road	Multi-web conc. beams timber x-beams, timber piles	41	No
1	92nd St. SE	632	Pilchuck Overflow	CIP slab w/ CIP X-beams on concrete pilings	84	No
1	92nd St. SE	633	Pilchuck River	Reinforced concrete CIP beams, CIP concrete deck	229	No
1	228th St. SE	552	Bear Creek	Precast concrete slab on concrete pier walls	40	No
1	311th Ave. SE	94	Sultan	Cont. welded plate girders w/ CIP deck, wall type piers	469	Yes
1	311th Ave. SE	96	Skykomish Slough	Timber stringer, timber deck, timber pile bents	90	No
1	311th Ave. SE	148	South Slough	Prestressed Bulb T-girders, concrete abutments	188	No
1	311th Ave. SE	150	Skykomish Slough	Prestressed Bulb T-girders, concrete abutments	91	No
1	311th Ave. SE	151	Shinglebolt Slough	Glulam girders, CIP deck, timber piles w/ CIP caps	140	No
1	Airport Road	605	Airport Road	CIP concrete slab on CIP concrete pier walls	32	No
1	Airport Way	1	Snohomish River	Steel thru truss, CIP deck precast concrete girders	359	Yes
1	Cathcart Way	642	Thomas Creek	Prestressed girders w/ CIP concrete deck on abutment walls	127	Yes
1	Lowell-Larimer Road	183	Cattle Pass	Reinforced concrete tubs on timber pile abutments	61	No
1	Marine Drive	419	Quilceda Creek	Prestressed concrete girders	906	No
1	Mt. Loop Hwy	102	Granite Falls	Steel arch (truss) concrete deck	340	No
1	Old Hwy 99	626	Pilchuck Creek	Steel girders w/ CIP deck 2 hinges in middle span	180	No
Priority 2						
2	5th St - Index, WA	122	Wes Smith	Steel tied arch w/ CIP deck, steel hangers/floor beams	271	No
2	84th St. NE	453	Little Pilchuck Creek	Steel girders w/ composite precast deck panels	31	No

(chart continues on next page)

Appendix C (cont.) – 2020 Snohomish County Seismic Lifeline Route Bridges

Route Priority	Road Name	Bridge Number	Bridge Name	Structure Type	Bridge Length	Scour Critical
2	108th St. NE	640	Lauck Road	Prestressed concrete girder	112	No
2	140th St. NE	582	Quilceda Creek	Glulam deck, timber stringers & pile abutments	20	No
2	212th St. NE	92	Portage Creek	Prestressed concrete girders	129	No
2	Ben Howard Road	158	Barr Creek	Reinforced concrete tubs on timber pile abutments	21	No
2	Ben Howard Road	429	Elwell Creek	Reinforced CIP girders double column piers	101	No
2	Carter Road	546	Swamp Creek	Prestressed concrete bulb T- girders	92	No
2	Creswell Road	265	Carpenter Creek	Timber stringers on timber piles	24	No
2	Dubuque Road	15	Dubuque	Prestressed concrete bulb T-girders	279	No
2	Dubuque Road	267	Woods Creek	Timber stringer, CIP concrete deck timber pile abutments	31	No
2	Elliott Road	190	Cattle Pass	Reinf. conc. tubs on timber pile abutments	30	No
2	English Grade Road	433	Fisher Creek	Timber trestle	129	No
2	Jordan Road	42	Jim Creek	Prestressed concrete girders (old concrete arch underneath)	112	No
2	Jordan Road	87	Chappell	Steel girders w/ CIP deck seismic retrofit.	297	No
2	Jordan Road	214	Jordan Creek	Timber trestle	107	No
2	Larch Way	459	Swamp Creek	Multi-web concrete beams timber x-beams, timber piles	25	No
2	Lockwood Road	505	Swamp Creek	PCC T-beams on timber pile abutment	40	No
2	Marine Drive	4	Jim Donner	Prestressed concrete girders	800	No
2	Marine Drive	103	Thomle	CIP reinforced concrete slab continuous	255	No
2	Marine Drive	246	Jorgenson Slough	Precast T-beams on timber pile abutments	61	No
2	Marine Drive	420	Sturgeon Creek	Prestressed concrete girders, concrete slab	432	No
2	Marsh Road	597	Marshland	Precast pre-stressed concrete slab on pier walls.	53	No
2	Menzel Lake Road	58	Madden	Steel girders w/ CIP deck, concrete girders at approximately 2 column piers	138	No

(chart continues on next page)

Appendix C (cont.) – 2020 Snohomish County Seismic Lifeline Route Bridges

Route Priority	Road Name	Bridge Number	Bridge Name	Structure Type	Bridge Length	Scour Critical
2	Norman Road	115	Peterson	Prestressed concrete girders	206	No
2	Old Snohomish-Monroe Road	13	French Creek	Prestressed concrete bulb T-girders	116	No
2	Old Snohomish-Monroe Road	10	Pilchuck River	Prestressed concrete bulb T-girders	138	No
2	O.K. Mill Road	44	Machias -O.K.	Steel truss (thru), concrete deck	244	No
2	O.K. Mill Road	423	Dubuque Creek	Prestressed concrete bulb T-girders	62	No
2	Old Owen Road	6	Woods Creek	Decked bulb T-girders concrete abutment walls	82	No
2	Pioneer Hwy	650	Thomsen Slough	Earth filled concrete arch w/ precast concrete deck	80	No
2	Pioneer Hwy	651	Silvana	Prestressed girders post-tensioned CIP box girders	230	No
2	Pioneer Hwy	652	Johnson Slough	Earth filled concrete arch	28	No
2	Pioneer Hwy	653	Old Stilly River	Prestressed concrete girders	352	No
2	Reiter Road	107	Deer Creek	Steel girders embedded in concrete abutments, timber deck	37	No
2	Reiter Road	636	Hogarty Creek	Recycled reinf. concrete tubs on timber pile abutments	20	No
2	Robe-Menzel Road	67	Pilchuck River	Prestressed concrete girders, concrete deck	189	Yes
2	Robe-Menzel Road	204	Robe Menzel	Prestressed concrete bulb T-girders	211	No
2	Robe-Menzel Road	206	Robe Menzel	Prestressed concrete bulb T-girders	116	No
2	South Machias Road	268	Little Pilchuck Creek	Prestressed concrete bulb T-girders	85	No
2	Stanwood-Bryant Road	407	Pilchuck Creek	Prestressed concrete girders	280	No
2	Three Lakes Road	24	Pilchuck River	Continuous prestressed concrete girders w/ CIP deck	210	No
2	Woods Creek Road	300	Richardson Creek	Reinf. conc. tubs on timber pile abutments	21	No
2	Woods Creek Road	298	Woods Creek	Prestressed concrete slabs on concrete pier walls	50	No
2	Woods Creek Road	446	Woods Creek	Reinforced concrete tubs on timber pile abutments	41	No
2	Woods Creek Road	449	Woods Creek	Reinforced concrete tubs on timber pile abutments	27	No.

(chart continues on next page)

Appendix C (cont.) – 2020 Snohomish County Seismic Lifeline Route Bridges

Route Priority	Road Name	Bridge Number	Bridge Name	Structure Type	Bridge Length	Scour Critical
Priority 3						
3	Crescent Lake Road	41	High Bridge	Post-tensioned box girders w/ CIP deck on wall piers	426	No
3	High Bridge Road	519	Ricci Creek	Prestressed concrete bulb T- girders	92	No
3	High Bridge Road	416	Crescent	Curved steel girders, CIP concrete deck, single column piers	272	No
3	Home Acres Road	3	Ebey Slough	CIP slab on prestressed concrete girders, concrete piles	714	No
3	Larson Road	101	Larson	Steel girders, CIP deck, one column pier, eyebar hinge	304	No

Appendix D

2020 Snohomish County Parks and Recreation Bridges

Bridge #	Bridge Name	Bridge Location	Facility Carried	Feature Intersected	Old Bridge #
700	N/A	Spare Bridge #	N/A	N/A	N/A
701	Tin Bridge	Whitehorse Trail	Ped. Trail	NF Stillaguamish River	720
702	Unnamed Creek	Whitehorse Trail	Ped. Trail	Unnamed Creek	719
703	Burned Bridge	Whitehorse Trail	Ped. Trail	Unnamed Creek	718
704	Cicero Bridge	Whitehorse Trail	Ped. Trail	NF Stillaguamish River	717
705	McGovern Creek	Whitehorse Trail	Ped. Trail	McGovern Creek	716
706	Unnamed Creek	Whitehorse Trail	Ped. Trail	Unnamed Creek	715
707	Sawmill Pond Bridge	Whitehorse Trail	Ped. Trail	Oso Sawmill Pond	744
708	Deer Creek	Whitehorse Trail	Ped. Trail	Deer Creek	714
709	Bradley Bridge	Whitehorse Trail	Ped. Trail	NF Stillaguamish River	713
710	Montague Creek	Whitehorse Trail	Ped. Trail	Montague Creek	712
711	Skaglund Hill	Whitehorse Trail	Ped. Trail	Unnamed Creek	711
712	Boulder Creek	Whitehorse Trail	Ped. Trail	Boulder Creek	710
713	French Creek	Whitehorse Trail	Ped. Trail	French Creek	709
714	Little French Creek	Whitehorse Trail	Ped. Trail	Little French Creek	708
715	Fortson Mill Pond	Whitehorse Trail	Ped. Trail	Unnamed Creek	707
716	West Moose Creek	Whitehorse Trail	Ped. Trail	WF Moose Creek	706
717	East Moose Creek	Whitehorse Trail	Ped. Trail	EF Moose Creek	705
718	Squire Creek	Whitehorse Trail	Ped. Trail	Squire Creek	704
719	N/A	Spare Bridge #	N/A	N/A	N/A
720	Jack Knife Bridge	Spencer Island	Ped. Trail	Union Slough	700
721	East Dike Breach #3	Spencer Island	Ped. Trail	E. Dike Breach #3	701
722	West Dike Breach #2	Spencer Island	Ped. Trail	W. Dike Breach #2	702
723	West Dike Breach #1	Spencer Island	Ped. Trail	W. Dike Breach #1	703
724	Cross Levee Bridge #724	Spencer Island	Ped. Trail	Cross Levee Breach	737
725	W. Dike Boardwalk #1	Spencer Island	Ped. Trail	Wetlands	N/A
726	W. Dike Boardwalk #2	Spencer Island	Ped. Trail	Wetlands	N/A
727	N/A	Spare Bridge #	N/A	N/A	N/A
728	N/A	Spare Bridge #	N/A	N/A	N/A
729	N/A	Spare Bridge #	N/A	N/A	N/A
730	Bunk Foss Creek	Centennial Trail North	Ped. Trail	Bunk Foss Creek	730
731	Old Machias Road	Centennial Trail North	Ped. Trail	Unnamed Creek	731
732	Centennial Middle School	Centennial Trail North	Ped. Trail	Unnamed Creek	732
733	Little Pilchuck Creek	Centennial Trail North	Ped. Trail	L. Pilchuck Creek #733	733

(chart continues on next page)

Appendix D (cont.) – 2020 Snohomish County Parks and Recreation Bridges

Bridge #	Bridge Name	Bridge Location	Facility Carried	Feature Intersected	Old Bridge #
734	16th Street NE	Centennial Trail North	Ped. Trail	L. Pilchuck Creek #734	734
735	Quilceda Creek	Centennial Trail North	Ped. Trail	Quilceda Creek	738
736	M. Fork Quilceda Creek	Centennial Trail North	Ped. Trail	MF Quilceda Creek	739
737	W. Cox Street Bridge	Centennial Trail North	Ped. Trail	W. Cox Street	722
738	Haller Park Bridge	Centennial Trail North	Ped. Trail	Stillaguamish River	721
739	Gravel Pit Driveway	Centennial Trail North	Ped. Trail	Gravel Pit Drive	736
740	N/A	Spare Bridge #	N/A	N/A	NA
741	N/A	Spare Bridge #	N/A	N/A	NA
742	WSU Extension Office	McCollum Park	Ped. Trail	North Creek	729
743	Kids Playground	McCollum Park	Ped. Trail	North Creek	728
744	Pool	McCollum Park	Ped. Trail	North Creek	727
745	N/A	Spare Bridge #	N/A	N/A	NA
746	Hubbard Creek Bridge	Lime Kiln Trail	Maint. Veh.	Hubbard Creek	735
747	2001 Log Stringer Bridge	Lime Kiln Trail	Ped. Trail	Unnamed Gully	723
748	2014 Sawn Stringer Bridge	Lime Kiln Trail	Ped. Trail	Unnamed Gully	NA
749	N/A	Spare Bridge #	N/A	N/A	NA
750	Flowing Lake Bridge #750	Flowing Lake Park	Ped. Trail	Unnamed Creek	740
751	Flowing Lake Bridge #751	Flowing Lake Park	Ped. Trail	Unnamed Creek	741
752	Flowing Lake Bridge #752	Flowing Lake Park	Ped. Trail	Unnamed Creek	742
753	Portage Creek Bridge	Portage Cr Wildlife	Ped. Trail	Unnamed Creek	745
754	Portage Creek Bridge	Portage Cr Wildlife	Ped. Trail	Portage Creek	746
755	Tambark Creek Bridge #755	Tambark Creek Park	Maint. Veh.	Tambark Creek	743
756	Tambark Creek Bridge #756	Tambark Creek Park	Maint. Veh.	Tambark Creek	NA
757	Tambark Creek Bridge #757	Tambark Creek Park	Maint. Veh.	Tambark Creek	NA
758	Jordan Park Ped Bridge	Jordan Park	Ped. Trail	SF Stillaguamish River	725
759	Lunds Gulch Creek	Meadowdale Park	Maint. Veh.	Lunds Gulch Creek	724
760	Picnic Point	Picnic Point Park	Ped. Trail	BNSF Railroad	726
761	Kayak Point Pier	Kayak Point Park	Ped. Trail	Port Susan Bay	999

Snohomish County Parks and Recreation has a significant inventory of bridges. The majority of their bridges are on the Centennial Trail and the Whitehorse Trail. Both of these trails were originally railroad rights of way and are now on the regional trail system used by hikers, horseback riders and bicyclists. Thus they are not subject to the inspection requirements of 23 CFR 650.3 or the reporting requirements of WAC 136-20-060. This inventory is for information purposes only.

Snohomish County Bridge Group

Snohomish County Bridge Engineering Design and Inspection Staff

- Darrell Ash
- Irving Trejo
- Jim Weelborg
- Kelly Kauk
- Larry Brewer
- Mario Accetturo
- Michael Huston
- Mike Zitkovich
- Nolan Anderson
- Paul Heitman
- Tim Tipton
- Vladimir Malinsky

Snohomish County Bridge Maintenance Crew

- Bart Beduhn
- Chris Brunner
- Clint Bryson
- Jeff Hayes
- Jeremy Monteith
- Josh Curfman
- Keith Swezey
- Loran Spear
- Matt R Smith
- Mel Reitz
- Scott Hollo

ECAF NO.: 2021-0718
ECAF RECEIVED: 9/28/2021

SNOHOMISH COUNTY COUNCIL
EXHIBIT # 3
FILE MOT. 21-359

BUDGET MOTION ASSIGNMENT SLIP

TO: Clerk of the Council

TITLE OF PROPOSED MOTION:

MOTION ADOPTING THE 2022-2027 SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM

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Clerk's Action: Proposed Motion No. **21-359**

Assigned to: Committee of the Whole Date: 10/4/21

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STANDING COMMITTEE RECOMMENDATION FORM

On 10/4/2021, the Committee made the following recommendation:

2-4 u approved Set time and date for a public hearing for October 25, 2021, at the hours of 10:30 a.m. and 6:00 p.m.

☐ Move to Council for action on: _____

☐ Move to Council as amended for action on: _____

☐ Move to Council with no recommendation

This item ☐ should/ ☐ should not be placed on the Consent Agenda.
(Consent agenda may be used for routine items that do not require public hearing and do not need discussion at General Legislative Session)

This item ☐ should/ ☐ should not be placed on the Administrative Matters Agenda
(Administrative Matters agenda may be used for routine action to set time and date for public hearings)

_____
Committee Chair