RESOLUTION NO. 2022 – 59

BEFORE THE BOARD OF COUNTY COMMISSIONERS
SKAMANIA COUNTY, WASHINGTON

WHEREAS, in accordance with R.C.W. 36.81.130 and WAC 136-16, the County Engineer has submitted a recommended Annual Road Construction Program for 2023 to the Board of County Commissioners, and

WHEREAS, each proposed project on this program has been evaluated by the county in accordance with the requirements of the State Environmental Policy Act and Skamania County Environmental Policy Ordinance No. 1985-02, and

WHEREAS, the recommended plan includes construction costs approximately equal to the amount included in the road fund budget for construction work, and

WHEREAS, the Board has reviewed said Road Program and finds it to conform as nearly as practicable to the County's Six-Year Transportation Improvement Program.

NOW, THEREFORE, BE IT RESOLVED that this Board of County Commissioners of Skamania County, Washington adopts the attached 2023 Annual Road Construction Program and does hereby direct the County Engineer to proceed with the completion of the work as designated.

PASSED this 13th day of December 2022

SEAL

BOARD OF COMMISSIONERS SKAMANIA COUNTY WASHINGTON CLERK OF THE BOARD

BOARD OF COUNTY COMMISSIONERS
SKAMANIA COUNTY, WASHINGTON

Chairman Richard Mahar

Commissioner T.W. Lannen

Commissioner Robert Hamlin

Attest:

Clerk of the Board Lisa Sackos

Approved as to form only:

Prosecuting Attorney

Skamania County
2023

Annual Construction Program

WAC 136-16

(A) TOTAL CONSTRUCTION DONE (total sum of column 13 + column 14): $1,360,000.00
(B) COMPUTED COUNTY FORCES LIMIT: $805,236.00
(C) TOTAL COUNTY FORCES CONSTRUCTION (total sum of column 14): $0.00

Date of Environmental Assessment:
Date of Final Adoption: Dec 13, 2022
Ordinance/Resolution Number: 2022-59

(1)	(2)	(3)	(4)					(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Annual Program Item No.	6 Year Road Program Item No.	Project Name	Road #	Road Segment Information Road Name	BMP	EMP	FFC	Project Length(mi.)	Project Type Code	Environmental Assessment	Sources of Funds			Estimated Expenditures Dollars				
											County Road Funds	Other Funds Amount	Other Funds Program Source	PE & CE (595.10)	Right of Way (595.20)	Construction Contract	Construction County Forces	Grand Total (All 595)
1	2	County Wide Safety Improvement						N/A	Safety	I	$0	$440,000.00	HSIP	$90,000		$350,000		$440,000
2	1	Buck Creek Bridge Scour	33750	**Road Name:** Big Buck Creek Road **From:** Bridge **To:** Bridge	0.18	0.18	09	0.00	Br	S		$350,000.00	BR	$340,000		$10,000		$350,000
3	3	Wind River Road	92135	**Road Name:** Wind River Road **From:** Beginning of slide **To:** End of Slide	0.20	0.40	06	0.20	3R DR	S	$100,000	$400,000.00	Federal Lands Access Program			$500,000		$500,000
4	6	Wind River Road - Grind Overlay and Safety	92135	**Road Name:** Wind River Road **From:** End of FLAP Project **To:** Fredrickson	0.40	0.88	06	0.48	2R SW Safety	S	$68,000	$432,000.00	STP(R)			$500,000		$500,000
5	11	Washougal River Road	11060	**Road Name:** Washougal River Road **From:** Salmon Falls Road **To:** Top of Hill	11.62	12.96	08	1.34	3R RC	S	$10,000	$40,000.00	RAP	$50,000				$50,000
											$178,000	**$1,662,000**		**$480,000**	**$0**	**$1,360,000**	**$0**	**$1,840,000**

Skamania County
Department of Public Works
Post Office Box 1009
Stevenson, Washington 98648
Office (509) 427-3910

SKAMANIA COUNTY
2022 BRIDGE INSPECTION REPORT

Introduction

The office of the Skamania County Engineer is tasked with the preparation of an annual report outlining the state of the County's bridge program. The purpose of the report is to highlight all issues related to bridge conditions and bridge inspections. The report includes it's use by the Skamania County Board of Commissioners during the preparation and adoption of the Six-Year Transportation Improvement Program and the Annual Budget. In addition, the report is one of the Standards of Good Practice documents required to be submitted to the County Road Administration Board (CRAB) annually pursuant to Chapter 136-20 of the Washington Administrative Code (WAC).

As a general statement, the County's bridges are in good to fair condition. Skamania County staff conducted all required bridge inspections for 2022 on schedule and as required. No new bridges were added to the inventory, no bridges were removed from service. Routine maintenance work was conducted on several bridges from a list of repair tasks generated from previous bridge inspections and paid for within the adopted Road Fund budget.

Bridge Inspection Program

Bridge inspections are a Federally mandated requirement of the Federal Highway Administration (FHWA). The purpose of the program is to ensure that the necessary inspection of bridges nationwide is carried out to identify and mitigate all bridge problems before they might result in disaster and catastrophic failure. The FHWA program is passed down through the Washington State Department of Transportation (WSDOT) to local counties. The FHWA program dictates the frequency of required inspections, establishes the standards and check lists for the inspections that must take place, certifies the competency requirements of the personnel conducting inspections, and further dictates the content and method of completing the required bridge inspection reports. WSDOT is the designated state level administrator of the FHWA program and as it passes inspection and reporting responsibilities to the

local jurisdictions, has developed a second level set of bridge inspection criteria that the local agencies are required to conduct and report.

The FHWA program requires physical files to be kept on all bridges listed in the National Bridge Inventory (NBI). Essentially, NBI bridges are all structures (bridges, culverts) that are over 20-feet in length that carry a road or highway. The bridge files contain a complete record of each bridge's history and include original construction plans and documents, a record of every inspection, and records of all maintenance work. In addition to the physical files, WSDOT provides an on-line bridge report program (Bridgeworks) that maintains both the Federal NBI criteria data and WSDOT's Washington State Bridge Inventory System (WSBIS) criteria. County staff updates and/or coordinates all of the bridge inspection and inventory data on this on-line program, which WSDOT reviews and approves and uses to report to FHWA in its role as the state administrator of the FHWA program.

The FHWA program provides that routine inspections be conducted on every bridge in the inventory every two years. Some bridges may require more frequent inspections or special inspections with special equipment, based on each unique circumstance. Skamania County along with Washington State Department of Transportation (WSDOT) Local Bridge Program have made the decision to inspect the Butler Eddy Bridge every 12 months due to the nature of the wood structure, which is more frequent than is required. Skamania County has contracted with KPFF to perform an in-depth inspection of the Butler Eddy Bridge next year and at that time there may be a determination to either continue the 12-month inspections or return to the 24-month inspection schedule.

Inspections

In addition to the Skamania County NBI bridges, Skamania County also conducts inspections on bridges within the City of Stevenson and the City of North Bonneville. Those agencies are responsible to reimburse the County for those services and are billed accordingly. Skamania County is the designated agency responsible for providing inspection services on an inventory of 27 Skamania County vehicle bridges, 2 Skamania County pedestrian bridges (which are not NBI bridges and do not need to be reported), 3 City of Stevenson bridge structures, 4 City of North Bonneville vehicle bridges, and 1 City of North Bonneville pedestrian bridge. Of those totals, 1 bridge is permanently closed, 3 bridges require high cost inspection services, and Klickitat County provides the inspection services on 1 bridge that is shared across the county line but is not listed in the Skamania County inventory.

High cost inspections require the use of specialized equipment in the form of an under bridge inspection truck (UBIT) in order to get into a hands-on close visual inspection of all of the bridge elements. High cost inspection techniques are required on 3 bridges in the inventory, the Conrad Lundy Bridge, the Washougal River Bridge and the Evergreen Bridge (North Bonneville). When WSDOT discontinued providing these UBIT inspection services several years ago, Skamania County undertook these inspections through a professional services contract with a private consulting firm. These three bridges were inspected in 2022 through contracted services.

Due to the complex nature of the wooden truss structure of the Butler Eddy Bridge, the county advertised for Statements of Qualifications for consulting firms to perform an in-depth inspection of the Butler Eddy Bridge. The county has contracted with KPFF to perform that inspection which will occur in the spring of 2023.

The City of Stevenson contracted with a consultant to conduct a bridge inspection of the Rock Creek 2 Bridge – Local Bridge number STVNSN 1. After their inspection, the Engineer contacted Skamania County to discuss whether or not the bridge should be listed as Scour Critical as their soundings of the river bottom showed that the bridge met the criteria to be listed. I reached out to the previous Lead Inspector Arnold Bell and he provided an explanation of the decision not to list the Bridge as sour critical by a previous County Engineer and a previous WSDOT Local Programs Bridge Engineer. After review of that explanation with the current WSDOT Local Programs Bridge Engineer, Sonia Lowry, we agreed that the Bridge should be listed as scour critical until such time as a Hydraulic Engineer provides an analysis that would allow the removal of the Scour Critical designation. Skamania County will develop a Scour Action Plan and will begin performing soundings during each routine inspection as required.

Deficient Bridges

Bridges are required to meet various standards related to the ability to carry normal traffic and loads.

Every bridge undergoes a load rating analysis (an engineering calculation of the structural design and condition of a bridge) to determine its maximum load carrying capacity. The components of the original bridge construction, damage or deterioration of any of the bridge structures components, and any change in conditions of the bridge's physical environment can affect its load bearing capacity. Any bridge that does not meet the Federally established minimum weight limits for highway traffic can be considered Structurally Deficient (SD) and must be posted for its load carrying capacity limit. Allowing loads above a posted limit greatly increases the likelihood that damage or further damage can occur to various bridge components and can under certain conditions even result in failure of a bridge.

Bridges are also evaluated against Federally established standards for minimum lane widths and roadway alignments. Bridges falling below those standards can be considered Functionally Obsolete (FO).

Bridge inspections also go beyond the structure itself and take in the physical environment. Many bridges over watercourses include piers or abutments that may be near or under the water. A key inspection is to check for scour of the riverbed or the riverbank that may undermine or impact the bridge foundations, which could ultimately cause a failure. Bridges with possible scour problems are listed as Scour Critical (SC) and are required to be monitored and must have a scour mitigation action plan available in the event of foundation damage.

Certain steel bridges are considered Fracture Critical (FC) if the failure of a single component cannot transfer load to other components and the failure of that component would result in total failure of the bridge or an inability of the bridge to perform its function. Inspection of these structures are more

critically important and deficiency repairs are critical. The three "High Cost Bridge Inspections" are also the Fracture Critical Bridges.

The NBI system uses a combination of the reporting of the various inspection check list element ratings to calculate a bridge's Sufficiency Rating. This Sufficiency Rating is a nationwide standard number reporting measure that is an indicator of when a bridge might require more than routine maintenance and is a primary determining factor in setting priorities for obtaining grant funds for bridge repair or replacement.

New Weight Limit Postings

Review of the county bridge files by WSDOT and County staff found that there would be no new postings of weight limits on any bridges at this time.

Repairs and Maintenance

Skamania County has not had any emergency or critical repairs in 2022, however we did perform an emergency scour repair late in 2021 on Buck Creek Bridge that was included in last year's report. Skamania County is in the process of entering into a consultant contract to design and construct a permanent repair.

County road crews conducted brush and vegetation removal on all bridge approaches in 2022. Routine signage, guardrail and cosmetic repairs were completed on several bridges.

Skamania County does not have a specific bridge maintenance crew and conducts the routine drain cleaning, brushing, and minor repairs with our regular road maintenance crew. Repairs that exceed the crew's capabilities would be budgeted and contracted as necessary.

Projects

Skamania County has completed an FHWA requirement to conduct updated Load Ratings on all bridges in a 2017-2022 time frame. These new load ratings are required to assess the ability of bridges to withstand the impacts of new truck loading configurations of Special Hauling Vehicles (SHVs) that have been approved by FHWA. SHVs are closely-spaced multi-axle single unit trucks introduced by the trucking industry in the last decade. Examples include dump trucks, construction vehicles, solid waste trucks and other hauling trucks. To comply with the FHWA requirement, a contract was entered into with OBEC Engineers (now DOWL) to perform this load rating analysis work. As of December 2021, all of the required Load Ratings for SHVs have been performed.

Future Projects

In addition to the approved scour project which is being funded by the Local Bridge Program funds, Skamania County has identified five bridges for the new BRAC call for projects. These include High Friction Surface Treatments (HSTFs) on three bridges and painting on two bridges including the Washougal River Bridge and Evergreen Bridge in North Bonneville. North Bonneville will be the entity that applies for Local Bridge Program Funding for the Evergreen Bridge.

We are still exploring removal options for the Home Valley Park Pedestrian Bridge. Due to deterioration and impact damage we have been forced to close the bridge and are proceeding with removal options.

Personnel

Skamania County Public Works Department remains current and adequately staffed in the Bridge Inspection program. The County Engineer is trained and certified as a team leader and inspector. The Assistant County Engineer is also trained and certified as a team leader and inspector. One Engineering Technician has completed the 2-week certification course and has participated in the past in assisting in the inspection program and a second Engineering Technician is enrolled to take the 2-week inspector certification course in 2023. All staff are up to date on the required refresher courses.

Conclusion

Skamania County was able to meet all of the bridge inspection milestone dates required by FHWA and WSDOT in 2022. Some routine and minor bridge repairs have been accomplished with no critical items currently outstanding. Skamania County is currently in a position to continue to provide bridge inspection services during the upcoming year. Our current trained staff will stay up-to-date with all required training. Please inquire for any additional information required.

Respectfully Submitted,

Tim Elsea, P.E.
County Engineer

Attachments:

Bridge Inventory Lists
Bridge Restriction List
Bridge Inspection and Repair List for 2022

SKAMANIA COUNTY BRIDGE INVENTORY

Bridge Name	Bridge No.	Crossing Route	Route MP	Crossing Feature	Year Built Year Rebuilt	Sufficiency Rating	
Bear Creek	#106	Bear Creek Road	0.48	Panther Creek	1978	87.75	FO
Buck Creek	#310	Buck Creek Road	0.18	Big Buck Creek	1979	67.93	
Butler Eddy	#106	Skamania Landing Road	0.93	Butler Slough	1948	63.84	FO
Cedar Creek	#205	Cedar Creek Road	0.15	Panther Creek	1993	80.49	
Conrad Lundy Jr.	#207	Wind River Road	3.45	Wind River	1960	43.82	FC
Duncan Creek	#107	Duncan Creek Road	2.89	Duncan Creek	1979	82.81	
Government Springs	#202	Mineral Springs Road	0.18	Wind River	1977	71.26	
Harris	#306	Oklahoma Road	4.82	Little White Salmon River	1969	61.40	
Hatchery	#105	Washougal River Road	15.31	Washougal River	1955	61.09	
Hemlock	#204	Hemlock Road	0.05	Wind River	1955	89.56	
Hemlock Lake	#209	Hemlock Road	1.32	Trout Creek	1975	96.78	
Lava Creek	#304	Oklahoma Road	0.23	Lava Creek	1965	66.06	
Moore	#210	Wind River Road	15.23	Wind River	1950 1960	82.00	FO
Moss Creek	#305	Oklahoma Road	1.36	Little White Salmon River	1962	81.09	
North Fork	#103	Washougal River Road	10.64	West Fork Washougal River	1957	71.93	FO
Nutrition Lab	#302	Cook-Underwood Road	5.60	Little White Salmon River	1957	86.40	SC
Oklahoma Ranger Station	#307	Oklahoma Road	7.43	Little White Salmon River	1973	84.42	
Paradise Creek	#211	Wind River Road	20.41	Paradise Creek	1950	90.52	
Rock Creek	#201	Ryan Allen Road	1.08	Rock Creek	1972	99.75	
Rush Creek	#212	Wind River Road	29.43	Rush Creek	1955 1965	90.06	FO
Salmon Falls	#104	Salmon Falls Road	3.39	Washougal River	1961	78.05	FO
Trout Creek	#203	Trout Creek Road	0.55	Trout Creek	1972	96.97	
Washougal River	#101	Canyon Creek Road	4.20	Washougal River	1982	92.67	FC
West Fork	#102	Skamania Mines Road	1.33	West Fork Washougal River	1977	96.92	
Willard Road	#303	Willard Road	1.54	Little White Salmon River	1968	92.06	

OTHER BRIDGES

Bridge Name	Bridge No.	Crossing Route	Route MP	Crossing Feature	Year Built Year Rebuilt	Sufficiency Rating	
Northwestern Dam	Closed						
Northwestern Lake	Klickitat						

PEDESTRIAN BRIDGE INVENTORY

Home Valley Park	Skamania County	CLOSED	BNSF Railroad Tracks	
Moffett Creek	North Bonneville	Pedestrian Facility Adjacent to Moffett Creek Bridge on Cascade Drive	Moffett Creek	
Rock Creek	Skamania County	Access between County Fairgrounds and Parking Facility at County Shops Site	Rock Creek	

CITY OF NORTH BONNEVILLE INVENTORY

Bridge Name	Bridge No.	Crossing Route	Route MP	Crossing Feature	Year Built Year Rebuilt	Sufficiency Rating	
Cascade Avenue	NBONNE1	Cascade Avenue	10.00	Hamilton Creek	1980	79.78	
Evergreen Drive	NBONNE2	Evergreen Drive	20.00	Hamilton Creek	1924	49.78	FC
Greenleaf	NBONNE4	Cascade Drive	0.40	Greenleaf Creek	2004	80.98	
Moffett Creek	NBONNE3	Cascade Drive	0.30	Moffett Creek	1970	54.42	

CITY OF STEVENSON INVENTORY

Bridge Name	Bridge No.	Crossing Route	Route MP	Crossing Feature	Year Built Year Rebuilt	Sufficiency Rating	
First Street	STVNSN4	First Street (SR14)	44.60	Kanaka Creek	1998	99.90	CS
Kanaka Creek	STVNSN2	Cascade Avenue Extension	0.46	Kanaka Creek	1920 1972	27.27	SD FO
Rock Creek 2	STVNSN1	Rock Creek Drive	0.45	Rock Creek	1921	47.52	SC SD

FC Fracture Critical
SC Scour Critical
FO Functionally Obsolete
CS Culvert Structure
SD Structurally Deficient

LISTED BRIDGE RESTRICTIONS

Skamania County currently lists the following conditions or restrictions on bridges in the above listed inventories. The listed controls were adopted by the Skamania County Commissioners by Resolution 2001-29 on May 14, 2001 (on the Butler Eddy Bridge), by Resolution 818-A on June 27, 1994, and Resolution 857-A on June 6, 1995, by County Engineer Work Order #2017-02 on May 9, 2017, #2019-002 on May 22, 2019, and #2019-07 December 4, 2019

Bridge Number	Bridge Name	Inspecting Agency	Restriction
106	Butler Eddy Bridge	Skamania County	Gross vehicle weight limit of 14 tons
107	Duncan Creek Bridge	Skamania County	No Overloads Permitted
301	Home Valley Park Bridge	Skamania County	Closed
304	Lava Creek Bridge	Skamania County	2-axle – 25T 3-axle – 33T 4-axle – 38T
306	Harris Bridge	Skamania County	2-axle – 25T 3-axle – 33T 4-axle – 38T
308	Northwestern Dam Bridge	Skamania County	Permanently Closed
309	Northwestern Lake Bridge	Klickitat County	Loaded truck one-way only, no overloads
NBONNE2	Evergreen Bridge	City of North Bonneville	2-axle – 25T 3-axle – 33T 4-axle – 34T

BRIDGE INSPECTION AND RECOMMENDED REPAIR LIST 2022

Bridge Name: Bear Creek Bridge (Skamania County) 206 Date Inspected: 7/20/2022
Bridge ID Number: 8042900
Repair Description:

1) Monitor Pile 2 B at top for bulging.

Bridge Name: Buck Creek Bridge (Skamania County) 310 Date Inspected: 11/9/2021
Bridge ID Number: 7980200
Repair Description:

1) Design and complete permanent scour repair.
2) Replace guardrail and terminals to meet current standards.
3) Replace shoulder rock at all corners of approaches to prohibit drainage scouring out behind wingwalls.
4) Repair wingwall undermining and scour at east abutment.

Bridge Name: Butler Eddy Bridge (Skamania County) 106 Date Inspected: 6/5/2022
Bridge ID Number: 8474400
Repair Description:

1) Repair/replace Pile 5C and evaluate Piles 1A, 6A, 8A and 8C.
2) Seal coat all pier cap ends.
3) Seal coat all bridge deck ends.
4) Repair hole under pavement at north approach west side.
5) Lower outside diagonal brace between Piles 6A and 7A north side needs replacing. Will need to be done in the spring when water is low.
6) Lower outside longitudinal brace between Piles 6A and 7A north side needs replacing. Will need to be done in the spring when water is low.
7) Bird hole in Pile 5C needs covered. Suggest filling void with spray foam first.
8) Coring of all Piles and Pile Caps during UBIT inspection is suggested to verify previous soundness reports.
9) Weight Limit signs don't meet MUTCD standards.
10) Replace north cross brace on Pier 10, bottom one foot only has 1-inch shell.
11) Cut ends of all cross braces so they are vertical with the ground to prevent water absorption.
12) Upper longitudinal cross brace between 4A and 5A has to be replaced.
13) Have infestation of marine borers eradicated at Abutment 2.

Bridge Name: Conrad Lundy Bridge (Skamania County) 207 Date Inspected: 9/7/2022
Bridge ID Number: 8368500
Repair Description:

1) Monitor footings at Pier 3 steel tower for scour. Concrete pedestals founded on undisturbed solid rock or talus. The stream bed appears to be naturally degrading and slowly exposing the top of the footings.
2) Monitor the mounting hardware and connections for the new waterline attached to Stringer line D and the east truss top chord. Verify as complete in 2010 if hardware remains intact and tight.
3) Consider concrete repair or other type of pier protection for tower pedestals to protect against further water damage and undermining.
4) Consider adding short shielding walls along inside face of L0 and L21 bearings to keep dirt and debris from covering bearings.
5) Routinely clean out compression joints at Piers 2 and 4.
6) Repair cracking delaminating joint header at abutment 4.
7) SE Terminal re-attach the reflective tiger board to end treatment.
8) Brush back foliage encroaching and around truss bottom chord members at each bridge end. Also brush to allow better UBIT access.
9) Clear all vegetation around north abutment. Spray once brush is cleared.
10) Clean off asphalt plug joints.

Bridge Name: Evergreen Bridge (City of North Bonneville) N-BONNE-2 Date Inspected: 9/9/2022
Bridge ID Number: 8534700
Repair Description:

1) Redirect runoff from NE corner of bridge so that it does not undermine channel protection. Fill void under channel protection.
2) Clear trees and brush to a distance of 20 feet from the bridge.
3) Repair damage to both portals and sways at panels 2, 3, 4 and 5.
4) Scour mitigation needs to be evaluated.
5) Provide room for truss expansion at the east end. Lengthen anchor bolt slots, rebuild joint.
6) Bridge is in need of complete removal of paint system and repainted.
7) Seal cracked asphalt joints.
8) Repair settlement and cracked and raveled asphalt along bridge end.
9) Bridge should be posted at the bridge and at the last intersection prior to the bridge. Posting for SU5, SU6, and SU7 are incorrect; they are too high by 1 ton each. Replace correct posting levels, meeting standards for lettering and sign size.
10) Unplug drains.

Bridge Name: First Street Bridge (City of Stevenson) STVSN4 Date Inspected: 8/15/2022
Bridge ID Number: 8620300
Repair Description:

1) Repair extruded curb and move guardrail.
2) Drill concrete abutments and reattach 3.5"x3" angle in six places.
3) Repair ACP on south side of road where it has cracked and started to slump.
4) Clear heavy vegetation around culvert corners at the north end. Remove scrub tree at NW corner of culvert to prevent possible future root damage.
5) Clear vegetation from south end around culvert.

Bridge Name: Hemlock Lake Bridge (Skamania County) 209 Date Inspected: 7/20/2022
Bridge ID Number: 8363900
Repair Description:

1) Check serviceability and flow path of all drains. Unplug and repair as necessary.
2) Replace compression seal both ends of bridge.

Bridge Name: Kanaka Creek Bridge (City of Stevenson) STVNSN 2 Date Inspected: 8/15/2022
Bridge ID Number: 8562200
Repair Description:

1) Grade and/or gravel roadway approaches to eliminate potholes and prevent damage to concrete apron headers.

Bridge Name: Moffett Creek Bridge (City of North Bonneville) N BONNE 3 Date Inspected: 6/14/2022
Bridge ID Number: 8525100
Repair Description:

1) Patch spalls in bridge deck.
2) Replace missing angle on bridge deck.
3) Repair spalls on concrete pier cap.
4) Repair asphalt at north and south approaches.
5) Reattach guardrail post at SE corner of bridge.
6) Replace guardrail at NW corner.

Bridge Name: Moore Bridge (Skamania County) 210 Date Inspected; 7/18/2022
Bridge ID Number: 8442000
Repair Description:

1) Clean and patch underdeck exposed rebar spalls.

Bridge Name: Moss Creek Bridge (Skamania County) 305 Date Inspected: 11/17/2022
Bridge ID Number: 8351000
Repair Description:

1) Remove tree growing in behind SE wingwall at abutment 1.
2) Repair grout at abutments to prevent girder movement.
3) Replace guardrail and terminals to meet current standards.
4) Clean moss from bridge abutments.
5) Replace bulging elastomeric bearing pier 2 under girders A, B, C, G and H and abutment 1 A,B and C..

Bridge Name: North Fork Bridge (Skamania County) 103 Date Inspected; 7/15/2022
Bridge ID Number: 8434400
Repair Description:

1) Repair spall on Girder J with epoxy and grout.
2) Drains and deck need to be cleaned.
3) Set bridge for cleaning. Will need to have paint from concrete bridge rail removed, collected and disposed.
4) Replace damaged guardrail SE corner.

Bridge Name: Rock Creek Bridge (Skamania County) 201 Date Inspected: 9/20/2022
Bridge ID Number: 8475200
Repair Description:

1) Replace compression seal at east end of bridge.
2) Clean drains at west end of bridge.
3) Remove small tree growing behind guardrail at NE corner.

Bridge Name: Rock Creek 2 Bridge (City of Stevenson) STVNSN-1 Date Inspected: 11/3/2020
Bridge ID Number: 8500000
Repair Description:

1) Potential missing web splice plate and bolts on interior girder of sidewalk supports at Pier 3, see photo 13 in Bridgeworks.
2) Monitor Abut 1 approach fill roadway surface and concrete retaining soil for signs of erosion. See photo 9 in Bridgeworks.
3) Develop Scour Plan
4) Need Hydraulics analysis to further evaluate scour potential.

Bridge Name: Rush Creek Bridge (Skamania County) 212 Date Inspected: 7/18/2022
Bridge ID Number: 7977600
Repair Description:

1) Repair asphalt at north end of bridge.
2) Rocks need placed under drains to disperse water.
3) NW and SW guardrail terminal ends need replaced

Bridge Name: Salmon Falls Bridge (Skamania County) 104 Date Inspected: 7/15/2022
Bridge ID Number: 8451800
Repair Description:

1) Sandblast exposed rebar seal and epoxy grout.
2) Remove tree growing under west end of bridge.
3) Monitor newly installed crack gauge on Pier 1 east side, 9' from north end.

Bridge Name: Washougal River Bridge (Skamania County) 101 Date Inspected: 9/08/2022

Bridge ID Number: 012160A

Repair Description:

1) Protect weathering steel from further corrosion. Clean all debris from the weathering steel, especially in spans 1 and 3 at the splice plates and abutments. The dirt and moss are trapping moisture on the bridge and damaging the weathering patina.
2) Pier 1, at Girder 1A, the concrete transverse restrainer has a vertical elastomeric pad that has worked its way out 5". Reinstall elastomeric pad and secure one side with epoxy to prevent future displacement.
3) The weathering steel patina appears failed. Consider blast cleaning down to bare steel painting all weathering steel members.
4) Remove errant chip seal along joint at abutment 1.
5) Remove chain link fence around footing 3A.
6) Blast and paint 20' of weathering steel at each girder end.
7) Clean debris from pier 2 and 3 bearings.
8) Re-direct water at abutment 1 upstream side to flow away from bridge corner to stop bank erosion and parking lot undermining.

Bridge Name: West Fork Bridge (Skamania County) 102 Date Inspected: 7/15/2022

Bridge ID Number: 8236800

Repair Description:

1) Fill slump at north approach to smooth transition.
2) Replace rock around wing wall at NW corner of bridge.
3) Guardrail and terminals do not meet standards.
4) Repaint metal cross bracing between girders.
5) Remount delineator at SE corner.
6) Remove vegetation and sediment around girder E abutment1.
7) Clear vegetation around abutments.

Bridge Name: Willard Road Bridge (Skamania County)303 Date Inspected: 10/24/2022

Bridge ID Number: 7970000

Repair Description

1) Clean bridge drains regularly.
2) Monitor and put crack gauges on at future inspection.
3) Repair SW approach guardrail.