



SKAGIT COUNTY DEPARTMENT OF PUBLIC WORKS

2023 ANNUAL BRIDGE REPORT



“Upper Finney Creek Bridge”

Completed strengthening and seismic retrofit project, August of 2023.

SUBMITTED MARCH, 2024

SKAGIT COUNTY DEPARTMENT OF PUBLIC WORKS

2023 BRIDGE REPORT


Submitted: March 2024


This bridge report is prepared annually by the Transportation Programs Section of Skagit County Public Works' Engineering Division to fulfill requirements of the Washington Administrative Code (WAC) 136-20-060. The WAC requires the County Engineer's report of bridge inspections as follows:

"Each county engineer shall furnish the county legislative authority with a written resume of the findings of the bridge inspection effort. This resume shall be made available to said authority and shall be consulted during the preparation of the proposed six-year transportation program revision. The resume 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."

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ACRONYMS

The following are a list of common acronyms widely used in the Bridge Inspection field:

ADT	Average Daily Traffic
UAS	Unmanned Aircraft System
BIRM	Bridge Inspection Reference Manual
BAC	Bridge Advisory Committee
CFR	Code of Federal Regulations
EV#	Emergency Vehicle (# refers to number of axles)
FHWA	Federal Highway Administration
FLBP	Federal Local Bridge Program
NBIS	National Bridge Inventory System
NSTM	Nonredundant Steel Tension Members
PS/PT	Pre-stressed / Post-tensioned
RCW	Revised Code of Washington
SHV	Specialized Haul Vehicle
SU#	Single Unit (# refers to number of axles)
SD	Structurally Deficient
SID	Structure Identification Number
SR	Sufficiency Rating
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
TIP	Transportation Improvement Program

EXECUTIVE SUMMARY

The 2023 Annual Bridge Report complies with WAC 136-20-060, which requires that each County Engineer furnish a written resume of the findings of the previous year's inspection effort. This report summarizes Skagit County's bridge inspection program, focusing on the Engineer's recommendations as to replacement, rehabilitation, repair, and load restrictions on the County's deficient bridges. This makes the Annual Bridge Report an important resource in the preparation of the Six Year Transportation Improvement Program and other short and long-term planning tools. Bridge replacement, rehabilitation, and repair projects are prioritized by a rating system that is based on a combination of factors including, but not limited to, structural deficiency, functional obsolescence, sufficiency rating, traffic data, safety factors, accident history, and funding availability. Please be aware that the FHWA is transitioning to a new coding system with new terminology so terms, such as "Sufficiency Rating" and "Structurally Deficient" will be retired. The new system will involve a Good/Fair/Poor system, complemented with a coding system to provide additional and precise information of the bridge element conditions. This report will be the last to utilize the old terminology.

To qualify as a Structurally Deficient (SD) bridge, an element of the bridge must have a condition rating of 4 (Poor Condition) or less in one of the following elements: deck, superstructure, substructure, culvert and retaining walls, or have an appraisal rating of 2 or less of the structural evaluation or waterway adequacy.

There are four goals the report strives to attain:

1. Provide inspection findings ensuring safe use by the public.
2. Present proactive maintenance recommendations for maximizing the life of County assets.
3. Identify bridges that may need to be replaced or rehabilitated.
4. Satisfy the reporting requirements set forth by other government agencies.



Dalles Bridge near Concrete (Concrete-Sauk Valley Road)

HIGHLIGHTS from the 2023 bridge inspection season include:

- ❖ 63 bridge inspections were performed in Skagit County.
 - 48 routine inspections performed on Skagit County bridges.
 - 1 Interim inspection of the temporary shoring on Old Highway 99 at Thomas Creek bridge.
 - 13 routine inspections performed for local agencies: Cities of Mount Vernon & Burlington, and the Town of Concrete.
 - 1 Underwater inspection performed by the Washington State Bridge Preservation Office.

- ❖ Construction was completed on the **Upper Finney Creek Bridge** Seismic Retrofit and Strengthening Project (cover page). The work included installation of 4 additional concrete columns into the subgrade, enlarged abutments, and bolstered girders, as well as a new deck surface and rails. Total cost of the project was just under \$3.6 million that was entirely funded by the Federal Local Bridge Program.

- ❖ The bridge inspection crew conducted its first inspection that was supplemented with the use of **Genesis I**, the Survey Department's Unmanned Aircraft System (sUAS). Genesis I, assisted with inspecting Cascade River Bridge by identifying delamination in the deck using thermal imagery, as well as providing real-time imagery under the bridge, over the swift current of the Cascade River. (See pg 9 for more information)



- ❖ The **Bay View-Edison Joe Leary Bridge** deck rehabilitation project went out to bid and awarded to Combined Construction, Inc., with construction scheduled to begin this Spring. The 69-year-old concrete superstructure with timber substructure is still in good condition so by rehabbing the deck, repairing scour countermeasures, and existing drainage infrastructure will prolong the life of the crossing for many more decades. Skagit County was awarded \$657,200 by the Federal Local Bridge Program.

❖ Skagit County was awarded funding by the Federal Local Bridge Program for all three of its grant applications:

➤ **Skagit River Marblemount Bridge** (see page 15) was awarded \$18.6 Million for Rehabilitation that will include replacement of some damaged/deteriorating members as well as upsizing gusset plates and members with the goal of increasing its load carrying capacity to handle legal loads. The funding will also go towards cleaning and applying a new protective paint coating. David Evans & Associates were selected as the design consultant, construction is scheduled for summer of 2025.



➤ **Old Highway 99 at Thomas Creek (Cover)** was awarded \$6 Million to replace the 89-year-old timber structure. The substructure of the bridge is failing, requiring temporary shoring to keep it open to legal loads. The new structure will also increase conveyance as the current bridge is routinely submerged during flood events. KPFF Engineering Consulting was selected as the design consultant, construction is scheduled for summer of 2025.

➤ **The Deck Repair Bundle Project** was awarded \$1.6 Million to repair and resurface the decks of three bridges: **F&S Grade Road at Samish River** (right), **Cascade River Bridge**, and **S. Skagit Highway at Pressentin Creek**. Sargent Engineers, Inc. was selected as the design consultant, construction is scheduled for spring of 2025.



BRIDGE INVENTORY

Skagit County Road Bridges:

As of December 31, 2023, Skagit County has 109 bridges in the National Bridge Inventory System (NBIS) plus 3 short span bridges that we routinely inspect as well.

- ❖ The current inventory consists of:
 - 5 culverts (2 corrugated metal, 3 concrete)
 - 3 predominately timber bridges
 - 12 predominately steel bridges
 - 92 predominately concrete bridges
- ❖ 11 of the 112 bridges requiring special inspection needs are contracted out to WSDOT who have the necessary equipment and expertise (see Specialized Inspections).
- ❖ Skagit County has 5 structurally deficient bridges (See Table 1).

TABLE 1 – Skagit County bridges considered to be Structurally Deficient

BRIDGE NUMBER	BRIDGE NAME	DEFICIENCY	FUNDING STATUS
40086	S SKAGIT HWY at MILL CREEK	Waterway Adequacy	Eligible for replacement funding, 2025 Call for Proj.
40029	BAY VIEW-EDISON at JOE LEARY	Deck	Repair Funding Awarded – Const. 2024
40013	F&S GRADE SAMISH RIVER	Deck	Repair Funding Awarded – Const. 2025
40113	OLD HWY 99 at THOMAS CK	Deck/Substructure	Replacement Funding Awarded – Const. 2025
40070	SKAGIT RIVER MARBLEMOUNT	Superstructure	Rehabilitation Funding Awarded – Const. 2025

To see a full listing of the Skagit County Bridge Inventory and their statistics, please refer to “Appendix A – Bridge Inventory”.

Specialized Inspections:

Skagit County currently has 11 structures that require specific access assistance, equipment, and professional services during the inspection process. We refer to these inspections as “specialized inspections” that typically involve three types of inspection: (1) **Under-Bridge Inspection Truck (UBIT)** is required for bridges that cannot be given an adequate visual inspection from the ground. (2) Steel bridges with **Nonredundant Steel Tension Members**

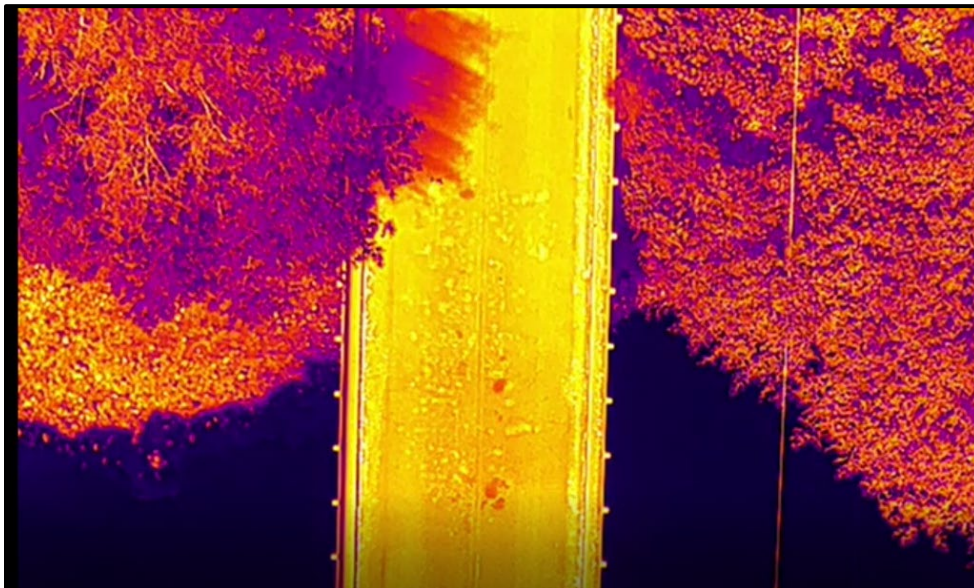


Skagit River Marblemount Bridge, UBIT inspection

(NSTM), usually requires special inspection equipment. (3) Underwater inspections involve divers for bridges with piers that extend below ordinary low-water levels.

Skagit County contracts with the State Bridge Preservation Office (BPO) to perform our specialized type inspections. In 2023, BPO only needed to perform 1 specialized inspection (underwater) for Skagit County. In 2024, BPO will perform 9 UBIT inspections, including 6 NSTM inspections. For more information on our upcoming inspection schedule, please refer to “Appendix B – Routine & Special Inspection Schedule” for details on all our bridges.

A new form of specialized inspection to supplement our routine inspections is the use of a UAV (unmanned aerial vehicle). With the recent acquisition of Genesis I by our Survey Department, we were able to utilize its capabilities and capture thermal imaging of the deck, as well as a live video feed underneath the bridge to inspect the girders and soffit allowing us to pinpoint defects for closer inspection. We already had a good idea of the amount of delamination that was in the deck so deploying Genesis was a test to verify what our soundings were indicating. Genesis was able to clearly show us size and location of the delams and areas that we had underestimated the extent. The results were very convincing:



Thermal imaging of a portion of Cascade River Bridge:

The patched spalls and delamination areas heat and cool at different rates than the concrete in good condition. The bright red spots are existing patches of spalled delamination, lighter spots are delamination within the deck that will eventually spall. You can also see the impact that shadows from the trees have on the imaging.

Overweight Loads & Load Restricted Bridges:

The North Fork Bridge and the Dalles Bridge are popular routes for overweight loads. Due to the bridges' NSTM status and deficiencies, all overweight load permits are reviewed on a case-by-case basis. County staff (along with contracted consultants) review the load configuration (number of axles, axle loading and spacing) to determine if the load is safe to cross all the bridges located along the proposed route. If not, restrictions and/or conditions can be put on the load, or an alternative route identified.



Super-load requiring bridge loading analysis.



In 2017, WSDOT introduced new load posting requirements issued by FHWA regarding the load rating and posting of Specialized Hauling Vehicles (SHV) and Emergency Vehicles for bridges contained in the National Bridge Inventory. SHVs, also known as Single Unit Vehicles (SUV), are trucks without trailer with multi-closely spaced axles such as dump trucks, construction vehicles, and hauling trucks introduced during the last decade. There are four SHV trucks, SU4 to SU7 (Single Unit 4-axles to Single Unit 7-axles).

FHWA determined that two emergency vehicle (EV) configurations, EV2 and EV3, produce load effects in bridges that envelop the effects resulting from typical emergency vehicles that are covered by the Fixing America's Surface Transportation Act (FAST Act) (Pub. L. 114-94). Due to all these new vehicle configurations, FHWA mandated that all NBI bridges be load rated again to analyze these vehicle types.

TABLE 2 – Skagit County Load Restricted Bridges

LOAD RESTRICTIONS											
Bridge #	Bridge Name	AASHTO TRUCKS - 1,2,3			SU4 27T	SU5 31T	SU6 34.7T	SU7 38.7T	EV2 28.7T	EV3 43T	POSTED Y/N
		25T	36T	40T							
40001	Lake View Blvd at Nookachamps									36.6	N
40008	South Fork Bridge							27.3	37.0		Y*
40039	Rainbow Bridge					29.4	30.5	32.5	27.3	28.0	Y
40047	Lake Cavanaugh Rd at Pilchuck Cr						32.3	33.3	22.1	31.8	Y
40063	Lyman-Hamilton Hwy at Childs Cr						33.0	34.8		30.5	Y
40070	Skagit River Marblemount	23.8	24.8	24.4	23.5	23.6	24.0	24.0	23.5	23.7	N**
40090	Dalles Bridge		30.6	38.0		29.3	30.1	33.1		35.7	Y
40099	Government Bridge	24.0			22.6	23.8	23.9	24.8	24.1	23.2	Y
40114	Samish River Bridge					29.0	32.0	34.0	26.0	27.0	Y
40115	Old Hwy 99 at Friday Cr Bridge						31.3	32.2	25.0	31.0	Y
40130	Lyman-Hamilton Hwy at Red Cabin Cr									32.7	N
40131	Lyman-Hamilton Hwy at Mannser Cr				25.1	27.0	27.4	28.3	27.6	27.1	Y
40132	Lyman-Hamilton Hwy at Jones Cr				22.1	23.9	24.3	25.5	24.1	24.1	Y
40152	Anacortes Ferry Dock									37.4	N
40153	Guemes Island Ferry Dock									37.4	N
40156	Cedardale Rd at Carpenter Cr						32.3	34.4	25.0	31.4	Y*
40157	Benson Ridge Ln at Carpenter Cr						34.0	35.2		33.1	Y
* Bridge located within 1-mile of Interstate, therefore EV posting required.											
** Bridge load restriction mitigated by change from 2-lane to 1-lane bridge.											

Height Restricted Bridges:

Steel Truss Bridges all have sway bracing across the top which creates a vertical limitation to vehicles traveling over the bridge. Below is a list of bridges that have vertical limitations and their vertical measurement which helps when reviewing the route of an oversized load application. Skagit County crews have also posted the height restriction on two of the bridges that are near or below legal height (See Table 3).

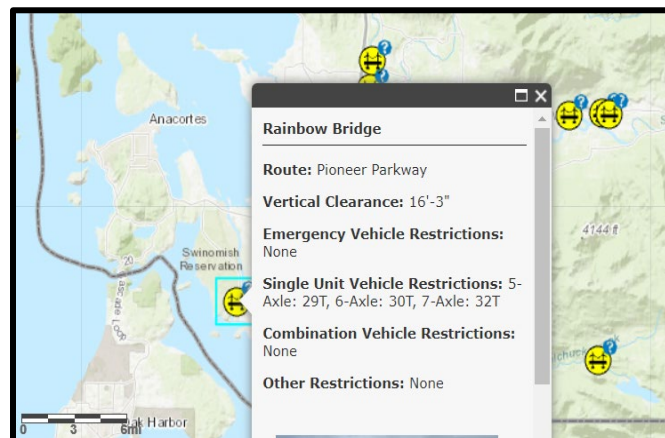


Samish River Bridge - Vertical Clearance Signage

TABLE 3 – Vertical Clearances / Restrictions

Bridge Number	Bridge Name	Vertical Measurement	Posted Clearance
40114	SAMISH RIVER BRIDGE	14' 06"	14' 3"
40152	ANACORTES FERRY DOCK	16' 00"	
40153	GUEMES ISLAND FERRY DOCK	16' 00"	
40090	DALLES BRIDGE	16' 01"	15' 10"
40039	RAINBOW BRIDGE	16' 07"	
40070	SKAGIT RIVER MARBLEMOUNT	17' 09"	
40099	GOVERNMENT BRIDGE	18' 00"	

Skagit County has completed re-load rating all its' bridges in the National Bridge Inventory which has revealed the need for load restricting and posting at several County bridges (Table 2). Due to the number of newly load restricted bridges, Public Works, with the assistance of the GIS Department, launched the interactive [Skagit County Bridge Restriction Map](#) (right) which shows the location, all current restrictions, and any clearance limits (vertical or horizontal) of that bridge. This map is intended to inform the trucking industry of possible restrictions and plan accordingly before they embark on their proposed route. Over legal truck configurations are still required to obtain a permit for travel on County roads.



Local Agency Bridges:

Skagit County Public Works provides inspection services to cities and towns on a reimbursable basis. The County works with the local agencies under agreement conditions set forth in RCW Chapter 39.34, the Interlocal Cooperation Act. The County's services are provided primarily to cities that lack resources and expertise to inspect and maintain their bridge inventory. Currently, the County provides routine inspection services on 17 local municipality bridges.

No. of Local Agency Bridges Served by Skagit County:

- City of Burlington – 2
- Town of Concrete – 1
- City of Mount Vernon – 12
- City of Sedro-Woolley – 2

Short Span Bridges:

Short span bridges are defined as spans that are 20-feet or less in length and over 4-feet for timber structures and over 6-feet for steel and concrete structures. Even though inspection reports and bridge information for short span bridges are not reported to WSDOT or FHWA, Skagit County currently has three short span structures inventoried, like Campbell Lake Outlet pictured to the right, with plans to add more crossings that meet the short span definition. Once inventoried, Skagit County can schedule routine inspections and operate these crossings the same as federally reported bridges in our inventory.



Campbell Lake Outlet receiving new timber cap, 2013



Cascade Trail Bridge over Jones Creek

Parks Department Bridges:

Skagit County Parks and Recreation Department has approached Public Works and requested assistance with a growing inventory of pedestrian bridges (27 total). These have been acquired either through new trail construction or by acquisition of abandoned railroad rights-of-way. Public Works will continue to work with the Parks and Recreation Department to inventory and inspect as staffing and workload allows.

INSPECTION PROGRAM, FINDINGS & RECOMMENDATIONS

Bridge inspections are performed in accordance with the National Bridge Inspection Standards (NBIS) and with 23 CFR 650.3. All bridges inspected to the NBIS in the United States are issued a structure identification number (SID). The standards mandate that all public agencies with a bridge inventory inspect and report the findings at a minimum of once every 24 months (routine inspection). The inspector uses these standards to document the current condition of each bridge element listed. The deficiencies are coded to the NBIS and show degree of deterioration in various elements. The three primary elements are the deck, superstructure, and substructure. As deterioration accelerates, the coding values will drop. Work orders for repairs may be issued. In the case where the coding factors are extremely low, recommendations are made for replacement or rehabilitation. Bridges with identified deficiencies may be inspected or monitored at more frequent intervals.

The results of our inspection program are forwarded on to the Washington State Department of Transportation (WSDOT) Local Programs Office for review. Once the report has been accepted by WSDOT, it is available for the Federal Highway Administration (FHWA) and others to use. A copy of all final inspection reports are kept on file with Skagit County Public Works and available online at www.SkagitCounty.net

There are other factors that go into determining the overall health of a bridge. Sufficiency Rating (SR) is a score calculated based on a multitude of factors that are 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, as defined by FHWA. 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 scour action of bridges passing over a waterway. As of December 31, 2023, Skagit County has five bridges that are SD (previously mentioned in Table 1, Pg 7).

The bridge inspection program recognizes that with limited funding, it is important to identify trends that are affecting the deficiencies of our bridge structures, such as age and materials used in construction. Skagit County Public Works will continue to apply for available funds to assist with deficient bridges that are eligible for Federal Local Bridge Program funds and Surface Transportation Program funds. County bridges not eligible for Federal funds, such as short-span bridges 20-feet in length or less, will have their replacement/rehabilitation needs prioritized by Public Works staff, based on structural deficiency, resource availability, and the Board of Skagit County Commissioners' authorization to fund the project in the Annual Construction Program. Similarly, for maintenance, repair, and minor rehabilitation work, prioritization is based on County bridge maintenance funds and resource availability.

This report also documents projects that have been completed, those that are in the current Six-Year Transportation Improvement Program, and those bridges that are candidates for future replacement/rehabilitation.

REPLACEMENT & REHABILITATION

The County's current focus is to replace or rehabilitate bridges that are classified as Structurally Deficient per NBIS guidance. We have received, or are currently seeking, funding for a number of bridges that are in need of replacement, rehabilitation and/or resurfacing. The bridges identified below are Public Work's current main focus.

REPLACEMENT

Old Hwy 99 at Thomas Creek Bridge #40113

This bridge is considered structurally deficient and has a sufficiency rating of 9.55, making it eligible for replacement funding. The bridge has a deteriorating pile that's been red tagged that would normally require a weight restriction or closure of the bridge. However, County forces were able to quickly permit and install temporary shoring to reduce the loading on the pile. Federal funding was awarded (**\$6 Million**) to replace this structure, **scheduled for 2025**.

Recommended Replacement Candidates:

South Skagit Highway at Mill Creek Bridge #40086



Mill Creek channel upstream of bridge.

A sufficiency rating of 80.74 is still relatively high for a bridge but environmental processes have rendered the Mill Creek crossing useless for its intended purpose. Mill Creek has filled in with large aggregate and decreased the structures' available conveyance, causing the creek to overtop the roadway and divert the flow to the east and west of the bridge. The bridges' Waterway Adequacy has been coded a 2 (frequent overtopping of deck or roadway approaches with severe traffic delays) and therefore eligible for replacement funding. The County will be seeking replacement funds in a future Call for Projects (2025) that coincides with salmon restoration funding for a basin wide solution.

North Fork Bridge #40037

The North Fork Bridge has served the County well for 65 years, but its narrow configuration and limited load capacity have rendered it obsolete. Currently, the bridge is in Fair condition and not eligible for Federal Local Bridge Program replacement funds. However, given the importance of the route it serves (connecting Interstate-5 with State Route 20 and serving as an alternative trucking route to the Port of Skagit, the refineries, and Port of Anacortes) we are



looking for infrastructure grants, coupled with non-motorized grants and salmon restoration / flood water conveyance grant opportunities.

REHABILITATION

Skagit River Marblemount Bridge #40070

The 93-year-old steel truss, providing access from SR-20 to the North Cascade Forest Lands received **\$18.6 Million** in Federal Local Bridge Program funding to rehabilitate the structure and strengthen it to handle today's legal loads. **Construction of this project is scheduled to**



Marblemount Bridge – Skagit River

occur in summer of 2025. The sufficiency rating dropped to 19.06 and would be posted for load restrictions, however, with the low average daily traffic, Public Works instead reduced the bridge to one-lane with signal controlled two-way traffic operation. With a one-lane configuration, legal trucks are still able to cross one at a time and avoid a 20-Mile detour.

Rehabilitation of the structure will include cleaning and painting, replacement of damaged and/or deteriorating members of the truss, and upgrade key members to increase the load carrying capacity of the truss system.

Recommended Rehabilitation Candidates:

Although **Rainbow Bridge #40039** (below) does not meet any of the eligibility requirements for rehabilitation funding, the bridge has numerous repair needs and could use a cleaning and fresh coat of paint. County staff will continue to look for ways to fund these items and hopefully strengthen the bridge so that the current load restrictions can be removed.



PREVENTATIVE MAINTENANCE PROJECTS

Bay View-Edison at Joe Leary #40029

The substructure and superstructure of this bridge are in very good condition (SR 84.90) but the deck is experiencing advanced deterioration and is in need of repair, currently coded a 4 (Poor). This coding of 4 makes the bridge structurally deficient and has been awarded **\$657,200** through the Federal Local Bridge Program to repair the deck, as well as the approach road fill retaining wall and existing drainage system. **Construction to begin this spring.**



Bay View-Edison at Joe Leary Slough Bridge

Bundle (Deck Repair) Project

Like the Bay View-Edison at Joe Leary Bridge, we have several other bridges that are in very good condition but with deteriorating decks. The bridges mentioned below were bundled together and received Federal Local Bridge Program Funding in the amount of **\$1.6 Million** to receive deck maintenance and restore their surface condition. **Construction is scheduled for 2025.**

- ❖ Cascade River Bridge #40071
- ❖ S Skagit Hwy at Presentin Creek #40088
- ❖ F & S Grade Rd at Samish River #40013

Recommended Future Deck Repair Projects:

- Cape Horn Road at Grandy Creek #40068
- Benson Ridge Lane at Carpenter Creek #40157

Paint/Protective Coating:

Steel bridge paint is not only for aesthetic purposes but it also provides a protective coating that prevents rust and corrosion of the steel. Skagit County owns several steel bridges that could use a good cleaning, Rainbow Bridge and Dalles Bridge in particular, but the **Guemes Island Ferry Dock #40153** (right) is currently the only structure in our inventory that has enough documented paint deterioration to be eligible for grant funding.



COUNTY CREW MAINTENANCE AND REPAIRS

The majority of bridge repair and maintenance work is done by County Forces. This includes cleaning, minor painting, deck repair/patching and rail repair. The major maintenance projects being worked on now include:

Bridge Maintenance Projects:

Concrete-Sauk Valley Temporary Bridge #40091

The temporary bridge was installed to keep the road open when the North Osterman Creek culvert failed due to storms and massive head cutting from the unpredictable migration of the Sauk River. Due to the bridges' lack of substructure, it is considered scour critical and has a Scour Plan of Action in place that directs County staff to monitor during heavy rain events. Just recently, County forces permitted and installed Super Sacs, filled with river rock, along the banks of Osterman Creek to prevent further channel migration towards the ends of the bridge. The temporary structure will remain until the permanent crossing is designed and ready for construction. This crossing has been submitted for FEMA funding and we will begin working on a design and construction once funding is approved.



South Skagit Highway at Finney Creek

Debris:

Debris is an ongoing issue for many of our bridges. To improve crew efficiency and response time, Environmental Services secured programmatic HPA's for clearing debris from problem bridges. This past season, our crews were able to remove debris from Farm-to-Market at Samish River Bridge (#40034), however debris remains hung up on South Skagit Hwy at Finney Creek (#40089). That blockage will require some cutting so work will be performed during low flows.

General Maintenance:

In addition to the above-mentioned repairs, Skagit County’s Bridge Crew performs various minor repairs and maintenance throughout the year. These repairs and maintenance include, but are not limited to:

- Patching decks due to spalling or material loss
- Replacing the loss of armor/rock around the abutments
- Repairing bridge rail and guardrail
- Leveling approaches
- Spot painting
- Removal of vegetation encroaching or blocking access to the bridge for inspection purposes
- Replacing damaged or worn signage



Bay View-Edison at Joe Leary Slough Bridge – jackhammer used to expose rebar for measuring and spacing, some of the information that went into the deck rehab project.

Please refer to “Appendix C – Bridge Maintenance List” for a full listing of outstanding and recently completed repairs.

GLOSSARY OF BRIDGE TERMINOLOGY

Abutment—a substructure supporting the end of a single span, or the extreme end of a multi-span super-structure and, in general, retaining or supporting the approach fill.

Backwall—the top-most portion of an abutment functioning *primarily* as a retaining wall to contain approach roadway fill.

Bent—a supporting unit of the beams of a span made up of one or more column or column -like members connected at their top-most ends by a cap, strut, or other horizontal member.

Bracing—a system of tension or compression members, or a combination of these, connected to the parts to be supported or strengthened by a *truss* or frame. It transfers wind, dynamic, impact, and vibratory stresses to the substructure and gives rigidity throughout the complete assemblage. Can also refer to diagonal members that tie two or more columns of a bent together.

Cap—the horizontally-oriented, top-most piece or member of a bent sewing to distribute the beam loads upon the columns and to hold the beams in their proper relative positions.

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

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

Culvert—a pipe or small structure used for drainage under a road, railroad or other embankment. A culvert with a span length greater than 20-feet is included in the National Bridge Inventory and receives a rating using the NBI scale.

Deck—portion of a bridge that provides direct support for vehicular and pedestrian traffic.

Elastomeric pads—rectangular pads made of neoprene, found between the substructures and superstructure, that bears the entire weight of the superstructure. Elastomeric pads can deform to allow for thermal movements of the superstructure.

Endwall—the wall located directly under each end of a bridge that holds back approach roadway fill. The endwall is part of the abutment.

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.

Pier—a structure comprised of stone, concrete, brick, steel, or wood that supports the ends of the spans of a multi-span superstructure at an intermediate location between abutments. A pier is usually a solid structure as opposed to a bent, which is usually made up of columns.

Pile—a rod or shaft-like linear member of timber, steel, concrete, or composite materials driven into the earth to carry structure loads into the soil.

Pinpile—a series of two-inch-diameter pipes driven in a line into the ground to support the timber planks of a small retaining wall, typically used to prevent erosion under a bridge abutment.

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 span 20 feet or less, have a single span and are typically supported by timber piles or shallow concrete footings.

Soffit—the underside of the bridge deck or sidewalk.

Spall—a concrete deficiency wherein a portion of the concrete surface is popped off from the main structure due to the expansive forces of corroding steel rebar underneath. This is especially common on older concrete bridges.

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

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 formula considers the structural adequacy, functional obsolescence, level of service and essentiality for public use.

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

Superstructure—the entire portion of a bridge structure which primarily receives and supports traffic loads and in turn transfers the reactions to the bridge substructure; usually consists of the deck and beams or, in the case of a truss bridge, the entire truss.

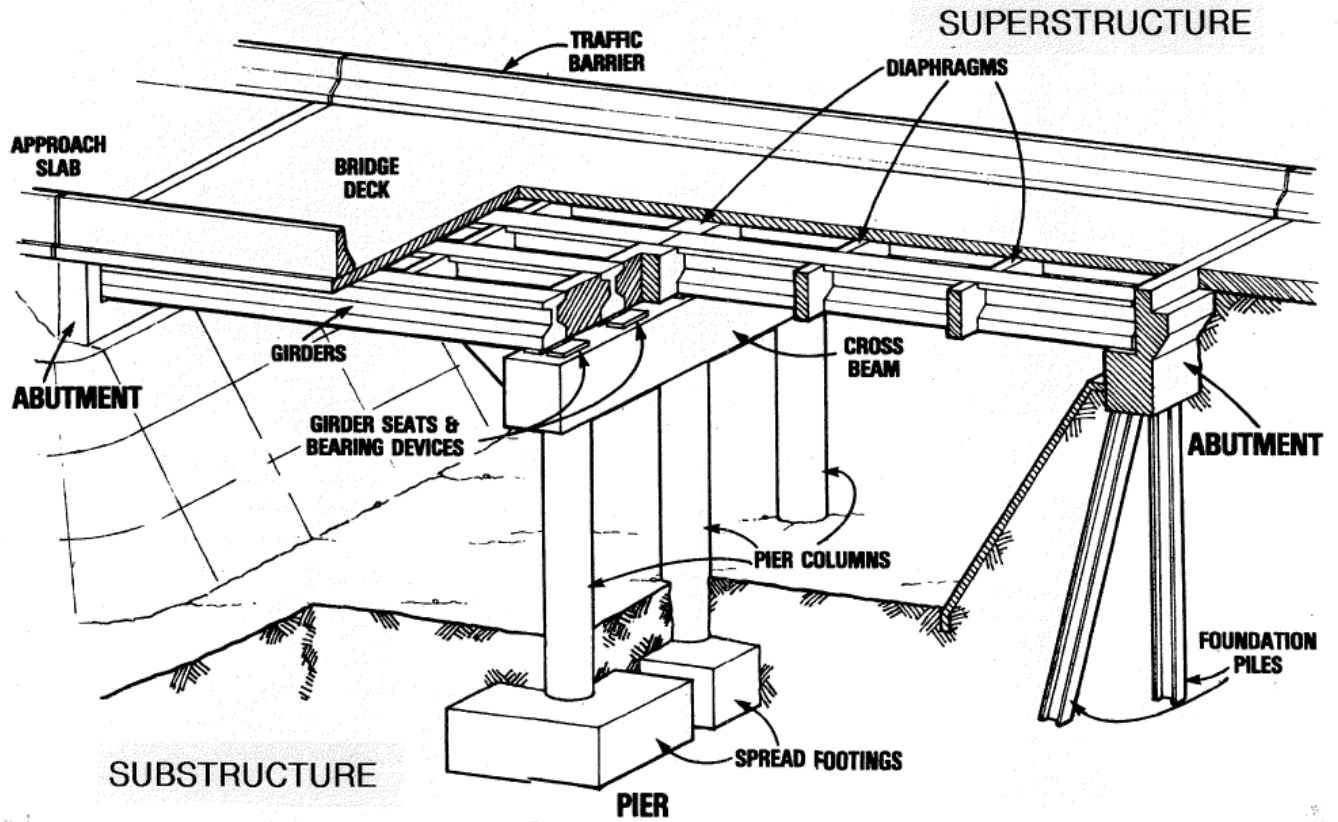
Tension—type of stress involving an action which pulls apart.

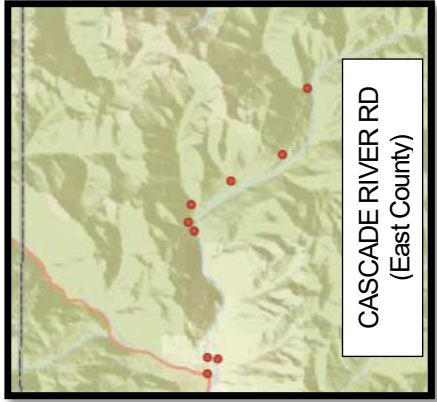
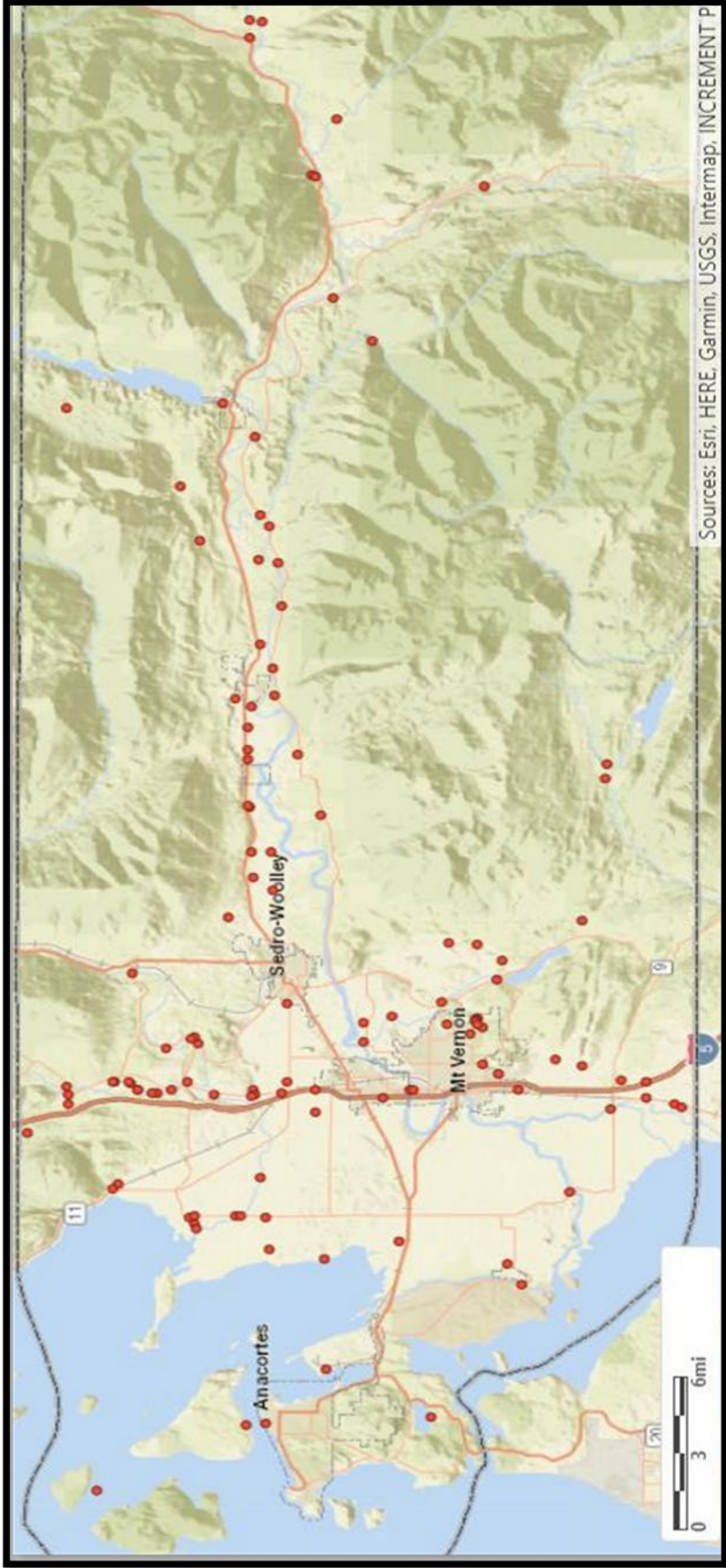
Trestle—a bridge structure consisting of beam spans supported upon bents. Trestles are usually made of timber and have numerous diagonal braces, both within each bent and from bent to bent.

Wingwall—walls that slant outward from the corners of the overall bridge that support roadway fill of the approach.

ELEMENTS OF A BRIDGE

BASIC BRIDGE PARTS





SKAGIT COUNTY BRIDGE MAP

APPENDIX A - BRIDGE INVENTORY

BRIDGE NUMBER	BRIDGE NAME	YEAR BUILT /REBUILT	LENGTH (feet)	WIDTH (feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	SUFFICIENCY RATING
40113	OLD HWY 99 at THOMAS CREEK	1934	52	30.0	4,372	10	Timber	9.55 SD
40070	SKAGIT RIVER MARBLEMOUNT	1930	662	14.0	608	11	Steel	19.06 SD
40039	RAINBOW BRIDGE	1957	797	24.0	3,101	7	Steel	45.81 FO
40114	SAMISH RIVER BRIDGE	1934	385	24.0	3,113	11	Steel	46.23 FO
40099	GOVERNMENT BRIDGE	1930/1953	304	14.0	158	11	Steel	49.06 FO
40047	LK CAVANAUGH at PILCHUCK	1970	56	28.0	578	10	Concrete	49.42
40152	ANACORTES FERRY DOCK	1925/1976	205	15.0	500	7	Steel	50.18 FO
40153	GUEMES ISLAND FERRY DOCK	1981	165	15.0	500	7	Steel	50.18 FO
40008	SOUTH FORK BRIDGE	1972	908	28.0	4,719	12	Steel	55.17
40037	NORTH FORK BRIDGE	1959	726	24.0	3,693	10	Steel	56.92 FO
40090	DALLES BRIDGE	1952	506	26.0	2,562	6	Steel	57.49 FO
40156	CEDARDALE RD at CARPENTER CREEK	1934	83	36.0	613	14	Timber	58.72
40031	PULVER ROAD at JOE LEARY	1955	39	24.0	928	10	Concrete	60.40
40115	OLD HWY 99 at FRIDAY CREEK	1956	122	26.0	2,682	8	Concrete	60.93 FO
40038	LACONNER WHITNEY at SL	1962	68	26.0	5,550	6	Concrete	61.27 FO
40081	S SKAGIT HWY at DAY CREEK	1961	160	24.0	825	11	Concrete	64.67
40063	LYMAN HAMILTON HWY at CHILDS CK	1948	32	24.0	525	8	Concrete	64.73
40001	LAKE VIEW BLVD/NOOKACHAMPS	1954	77	25.5	690	8	Concrete	65.20
40116	OLD HWY 99 at SILVER CREEK	1934	38	25.0	1,687	9	Concrete	65.84
40132	LYMAN HAMILTON HWY at JONES CREEK	1955	52	26.0	253	6	Concrete	67.82
40131	LYMAN HAMILTON HWY at MANNSEK CK	1954	52	26.0	260	6	Concrete	68.20
40091	CONCRETE-SAUK VALLEY TEMPORARY BR	2021	131	13.7	158	11	Steel	69.29 FO
40043	CONWAY HILL @ CARPENTER	1980	58	14.0	95	8	Concrete	70.76 FO
40075	CASCADE RIVER RD at SIBLEY CREEK	1997	23	28.0	188	4	Concrete	72.49
40093	UPPER FINNEY CREEK BRIDGE	1952/2023	210	14.2	41	10	Concrete	72.51 FO
40083	S SKAGIT HWY at CUMBERLAND CREEK	1961	50	24.0	635	12	Concrete	73.90
40101	BAKER LAKE RD at BEAR CREEK	1966	85	26.0	714	23	Concrete	74.32
40109	LAKE SAMISH RD at FRIDAY CREEK	1965	53	26.0	5,124	6	Concrete	74.51 FO
40141	BAYVIEW STATE PARK	1969	62	26.0	751	10	Concrete	75.02 FO
40004	FRANCIS RD at SLOUGH	1958	50	24.0	4,694	4	Concrete	75.79 FO
40072	CASCADE RIVER RD at MONOGRAM	1945/1979	22	26.0	188	4	Concrete	75.85
40003	FRANCIS at NOOKACHAMPS	1979	130	28.0	4,694	4	Concrete	76.47
40028	BAY VIEW-EDISON at SAMISH R	1965	223	26.0	1,026	4	Concrete	77.55
40130	LYMAN HAMILTON HWY at RED CABIN CK	1954	22	26.0	253	6	Concrete	77.59
40046	LK CAVANAUGH RD at BEAR	1967	51	28.5	578	10	Concrete	77.61
40017	PRAIRIE RD FRIDAY CK	1975	78	28.0	2,757	9	Concrete	77.90
40151	NICHOLSON at CHILDS CREEK	1979	29	15.0	40	5	Concrete	77.99 FO
40089	S SKAGIT HWY at FINNEY CREEK	1954	120	26.0	635	12	Steel	78.07
40027	BAY VIEW-EDISON at SAMISH SL	1965	38	26.8	1,026	4	Concrete	78.22
40082	S SKAGIT HWY at LORETTA CREEK	1961	85	24.0	825	11	Concrete	78.81
40142	CAMPBELL LAKE OUTLET	1962	19	20.0	57	4	Concrete	79.38
40002	SWAN ROAD at NOOKACHAMPS	1976	126	28.0	1,100	8	Concrete	79.59
40020	FRIDAY CREEK 3RD BRIDGE	1961	61	20.0	165	8	Concrete	79.94
40021	FRIDAY CREEK 4TH BRIDGE	1961	61	20.0	184	7	Concrete	79.94
40140	BAKER LAKE RD at E GRANDY CREEK	1968	41	28.0	725	18	Concrete	79.98
40034	FARM-TO-MARKET SAMISH R	1963	158	26.0	920	8	Concrete	80.40
40018	FRIDAY CREEK 1ST BRIDGE	1962	61	20.0	165	8	Concrete	80.44
40055	PRAIRIE RD E at SAMISH R	1956/2012	76	24.4	894	10	Concrete	80.73
40086	S SKAGIT HWY at MILL CREEK	1969	41	28.0	635	12	Concrete	80.74 SD
40077	CASCADE RIVER RD at MINERAL PARK	1986	71	18.0	84	4	Concrete	81.61
40052	TAYLOR RD at WALKER CK	1985	42	16.0	40	15	Concrete	82.07 FO
40106	LAKE SAMISH RD at BEAR CREEK	1959	50	24.0	491	6	Concrete	82.52
40026	FARM-TO-MARKET N DITCH	1951	32	26.0	1,231	7	Concrete	83.28

APPENDIX A - BRIDGE INVENTORY

BRIDGE NUMBER	BRIDGE NAME	YEAR BUILT /REBUILT	LENGTH (feet)	WIDTH (feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	SUFFICIENCY RATING
40061	MINKLER RD at WISEMAN CREEK	1967	40	28.0	1,024	7	Concrete	84.18
40042	MILLTOWN at BIG DITCH	1957	50	24.2	413	8	Concrete	84.77
40084	S SKAGIT HWY at O'TOOLE CREEK	1959	66	24.0	635	12	Concrete	84.90
40076	CASCADE RIVER RD at HARD CREEK	1997/2016	46	17.7	84	4	Concrete	85.12 FO
40071	CASCADE RIVER BRIDGE	1967	180	26.3	294	7	Concrete	85.28
40157	BENSON RIDGE LN at CARPENTER CREEK	1983	52	30.0	46	4	Timber	85.32
40036	FARM-TO-MARKET JOE LEARY	1950	72	26.0	981	7	Concrete	85.59
40088	S SKAGIT HWY at PRESENTIN CREEK	1966	85	27.0	635	12	Concrete	85.73
40066	HAMILTON CEMETERY RD at MUDDY CK	1965	50	26.0	171	10	Concrete	86.15
40065	CONRAD RD at SUTTER CREEK	2011	73	15.7	23	1	Concrete	86.25
40012	COOK RD at BRICKYARD CK	2000	54	44.0	15,887	8	Concrete	86.39
40060	BURMASTER RD at COAL CREEK	1958	26	24.0	353	9	Concrete	86.89
40073	CASCADE RIVER ROAD AT LOOKOUT CK	1981	191	28.0	188	4	Steel	87.29
40032	FARM-TO-MARKET S DITCH	1950	21	26.0	920	8	Concrete	87.35
40033	FARM-TO-MARKET at NEUMAN	1950	60	26.0	920	8	Concrete	87.35
40009	COOK RD at DD14 DITCH	2000	38	40.0	16,617	9	Concrete	87.39
40015	PRAIRIE RD S at SAMISH R	1974	83	28.0	1,583	9	Concrete	88.33
40005	NOOKACHAMP HILLS CULVERT	2008	31	29.2	470	6	Steel	89.56
40126	MARCHS POINT PIPELINE	1960	44	28.4	678	14	Concrete	89.77
40120	BAKER LAKE RD at W FORK GRANDY CK	1968	62	28.0	725	18	Concrete	89.86
40074	CASCADE RIVER RD at MARBLE CREEK	1982	120	26.0	188	4	Concrete	90.23
40016	PRAIRIE RD W at SAMISH R	1975	104	28.0	1,539	11	Concrete	90.38
40094A	ROCKPORT CASCADE at ILLABOT CREEK	1970	93	28.0	262	15	Concrete	91.33
40024	FRIDAY CREEK 7TH BRIDGE	1964	61	24.0	237	8	Concrete	91.43
40023	FRIDAY CREEK 6TH BRIDGE	1963	61	24.0	184	7	Concrete	91.44
40041	E JOHNSON RD at CARPENTER CK	1981	50	24.0	85	14	Concrete	92.21
40045	PIONEER HWY at FISHER SL	1987	114	37.2	9,516	12	Concrete	92.43
40161	FLINN ROAD at MCELROY SLOUGH	2006	48	19.6	20	0	Concrete	92.81
40051	BEAVER LAKE RD at NOOKACHAMPS	1977	73	28.6	186	13	Concrete	93.03
40062	UTOPIA RD at BLACK SLOUGH	1984	144	26.0	77	23	Concrete	93.27
40044	PIONEER HWY at BIG DITCH	1987	81	37.0	9,442	9	Concrete	93.37
40068	CAPE HORN RD at GRANDY CREEK	1967	51	28.0	391	6	Concrete	93.90
40080	S SKAGIT HWY at PARKER CREEK	1996	26	0.0	1,437	17	Concrete	94.29
40112	NEFFS CROSSING	2006	108	41.0	4,372	10	Concrete	94.35
40029	BAY VIEW-EDISON JOE LEARY	1955	101	30.0	588	8	Concrete	94.71 SD
40067	CAPE HORN RD at ALDER CREEK	1972	41	28.0	227	5	Concrete	94.92
40013	F&S GRADE SAMISH RIVER	1974	102	28.0	630	10	Concrete	95.41 SD
40159	MINKLER RD at COAL CREEK	1984	29	36.0	1,136	8	Concrete	95.73
40011	GREEN RD at THOMAS CK	1958	51	24.0	54	7	Concrete	95.99
40054	KNAPP RD at NOOKACHAMPS	1977	73	28.2	405	10	Concrete	96.90
40030	THOMAS RD at SAMISH R	1973	91	28.0	216	23	Concrete	96.94
40117	ALGER CAIN LAKE RD at SILVER CREEK	1992	102	34.2	4,286	5	Concrete	96.97
40094B	RYAN CROSSING at ILLABOT CREEK	2018	106	27.4	262	15	Concrete	97.06
40094C	HOLLOW CEDAR at ILLABOT CREEK	2018	106	27.4	262	15	Concrete	97.06
40129	LYMAN HAMILTON HWY at MUDDY CK	1955/1997	65	30.0	198	4	Concrete	97.32
40085	S SKAGIT HWY at DAVIS SLOUGH	2014	63	34.9	610	5	Concrete	97.39
40025	FRIDAY CREEK 8TH BRIDGE	1977	59	28.0	234	8	Concrete	97.97
40014	GRIPP RD at SAMISH R	1976	84	28.0	679	12	Concrete	98.42
40110	BURLINGTON NORTHERN OVERPASS	2018	411	38.0	5,771	15	Concrete	98.45
40164	S LAVENTURE RD at MADDOX CREEK	2013	80	50.0	8,284	5	Concrete	98.84
40048	LK CAVANAUGH RD CULVERT	1998	21	0.0	604	16	Aluminum	98.85
40019	FRIDAY CREEK 2ND BRIDGE	1979	74	28.0	184	7	Concrete	98.90
40022	FRIDAY CREEK 5TH BRIDGE	1977	69	28.0	184	7	Concrete	98.91

APPENDIX A - BRIDGE INVENTORY

BRIDGE NUMBER	BRIDGE NAME	YEAR BUILT /REBUILT	LENGTH (feet)	WIDTH (feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	SUFFICIENCY RATING
40069	CONRAD RD at SWIFT CREEK	1981	38	24.0	23	1	Concrete	98.99
40095	ROCKPORT CASCADE RD at JORDAN CK	1969	56	28.0	304	7	Concrete	99.11
40092	CONCRETE-SAUK VALLEY at MILLER CK	1999	27	0.0	158	16	Concrete	99.45
40035	BAY VIEW-EDISON / BIG INDIAN	1992	71	34.1	1,176	8	Concrete	99.56
40163	HELMICK RD at RED CREEK	2007	150	36.0	642	8	Concrete	99.94
40162	BLANCHARD RD at MCELROY SLOUGH	2007	29	26.0	40	1	Concrete	99.99
LOCAL AGENCY BRIDGES								
CITY OF BURLINGTON								
BURLINN-2	NORTH BURLINGTON BLVD	1997	26	34.0	4,635	12	Concrete	95.90
BURLINN-3	GOLDENROD BRIDGE	2005	116	40.0	2,679	9	Concrete	99.25
TOWN OF CONCRETE								
CONCRETE1	BAKER RIVER	1916/2004	269	18.0	150	12	Concrete	21.90 FO
CITY OF MOUNT VERNON								
MV-01	RIVERSIDE BRIDGE	2004	850	60.0	21,640	5	Concrete	92.81
MV-02	HOAG STEWARD OVERPASS	2003	60	64.5	21,640	5	Concrete	89.61 FO
MV-03	ELEANOR LANE A	2006	30	30.0	460	7	Concrete	90.71
MV-04	SKAGIT HIGHLANDS PARKWAY	2003	37	32.0	800	5	Concrete	99.89
MV-05	LANDMARK DRIVE	1994	52	28.0	500	5	Concrete	98.95
MV-06	EAGLEMONT DRIVE	1995	20	0.0	800	5	Steel	99.93
MV-07	J OFF BEAVER POND DR S	2006	26	19.0	50	1	Aluminum	92.52
MV-08	BEAVER POND DR SOUTH	2004	30	28.0	200	5	Concrete	99.98
MV-09	BEAVER POND DR NORTH B	2002	54	28.0	300	5	Concrete	99.97
MV-10	OLYMPIC LANE	2004	67	22.0	50	5	Concrete	99.00
MV-11	BEAVER POND DR NORTH A	2001	42	28.0	400	5	Concrete	99.96
MV-12	LAVENTURE RD CULVERT	2010	29	44.0	8,735	4	Concrete	99.18
CITY OF SEDRO WOOLLEY								
SW-1	KLINGER STREET BRIDGE	2002	34	36.0	1,620	5	Concrete	99.85
SW-2	NORTH REED STREET BRIDGE	2002	30	40.0	1,031	5	Concrete	97.90

APPENDIX B - ROUTINE & SPECIAL INSPECTION SCHEDULE

BRIDGE NUMBER	BRIDGE NAME	LOCATION	INSP. TYPE	INSP FREQ	LAST INSP	NEXT INSP.	INSP HRS
2024 INSPECTION SEASON						↓	
40113	OLD HWY 99 at THOMAS CREEK	1.4 N JCT COOK RD.	INTR	6	23-Aug-23	Feb-24	0.5
40008	SOUTH FORK BRIDGE	1.0 W JCT INTERSTATE 5	RTN	24	28-Mar-22	Mar-24	3
40037	NORTH FORK BRIDGE	5.5 W JCT INTERSTATE 5	FC	24	30-Mar-22	Mar-24	4
40037	NORTH FORK BRIDGE	5.5 W JCT INTERSTATE 5	RTN	24	30-Mar-22	Mar-24	1
40070	SKAGIT RIVER MARBLEMOUNT	0.03 E JCT SR 20	FC	24	22-Mar-22	Mar-24	12
40070	SKAGIT RIVER MARBLEMOUNT	0.03 E JCT SR 20	RTN	24	22-Mar-22	Mar-24	1
40073	CASCADE RIVER ROAD AT LOOKOUT CREEK	7 MI E JCT SR 20	EQU	48	18-Mar-20	Mar-24	3
40090	DALLES BRIDGE	1.5 S JCT SR 20	FC	24	29-Mar-22	Mar-24	6
40090	DALLES BRIDGE	1.5 S JCT SR 20	RTN	24	29-Mar-22	Mar-24	1
40099	GOVERNMENT BRIDGE	0.14 NW JCT SR 530	FC	24	15-Apr-22	Mar-24	5
40099	GOVERNMENT BRIDGE	0.14 NW JCT SR 530	RTN	24	15-Apr-22	Mar-24	1
40114	SAMISH RIVER BRIDGE	2.6 N JCT COOK RD.	FC	24	28-Mar-22	Mar-24	3
40114	SAMISH RIVER BRIDGE	2.6 N JCT COOK RD.	RTN	24	28-Mar-22	Mar-24	1
40093	UPPER FINNEY CREEK BRIDGE	4.6 W CONC SAUK VALLEY RD	EQU	72	02-Apr-18	Apr-24	1.5
40039	RAINBOW BRIDGE	0.95 JCT MORRIS ON MAPLE	FC	24	28-Apr-22	Apr-24	6.5
40039	RAINBOW BRIDGE	0.95 JCT MORRIS ON MAPLE	RTN	24	28-Apr-22	Apr-24	1.5
40060	BURMASTER RD at COAL CREEK	1.2 E JCT MINKLER	RTN	24	13-May-22	May-24	1
40061	MINKLER RD at WISEMAN CREEK	0.5 W JCT SR 20	RTN	24	13-May-22	May-24	1
40063	LYMAN HAMILTON HWY at CHILDS CREEK	0.8 E JCT SR 20	RTN	24	13-May-22	May-24	1
40151	NICHOLSON at CHILDS CREEK	0.1 S JCT SR 20	RTN	24	13-May-22	May-24	0.5
40159	MINKLER RD at COAL CREEK	0.1 E JCT SIMS ROAD	RTN	24	13-May-22	May-24	0.5
40066	HAMILTON CEMETERY RD at MUDDY CREEK	0.5 W JCT SR 20	RTN	24	26-May-22	May-24	1
40067	CAPE HORN RD at ALDER CREEK	0.75 E JCT SR 20	RTN	24	26-May-22	May-24	1
40068	CAPE HORN RD at GRANDY CREEK	2.25 W JCT SR 20	RTN	24	26-May-22	May-24	1
40129	LYMAN HAMILTON HWY at MUDDY CREEK	0.3 M W HAMILTON	RTN	24	25-May-22	May-24	1
40130	LYMAN HAMILTON HWY at RED CABIN CREEK	0.18 E JCT HEALY RD	RTN	24	25-May-22	May-24	1
40131	LYMAN HAMILTON HWY at MANNSEER CREEK	0.17 W JCT HAMIL CEM RD	RTN	24	25-May-22	May-24	1
40132	LYMAN HAMILTON HWY at JONES CREEK	0.28 E JCT PIPELINE ROAD	RTN	24	25-May-22	May-24	1
40027	BAY VIEW-EDISON at SAMISH SL	0.4 W JCT FARM TO MARKET	RTN	24	29-Jun-22	Jun-24	1
40028	BAY VIEW-EDISON at SAMISH R	0.5 W JCT SR 537	RTN	24	08-Jun-22	Jun-24	2
40069	CONRAD RD at SWIFT CREEK	0.2 E JCT SR 20	RTN	24	15-Jun-22	Jun-24	1
40072	CASCADE RIVER RD at MONOGRAM	7.37 E JCT SR 20	SHRT	24	22-Jun-22	Jun-24	0.5
40074	CASCADE RIVER RD at MARBLE CREEK	8.3 E JCT SR 20	RTN	24	22-Jun-22	Jun-24	1
40075	CASCADE RIVER RD at SIBLEY CREEK	10 E JCT SR 20	RTN	24	22-Jun-22	Jun-24	1
40076	CASCADE RIVER RD at HARD CREEK	12.7 E JCT SR 20	RTN	24	22-Jun-22	Jun-24	1
40077	CASCADE RIVER RD at MINERAL PARK	16.02 E JCT SR 20	RTN	24	22-Jun-22	Jun-24	1
40092	CONCRETE-SAUK VALLEY at MILLER CREEK	9 MI SE OF SR20	RTN	24	15-Jun-22	Jun-24	1
40095	ROCKPORT CASCADE RD at JORDAN CREEK	0.71 SW JCT N CASCADE HW	RTN	24	15-Jun-22	Jun-24	1
40094A	ROCKPORT CASCADE at ILLABOT CREEK	4.2 E JCT SR 530	RTN	24	15-Jun-22	Jun-24	1
40042	MILLTOWN at BIG DITCH	0.02 E JCT SR 530	RTN	24	21-Jul-22	Jul-24	0.5
40043	CONWAY HILL @ CARPENTER	0.5 E JCT INTERSTATE 5	RTN	24	21-Jul-22	Jul-24	0.5
40044	PIONEER HWY at BIG DITCH	0.23 E JCT MILLTOWN ROAD	RTN	24	21-Jul-22	Jul-24	1
40045	PIONEER HWY at FISHER SL	1.5 SW JCT INTERSTATE 5	RTN	24	21-Jul-22	Jul-24	1
40046	LK CAVANAUGH RD at BEAR	8.0 E JCT SR 9	RTN	24	20-Jul-22	Jul-24	1
40047	LK CAVANAUGH at PILCHUCK	8.7 E JCT SR 9	RTN	24	20-Jul-22	Jul-24	1
40048	LK CAVANAUGH RD CULVERT	1.1 SE JCT SR 9	RTN	24	20-Jul-22	Jul-24	1
40080	S SKAGIT HWY at PARKER CREEK	7.25 E JCT SR-9	RTN	24	13-Jul-22	Jul-24	1
40081	S SKAGIT HWY at DAY CREEK	9.0 E JCT SR 9	RTN	24	13-Jul-22	Jul-24	1
40082	S SKAGIT HWY at LORETTA CREEK	11 MI E JCT SR9	RTN	24	13-Jul-22	Jul-24	1
40083	S SKAGIT HWY at CUMBERLAND CREEK	11.5 E JCT SR 9	RTN	24	13-Jul-22	Jul-24	1

APPENDIX B - ROUTINE & SPECIAL INSPECTION SCHEDULE

BRIDGE NUMBER	BRIDGE NAME	LOCATION	INSP. TYPE	INSP FREQ	LAST INSP	NEXT INSP.	INSP HRS
40084	S SKAGIT HWY at O'TOOLE CREEK	15.0 E JCT SR 9	RTN	24	13-Jul-22	Jul-24	1
40086	S SKAGIT HWY at MILL CREEK	17.0 E JCT SR9	RTN	24	13-Jul-22	Jul-24	1
40088	S SKAGIT HWY at PRESENTIN CREEK	18.5 E JCT SR9	RTN	24	08-Jul-22	Jul-24	1
40089	S SKAGIT HWY at FINNEY CREEK	19.0 E JCT SR 9	RTN	24	08-Jul-22	Jul-24	1
40101	BAKER LAKE RD at BEAR CREEK	9.5 NE JCT SR 20	RTN	24	08-Jul-22	Jul-24	1
40120	BAKER LAKE RD at W FORK GRANDY CREEK	2. NE JCT SR 20	RTN	24	08-Jul-22	Jul-24	1
40140	BAKER LAKE RD at E GRANDY CREEK	4.0 NE JCT SR 20	RTN	24	08-Jul-22	Jul-24	1
40002	SWAN ROAD at NOOKACHAMPS	0.37W JCT BABCOCK/MUDLAKE	RTN	24	03-Aug-22	Aug-24	1
40003	FRANCIS at NOOKACHAMPS	2.8 W JCT SR9	RTN	24	03-Aug-22	Aug-24	1
40004	FRANCIS RD at SLOUGH	2.0 W JCT SR9	RTN	24	03-Aug-22	Aug-24	1
40051	BEAVER LAKE RD at NOOKACHAMPS	3.0 SE JCT SR 9	RTN	24	24-Aug-22	Aug-24	1
40052	TAYLOR RD at WALKER CK	4.3 E JCT SR 9	RTN	24	24-Aug-22	Aug-24	1
40113	OLD HWY 99 at THOMAS CREEK	1.4 N JCT COOK RD.	RTN	24	24-Aug-22	Aug-24	1
40156	CEDARDALE RD at CARPENTER CREEK	0.75 S JCT SR 534	RTN	24	24-Aug-22	Aug-24	1
40011	GREEN RD at THOMAS CK	0.01 S KELLEHER RD	RTN	24	27-Sep-22	Sep-24	1
40157	BENSON RIDGE LN at CARPENTER CREEK	1.2 E I-5 JCT STACKPOLE	RTN	24	27-Sep-22	Sep-24	1
40094B	RYAN CROSSING at ILLABOT CREEK	4.2 E JCT SR 530	RTN	24	14-Sep-22	Sep-24	1
40094C	HOLLOW CEDAR at ILLABOT CREEK	4.2 E JCT SR 530	RTN	24	14-Sep-22	Sep-24	1
MV-12	LAVENTURE RD CULVERT	NORTH OF BLACKBURN	RTN	24	27-Sep-22	Sep-24	1
SW-1	KLINGER STREET BRIDGE	0.2 MI N of COOK ROAD	RTN	24	27-Sep-22	Sep-24	1
SW-2	NORTH REED STREET BRIDGE	0.4 MI N of SR20	RTN	24	27-Sep-22	Sep-24	1
40152	ANACORTES FERRY DOCK	0.41 N JCT SR 20	FC	24	05-Oct-22	Oct-24	0.5
40152	ANACORTES FERRY DOCK	0.41 N JCT SR 20	RTN	24	05-Oct-22	Oct-24	1
40152	ANACORTES FERRY DOCK	0.41 N JCT SR 20	SPEC	24	05-Oct-22	Oct-24	0.5
40153	GUEMES ISLAND FERRY DOCK	GUEMES ISLAND	FC	24	05-Oct-22	Oct-24	0.5
40153	GUEMES ISLAND FERRY DOCK	GUEMES ISLAND	RTN	24	05-Oct-22	Oct-24	1
40153	GUEMES ISLAND FERRY DOCK	GUEMES ISLAND	SPEC	24	05-Oct-22	Oct-24	0.5
2025 INSPECTION SEASON							
40018	FRIDAY CREEK 1ST BRIDGE	0.45 N JCT OLD HWY 99 N	RTN	24	10-May-23	May-25	1.5
40019	FRIDAY CREEK 2ND BRIDGE	0.59 N JCT OLD 99	RTN	24	10-May-23	May-25	1.5
40020	FRIDAY CREEK 3RD BRIDGE	0.3 N. of JCT w/ Old 99	RTN	24	10-May-23	May-25	1.5
40021	FRIDAY CREEK 4TH BRIDGE	0.4 N JCT OLD 99	RTN	24	10-May-23	May-25	1.5
40022	FRIDAY CREEK 5TH BRIDGE	1.55 N JCT Old 99	RTN	24	17-May-23	May-25	1.5
40023	FRIDAY CREEK 6TH BRIDGE	0.6 N JCT OLD 99 N	RTN	24	17-May-23	May-25	1.5
40024	FRIDAY CREEK 7TH BRIDGE	2.16 N JCT OLD 99 N	RTN	24	17-May-23	May-25	1.5
40025	FRIDAY CREEK 8TH BRIDGE	2.24 N JCT OLD 99 N	RTN	24	17-May-23	May-25	1.5
40115	OLD HWY 99 at FRIDAY CREEK	4.3 N JCT COOK RD.	RTN	24	17-May-23	May-25	1.5
40106	LAKE SAMISH RD at BEAR CREEK	2.0 NW JCT I-5	RTN	24	24-May-23	May-25	1.5
40109	LAKE SAMISH RD at FRIDAY CREEK	0.25 E JCT INTERSTATE 5	RTN	24	24-May-23	May-25	1.5
40116	OLD HWY 99 at SILVER CREEK	0.4 SE JCT LAKE SAMISH RD	RTN	24	24-May-23	May-25	1.5
40117	ALGER CAIN LAKE RD at SILVER CREEK	0.34 E JCT OLD HWY 99	RTN	24	24-May-23	May-25	1.5
40034	FARM-TO-MARKET SAMISH R	5.9 N JCT SR 20	RTN	24	07-Jun-23	Jun-25	1.5
40026	FARM-TO-MARKET N DITCH	7.7 N JCT SR 20	RTN	24	14-Jun-23	Jun-25	1
40033	FARM-TO-MARKET at NEUMAN	6.1 N JCT SR20	RTN	24	14-Jun-23	Jun-25	1
40036	FARM-TO-MARKET JOE LEARY	5.0 N JCT SR 20	RTN	24	14-Jun-23	Jun-25	1
40161	FLINN ROAD at MCELROY SLOUGH	300 Ft E Blanchard Rd	RTN	24	14-Jun-23	Jun-25	1
40162	BLANCHARD RD at MCELROY SLOUGH	0.05 N JCT LEGG ROAD	RTN	24	20-Jun-23	Jun-25	1
40030	THOMAS RD at SAMISH R	0.3 N JCT ALLEN WEST RD	RTN	24	21-Jun-23	Jun-25	1.5
40065	CONRAD RD at SUTTER CREEK	0.59 E JCT SR20	RTN	24	23-Jun-23	Jun-25	1
40085	S SKAGIT HWY at DAVIS SLOUGH	13.9 E JCT SR-9	RTN	24	23-Jun-23	Jun-25	1
40091	CONCRETE-SAUK VALLEY TEMPORARY BR	13.2 MI SE OF SR 20	RTN	24	23-Jun-23	Jun-25	1

APPENDIX B - ROUTINE & SPECIAL INSPECTION SCHEDULE

BRIDGE NUMBER	BRIDGE NAME	LOCATION	INSP. TYPE	INSP FREQ	LAST INSP	NEXT INSP.	INSP HRS
40071	CASCADE RIVER BRIDGE	0.04 S JCT CASCADE RD	RTN	24	28-Jun-23	Jun-25	2
40062	UTOPIA RD at BLACK SLOUGH	0.5 E JCT Hoehn Road	RTN	24	12-Jul-23	Jul-25	1
40163	HELMICK RD at RED CREEK	1.1 N JCT SR 20	RTN	24	12-Jul-23	Jul-25	1
40029	BAY VIEW-EDISON JOE LEARY	5.8 N JCT SR-20	RTN	24	19-Jul-23	Jul-25	1.5
40031	PULVER ROAD at JOE LEARY	.6 S JCT SR 11	RTN	24	19-Jul-23	Jul-25	1
40110	BURLINGTON NORTHERN OVERPASS	0.25 N JCT COOK ROAD	RTN	24	26-Jul-23	Jul-25	8
40035	BAY VIEW-EDISON / BIG INDIAN	0.4 N JCT SR20	RTN	24	27-Jul-23	Jul-25	1
40141	BAYVIEW STATE PARK	3.5 N JCT SR 20	RTN	24	27-Jul-23	Jul-25	1
40009	COOK RD at DD14 DITCH	0.5 E JCT INTERSTATE 5	RTN	24	23-Aug-23	Aug-25	1
40012	COOK RD at BRICKYARD CK	MP 5.38 COOK RD	RTN	24	23-Aug-23	Aug-25	1
40112	NEFFS CROSSING	1.0 N JCT COOK RD.	RTN	24	23-Aug-23	Aug-25	1
40001	LAKE VIEW BLVD/NOOKACHAMPS	0.25 S JCT SR9	RTN	24	25-Aug-23	Aug-25	2
40005	NOOKACHAMP HILLS CULVERT	0.75 E JCT SR 9	RTN	24	25-Aug-23	Aug-25	0.5
40054	KNAPP RD at NOOKACHAMPS	0.1 E JCT SR 9	RTN	24	25-Aug-23	Aug-25	1
CONCRETE1	BAKER RIVER	0.1 N MAIN ST	RTN	24	30-Aug-23	Aug-25	1
MV-1	RIVERSIDE BRIDGE	0.7 N JCT SR 538	RTN	24	30-Aug-23	Aug-25	2
40038	LACONNER WHITNEY at SL	3.83 S JCT SR 20	RTN	24	13-Sep-23	Sep-25	1
40041	E JOHNSON RD at CARPENTER CK	1.0 E JCT CEDARDALE ROAD	RTN	24	13-Sep-23	Sep-25	1
40126	MARCHS POINT PIPELINE	1.6 N JCT SR 20	RTN	24	13-Sep-23	Sep-25	1
40013	F&S GRADE SAMISH RIVER	0.14 S JCT PRAIRIE RD	RTN	24	20-Sep-23	Sep-25	1
40014	GRIPP RD at SAMISH R	0.1 E JCT PRAIRIE ROAD	RTN	24	20-Sep-23	Sep-25	1
40015	PRAIRIE RD S at SAMISH R	2.21 E JCT OLD HWY 99	RTN	24	20-Sep-23	Sep-25	1
40016	PRAIRIE RD W at SAMISH R	3.8 E JCT OLD HWY 99	RTN	24	20-Sep-23	Sep-25	1
40017	PRAIRIE RD FRIDAY CK	0.17 Mi E of OLD HWY 99	RTN	24	20-Sep-23	Sep-25	1
40055	PRAIRIE RD E at SAMISH R	0.5 W JCT SR 9	RTN	24	20-Sep-23	Sep-25	1
40142	CAMPBELL LAKE OUTLET	0.39 W JCT SR 20	SHRT	48	22-Sep-21	Sep-25	1
BURLINN-2	NORTH BURLINGTON BLVD	1.02 MI SO OF COOK RD	RTN	24	29-Sep-23	Sep-25	1
BURLINN-3	GOLDENROD BRIDGE	.3 N. of W. MCCORQUEDALE	RTN	24	29-Sep-23	Sep-25	1
40164	S LAVENTURE RD at MADDOX CREEK	0.5 E JCT I-5	RTN	24	19-Oct-23	Oct-25	1.5
MV-2	HOAG STEWARD OVERPASS	RIVERSIDE DR JCT HOAG ST	RTN	24	25-Oct-23	Oct-25	3
MV-3	ELEANOR LANE A	0.1 E JCT OLD HIGHWAY 99	RTN	24	19-Oct-23	Oct-25	0.5
MV-4	SKAGIT HIGHLANDS PARKWAY	0.4 N JCT E DIVISION ST	RTN	24	19-Oct-23	Oct-25	0.5
MV-5	LANDMARK DRIVE	EAST OF JCT S WAUGH RD	RTN	24	27-Oct-23	Oct-25	0.5
MV-6	EAGLEMONT DRIVE	0.1 S JCT BEAVER POND N	SHRT	48	20-Oct-21	Oct-25	0.5
MV-7	J OFF BEAVER POND DR S	0.07 SE JCT PARKVEIW LN	RTN	24	25-Oct-23	Oct-25	0.5
MV-8	BEAVER POND DR SOUTH	0.5 N JCT EAGLEMONT DR	RTN	24	25-Oct-23	Oct-25	0.5
MV-9	BEAVER POND DR NORTH B	AT JCT PARKVEIW LN	RTN	24	25-Oct-23	Oct-25	0.5
MV-10	OLYMPIC LANE	0.02 JCT BEAVER POND DR N	RTN	24	27-Oct-23	Oct-25	0.5
MV-11	BEAVER POND DR NORTH A	0.2 N JCT EAGLEMONT DR	RTN	24	27-Oct-23	Oct-25	0.5
40153	GUEMES ISLAND FERRY DOCK	GUEMES ISLAND	UW	60	24-May-22	May-27	3
40152	ANACORTES FERRY DOCK	0.41 N JCT SR 20	UW	60	25-May-22	May-27	4
40032	FARM-TO-MARKET S DITCH	7.5 N JCT SR 20	SHRT	48	14-Jun-23	Jun-27	0.5
40037	NORTH FORK BRIDGE	5.5 W JCT INTERSTATE 5	UW	60	28-Sep-22	Sep-27	2
MV-1	RIVERSIDE BRIDGE	0.7 N JCT SR 538	UW	60	28-Sep-22	Sep-27	2.5
40008	SOUTH FORK BRIDGE	1.0 W JCT INTERSTATE 5	UW	60	11-Sep-23	Sep-28	1

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
40001	LAKE VIEW BLVD/NOOKACHAMPS	1	Brush exposed rebar and patch spalls in the soffit and girders.	
		2	Sidewalk: Repair sidewalk approach where rebar is exposed (north end).	
		3	Upgrade rails to meet current standards.	
		M	Bank protection: armor missing upstream end on the right bank.	
40002	SWAN ROAD at NOOKACHAMPS	1	Raise approach rail to minimum height.	
		2	Approach Rail - Post #8 NE quadrant needs replaced, suffering from termites	
		3	Paint steel diaphragm / cross bracing.	
		M	Depression in deck over upstream pile. Monitor for settlement	
40003	FRANCIS at NOOKACHAMPS	1	Level approaches at both ends of bridge.	
		3	Remove BST overspray	
		3	Remove sand and rat droppings from abutments and pier caps	
40004	FRANCIS RD at SLOUGH	2	Shoulder/pavement edge drops off between edge of road and guardrail. - needs to be brought up to grade -currently full of earthen material.	
		3	Rotten spacer block - 13th post from bridge, NW quadrant. Replace 1st post at NW Quad - Updated 2020	
		3	Paint rail posts	
40008	SOUTH FORK BRIDGE	1	Remove timber debris from Pier 3 (and Pier 2 if any is visible at time of repair).	11-Sep-23
		1	Bridge needs posting for EV2 = 27T and EV3 = 37T loads in advance of bridge at west approach, heading eastbound. Similar to signage at east approach (follow MUTCD guidelines for signs). (3/2/2020 - Repair rewritten. TTK/WAW)	
		2	Remove loose concrete from girder ends, clean exposed reinforcement/strands and coat with a rust inhibitor and epoxy sealant at the following locations: Girder 4B and 4C at Pier 4 (3/2/2020 - Updated photos in 2020. No defect for Girder 8A noted at Pier	
		2	Replace the following bolts and tighten to the proper torque: Girder 1C, first diaphragm west of Pier 2. Girder 2B, south side at the first lateral bracing east of Pier 2.	
		2	Clean bird guano from lateral gusset plates and girder bottom flanges in steel Spans 1, 2 and 3.	
		M	Monitor movement of prestressed concrete girders at diaphragms over Piers 5 - 8. Diaphragms are breaking up in a number of places along girder to diaphragm interfaces, exposing girder ends of bottom flanges. Girders 5B and 5C at Pier 6 have up to 1/4"	
		M	Ramp/feather patch east approach roadway with ACP to provide a smooth transition on and off the bridge. (3/3/2020 - Changed to an "M". Per Skagit County, will schedule repair when settlement is greater than 1". TTK/WAW) 3/28/2022 - Settlement is approx	
40009	COOK RD at DD14 DITCH	1	Crack seal transverse cracks at both ends of bridge and cracking in the wheel paths.	
		3	Patch spall with grout in G2 near east abutment	
		3	SE guardrail is not fastened to 7th and 8th posts	
		3	Grout open crack in NE corner of concrete rail	
40011	GREEN RD at THOMAS CK	2	Wood piles holding guardrail and fill on abutments has failed and will need to be replaced	
40012	COOK RD at BRICKYARD CK	1	Crack seal transverse cracking over each bridge joint. and longitudinal cracking in pavement (updated 2021)	23-Aug-23
40013	F&S GRADE SAMISH RIVER	2	A/C level roadway / shoulder approaches	20-Sep-23
		1	Patch exposed rebar in deck, approx 4 linear feet	
40014	GRIPP RD at SAMISH R	2	A/C level east approach	20-Sep-23
		2	Brush and patch exposed rusty rebar in top flanges of girder 3, 4, & 5. (14 LF)	
		M	Timber rail posts show many checks.	
		M	Upstream right bank has steep, exposed banks that are susceptible to continued erosion. MONITOR	
40015	PRAIRIE RD S at SAMISH R	1	Repair armoring along south abut (downstream end) and remove debris - rewritten 2023.	
		3	Brush and patch exposed rebars in top flange of girders.	
40016	PRAIRIE RD W at SAMISH R	2	Impact damage to NW section of guardrail.	20-Sep-23

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
40017	PRAIRIE RD FRIDAY CK	M	Continue to monitor channel migration to the east.	
40018	FRIDAY CREEK 1ST BRIDGE	3	Remove moss from deck curbing - revised 2021	10-May-23
		2	Replace failed armoring on abutment #2 (south)	
		2	Patch exposed rebar in girders #1 #2 #3 & #4 and soffits.	
		3	Remove failing protective coating on rail posts. Repaint or upgrade bridge rails to current standards. Rewritten 2023	
40019	FRIDAY CREEK 2ND BRIDGE	3	Patch spalls in girders with exposed rebar	
40020	FRIDAY CREEK 3RD BRIDGE	3	Pressure wash moss off curbing and girders	10-May-23
		2	Drain: repair drain downspout on upstream side - it has broken off.	
		3	Remove failed protective coating on guardrail posts and repaint or upgrade rails to standard	
		M	Monitor armor loss and scour hole under Abut#1	
40021	FRIDAY CREEK 4TH BRIDGE	1	Wire brush and patch exposed rusty rebar on girders 1, 2, and 4	
		3	SE drain pipe needs repairs	
		3	Upgrade guardrail to standard.	
		M	bank erosion 30' upstream	
40022	FRIDAY CREEK 5TH BRIDGE	2	G4 - remove spalled concrete, wire brush 8' of exposed rusty rebar, cover with grout or epoxy.	
		2	Replace failed armoring along Abut #1 and backfill approach roadway material.	
40023	FRIDAY CREEK 6TH BRIDGE	2	Brush and patch rusty exposed rebar in the girders.	
		3	Replace missing down spout on drain	
		3	Curbs covered with moss, clean for inspection.	
		M	Monitor deformation in bearing pads.	
40024	FRIDAY CREEK 7TH BRIDGE	3	Pressure wash curbs	17-May-23
		2	Wire brush and patch areas of rusty exposed rebar in girders	
		3	Remove failed protective coating on rail posts and reapply.	
		M	bank erosion, undercutting vegetation upstream left bank	
40025	FRIDAY CREEK 8TH BRIDGE	3	Previous asphalt patch at roadway approach has failed. Re-patch (2)	
		3	Wire brush and grout exposed rusty rebar in girders.	
		M	Monitor exposed abutment #2 cap.	
40026	FARM-TO-MARKET N DITCH	3	Patch spall on outside of rail at connection (8th post from North)	
40027	BAY VIEW-EDISON at SAMISH SL	2	Brush and patch spalls with exposed rebar in the girders.	
40028	BAY VIEW-EDISON at SAMISH R	3	Paint guardrail posts	
		M	Monitor undermining of gabion baskets at Pier 1 and impacts on approach roadway fill.	
40029	BAY VIEW-EDISON JOE LEARY	2	Guardrail - 1st post on NE quadrant and SE quadrant are broken and rotten and need replaced.	19-Jul-23
		3	Guardrail - block out missing in southwest leg.	19-Jul-23
		1	Patch newly exposed rebar in the deck	
		1	Recently repaired drainage in SW corner could use additional patching/material (much worse 2021)	
		1	Backfill material loss under slumping SW gabion	
		M	Sink hole found along southern bank, just upstream of Pier 2	
40030	THOMAS RD at SAMISH R	2	Brush and patch spalls in the girders	
		2	Replace missing bolts and nuts (3) on bridge rails.	
40031	PULVER ROAD at JOE LEARY	2	Brush and patch spalls in the girders.	
40032	FARM-TO-MARKET S DITCH	1	Patch potholes at south approach	
40033	FARM-TO-MARKET at NEUMAN	2	Patch pothole in southeast corner	
		M	Settlement at both approaches (rewritten 2023)	
40034	FARM-TO-MARKET SAMISH R	2	Guardrail not attached to bridge, missing transition rails.	
		3	Damaged steel pedestrian rail mounted on conc rail (1 x 8 LF).	
40035	BAY VIEW-EDISON / BIG INDIAN	2	SE guardrail missing 4 nuts and 1 bolt.	
		3	Brush and patch exposed rebar in girders.	

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRIORITY	REPAIR DESCRIPTION	CLOSED OUT
		M	Losing bank armoring at east end of south abutment	
40036	FARM-TO-MARKET JOE LEARY	1	A/C Level Approach Roadway, south end, northbound lane.	
		2	Sweep deck/unplug drains.	
		3	Brush and patch spalls in slab	
		M	Repetitive issue of approach settlement. Long term repair may require dig out and install of a backwall support (gabion baskets), and backfill with suitable material.	
40037	NORTH FORK BRIDGE	1	Repair channel markers to restore them to a functional state.	
		1	Extend Pier 6 and 8 bearing base plates with steel plates, similar to the Pier 7 retrofit. Up to 40% of the bearing area has been lost. 3/30/2022 JPP/DWH: Re-wrote repair and added Pier 6 to the repair.	
		2	Repair or replace both east and west abutment slope drains to prevent further erosion. (3/3/2020 - Added west abutment drain to repair. TKK/WAW)	
		2	Patch the potholes in Span 8. Scale loose concrete around spalls, clean rusty bars, epoxy coat exposed bars, patch spalls.	
		M	Monitor flame cuts in the pin hanger plates at the following locations: Hanger at Girder 3C, west hinge, south plate has four flame cut notches, each 1/2" long by 1/16" deep. Hanger at Girder 3B, east hinge, north plate has a 1/2" long by 1/16" deep flame	
		M	Monitor the movement of the piers at the east end of the structure (Pier 7, 8 and 9) including the tipping of Pier 8 to the east. The current means of measurement with a plumb bob used over a 50-60 ft. height cannot be accurately reproduced which resulted	
40038	LACONNER WHITNEY at SL	1	Crack seal transverse cracks over the bridge joints.	
		2	Paint the bridge rail posts, are peeling and rusty.	
40039	RAINBOW BRIDGE	1	Remove loose and delaminated concrete from deteriorating patching and spalled areas in the open concrete joints. Clean and paint exposed reinforcement, and patch with an epoxy based compound or other approved material. Do not use asphalt. Spalled areas	
		1	At the following locations, drill out the broken or missing rivets and replace with a an A325 bolt: West arch south face of the Panel Point 3 strut connection. (Two rivets) West arch U10 to U11 west face splice. (Three rivets) (Quantity correction, 4/4/	
		1	At the top rib of the east arch, between U6 and U7, locate the end of the crack that is extending into the rib with dye penetrant. Stop drill a 13/16" diameter hole centered at the end of the crack. Provide a 3/4" A325 bolt.	
		1	Reposition the bronze bearing plates at Bearing 4-17C and Stringer Bearing 5A that extend beyond the bearing base plates. Add a keeper bar to the bearing plates to prevent the bronze plate from "walking out" after repositioning.	
		1	Remove loose and delaminated concrete from spalled areas in the deck. Clean and paint exposed reinforcement, and patch with an epoxy based compound or other approved material. Do not use asphalt. Spalled areas are located in: Span 4, Panel 2, SB and NB	
		1	Remove debris from around the bearings at Piers 4 and 5 and at Span 4, Panel Points 4 and 17. Clean and remove laminar and pack rust down to solid steel and paint with a rust inhibitor.	
		1	Clean all the open panel joints over the floor beams and re-seal them with poured rubber or other flexible joint compound. (Repair re-written, 4/21/14, GAS/PFK)	
		2	Remove material accumulated on bridge. Where corrosion is found, clean to bare steel and paint. See following locations: Box beam at PP 17, Arch bracing near Pier 5, Pier 4 and 5 footings. (Re-written in 2016, ABK)	

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		2	Replace the missing bird screens at the following locations: All hangers EXCEPT: U7W, U10W, U12W, and U14E. Verify locations prior to completing repair. (Updated 7/21/2020 - JAC/MA)	
		M	Monitor cracking of welds for connection of the lateral cross-bracing to the bottom flanges of the stringers in Panel 5. If cracks propagate into base metal, take corrective action to stop further propagation. (No changes as of 4/28/22, FPP/DWH)	
		M	Monitor cracking around welded access holes in top rib of arch. At the east arch between U6 and U7, the cracking has spread into the arch. West Arch: U6-U7, U7-U8, U8-U9, U9-U10, U10-U11, U14-U15. East Arch: U3-U4, U6-U7, U7-U8, U10-U11, U14-U15. (No cha	
40041	E JOHNSON RD at CARPENTER CK	2	Clean off abutment seat and around bearing pads. Can't see to inspect.	
		3	Steel diaphragms need paint treatment.	
40042	MILLTOWN at BIG DITCH	3	Clean girders and pier caps of bird guano	
40043	CONWAY HILL @ CARPENTER	3	Guardrail posts need replaced - 2nd from east bank, downstream side. 4th post from west bank, upstream side.	
40044	PIONEER HWY at BIG DITCH	1	Replace rotten guardrail posts. NE Quad - Post 1 & 2, SE Quad - Posts 1, 2, & 3, SW Quad - Posts 1 & 2	
40045	PIONEER HWY at FISHER SL	3	Fill and compact material around catch basin in northeast corner of bridge.	
		3	Guardrail - Post 1 in SE and SW quads needs replaced.	
		M	Scour hole from road runoff between Abut #2 and tidegate structure	
40046	LK CAVANAUGH RD at BEAR	1	Add gabion baskets to both abutments to prevent loss of approach road fill.	
		3	Brush and patch rust exposed rebar in girders.	
40047	LK CAVANAUGH at PILCHUCK	1	Exposed rebar in deck needs patched. Deck rehab needed soon.	
		2	Install gabion baskets at both bridge abutments to retain road approach fill material.	
		3	Remove trees at NE and NW corners. Hindering inspections.	
		3	Upgrade Bridge Rails	
40048	LK CAVANAUGH RD CULVERT	M	Debris accumulating at inlet. MONITOR	
40051	BEAVER LAKE RD at NOOKACHAMPS	3	Brush and paint rusting "connection braces" at the girder/abutment joint.	
		M	Losing material behind Abut #2	
		M	Channel migrating to the east upstream of bridge.	
40054	KNAPP RD at NOOKACHAMPS	1	Brush and patch failing patches over pick points	25-Aug-23
		M	Bank sloughing in NW corner under abutment.	
40055	PRAIRIE RD E at SAMISH R	1	Remove large woody debris from intermediate pier.	
		1	A/C level approach roadway at east end of bridge.	
		M	Monitor eastern channel migration upstream of bridge during high flows.	
40060	BURMASTER RD at COAL CREEK	3	Repair spalls in concrete curbing, approx. 2'.	
		3	Cover or cut away exposed rebar of damaged curbing at abutment #1.	
		3	Paint rail posts	
		M	Void in armoring along Abut #2, 3' deep - MONITOR	
40061	MINKLER RD at WISEMAN CREEK	1	Remove woody debris under the bridge.	
		2	Clean and patch spall in Girder #5.	
		M	2 failed gabion baskets along Abut#2, quarry spalls dumped out.	
40062	UTOPIA RD at BLACK SLOUGH	3	Remove barb wired fencing from bridge.	12-Jul-23
		2	Clear vegetation growing through guardrail out into roadway.	
		2	Patch spalling occurring at the outside girder joints over middle pier	
		3	Replace rotten blockout along guardrail in NW quadrant	
40063	LYMAN HAMILTON HWY at CHILDS CREEK	2	Brush rebar and patch spall at NW abutment/girder joint.	
		3	Missing nut on guardrail post: 2nd post from the west end, downstream side. Guardrail post rotten: 3rd post from southwest end.	
		3	Pressure wash balluster rails and sides.	
		M	Spacer blocks on bridge rail retrofit are showing signs of rot.	
40065	CONRAD RD at SUTTER CREEK	M	Approach road settlement, west end.	
40066	HAMILTON CEMETERY RD at MUDDY CREEK	1	A/C level west approach - 2" of settlement.	
		3	Pressure wash curbs.	

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
40067	CAPE HORN RD at ALDER CREEK	2	Repair or replace damaged gabion basket	
		2	Brush and patch exposed rebar in girders (60 linear feet)	
		3	Pressure wash moss off of bridge	
		M	Upstream channel migration to the west. Stream approaching bridge at angle now with higher velocities at Abutment #2	
40068	CAPE HORN RD at GRANDY CREEK	2	Patch previous patch fail in the deck, near centerline.	
		M	Monitor the bank protection, check after high water.	
40069	CONRAD RD at SWIFT CREEK	1	Replace lost grout in deck at girder pick points.	
		2	Brush and patch exposed rebar in girder channels.	
40070	SKAGIT RIVER MARBLEMOUNT	0	Replace split spacer block at northeast corner.	
		1	Remove debris from upstream face of Pier 4. (This is a recurrent problem, consider the installation of a shark or debris deflector).	
		1	Trim vegetation below Span 2 before next scheduled UBIT inspection in 3/2024 (vegetation inhibits UBIT access).	
		1	Remove loose or spalled concrete from the spalled deck surface over Span 1. Clean and paint any exposed rebar and patch with an approved material.	
		1	Bottom chords of both north and south trusses have a few areas of debris that inhibits inspection (areas are primarily over land at ends of truss spans). Clean debris from bottom chords prior to each UBIT inspection (majority of debris can be seen and ma	
		1	Remove loose ACP and patch pothole at east abument joint in the eastbound lane.	
		1	Install signage for Load Restrictions. Per Washington State Bridge Inspection Manual M 36-64.12; WSBIS Item 1293 Code "R" = "Posted for other load-capacity restriction (speed, number of vehicles on structure, etc.). Requires a physical posted sign at th	
		2	Replace missing nut at Truss span Bearing 2A at the southwest corner for the masonry plate and tighten loose nut at the southeast corner.	
		2	Remove rust, apply rust inhibitor and touch-up paint the stringers at the following locations: Stringer 10G top flange (at Floorbeam 9). Stringer 11G top flange (at Floorbeam 10). Stringer 13G bottom flange (at Floorbeam 13) at erection angle seat. Strin	
40071	CASCADE RIVER BRIDGE	1	Rehabilitate deck	
		1	Patch spalls in deck (8 SF)	
		2	Clean drains - plugged with debris	
		3	Replace thrie beam transition at nw corner. Damaged from fallen tree.	
		M	River mainstem appears to be shifting South, upstream of bridge - MONITOR	
40072	CASCADE RIVER RD at MONOGRAM	3	Concrete repair: patch left and right wingwalls; and abutment #2.	
		M	Waterway: monitor bridge at high water, stream overtops the bridge and bypasses on the left end.	
40073	CASCADE RIVER ROAD AT LOOKOUT CREEK	1	Remove unstable boulder at the NW corner before it rolls down the slope and impacts Pier 2.	
		M	Drain flow path has eroded bank and become very steep. Currently stable. MONITOR SMT/TRM 2020- No significant changes.	
40074	CASCADE RIVER RD at MARBLE CREEK	2	SE Wrap around end treatment is damaged	
		2	NE End treatment isn't up to standard	
		2	Repair: fourth rail post from right D corner is bent from impact, base plate is still in place.	
		3	Improve drainage at SE corner, routing water away from wingwall.	
40075	CASCADE RIVER RD at SIBLEY CREEK	2	Pressure wash deck and remove material between panels	
40076	CASCADE RIVER RD at HARD CREEK	M	Monitor Southwest retaining wall - slightly out of plum	
		M	Scour hole located under shotcrete Abut#2 side. MONITOR	
40077	CASCADE RIVER RD at MINERAL PARK	1	Fill potholes in bridge approach.	
		2	Sweep deck, lots of gravel tracked onto it.	
		2	Mitigate loss of approach road fill with gabion baskets and back filling.	

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		3	Fallen tree damage to Guardrail, NE quadrant.	
40080	S SKAGIT HWY at PARKER CREEK	M	Small scour hole forming - MONITOR	
40081	S SKAGIT HWY at DAY CREEK	2	Wire brush and patch exposed rusty rebar in the girders	
		2	Brush and patch spall with exposed rebar on outside pier restrainer.	
		M	Monitor for debris and localized scour.	
40082	S SKAGIT HWY at LORETTA CREEK	1	2.5" deep pothole on eastbound approach	
		2	Wire brush and patch or paint rusty rebar on girders.	
		2	Patch deck areas with exposed rebar, 20' from west end.	
		3	Paint rail posts	
40083	S SKAGIT HWY at CUMBERLAND CREEK	2	Paint rail posts	
		3	Replace guardrail post: NW Quad, 5th post.	
		M	Channel has been rerouted downstream of bridge - MONITOR	
40084	S SKAGIT HWY at O'TOOLE CREEK	2	Rail posts need cleaning and paint. - Updated 2022	
		M	Loss of armoring is causing sloughing behind Abut #2. May be causing material loss and dips at the approaches. Updated 2020	
		M	Monitor right bank repair upstream of bridge. Large rootwad cabled to riprap was installed in 9/2003.	
40086	S SKAGIT HWY at MILL CREEK	2	Patch exposed rebar in the girders.	
		2	Replace damaged wood guardrail posts on downstream side.	
		2	Replace failed patch in westbound lane.	
40088	S SKAGIT HWY at PRESSENTIN CREEK	1	Resurface / rehabilitate bridge deck	
		3	Paint steel rail posts.	
		M	Upstream channel migrated into east channel, west is filling with sediment - MONITOR	
40089	S SKAGIT HWY at FINNEY CREEK	1	Clear debris from Piers 2 & 3	
40090	DALLES BRIDGE	1	Truss members at both ends of the bridge have heavy moss growth that is blocking drainage, including the transverse member / restrainer block over Piers 3 and 4, (L3 and L15). Clean affected members and open drilled holes for drainage to prolong paint li	
40091	CONCRETE-SAUK VALLEY TEMPORARY BR	1	Install countermeasures to armor toe of bank and prevent further channel migration.	
		2	Guardrail nuts and bolts loose/missing: Section 2 & Section 10/11	
		M	Monitor North bank and migration towards abutment. Armoring may be necessary. Updated 12/7/21	
40093	UPPER FINNEY CREEK BRIDGE	1	Splice weld damaged rebar and patch spalls in soffit (4)	30-Aug-23
		2	Clear moss and debris from rails and deck.	18-Sep-23
		3	Patch spall in North rail.	18-Sep-23
		2	Remove fallen boulders from behind Pier 3	
		M	Monitor cracks in pier 4 column near top end around weak point.	
40095	ROCKPORT CASCADE RD at JORDAN CREEK	3	Previous scour repair on east bank could use some additional rip-rap.	
40099	GOVERNMENT BRIDGE	1	Replace steel sleeper channel in Span 3 (21st sleeper channel from the west end). Defect monitoring history: 2014: 12" and 4" tears. No changes. 2016: Horizontal web tears measure 12" and 7-3/4". Length increased by 3-3/4". 2018: Horizontal web tears mea	
		1	Secure or remove section of broken steel grid deck in Span 2, Panel 3. Revised 2018 (SRD/TRM).	
		2	Repair or replace the blocking and support for the north side metal bridge railing, in Span 2 between Panel Points L1 and L2.	
		M	Monitor the steel deck and sleeper channels in areas of cracked welds and laminar tears. Noted defects are in Span 1, Span 2 curb and grate to channel connections primarily within Panels 1 and 9, Span 3 sleeper channels. 2022 - DAM/CMW - No change.	
40101	BAKER LAKE RD at BEAR CREEK	1	Additional potholes and failing patches in deck and at road/bridge joints	
		1	Sweep shoulders and clear scuppers	
		3	Brush and patch exposed rusty rebar in girders and abutment.	

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		M	Losing approach road fill material behind abutments.	
40106	LAKE SAMISH RD at BEAR CREEK	2	Abutment fill protection is sloughing. Remove / replace gabion basket	
		2	Seal the deck with polymer overlay	
		3	Remove failed protective coating and reapply or upgrade rails.	
		3	Add material to shoulders at deck joint, 2" to 6" on both sides.	
40109	LAKE SAMISH RD at FRIDAY CREEK	2	Repair loose Type III sign southwest corner.	24-May-23
		2	Brush and patch exposed rebar in girders.	
		3	Remove failed protective coating on rail posts and reapply or upgrade system.	
		M	Armoring sloughing along Abut #1 - Monitor	
40110	BURLINGTON NORTHERN OVERPASS	2	Remove vegetation from MSE wall joint, NE wall.	04-Aug-23
		2	Seal cracks on deck over pier caps with epoxy resin	
		3	Tighten screws on multiple electrical panels located on concrete rails.	
		3	Clear debris from expansion joints on deck joint.	
		M	Monitor cracking occurring on bottom flange of girders, marked and dated.	
40112	NEFFS CROSSING	3	Sweep deck and clean out debris in expansion joints.	
40113	OLD HWY 99 at THOMAS CREEK	1	Patches in driving surface are failing	
		2	Replace or reinforce rotted timber abutment planks along bottom of both abutments.	
		3	Replace rotten timber deck planks on each end of span 3	
40114	SAMISH RIVER BRIDGE	1	Clean sand and debris from bottom chord. North half of bridge can probably be reached from below with a ladder. 2018 - Sand and debris is accumulating in the bottom chord, but did not impact inspection. (SRD/TRM)	
		1	Repair cope cracks at the following locations: Stringer 3A at FB 3: 1/2" crack. See "Cope Crack Repair Detail" in the Files tab for repair procedure and other details.	
		1	Restore riprap around Pier 3. 2022 - Updated photo (JPP/DWH)	
		2	At west truss, vertical L2-U2, tighten the bolt at the upper sway to the proper torque.	
40115	OLD HWY 99 at FRIDAY CREEK	1	Vactor out clogged drains (2)	
		1	Replace damaged rail (~40') SE quad - Revised 2021	
		2	Replace Post 1, NW rail - rotten	
		3	Replace multiple rotten spacer blocks (2 east rail, 6 west rail)	
40116	OLD HWY 99 at SILVER CREEK	1	Seal deck cracking: thin polyester overlay or chipseal.	
		3	Brush and patch spalls/delam in girders (4 SF)	
40117	ALGER CAIN LAKE RD at SILVER CREEK	1	Patch exposed rebar in deck (1 SF)	
40120	BAKER LAKE RD at W FORK GRANDY CREEK	1	Replace failed armoring below west abutment.	
		3	Remove debris and vegetation along curbs.	
40126	MARCHS POINT PIPELINE	2	Wire brush and patch spalls in underside of span 2 & 3 slab.	
40129	LYMAN HAMILTON HWY at MUDDY CREEK	1	Clear debris hung up on Girder 1	
40130	LYMAN HAMILTON HWY at RED CABIN CREEK	2	Pothole at SE approach	
		3	Westbound guardrail end treatment damaged (NE quadrant)	
		3	Concrete baluster rail needs pressure washed.	
		3	Backfill sloughing shoulder, NW corner.	
40131	LYMAN HAMILTON HWY at MANNSEER CREEK	2	Upgrade Guardrails	
40132	LYMAN HAMILTON HWY at JONES CREEK	3	Pressure wash concrete bridge rails	
		M	Woody debris hung up on pier 3 causing local scour.	
40140	BAKER LAKE RD at E GRANDY CREEK	1	Replace upstream top rail - section loss and corrosion.	
		1	Wire brush and patch exposed rusty rebar and failed patches.	
		2	Remove debris and vegetation along curbing	
		3	The SW rail and end treatment need to be raised. Currently top of rail is at 17"	
40141	BAYVIEW STATE PARK	2	Clean out debris along joints.	19-Jul-23

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		2	Remove failed bridge rail paint and reapply protective coating.	
40142	CAMPBELL LAKE OUTLET	2	Wire brush and patch spalled out pick points.	
		M	Watch for insect damage to piles and caps.	
40151	NICHOLSON at CHILDS CREEK	2	Clear vegetation and debris from expansion joints.	
		3	Rotten block out posts #'s 1 2 & 5 on downstream side, 6 & 7 on upstream side.	
40152	ANACORTES FERRY DOCK	1	Repair cracked locations in the apron: The right two longitudinal supports for the apron are cracked at hinge beam. Right second and third lips are cracked on the underside. Left tip of apron beam/curb is cracked.	15-Mar-23
		1	Girder 3A is gouged on the bottom flange. Grind and polish smooth. Touch-up protective coating on Girder 3A.	
		1	Repair the crack in the bridge seat joint header, right wheel line when looking offshore.	
		1	Crack in steel plate is approximately 2 ft. long and may be repaired by cleaning and welding.	
		1	Clean exposed steel and coat with a rust inhibitor. Patch section loss with exposed rebar in Girder 2A along top flange and underneath steel header located at Pier 3.	
		2	Seal vertical crack located at Pier 2 diaphragm.	
		2	Repair or replace breakwater connection plate at 8th pile.	
		2	Transfer span framing has scattered rust blooms in the girders, floorbeams, stringer clip angles, and bottom diagonals. Steel headframe has bolt heads and nuts with rust blooms. Clean to bright steel, prime, and spot paint.	
		2	Repair the crack in the connection of the grid deck to Stringer 4D at Floorbeam 3, near the centerline of the deck.	
		2	Left wingwall has portion of missing rub face material. Replace damaged area.	
		3	Many of the PVC utility supports have slipped out of place from the utility hanger.	
		3	Secure them in place at the utility hanger.	
		3	Reset dislodged spacer blocks.	
40153	GUEMES ISLAND FERRY DOCK	1	Hinge beam is cracked on the outer and bottom face near the middle of the beam. Beam is 6" x 12" HSS. Repair location. County was notified of defect at time of inspection.	
		1	The apron has several areas of cracking. Repair the following locations: Right longitudinal strut is cracked at the connection to the hinge beam. Left tip of apron beam/curb is cracked.	
		1	Clean and spot paint all steel areas which have corrosion.	
		2	Rail base/curb is spalled at Pier 1. Remove loose material, coat any exposed rebar and patch with concrete.	
		2	Replace upper clevis pin on right hoist platform. This pin has insufficient grip length causing threads in bearing.	
		2	Transfer span has several welded on attachments that have rusted off. Re weld or clamp attachments in place.	
40156	CEDARDALE RD at CARPENTER CREEK	1	Brush and patch exposed rebar in deck (7 LF)	
		1	Repair cable rail, sw quadrant.	
		2	Replace all block outs with 6" blocks on rails. Updated 2020	
		2	Upgrade bridge rails / transition / guardrail / end treatments	
40157	BENSON RIDGE LN at CARPENTER CREEK	1	Deck board (15' x 10") SW End needs to be replaced.	
		2	Tighten cleats. Last performed in 2010	
		2	Impact Damage to NW Corner of Guardrail,	
		3	Section loss in deck. Replace 2' of failed board.	
		3	Top rail on West side of bridge showing deterioration, replace beam	
40159	MINKLER RD at COAL CREEK	1	Install missing guardrail posts SE quadrant.	
		1	Replace all rail posts that are damaged (6 upstream side, 2 downstream side)	
		1	Coal Creek in need of sediment management project and remove debris from underneath bridge. Updated 2020	
		2	Repair spalls upstream side of bridge (12)	
40161	FLINN ROAD at MCELROY SLOUGH	3	Clear weeds and patch spalls in deck at joint of Abut #2	14-Jun-23
		3	Sweep deck	
40162	BLANCHARD RD at MCELROY SLOUGH	2	Re-weld fence post to base plate located on SE wingwall.	20-Jun-23
		2	Replace broken guardrail post on the NE end treatment.	

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		3	Replace grout in wingwall joints and around culverts.	
40163	HELMICK RD at RED CREEK	3	Sweep and patch low spot in shoulder along southbound lane	12-Jul-23
		M	Creek eroding both banks and nearing abutment piles.	
40164	S LAVENTURE RD at MADDOX CREEK	M	Maddox Creek migrating towards west abutment wall - Monitor	19-Oct-23
		1	Replace damaged guardrail in NW quad (2 sections)	
40094A	ROCKPORT CASCADE at ILLABOT CREEK	3	Replace rubber joints	
40094B	RYAN CROSSING at ILLABOT CREEK	2	Crack seal transverse cracking in pavement over bridge joints.	
40094C	HOLLOW CEDAR at ILLABOT CREEK	1	Settlement in west bound approach with alligator cracking in asphalt.	
		2	Crack seal asphalt at bridge joints.	
LOCAL AGENCY REPAIRS				
BURLINN-2	NORTH BURLINGTON BLVD	3	Tighten loose nuts on rail post bases located at each end of underside of culvert.	29-Sep-23
		2	Repair: Guardrail terminal on the northwest corner of bridge, impact damage, missing post.	
BURLINN-3	GOLDENROD BRIDGE	3	Crack seal deck/approach slabs with epoxy resin.	
CONCRETE1	BAKER RIVER	1	Trim trees at southwest corner (below Span 1) for better UBIT access prior to next inspection in 2025 (UBIT must be deployed off the south side due to telephone lines on the north side).	
		2	Remove ivy from pier wall at Pier 2.	
		3	Clear compression seal joints of dirt and debris.	
		M	Monitor scour at Pier 2 which is undermined at the southeast and northeast corners. (No significant change noted in 2023. FAJ/TBN).	
MV-1	RIVERSIDE BRIDGE	1	Replace lost key way patch in deck over pier 4.	30-Aug-23
		2	Remove encampment 'living area' constructed between Girders 1I and 1J approximately 15 ft. south of Pier 2, over ductile iron pipe. (8/1/2017 - Repair rewritten and location clarified. TTK/PFK)	30-Aug-23
		0	Repair conduit casing that has separated in three locations between Girders 5C and 5D near Pier 6. (8/1/2017 - Location called out incorrectly in past report. Updated with correct location and repair rewritten. TTK/PFK)	
		0	Utility bracket on the north side of Pier 5 between Girders 5G and 5H has slipped.	
		1	Replace lost key way patch in deck over pier 2 (SE end of bridge)	
		1	Shear key at Pier 5 was not built as designed. Provide full support to Girder H at Pier 5.	
		1	Clear debris from catch basins	
		1	Repair damaged east pedestrian rail south of Pier 3 (near overlook), approximately 12 ft. of damage. (2019 - slightly repaired but needs more work)	
		2	Remove debris around bearing pad under Girder 1A.	
MV-2	HOAG STEWARD OVERPASS	1	Seal cracks in deck with epoxy resin	
MV-3	ELEANOR LANE A	3	Repair broken weld at ped rail / bridge connection (east end)	19-Oct-23
		2	Impact damage to ped rail. Two east end posts are broken at base.	
MV-4	SKAGIT HIGHLANDS PARKWAY	2	Remove trees / vegetation from retaining wall and on top of culvert, upstream and downstream sides.	
MV-6	EAGLEMONT DRIVE	2	Repair the settlement at South East corner at Roadway sidewalk (Photo SI-6)	
		2	Repair uplifting of the sidewalk panels and spalls in curbing. (Photo SI-25)	
		M	Monitor the shift of stream toward the South footing (Photo SI-5).	
		M	Monitor the crushing and bulging of the gabions. (Photo SI-20)	
MV-7	J OFF BEAVER POND DR S	M	Monitor aggradation inside culvert.	
MV-10	OLYMPIC LANE	3	Crack seal transverse cracks at abutment and approach slab joints (4)	27-Oct-23
MV-12	LAVENTURE RD CULVERT	M	MONITOR - retaining wall settling leaving a 3" gap, downstream end, North side. As of 2022, 5" gap.	
SW-1	KLINGER STREET BRIDGE	3	Patch spall in Girder 1	
		3	Patch spalls in sidewalk curbing	
SW-2	NORTH REED STREET BRIDGE	3	Sweep deck of dirt and debris and remove moss from side of Girder 1	
		3	Wire brush and grout girder 6 rebar	
		M	Small localized scour hole underneath Abutment #2 - MONITOR	