

CLARK COUNTY STAFF REPORT

DEPARTMENT: Public Works / Engineering & Construction Division

DATE: June 26, 2018

REQUESTED ACTION: Approve the 2017 Annual Bridge Report

Consent Hearing County Manager

BACKGROUND

Public Works has completed the Annual Bridge Report for 2017, as required by Washington Administrative Code 136-20-060. The report summarizes the condition of 111 bridges within Clark County, including bridges owned by the cities of Battle Ground, Camas, La Center, Vancouver, Ridgefield and Washougal. Of the 111 bridges, 76 are in good condition, 25 are in fair condition and 1 is in poor condition. The remaining 9 bridges are either railroad or pedestrian bridges, which are not assigned a condition.

COUNCIL POLICY IMPLICATIONS

None.

ADMINISTRATIVE POLICY IMPLICATIONS

None.

COMMUNITY OUTREACH

None.

BUDGET IMPLICATIONS

| YES | NO | |
|-----|----|--|
| X | | Action falls within existing budget capacity. |
| | X | Action falls within existing budget capacity but requires a change of purpose within existing appropriation |
| | X | Additional budget capacity is necessary and will be requested at the next supplemental. If YES, please complete the budget impact statement. If YES, this action will be referred to the county council with a recommendation from the county manager. |

BUDGET DETAILS


| | |
|--------------------------|-----|
| Local Fund Dollar Amount | N/A |
| Grant Fund Dollar Amount | N/A |
| Account | N/A |
| Company Name | N/A |

PW18-089

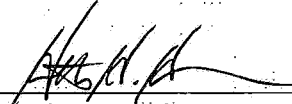
DISTRIBUTION:

Council staff will post all staff reports to the county website, www.clark.wa.gov/the-grid

Attachments: 2017 Annual Bridge Report

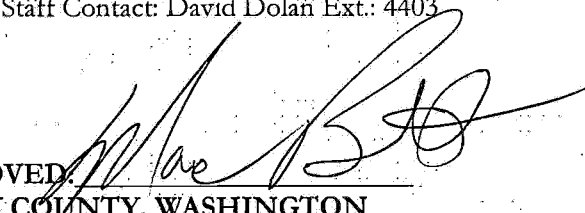


Tom Grange, PE
Engineering & Construction Division Manager



Heath H. Henderson, PE
Public Works Director/County Engineer

Primary Staff Contact: David Dolan Ext.: 4403



APPROVED:
CLARK COUNTY, WASHINGTON
CLARK COUNTY COUNCIL

DATE: 

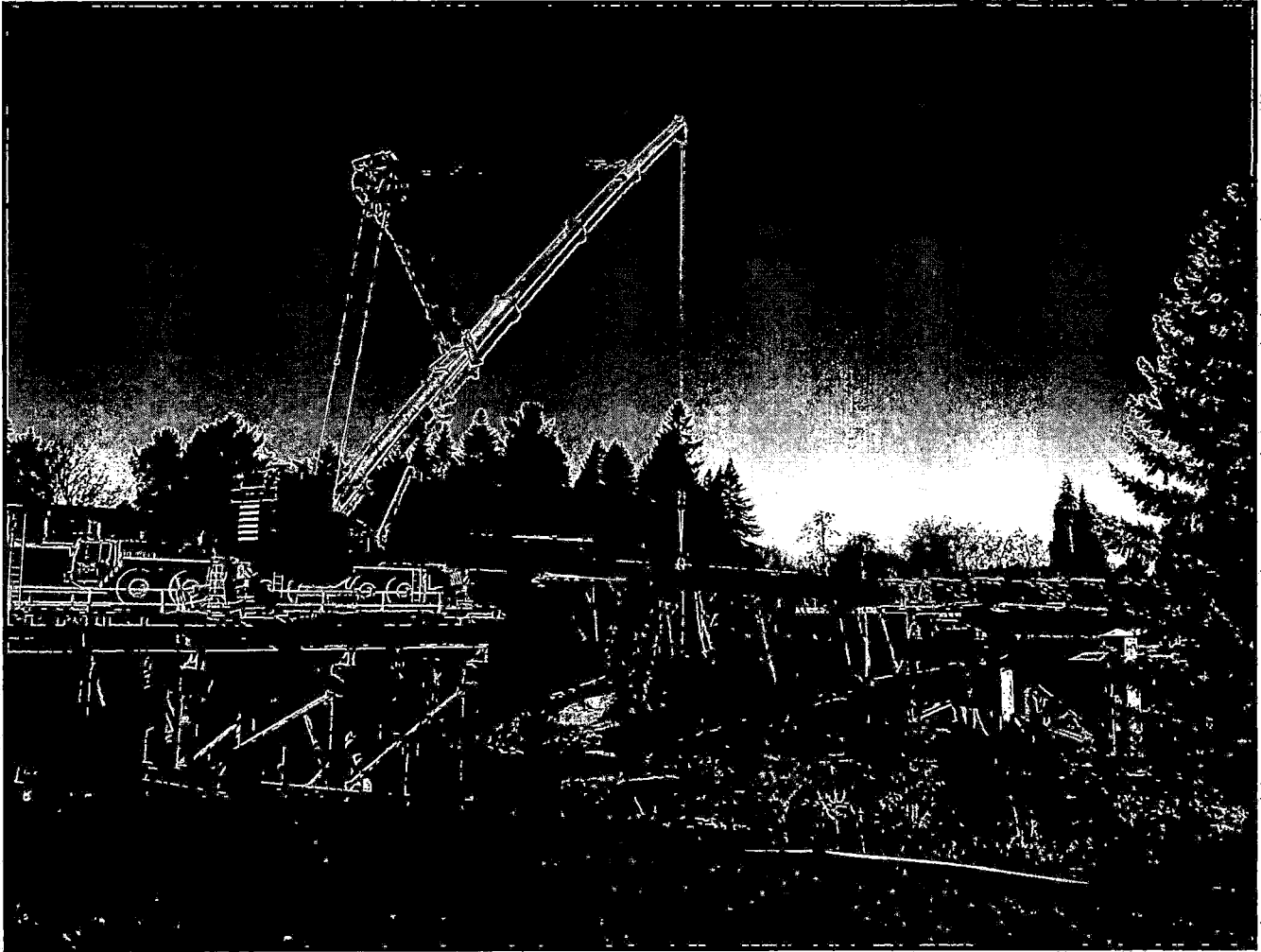
SR# 122-18



APPROVED: _____
Jim Rumpeltes, Interim County Manager

DATE: _____

2017 Annual Bridge Report



NE 10th Avenue Bridge

Prepared by David Dolan, P.E.
Clark County Public Works, Engineering and Construction Division
Submitted June 2018



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I. INTRODUCTION

This bridge report is prepared by Clark County Public Works Department each year to fulfill the requirements of the Washington Administrative Code (WAC) 136-20-060. The WAC requires:

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

The bridge inspections follow the National Bridge Inspection Standards (NBIS), which are published in the Code of Federal Regulations, 23 CFR 650, subpart C. The NBIS sets national standards for the proper safety inspection and evaluation of bridges and applies to all structures defined as highway bridges on public roads. The county uses the Washington State Bridge Inspection Manual, which details state policies and procedures for inspecting bridges and assessing their condition.

This report summarizes the county's 2017 bridge program, activities and findings. These programs help prioritize the maintenance and preservation of county bridges and identify complete bridge replacements before they significantly affect the county's transportation network.

II. BRIDGE INVENTORY

The county inspects 111 bridges located throughout Clark County. Of these bridges:





- 78 bridges owned by Clark County, including three pedestrian bridges.
- 27 bridges owned by cities and inspected under interagency agreements.
- 6 bridges owned by the railroads (BNSF Railway, Chelatchie Prairie Railroad) and inspected for roadway safety.



Bridges are identified throughout this report by the bridge name followed by the bridge number, e.g., **Betts Bridge No. 26**. A complete bridge inventory is included in Table A in the Appendix. As referenced above, 27 bridges are owned by the cities of Vancouver, Camas, Washougal, Ridgefield, Battle Ground and La Center and six are owned by BNSF Railway or Chelatchie Prairie Railroad and are inspected for roadway safety on the streets that pass under them. The following map, Clark County Bridge Locations Figure 1, illustrates the distribution of county-owned and city-owned bridges throughout the county, in each councilor's district.

2017 Annual Bridge Report
Bridge Locations with County Councilor Districts
Clark County, Washington

COUNCILOR DISTRICT

CHAIR - Marc Bolt

-  1 - Jeanne E. Stewart
-  2 - Julie Olson
-  3- John Blom
-  4 - Eileen Quiring

-  County Bridge
-  City Bridge

1:300,000



providing good, promising future.

CLARK COUNTY
WASHINGTON Geographic Information System

Information shown on this map was collected from several sources. Clark County accepts no responsibility for any inaccuracies that may be present

Printed On: Jun 08, 2017
Project: N:\CIP\NON-PROJECT\DESIGN\ArcView\maps\Bridges_NoList.mxd (russolt)



Figure 1 Clark County Bridge Locations Map

III. BRIDGE INSPECTION FINDINGS AND REPAIRS

A. Bridge Inspection Findings

NBIS mandates that public agencies inspect and report on all bridges at least once every two years. Under these standards, the county is required to document and report the current condition of each bridge, determine the degree of wear or deterioration, and recommend repairs or needed services. Deficient bridges, such as load restricted bridges, may require more frequent inspections.

A total of fifty-two routine bridge inspections were conducted in late 2017 and early 2018. During these bridge inspections, inspectors evaluated the condition of the bridge structure and documented any observable deficiencies.

When deficiencies were spotted, they were noted in the report and a deficiency report was generated and provided to the Road Maintenance and Safety Division for follow up. Any urgent structural or safety concerns were addressed promptly. No significant findings resulted from this year's routine bridge inspections.



High flow at scour critical bridge.

Thirteen county bridges are considered scour critical and require special inspection after storms for erosion, debris and stream bank instability. As a result of these post-flooding inspections, several county bridges were submitted for scour mitigation preventative maintenance grants. One bridge, Davis Bridge No. 232, is scheduled for replacement.

The bridge inspection reports are generated, reviewed and entered into Bridge Works, a bridge management database developed by the Washington State Department of Transportation (WSDOT) Bridge Preservation office. This database is a master inventory of all structures that are the responsibility of WSDOT. State transportation officials verify that Clark County bridges comply with NBIS standards and report the information to the Federal Highway Administration (FHWA).

One measure that provides an overview of a bridge's condition is the Sufficiency Rating (SR). The SR is a numeric value that indicates a bridge's relative ability to serve its intended purpose. The SR is the summation of four calculated values: Structural Adequacy and Safety, Serviceability and Functional Obsolescence, Essentiality for Public Use and Special Reductions. A SR is calculated for each bridge using the inspector's ratings for individual features of the bridge. Geometric layout, traffic volume and the length of a detour route are also used in calculating the SR. The SR ranges from zero (a bridge that is closed and cannot carry traffic loads) to 100 (a new bridge with no deficiencies). The average SR of the entire inventory provides a comparative look at the health of county bridges from one year to the next.

Overall, the SR for the county inventory of bridges shows a negative trend, with minor fluctuations from year to year. Due to the overall number of bridges in the inventory and the fact that the inventory continues to age, it is not unexpected to see a negative SR trend. With only one new bridge included in the six-year Transportation Improvement Program, the trend will continue to drop. **Figure 2** illustrates the average annual SR over the last 10 years, while **Figure 3** depicts the age of county bridges.

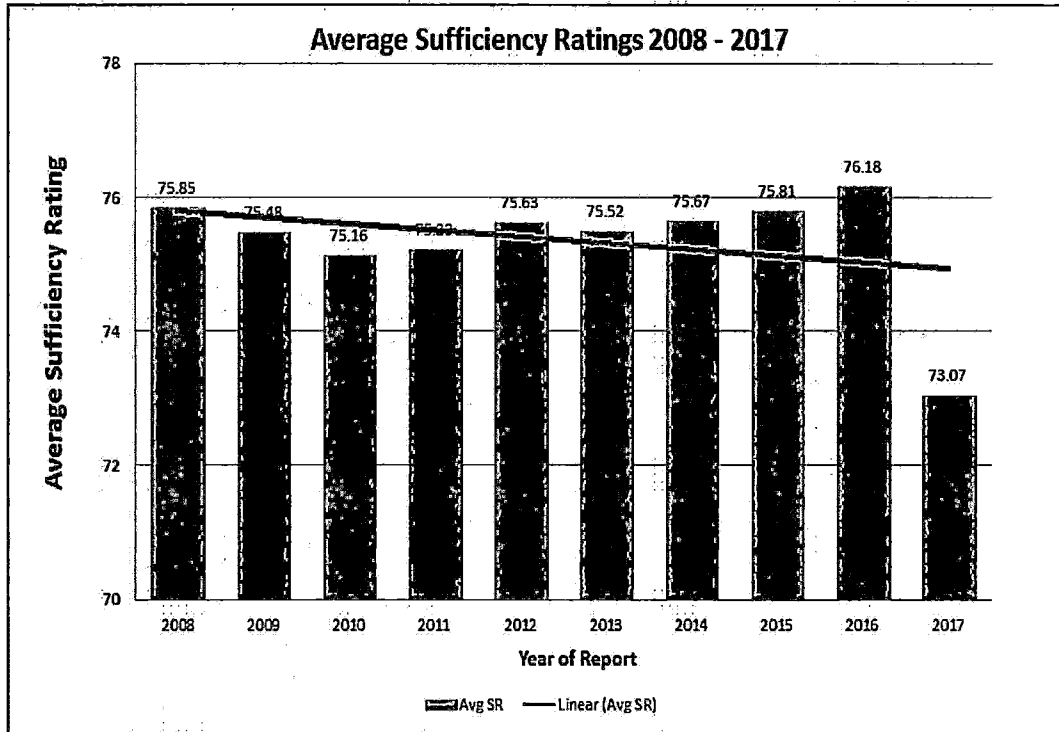


Figure 2: Average annual Sufficiency Rating (SR) Clark County's Bridges - with ten year trend line.

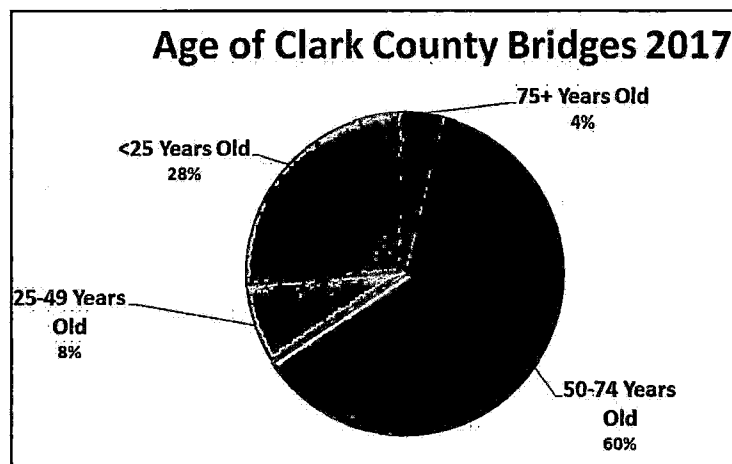


Figure 3: Distribution of Clark County's Bridges by Age

Generally speaking, bridges with an SR greater than 50 have a fair amount of useful life remaining. Bridges with an SR less than 50 require more attention and may need major repairs or complete replacement. The Bridge Replacement Advisory Committee, a WSDOT-sponsored committee that helps determine how to allocate federal bridge funds, is only screening bridges with an SR of 40 or less for replacement eligibility and an SR of 80 or less for rehabilitation eligibility. Although the SR for the overall county inventory is 73.07, there are a number of individual bridges with an SR below 50. There is a direct correlation between the SR and the age of the bridge. The average SR rating will begin to decline if bridge maintenance and repairs needs are not addressed.

In addition to using the SR as a bridge condition measure, the NBIS defines two types of deficient bridges – **structurally deficient** and **functionally obsolete**.

A **structurally deficient bridge**, as defined by the FHWA, is one with a condition or design that has affected its ability to carry its intended traffic loads. An example is a bridge that has significant load carrying elements in poor condition due to deterioration or damage. Another example is a bridge with an inadequate waterway opening underneath that causes flooding over the bridge deck or adjacent roadway, triggering significant traffic disruptions. The fact that a bridge is “structurally deficient” does not mean the bridge is unsafe or likely to collapse. It does, however, indicate the bridge typically will require significant maintenance and repair to remain in service and ultimately will require replacement or major rehabilitation. Clark County currently has two structurally deficient bridges: Davis Bridge No. 232 and Salmon Creek Bridge No. 331. Both bridges were downgraded in 2016 and are structurally deficient due to substructure scour damage. Both bridges are on increased inspection and monitoring plans.

A **functionally obsolete bridge** is one in which the deck geometry, load carrying capacity, clearance or approach roadway alignment does not meet accepted design standards. While structural deficiencies are generally the result of deterioration of bridge components, functional obsolescence typically results from older bridge configurations that are subject to increased traffic demands and are substandard structures, as defined by current bridge design codes. Examples include narrow lane/shoulder widths and height restrictions of less than 14 feet. Clark County’s inventory has 13 bridges that are listed as Functionally Obsolete while the city of Camas has four, the city of Vancouver has two and the cities of Ridgefield, Battle Ground and Washougal each have one.

Table 1: Functionally Obsolete & Structurally Deficient Bridges

| Agency | Number of Bridges | Functionality Obsolete | Structurally Deficient |
|---------------------------|-------------------|------------------------|------------------------|
| Clark County | 75 | 13 | 2 |
| City of Vancouver | 13 | 2 | 0 |
| City of Camas | 6 | 4 | 0 |
| City of Washougal | 3 | 1 | 0 |
| City of Ridgefield | 2 | 1 | 0 |
| City of Battle Ground | 2 | 1 | 0 |
| City of La Center | 1 | 0 | 0 |
| Railroad (BNSF-5, CPR-1) | 6 | N/A | N/A |
| Pedestrian (Clark County) | 3 | N/A | N/A |

IV. RESTRICTED BRIDGES

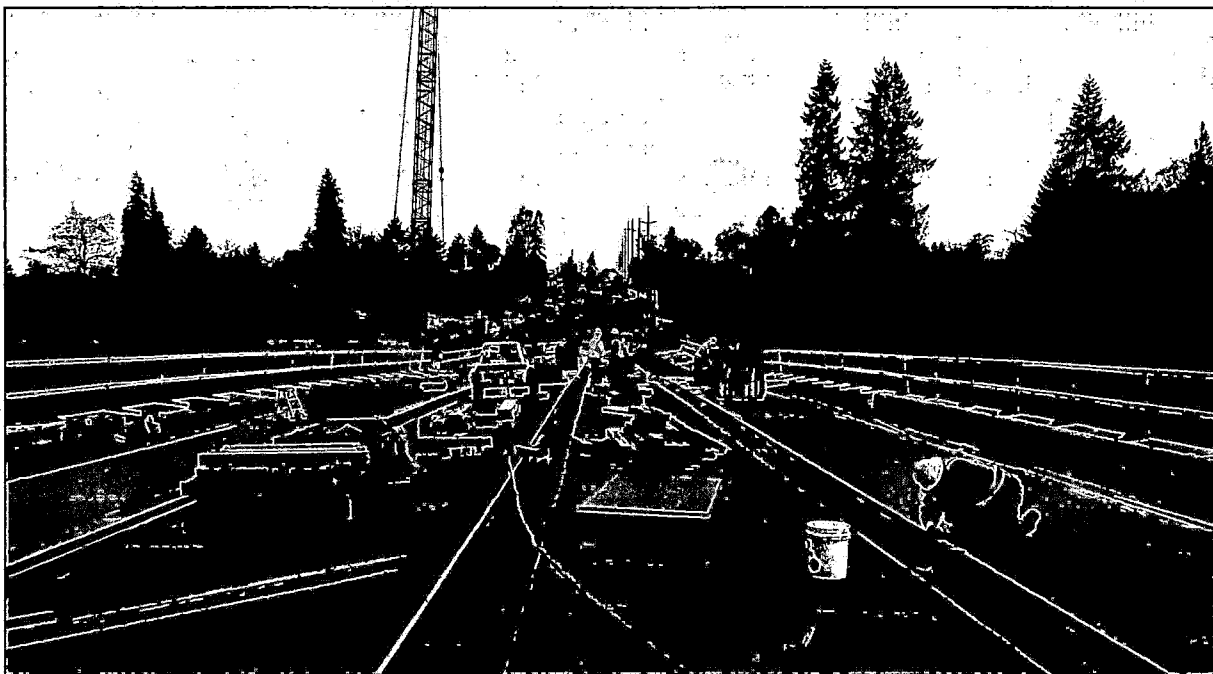
If a bridge deficiency is severe and repairs cannot restore full load capability, load restriction signs for trucks are posted at each end of the bridge. Currently, Clark County has one weight-limited bridge and one height-restricted bridge.

Table 2: Height and Load Limited Bridges in Clark County

| Bridge Name | Bridge No. | Action |
|---------------------------|------------|-------------------|
| Kepfer (County) | 102 | Weight Restricted |
| CPR - Highway 99 (County) | 20141 | Height Restricted |

V. BRIDGE CONSTRUCTION/ACCOMPLISHMENTS IN 2017

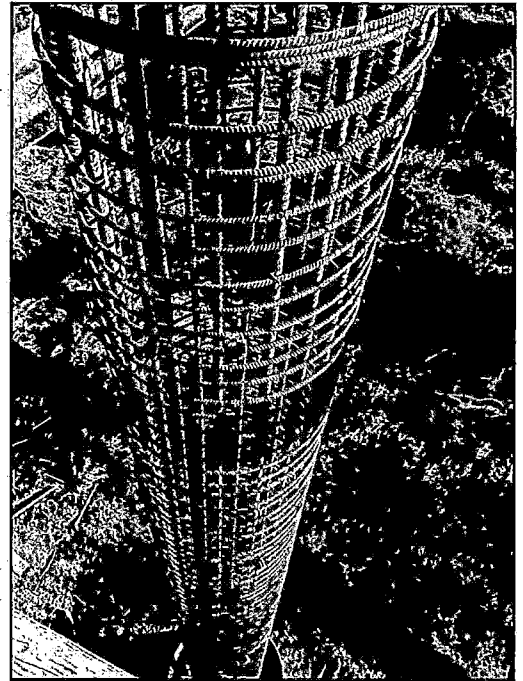
1. Clark County continued to develop procedures and resources for emergency response to natural disasters.
2. WSDOT awarded three BRAC grants to address scour deficiencies of existing county bridges: Bridge No. 294 Lehto, Bridge No. 211 Smith and Bridge No. 331 Salmon Creek. Scour projects are scheduled for these three bridges in 2020.
3. Construction of the NE 10th Avenue Bridge began in late spring of 2017 with completion scheduled for fall 2018.



NE 10th Avenue Bridge deck construction.

VI. FUTURE PLANS

- Expand partnerships with local cities and neighboring counties to provide bridge inspection services.
- Continue to support other Clark County departments and sections – Parks and Railroad – with their bridge needs. Facilitate the monitoring and assessment of their bridges and offering engineering support services as needed.
- Coordinate bridge barrier railing upgrades with requirements for guardrail improvements by identifying safety needs.
- Continue to review private bridge designs.
- Enhance emergency preparedness. Plans and practice exercises are to be developed.
- Analyze bridge inventory for federally required updates to load ratings. First updates are required by the end of 2017. Develop program to update all bridge load ratings by 2022.
- Participate in statewide discussions about programmatic approaches and asset management for short span bridges.



NE 10th Avenue Bridge shaft.

GLOSSARY OF BRIDGE TERMINOLOGY

Abutment: a substructure supporting the end of a single span, or the extreme end of a multispan superstructure 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.

Bridge Replacement Advisory Committee: a WSDOT-sponsored committee that helps determine how to allocate federal bridge funds.

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 serving 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.

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

Elastomeric pads: rectangular pads made of neoprene, found between the sub- 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 multispan 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: the characteristics of these bridges are a span less than 20 feet and 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 sufficiency rating is the summation of four calculated values: Structural Adequacy and Safety, Serviceability and Functional Obsolescence, Essentiality for Public Use, and Special Reductions.

Substructure: the abutment, piers, grillage, or other structure built to support the span or spans of a bridge superstructure and 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.

UBIT: Under Bridge Inspection Truck

Wheelrail: a timber curb fastened directly to the deck, most commonly found on all-timber bridges.

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

APPENDIX TO THE 2017 ANNUAL BRIDGE REPORT

- Table A – Bridge Condition Summary
- Table B - Bridge Inventory Detail
- Table C - Bridge Repairs

Table A- Bridge Inventory

| Bridge No. | Bridge Name | Location | Bridge Type | Built date | Bridge Age | Atlas page | Bridge Condition | Sufficiency Rating | Structurally Deficient / Functionally scour code | Scour Critical | Inventory Rating (Tons) | Inventory Rating Method | Operating Rating (Tons) | Operating Rating Method | Bridge Posted - Height (H), Weight (W) | NBI Releasable | Municipal Code |
|----------------------------------|-----------------------|------------------------|--|------------|------------|------------|------------------|--------------------|--|----------------|-------------------------|-----------------------------------|-------------------------|-------------------------|--|----------------|----------------|
| Clark County Public Works | | | | | | | | | | | | | | | | | |
| 1 | Klinline | NE Highway 99 | Prestressed Concrete Girder | 2008 | 9 | 26 | Good | 96.15 | | | 54 | Load and Resistance Factor Design | 90 | LRFD | | Y | 0000 |
| 2 | Felida | NE Seward | Post Tensioned Box Girder | 1985 | 32 | 25 | Good | 95.57 | | | 39 | LRFD | 99 | LRFD | | Y | 0000 |
| 6 | Gibbons Creek | SE Evergreen Way | Concrete Slab & Stringer | 1940 | 77 | 4 | Good | 74.52 | | Critical | 29 | LRFD | 49 | LRFD | | Y | 0000 |
| 11 | Whipple Creek | NW 179th Street | Concrete Slab & Stringer | 1963 | 54 | 25 | Good | 82.54 | | | 33 | LRFD | 56 | LRFD | | Y | 0000 |
| 12 | Knapps Station | NW Krieger Road | Concrete Slab & (Lin-TEE) Stringers with 1-6 Pile Bent | 1962 | 55 | 24 | Good | 86.41 | | | 44 | LRFD | 73 | LRFD | | Y | 0000 |
| 13 | Burnt Bridge Crest | NE Hazel Dell Avenue | Pre-cast Concrete Stringers & Deck | 1996 | 21 | 17 | Good | 96.59 | N | | 46 | LRFD | 77 | LRFD | | Y | 0000 |
| 26 | Betts | NE Salmon Creek Avenue | Prestressed Concrete Girder | 2006 | 11 | 26 | Good | 97.3 | | | 51 | LRFD | 99 | LRFD | | Y | 0000 |
| 30 | Flatwood | NE 239th Street | Concrete Slab & Stringer | 1951 | 66 | 36 | Fair | 63.19 | | | 22 | LRFD | 37 | LRFD | | Y | 0000 |
| 32 | Knowles | NE Salmon Creek Avenue | Concrete Slab & Stringer | 1963 | 54 | 26 | Good | 79.9 | | | 39 | LRFD | 65 | LRFD | | N | 0000 |
| 33 | Pleasant Valley | NE 50th Avenue | Concrete Slab & Stringer | 1960 | 57 | 27 | Good | 72.86 | FO | | 33 | LRFD | 55 | LRFD | | Y | 0000 |
| 36 | Wilson | NE 72nd Avenue | Prestressed Concrete Bulb-T Girder | 1994 | 23 | 27 | Good | 94.99 | | | 33 | LRFD | 55 | LRFD | | Y | 0000 |
| 39 | Glenwood | NE 139th Street | Concrete Slab & Stringer | 1955 | 62 | 27 | Good | 70.43 | | | 27 | LRFD | 45 | LRFD | | N | 0000 |
| 51(502/6A) | Dollar's Corner | NE 72nd Avenue | Precast Concrete Arch | 2015 | 2 | 36 | Good | 94.36 | | | 45 | LRFD | 76 | LRFD | | Y | 0000 |
| 54 | Huber | NE 259th Street | Concrete Slab & Stringer | 1951 | 66 | 36 | Fair | 63.38 | | | 22 | LRFD | 37 | LRFD | | N | 0000 |
| 56 | Pioneer | NE 259th Street | Concrete Slab & Stringer | 1951 | 66 | 35 | Good | 68.24 | | | 26 | LRFD | 43 | LRFD | | N | 0000 |
| 59 | Bratton (Cattle Pass) | NE Jenny Creek Road | Culvert for Cattle Pass | 1956 | 61 | 53 | Good | 75.08 | | | 22 | LRFD | 36 | LRFD | | N | 0000 |
| 63 | Carson | NE 67th Avenue | Concrete Slab & Stringer | 1957 | 60 | 36 | Good | 74.76 | | | 24 | LRFD | 40 | LRFD | | Y | 0000 |
| 65 | Cedar Creek | | Concrete Box Girder w/Cantilever Section | 2017 | 0 | 53-54 | Good | 99.91 | | | 18 | LRFD | 31 | LRFD | W | Y | 0000 |
| 69 | Grist Mill | NE Grist Mill Road | Covered Timber Truss | 1994 | 23 | 60 | Good | 83.19 | | | 38 | WSD | 58 | WSD | | Y | 0000 |
| 75 | Dayton | NE Cedar Creek Road | Concrete Slab & Steel Beam | 1955 | 62 | 55 | Fair | 60.52 | | | 22 | LRFD | 36 | LRFD | | Y | 0000 |
| 94 | Blaker | NE 142nd Ave | Concrete Slab & Stringer | 1953 | 64 | 46 | Good | 77.47 | | | 27 | LRFD | 46 | LRFD | | N | 0000 |
| 96 | Rock Creek | Rock Creek Road | Concrete Slab on Solid Concrete Bent | 1949 | 68 | 46 | Fair | 63.5 | FO | | 24 | LRFD | 39 | LRFD | | Y | 0000 |
| 100 | Heisson | NE 172nd Avenue | Concrete Open Spandrel Ribbed Arch | 1999 | 18 | 47 | Good | 96.19 | | | 32 | LRFD | 54 | LRFD | | Y | 0000 |
| 102 | Kepfer | JR Anderson Rd | Concrete Slab & Stringer | 1959 | 58 | 45 | Fair | 47.45 | | | 18 | LRFD | 29 | LRFD | W | Y | 0000 |
| 107 | JA Moore | JA Moore Road | Concrete Slab & Stringer | 1954 | 63 | 45 | Good | 75.52 | | | 32 | LRFD | 54 | LRFD | | N | 0000 |
| 108 | Heitman | JA Moore Road | Concrete Slab & Stringer | 1958 | 59 | 44 | Fair | 50.08 | FO | | 22 | LRFD | 37 | LRFD | | Y | 0000 |
| 116 | Lucia Falls | NE Hantwick Road | Pre-cast Concrete Slab & Prestressed Concrete Beams | 2005 | 12 | 47 | Good | 83.89 | | | 41 | LRFD | 66 | LRFD | | Y | 0000 |
| 120 | Big Tree Creek | Lucia Falls Road | Concrete Slab & Stringers / Solid Concrete Bent | 1959 | 58 | 48 | Good | 85.63 | | | 32 | LRFD | 53 | LRFD | | Y | 0000 |
| 127 | Arch McKee | Gerber McKee Road | Concrete Slab | 1958 | 59 | 57 | Good | 72.66 | | Critical | 27 | LRFD | 45 | LRFD | | N | 0000 |
| 167 | Vancamp | NE 217th Avenue | Prestressed Concrete Beams w/Concrete Deck & Abutments | 1991 | 26 | 20 | Good | 98.82 | | | 58 | LRFD | 96 | LRFD | | Y | 0000 |
| 168 | Matney | NE 68th Street | Concrete Slab & Stringer | 1955 | 62 | 20 | Fair | 57.99 | | | 19 | LRFD | 32 | LRFD | | Y | 0000 |
| 169 | Matney South | NE 232nd Avenue | Concrete Slab & Stringer | 1953 | 64 | 21 | Good | 67.23 | | Critical | 33 | LRFD | 55 | LRFD | | Y | 0000 |
| 196 | Washougal River | NE Vernon Road | Prestressed Concrete Beams w/Concrete Deck & Abutments | 1998 | 19 | 14 | Good | 93.1 | FO | | 42 | LRFD | 99 | LRFD | | Y | 0000 |
| 201 | Brush Prairie | NE 156th Street | Concrete Box Girder w/2 Open Pile Concrete Bents | 1960 | 57 | 27 | Fair | 66.07 | | Critical | 19 | LRFD | 32 | LRFD | | Y | 0000 |
| 203 | Boulder Creek | NE Lessard Road | Steel Stringers w/Wood Deck | 1960 | 57 | 22 | Good | 73.04 | | Critical | 34 | LRFD | 57 | LRFD | | N | 0000 |
| Clark County Public Works | | | | | | | | | | | | | | | | | |

Table A- Bridge Inventory

| | | | | | | | | | | | | | | | | | |
|------------------------------|---------------------------|-------------------------------------|--|------|-----|----|------|-------|----|---|----------|----|-----------------------------|----|-----------|---|-------|
| 211 | None | NE 167th Avenue | Concrete Slab & Stringer | 1963 | 54 | 28 | Good | 67.76 | | 3 | Critical | 37 | LRFD | 57 | LRFD | Y | #REF! |
| 212 | JC Ward | NE 182nd Avenue | Concrete Slab & Stringer | 1960 | 57 | 29 | Good | 75.06 | FO | 7 | | 36 | LRFD | 61 | LRFD | Y | 0000 |
| 213 | Morgan | NE 182nd Avenue | Concrete Slab & Stringer | 1956 | 61 | 29 | Fair | 61.48 | FO | 4 | | 23 | LRFD | 38 | LRFD | Y | 0000 |
| 216 | John Ott | | Concrete Slab & Stringer | 1954 | 63 | 38 | Fair | 62.51 | FO | 5 | | 19 | LRFD | 32 | LRFD | Y | 0000 |
| 217 | Venersborg | NE Risto Road | Concrete Slab & Stringer | 1954 | 63 | 38 | Fair | 54.6 | FO | 5 | | 19 | LRFD | 32 | LRFD | Y | 0000 |
| 222 | None | NE 167th Avenue | Concrete Slab & Stringer | 1954 | 63 | 28 | Fair | 63.85 | FO | 5 | | 34 | LRFD | 39 | LRFD | Y | 0000 |
| 225 | Dudley | NE 199th Street | Concrete Slab & Stringer | 1962 | 55 | 39 | Good | 89.35 | | 8 | | 39 | LRFD | 65 | LRFD | Y | 0000 |
| 229 | 172nd Bridge | 172nd Ave | Steel Girder | 2009 | 8 | 20 | Good | 99.75 | | 8 | | 57 | LRFD | 95 | LRFD | Y | 0000 |
| 230 | Fifth Plain Creek | NE 88th Street | PT/Prestressed girders | 2015 | 2 | 20 | Good | 99.76 | | 8 | | 17 | LRFD | 28 | LRFD | Y | 0000 |
| 231 | China Ditch | NE Ward Road | Prestressed Conc Girder | 2009 | 8 | 20 | Good | 98.53 | | 8 | | 40 | LRFD | 68 | LRFD | Y | 0000 |
| 232 | Davis | NE Davis Road | Concrete Slab & Stringer | 1953 | 64 | 28 | Poor | 9.4 | SD | 3 | Critical | 32 | LRFD | 54 | LRFD | N | 0000 |
| 242 | Lewis River | Dole Valley Road | Concrete Slab & Stringer | 1961 | 56 | 40 | Good | 87.92 | | 8 | | 36 | LRFD | 59 | LRFD | Y | 0000 |
| 244 | Rock Creek | Dole Valley Road | Glu-Lam Beam w/Wood Deck & Concrete Bent | 1975 | 42 | 40 | Good | 68.19 | FO | 5 | | 33 | Working Stress Design (WSD) | 43 | LRFD | Y | 0000 |
| 252 | Blair Zeek | NE Blair Road | Concrete Slab & Stringer w/ 2 - 4 Concrete Column Bents | 1961 | 56 | 12 | Good | 76.2 | FO | 3 | Critical | 36 | LRFD | 61 | LRFD | Y | 0000 |
| 261 | None | NE 119th Street | Concrete Slab & Stringer | 1949 | 68 | 29 | Good | 81 | | 5 | | 23 | LRFD | 48 | LRFD | N | 0000 |
| 266 | Allworth | NE Allsworth Road | Concrete Slab & Stringer | 1954 | 63 | 38 | Fair | 65.86 | | 5 | | 23 | LRFD | 38 | LRFD | N | 0000 |
| 267 | Cresap | Cresap Road | Concrete Flat Slab | 1956 | 61 | 38 | Good | 77.42 | | 5 | | 26 | LRFD | 42 | LRFD | N | 0000 |
| 272 | None | NE 202nd Avenue | Concrete Slab & Stringer | 1961 | 56 | 20 | Good | 71.52 | | 5 | | 29 | LRFD | 65 | LRFD | N | 0000 |
| 273 | Day Break | Daybreak Road | Concrete Deck, Steel Girders & One solid Concrete Bent | 1966 | 51 | 36 | Good | 88.27 | | 4 | | 38 | LRFD | 59 | LRFD | Y | 0000 |
| 274 | Shanghai Creek | NE 212th Avenue | Concrete Slab & Stringer | 1955 | 62 | 20 | Good | 74.64 | | 4 | | 31 | LRFD | 51 | LRFD | N | 0000 |
| 275 | Van Atta | NE 112th Avenue | Wood Deck w/Steel Stringers & 1 Solid Concrete Bent | 1960 | 57 | 27 | Good | 70.86 | | 3 | Critical | 31 | LRFD | 51 | LRFD | Y | 0000 |
| 294 | Lehto | NE Lehto Road | Concrete Sonovoid Beams | 1972 | 45 | 29 | Fair | 55.62 | FO | 3 | Critical | 50 | LRFD | 83 | LRFD | Y | 0000 |
| 299 | Landon | CC Landon Road | Concrete Slab & Stringer | 1955 | 62 | 48 | Fair | 62.45 | | 4 | | 21 | LRFD | 34 | LRFD | Y | 0000 |
| 307 | Little Washougal | SE Blair Road | Concrete Slab & Beam | 1959 | 58 | 13 | Fair | 50.98 | | 5 | | 20 | LRFD | 34 | LRFD | Y | 0000 |
| 308 | Bonneville | NE 222nd Avenue | Concrete Slab & Stringer | 1955 | 62 | 20 | Good | 77.47 | | 3 | Critical | 30 | LRFD | 50 | LRFD | N | 0000 |
| 326 | NE 2nd Avenue | NE Second Avenue | Concrete Slab | 1985 | 32 | 17 | Good | 88.6 | | 5 | | 33 | LRFD | 65 | LRFD | Y | 0000 |
| 327 | Alki Rd | Alki Rd | Concrete Slab | 1985 | 32 | 17 | Good | 79.99 | | 4 | | 33 | LRFD | 65 | LRFD | Y | 0000 |
| 330 | Padden | Padden Parkway | Prestressed Concrete Bulb-T Girders w/Concrete Deck & Abutment | 1999 | 18 | 18 | Good | 98.19 | | N | | 41 | LF | 69 | LF | Y | 0000 |
| 331 | Salmon Creek | Salmon Creek | Concrete Luten Arch | 1923 | 94 | 28 | Good | 75.98 | SD | 3 | Critical | 72 | Other | 99 | Other | Y | 0000 |
| 332 | Woodin Creek Bridge | Weaver Creek Rd | Concrete Box Culvert | 1900 | 117 | 28 | Fair | 61.2 | | 3 | Critical | 19 | Unknown | 36 | Unknown | N | 0000 |
| 337 | LaLonde Creek Culvert | Salmon Creek Avenue @ LaLonde Creek | Concrete Culvert | 2003 | 14 | 26 | Good | 84.44 | | 8 | | 24 | LF | 40 | LF | N | 0000 |
| 338 | Salmon Creek Culvert | NE 119th Street | Concrete Culvert | 2002 | 15 | 26 | Good | 81.51 | | 8 | | 22 | LF | 44 | LF | N | 0000 |
| 339 | Padden West Culverts | W. of Andreson | 2 HDPE & 2 Metal | 2003 | 14 | 18 | Good | 81.69 | | 8 | | 99 | LRFD | 99 | LRFD | Y | 0000 |
| 340 | John Creek Culvert | NE Cedar Creek Road | Metal Culvert | 1999 | 18 | 55 | Good | 80 | | 5 | | 99 | LRFD | 99 | LRFD | N | 0000 |
| 341 | Amboy/Cedar Creek Culvert | Amboy Road | Culvert | 1999 | 18 | 48 | Fair | 63.00 | | 4 | | 20 | LRFD | 33 | LRFD | Y | 0000 |
| 342 | Rockwell Creek | NE 23rd Avenue | Prestressed Concrete Girder | 2004 | 13 | 26 | Good | 99.36 | | 9 | | 45 | LF | 97 | LF | Y | 0000 |
| 343 | Curtain Creek Culvert | NE 119th Street | Metal arched culvert | 2015 | 2 | 27 | Good | 97.42 | | 8 | | | | | | Y | 0000 |
| 344 | Carty Road Culvert | Carty Road | Metal arched culvert | 2016 | 1 | 34 | Good | 99.43 | | 8 | | | | | | Y | 0000 |
| 1406 | Little Washougal River | Little Washougal River | Concrete Stringer | 1949 | 68 | 13 | Fair | 66.53 | FO | 5 | | 23 | LRFD | 38 | LRFD | Y | 0000 |
| 1409 | Cougar Creek | Washougal River Road | Voided concrete slab | 2012 | 5 | 14 | Good | 94.09 | | 8 | | 69 | LRFD | 91 | LRFD | Y | 0000 |
| CC Pedestrian Bridges | | | | | | | | | | | | | | | | | |
| 320P | 149th Walkway Ped Bridge | NE 149th St | Concrete Deck with Glu-Lam Girder | 2005 | 12 | 25 | | | | 8 | | 0 | | 0 | | N | 0000 |
| 205/30P | Padden Parkway Ped Bridge | I-205 Overcrossing | Prestressed Concrete Girders/Deck | 2003 | 14 | 18 | | 0 | | N | | 0 | Not Rated | 0 | Not Rated | N | 0000 |

Table A- Bridge Inventory

| CC Pedestrian Bridges | | | | | | | | | | | | | | | | | | | |
|-----------------------|---------------------------------|---|--|------|-----|----|------|-------|----|---|---|----------|----|------------------|----|-----------|---|---|------|
| 344P | Pleasant Valley Ped Bridge | Salmon Creek Avenue | Prelabricated weathering steel | 2014 | 3 | 26 | | | | | 8 | | | | | | | | |
| City of Vancouver | | | | | | | | | | | | | | | | | | | |
| 5 | Minnehaha | NE Minnehaha Street | Concrete Slab w/Concrete Pile Bents | 1972 | 45 | 17 | Good | 88.93 | | N | | | 29 | LRFD | 48 | LRFD | | Y | 1350 |
| 38 | 39th street RR Overcrossing | NW 39th Street | Concrete Deck w/Prestressed Concrete Girders | 2010 | 7 | 16 | Good | 99.86 | | N | | | 73 | LRFD | 99 | LRFD | | Y | 1350 |
| 162 | Burton Road | NE Burton Road | Concrete Slab | 2005 | 12 | 9 | Good | 96.29 | | 8 | | | 84 | LRFD | 99 | LRFD | | Y | 1350 |
| 328 | Corporate Woods Bridge | NE 110th Avenue | Concrete Slab w/Pre-cast Concrete Channel Beams | 1989 | 28 | 18 | Good | 98.57 | | 5 | | | 33 | LRFD | 70 | LRFD | | Y | 1350 |
| 329 | NE 15th Avenue Bridge | NE 15th Avenue | Concrete Stayed Girder??? | 1984 | 33 | 17 | Good | 94.72 | | 8 | | | 45 | LRFD | 75 | LRFD | | Y | 1350 |
| 1350 | Burnt Bridge Creek Culvert | NE Devine Road | Aluminum Culvert | 1978 | 39 | 9 | Good | 76.86 | | 6 | | | 40 | LRFD | 40 | LRFD | | N | 1350 |
| 1351 | Port of Vancouver | NW 26th Avenue | Concrete Deck/Abutment & Pier Cap | 2000 | 17 | 7 | Good | 92.48 | | N | | | 59 | | 99 | | | Y | 1350 |
| 1352 | Burnt Bridge Creek | NE 86th Avenue | Prestressed Concrete Bulb-T w/Concrete Deck & Abutments | 2001 | 16 | 9 | Good | 97.12 | | 8 | | | 47 | LRFD | 81 | LRFD | | Y | 1350 |
| 4236 | Evergreen Blvd Overpass | NE Blandford Drive | Concrete Slab & Steel Girder | 1969 | 48 | 8 | Good | 78.49 | | N | | | 48 | LRFD | 80 | LRFD | | Y | 1350 |
| 4891 | Fruit Valley Rd Overpass | Fruit Valley Road | Concrete Slab | 1948 | 69 | 16 | Fair | 54.71 | FO | N | | | 21 | LRFD | 35 | LRFD | | Y | 1350 |
| 501/8E | BNRR OC | Fourth Plain Blvd | Concrete Deck w/Welded Steel Girders | 1962 | 55 | 7 | Good | 72.11 | FO | N | | | 30 | LF | 50 | LF | | Y | 1350 |
| 501/8W | BNRR OC | Fourth Plain Blvd | Concrete Deck w/Prestressed Concrete Girders | 1986 | 31 | 7 | Good | 82.28 | | N | | | 49 | LF | 82 | LF | | Y | 1350 |
| 501/10C | Vancouver Lake Flushing Channel | SR501 | Submerged Culvert | 1990 | 27 | 15 | Good | 86.14 | | 8 | | | 99 | | 99 | | | Y | 1350 |
| Railroad Bridges | | | | | | | | | | | | | | | | | | | |
| 20141 | CCRR Undercrossing - Old Hwy 99 | NE Hwy 99 | Steel Truss - Railroad | | | 17 | | | | | | | | Other | | Other | | H | #N/A |
| 99906-01 | BNRR Columbia River O-xing | W. 8th - Columbia River Crossing | Steel Truss - Railroad | 1908 | 109 | 7 | | | | | | | | Other | | Other | | | Y |
| 99906-02 | BNRR at Boise Cascade O-xing | Boise Cascade Paper (W 5th, Grant & W. 6th) | Railroad | 2013 | 4 | 8 | | | | | | | | | | | | | N |
| 99906-03 | Inn at the Quay - O-xing | Columbia Street | Railroad | 1983 | 34 | 8 | | | | | | | | Other | | Other | | | N |
| 99906-04 | BNRR-Columbia Shores O-xing | Columbia Shores Blvd | Railroad | 1942 | 75 | 8 | | | | | | | | Other | | Other | | | Y |
| 99906-05 | BNRR Marine Park Wy O-xing | Marine Park Way | Railroad | 1908 | 109 | 8 | | | | | | | | Other | | Other | | H | N |
| City of Washougal | | | | | | | | | | | | | | | | | | | |
| WASHOU-1 | Orchard View | 0.2 M south of J St | 3-sided concrete box Prestressed Concrete | 2008 | 9 | 4 | Good | 97.94 | | 8 | | | 41 | LF | 61 | LF | | Y | 1385 |
| 1402 | BNSF RR U-xing | Washougal River Road | Stringer | 1965 | 52 | 4 | Good | 75.4 | FO | N | | | 41 | LRFD | 68 | LRFD | | Y | 1385 |
| 1404 | Washougal River Bridge | Washougal River Road | Prestressed Concrete | 1993 | 24 | 4 | Good | 90.07 | | 5 | | | 22 | LRFD | 76 | LRFD | | Y | 1385 |
| City of Camas | | | | | | | | | | | | | | | | | | | |
| Camas-010 | Washougal River Bridge | NE 3rd Avenue | Stringer/Multi-beam | 1969 | 48 | 3 | Fair | 58.54 | FO | 3 | | Critical | 46 | Other | 37 | Other | | Y | 0145 |
| Camas-020 | Division Street Bridge | Division Street | Concrete T Beams | 1960 | 57 | 3 | Fair | 59.02 | FO | 8 | | | 17 | LF | 29 | LF | | Y | 0145 |
| Camas-030 | Dallas Street | Crown Z Mill Water Ditch | Concrete Multi-beam | 1919 | 98 | 3 | Fair | 44.57 | FO | 8 | | | 17 | LF | 28 | LF | W | Y | 0145 |
| Camas-040 | Camas Meadows | Camas Meadows Drive | Pre-cast Concrete Arch | 2000 | 17 | 11 | Good | 98.92 | | 8 | | | 99 | Not Rated | 99 | Not Rated | | Y | 0145 |
| Camas-050 | Woodburn Drive | Woodburn Drive | Steel arch Culvert | 2013 | 4 | 13 | Good | 93.13 | | 8 | | | 99 | | | | | Y | 0145 |
| Camas-060 | Lacamas | NE Goodwin Road | Concrete Slab & Stringer | 1953 | 64 | 11 | Fair | 59.1 | FO | 3 | | Critical | 33 | LRFD | 55 | LRFD | | Y | 0000 |
| City of Ridgefield | | | | | | | | | | | | | | | | | | | |
| Ridgefd-1 | Gee Creek - Abrams Park | Division Street | Glu-Lam Stringer/Multi-beam | 1975 | 42 | 34 | Fair | 63.98 | FO | 4 | | | 50 | Load Factor (LF) | 71 | LF | | Y | 1085 |
| Ridgefd-2 | Heron Ridge | Heron Drive | Concrete Deck Bulb | 2003 | 14 | 34 | Good | 94.07 | FO | 5 | | | 36 | Admin | 36 | Admin | | Y | 1085 |
| City of Battle Ground | | | | | | | | | | | | | | | | | | | |
| 336 | Woodin Creek Culvert | Eaton Blvd (199th St) | Concrete Box Culvert 12' X 3' | 2003 | 14 | 28 | Good | 96.5 | | 5 | | | 99 | LRFD | 99 | LRFD | | Y | 0060 |
| 205 | None | NE 142nd Avenue | Concrete Slab & Stringer | 1958 | 59 | 28 | Good | 76.13 | FO | 5 | | | 39 | LRFD | 62 | LRFD | | Y | 0000 |
| City of La Center | | | | | | | | | | | | | | | | | | | |
| 21 | LaCenter | NE LaCenter Road | Continuous w/Prestressed W83G Girders & Cast-in-place Deck | 2001 | 16 | 44 | Good | 82.37 | | 8 | | | 84 | LRFD | 99 | LRFD | | Y | 0080 |

Table B - Bridge Condition State 2017

| Agency | Total Bridges in Program | Bridge Condition | | | Structurally Deficient | Functionally Obsolete | Scour Critical | Fracture Critical |
|--------------------------------|--------------------------|------------------|-----------|----------|------------------------|-----------------------|----------------|-------------------|
| | | Good | Fair | Poor | | | | |
| <i>Clark County</i> | 75 | 55 | 19 | 1 | 2 | 12 | 13 | 0 |
| <i>City of Vancouver</i> | 13 | 12 | 1 | 0 | 0 | 2 | 0 | 1 |
| <i>City of Washougal</i> | 3 | 3 | 0 | 0 | 0 | 1 | 1 | 0 |
| <i>City of Camas</i> | 6 | 2 | 4 | 0 | 0 | 4 | 2 | 0 |
| <i>City of Ridgefield</i> | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| <i>City of Battle Ground</i> | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| <i>City of La Center</i> | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| <i>Railroad (BNSF-5, CC-1)</i> | 6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| <i>Pedestrian Bridges (CC)</i> | 3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Totals | 111 | 76 | 25 | 1 | 2 | 21 | 16 | 1 |

- > Good - Sufficiency Rating from 66.7 to 99.9
- > Fair - Sufficiency Rating from 33.3 to 66.6
- > Poor - Sufficiency Rating from 0 to 33.2
- > Structurally Deficient - Impacted ability to carry intended traffic loads.
- > Functionally Obsolete - Narrow structure and geometry are not based on current standards.
- > Scour Critical - Foundations considered unstable or shallow or stream is undermining stability of structure. Requires more extensive monitoring and inspection during and after flood events.
- > Fracture Critical - Defined as a structure with 2 load paths with steel members in tension, could cause immediate catastrophic failure if members fail. Requires more extensive inspection and testing.

Table C - Repairs

| Clark County | | | | | |
|--------------|------------|--------------------|-----------|---------|--|
| Structure ID | Bridge No. | Bridge Name | Agency ID | City ID | Repair Description |
| 08771700 | 1 | Klineline | 02 | 0000 | West Overlook rail missing a nut |
| 08771700 | 1 | Klineline | 02 | 0000 | Sidewalk approach NE corner vehicle damage |
| 08272200 | 2 | FELIDA | 02 | 0000 | Trip hazard at settled walkway all for corners |
| 08272200 | 2 | FELIDA | 02 | 0000 | Compression Seal -north end of bridge -concrete surrounding seal severely cracked, broken. |
| 08202500 | 6 | GIBBONS CREEK | 02 | 0000 | Pot hole SE end of bridge |
| 08082200 | 11 | WHIPPLE CREEK | 02 | 0000 | The joints are separating with voids up to 1 1/2" wide by 1 1/2" deep and need to be resealed. |
| 08082200 | 11 | WHIPPLE CREEK | 02 | 0000 | NW corner traffic delineator is loose and needs reattachment. |
| 08082200 | 11 | WHIPPLE CREEK | 02 | 0000 | Minor crack opening at west deck joint. |
| 08064500 | 12 | KNAPPS STATION | 02 | 0000 | Classic scour hole developing @ center pier around concrete hex piles 1 - 4, estimated 6 to 7 feet deep but too deep and too far out to measure with equipment on hand. See what we can protect the pier with. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Monitor erosion at the base of Pier 3. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Replace missing bolts in the NW and SW guardrail transitions. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Tighten loose fasteners on the NE section of guardrail. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Clean moss off the girder fascia as necessary. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Seal AC pavement cracks as necessary. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Paint over graffiti on parapets and pier walls. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Remove transient encampment and clean up garbage under bridge. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | reset cap block on SW wall |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | remove leaves slip/fall hazard for pedestrians |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Replace bold cap cover on bridge rail - see note 684 |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | Reseal AC overlay at pier caps. |
| 08627800 | 13 | BURNT BRIDGE CREST | 02 | 0000 | North approach joint needs to be resealed. |
| 08404200 | 30 | FLATWOOD | 02 | 0000 | Replace riprap at NW abutment. |

Table C - Repairs

| | | | | | |
|----------|----|-----------------------|----|------|--|
| 08404200 | 30 | FLATWOOD | 02 | 0000 | Brush slight obstruction on the up stream side should be cleaned out, adjacent wall slight under mining |
| 08323300 | 32 | KNOWLES | 02 | 0000 | West footing needs to be monitored. Current hits west footing approx. 10 ft. from south end and is starting to dig out the stream bed. (Not yet to the bottom of the footing). |
| 08323300 | 32 | KNOWLES | 02 | 0000 | Bridge has no approach rails on any end. Can we install? |
| 08251100 | 33 | PLEASANT VALLEY | 02 | 0000 | Old abutment needs stabilization or removal. Imminent danger of falling against South pier supports (Bent #2) . |
| 08251100 | 33 | PLEASANT VALLEY | 02 | 0000 | Repair damaged guardrail at southeast quadrant of bridge. |
| 08251100 | 33 | PLEASANT VALLEY | 02 | 0000 | Repaint areas of grafitti on the girders in Span 3 and Abutment 4. |
| 08251100 | 33 | PLEASANT VALLEY | 02 | 0000 | Monitor erosion at Abutment 4. |
| 08251100 | 33 | PLEASANT VALLEY | 02 | 0000 | Repair Drain SE corner that is eroding the bank under the concrete debis |
| 08251100 | 33 | PLEASANT VALLEY | 02 | 0000 | Remove loose gravel from sidewalk triping hazard |
| 08611700 | 36 | WILSON | 02 | 0000 | Joint at south end of bridge deck needs resealing |
| 08611700 | 36 | WILSON | 02 | 0000 | Clean growth on girders near weep holes. |
| 08611700 | 36 | WILSON | 02 | 0000 | Cracks in ACP at each end o bridge need patched. (done by 4/4/05 inspection) |
| 08611700 | 36 | WILSON | 02 | 0000 | Approximately 3' length of south abutment (east side) being undermined by erosion. Cavity is 4" in height and extends 4 to 5" under abutment (see photos) |
| 08268600 | 39 | GLENWOOD | 02 | 0000 | Edge of ACP needs filled with rock at approach rails. |
| 08275800 | 54 | HUBER | 02 | 0000 | Guard Rail on North side needs to be nested |
| 08322100 | 56 | PIONEER | 02 | 0000 | Stabilize slope at SE, SW and NW corners of bridge with rip rap |
| 08322100 | 56 | PIONEER | 02 | 0000 | Monitor NW retainingl as the wall in leaning toward creek |
| 08322100 | 56 | PIONEER | 02 | 0000 | Address erosion at the ends of the bridges at roadway intersection at three corners |
| 08310900 | 59 | BRATTON (CATTLE PASS) | 02 | 0000 | Remove and replace NE guard rail post |

Table C - Repairs

| | | | | | |
|----------|------|-----------------------|----|------|--|
| 08310900 | 59 | BRATTON (CATTLE PASS) | 02 | 0000 | Retaining wall crack repair |
| 08042500 | 63 | CARSON | 02 | 0000 | Remove vegetation in upstream channel. |
| 08144800 | 65 | CEDAR CREEK | 02 | 0000 | Replace Bridge this year |
| 08611600 | 69 | GRIST MILL | 02 | 0000 | Slot drains on both approaches need to be cleaned |
| 08611600 | 69 | GRIST MILL | 02 | 0000 | Bridge overhead clearance changed from 16'-1" to 15'-7". Clearance measured at SW corner of portal. Previous clearance appears to have been taken at centerline of portal. |
| 08611600 | 69 | GRIST MILL | 02 | 0000 | Replace the missing sections of timber cladding at deck level. |
| 08611600 | 69 | GRIST MILL | 02 | 0000 | Clean the graffiti damage from the South Abutment Backwall. |
| 08611600 | 69 | GRIST MILL | 02 | 0000 | Expansion joints and bridge drains at each end of bridge need to be cleaned out. |
| 08227700 | 75 | DAYTON | 02 | 0000 | Girders need to be painted |
| 08130000 | 94 | BLAKER | 02 | 0000 | Reseal the joints at each approach. |
| 08130000 | 94 | BLAKER | 02 | 0000 | Repair the spalls in the east overhang. |
| 08130000 | 94 | BLAKER | 02 | 0000 | Clean moss and vegetation from abutments. |
| 08130000 | 94 | BLAKER | 02 | 0000 | Remove vegetation in upstream channel. |
| 07992900 | 96 | ROCK CREEK | 02 | 0000 | Monitor settlement at the east approach and seal the cracking in the asphalt. |
| 07992900 | 96 | ROCK CREEK | 02 | 0000 | necessary. |
| 08649000 | 100 | HEISSON | 02 | 0000 | Fall protection fence on south side under bridge should be removed. |
| 08649000 | 100 | HEISSON | 02 | 0000 | Recomend UBIT to look at spalling occuring on arch near girder. |
| 08649000 | 100 | HEISSON | 02 | 0000 | South end, west side @ expansion joint. 3' long area of joint seat is broken & has dropped down about 2". Recommend checking utility sleeve, under bridge, for erosion. |
| 08078700 | 1022 | KEPFER | 02 | 0000 | Monitor the wingwall/abutment settlement at the SW corner. |

Table C - Repairs

| | | | | | |
|----------|-----|----------------|----|------|--|
| 08238600 | 107 | JA MOORE | 02 | 0000 | Debris both rock and large woody material under the bridge needs removal for water way clearance |
| 08158000 | 108 | HEITMAN | 02 | 0000 | Seal the cracks in the AC at Abutment 1. |
| 08158000 | 108 | HEITMAN | 02 | 0000 | Repair the spall in the east curb. |
| 08158000 | 108 | HEITMAN | 02 | 0000 | Patch the cracks in the abutment. |
| 08158000 | 108 | HEITMAN | 02 | 0000 | Chip out, sleeve and repack concrete at utility through the southwest and northwest wingwalls. |
| 08097600 | 116 | LUCIA FALLS | 02 | 0000 | SW guard Rail is low at 24" vs new standard of 26" |
| 08097600 | 116 | LUCIA FALLS | 02 | 0000 | On SW Approach the 3rd post has a missing bolt, the guard rail is not tied to the post at this location |
| 08097600 | 116 | LUCIA FALLS | 02 | 0000 | Recommend a 12 month routine inspection frequency and a 24 month UBIT inspection frequency. Routine frequency may be changed to 24 months after girder is repaired. |
| 08097600 | 116 | LUCIA FALLS | 02 | 0000 | Repair Girder 1B by removing all loose concrete and scale, painting exposed strands with an epoxy paint, and patching spalled areas with grout. |
| 08097600 | 116 | LUCIA FALLS | 02 | 0000 | 60, 64 & 67, WB75-46 & 49, and WB78-38. Please verify our findings. If changes are incorrect, please see the cover letter for instructions regarding updating this inf |
| 08162600 | 120 | BIG TREE CREEK | 02 | 0000 | Monitor the riprap at the Southwest corner ckwall and pedestrian bridge abutment. |
| 08162600 | 120 | BIG TREE CREEK | 02 | 0000 | Repair the rock stabilization at the Northwest and Northeast corners. |
| 08185300 | 127 | ARCH MCKEE | 02 | 0000 | Concrete base for delineator at southeast corner is 25% undermined. |
| 08185300 | 127 | ARCH MCKEE | 02 | 0000 | Delineator post on NW corner is broken. Requires repair. |
| 08185300 | 127 | ARCH MCKEE | 02 | 0000 | Steel utility conduit on west side of bridge has pulled loose from brackets. |
| 08185300 | 127 | ARCH MCKEE | 02 | 0000 | Concrete base for delineator at southeast corner is 25% undermined. |
| 08185300 | 127 | ARCH MCKEE | 02 | 0000 | Steel utility conduit on west side of bridge has pulled loose from brackets. |
| 08185300 | 127 | ARCH MCKEE | 02 | 0000 | Bridge drains need to be cleaned. |
| 08588800 | 167 | VANCAMP | 02 | 0000 | Erosion bypassing paved channel SW corner |

Table C - Repairs

| | | | | | |
|----------|-----|-----------------|----|------|---|
| 08095200 | 168 | MATNEY | 02 | 0000 | Add material at rock/block wingwalls that are undermined |
| 08087400 | 169 | MATNEY SOUTH | 02 | 0000 | M&O to place rip rap at NW corner |
| 08087400 | 169 | MATNEY SOUTH | 02 | 0000 | M&O Remove Debris from South Abutment |
| 08087400 | 169 | MATNEY SOUTH | 02 | 0000 | Broken conduit |
| 08644100 | 196 | WASHOUGAL RIVER | 02 | 0000 | Paint over the graffiti on the South Abutment. |
| 08644100 | 196 | WASHOUGAL RIVER | 02 | 0000 | Remove bird nest grider A mid span |
| 08644100 | 196 | WASHOUGAL RIVER | 02 | 0000 | Seal ac joint at SW corner of deck |
| 08644100 | 196 | WASHOUGAL RIVER | 02 | 0000 | Retrieve and place P marker on SE corner, Marker is over the bridge side near the concrete steps. |
| 08095600 | 203 | BOULDER CREEK | 02 | 0000 | NW Guardrail Terminal - Has been hit and a bolt is broken, as well as a steel member is bent. |
| 08095600 | 203 | BOULDER CREEK | 02 | 0000 | away. Other bolts may be compromised. Check all bolts on east side of bridge for damage. Thrie beam damage. |
| 08171200 | 205 | NONE | 02 | 0000 | Clean dirt and moss off the girders, pier and abutments. Repaint as necessary. |
| 08171200 | 205 | NONE | 02 | 0000 | Patch cracks in the abutments and Girder E at Pier 2. Patch spall in Girder E at Pier 2. |
| 08171200 | 205 | NONE | 02 | 0000 | Seal cracks in the AC wearing surface. Monitor settlement at NW approach. |
| 08142300 | 121 | NONE | 02 | 0000 | Inspector noted debris collecting by rocks at NW abutment |
| 08241100 | 213 | MORGAN | 02 | 0000 | hitting bridge) that will come down in roadway. 10" cedar. Check to see if it is removed. |
| 08016100 | 216 | JOHN OTT | 02 | 0000 | Damage to bridge guardrail |
| 08016100 | 216 | JOHN OTT | 02 | 0000 | several pieces of woody debris built up across the river on span 1, picture |
| 08015000 | 217 | VENERSBORG | 02 | 0000 | Repair/replace the joint |
| 08015000 | 217 | VENERSBORG | 02 | 0000 | approach guardrail needs to be raised |

Table C - Repairs

| | | | | | |
|----------|-----|-------------|----|------|--|
| 08015000 | 217 | VENERSBORG | 02 | 0000 | Remove excess material which is causing a bump at the joints. |
| 08015000 | 217 | VENERSBORG | 02 | 0000 | Remove debris buildup on the north girder, outboard side. |
| 08814600 | 229 | 172 nd Ave | 02 | 0000 | Repair end diaphragm stops include provision for movement (need structural investigation first) |
| 08814600 | 229 | 172 nd Ave | 02 | 0000 | Structural review recommended. |
| 08814500 | 231 | China Ditch | 02 | 0000 | Spalled barrier concrete at SW corner of bridge at the barrier/guardrail connection |
| 08814500 | 231 | China Ditch | 02 | 0000 | Finish the accident repair, cover the conduits, replace the type three and remove the very tall 4x4, grout curb in place or replace. |
| 08433600 | 232 | DAVIS | 02 | 0000 | Channel protection at downstream west end is undercut. Repair as necessary |
| 08433600 | 232 | DAVIS | 02 | 0000 | D/S west footing beginning to be undercut. Needs channel protection |
| 08433600 | 232 | DAVIS | 02 | 0000 | North side curb has a void where the guardrail bolt enters the curb. This may effect the function of the rail system. |
| 08243300 | 242 | LEWIS RIVER | 02 | 0000 | Seal approach joint at Abutment 2. |
| 08243300 | 242 | LEWIS RIVER | 02 | 0000 | Repair utility conduit bracket at SW wingwall. |
| 08243300 | 242 | LEWIS RIVER | 02 | 0000 | Patch spalls on girder bottom flanges as necessary. |
| 08243300 | 242 | LEWIS RIVER | 02 | 0000 | Clean moss from girders and wingwalls. |
| 08243300 | 242 | LEWIS RIVER | 02 | 0000 | Paint over graffiti at Abutment 1. |
| 08032800 | 244 | ROCK CREEK | 02 | 0000 | Reseal the joints at both abutments. |
| 08032800 | 244 | ROCK CREEK | 02 | 0000 | Divert/clean ditch NE end eroding wingwall/abut |
| 08032800 | 244 | ROCK CREEK | 02 | 0000 | Reinforce the Abutment 3 footing due to scouring. |
| 08335700 | 252 | BLAIR ZEEK | 02 | 0000 | S guard rail too low needs to be raised |
| 08335700 | 252 | BLAIR ZEEK | 02 | 0000 | South approach has settle between 1 and 2 " smooth out with AC patch |

Table C - Repairs

| | | | | | |
|----------|-----|------------------|----|------|---|
| 08335700 | 252 | BLAIR ZEEK | 02 | 0000 | Clean out drains |
| 08335700 | 252 | BLAIR ZEEK | 02 | 0000 | Settlement due to scour needs repair on both ends of the bridge |
| 08335700 | 252 | BLAIR ZEEK | 02 | 0000 | Clear debris from south columns. |
| 08393900 | 266 | ALLWORTH | 02 | 0000 | Clear debris on upstream side of bridge. |
| 08276000 | 273 | DAY BREAK | 02 | 0000 | North Approach has slight settlement east lane patch with AC for smooth transition |
| 08010700 | 274 | SHANGHAI CREEK | 02 | 0000 | Remove tree from stream on downstream side of bridge. |
| 08186600 | 275 | VAN ATTA | 02 | 0000 | Clean and repaint all steel components, rail posts, and wood curbs. |
| 08186600 | 275 | VAN ATTA | 02 | 0000 | Remove debris on the upstream side of Pier 2. Remove falling tree on northwest bank. |
| 08186600 | 275 | VAN ATTA | 02 | 0000 | Repair the spall in the AC in Span 1, right wheel line. |
| 08186600 | 275 | VAN ATTA | 02 | 0000 | Culvert upstream and to the south is half plugged, needs cleared (see previous inspection reports). |
| 08186600 | 275 | VAN ATTA | 02 | 0000 | Replace split Guard rail post (see previous inspection reports). |
| 08186600 | 275 | VAN ATTA | 02 | 0000 | Clean and repaint Girder E paint failing (see previous inspection reports). |
| 08025800 | 294 | LEHTO | 02 | 0000 | pot holes in deck overlay |
| 08121100 | 299 | LANDON | 02 | 0000 | Remove vegetation in upstream channel. |
| 08121100 | 299 | LANDON | 02 | 0000 | Repair scour at West Abutment. |
| 08438900 | 307 | LITTLE WASHOUGAL | 02 | 0000 | Remove bird nests |
| 08438900 | 307 | LITTLE WASHOUGAL | 02 | 0000 | Remove Tar Paper from under bridge soffits so that deck can be seen for inspection. |
| 08182900 | 326 | N.E. 2ND AVENUE | 02 | 0000 | Repair the settlement and cracking at the southeast corner. |
| 08182900 | 326 | N.E. 2ND AVENUE | 02 | 0000 | Repair the heaving at the south end. |

Table C - Repairs

| | | | | | |
|----------|------|----------------------|----|------|--|
| 08182900 | 326 | N.E. 2ND AVENUE | 02 | 0000 | Repair the erosion at Abutment 2. |
| 08182900 | 326 | N.E. 2ND AVENUE | 02 | 0000 | Remove moss from the deck fascia and the roadway shoulder. |
| 08184300 | 327 | ALKI ROAD | 02 | 0000 | Remove moss from the deck fascia and the roadway shoulder |
| 08184300 | 327 | ALKI ROAD | 02 | 0000 | Repair the southwest rail terminal. |
| 08184300 | 327 | ALKI ROAD | 02 | 0000 | Remove or cutback the tree at the southwest corner. |
| 08184300 | 327 | ALKI ROAD | 02 | 0000 | Repair the 2' long crack in the south approach roadway. |
| 08184300 | 327 | ALKI ROAD | 02 | 0000 | Add additional riprap as necessary. |
| 08644000 | 330 | PADDEN | 02 | 0000 | Trip issue on side walk both sides, sidewalk settlement off structure. dirt in AC transition or rack sidewalk back to grade |
| 000000HE | 331 | SALMON CR | 02 | 0000 | Damaged guardrail |
| 000000HE | 331 | SALMON CR | 02 | 0000 | Rock pocket repair on both abutments near top of footing |
| 000000CL | 332 | WOODIN CREEK BRIDGE | 02 | 0000 | Clear rock from the downstream shallow area to eliminate ponding and scour. |
| 08709000 | 339 | PADDEN WEST CULVERTS | 02 | 0000 | Remove trees and vegetation or the ends will become in accessible and perhaps start clogging the culverts |
| 08709100 | 340 | JOHN CREEK CULVERT | 02 | 0000 | adjsut guard rail |
| 08771800 | 342 | ROCKWELL CREEK | 02 | 0000 | tighten the transverse supports throughout the bridge. Repair the utility conduit in the north abutment between Girders A and B. |
| 08771800 | 342 | ROCKWELL CREEK | 02 | 0000 | Monitor the settlement in the approach roadway at each approach slab. |
| 08771800 | 342 | ROCKWELL CREEK | 02 | 0000 | encampment on north abutment, repair chain link fencing and fill in gravel that was excavated for access. |
| 0003606A | 1406 | LITTLE WASHOUGAL R | 02 | 0000 | Trash and brush dumped under NE side of bridge. |
| 0003606A | 1406 | LITTLE WASHOUGAL R | 02 | 0000 | protection for the remainig structure on a 12-16' vertical hazard. If still in county ROW maintenance should install fencing. |
| 0003606A | 1406 | LITTLE WASHOUGAL R | 02 | 0000 | Repair potholes and spalling of asphalt at south approach joint. |

Table C - Repairs

| <i>City of Battle Ground</i> | | | | | |
|------------------------------|-------------------|------------------------|------------------|----------------|--|
| <i>Structure_ID</i> | <i>Bridge_No.</i> | <i>Bridge_Name</i> | <i>Agency_ID</i> | <i>City_ID</i> | <i>Repair_Description</i> |
| 08708700 | 336 | WOODIN CREEK CULVERT | 04 | 0060 | 8" diameter log across N. end of culvert needs to be removed. This tree is still across the mouth of the culvert and should be removed. |
| 08708700 | 336 | WOODIN CREEK CULVERT | 04 | 0060 | Remove the vegetation and debris in the upstream channel. |
| <i>City of Camas</i> | | | | | |
| <i>Structure_ID</i> | <i>Bridge_No.</i> | <i>Bridge_Name</i> | <i>Agency_ID</i> | <i>City_ID</i> | <i>Repair_Description</i> |
| 08507100 | CAMAS-010 | WASHOUGAL RIVER BRIDGE | 04 | 0145 | Add downspouts to drains on north side of bridge to prevent runoff from falling onto north stringer top flange. |
| 08507100 | CAMAS-010 | WASHOUGAL RIVER BRIDGE | 04 | 0145 | exposing angle iron. several nut have rattled off causing noise and excess movement. Notified |
| 08507100 | CAMAS-010 | WASHOUGAL RIVER BRIDGE | 04 | 0145 | WB 75-51 and WB 75-54 are coded "O" which is not a valid code. Also note that both the inventory and operating ratings are the same, indicating that one is incorrect. |
| 08507100 | CAMAS-010 | WASHOUGAL RIVER BRIDGE | 04 | 0145 | Scour calculations should be completed as soon as possible. |
| 08507100 | CAMAS-010 | WASHOUGAL RIVER BRIDGE | 04 | 0145 | Guardrail terminal on northeast is damaged; needs replacement |
| 08706000 | CAMAS-030 | DALLAS STREET | 04 | 0145 | Repiar sidewalk support struts. |
| 08706100 | CAMAS-040 | CAMAS MEADOWS | 04 | 0145 | Clean and patch Ws arch spall at rebar |
| 08706100 | CAMAS-040 | CAMAS MEADOWS | 04 | 0145 | low guard rail and curb alignment |
| 08706100 | CAMAS-040 | CAMAS MEADOWS | 04 | 0145 | Terminal at NW corner needs repair/replace. |
| 08269900 | CAMAS-060 | LACAMAS | 04 | 0145 | Clean Deck and open drains |
| 08269900 | CAMAS-060 | LACAMAS | 04 | 0145 | Repair/replace joints |
| 08269900 | CAMAS-060 | LACAMAS | 04 | 0145 | pot hole on west bound at jint |
| 08269900 | CAMAS-060 | LACAMAS | 04 | 0145 | River guage rusted through and will likely fall over unless fixed |
| 08269900 | CAMAS-060 | LACAMAS | 04 | 0145 | Grind a taper at bridge ends for smooth transitions onto and off of bridge. |

Table C - Repairs

| <i>City of La Center</i> | | | | | |
|---------------------------|-------------------|------------------------|------------------|----------------|---|
| <i>Structure_ID</i> | <i>Bridge_No.</i> | <i>Bridge_Name</i> | <i>Agency_ID</i> | <i>City_ID</i> | <i>Repair_Description</i> |
| 08684200 | 21 | LA CENTER | 04 | 0640 | Chip out and patch back spall on coping |
| <i>City of Ridgefield</i> | | | | | |
| <i>Structure_ID</i> | <i>Bridge_No.</i> | <i>Bridge_Name</i> | <i>Agency_ID</i> | <i>City_ID</i> | <i>Repair_Description</i> |
| 08531500 | RIDGEFD-1 | GEE CREEK-ABRAMS PARK | 04 | 1085 | Channel has large accumulation of storm debris upstream of bridge which is directing stream flow against the east bank. |
| <i>City of Vancouver</i> | | | | | |
| <i>Structure_ID</i> | <i>Bridge_No.</i> | <i>Bridge_Name</i> | <i>Agency_ID</i> | <i>City_ID</i> | <i>Repair_Description</i> |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | East approach in eastbound lanes near joint - needs repair. |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Concrete Barrier southeast quad concrete crumbling aluminum rail ok |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Homeless camps becoming extensive and unsanitary, unsafe to inspect alone. |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Object marker at SW corner of bridge is down and needs to be reinstalled. |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Heavy graffiti and tagging throughout, including "NO TRESSPASSING" signs. |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Erosion under SE corner of bridge, apparently from drain pipe. Cannot find original exit of buried part of pipe due to dense blackberry growth. |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Vehicle damage to concrete bridge railing on south side - approx 15' from east end of bridge. Handrail needs permanent replacement. |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Replace the missing bolts in the guardrail end section at the concrete barrier |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Sidewalk approaches need work to reduce a tripping hazard. All Quads |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | Drains on the deck need to be unplugged |
| 08124800 | 5 | MINNEHAHA | 04 | 1350 | SE deck drain partially plugged |
| 08771900 | 162 | BURTON ROAD | 04 | 1350 | Seal transverse crack in AC at west end of bridge |
| 08572100 | 328 | CORPORATE WOODS BRIDGE | 04 | 1350 | Approach sidewalks on down stream side heaved and a tripping hazard |

Table C - Repairs

| | | | | | |
|----------|--------|--------------------------|----|------|--|
| 08607300 | 1350 | BURNT BRIDGE CRK CULVERT | 04 | 1350 | Upstream debris across both barrels, remove and monitor could be beginnings of a beaver dam. |
| 08607300 | 1350 | BURNT BRIDGE CRK CULVERT | 04 | 1350 | Erosion behind the grouted rock needs stabilized |
| 08711300 | 1351 | PORT OF VANCOUVER | 04 | 1350 | Clean out packed sand in both north and south expansion joints |
| 08711300 | 1351 | PORT OF VANCOUVER | 04 | 1350 | SE corner of concrete barrier transition has a triangle 12" long by 8" that should be patched. |
| 08710200 | 1352 | BURNT BRIDGE CREEK | 04 | 1350 | Sidewalk settlement SW corner needs fixed as it is a tripping hazard and an ADA issue |
| 08710200 | 1352 | BURNT BRIDGE CREEK | 04 | 1350 | Review settlement issues with geotechnical and structural experts for recommendations. |
| 08544900 | | EVERGREEN BLVD. OVERPASS | 04 | 1350 | Remove moss and vegetation from the structure and immediate vicinity |
| 08544900 | 4236 | EVERGREEN BLVD. OVERPASS | 04 | 1350 | Both approaches are starting to settle and crack. Will need to address this soon. |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Wedge patch the north approach to eliminate potholes and provide a smooth transition for cars driving onto the bridge. |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Replace or repair Poured Joint Filler over Pier2. (Removed repair as the joint over Pier 2 is a sliding plate joint, RGP 8/23/2005) |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Verified complete, repair unnecessary (JED/RCD 2009). |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Verified complete, repair unnecessary (JED/RCD 2009). |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Remove moss growth on approach sidewalks. |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Clean and unplug all drains. |
| 08512400 | 4891 | FRUIT VALLEY RD OVERPASS | 04 | 1350 | Trees need trimming near NE corner of bridge that is blocking sidewalk. |
| 0006786A | 501/8E | BNRR OC | 04 | 1350 | Expansion joints need to be cleaned out. |
| 0006786A | 501/8E | BNRR OC | 04 | 1350 | Concrete broken off @ back of post & rail being held together with 2X4 & caution tape (Needs immediate attention) |
| 0006786A | 501/8E | BNRR OC | 04 | 1350 | Drains still plugged & need cleaned out. |
| 0006786A | 501/8E | BNRR OC | 04 | 1350 | Metal rail damaged on East side requires repair. Post on East side has been hit and broken two bolts; requires repair. |

Table C - Repairs

| | | | | | |
|--------------------------|-------------------|------------------------|------------------|----------------|--|
| 0006786A | 501/8E | BNRR OC | 04 | 1350 | Bottom Flange spalls in Girders 5E and 5C. Concrete grout patch with High Strength Concrete. |
| 0012986A | 501/8W | BNRR OC | 04 | 1350 | vertical clearance posting should read 14'-7" on Span 5 Girders in industrial yard. Please verify our findings. .. |
| 0012986A | 501/8W | BNRR OC | 04 | 1350 | Sliding Expansion joints need cleaned out. |
| 08636100 | 99906-03 | INN AT THE QUAY | 27 | 1350 | Several turfstone blocks on slope under bridge are displaced. |
| City of Washougal | | | | | |
| <i>Structure_ID</i> | <i>Bridge_No.</i> | <i>Bridge_Name</i> | <i>Agency_ID</i> | <i>City_ID</i> | <i>Repair_Description</i> |
| 0007597A | 1402 | BN/SF RR O/C | 04 | 1385 | Repair approach settlement. |
| 0007597A | 1402 | BN/SF RR O/C | 04 | 1385 | Drains need to be cleaned. |
| 0007597A | 1402 | BN/SF RR O/C | 04 | 1385 | NE Sidewalk needs repaired to fix tripping hazard, All sidewalks need to be fixed for tripping hazard. |
| 0007597A | 1402 | BN/SF RR O/C | 04 | 1385 | Girder G3 at the NE end of bridge should be excavated out to expose bearing pad |
| 0007597A | 1402 | BN/SF RR O/C | 04 | 1385 | SW corner of bridge sidewalk have trip hazards. |
| 08602800 | 1404 | WASHOUGAL RIVER BRIDGE | 04 | 1385 | BP rail missing verts |
| 08602800 | 1404 | WASHOUGAL RIVER BRIDGE | 04 | 1385 | Differential settlemt on sidewlk south end tripping hazard |