BRIDGE DATA:

Bridge No./Name:	SC- 8165: Sechelt Wilson FSR/ Hudson Creek (0.5Km)
Inspection Date:	June 24, 2015
Inspected By:	S. Stanley, J. Pheh
Year Built:	1991
Number of Spans:	1
Location:	49° 16' 25.3" N 125° 22' 4.4" W

Span Lengths:	16.4 mm (o/o) 15.4 mm (c/c)
Superstructure:	Steel plate girders: 880mm deep, 300 x 19 top and bottom flanges, 842 x 9.5 web, spaced at 3.0m (c/c).
Deck:	4,268 mm wide Precast concrete panels: 2,668 mm x 4,268mm x thickness varies (175 – 225mm) for crown.
Curb:	Untreated timber 250 mm x 250 mm curbs and risers bolted to the exterior edge of precast deck panels
Substructure:	Abutments: Steel frame with pipe piles and steel angle cross bracing Bearings: Steel shoe plates on 20mm thick neoprene pads bear on pipe pile cap plates.

GENERAL BRIDGE CONDITION

Superstructure Condition:	Good
Substructure Condition:	Good
Deck Condition:	Good
Approaches	Fair
Load Posting:	No signs noted
Date for the Next Close Proximity Inspection:	2019
Projected Replacement Date:	2051

INSPECTION NOTES

Approaches:

- Road appears to be well graded from both camp and woods end.
- Concrete approach barriers present at all four corners.
- Bridge delineators / hazard markers obscured by foliage.
- No bridge ahead signs noted.
- No load posting signs notes.

Deck:

- Moderate amount of gravel debris accumulated on deck.
- Moderate abrasion wearing of concrete deck panels, with exposed aggregate throughout. No exposed reinforcing.

- Transverse deck panel grout joints appeared to be in good condition however more extensive corrosion on girders was noted at deck panel joints, indicating there is a certain amount of leakage through these joints.
- 250 mm x 250 mm curbs are generally in good condition, however bolts and hardware are loose and should be retightened. One damaged curb riser was noted.

Girders:

- Light to moderate surficial corrosion throughout with isolated areas of light to moderate laminating corrosion that appear to be concentrated at deck panel joints, with an estimated section loss of ≤5% in localized areas.
- Minor accumulation of debris along top of bottom flanges.
- Light to moderate surficial corrosion of steel angle diaphragms.

Abutments:

- Steel abutment frames have light corrosion throughout.
- Steel plate bearings have moderate surficial corrosion throughout with regular locations of light to moderate laminating corrosion with an estimated section loss of ≤5%.
- Neoprene bearing pads are dried out, cracking and bulging, but still appear to be functioning as intended.
- Concrete ballast wall has light scaling throughout, but is in good condition with no signs of rotation.
- Moderate amount of sloughing noted from under ballast wall.
- Sufficient size and quantity of armoring rip rap is present at both abutments.

BRIDGE INSPECTION SUMMARY/RECOMMENDATIONS:

This bridge was inspected under ideal circumstances via the use of rope access climbing techniques to get within close proximity to the bridge girders and deck soffit, while the abutments were accessible on foot. The approaches appeared to be well graded, however, extensive foliage growth has obscured some of the bridge signage and is reducing line of site for vehicles. The steel girders, cross bracing and diaphragms appear to be in good condition with isolated locations of light to moderate laminating corrosion, concentrated below deck panel joints, indicating leakage at the joints. The bearings are also in good condition despite moderate surficial corrosion and the onset of some light to moderate laminating corrosion. The bearing pads are dried and cracked, however still functioning as intended. The pre-cast concrete deck panels are in generally good condition, though the wearing surface is showing moderate wear due to abrasion, having exposed aggregate throughout. It is recommended that another close proximity inspection be performed in 4 years.

During the inspection the creek was flowing, with an average width of approximately 2.0 meters and a depth of 100 mm at its deepest point.

There was no previous inspection report noted or supplied. A subsequent load rating report will be prepared for this bridge.

The following maintenance works are recommended:

ITEM	DESCRIPTION	PRIORITY
1	Brushing at approaches.	High
2	Tighten curb rail bolts and replace damaged curb riser block.	High
3	Replace fill in front of ballast walls to mitigate continued sloughing of headslope / approach fill.	Medium
4	Install bridge ahead signs.	Low
5	Clear off accumulated gravel debris from wearing surface.	Low

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SC-8165

2015 Close Proximity Inspection

June 25, 2015

Photo #1
Downstream elevation / underside

-Note panorama photo which makes the bridge look curved.

Photo #2
Downstream Elevation / Underside / A1

Photo #3
Girder 1, U.S, looking towards woods end

Photo #4
Downstream Elevation

Photo #5
Camp End (A2) Approach

-Foliage overgrowth obscuring bridge marker

Photo #6
Woods End (A1) Approach

Photo #7
A2 – Looking towards Camp end

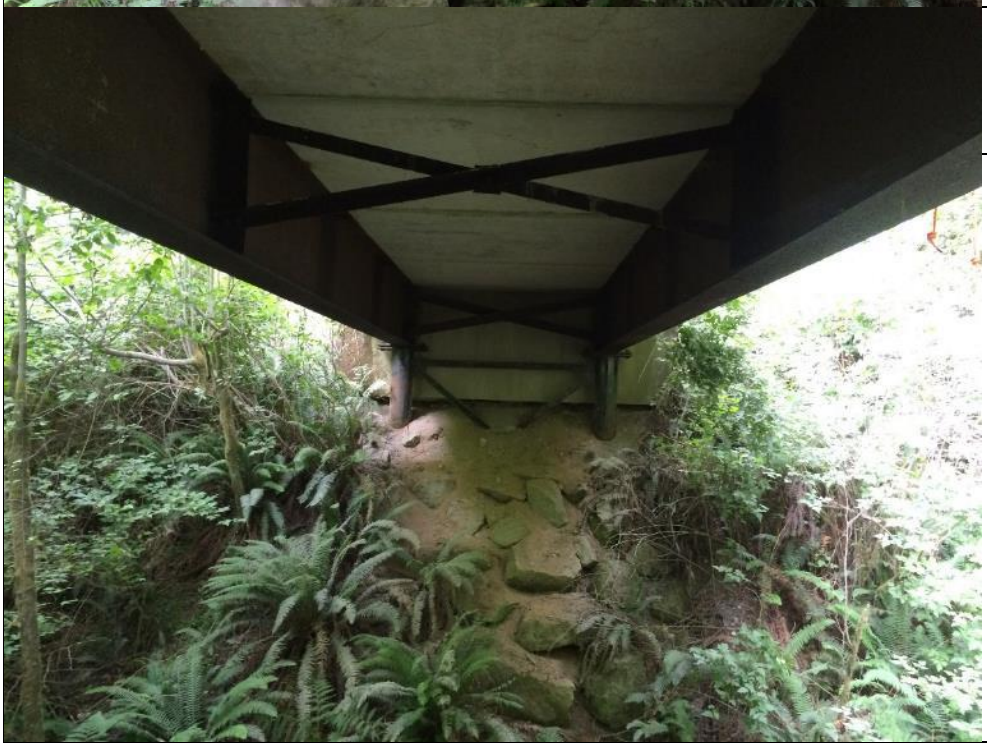

Photo #8
A1 – Looking towards woods end

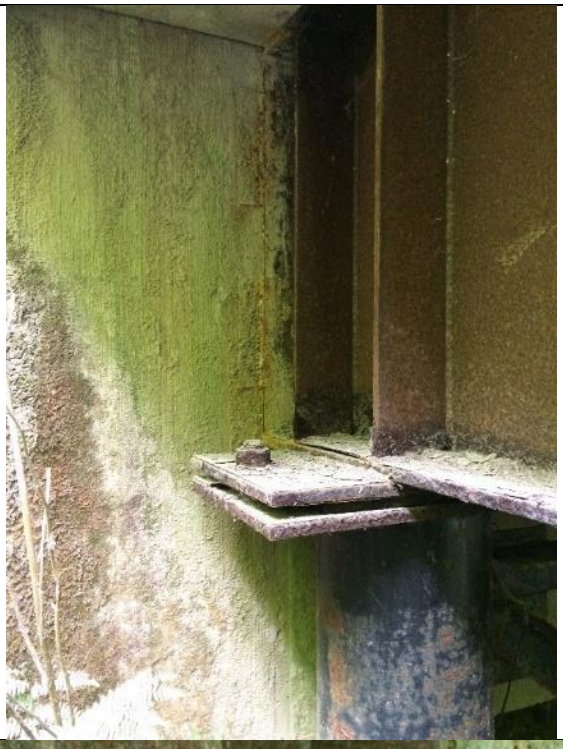

Photo #9
Camp end (A2) D.S bearing

Photo #10
Camp end (A2) U.S bearing

-Light laminating corrosion

Photo #11
Woods end (A1) U.S bearing

Photo #12
Girder 1 – Looking to woods end

Photo #13
Girder 1 – looking to camp end

Photo #14
Girder 1 - looking to camp end

Photo #15
Girder 2 exterior / D.S face
looking to woods end

-Light to moderate surficial corrosion throughout, with light laminating corrosion near deck panel joints.

Photo #16
Girder 2 exterior / D.S face

-Close view of top of bottom flange of girder with area of laminating corrosion cleaned off.

Photo #17
Interior face of girder /underside of deck

-Typical condition of interior face of girder, bracing, and underside of deck.

Photo #18
Underside of deck

-Inspection of underside of deck and interior faces of girders.

Photo #19
Underside of deck

-Typical condition of underside of deck panels.

Photo #20
Wearing surface

-Typical condition of wearing surface with exposed aggregate, and deck panel grouted joint.

Photo #21
Curb rail riser (DS)

-Damaged curb riser