

CK-2506

Alf 0.2km

2019 Inspection

CBR iPad Offline Ver



CBR Data

Latitude	Longitude
°0'0"	°0'0"
Crossing Name	Alf Creek
FSR #	Branch #
Road Name	Alf
User km	0.2
Current Load Rating (tonnes)	41
Structure Class	Permanent Bridge
Portable	N
Superstructure	Steel I-beam
Deck Type	Concrete Composite
Abutment Left	Steel Pipe and Precast Pad
Abutment Right	Steel Pipe and Precast Pad
Spans	1
Total Length (m)	15.3
Deck Width (m)	4.9

Updated Data

Latitude	Longitude
49°20'41.44"	-122°2'53.62"
HD Diff. (m)	10007180.3
Accuracy (m)	10
L45 or 41 tonnes	

Inspection

Date of Inspection 2019-03-28 12:25:54 PM

Recommended Next Inspection Year 2022

Inspector Name Tyson Miller

Inspection Company MFLNRO

Inspector Comments

Need to check the work that was completed under downstream right bank footing

P.Eng Comments

The downstream right bank footing was previously scoured which resulted in a reduced capacity and an All Steel Portable bridge was installed over top for temporary industrial access. The asbuilt report that was submitted by the licensee who completed the temporary install noted a temporary repair to the underside of the precast footing (see attached document). The All Steel Portable bridge has now been removed and because the previously scoured footing is obstructed from view a proper assessment of the footing cannot be made. Prior to bridge use the footing should be exposed and a qualified professional should assess the competency of that material under it. Until then then limit loading to L45 or 41 tonnes. Replace guardrail, risers and blocks; clean sediment from deck; replace missing delineators; and post bridge ahead signs.



P.Eng Seal

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Approach

Alignment Fair

VC both approaches

Bridge Ahead Signs
Missing ☐ 0 ☐ 1 ☒ 2

Brushing Required N

Delineator Missing
Left ☐ 0 ☐ 1 ☒ 2Delineator Missing
Right ☐ 0 ☐ 1 ☒ 2

Fender Condition Fair

Posted Load Rating 40000

Road Surface Fair

Abutment

Log/Timber Cribs

Tie Backs

Bin Wall

Concrete

Caps or Sills

Piles or Posts Good

Ballast Wall Fair minor damage noted to top of left bank wall

Wing Wall

Bracing Good

Hardware

Fill Fair

Riprap Fair Not well graded or tied together

Bearings Good bearing sandwiches

Corrosion Protection

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Deck

Running Surface Fair Sediment on deck

Running Planks

Sub Deck

Ties

Nails

Deck to Girder Bolts

Concrete Deck Unrated Too much sediment to properly inspect

Grout Pockets Unrated Too much sediment to properly inspect

Deck Joints Unrated Too much sediment to properly inspect, however there are indications that water is getting through and onto the girders in some locations

Steel Deck Plate

Gravel Surface

Curb Rail/Blocks/Posts Poor Rotten

Hand Rails/Walkouts

Hardware Poor Loose rail bolts

Overall Deck Condition Poor Due to rail condition

Gravel Depth (mm)

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Steel/Concrete

Girders Good Minor corrosion

Diaphragms Good 3 bolted bays

Bracing Fair 1 not properly connected - see photo

Under Trussing

Hardware Fair Missing 2 bracing bolts

Welded/grouted
shear connectors**Log**

Log Curbs

Needle Beam

Needle Lashing/
Shimming

Needle Beam to Crib (m)

Needle Diameter (mm)

Stringer
Number

Species

Peeled

Diameter
(mm)Rot Depth
(mm)

Condition

Comment

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Hazards

Estimated Present Water Level Depth (m)	0.5	High Water	☐	Debris	☐
Estimated Present Water Level Width (m)	5.0	Aggradation	☐	Scour	☒
Estimated High Water Level Clearance (m)	2.5	Ice	☐		

Comments

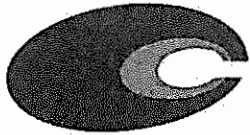
Repairs and Monitoring

Repair

Item	Priority	Repair Description
1	Medium	Replace the guardrail, risers and blocks and replace delineators
2	Medium	Clean sediment from deck
3	Medium	Post bridge ahead signs
4	High	Expose right bank downstream footing to ensure it's well supported prior to any industrial activity

Item	Monitor Description	Frequency
1		
2		
3		

Sketch
(Select Signature)



As-Built Report for Bridge Installation DCK-2506

Road Name:	Chehalis-Alf FSR
Chainage:	0+400
UTM Location:	569155 m E / 5466214 m N, Zone 10
Structure Installed:	18.288 (60') All-Steel Portable
Lifespan:	Temporary (Up to 1 Year)
Load Rating:	L75 (68,040 kg GVW)
Stream Name:	Alf Creek
Monitored By:	Lindsey McGill, P.Eng. and Wesley Lennon, EIT.
Dates On Site:	May 2, 2017

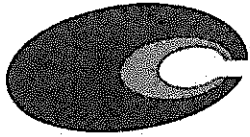
Chartwell Consultants Ltd. (CCL) was retained by Probyn Log Ltd to act as both the Coordinating Registered Professional (CRP) and Professional of Record (POR) for the installation of a temporary bridge over Alf Creek at 0+400 of Chehalis-Alf FSR. The stream is believed to contain fish, it is inferred that the stream classification is S2.

Magnum Fabricators Ltd fabricated the bridge and Probyn Log Ltd installed it. A structural design was issued June 20, 2012 (Associated Engineering DWG:20092554-08-3-100). Chartwell Consultants Ltd prepared the conceptual design (DWG: 13-715-DCK-2506) that was sealed on February 2, 2017. Conceptual design consisted of an 18.288m (60') long x 4.26m (14') wide All Steel Portable bridge. A representative of CCL was present to provide construction monitoring, and a final inspection.

The All Steel Portable over spans an existing 15.5m concrete composite bridge on post and pad footings. The All Steel Portable is placed on two 600mm Ø x 7000mm Cedar sill logs, slabbed (400mm width) to provide an even bearing surface. The sill logs have been placed as per the conceptual design to provide adequate setback and clearance from the existing bridge. The All Steel Portable is installed on a 3% favourable grade.

The All Steel Portable was not lag bolted to the log sills at the time of the final inspection. Additionally ballast logs were not installed behind the bridge ends, as a result minor fill sloughing on the bridge corners was observed.

"Dam-Sac" bags and angular rock were placed by hand in the voids in the riprap and beneath the spread footings on the woods side. This is not considered a permanent fix, only to ensure that scour does not worsen while the overspan is in use. It is our understanding that the overspan will be removed within the next year, as soon as industrial activities have ceased.



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Delineators were not installed at the time of the final inspection. All other required signage has been posted and guide logs installed on both approaches.

Recommendations

- Install delineators.
- Lag-bolt All Steel Portable to log sills
- Install ballast wall logs behind bridge ends

Attachments: Site Photos; As-Built Drawings; Structural Drawings; original CBR Report and Construction Assurance Statements

Sincerely,

Wesley Lennon, EIT
Project Engineer
wlennon@chartwell-consultants.com



Digitally signed
by Lindsey
McGill
Date:
2017.06.11
13:30:09 -07'00'

Lindsey McGill, P.Eng, RPF
Partner / Project Manager
lmcgill@chartwell-consultants.com

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Approach from Left Bank when facing downstream



Upstream from Crossing



Deck



Downstream from Crossing

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Approach from Right Bank when facing downstream



Bracing missing bolts



Left Bank Abutment when facing downstream



Indications of deck joint condition



Location of previous scour
under footing

Right Bank Abutment when facing downstream



Superstructure