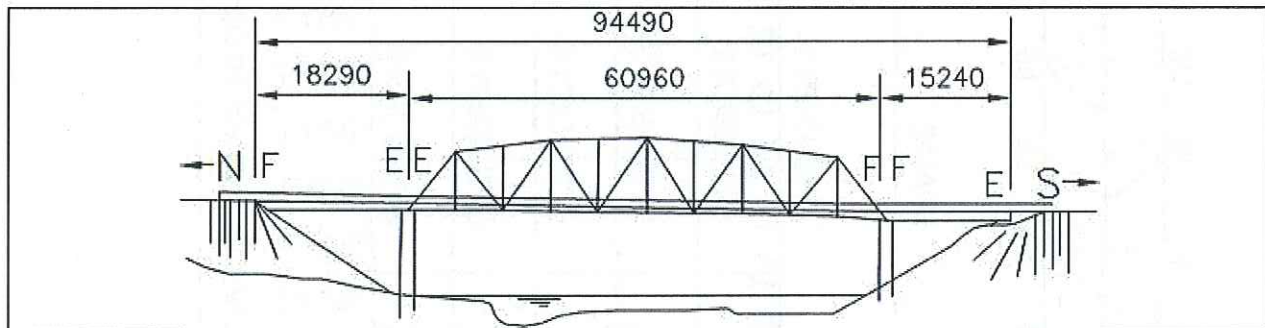
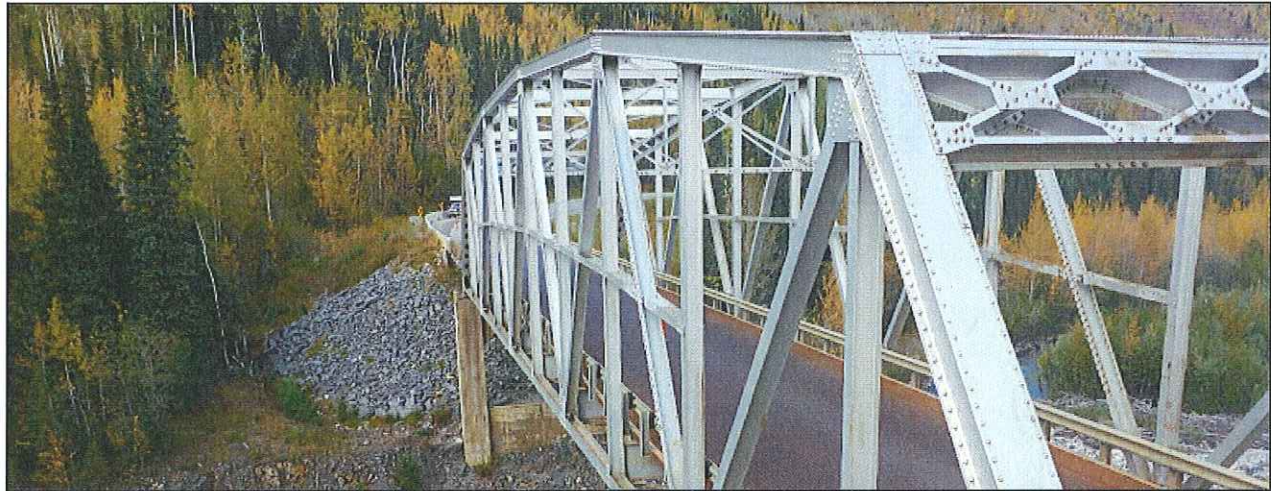
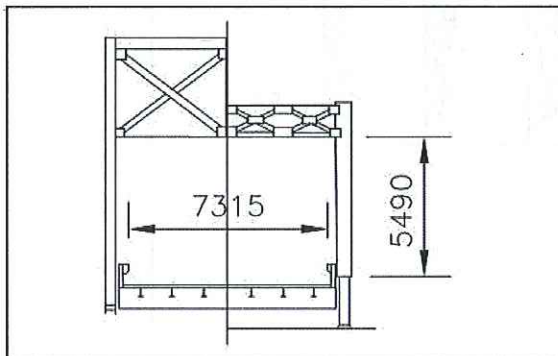


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ELEVATION

(F – Fixed Bearing, E – Expansion Bearing)



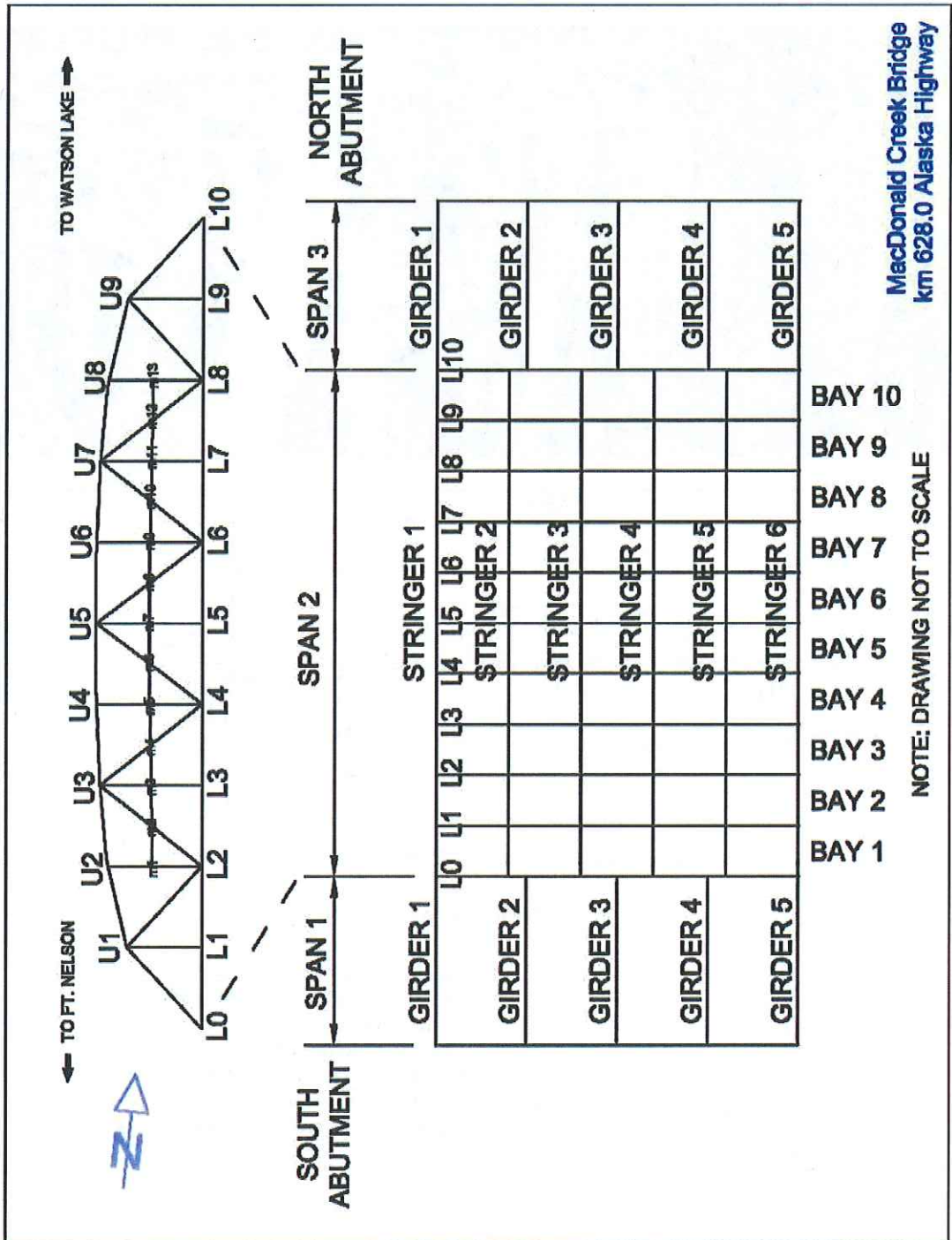
SECTION

Description:

1. Two steel I-girder approach spans
2. One steel through truss main span
3. Steel grating deck
4. Reinforced concrete piers
5. One reinforced concrete abutment (north)
6. One binwall abutment (south)
7. Steel pile foundations under abutments

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Year Constructed:	1943
Design:	PWGSC
Last Load Rating:	2015 – Meets CHBDC Live Load Requirements
Drawings Available:	Yes
Last Underwater Inspection:	N/A
Previous C Inspection Report for 2015:	Parsons – Stan Reimer, P.Eng., David Reimer, Grant Waldie, P.Eng.
Previous G Inspection Report for 2016:	PSPC – Reza Haghighi, Alex Taheri, Pei-Chin Tsai
Current Inspection Date:	August 31 and September 12, 2017
Inspectors:	Charles Chataway, P.Eng., Sean O'Hagan, P.Eng.
Temperature:	18°C
Weather:	Cloudy with sunny periods
Equipment:	Standard inspection equipment, snooper truck
2015 Structural Condition Rating:	4
2015 Functional Rating:	2
2016 Structural Condition Rating:	4
2016 Functional Rating:	2
2017 Structural Condition Rating:	4
2017 Functional Rating:	2
Watercourse Flow Direction:	West to East (Girder 1 is on West Side)
Estimated Replacement Cost:	\$14.5 million (2017 dollars)
GPS Coordinates:	N 58°-47'-49.8", W 125°-1'-37.7"

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TEN YEAR PLAN – COST ESTIMATE (2017 DOLLARS)									
RECOMMENDED WORK	PRIORITY CODE	UNIT	QTY	UNIT COST	WITHIN 1 YR	WITHIN 3 YR	WITHIN 5 YR	WITHIN 10 YR	MAINT.
Repair delaminations on piers	B	m ²	5.9	\$7,500	\$0	\$44,250	\$0	\$0	\$0
Repair cracks in piers by injection	B	m	20	\$3,500	\$0	\$70,000	\$0	\$0	\$0
Address cracking in steel truss end posts over bearings and replace bearing assembly	A	LS	1	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0
Repair erosion beneath end of approach barriers N of bridge	M	m ³	2	\$250	\$0	\$0	\$0	\$0	\$500
Clean debris off of abutment bearing seats	M	LS	1	\$2,500	\$0	\$0	\$0	\$0	\$2,500
Repair delaminations on abutments adjacent to bearings at S Abutment	B	m ²	1	\$7,500	\$0	\$7,500	\$0	\$0	\$0
Reset rocker bearings at N Pier for Span 3 girders	C	Each	5	\$5,000	\$0	\$0	\$25,000	\$0	\$0
Reinstate bearing for Span 1 Girders G4 & G5 on S Pier to ensure both dead and live loads are supported	C	Each	2	\$500	\$0	\$0	\$1,000	\$0	\$0
Repair damaged BST on top of N Abutment back wall	M	m ²	8	\$75	\$0	\$0	\$0	\$0	\$600
Reinstall W-beam railing with laps to reduce snag hazard	M	m	5	\$100	\$0	\$0	\$0	\$0	\$500
Replace hex-head bolts in W-beam connections with carriage bolts to reduce snag hazard	M	Each	2	\$50	\$0	\$0	\$0	\$0	\$100
Replace stream ID sign at S Abutment	M	Each	1	\$600	\$0	\$0	\$0	\$0	\$600
Construction / Maintenance Cost Subtotals:					\$1,000,000	\$121,750	\$26,000	\$0	\$4,800
Engineering Costs (20% of construction cost):					\$200,000	\$24,350	\$5,200	\$0	\$960
20% Contingency:					\$200,000	\$24,350	\$5,200	\$0	\$960
Subtotal:					\$1,400,000	\$170,450	\$36,400	\$0	\$6,720
Total Cost Estimate:					\$1,613,570				

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Inspection Highlights	<p>The cracked truss end verticals are of primary concern at this structure. An articulation analysis has been carried out to assess the root cause of this cracking and potential risks to not completing repairs as a result of the field observations. This analysis identified the need to replace the truss span bearings and strengthen/repair the bearing end posts.</p> <p>The bridge has been identified as functionally deficient due to speed restrictions and approach geometry, lane widths, and deficient bridge barriers. If there is no immediate plan to replace the bridge the bearings and truss vertical deficiencies should be addressed.</p> <p>The bridge coating is flaking and peeling with aggressive coating loss on subdeck elements (trusses, floor beams, bracing, etc.). Most of the observed corrosion appeared heavy, but was primarily surficial in nature with minimal section loss.</p> <p>The condition and configuration of the steel subdeck is such that recoating of these elements would be cost prohibitive and it is unlikely that any benefit will be achieved through recoating unless there are no plans for replacement. The cost for recoating of the bridge is estimated to be in the range of \$4M to \$6M.</p> <p>Concrete repairs may be necessary if the bridge remains in service.</p> <p>The W-beam rails have been lapped incorrectly which could affect performance during an impact. The section of W-beam should be reinstalled so that the exposed ends of the lap joints are facing away from oncoming traffic, consistent with standard practice, to eliminate snag hazards.</p>
Recently Completed Work	<p>2012 – North Abutment bearing seats cleaned</p> <p>2014 – 4 missing anchor bolts nuts installed on South Pier bearings</p>

ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
PRIMARY COMPONENTS								
Watercourse	5	5	D	5	5	D	The stream flows around a bend upstream of the bridge to the west of the crossing, then passes beneath the bridge and splits into two separate channels on either side of an island immediately downstream. The stream flows in a skewed alignment to the bridge. The west side of the south embankment and east side of the north embankment are most exposed to potential erosion from high flows beneath the bridge as a result of the stream alignment.	P14, P15
Foundations	5	5	D	5	5	D	No defects noted	
South Abutment	5	5	D	5	5	D	Surfaces of the steel H-pile bent have medium corrosion throughout abutment	P16, P17
North Abutment	5	5	D	4	5	D	Approximately 0.5m ² spall on front face of abutment below spalls on bearing seats on top surfaces of abutment	P18

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
South Pier (#1)	4	4	B	4	4	B	Wide leaching vertical cracks in the pier cap between columns and on top of columns on either side of the pier cap. Delamination and spalling on faces of wall between columns at base of pier. Numerous spalls on surfaces of pier cap, columns and wall at base of pier. Exposed rebar at top corner along the north side of the pier cap.	P19, P20, P21, P22, P23
North Pier (#2)	4	4	B	4	4	B	Efflorescence on soffit of pier cap. Numerous spalls on all surfaces of pier cap, columns and wall at base of pier. Exposed rebar at top corner along the south side of the pier cap. Vertical cracks in wall at base of pier, including 3mm wide vertical crack in middle of wall.	P24, P25, P26, P27, P28, P29
Beams/Girders	5	5	D	5	5	D	Medium surface corrosion on all surfaces of girders due to failure of steel coating. Negligible section loss has occurred. Dent in Girder G1 bottom flange on Span 1.	
Stringers	5	5	D	5	5	D	The coating on the stringers has failed, resulting in minor section loss on all surfaces of the stringers. Loss of section is considered negligible and is not expected to impact the overall strength of the members.	
Floor Beams	5	5	D	5	5	D	Coating on the floor beams has failed and resulted in negligible section loss on floor beams, similar to stringers.	
Trusses	5	5	D	3	1	A	Vertical cracks were observed in webs of end posts above bearings at ends of the trusses. Gaps have formed between the end post member and the top bearing plate beneath the end post. Differential movement between the end post and the bearing plate has worn the flanges and the plate. No movement is supposed to occur at these locations. Webs of the wide-flange rolled shapes in the end posts are now separated from the flanges as a result of the vertical cracks that have propagated along the web to flange fillets. Passage of vehicles causes bending of the web about the centreline of the end post while the flanges slide on the top of the bearing plate. Further investigation of the issue was completed following the 2017 inspection with observations and recommendations forwarded to PSPC in a separate report.	P30, P31, P32, P33, P34, P35, P36

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
Connections of Primary Components	5	5	D	5	5	D	<p>The coping detail at ends of stringers includes a vertical cut through the top flange that meets a horizontal cut along the web at a sharp corner. Modern bridges are detailed with a fillet radius in the cope in order to reduce the potential for fatigue cracks to propagate from the corner in the cope. No fatigue cracking was observed during the inspection.</p> <p>Rivets in top flange splices of girders are missing in some locations, likely due to corrosion of the rivets exposed to water and debris falling through the steel deck from above. It appears that the splice plates have since been welded to the flanges.</p>	P37, P38, P39
Deck	5	5	D	5	5	D	Minor collision damage to steel gratings	
SECONDARY COMPONENTS								
Embankments	5	5	M	5	5	M	<p>Steep embankments beneath both abutments and around piers. The south embankment is covered in granular material while the north embankment is covered in loose rock. Material carried by vehicles onto the bridge deck has deposited beneath the girder spans and has begun to erode. There does not appear to be any erosion of the underlying embankment material providing support to the abutment.</p> <p>Erosion was observed at the end of the north approach barriers.</p>	P40
Ballast Walls	5	5	D	5	5	D	<p>No defects noted on the corrugated steel ballast wall at the South Abutment.</p> <p>Several minor spalls on North Abutment ballast wall.</p>	
Wingwalls	5	5	D	5	5	D	Light map cracking in east wingwall at North Abutment	
Bearing Seats	4	4	M B	4	4	M B	<p>Bearing seats at the North Abutment are covered in debris that has fallen through the deck from the roadway on the approaches. Limited amounts of debris has collected on the top of the steel abutment cap beam adjacent to bearings at the South Abutment as well.</p> <p>Delaminations and spalls in close proximity to bearings at spalls should be repaired to prevent undermining of bearings.</p>	P18, P41, P42

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
Bearings	5	5	D	5	3	A	<p>Surface corrosion on bearings at abutments.</p> <p>Rocker bearings for both Span 2 trusses and Span 3 girders at the North Pier are leaning back, away from the spans, and appear to be at their maximum limit of expansion.</p> <p>Girders G4 and G5 in Span 1 were observed to vibrate during passage of vehicles on the bridge deck. There are gaps in the bearing assemblies resulting in bearing of loads only when live loads are present.</p> <p>Truss bearings require replacement as existing bearings are binding and not accommodating expansion.</p>	P43, P44, P45, P46
Diaphragms	5	5	D	5	5	D	<p>Medium surface corrosion on all surfaces of Span 1 and 3 diaphragms due to failure of steel coating. Negligible section loss has occurred on the members.</p>	
Joints	5	5	D	5	5	D	<p>Minor damage in steel angle at end of deck at South Abutment deck joint.</p>	P47
Bracing	5	5	D	5	5	D	<p>Light to medium corrosion of surfaces on lower bracing due to failure of steel coating. Negligible section loss of members has occurred.</p>	
Connections of Secondary Components	4	4	D	4	4	D	<p>No defects noted</p>	
Approaches	4	4	M	4	4	M	<p>Sharp roadway curve on North approach results in poor visibility of traffic or wildlife on bridge.</p> <p>Damaged BST surfacing at top of North Abutment ballast wall adjacent to deck joint should be repaired.</p>	P48, P49, P50, P51
Approach Barriers	5	5	D	5	5	D	<p>No defects noted</p>	

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
Bridge Barriers	3	3	M	3	3	M	<p>Existing bridge barriers do not meet current bridge code requirements.</p> <p>Minor impact damage was observed on W-beam railing in some locations along bridge.</p> <p>A portion of railing installed in the bridge W-beam railing at the transition barriers on both the NE and SW corners of the bridge has been lapped incorrectly. The section of W-beam should be reinstalled so that the exposed ends of the lap joints are facing away from oncoming traffic, consistent with standard practice, to eliminate snag hazards.</p> <p>Bolted connections for W-beam bridge railings in some locations include regular hex head bolts. These bolts should be replaced with rounded carriage bolts as typically used in these connections in order to reduce snag hazards on the W-beam railing system.</p>	P52, P53, P54, P55
Coatings on Primary Components	3	3	D	3	3	D	<p>The steel coating system has failed on all steel components below the deck and on truss elements within the splash zone adjacent to the roadway. Steel surfaces on all girders, floor beams and stringers are beginning to corrode. Section loss of these members was negligible at the time of the inspection. If the structure is to be retained for the longer term then the coating system should be replaced to ensure that steel components retain adequate capacities and continue to perform as intended.</p>	P56, P57
AUXILIARY COMPONENTS								
Slope Protection	5	5	D	5	5	D	<p>There is no riprap protection on the embankments. Some gabion baskets are installed at the base of the slope beneath the South Abutment that are in satisfactory condition.</p>	
Signs	4	4	M	4	4	M	<p>The stream ID sign at the South Abutment is missing.</p>	P58
Coatings on Secondary Components	3	3	D	3	3	D	<p>Coatings on bearings, lower bracing and other secondary components below the deck has failed. See comments on Coatings of Primary Components noted above.</p>	

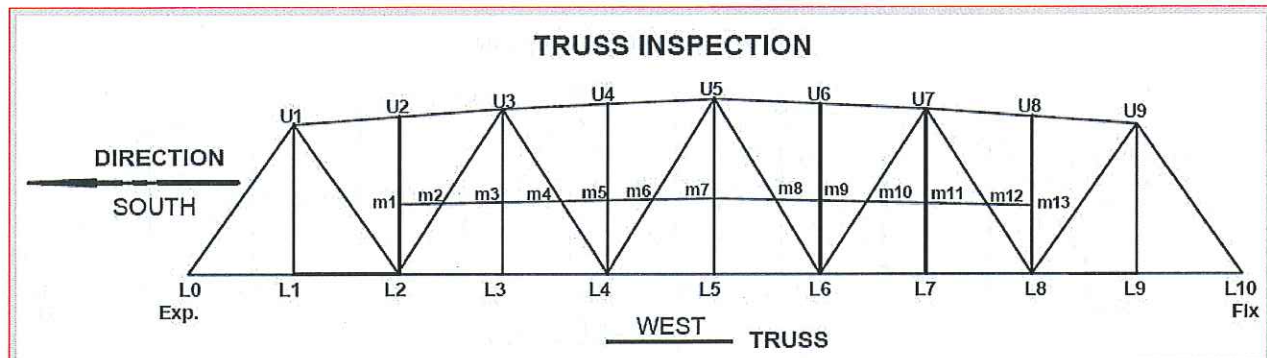
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INDIVIDUAL GIRDER RATINGS								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
SPAN 1 GIRDERS								
Girder 1	5	5	D	5	5	D	Dent in bottom flange. Light to medium surface corrosion, negligible section loss.	
Girder 2	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 3	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 4	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 5	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
SPAN 3 GIRDERS								
Girder 1	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 2	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 3	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 4	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	
Girder 5	5	5	D	5	5	D	Light to medium surface corrosion, negligible section loss	

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		

SPAN 2 – WEST TRUSS

SPAN 2 – TOP CHORD – WEST TRUSS

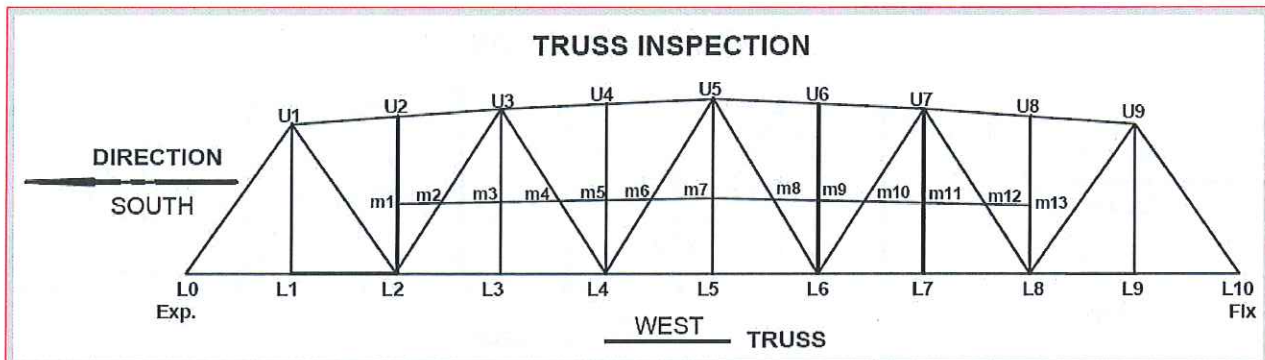
L0-U1W	5	5	D	5	5	D	No defects noted	
U1-U2W	5	5	D	5	5	D	No defects noted	
U2-U3W	5	5	D	5	5	D	No defects noted	
U3-U4W	5	5	D	5	5	D	No defects noted	
U4-U5W	5	5	D	5	5	D	No defects noted	
U5-U6W	5	5	D	5	5	D	No defects noted	
U6-U7W	5	5	D	5	5	D	No defects noted	
U7-U8W	5	5	D	5	5	D	No defects noted	
U8-U9W	5	5	D	5	5	D	No defects noted	
U9-L10W	5	5	D	5	5	D	No defects noted	

SPAN 2 – VERTICALS – WEST TRUSS

U1-L1W	5	5	D	5	5	D	No defects noted	
U2-L2W	5	5	D	5	5	D	No defects noted	
U3-L3W	5	5	D	5	5	D	No defects noted	
U4-L4W	5	5	D	5	5	D	No defects noted	
U5-L5W	5	5	D	5	5	D	No defects noted	
U6-L6W	5	5	D	5	5	D	No defects noted	
U7-L7W	5	5	D	5	5	D	No defects noted	
U8-L8W	5	5	D	5	5	D	No defects noted	
U9-L9W	5	5	D	5	5	D	No defects noted	

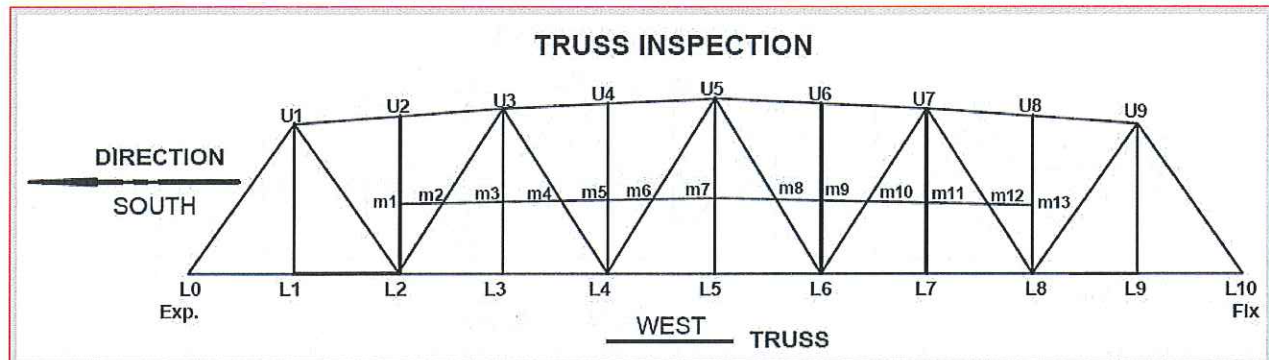
SPAN 2 – DIAGONALS – WEST TRUSS

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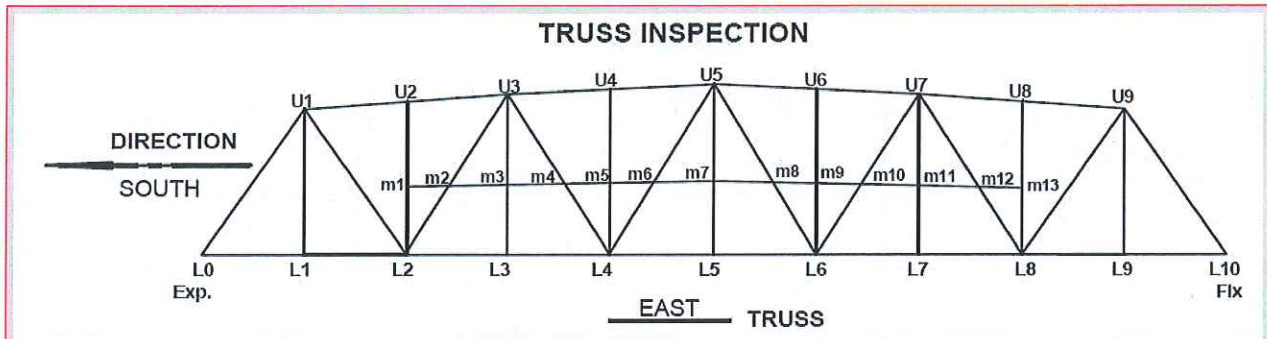
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
SPAN 2 – WEST TRUSS								
U1-L2W	5	5	D	5	5	D	No defects noted	
U3-L2W	5	5	D	5	5	D	No defects noted	
U3-L4W	5	5	D	5	5	D	No defects noted	
U5-L4W	5	5	D	5	5	D	No defects noted	
U5-L6W	5	5	D	5	5	D	No defects noted	
U7-L6W	5	5	D	5	5	D	No defects noted	
U7-L8W	5	5	D	5	5	D	No defects noted	
U9-L8W	5	5	D	5	5	D	No defects noted	
m1-m2W	5	5	D	5	5	D	No defects noted	
m2-m3W	5	5	D	5	5	D	No defects noted	
m3-m4W	5	5	D	5	5	D	No defects noted	
m4-m5W	5	5	D	5	5	D	No defects noted	
m5-m6W	5	5	D	5	5	D	No defects noted	
m6-m7W	5	5	D	5	5	D	No defects noted	
m7-m8W	5	5	D	5	5	D	No defects noted	
m8-m9W	5	5	D	5	5	D	No defects noted	
m9-m10W	5	5	D	5	5	D	No defects noted	
m10-m11W	5	5	D	5	5	D	No defects noted	
m11-m12W	5	5	D	5	5	D	No defects noted	
m12-m13W	5	5	D	5	5	D	No defects noted	
SPAN 2 – BOTTOM CHORD – WEST TRUSS								
L0-L1W	5	5	D	5	5	D	No defects noted	

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
SPAN 2 – WEST TRUSS								
L1-L2W	5	5	D	5	5	D	No defects noted	
L2-L3W	5	5	D	5	5	D	No defects noted	
L3-L4W	5	5	D	5	5	D	No defects noted	
L4-L5W	5	5	D	5	5	D	No defects noted	
L5-L6W	5	5	D	5	5	D	No defects noted	
L6-L7W	5	5	D	5	5	D	No defects noted	
L7-L8W	5	5	D	5	5	D	No defects noted	
L8-L9W	5	5	D	5	5	D	No defects noted	
L9-L10W	5	5	D	5	5	D	No defects noted	

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		

SPAN 2 – EAST TRUSS

SPAN 2 – TOP CHORD – EAST TRUSS

L0-U1E	5	5	D	5	5	D	No defects noted	
U1-U2E	5	5	D	5	5	D	No defects noted	
U2-U3E	5	5	D	5	5	D	No defects noted	
U3-U4E	5	5	D	5	5	D	No defects noted	
U4-U5E	5	5	D	5	5	D	No defects noted	
U5-U6E	5	5	D	5	5	D	No defects noted	
U6-U7E	5	5	D	5	5	D	No defects noted	
U7-U8E	5	5	D	5	5	D	No defects noted	
U8-U9E	5	5	D	5	5	D	No defects noted	
U9-L10E	5	5	D	5	5	D	No defects noted	

SPAN 2 – VERTICALS – EAST TRUSS

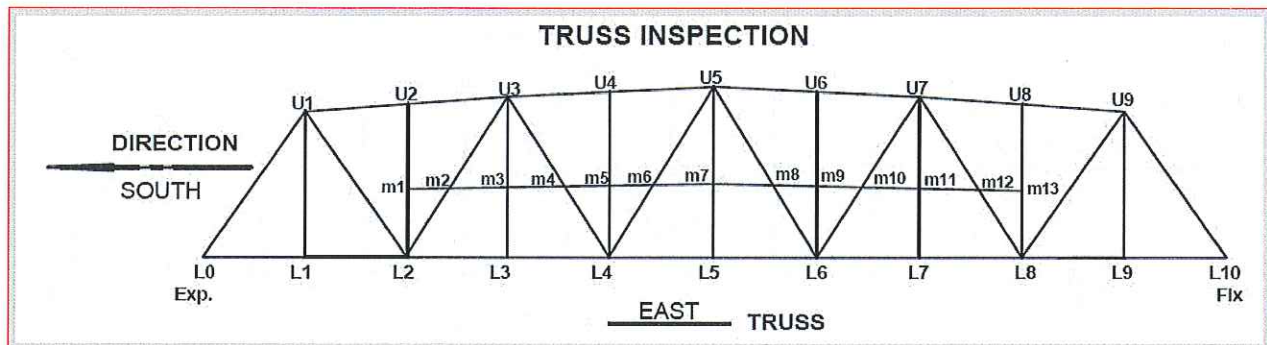
U1-L1E	5	5	D	5	5	D	No defects noted	
U2-L2E	5	5	D	5	5	D	No defects noted	
U3-L3E	5	5	D	5	5	D	No defects noted	
U4-L4E	5	5	D	5	5	D	No defects noted	
U5-L5E	5	5	D	5	5	D	No defects noted	
U6-L6E	5	5	D	5	5	D	No defects noted	
U7-L7E	5	5	D	5	5	D	No defects noted	
U8-L8E	5	5	D	5	5	D	No defects noted	
U9-L9E	5	5	D	5	5	D	No defects noted	

SPAN 2 – DIAGONALS – EAST TRUSS

U1-L2E	5	5	D	5	5	D	No defects noted	
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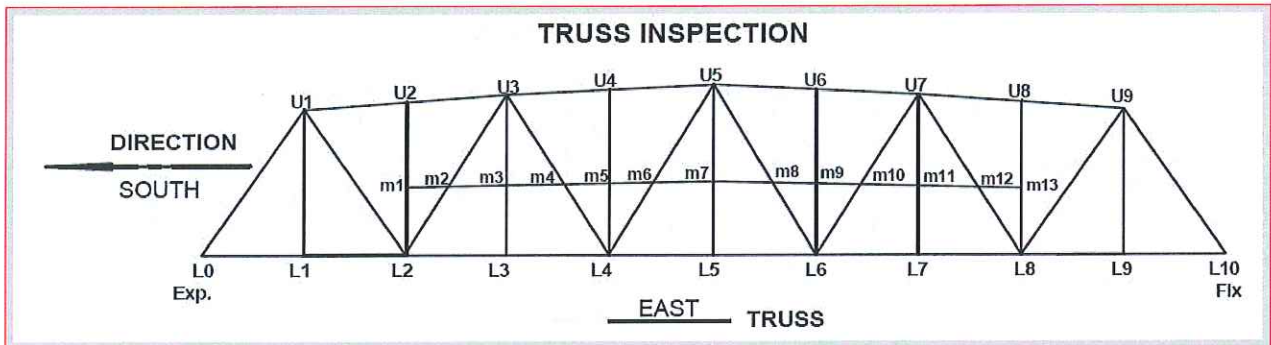
MacDonald Creek Bridge

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ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
SPAN 2 – EAST TRUSS								
U3-L2E	5	5	D	5	5	D	No defects noted	
U3-L4E	5	5	D	5	5	D	No defects noted	
U5-L4E	5	5	D	5	5	D	No defects noted	
U5-L6E	5	5	D	5	5	D	No defects noted	
U7-L6E	5	5	D	5	5	D	No defects noted	
U7-L8E	5	5	D	5	5	D	No defects noted	
U9-L8E	5	5	D	5	5	D	No defects noted	
m1-m2E	5	5	D	5	5	D	No defects noted	
m2-m3E	5	5	D	5	5	D	No defects noted	
m3-m4E	5	5	D	5	5	D	No defects noted	
m4-m5E	5	5	D	5	5	D	No defects noted	
m5-m6E	5	5	D	5	5	D	No defects noted	
m6-m7E	5	5	D	5	5	D	No defects noted	
m7-m8E	5	5	D	5	5	D	No defects noted	
m8-m9E	5	5	D	5	5	D	No defects noted	
m9-m10E	5	5	D	5	5	D	No defects noted	
m10-m11E	5	5	D	5	5	D	No defects noted	
m11-m12E	5	5	D	5	5	D	No defects noted	
m12-m13E	5	5	D	5	5	D	No defects noted	
SPAN 2 – BOTTOM CHORD – EAST TRUSS								
L0-L1W	5	5	D	5	5	D	No defects noted	
L1-L2W	5	5	D	5	5	D	No defects noted	
L2-L3W	5	5	D	5	5	D	No defects noted	

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Alaska Highway km 628.0



ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
SPAN 2 – EAST TRUSS								
L3-L4W	5	5	D	5	5	D	No defects noted	
L4-L5W	5	5	D	5	5	D	No defects noted	
L5-L6W	5	5	D	5	5	D	No defects noted	
L6-L7W	5	5	D	5	5	D	No defects noted	
L7-L8W	5	5	D	5	5	D	No defects noted	
L8-L9W	5	5	D	5	5	D	No defects noted	
L9-L10W	5	5	D	5	5	D	No defects noted	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
SPAN 2 – TOP CHORD BRACING								
U2W-U2E	5	5	D	5	5	D	No defects noted	
U3E-U3W	5	5	D	5	5	D	No defects noted	
U4W-U4E	5	5	D	5	5	D	No defects noted	
U5E-U5W	5	5	D	5	5	D	No defects noted	
U6W-U6E	5	5	D	5	5	D	No defects noted	
U7E-U7W	5	5	D	5	5	D	No defects noted	
U8W-U8E	5	5	D	5	5	D	No defects noted	
U1W-u2E	5	5	D	5	5	D	No defects noted	
U1E-u2W	5	5	D	5	5	D	No defects noted	
u2W-U3E	5	5	D	5	5	D	No defects noted	
u2E-U3W	5	5	D	5	5	D	No defects noted	
U3W-u4E	5	5	D	5	5	D	No defects noted	
U3E-u4W	5	5	D	5	5	D	No defects noted	
u4W-U5E	5	5	D	5	5	D	No defects noted	
u4E-U5W	5	5	D	5	5	D	No defects noted	
U5W-u6E	5	5	D	5	5	D	No defects noted	
U5E-u6W	5	5	D	5	5	D	No defects noted	
U6W-U7E	5	5	D	5	5	D	No defects noted	
U6E-U7W	5	5	D	5	5	D	No defects noted	
U7W-u8E	5	5	D	5	5	D	No defects noted	
U7E-u8W	5	5	D	5	5	D	No defects noted	
U8W-U9E	5	5	D	5	5	D	No defects noted	
U8E-U9W	5	5	D	5	5	D	No defects noted	
SPAN 2 - PORTALS								
U1W-U1E	5	5	D	5	5	D	No defects noted	
U9W-U9E	5	5	D	5	5	D	No defects noted	
SPAN 2 – LOWER CHORD BRACING								
L0W-L1E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
L0E-L1W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1W-L2E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1E-L2W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2W-L3E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2E-L3W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3W-L4E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3E-L4W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4W-L5E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4E-L5W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5W-L6E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5E-L6W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6W-L7E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6E-L7W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7W-L8E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7E-L8W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8W-L9E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
L8E-L9W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9W-L10E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9E-L10W	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
SPAN 2 – FLOOR BEAMS								
L0W-L0E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1W-L1E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2W-L2E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3W-L3E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4W-L4E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5W-L5E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6W-L6E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7W-L7E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8W-L8E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9W-L9E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L10W-L10E	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
SPAN 2 - STRINGERS								
L0-L1 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
L0-L1 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L0-L1 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L0-L1 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L0-L1 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L0-L1 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1-L2 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1-L2 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1-L2 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1-L2 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1-L2 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L1-L2 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2-L3 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2-L3 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2-L3 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2-L3 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L2-L3 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
L2-L3 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3-L4 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3-L4 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3-L4 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3-L4 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3-L4 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L3-L4 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4-L5 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4-L5 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4-L5 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4-L5 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4-L5 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L4-L5 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5-L6 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5-L6 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5-L6 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
L5-L6 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5-L6 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L5-L6 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6-L7 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6-L7 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6-L7 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6-L7 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6-L7 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L6-L7 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7-L8 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7-L8 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7-L8 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7-L8 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7-L8 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L7-L8 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8-L9 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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RATINGS OF OTHER BRIDGE ELEMENTS – SPAN 2								
ELEMENT	2015			2017			OBSERVATIONS	PHOTO
	MCR	PCR	PRIORITY	MCR	PCR	PRIORITY		
L8-L9 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8-L9 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8-L9 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8-L9 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L8-L9 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9-L10 Stringer 1	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9-L10 Stringer 2	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9-L10 Stringer 3	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9-L10 Stringer 4	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9-L10 Stringer 5	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	
L9-L10 Stringer 6	5	5	D	5	5	D	Surface corrosion due to failure of coating, negligible section loss	

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BEARING MEASUREMENTS													
Span.	End	Girder	Fixity	Type	Temp (°C)	Measured (mm)	Design Setting	Difference	Room to Move	Slot Size	Dirty (Y/N)	Corrosion	Comments
1	S	G1	E	SP	-	-	-	-	-		Y	Surface	
		G2			-	-	-	-	-		Y	Surface	
		G3			-	-	-	-	-		Y	Surface	
		G4			-	-	-	-	-		Y	Surface	
		G5			-	-	-	-	-		Y	Surface	
1	N	G1	F	PF							N	Surface	
		G2									N	Surface	
		G3									N	Surface	
		G4									N	Surface	
		G5									N	Surface	
2	S	W	F	PF							N	None	
		E									N	None	
2	N	W	E	RK	18	17	15	2	-		N	None	
		E			18	16	15	1	-		N	None	
3	S	G1	E	RK	18	35	5	30	-		N	Surface	
		G2			-	-	-	-	-		N	Surface	
		G3			-	-	-	-	-		N	Surface	
		G4			-	-	-	-	-		N	Surface	
		G5			18	31	5	26	-		N	Surface	
3	N	G1	F	PF							Y	Surface	
		G2									Y	Surface	
		G3									Y	Surface	
		G4									Y	Surface	
		G5									Y	Surface	

Bearing Type: RN = Roller Next, NR = Reinforced Neoprene Pads, NT = NR + Teflon and Stainless Steel, RK = Rocker, RL = Roller, DD = Disk and Dome, SP = Sliding Plates, PF = Pinned (used for all fixed bearings)

Design Setting = 0.000011 x (Temp + 5°C) x (Bridge Length), measurements are in millimetres

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P01 - General view of Span 2 superstructure from stream bank



P02 - Span 1 and S portal of truss facing NE

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P03 - General view of S approach facing bridge



P04 - W truss facing SW from near midspan

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P05 - General view of bridge facing S from W side of N Abutment



P06 - N Pier facing S

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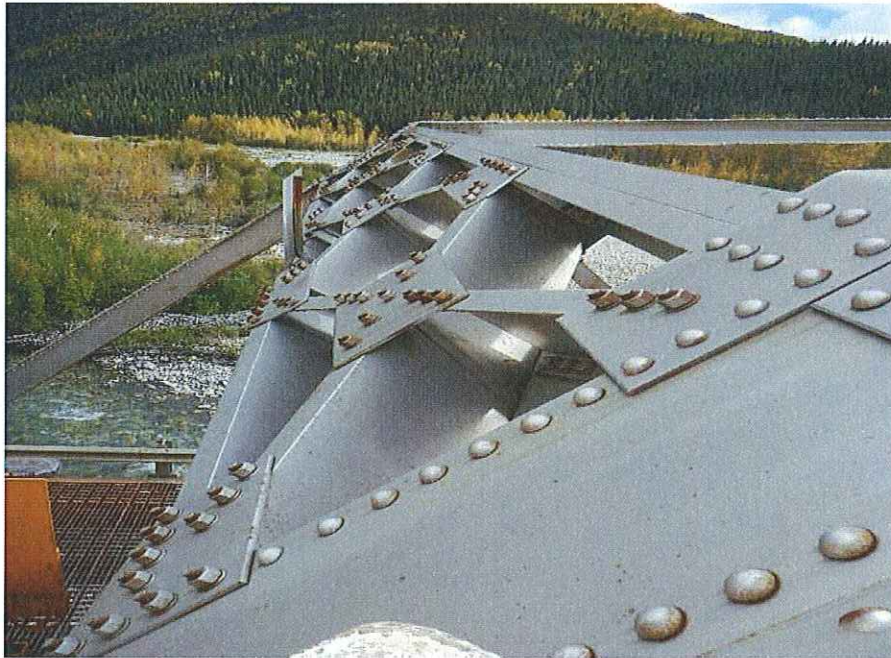


P07 - Downstream channel facing SE from embankment beneath N Abutment



P08 - E truss facing NE from near midspan

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P09 - N truss portal frame facing E



P10 - Typical connection of vertical to bottom chord of truss

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P11 - U1 Connection on S end of W truss facing NE



P12 - Typical sway frame bracing

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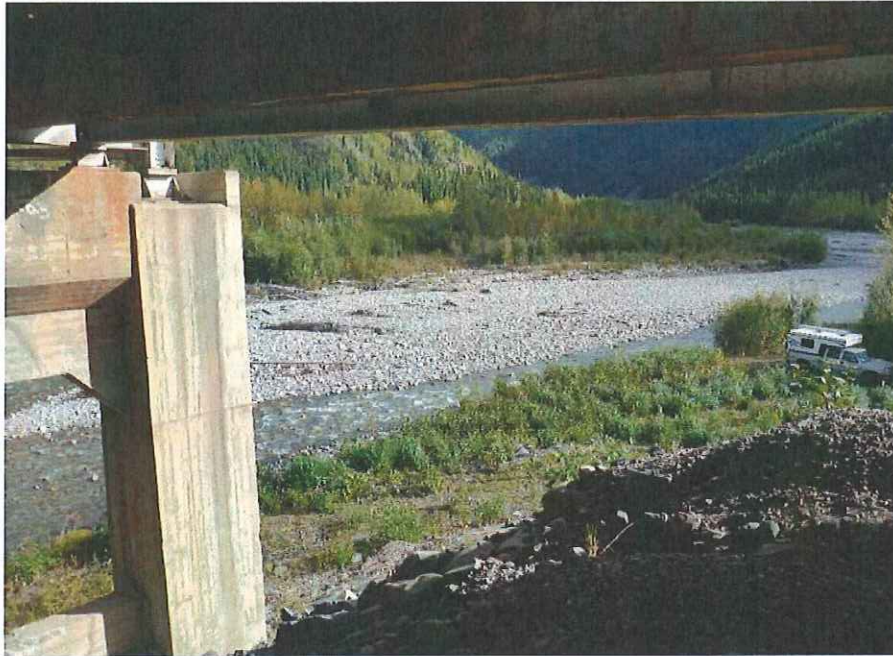


P13 - S truss portal frame facing S



P14 - Upstream view facing SW from N Abutment

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P15 - Downstream view facing NE from beneath Span 1



P16 - General view of S Abutment facing E

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P17 - Typical bearing at S Abutment



P18 - Spalls on face of N Abutment beneath girder bearing

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P19 - S Pier facing S from stream bank



P20 - Delaminations on S Pier facing N from S Abutment

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P21 - Leaching cracks and spalls on S Pier cap beam



P22 - Delaminations on N face of wall at base of S Pier

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P23 - Spalls and leaching cracks on N face of S Pier

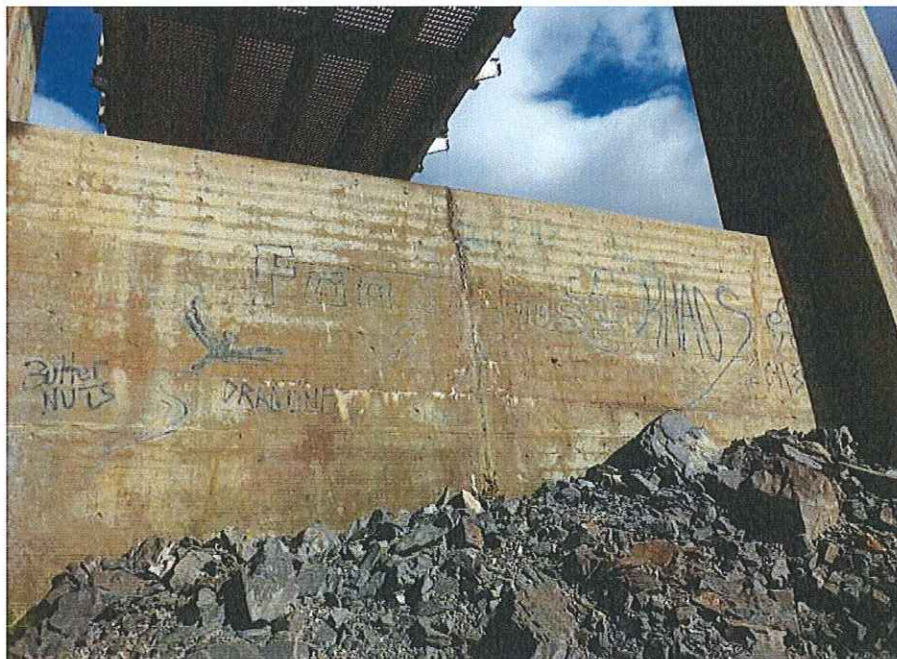


P24 - Span 3 girder bearings at E end of N Pier

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P25 - Spalls and leaching cracks on S face of N Pier



P26 - Wide vertical crack in middle of wall at base of N Pier

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P27 - Wide vertical crack in middle of wall at base of N Pier



P28 - Wide vertical crack in middle of wall at base of N Pier

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P29 - Efflorescence, cracking and scaling on soffit of N Pier cap beam



P30 - General view of end post on N end of E truss

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P31 - W truss end post at N pier facing S



P32 - Cracking in steel at E side of end post at N end of W truss

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P33 - Cracking in steel at w side of end post at N end of W truss



P34 - Gap between E flange on end post and bearing top plate at S end of W truss

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P35 - Gap between W flange on end post and bearing top plate at S end of W truss



P36 - Gap between W flange on end post and bearing top plate at S end of W truss

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P37 - Typical connection of stringer to floor beam



P38 - Typical girder splice on Span 3

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P39 - Missing rivets in top flange splice on W side of Girder G1 in Span 3



P40 - Erosion of material deposited from roadway onto N embankment beneath Span 3

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P41 - Spall with exposed rebar on N Abutment bearing seat



P42 - Typical debris on N Abutment bearing seat

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P43 - Typical fixed girder bearing at N Abutment

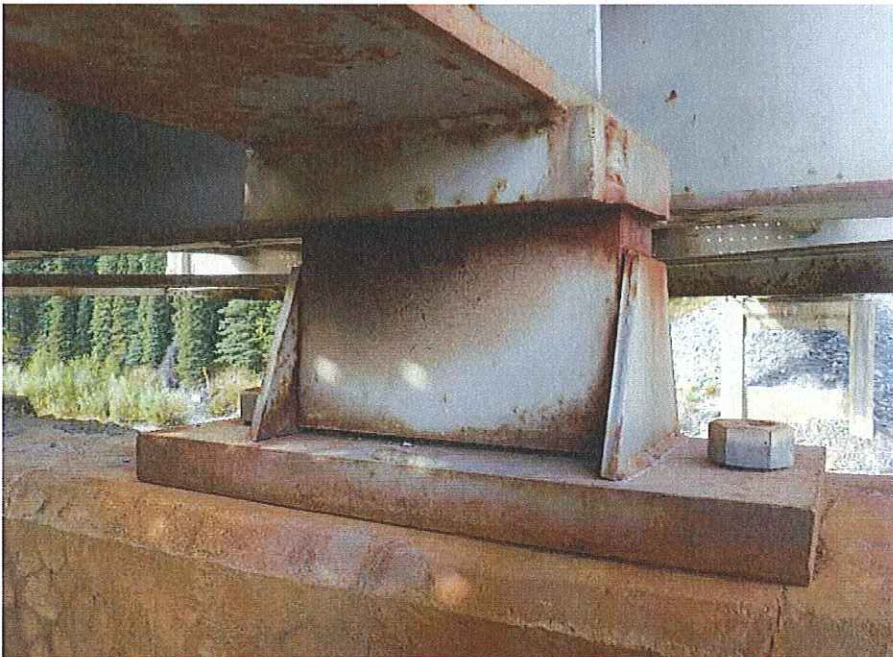


P44 - Typical rocker bearing for Span 3 girder at N Pier

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P45 - W truss bearing at N Pier facing E

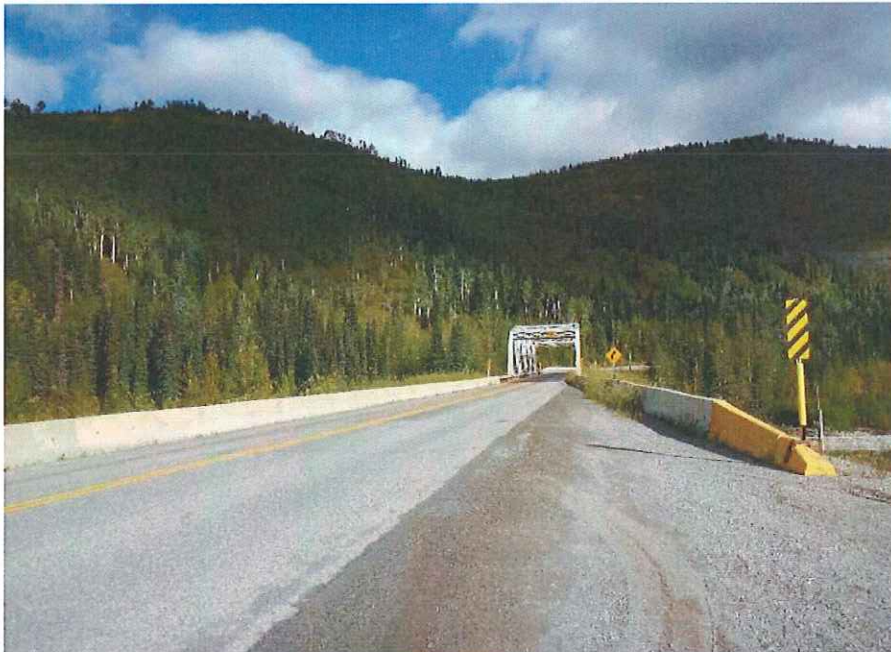


P46 - Girder G5 bearing at S Pier not supporting dead loads

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P47 - Deck joint at S Abutment



P48 - General view of bridge from S approach facing N

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P49 - General view of bridge from N approach facing SW



P50 - Damaged BST at N Abutment deck joint

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P51 - Damaged BST at N Abutment deck joint



P52 - Typical bridge barrier

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P53 - Incorrectly lapped W-beam railing at E side of N Abutment



P54 - Incorrectly lapped W-beam railing at W side of S Abutment

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P55 - Hex head bolts in W-beam railing



P56 - Typical condition of steel coating on Span 3 girders

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P57 - Typical condition of steel coating on steel floor beams and stringers on Span 2



P58 - Missing stream ID sign on S approach

