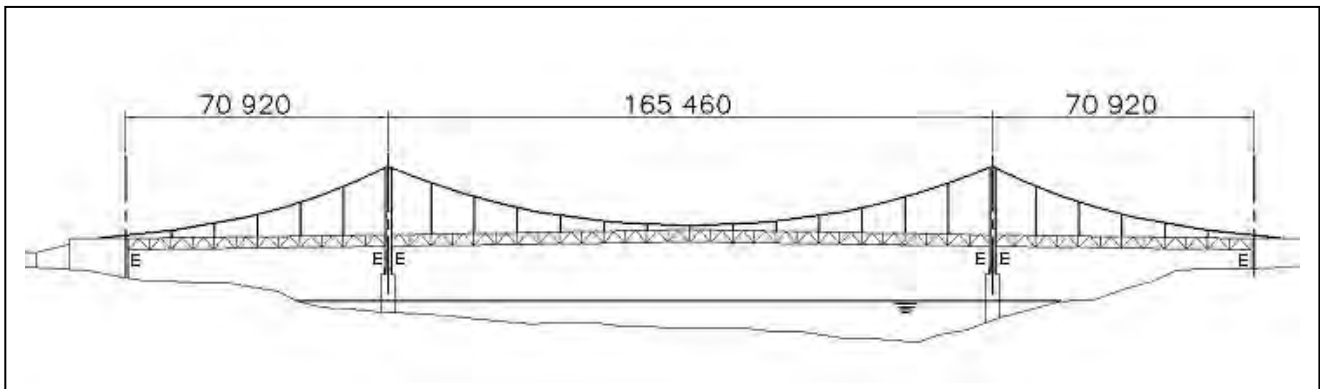
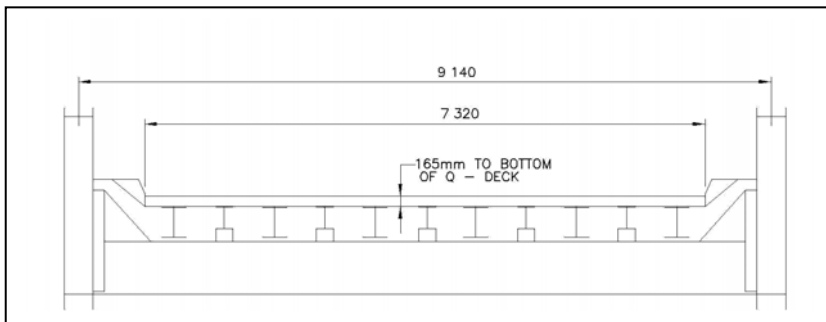


# Lower Liard River Bridge Alaska Highway km 763.3



**ELEVATION**

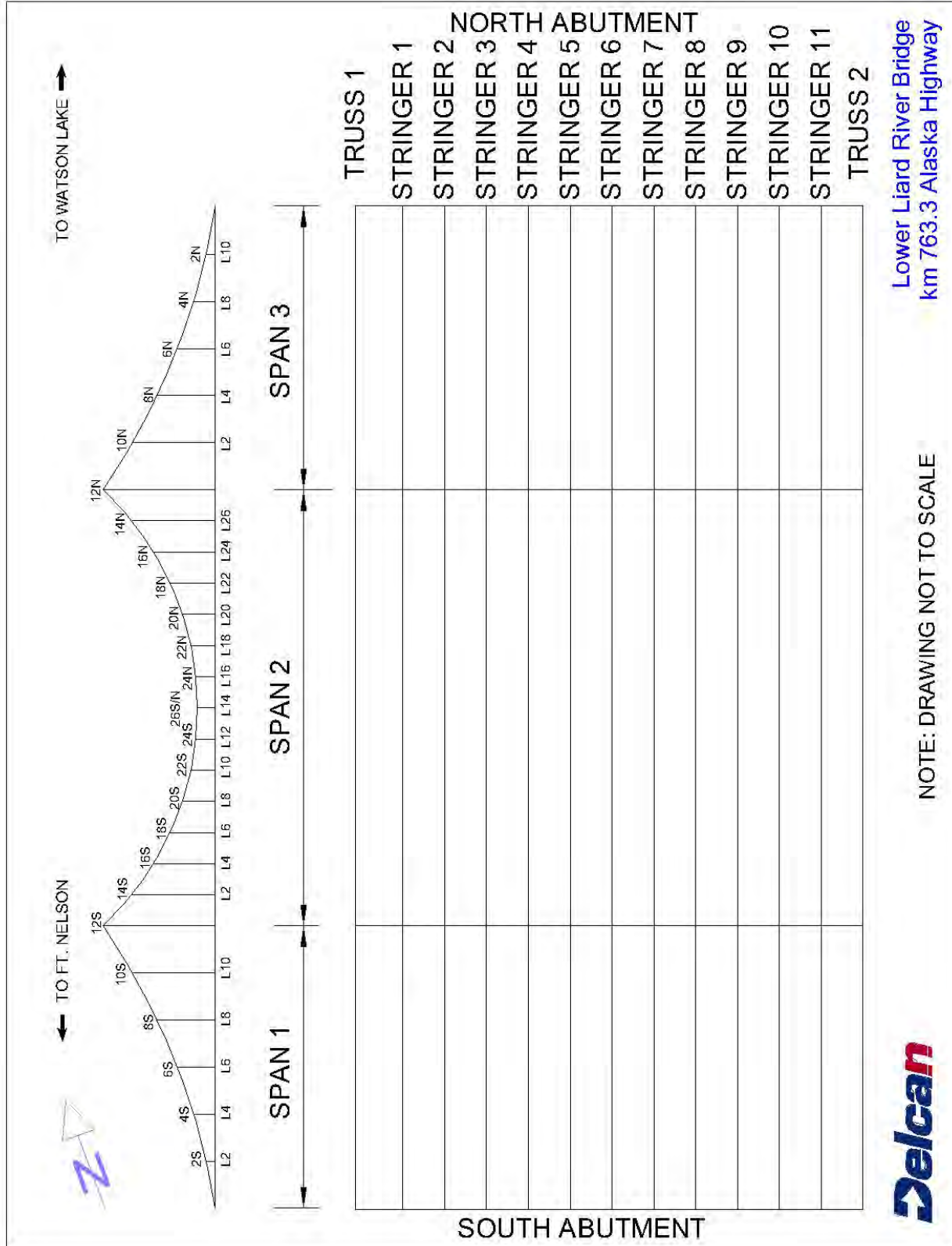


**SECTION**

Description:

1. Suspension bridge
2. Steel stiffening truss
3. Reinforced concrete deck
4. Reinforced concrete piers and abutments
5. Reinforced concrete anchor blocks
6. Steel towers

# Lower Liard River Bridge Alaska Highway km 763.3



# Lower Liard River Bridge Alaska Highway km 763.3

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Year Constructed: 1943  
 Original Design: PWGSC  
 Last Load Rating: 2001 – Meets CHBDC Live Load Requirements with minor exception for top chord of deck truss  
 Drawings Available: Yes  
**Last Underwater Inspection: 2011 – Included in this report**  
 Previous C Inspection Report for 2009: Delcan – Stan Reimer, P.Eng.  
 Previous G Inspection Report for 2010: PWGSC – Alex Taheri, P.Eng., Pei-Chin Tsai, E.I.T. and Jeff Downing, P.Eng.  
 Current Inspection Date: August 19, 23 and 24, 2011  
 Inspectors: Delcan Corporation  
 Stan Reimer, P.Eng., Grant Waldie, E.I.T.  
 Temperature: 17°C on August 19<sup>th</sup>  
 Weather: Sunny with cloudy periods  
 Equipment: Standard Inspection Equipment, Crane with Man Bucket, Snooper  
 2009 Structural Condition Rating: 4  
 2009 Functional Rating: 2  
 2010 Structural Condition Rating: 4  
 2010 Functional Rating: 2  
**2011 Structural Condition Rating: 4 (north pier underwater damage governs)**  
**2011 Functional Rating: 2 (clear width low by 30%)**  
 Watercourse Flow Direction: West to East (Truss 1 is on West Side)  
 Estimated Replacement Cost: \$35 million (2011 dollars)  
 GPS Coordinates: N 59°-24’-42.2”, W 126°-5’-47.4”

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Ten Year Plan - Cost Estimate (2011 dollars)									
Recommended Work	Priority Code	Units	Qty	Unit Cost	Within 1 Yr	Within 3 Yrs	Within 5 Yrs	Within 10 Yrs	Maint.
1. Realign north tower finger joint plates	B	lump	1	\$30,000		\$30,000			
2. Repair underwater north pier deterioration	B	lump	1	\$100,000		\$100,000			
3. Repair asphalt curb terminations at abutments	M	lump	4	\$200					\$800
4. Deck repairs	10	lump	1	\$200,000				\$200,000	
Construction/Maintenance Cost Subtotals:					\$0	\$130,000	\$0	\$200,000	\$800
Engineering Costs (20% of construction cost):					\$0	\$26,000	\$0	\$40,000	
20% Contingency:					\$0	\$26,000	\$0	\$40,000	\$160
Note: Costs do not include: mobilization or flagging Subtotals:					\$0	\$182,000	\$0	\$280,000	\$960
<b>Total Cost Estimate:</b>					<b>\$462,960</b>				

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## Lower Liard River Bridge Alaska Highway km 763.3

<b>Significant Inspection Concerns</b>	<ol style="list-style-type: none"> <li>1. An underwater inspection of the north pier revealed that the erosion or spalling on the north side of the pier stem concrete adjacent to the footing continues to develop from where it was repaired several years ago. There are 3 sections to this spall totaling 6.3 m in length. The worst (middle) section measures 406 mm deep x 200 mm high x 1800 mm long. Repairs are recommended within 3 years using the same repair methodology that was used for the previous repairs.</li> <li>2. The north pier finger joint is failing and in poor condition with rotation of the fingers downward and separation of the finger joint plates from mounts. This finger joint makes loud clanking noises every time a truck drives over it.</li> <li>3. The main cables are in good condition. There are some broken wires but no change since last inspections in 1998, 2001, 2005, 2007 and 2009.</li> <li>4. The overall functional rating for this bridge is 2 (inadequate) due to clear width of only 7.23m versus the required TAC clear width of 10.4m.</li> </ol>
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Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Primary Components</b>								
Watercourse	5	5	D	5	5	D	The Lower Liard River is a wide straight and stable waterway flowing east under all 3 spans of the bridge. Both piers are in the water. An underwater inspection was carried out on both piers this year.	3,4
Foundations	5	5	D	5	5	D	No visible defects.	
South Abutment	4	4	S A	5	5	D	The abutments for this suspension bridge anchor the main cables in large concrete anchor blocks. The south abutment concrete appears to be generally in good condition despite the large number of cracks. There is some bulging in the sidewalls, adjacent to the anchor cables. Some concern has been expressed that the concrete may be swelling due to reactive aggregates. It is our opinion that this is a construction defect. There has been some concern about the cracks near the anchor blocks and some crack monitoring has taken place with no movement reported. At some point in the past 8 soil tie-backs were installed in the ballast walls of each abutment.	73-75
North Abutment	4	4	S A	5	5	D	The south abutment concrete appears to be generally in good condition despite the large number of cracks. The north bearing seat has been repaired since the 2009 inspections.	86-89
South Pier (#1)	5	5	D	5	5	D	South pier concrete is in good general	76-79



## Lower Liard River Bridge Alaska Highway km 763.3

Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
							<p>condition. Extensive crack repairs were carried out in 2008. The scope of work included numerous crack and spall repairs above and below water.</p> <p><b><u>Underwater Inspections</u></b>            No significant underwater damage found.            - Due to strong current and resulting high sediment content, no underwater photos were possible this year.            - Most defects identified in earlier underwater inspection reports have been repaired            - Spalls have been repaired with grout and steel or plastic grout patches.            - In one case, the plastic grout patch is peeling off of the pier and in another the grout patch is missing but in both cases the grout remains intact            - Seven minor unrepaired spalls up to 38 mm deep and one 900 mm long crack remain            - water depth around the pier ranges from 1.9 m near the upstream nose to 4.8 m near the downstream nose, similar to previous years, with no scour holes            - See underwater sketches and photos that follow</p>	
North Pier (#2)	5	5	D	4	5	B	<p>South pier concrete is in good general condition. Extensive crack repairs were carried out in 2008. The scope of work included numerous crack and spall repairs above and below water.</p> <p><b><u>Underwater Inspection Results</u></b>  <b>Significant underwater erosion or spall found on the north side of pier 2 in the pier stem at the footing.</b> There are 3 sections to this spall that measure 6.3 m in total length and are identified as spalls l), m) and n) on the attached underwater sketch. The worst (middle) section identified as m) measures 406 mm deep x 200 mm high x 1800 mm long. This damage is an extension of the nose erosion repaired several years ago (see underwater sketch that follows). This spall damage should be repaired within 3 years.            - Due to strong current and resulting high</p>	81-84

## Lower Liard River Bridge Alaska Highway km 763.3

Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
							<p>sediment content, no underwater photos were possible this year.</p> <ul style="list-style-type: none"> <li>- Most defects identified in earlier underwater inspection reports have been repaired</li> <li>- Spalls have been repaired with grout and steel or plastic grout patches.</li> <li>- In some cases, the plastic grout patches are peeling off of the pier but the grout remains intact.</li> <li>- In addition to the spall mentioned above, there are 10 other minor unrepaired underwater spalls up to 75 mm deep that should be repaired or monitored in subsequent underwater inspections.</li> <li>- water depth around the pier ranges from 2.0 m near the high chainage (north or shoreline) side of the pier to 5.3 m near the low chainage (south) side, similar to previous years, with no scour holes</li> <li>- See underwater sketches and photos that follow</li> </ul>	
Towers	5	5	D	5	5	D	Towers are plumb and in good condition. All members in the spray zone received a new coating system in 2008.	76-85
Stringers	5	5	D	5	5	D	Stringers received a new paint system in 2008 and are generally in good condition with negligible section loss. See individual member ratings on following table.	21,23, 24,32, 33,42
Floor Beams	5	5	D	5	5	D	Floor beams received a new painting system in 2008 and are generally in good condition with negligible section loss. It was not possible to paint the interior sides of side-by-side floor beams located at both towers. There is some rust staining leaking from these locations. There is some paint peeling on floorbeam 28 at the north tower. See individual member ratings on following table.	21, 23-25, 27,30, 33,34, 36,39, 42
Trusses	5	5	D	5	5	D	The stiffening trusses are generally in good condition with a new painting system completed in 2008. The two end verticals at the north abutment have webs that are bowed up to 25 mm with no associated cracks. This deformation likely occurred during original construction. Expansion guide plates have	11,15, 18,29, 31,40, 91,92

## Lower Liard River Bridge Alaska Highway km 763.3

Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
							been installed on the top flanges of both stiffening trusses across the north pier expansion joint to help control movement of the north span. See individual member ratings on following table.	
Main Cables	5	5	D	5	5	D	The main cables are in good condition. There are some broken wires but no change since last inspections in 1998, 2001, 2005, 2007 and 2009. All loose ends have been clamped off with a round clamp except 1. See individual member ratings on following table.	44-72
Hangers and Connectors	5	5	D	5	5	D	The hangers are in good condition with some normal slippage in the anchor pots and some nicks and scrapes. Several hangers have slipped down the main cables in the past but no further slipping since 2001 inspections. They are listed as follows: 10S West – 5 mm, 14N West – 5 mm, and 10N West – 25 mm. No action is necessary.	46,49, 52,68, 71
Connections of Primary Components	5	5	D	5	5	D	Hanger connections are in good connection with no visible defects.	15,18, 21-34, 40,49, 69-72
Deck	4	4	A	5	5	D	Measured deck delamination was 77 m <sup>2</sup> (3% deck area) this year. Most delaminations are adjacent to recent patches. No recent patches are delaminated. There are several pot holes developing near the centre of the bridge (see Photo P09). The soffit is concealed with permanent formwork. There is some ponding occurring at midspan after rain. This is due to the flattening of the deck profile at midspan after the concrete deck was installed. There is some paint peeling off of the permanent soffit formwork adjacent to the north tower expansion joint. There is some localized rust staining in the soffit formwork below the sidewalks (see Photo P26).	10, 12-14, 22,26, 37
<b>Secondary Components</b>								
Embankments	5	5	D	5	5	D	The embankments are all well vegetated and in good condition. Some trees are quite large and close to but not directly below the bridge. The north shore embankment is protected by bedrock outcrops.	73,86

## Lower Liard River Bridge Alaska Highway km 763.3

Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
Ballast Walls	5	5	D	5	5	D	Ballast walls are in generally in good condition with some scaling. There are 8 soil anchors in each ballast wall.	73,86
Wingwalls	5	5	D	5	5	D	Wingwalls have numerous shrinkage cracks but are nevertheless in good condition.	74
Bearing Seats	4	5	B	5	5	D	Pier cap bearing seats are clean and in good condition. Abutment bearing seats are dirty. The north abutment bearing seat has been repaired since 2009 inspections.	73,75, 77-79, 82-84, 88,89
Bearings	4	4	D	5	5	D	There are several sets of bearings for this bridge and they include: 4 abutment bearings, 2 at each abutment, 4 tower bearings, 2 on each tower and 8 deck-to-tower bearings, 4 at each tower. All bearings allow for horizontal movement but prevent vertical movement including lift. The abutment bearings connect the deck truss to the abutments and allow for longitudinal expansion with a double pin and arm assembly. These bearings are generally in good condition with light to medium rust evident. There are keeper bars mounted to the ballast walls on the north bearings that are meant to limit the movement of the bridge away from the north abutment. The tower bearings are fixed bearing that sit on the concrete pier caps. The deck to tower bearings are provided for each of 8 deck-to-tower connections and are comprised of a double pin and arm connection that allows for longitudinal expansion. These bearings are hidden within the deck truss and tower members so access for inspection was limited.	82-84, 88,89
Joints	4	4	B	4	4	B	The 4 intermediate deck joints (located away from towers and abutments) and abutment joints are in fair condition but leaking slightly onto the floor system and soffit below. The south tower finger joint is in good condition. The north tower finger joint is failing and in poor condition with rotation of one finger joint plate downward and separation of the plate from mounts. This finger joint plate makes loud clanking noises every time a truck drives over it. Expansion guide plates have been installed on the top flanges of both	6-9,11

## Lower Liard River Bridge Alaska Highway km 763.3

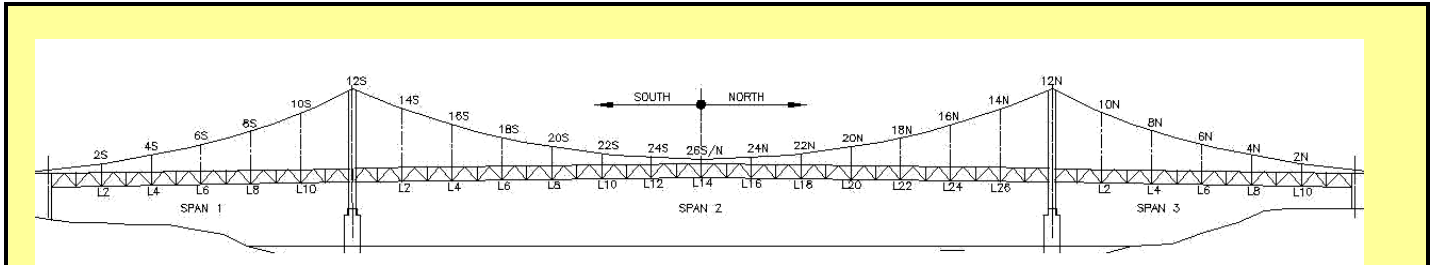
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
							stiffening trusses across the north pier expansion joint to help control movement of the north span.	
Bracing	5	5	D	5	5	D	Floor system cross bracing is generally in good condition with new paint.	21,27
Connections of secondary components	5	5	D	5	5	D	No defects noted.	21,27
Curbs	5	5	A	5	5	M	The steel curbs and sidewalks are generally in fair condition with new paint. Runoff is leaking into the floor system through gaps in the curbs. There is some localized rust staining and paint peeling below the sidewalk (see Photo P26). The asphalt taper at the NW curb termination at the north abutment has been abraded away by traffic (see Photo P19).	10,20, 22,26, 38
Approach Slabs	3	4	D	4	5	D	Deck repairs carried out on the approach slabs since the 2009 inspections have significantly improved approach slab condition. Several delaminations and wide transverse and longitudinal cracks remain.	6,9,12
Approaches	4	3	A	5	5	D	The approach roadways are in good condition. The width restrictions between the massive concrete anchor blocks at both abutments have been improved with tapered concrete barriers since the 2009 inspections to mitigate collision concerns.	1,2
Approach Barriers	5	5	D	5	5	D	Concrete approach barriers at both ends of the bridge.	1,2
Bridge Barriers	4	4	A	5	5	D	The railing for this bridge is comprised of a steel channel connected to the deck truss and was repainted in 2008. The railing has minor collision damage in several locations on both sides but no damage has occurred to trusses. There has been concern for several years that the steel channel railing is inadequate. However, it would not be possible for a vehicle to go off the bridge with the high and heavy stiffening truss behind the railing.	15-18
Coatings on Primary Components	6	6	D	6	6	D	The bridge was repainting in and below the splash zone in 2007/2008. In general, the new coating is in good condition. There are some localized paint defects adjacent to the north tower where some paint is peeling on	21, 23-25, 27,30, 33,34, 36,39,



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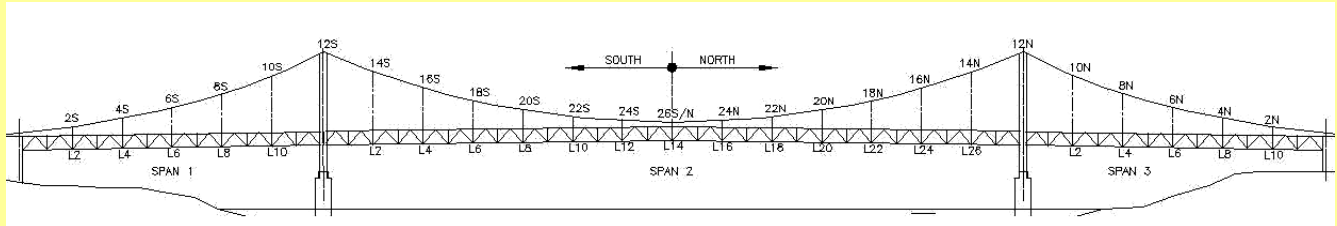
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
							floorbeam 28 and on the permanent soffit formwork below the tower joints and sidewalks.	42
<b>Auxiliary Components</b>								
Slope Protection	5	5	D	5	5	D	The north embankment below the bridge is protected by an outcrop of bedrock. The south embankment and approach embankments are well covered with vegetation.	73,86
Deck Drains and Drainage Systems	5	5	D	5	5	D	The deck drains are open and functioning well. Drain pipes were repainted in 2007/2008.	19,21
Signs	5	5	D	5	5	D	There are 4 delineators and a bridge ID sign at both approaches.	1,2
Utilities	5	5	D	5	5	D	There is a fibre optic conduit attached to the bottom west chord of the stiffening truss.	90
Coatings on Secondary Components	6	6	D	6	6	D	All coatings on secondary members have been replaced in 2007/2008. There is some rust staining leaking from connection surfaces that were not accessible for painting.	21,26,27

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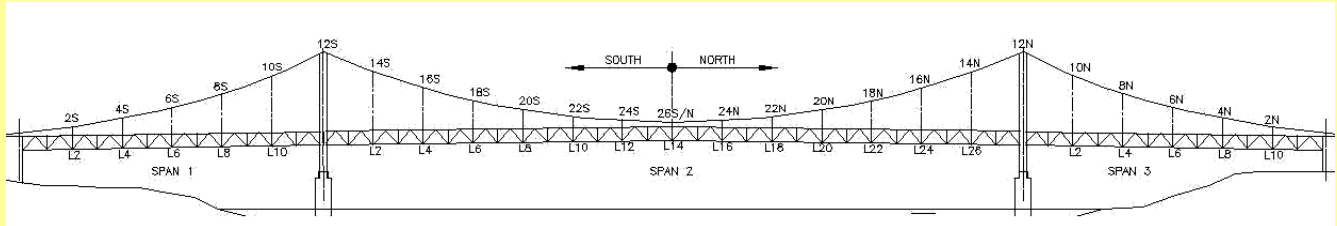
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
<b>Span 1 - West Truss</b>								
<b>Top Chord – Span 1 – West Truss</b>								
L0-U1W	5	5	D	5	5	D	No visible defects.	
U1-U2W	5	5	D	5	5	D	No visible defects.	
U2-U3W	5	5	D	5	5	D	No visible defects.	
U3-U4W	5	5	D	5	5	D	No visible defects.	
U4-U5W	5	5	D	5	5	D	No visible defects.	
U5-U6W	5	5	D	5	5	D	No visible defects.	
U6-U7W	5	5	D	5	5	D	No visible defects.	
U7-U8W	5	5	D	5	5	D	No visible defects.	
U8-U9W	5	5	D	5	5	D	No visible defects.	
U9-U10W	5	5	D	5	5	D	No visible defects.	
U10-U11W	5	5	D	5	5	D	No visible defects.	
U11-U12W	5	5	D	5	5	D	No visible defects.	
<b>Verticals – Span 1 – West Truss</b>								
U0-L0W	5	5	D	5	5	D	No visible defects.	
U1-L1W	5	5	D	5	5	D	No visible defects.	
U2-L2W	5	5	D	5	5	D	No visible defects.	
U3-L3W	5	5	D	5	5	D	No visible defects.	
U4-L4W	5	5	D	5	5	D	No visible defects.	
U5-L5W	5	5	D	5	5	D	No visible defects.	
U6-L6W	5	5	D	5	5	D	No visible defects.	
U7-L7W	5	5	D	5	5	D	No visible defects.	
U8-L8W	5	5	D	5	5	D	No visible defects.	
U9-L9W	5	5	D	5	5	D	No visible defects.	
U10-L10W	5	5	D	5	5	D	No visible defects.	
U11-L11W	5	5	D	5	5	D	No visible defects.	
U12-L12W	5	5	D	5	5	D	No visible defects.	
<b>Vertical Cable Hanger – West Cable</b>								
Hanger 2W	5	5	D	5	5	D	No visible defects.	

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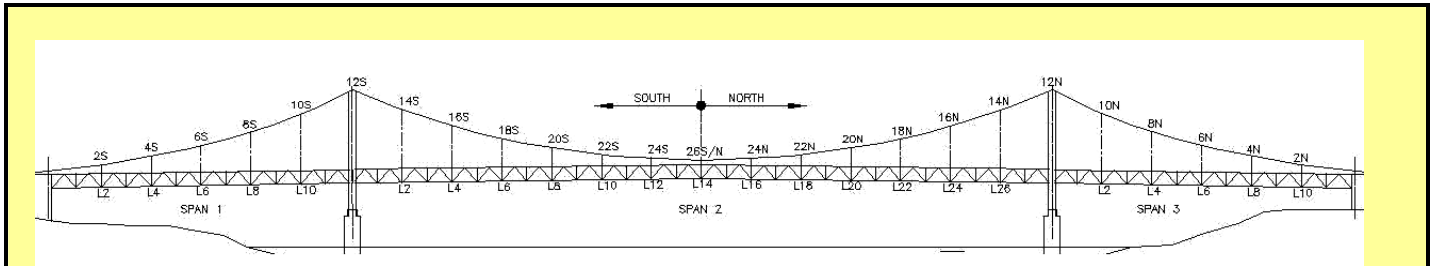
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
Cable 4W	5	5	D	5	5	D	No visible defects.	
Cable 6W	5	5	D	5	5	D	No visible defects.	
Cable 8W	5	5	D	5	5	D	No visible defects.	
Cable 10W	5	5	D	5	5	D	Hanger 10S slipped 5 mm	
<b>Diagonals – Span 1 – West Truss</b>								
u1-L0W	5	5	D	5	5	D	No visible defects.	
u1-L1W	5	5	D	5	5	D	No visible defects.	
u2-L1W	5	5	D	5	5	D	No visible defects.	
u2-L2W	5	5	D	5	5	D	No visible defects.	
u3-L2W	5	5	D	5	5	D	No visible defects.	
u3-L3W	5	5	D	5	5	D	No visible defects.	
u4-L3W	5	5	D	5	5	D	No visible defects.	
u4-L4W	5	5	D	5	5	D	No visible defects.	
u5-L4W	5	5	D	5	5	D	No visible defects.	
u5-L5W	5	5	D	5	5	D	No visible defects.	
u6-L5W	5	5	D	5	5	D	No visible defects.	
u6-L6W	5	5	D	5	5	D	No visible defects.	
u7-L6W	5	5	D	5	5	D	No visible defects.	
u7-L7W	5	5	D	5	5	D	No visible defects.	
u8-L7W	5	5	D	5	5	D	No visible defects.	
u8-L8W	5	5	D	5	5	D	No visible defects.	
u9-L8W	5	5	D	5	5	D	No visible defects.	
u9-L9W	5	5	D	5	5	D	No visible defects.	
u10-L9W	5	5	D	5	5	D	No visible defects.	
u10-L10W	5	5	D	5	5	D	No visible defects.	
u11-L10W	5	5	D	5	5	D	No visible defects.	
u11-L11W	5	5	D	5	5	D	No visible defects.	
u12-L11W	5	5	D	5	5	D	No visible defects.	
u12-L12W	5	5	D	5	5	D	No visible defects.	
<b>Bottom Chord – Span 1 – West Truss</b>								
L0-L1W	5	5	D	5	5	D	No visible defects.	

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Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L1-L2W	5	5	D	5	5	D	No visible defects.	24
L2-L3W	5	5	D	5	5	D	No visible defects.	24
L3-L4W	5	5	D	5	5	D	No visible defects.	24
L4-L5W	5	5	D	5	5	D	No visible defects.	24
L5-L6W	5	5	D	5	5	D	No visible defects.	24
L6-L7W	5	5	D	5	5	D	No visible defects.	24
L7-L8W	5	5	D	5	5	D	No visible defects.	24
L8-L9W	5	5	D	5	5	D	No visible defects.	24
L9-L10W	5	5	D	5	5	D	No visible defects.	24
L10-L11W	5	5	D	5	5	D	No visible defects.	24
L11-L12W	5	5	D	5	5	D	No visible defects.	24
<b>Span 1 – East Truss</b>								
<b>Top Chord – Span 1 – East Truss</b>								
L0-U1E	5	5	D	5	5	D	No visible defects.	23
U1-U2E	5	5	D	5	5	D	No visible defects.	23
U2-U3E	5	5	D	5	5	D	No visible defects.	23
U3-U4E	5	5	D	5	5	D	No visible defects.	23
U4-U5E	5	5	D	5	5	D	No visible defects.	23
U5-U6E	5	5	D	5	5	D	No visible defects.	23
U6-U7E	5	5	D	5	5	D	No visible defects.	23
U7-U8E	5	5	D	5	5	D	No visible defects.	23
U8-U9E	5	5	D	5	5	D	No visible defects.	23
U9-U10E	5	5	D	5	5	D	No visible defects.	23
U10-U11E	5	5	D	5	5	D	No visible defects.	23
U11-U12E	5	5	D	5	5	D	No visible defects.	23
<b>Verticals – Span 1 – East Truss</b>								
U0-L0E	5	5	D	5	5	D	No visible defects.	23
U1-L1E	5	5	D	5	5	D	No visible defects.	23
U2-L2E	5	5	D	5	5	D	No visible defects.	23
U3-L3E	5	5	D	5	5	D	No visible defects.	23
U4-L4E	5	5	D	5	5	D	No visible defects.	23
U5-L5E	5	5	D	5	5	D	No visible defects.	23
U6-L6E	5	5	D	5	5	D	No visible defects.	23

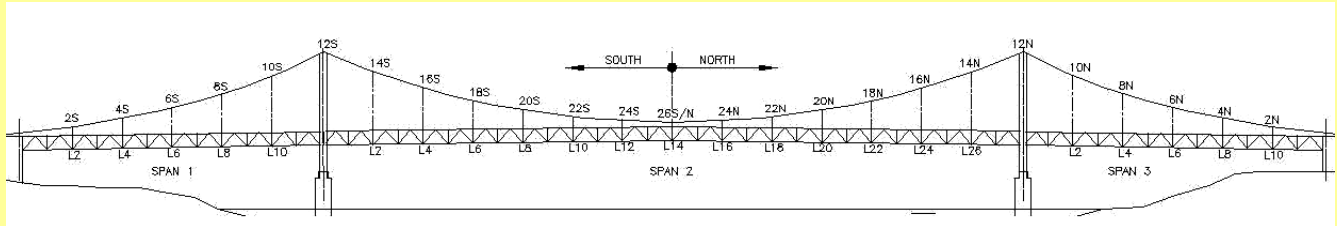
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Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U7-L7E	5	5	D	5	5	D	No visible defects.	23
U8-L8E	5	5	D	5	5	D	No visible defects.	23
U9-L9E	5	5	D	5	5	D	No visible defects.	23
U10-L10E	5	5	D	5	5	D	No visible defects.	23
U11-L11E	5	5	D	5	5	D	No visible defects.	23
U12-L12E	5	5	D	5	5	D	No visible defects.	23
<b>Vertical Cable Hangers – East Cable</b>								
Hanger 2E	5	5	D	5	5	D	No visible defects.	23
Cable 4E	5	5	D	5	5	D	No visible defects.	23
Cable 6E	5	5	D	5	5	D	No visible defects.	23
Cable 8E	5	5	D	5	5	D	No visible defects.	23
Cable 10E	5	5	D	5	5	D	No visible defects.	23
<b>Diagonals – Span 1 – East Truss</b>								
u1-L0E	5	5	D	5	5	D	No visible defects.	23
u1-L1E	5	5	D	5	5	D	No visible defects.	23
u2-L1E	5	5	D	5	5	D	No visible defects.	23
u2-L2E	5	5	D	5	5	D	No visible defects.	23
u3-L2E	5	5	D	5	5	D	No visible defects.	23
u3-L3E	5	5	D	5	5	D	No visible defects.	23
u4-L3E	5	5	D	5	5	D	No visible defects.	23
u4-L4E	5	5	D	5	5	D	No visible defects.	23
u5-L4E	5	5	D	5	5	D	No visible defects.	23
u5-L5E	5	5	D	5	5	D	No visible defects.	23
u6-L5E	5	5	D	5	5	D	No visible defects.	23
u6-L6E	5	5	D	5	5	D	No visible defects.	23
u7-L6E	5	5	D	5	5	D	No visible defects.	23
u7-L7E	5	5	D	5	5	D	No visible defects.	23
u8-L7E	5	5	D	5	5	D	No visible defects.	23
u8-L8E	5	5	D	5	5	D	No visible defects.	23
u9-L8E	5	5	D	5	5	D	No visible defects.	23
u9-L9E	5	5	D	5	5	D	No visible defects.	23
u10-L9E	5	5	D	5	5	D	No visible defects.	23
u10-L10E	5	5	D	5	5	D	No visible defects.	23

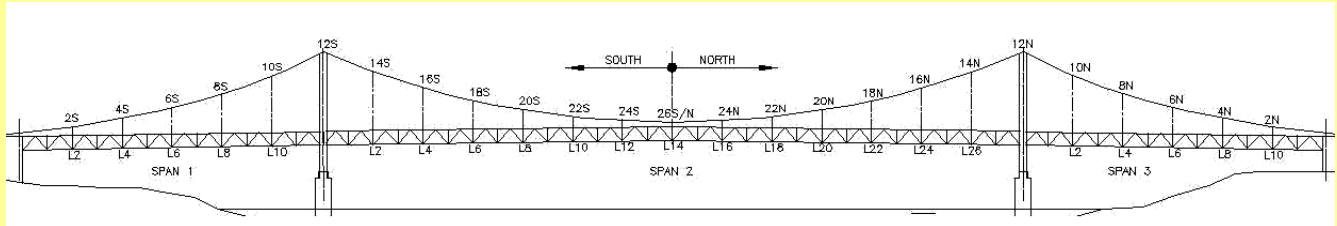


# Lower Liard River Bridge Alaska Highway km 763.3



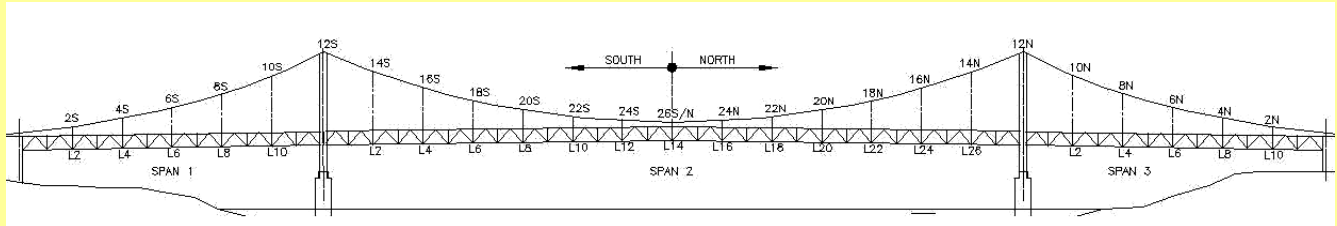
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u11-L10E	5	5	D	5	5	D	No visible defects.	23
u11-L11E	5	5	D	5	5	D	No visible defects.	23
u12-L11E	5	5	D	5	5	D	No visible defects.	23
u12-L12E	5	5	D	5	5	D	No visible defects.	23
<b>Bottom Chord – Span 1 – East Truss</b>								
L0-L1E	5	5	D	5	5	D	No visible defects.	23,24
L1-L2E	5	5	D	5	5	D	No visible defects.	23,24
L2-L3E	5	5	D	5	5	D	No visible defects.	23,24
L3-L4E	5	5	D	5	5	D	No visible defects.	23,24
L4-L5E	5	5	D	5	5	D	No visible defects.	23,24
L5-L6E	5	5	D	5	5	D	No visible defects.	23,24
L6-L7E	5	5	D	5	5	D	No visible defects.	23,24
L7-L8E	5	5	D	5	5	D	No visible defects.	23,24
L8-L9E	5	5	D	5	5	D	No visible defects.	23,24
L9-L10E	5	5	D	5	5	D	No visible defects.	23,24
L10-L11E	5	5	D	5	5	D	No visible defects.	23,24
L11-L12E	5	5	D	5	5	D	No visible defects.	23,24
<b>Bottom Chord Bracing – Span 1</b>								
b0W-L1E	5	5	D	5	5	D	No visible defects.	
b0E-L1W	5	5	D	5	5	D	No visible defects.	
L1W-b2E	5	5	D	5	5	D	No visible defects.	24
L1E-b2W	5	5	D	5	5	D	No visible defects.	24
b2W-L3E	5	5	D	5	5	D	No visible defects.	24
b2E-L3W	5	5	D	5	5	D	No visible defects.	24
L3W-b4E	5	5	D	5	5	D	No visible defects.	24
L3E-b4W	5	5	D	5	5	D	No visible defects.	24
b4W-L5E	5	5	D	5	5	D	No visible defects.	
b4E-L5W	5	5	D	5	5	D	No visible defects.	
L5W-b6E	5	5	D	5	5	D	No visible defects.	
L5E-b6W	5	5	D	5	5	D	No visible defects.	
b6W-L7E	5	5	D	5	5	D	No visible defects.	
b6E-L7W	5	5	D	5	5	D	No visible defects.	
L9W-b10E	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



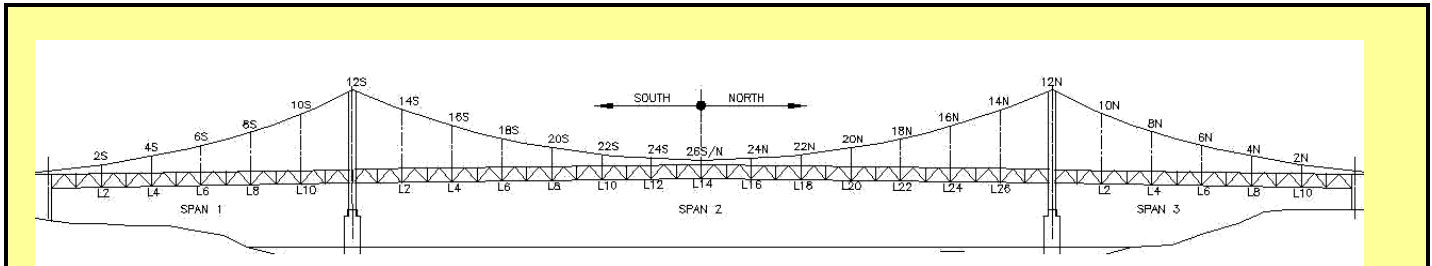
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L9E-b10W	5	5	D	5	5	D	No visible defects.	
b10W-L11E	5	5	D	5	5	D	No visible defects.	
b10E-L11W	5	5	D	5	5	D	No visible defects.	
L11W-b12E	5	5	D	5	5	D	No visible defects.	
L11E-b12W	5	5	D	5	5	D	No visible defects.	
<b>Floorbeams – Span 1</b>								
L0W-L0E	5	5	D	5	5	D	No visible defects.	24,25
L1W-L1E	5	5	D	5	5	D	No visible defects.	24
L2W-L2E	5	5	D	5	5	D	No visible defects.	24
L3W-L3E	5	5	D	5	5	D	No visible defects.	24
L4W-L4E	5	5	D	5	5	D	No visible defects.	24
L5W-L5E	5	5	D	5	5	D	No visible defects.	24
L6W-L6E	5	5	D	5	5	D	No visible defects.	24
L7W-L7E	5	5	D	5	5	D	No visible defects.	24
L8W-L8E	5	5	D	5	5	D	No visible defects.	24
L9W-L9E	5	5	D	5	5	D	No visible defects.	24
L10W-L10E	5	5	D	5	5	D	No visible defects.	24
L11W-L11E	5	5	D	5	5	D	No visible defects.	24
L12W-L12E	5	5	D	5	5	D	Pitting up to 2 mm deep in web	24,27,28,29
<b>Stringers – Span 1</b>								
L0-L1 Stringer 1	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 2	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 3	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 4	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 5	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 6	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 7	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 8	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 9	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 10	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 11	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 1	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 2	5	5	D	5	5	D	No visible defects.	24

# Lower Liard River Bridge Alaska Highway km 763.3



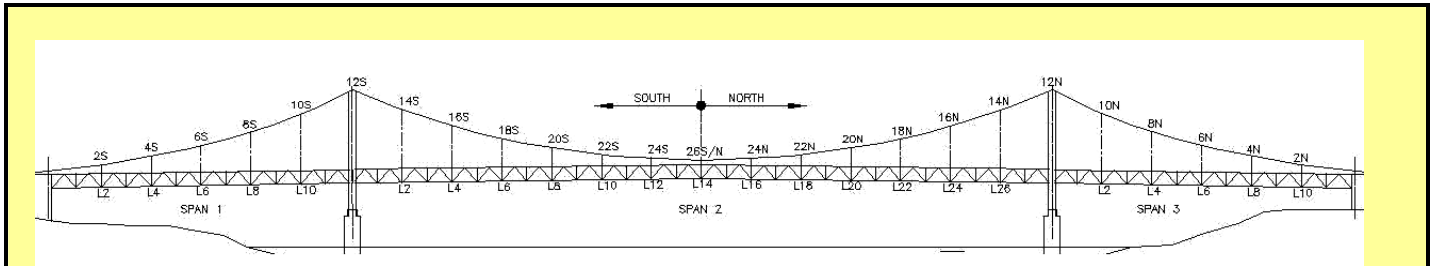
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L1-L2 Stringer 3	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 4	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 5	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 6	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 7	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 8	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 9	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 10	5	5	D	5	5	D	No visible defects.	24
L1-L2 Stringer 11	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 1	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 2	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 3	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 4	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 5	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 6	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 7	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 8	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 9	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 10	5	5	D	5	5	D	No visible defects.	24
L2-L3 Stringer 11	5	5	D	5	5	D	No visible defects.	24
L3-L4 Stringer 1	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 2	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 3	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 4	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 5	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 6	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 7	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 8	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 9	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 10	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 11	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 1	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 2	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L4-L5 Stringer 3	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 4	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 5	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 6	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 7	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 8	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 9	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 10	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 11	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 1	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 2	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 3	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 4	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 5	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 6	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 7	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 8	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 9	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 10	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 11	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 1	5	5	D	5	5	D	No visible defects.	26
L6-L7 Stringer 2	5	5	D	5	5	D	No visible defects.	26
L6-L7 Stringer 3	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 4	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 5	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 6	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 7	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 8	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 9	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 10	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 11	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 1	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 2	5	5	D	5	5	D	No visible defects.	

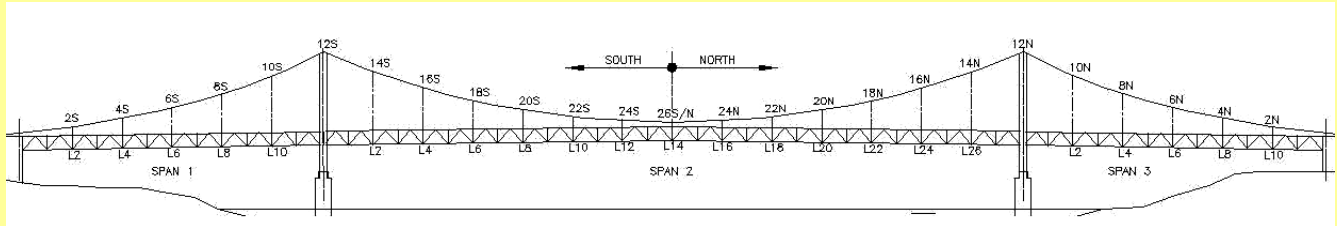
# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L7-L8 Stringer 3	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 4	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 5	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 6	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 7	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 8	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 9	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 10	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 11	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 1	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 2	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 3	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 4	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 5	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 6	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 7	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 8	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 9	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 10	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 11	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 1	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 2	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 3	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 4	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 5	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 6	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 7	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 8	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 9	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 10	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 11	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 1	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 2	5	5	D	5	5	D	No visible defects.	

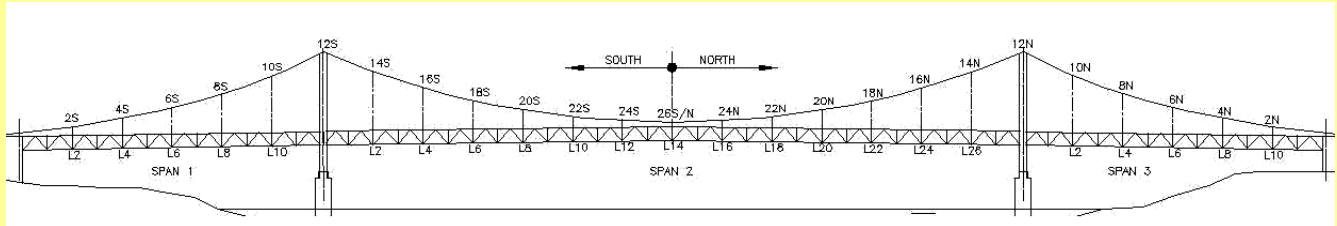


# Lower Liard River Bridge Alaska Highway km 763.3



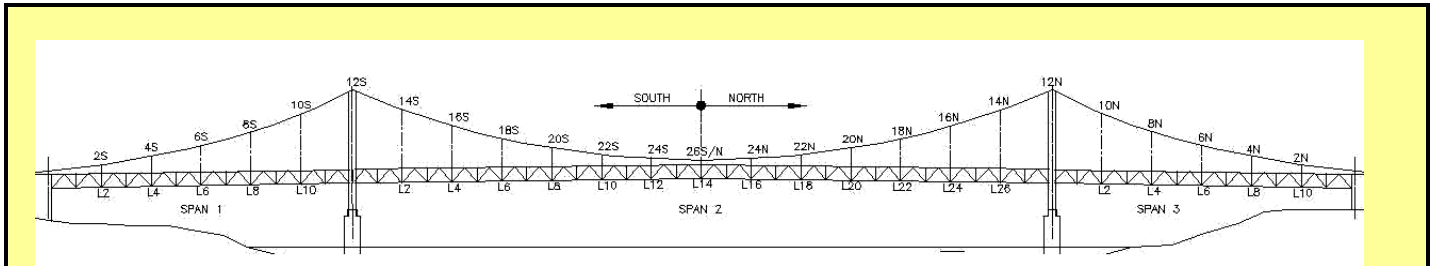
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L10-L11 Stringer 3	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 4	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 5	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 6	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 7	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 8	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 9	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 10	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 11	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 1	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 2	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 3	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 4	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 5	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 6	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 7	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 8	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 9	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 10	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 11	5	5	D	5	5	D	No visible defects.	
<b>Span 2 – West Truss</b>								
<b>Top Chord – Span 2 – West Truss</b>								
L0-U1W	5	5	D	5	5	D	No visible defects.	31
U1-U2W	5	5	D	5	5	D	No visible defects.	31
U2-U3W	5	5	D	5	5	D	No visible defects.	31
U3-U4W	5	5	D	5	5	D	No visible defects.	31
U4-U5W	5	5	D	5	5	D	No visible defects.	31
U5-U6W	5	5	D	5	5	D	No visible defects.	31
U6-U7W	5	5	D	5	5	D	No visible defects.	31
U7-U8W	5	5	D	5	5	D	No visible defects.	31
U8-U9W	5	5	D	5	5	D	No visible defects.	31
U9-U10W	5	5	D	5	5	D	No visible defects.	31,44
U10-U11W	5	5	D	5	5	D	No visible defects.	31,44

# Lower Liard River Bridge Alaska Highway km 763.3



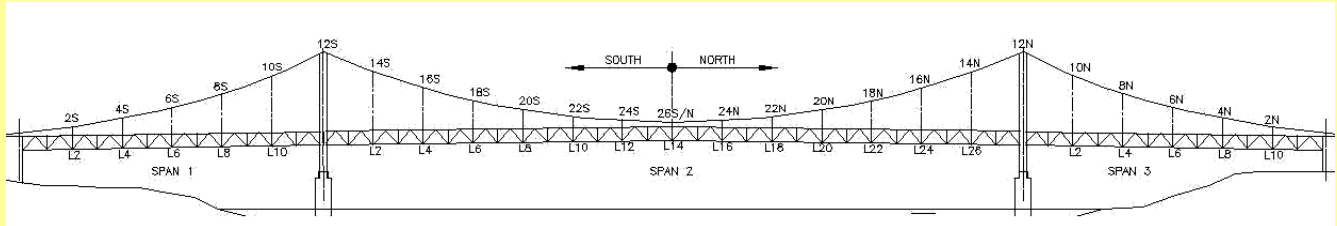
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U11-U12W	5	5	D	5	5	D	No visible defects.	31,44
U12- U13W	5	5	D	5	5	D	No visible defects.	31,44
U13-U14W	5	5	D	5	5	D	No visible defects.	31,44
U14-U15W	5	5	D	5	5	D	No visible defects.	16,31,44
U15-U16W	5	5	D	5	5	D	No visible defects.	16,31,44
U16-U17W	5	5	D	5	5	D	No visible defects.	16,31,44
U17-U18W	5	5	D	5	5	D	No visible defects.	16,31,44
U18-U19W	5	5	D	5	5	D	No visible defects.	16,31,44
U19-U20W	5	5	D	5	5	D	No visible defects.	16,31,44
U20-U21W	5	5	D	5	5	D	No visible defects.	16,31,44
U21-U22W	5	5	D	5	5	D	No visible defects.	16,31,44
U22-U23W	5	5	D	5	5	D	No visible defects.	16,31,44
U23-U24W	5	5	D	5	5	D	No visible defects.	16,31,44
U24-U25W	5	5	D	5	5	D	No visible defects.	16,31,44
U25-U26W	5	5	D	5	5	D	No visible defects.	16,31,44
U26-U27W	5	5	D	5	5	D	No visible defects.	16,31,44
U27-U28W	5	5	D	5	5	D	No visible defects.	16,31,44
<b>Verticals – Span 2 – West Truss</b>								
U0-L0W	5	5	D	5	5	D	No visible defects.	31
U1-L1W	5	5	D	5	5	D	No visible defects.	31
U2-L2W	5	5	D	5	5	D	No visible defects.	31
U3-L3W	5	5	D	5	5	D	No visible defects.	31
U4-L4W	5	5	D	5	5	D	No visible defects.	31
U5-L5W	5	5	D	5	5	D	No visible defects.	31
U6-L6W	5	5	D	5	5	D	No visible defects.	31
U7-L7W	5	5	D	5	5	D	No visible defects.	31
U8-L8W	5	5	D	5	5	D	No visible defects.	31
U9-L9W	5	5	D	5	5	D	No visible defects.	31
U10-L10W	5	5	D	5	5	D	No visible defects.	31
U11-L11W	5	5	D	5	5	D	No visible defects.	31
U12-L12W	5	5	D	5	5	D	No visible defects.	31
U13-L13W	5	5	D	5	5	D	No visible defects.	31
U14-L14W	5	5	D	5	5	D	No visible defects.	31

# Lower Liard River Bridge Alaska Highway km 763.3



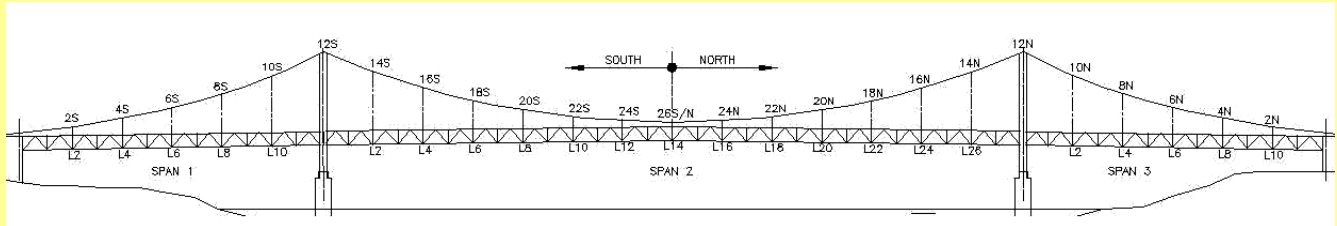
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U15-L15W	5	5	D	5	5	D	No visible defects.	31
U16-L16W	5	5	D	5	5	D	No visible defects.	31
U17-L17W	5	5	D	5	5	D	No visible defects.	31
U18-L18W	5	5	D	5	5	D	No visible defects.	31
U19-L19W	5	5	D	5	5	D	No visible defects.	22
U20-L20W	5	5	D	5	5	D	No visible defects.	22
U21-L21W	5	5	D	5	5	D	No visible defects.	22
U22-L22W	5	5	D	5	5	D	No visible defects.	22
U23-L23W	5	5	D	5	5	D	No visible defects.	22
U24-L24W	5	5	D	5	5	D	No visible defects.	22
U25-L25W	5	5	D	5	5	D	No visible defects.	22
U26-L26W	5	5	D	5	5	D	No visible defects.	22
U27-L27W	5	5	D	5	5	D	No visible defects.	22
U28-L28W	5	5	D	5	5	D	No visible defects.	22
<b>Vertical Cable Hangers – West Cable</b>								
Cable 2W	5	5	D	5	5	D	No visible defects.	31
Cable 4W	5	5	D	5	5	D	No visible defects.	31
Cable 6W	5	5	D	5	5	D	No visible defects.	31
Cable 8W	5	5	D	5	5	D	No visible defects.	31
Cable 10W	5	5	D	5	5	D	No visible defects.	31
Hanger 12W	5	5	D	5	5	D	No visible defects.	31
Hanger 14W	5	5	D	5	5	D	No visible defects.	31
Hanger 16W	5	5	D	5	5	D	No visible defects.	31
Cable 18W	5	5	D	5	5	D	No visible defects.	31
Cable 20W	5	5	D	5	5	D	No visible defects.	31
Cable 22W	5	5	D	5	5	D	No visible defects.	31
Cable 24W	5	5	D	5	5	D	No visible defects.	31
Cable 26W	5	5	D	5	5	D	No visible defects.	31
<b>Diagonals – Span 2 – West Truss</b>								
u1-L0W	5	5	D	5	5	D	No visible defects.	31
u1-L1W	5	5	D	5	5	D	No visible defects.	31
u2-L1W	5	5	D	5	5	D	No visible defects.	31
u2-L2W	5	5	D	5	5	D	No visible defects.	31

# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u3-L2W	5	5	D	5	5	D	No visible defects.	31
u3-L3W	5	5	D	5	5	D	No visible defects.	31
u4-L3W	5	5	D	5	5	D	No visible defects.	31
u4-L4W	5	5	D	5	5	D	No visible defects.	31
u5-L4W	5	5	D	5	5	D	No visible defects.	31
u5-L5W	5	5	D	5	5	D	No visible defects.	31
u6-L5W	5	5	D	5	5	D	No visible defects.	31
u6-L6W	5	5	D	5	5	D	No visible defects.	31
u7-L6W	5	5	D	5	5	D	No visible defects.	31
u7-L7W	5	5	D	5	5	D	No visible defects.	31
u8-L7W	5	5	D	5	5	D	No visible defects.	31
u8-L8W	5	5	D	5	5	D	No visible defects.	31
u9-L8W	5	5	D	5	5	D	No visible defects.	31
u9-L9W	5	5	D	5	5	D	No visible defects.	31
u10-L9W	5	5	D	5	5	D	No visible defects.	31
u10-L10W	5	5	D	5	5	D	No visible defects.	31
u11-L10W	5	5	D	5	5	D	No visible defects.	31
u11-L11W	5	5	D	5	5	D	No visible defects.	31
u12-L11W	5	5	D	5	5	D	No visible defects.	31
u12-L12W	5	5	D	5	5	D	No visible defects.	31
u13-L12W	5	5	D	5	5	D	No visible defects.	31
u13-L13W	5	5	D	5	5	D	No visible defects.	31
u14-L13W	5	5	D	5	5	D	No visible defects.	31
u14-L14W	5	5	D	5	5	D	No visible defects.	31
u15-L14W	5	5	D	5	5	D	No visible defects.	31
u15-L15W	5	5	D	5	5	D	No visible defects.	31
u16-L15W	5	5	D	5	5	D	No visible defects.	31
u16-L16W	5	5	D	5	5	D	No visible defects.	31
u17-L16W	5	5	D	5	5	D	No visible defects.	31
u17-L17W	5	5	D	5	5	D	No visible defects.	31
u18-L17W	5	5	D	5	5	D	No visible defects.	31
u18-L18W	5	5	D	5	5	D	No visible defects.	31
u19-L18W	5	5	D	5	5	D	No visible defects.	31

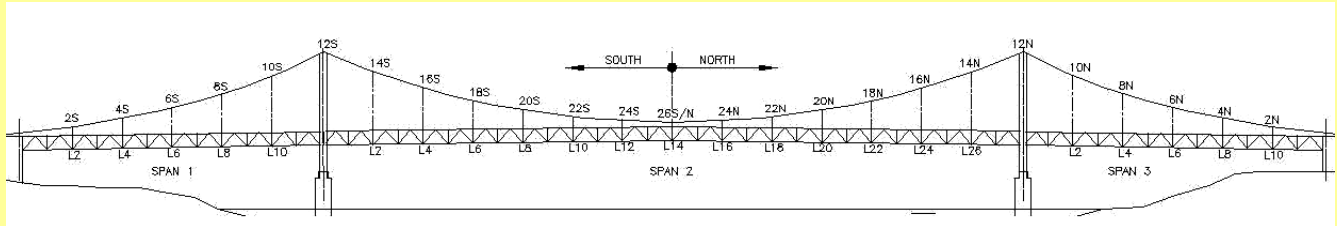
# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u19-L19W	5	5	D	5	5	D	No visible defects.	31
u20-L19W	5	5	D	5	5	D	No visible defects.	31
u20-L20W	5	5	D	5	5	D	No visible defects.	31
u21-L20W	5	5	D	5	5	D	No visible defects.	31
u21-L21W	5	5	D	5	5	D	No visible defects.	31
u22-L21W	5	5	D	5	5	D	No visible defects.	31
u22-L22W	5	5	D	5	5	D	No visible defects.	31
u23-L22W	5	5	D	5	5	D	No visible defects.	31
u23-L23W	5	5	D	5	5	D	No visible defects.	31
u24-L23W	5	5	D	5	5	D	No visible defects.	31
u24-L24W	5	5	D	5	5	D	No visible defects.	31
u25-L24W	5	5	D	5	5	D	No visible defects.	31
u25-L25W	5	5	D	5	5	D	No visible defects.	31
u26-L25W	5	5	D	5	5	D	No visible defects.	31
u26-L26W	5	5	D	5	5	D	No visible defects.	31
u27-L26W	5	5	D	5	5	D	No visible defects.	31
u27-L27W	5	5	D	5	5	D	No visible defects.	31
u28-L27W	5	5	D	5	5	D	No visible defects.	31
u28-L28W	5	5	D	5	5	D	No visible defects.	31
<b>Bottom Chord – Span 2 – West Truss</b>								
L0-L1W	5	5	D	5	5	D	No visible defects.	31
L1-L2W	5	5	D	5	5	D	No visible defects.	31
L2-L3W	5	5	D	5	5	D	No visible defects.	31
L3-L4W	5	5	D	5	5	D	No visible defects.	31
L4-L5W	5	5	D	5	5	D	No visible defects.	31
L5-L6W	5	5	D	5	5	D	No visible defects.	31
L6-L7W	5	5	D	5	5	D	No visible defects.	31
L7-L8W	5	5	D	5	5	D	No visible defects.	31
L8-L9W	5	5	D	5	5	D	No visible defects.	31
L9-L10W	5	5	D	5	5	D	No visible defects.	31
L10-L11W	5	5	D	5	5	D	No visible defects.	31
L11-L12W	5	5	D	5	5	D	No visible defects.	31
L12-L13W	5	5	D	5	5	D	No visible defects.	31

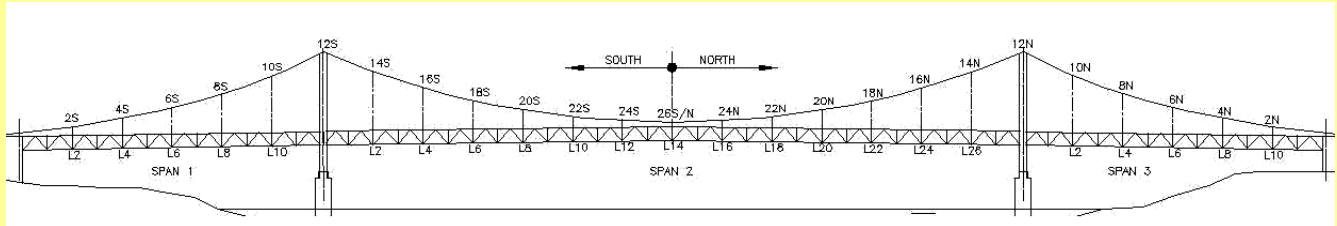


# Lower Liard River Bridge Alaska Highway km 763.3



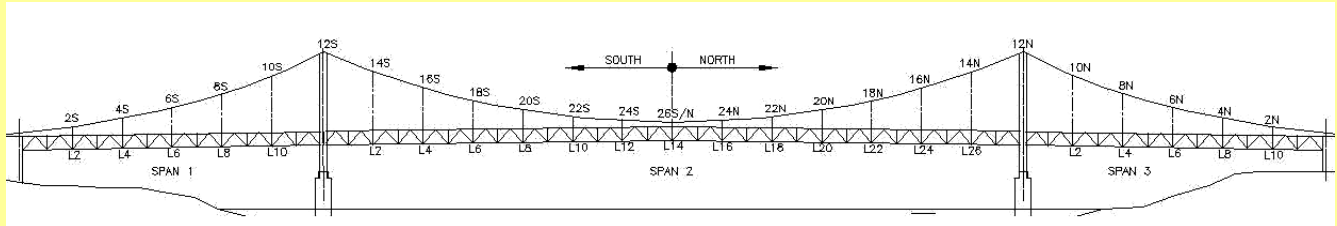
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L13-L14W	5	5	D	5	5	D	No visible defects.	31
L14-L15W	5	5	D	5	5	D	No visible defects.	31
L15-L16W	5	5	D	5	5	D	No visible defects.	31
L16-L17W	5	5	D	5	5	D	No visible defects.	31
L17-L18W	5	5	D	5	5	D	No visible defects.	31
L18-L19W	5	5	D	5	5	D	No visible defects.	31
L19-L20W	5	5	D	5	5	D	No visible defects.	31
L20-L21W	5	5	D	5	5	D	No visible defects.	31
L21-L22W	5	5	D	5	5	D	No visible defects.	31
L22-L23W	5	5	D	5	5	D	No visible defects.	31
L23-L24W	5	5	D	5	5	D	No visible defects.	31
L24-L25W	5	5	D	5	5	D	No visible defects.	31
L25-L26W	5	5	D	5	5	D	No visible defects.	31
L26-L27W	5	5	D	5	5	D	No visible defects.	31
L27-L28W	5	5	D	5	5	D	No visible defects.	31
<b>Span 2 – East Truss</b>								
<b>Top Chord – Span 2 – East Truss</b>								
L0-U1E	5	5	D	5	5	D	No visible defects.	32
U1-U2E	5	5	D	5	5	D	No visible defects.	32
U2-U3E	5	5	D	5	5	D	No visible defects.	32
U3-U4E	5	5	D	5	5	D	No visible defects.	32
U4-U5E	5	5	D	5	5	D	No visible defects.	32
U5-U6E	5	5	D	5	5	D	No visible defects.	32
U6-U7E	5	5	D	5	5	D	No visible defects.	32
U7-U8E	5	5	D	5	5	D	No visible defects.	32
U8-U9E	5	5	D	5	5	D	No visible defects.	32
U9-U10E	5	5	D	5	5	D	No visible defects.	32
U10-U11E	5	5	D	5	5	D	No visible defects.	32
U11-U12E	5	5	D	5	5	D	No visible defects.	32
U12-U13E	5	5	D	5	5	D	No visible defects.	32
U13-U14E	5	5	D	5	5	D	No visible defects.	32
U14-U15E	5	5	D	5	5	D	No visible defects.	32
U15-U16E	5	5	D	5	5	D	No visible defects.	32

# Lower Liard River Bridge Alaska Highway km 763.3



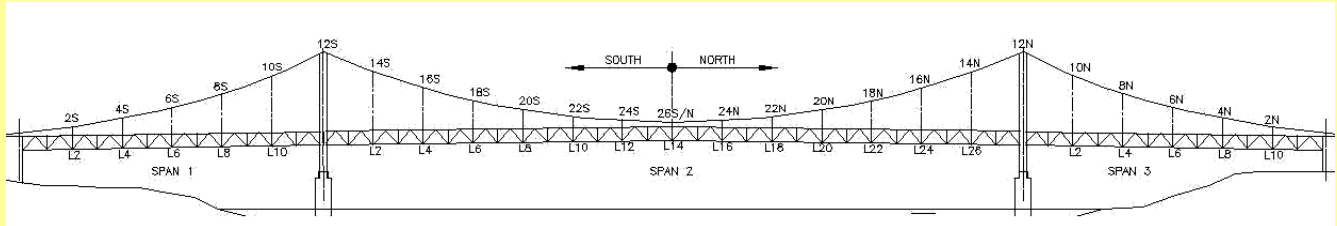
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U16-U17E	5	5	D	5	5	D	No visible defects.	32
U17-U18E	5	5	D	5	5	D	No visible defects.	32
U18-U19E	5	5	D	5	5	D	No visible defects.	32
U19-U20E	5	5	D	5	5	D	No visible defects.	32
U20-U21E	5	5	D	5	5	D	No visible defects.	32
U21-U22E	5	5	D	5	5	D	No visible defects.	32
U22-U23E	5	5	D	5	5	D	No visible defects.	32
U23-U24E	5	5	D	5	5	D	No visible defects.	32
U24-U25E	5	5	D	5	5	D	No visible defects.	32
U25-U26E	5	5	D	5	5	D	No visible defects.	32
U26-U27E	5	5	D	5	5	D	No visible defects.	32
U27-U28E	5	5	D	5	5	D	No visible defects.	32
<b>Verticals – Span 2 – East Truss</b>								
U0-L0E	5	5	D	5	5	D	No visible defects.	32
U1-L1E	5	5	D	5	5	D	No visible defects.	32
U2-L2E	5	5	D	5	5	D	No visible defects.	32
U3-L3E	5	5	D	5	5	D	No visible defects.	32
U4-L4E	5	5	D	5	5	D	No visible defects.	32
U5-L5E	5	5	D	5	5	D	No visible defects.	32
U6-L6E	5	5	D	5	5	D	No visible defects.	32
U7-L7E	5	5	D	5	5	D	No visible defects.	32
U8-L8E	5	5	D	5	5	D	No visible defects.	32
U9-L9E	5	5	D	5	5	D	No visible defects.	32
U10-L10E	5	5	D	5	5	D	No visible defects.	32
U11-L11E	5	5	D	5	5	D	No visible defects.	32
U12-L12E	5	5	D	5	5	D	No visible defects.	32
U13-L13E	5	5	D	5	5	D	No visible defects.	32
U14-L14E	5	5	D	5	5	D	No visible defects.	32
U15-L15E	5	5	D	5	5	D	No visible defects.	32
U16-L16E	5	5	D	5	5	D	No visible defects.	32
U17-L17E	5	5	D	5	5	D	No visible defects.	32
U18-L18E	5	5	D	5	5	D	No visible defects.	32
U19-L19E	5	5	D	5	5	D	No visible defects.	32

# Lower Liard River Bridge Alaska Highway km 763.3



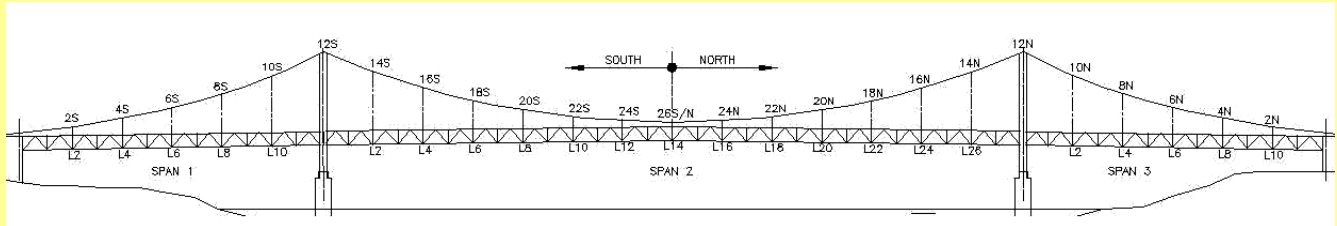
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U20-L20E	5	5	D	5	5	D	No visible defects.	32
U21-L21E	5	5	D	5	5	D	No visible defects.	32
U22-L22E	5	5	D	5	5	D	No visible defects.	32
U23-L23E	5	5	D	5	5	D	No visible defects.	32
U24-L24E	5	5	D	5	5	D	No visible defects.	32
U25-L25E	5	5	D	5	5	D	No visible defects.	32
U26-L26E	5	5	D	5	5	D	No visible defects.	32
U27-L27E	5	5	D	5	5	D	No visible defects.	32
U28-L28E	5	5	D	5	5	D	No visible defects.	32
<b>Vertical Cable Hangers – East Cable</b>								
Cable 2E	5	5	D	5	5	D	No visible defects.	32
Cable 4E	5	5	D	5	5	D	No visible defects.	32
Cable 6E	5	5	D	5	5	D	No visible defects.	32
Cable 8E	5	5	D	5	5	D	No visible defects.	32
Cable 10E	5	5	D	5	5	D	No visible defects.	32
Hanger 12E	5	5	D	5	5	D	No visible defects.	32
Hanger 14E	5	5	D	5	5	D	No visible defects.	32
Hanger 16E	5	5	D	5	5	D	No visible defects.	32
Cable 18E	5	5	D	5	5	D	No visible defects.	32
Cable 20E	5	5	D	5	5	D	No visible defects.	32
Cable 22E	5	5	D	5	5	D	No visible defects.	32
Cable 24E	5	5	D	5	5	D	No visible defects.	32
Cable 26E	5	5	D	5	5	D	No visible defects.	32
<b>Diagonals – Span 2 – East Truss</b>								
u1-L0E	5	5	D	5	5	D	No visible defects.	32
u1-L1E	5	5	D	5	5	D	No visible defects.	32
u2-L1E	5	5	D	5	5	D	No visible defects.	32
u2-L2E	5	5	D	5	5	D	No visible defects.	32
u3-L2E	5	5	D	5	5	D	No visible defects.	32
u3-L3E	5	5	D	5	5	D	No visible defects.	32
u4-L3E	5	5	D	5	5	D	No visible defects.	32
u4-L4E	5	5	D	5	5	D	No visible defects.	32
u5-L4E	5	5	D	5	5	D	No visible defects.	32

# Lower Liard River Bridge Alaska Highway km 763.3



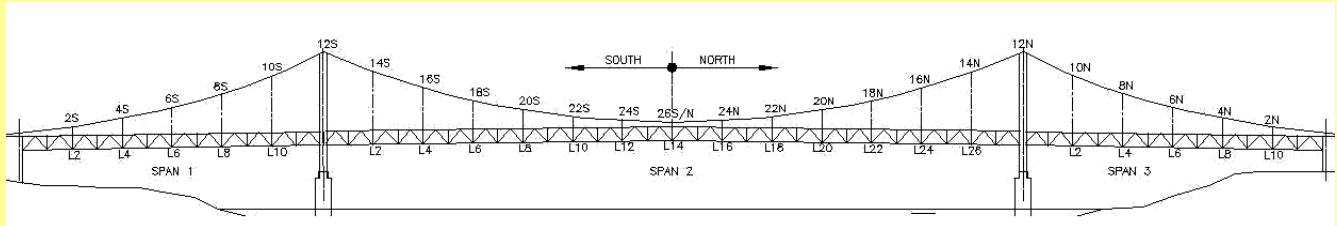
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u5-L5E	5	5	D	5	5	D	No visible defects.	32
u6-L5E	5	5	D	5	5	D	No visible defects.	32
u6-L6E	5	5	D	5	5	D	No visible defects.	32
u7-L6E	5	5	D	5	5	D	No visible defects.	32
u7-L7E	5	5	D	5	5	D	No visible defects.	32
u8-L7E	5	5	D	5	5	D	No visible defects.	32
u8-L8E	5	5	D	5	5	D	No visible defects.	32
u9-L8E	5	5	D	5	5	D	No visible defects.	32
u9-L9E	5	5	D	5	5	D	No visible defects.	32
u10-L9E	5	5	D	5	5	D	No visible defects.	32
u10-L10E	5	5	D	5	5	D	No visible defects.	32
u11-L10E	5	5	D	5	5	D	No visible defects.	32
u11-L11E	5	5	D	5	5	D	No visible defects.	32
u12-L11E	5	5	D	5	5	D	No visible defects.	32
u12-L12E	5	5	D	5	5	D	No visible defects.	32
u13-L12E	5	5	D	5	5	D	No visible defects.	32
u13-L13E	5	5	D	5	5	D	No visible defects.	32
u14-L13E	5	5	D	5	5	D	No visible defects.	32
u14-L14E	5	5	D	5	5	D	No visible defects.	32
u15-L14E	5	5	D	5	5	D	No visible defects.	32
u15-L15E	5	5	D	5	5	D	No visible defects.	32
u16-L15E	5	5	D	5	5	D	No visible defects.	32
u16-L16E	5	5	D	5	5	D	No visible defects.	32
u17-L16E	5	5	D	5	5	D	No visible defects.	32
u17-L17E	5	5	D	5	5	D	No visible defects.	32
u18-L17E	5	5	D	5	5	D	No visible defects.	32
u18-L18E	5	5	D	5	5	D	No visible defects.	32
u19-L18E	5	5	D	5	5	D	No visible defects.	32
u19-L19E	5	5	D	5	5	D	No visible defects.	32
u20-L19E	5	5	D	5	5	D	No visible defects.	32
u20-L20E	5	5	D	5	5	D	No visible defects.	32
u21-L20E	5	5	D	5	5	D	No visible defects.	32
u21-L21E	5	5	D	5	5	D	No visible defects.	32

# Lower Liard River Bridge Alaska Highway km 763.3



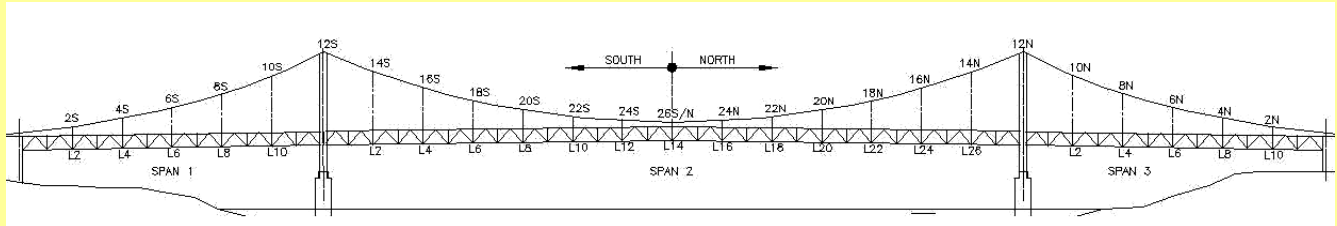
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u22-L21E	5	5	D	5	5	D	No visible defects.	32
u22-L22E	5	5	D	5	5	D	No visible defects.	32
u23-L22E	5	5	D	5	5	D	No visible defects.	32
u23-L23E	5	5	D	5	5	D	No visible defects.	32
u24-L23E	5	5	D	5	5	D	No visible defects.	32
u24-L24E	5	5	D	5	5	D	No visible defects.	32
u25-L24E	5	5	D	5	5	D	No visible defects.	32
u25-L25E	5	5	D	5	5	D	No visible defects.	32
u26-L25E	5	5	D	5	5	D	No visible defects.	32
u26-L26E	5	5	D	5	5	D	No visible defects.	32
u27-L26E	5	5	D	5	5	D	No visible defects.	32
u27-L27E	5	5	D	5	5	D	No visible defects.	32
u28-L27E	5	5	D	5	5	D	No visible defects.	32
u28-L28E	5	5	D	5	5	D	No visible defects.	32
<b>Bottom Chord – Span 2 – East Truss</b>								
L0-L1E	5	5	D	5	5	D	No visible defects.	32
L1-L2E	5	5	D	5	5	D	No visible defects.	32
L2-L3E	5	5	D	5	5	D	No visible defects.	32
L3-L4E	5	5	D	5	5	D	No visible defects.	32
L4-L5E	5	5	D	5	5	D	No visible defects.	32
L5-L6E	5	5	D	5	5	D	No visible defects.	32
L6-L7E	5	5	D	5	5	D	No visible defects.	32
L7-L8E	5	5	D	5	5	D	No visible defects.	32
L8-L9E	5	5	D	5	5	D	No visible defects.	32
L9-L10E	5	5	D	5	5	D	No visible defects.	32,40
L10-L11E	5	5	D	5	5	D	No visible defects.	32
L11-L12E	5	5	D	5	5	D	No visible defects.	32
L12-L13E	5	5	D	5	5	D	No visible defects.	32
L13-L14E	5	5	D	5	5	D	No visible defects.	32
L14-L15E	5	5	D	5	5	D	No visible defects.	32
L15-L16E	5	5	D	5	5	D	No visible defects.	32
L16-L17E	5	5	D	5	5	D	No visible defects.	32
L17-L18E	5	5	D	5	5	D	No visible defects.	32

# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L18-L19E	5	5	D	5	5	D	No visible defects.	32
L19-L20E	5	5	D	5	5	D	No visible defects.	32
L20-L21E	5	5	D	5	5	D	No visible defects.	32
L21-L22E	5	5	D	5	5	D	No visible defects.	32
L22-L23E	5	5	D	5	5	D	No visible defects.	32
L23-L24E	5	5	D	5	5	D	No visible defects.	32
L24-L25E	5	5	D	5	5	D	No visible defects.	32
L25-L26E	5	5	D	5	5	D	No visible defects.	32
L26-L27E	5	5	D	5	5	D	No visible defects.	32
L27-L28E	5	5	D	5	5	D	No visible defects.	32
<b>Bottom Chord Bracing – Span 2</b>								
b0W-L1E	5	5	D	5	5	D	No visible defects.	
b0E-L1W	5	5	D	5	5	D	No visible defects.	
L1W-b2E	5	5	D	5	5	D	No visible defects.	
L1E-b2W	5	5	D	5	5	D	No visible defects.	
b2W-L3E	5	5	D	5	5	D	No visible defects.	
b2E-L3W	5	5	D	5	5	D	No visible defects.	
L3W-b4E	5	5	D	5	5	D	No visible defects.	
L3E-b4W	5	5	D	5	5	D	No visible defects.	
b4W-L5E	5	5	D	5	5	D	No visible defects.	
b4E-L5W	5	5	D	5	5	D	No visible defects.	
L5W-b6E	5	5	D	5	5	D	No visible defects.	
L5E-b6W	5	5	D	5	5	D	No visible defects.	
b6W-L7E	5	5	D	5	5	D	No visible defects.	
b6E-L7W	5	5	D	5	5	D	No visible defects.	
L9W-b10E	5	5	D	5	5	D	No visible defects.	
L9E-b10W	5	5	D	5	5	D	No visible defects.	
b10W-L11E	5	5	D	5	5	D	No visible defects.	
b10E-L11W	5	5	D	5	5	D	No visible defects.	
L11W-b12E	5	5	D	5	5	D	No visible defects.	
L11E-b12W	5	5	D	5	5	D	No visible defects.	
b12W-L13E	5	5	D	5	5	D	No visible defects.	
b12E-L13W	5	5	D	5	5	D	No visible defects.	

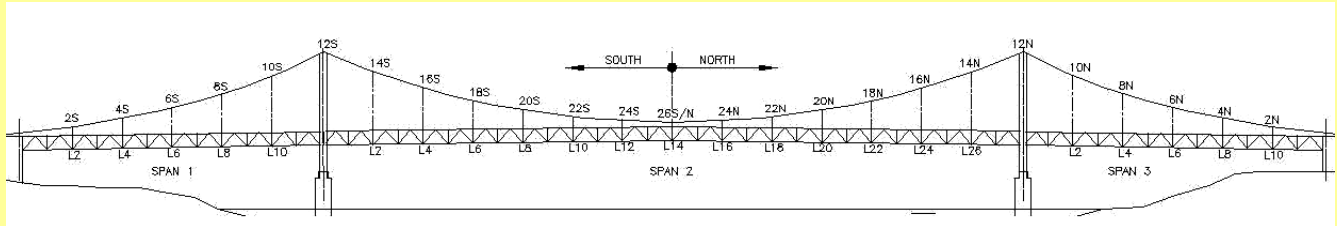
# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L13W-b14E	5	5	D	5	5	D	No visible defects.	
L13E-b14W	5	5	D	5	5	D	No visible defects.	
b14W-L15E	5	5	D	5	5	D	No visible defects.	
b14E-L15W	5	5	D	5	5	D	No visible defects.	
L15W-b16E	5	5	D	5	5	D	No visible defects.	
L15E-b16W	5	5	D	5	5	D	No visible defects.	
b16W-L17E	5	5	D	5	5	D	No visible defects.	
b16E-L17W	5	5	D	5	5	D	No visible defects.	
L17W-b18E	5	5	D	5	5	D	No visible defects.	
L17E-b18W	5	5	D	5	5	D	No visible defects.	
b18W-L19E	5	5	D	5	5	D	No visible defects.	
b18E-L19W	5	5	D	5	5	D	No visible defects.	
L19W-b20E	5	5	D	5	5	D	No visible defects.	
L19E-b20W	5	5	D	5	5	D	No visible defects.	
b20W-L21E	5	5	D	5	5	D	No visible defects.	
b20E-L21W	5	5	D	5	5	D	No visible defects.	
L21W-b22E	5	5	D	5	5	D	No visible defects.	
L21E-b22W	5	5	D	5	5	D	No visible defects.	
b22W-L23E	5	5	D	5	5	D	No visible defects.	
b22E-L23W	5	5	D	5	5	D	No visible defects.	
L23W-b24E	5	5	D	5	5	D	No visible defects.	
L23E-b24W	5	5	D	5	5	D	No visible defects.	
b24W-L25E	5	5	D	5	5	D	No visible defects.	
b24E-L25W	5	5	D	5	5	D	No visible defects.	
L25W-b26E	5	5	D	5	5	D	No visible defects.	
L25E-b26W	5	5	D	5	5	D	No visible defects.	
b26W-L27E	5	5	D	5	5	D	No visible defects.	
b26E-L27W	5	5	D	5	5	D	No visible defects.	
L27W-b28E	5	5	D	5	5	D	No visible defects.	
L27E-b28W	5	5	D	5	5	D	No visible defects.	
<b>Floorbeams – Span 2</b>								
L0W-L0E	5	5	D	5	5	D	No visible defects.	35
L1W-L1E	5	5	D	5	5	D	No visible defects.	33

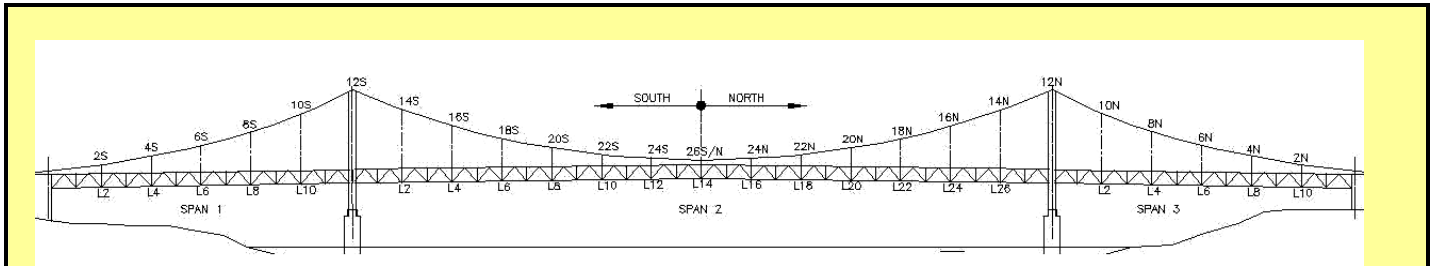


# Lower Liard River Bridge Alaska Highway km 763.3



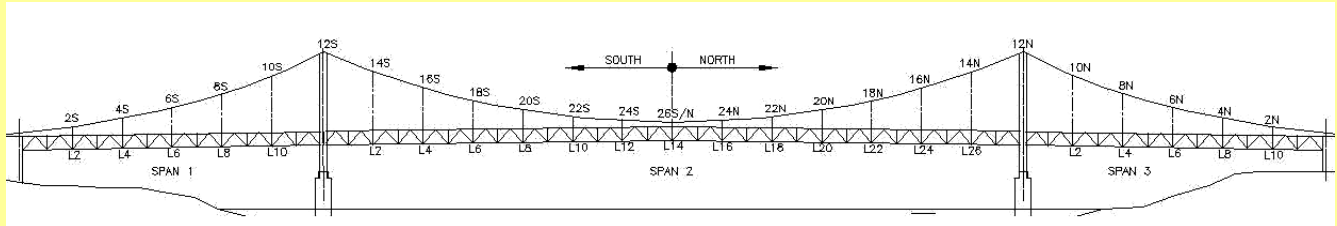
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L2W-L2E	5	5	D	5	5	D	No visible defects.	33
L3W-L3E	5	5	D	5	5	D	No visible defects.	33
L4W-L4E	5	5	D	5	5	D	No visible defects.	33
L5W-L5E	5	5	D	5	5	D	No visible defects.	
L6W-L6E	5	5	D	5	5	D	No visible defects.	
L7W-L7E	5	5	D	5	5	D	No visible defects.	
L8W-L8E	5	5	D	5	5	D	No visible defects.	
L9W-L9E	5	5	D	5	5	D	No visible defects.	
L10W-L10E	5	5	D	5	5	D	Localized corrosion staining between bottom flange plates	41
L11W-L11E	5	5	D	5	5	D	No visible defects.	
L12W-L12E	5	5	D	5	5	D	No visible defects.	
L13W-L13E	5	5	D	5	5	D	No visible defects.	
L14W-L14E	5	5	D	5	5	D	No visible defects.	
L15W-L15E	5	5	D	5	5	D	No visible defects.	
L16W-L16E	5	5	D	5	5	D	No visible defects.	
L17W-L17E	5	5	D	5	5	D	No visible defects.	
L18W-L18E	5	5	D	5	5	D	No visible defects.	
L19W-L19E	5	5	D	5	5	D	No visible defects.	
L20W-L20E	5	5	D	5	5	D	No visible defects.	
L21W-L21E	5	5	D	5	5	D	No visible defects.	
L22W-L22E	5	5	D	5	5	D	No visible defects.	
L23W-L23E	5	5	D	5	5	D	No visible defects.	
L24W-L24E	5	5	D	5	5	D	No visible defects.	
L25W-L25E	5	5	D	5	5	D	No visible defects.	
L26W-L26E	5	5	D	5	5	D	No visible defects.	45
L27W-L27E	5	5	D	5	5	D	No visible defects.	46
L28W-L28E	5	5	D	5	5	D	No visible defects.	42,43
<b>Stringers – Span 2</b>								
L0-L1 Stringer 1	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 2	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 3	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 4	5	5	D	5	5	D	No visible defects.	35

# Lower Liard River Bridge Alaska Highway km 763.3



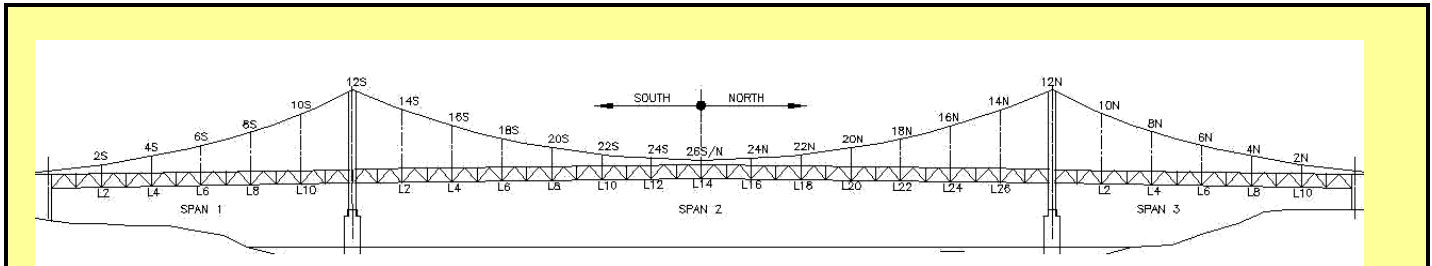
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L0-L1 Stringer 5	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 6	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 7	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 8	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 9	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 10	5	5	D	5	5	D	No visible defects.	35
L0-L1 Stringer 11	5	5	D	5	5	D	No visible defects.	35
L1-L2 Stringer 1	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 2	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 3	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 4	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 5	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 6	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 7	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 8	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 9	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 10	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 11	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 1	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 2	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 3	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 4	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 5	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 6	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 7	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 8	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 9	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 10	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 11	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 1	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 2	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 3	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 4	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



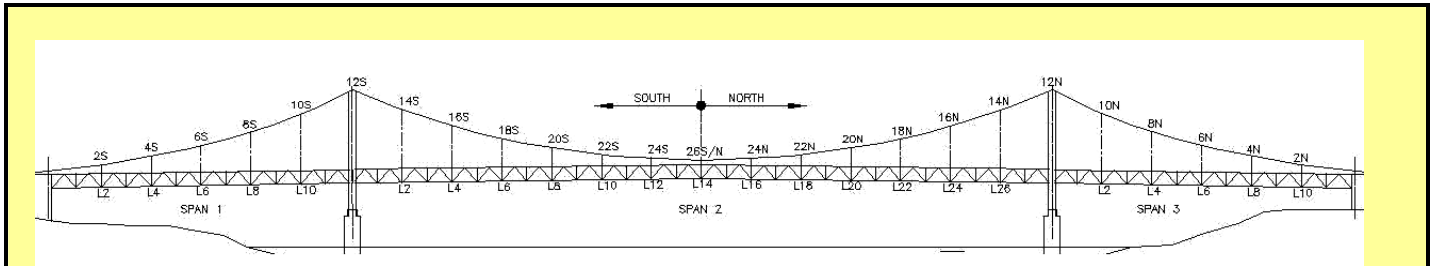
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L3-L4 Stringer 5	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 6	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 7	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 8	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 9	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 10	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 11	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 1	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 2	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 3	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 4	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 5	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 6	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 7	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 8	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 9	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 10	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 11	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 1	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 2	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 3	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 4	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 5	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 6	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 7	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 8	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 9	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 10	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 11	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 1	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 2	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 3	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 4	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



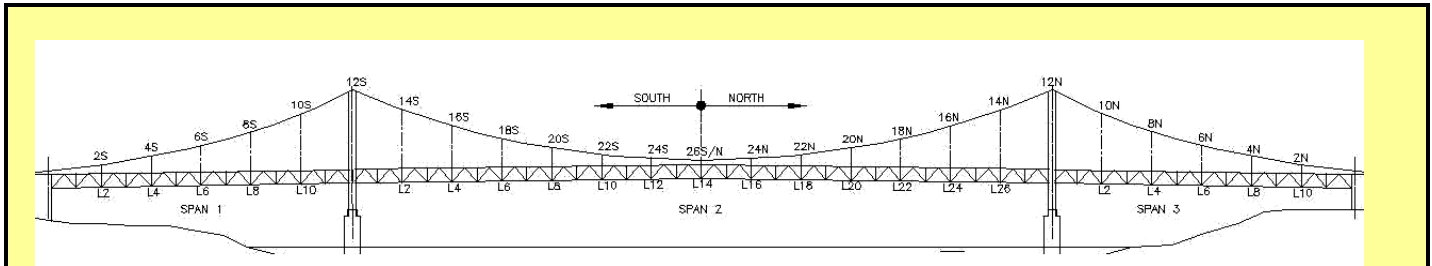
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L6-L7 Stringer 5	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 6	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 7	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 8	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 9	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 10	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 11	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 1	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 2	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 3	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 4	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 5	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 6	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 7	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 8	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 9	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 10	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 11	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 1	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 2	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 3	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 4	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 5	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 6	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 7	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 8	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 9	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 10	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 11	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 1	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 2	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 3	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 4	5	5	D	5	5	D	No visible defects.	

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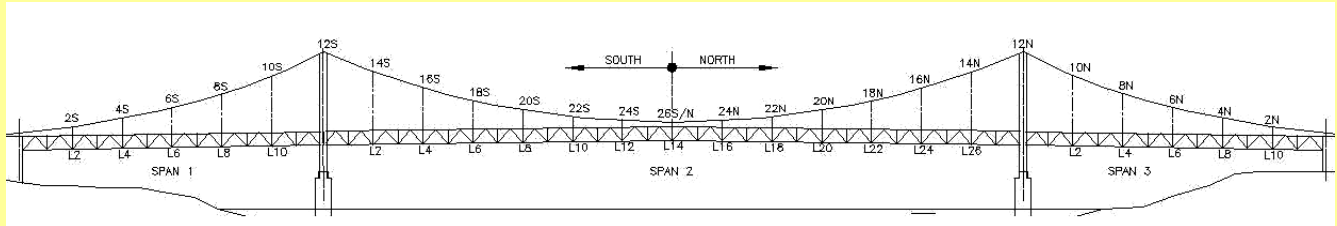
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L9-L10 Stringer 5	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 6	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 7	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 8	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 9	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 10	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 11	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 1	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 2	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 3	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 4	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 5	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 6	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 7	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 8	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 9	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 10	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 11	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 1	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 2	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 3	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 4	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 5	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 6	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 7	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 8	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 9	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 10	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 11	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 1	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 2	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 3	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 4	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L12-L13 Stringer 5	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 6	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 7	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 8	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 9	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 10	5	5	D	5	5	D	No visible defects.	
L12-L13 Stringer 11	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 1	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 2	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 3	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 4	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 5	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 6	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 7	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 8	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 9	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 10	5	5	D	5	5	D	No visible defects.	
L13-L14 Stringer 11	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 1	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 2	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 3	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 4	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 5	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 6	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 7	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 8	5	5	D	5	5	D	No visible defects.	
L14-L15 Stringer 9	5	5	D	5	5	D	No visible defects.	38
L14-L15 Stringer 10	5	5	D	5	5	D	No visible defects.	38
L14-L15 Stringer 11	5	5	D	5	5	D	No visible defects.	38
L15-L16 Stringer 1	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 2	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 3	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 4	5	5	D	5	5	D	No visible defects.	

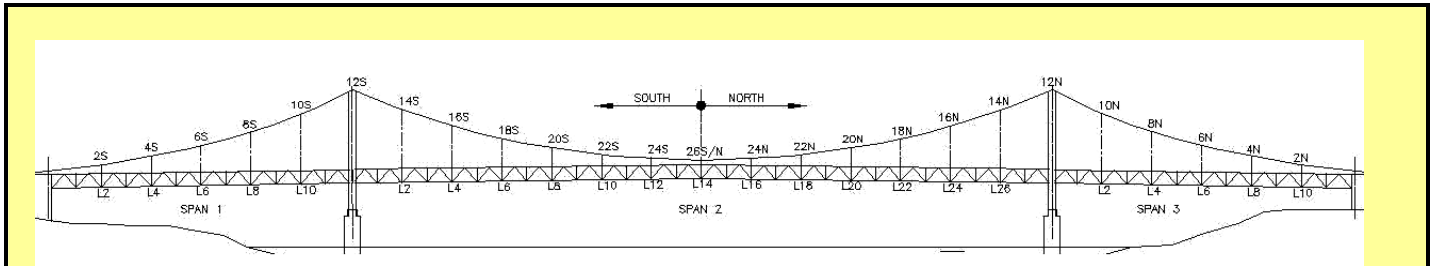
# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L15-L16 Stringer 5	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 6	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 7	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 8	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 9	5	5	D	5	5	D	No visible defects.	
L15-L16 Stringer 10	5	5	D	5	5	D	No visible defects.	39
L15-L16 Stringer 11	5	5	D	5	5	D	No visible defects.	39
L16-L17 Stringer 1	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 2	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 3	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 4	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 5	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 6	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 7	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 8	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 9	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 10	5	5	D	5	5	D	No visible defects.	
L16-L17 Stringer 11	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 1	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 2	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 3	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 4	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 5	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 6	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 7	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 8	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 9	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 10	5	5	D	5	5	D	No visible defects.	
L17-L18 Stringer 11	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 1	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 2	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 3	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 4	5	5	D	5	5	D	No visible defects.	

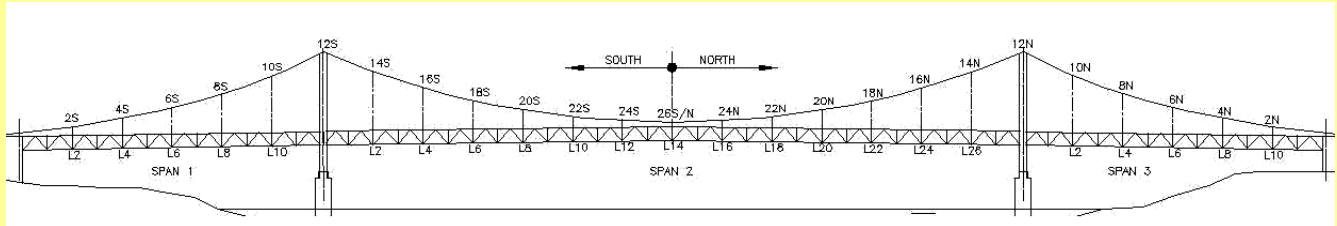


# Lower Liard River Bridge Alaska Highway km 763.3



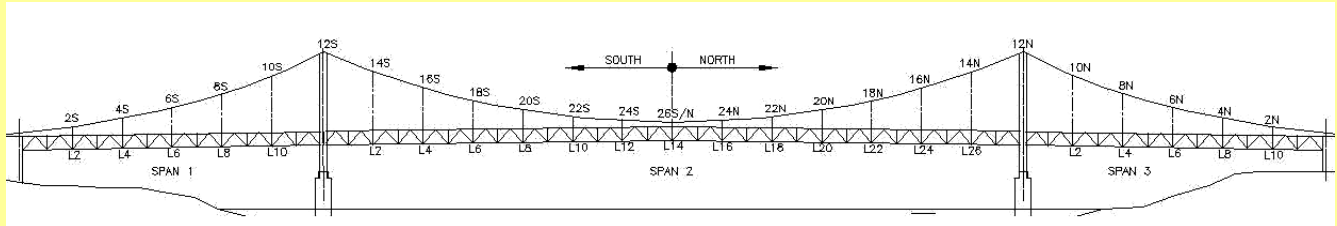
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L18-L19 Stringer 5	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 6	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 7	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 8	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 9	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 10	5	5	D	5	5	D	No visible defects.	
L18-L19 Stringer 11	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 1	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 2	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 3	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 4	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 5	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 6	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 7	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 8	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 9	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 10	5	5	D	5	5	D	No visible defects.	
L19-L20 Stringer 11	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 1	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 2	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 3	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 4	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 5	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 6	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 7	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 8	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 9	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 10	5	5	D	5	5	D	No visible defects.	
L20-L21 Stringer 11	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 1	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 2	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 3	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 4	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



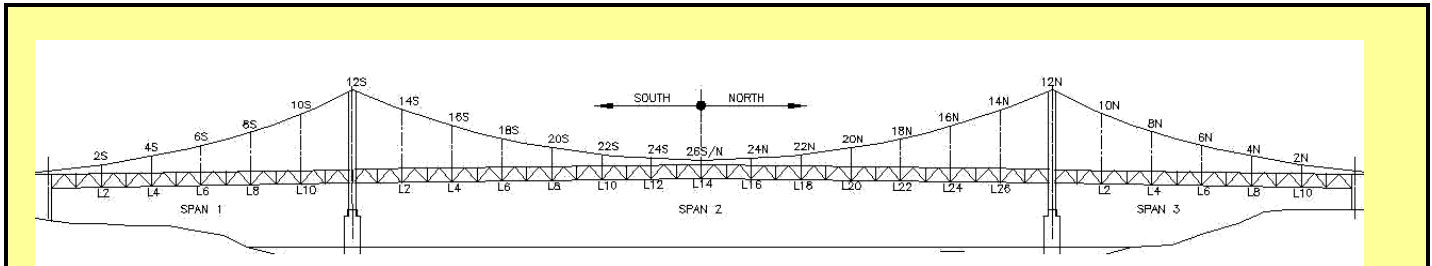
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L21-L22 Stringer 5	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 6	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 7	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 8	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 9	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 10	5	5	D	5	5	D	No visible defects.	
L21-L22 Stringer 11	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 1	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 2	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 3	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 4	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 5	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 6	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 7	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 8	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 9	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 10	5	5	D	5	5	D	No visible defects.	
L22-L23 Stringer 11	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 1	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 2	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 3	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 4	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 5	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 6	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 7	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 8	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 9	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 10	5	5	D	5	5	D	No visible defects.	
L23-L24 Stringer 11	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 1	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 2	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 3	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 4	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



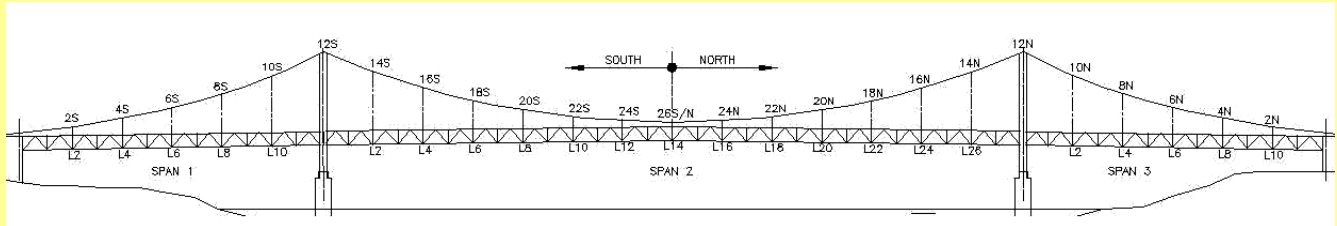
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L24-L25 Stringer 5	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 6	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 7	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 8	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 9	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 10	5	5	D	5	5	D	No visible defects.	
L24-L25 Stringer 11	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 1	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 2	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 3	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 4	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 5	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 6	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 7	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 8	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 9	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 10	5	5	D	5	5	D	No visible defects.	
L25-L26 Stringer 11	5	5	D	5	5	D	No visible defects.	
L26-L27 Stringer 1	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 2	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 3	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 4	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 5	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 6	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 7	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 8	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 9	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 10	5	5	D	5	5	D	No visible defects.	45
L26-L27 Stringer 11	5	5	D	5	5	D	No visible defects.	45
L27-L28 Stringer 1	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 2	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 3	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 4	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



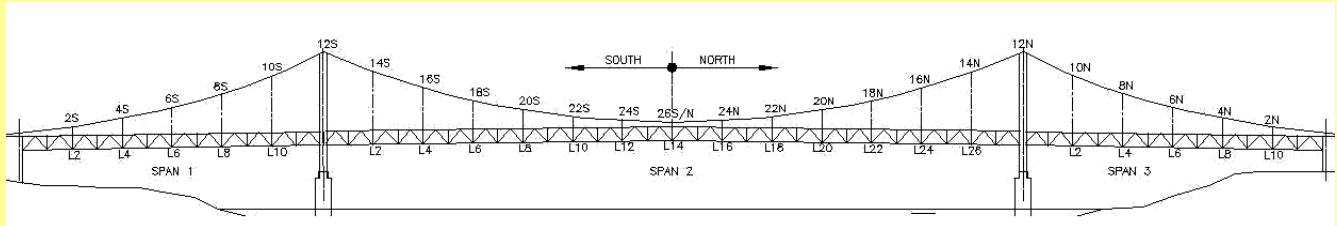
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L27-L28 Stringer 5	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 6	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 7	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 8	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 9	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 10	5	5	D	5	5	D	No visible defects.	
L27-L28 Stringer 11	5	5	D	5	5	D	No visible defects.	
<b>Span 3 - West Truss</b>								
<b>Top Chord – Span 3 – West Truss</b>								
L0-U1W	5	5	D	5	5	D	No visible defects.	22
U1-U2W	5	5	D	5	5	D	No visible defects.	
U2-U3W	5	5	D	5	5	D	No visible defects.	
U3-U4W	5	5	D	5	5	D	No visible defects.	
U4-U5W	5	5	D	5	5	D	No visible defects.	
U5-U6W	5	5	D	5	5	D	No visible defects.	
U6-U7W	5	5	D	5	5	D	No visible defects.	
U7-U8W	5	5	D	5	5	D	No visible defects.	
U8-U9W	5	5	D	5	5	D	No visible defects.	
U9-U10W	5	5	D	5	5	D	No visible defects.	
U10-U11W	5	5	D	5	5	D	No visible defects.	
U11-U12W	5	5	D	5	5	D	No visible defects.	
<b>Verticals – Span 3 – West Truss</b>								
U0-L0W	5	5	D	5	5	D	No visible defects.	
U1-L1W	5	5	D	5	5	D	No visible defects.	
U2-L2W	5	5	D	5	5	D	No visible defects.	
U3-L3W	5	5	D	5	5	D	No visible defects.	
U4-L4W	5	5	D	5	5	D	No visible defects.	
U5-L5W	5	5	D	5	5	D	No visible defects.	
U6-L6W	5	5	D	5	5	D	No visible defects.	
U7-L7W	5	5	D	5	5	D	No visible defects.	
U8-L8W	5	5	D	5	5	D	No visible defects.	
U9-L9W	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



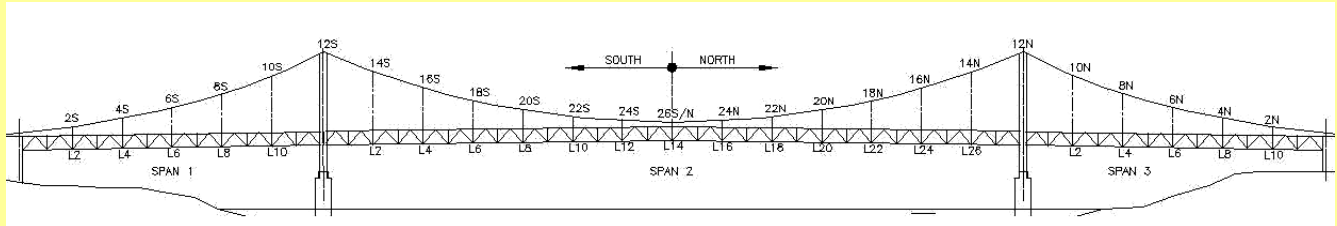
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U10-L10W	5	5	D	5	5	D	No visible defects.	
U11-L11W	5	5	D	5	5	D	No visible defects.	
U12-L12W	5	5	D	5	5	D	Web bowed up to 15 mm with no associated cracking.	
<b>Vertical Cable Hanger – West Cable</b>								
Cable 2E	5	5	D	5	5	D	No visible defects.	
Cable 4E	5	5	D	5	5	D	No visible defects.	
Cable 6E	5	5	D	5	5	D	No visible defects.	
Cable 8E	5	5	D	5	5	D	No visible defects.	
Hanger 10E	5	5	D	5	5	D	Hanger slipped 25 mm	
<b>Diagonals – Span 3 – West Truss</b>								
u1-L0E	5	5	D	5	5	D	No visible defects.	
u1-L1E	5	5	D	5	5	D	No visible defects.	
u2-L1E	5	5	D	5	5	D	No visible defects.	
u2-L2E	5	5	D	5	5	D	No visible defects.	
u3-L2E	5	5	D	5	5	D	No visible defects.	
u3-L3E	5	5	D	5	5	D	No visible defects.	
u4-L3E	5	5	D	5	5	D	No visible defects.	
u4-L4E	5	5	D	5	5	D	No visible defects.	
u5-L4E	5	5	D	5	5	D	No visible defects.	
u5-L5E	5	5	D	5	5	D	No visible defects.	
u6-L5E	5	5	D	5	5	D	No visible defects.	
u6-L6E	5	5	D	5	5	D	No visible defects.	
u7-L6E	5	5	D	5	5	D	No visible defects.	
u7-L7E	5	5	D	5	5	D	No visible defects.	
u8-L7E	5	5	D	5	5	D	No visible defects.	
u8-L8E	5	5	D	5	5	D	No visible defects.	
u9-L8E	5	5	D	5	5	D	No visible defects.	
u9-L9E	5	5	D	5	5	D	No visible defects.	
u10-L9E	5	5	D	5	5	D	No visible defects.	
u10-L10E	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u11-L10E	5	5	D	5	5	D	No visible defects.	
u11-L11E	5	5	D	5	5	D	No visible defects.	
u12-L11E	5	5	D	5	5	D	No visible defects.	
u12-L12E	5	5	D	5	5	D	No visible defects.	
<b>Bottom Chord – Span 3 – West Truss</b>								
L0-L1W	5	5	D	5	5	D	No visible defects.	
L1-L2W	5	5	D	5	5	D	No visible defects.	
L2-L3W	5	5	D	5	5	D	No visible defects.	
L3-L4W	5	5	D	5	5	D	No visible defects.	
L4-L5W	5	5	D	5	5	D	No visible defects.	
L5-L6W	5	5	D	5	5	D	No visible defects.	
L6-L7W	5	5	D	5	5	D	No visible defects.	
L7-L8W	5	5	D	5	5	D	No visible defects.	
L8-L9W	5	5	D	5	5	D	No visible defects.	
L9-L10W	5	5	D	5	5	D	No visible defects.	
L10-L11W	5	5	D	5	5	D	No visible defects.	
L11-L12W	5	5	D	5	5	D	No visible defects.	
<b>Span 1 – East Truss</b>								
<b>Top Chord – Span 3 – East Truss</b>								
L0-U1E	5	5	D	5	5	D	No visible defects.	
U1-U2E	5	5	D	5	5	D	No visible defects.	
U2-U3E	5	5	D	5	5	D	No visible defects.	
U3-U4E	5	5	D	5	5	D	No visible defects.	
U4-U5E	5	5	D	5	5	D	No visible defects.	
U5-U6E	5	5	D	5	5	D	No visible defects.	
U6-U7E	5	5	D	5	5	D	No visible defects.	
U7-U8E	5	5	D	5	5	D	No visible defects.	
U8-U9E	5	5	D	5	5	D	No visible defects.	
U9-U10E	5	5	D	5	5	D	No visible defects.	
U10-U11E	5	5	D	5	5	D	No visible defects.	20
U11-U12E	5	5	D	5	5	D	No visible defects.	20
<b>Verticals – Span 3 – East Truss</b>								

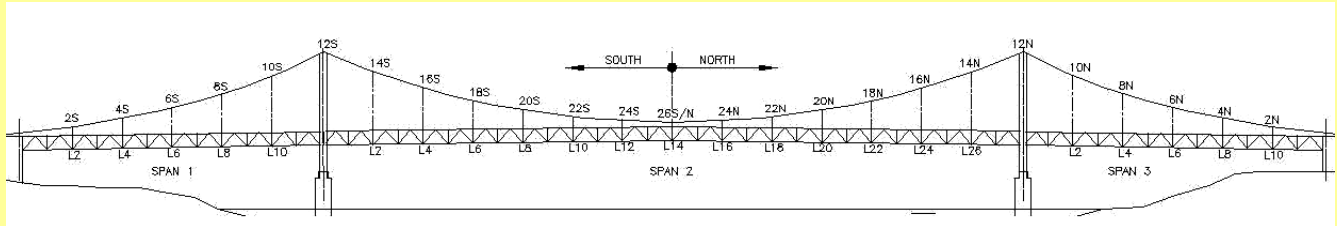
# Lower Liard River Bridge Alaska Highway km 763.3



Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
U0-L0E	5	5	D	5	5	D	No visible defects.	
U1-L1E	5	5	D	5	5	D	No visible defects.	
U2-L2E	5	5	D	5	5	D	No visible defects.	
U3-L3E	5	5	D	5	5	D	No visible defects.	
U4-L4E	5	5	D	5	5	D	No visible defects.	
U5-L5E	5	5	D	5	5	D	No visible defects.	
U6-L6E	5	5	D	5	5	D	No visible defects.	
U7-L7E	5	5	D	5	5	D	No visible defects.	
U8-L8E	5	5	D	5	5	D	No visible defects.	
U9-L9E	5	5	D	5	5	D	No visible defects.	
U10-L10E	5	5	D	5	5	D	No visible defects.	
U11-L11E	5	5	D	5	5	D	No visible defects.	
U12-L12E	5	5	D	5	5	D	Web bowed up to 25 mm with no associated cracking.	118
<b>Vertical Cable Hangers – East Cable</b>								
Cable 2E	5	5	D	5	5	D	No visible defects.	
Cable 4E	5	5	D	5	5	D	No visible defects.	
Cable 6E	5	5	D	5	5	D	No visible defects.	
Cable 8E	5	5	D	5	5	D	No visible defects.	
Hanger 10E	5	5	D	5	5	D	No visible defects.	
<b>Diagonals – Span 3 – East Truss</b>								
u1-L0E	5	5	D	5	5	D	No visible defects.	
u1-L1E	5	5	D	5	5	D	No visible defects.	
u2-L1E	5	5	D	5	5	D	No visible defects.	
u2-L2E	5	5	D	5	5	D	No visible defects.	
u3-L2E	5	5	D	5	5	D	No visible defects.	
u3-L3E	5	5	D	5	5	D	No visible defects.	
u4-L3E	5	5	D	5	5	D	No visible defects.	
u4-L4E	5	5	D	5	5	D	No visible defects.	
u5-L4E	5	5	D	5	5	D	No visible defects.	
u5-L5E	5	5	D	5	5	D	No visible defects.	
u6-L5E	5	5	D	5	5	D	No visible defects.	
u6-L6E	5	5	D	5	5	D	No visible defects.	

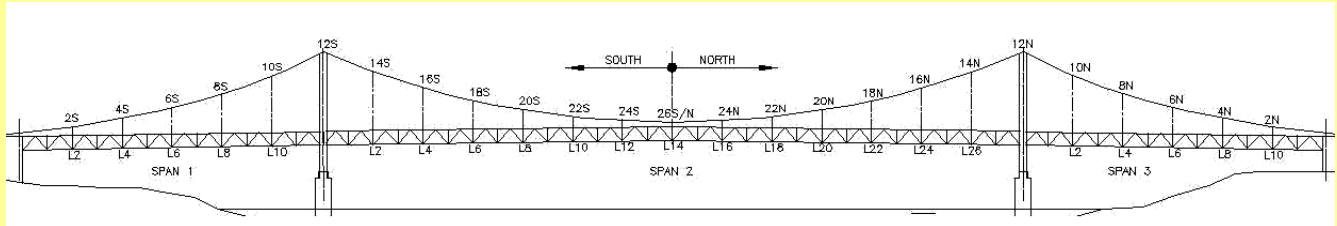


# Lower Liard River Bridge Alaska Highway km 763.3



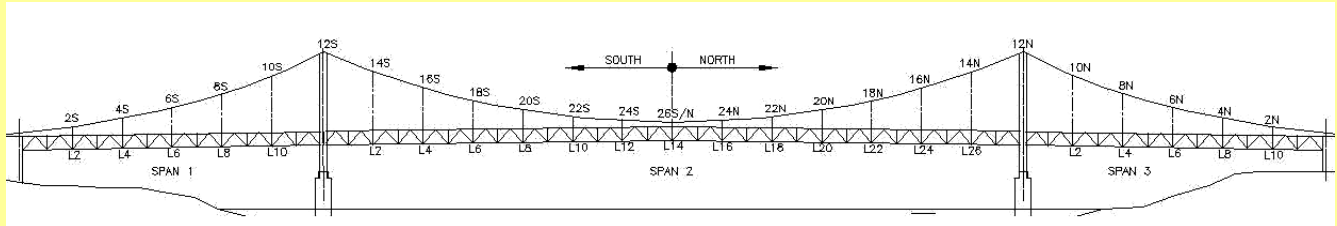
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
u7-L6E	5	5	D	5	5	D	No visible defects.	
u7-L7E	5	5	D	5	5	D	No visible defects.	
u8-L7E	5	5	D	5	5	D	No visible defects.	
u8-L8E	5	5	D	5	5	D	No visible defects.	
u9-L8E	5	5	D	5	5	D	No visible defects.	
u9-L9E	5	5	D	5	5	D	No visible defects.	
u10-L9E	5	5	D	5	5	D	No visible defects.	
u10-L10E	5	5	D	5	5	D	No visible defects.	
u11-L10E	5	5	D	5	5	D	No visible defects.	
u11-L11E	5	5	D	5	5	D	No visible defects.	
u12-L11E	5	5	D	5	5	D	No visible defects.	
u12-L12E	5	5	D	5	5	D	No visible defects.	
<b>Bottom Chord – Span 3 – East Truss</b>								
L0-L1E	5	5	D	5	5	D	No visible defects.	
L1-L2E	5	5	D	5	5	D	No visible defects.	
L2-L3E	5	5	D	5	5	D	No visible defects.	
L3-L4E	5	5	D	5	5	D	No visible defects.	
L4-L5E	5	5	D	5	5	D	No visible defects.	
L5-L6E	5	5	D	5	5	D	No visible defects.	
L6-L7E	5	5	D	5	5	D	No visible defects.	
L7-L8E	5	5	D	5	5	D	No visible defects.	
L8-L9E	5	5	D	5	5	D	No visible defects.	
L9-L10E	5	5	D	5	5	D	No visible defects.	
L10-L11E	5	5	D	5	5	D	No visible defects.	
L11-L12E	5	5	D	5	5	D	No visible defects.	
<b>Bottom Chord Bracing – Span 3</b>								
b0W-L1E	5	5	D	5	5	D	No visible defects.	
b0E-L1W	5	5	D	5	5	D	No visible defects.	
L1W-b2E	5	5	D	5	5	D	No visible defects.	
L1E-b2W	5	5	D	5	5	D	No visible defects.	
b2W-L3E	5	5	D	5	5	D	No visible defects.	
b2E-L3W	5	5	D	5	5	D	No visible defects.	
L3W-b4E	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



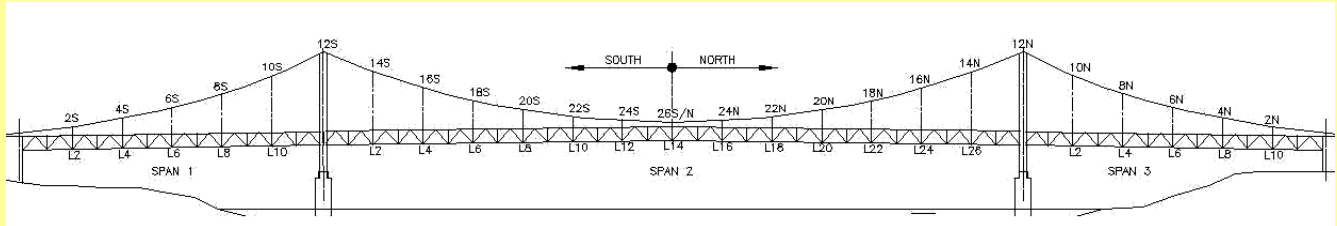
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L3E-b4W	5	5	D	5	5	D	No visible defects.	
b4W-L5E	5	5	D	5	5	D	No visible defects.	
b4E-L5W	5	5	D	5	5	D	No visible defects.	
L5W-b6E	5	5	D	5	5	D	No visible defects.	
L5E-b6W	5	5	D	5	5	D	No visible defects.	
b6W-L7E	5	5	D	5	5	D	No visible defects.	
b6E-L7W	5	5	D	5	5	D	No visible defects.	
L9W-b10E	5	5	D	5	5	D	No visible defects.	
L9E-b10W	5	5	D	5	5	D	No visible defects.	
b10W-L11E	5	5	D	5	5	D	No visible defects.	
b10E-L11W	5	5	D	5	5	D	No visible defects.	
L11W-b12E	5	5	D	5	5	D	No visible defects.	
L11E-b12W	5	5	D	5	5	D	No visible defects.	
<b>Floorbeams – Span 3</b>								
L0W-L0E	5	5	D	5	5	D	No visible defects.	
L1W-L1E	5	5	D	5	5	D	No visible defects.	
L2W-L2E	5	5	D	5	5	D	No visible defects.	
L3W-L3E	5	5	D	5	5	D	No visible defects.	
L4W-L4E	5	5	D	5	5	D	No visible defects.	48
L5W-L5E	5	5	D	5	5	D	No visible defects.	
L6W-L6E	5	5	D	5	5	D	No visible defects.	
L7W-L7E	5	5	D	5	5	D	No visible defects.	
L8W-L8E	5	5	D	5	5	D	No visible defects.	
L9W-L9E	5	5	D	5	5	D	No visible defects.	
L10W-L10E	5	5	D	5	5	D	No visible defects.	
L11W-L11E	5	5	D	5	5	D	No visible defects.	
L12W-L12E	5	5	D	5	5	D	No visible defects.	
<b>Stringers – Span 3</b>								
L0-L1 Stringer 1	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 2	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 3	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 4	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 5	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



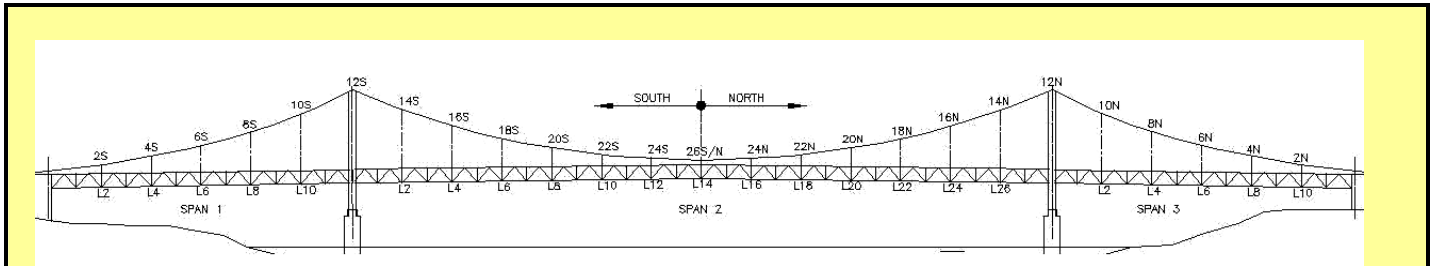
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L0-L1 Stringer 6	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 7	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 8	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 9	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 10	5	5	D	5	5	D	No visible defects.	
L0-L1 Stringer 11	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 1	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 2	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 3	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 4	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 5	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 6	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 7	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 8	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 9	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 10	5	5	D	5	5	D	No visible defects.	
L1-L2 Stringer 11	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 1	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 2	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 3	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 4	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 5	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 6	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 7	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 8	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 9	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 10	5	5	D	5	5	D	No visible defects.	
L2-L3 Stringer 11	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 1	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 2	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 3	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 4	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 5	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



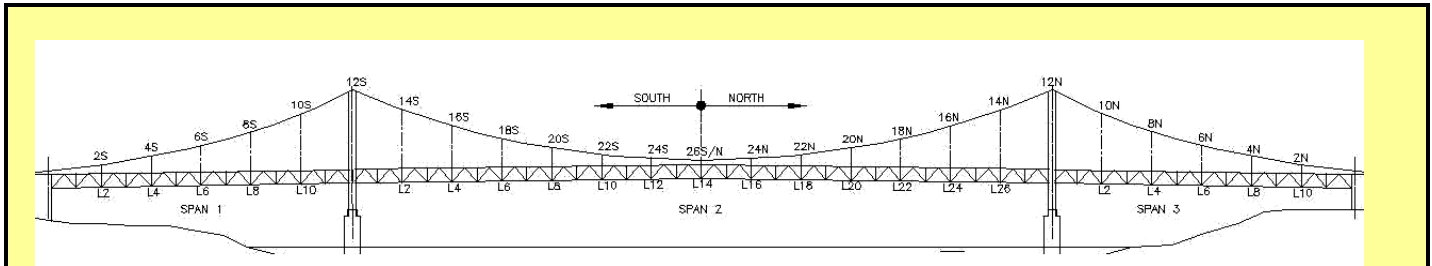
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L3-L4 Stringer 6	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 7	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 8	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 9	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 10	5	5	D	5	5	D	No visible defects.	
L3-L4 Stringer 11	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 1	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 2	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 3	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 4	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 5	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 6	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 7	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 8	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 9	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 10	5	5	D	5	5	D	No visible defects.	
L4-L5 Stringer 11	5	5	D	5	5	D	No visible defects.	
L5-L6 Stringer 1	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 2	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 3	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 4	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 5	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 6	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 7	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 8	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 9	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 10	5	5	D	5	5	D	No visible defects.	47
L5-L6 Stringer 11	5	5	D	5	5	D	No visible defects.	47
L6-L7 Stringer 1	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 2	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 3	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 4	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 5	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



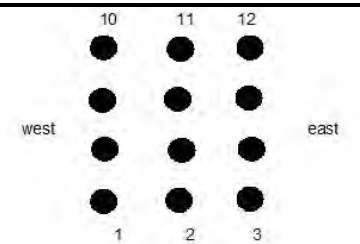
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L6-L7 Stringer 6	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 7	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 8	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 9	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 10	5	5	D	5	5	D	No visible defects.	
L6-L7 Stringer 11	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 1	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 2	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 3	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 4	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 5	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 6	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 7	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 8	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 9	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 10	5	5	D	5	5	D	No visible defects.	
L7-L8 Stringer 11	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 1	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 2	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 3	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 4	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 5	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 6	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 7	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 8	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 9	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 10	5	5	D	5	5	D	No visible defects.	
L8-L9 Stringer 11	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 1	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 2	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 3	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 4	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 5	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3



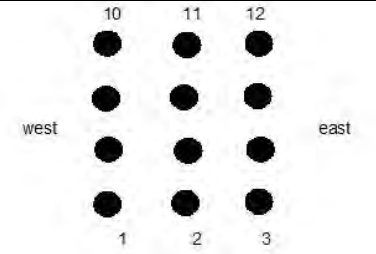
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Individual Member Ratings</b>								
L9-L10 Stringer 6	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 7	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 8	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 9	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 10	5	5	D	5	5	D	No visible defects.	
L9-L10 Stringer 11	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 1	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 2	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 3	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 4	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 5	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 6	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 7	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 8	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 9	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 10	5	5	D	5	5	D	No visible defects.	
L10-L11 Stringer 11	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 1	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 2	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 3	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 4	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 5	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 6	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 7	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 8	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 9	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 10	5	5	D	5	5	D	No visible defects.	
L11-L12 Stringer 11	5	5	D	5	5	D	No visible defects.	

# Lower Liard River Bridge Alaska Highway km 763.3

								Photo References
Element	2009			2011			Observations	
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Main Suspension Cables – West</b>								
Note: Naming convention identical to as-built drawings and previous reports								
<b>South Abutment</b>								
0S-2S	5	5	D	5	5	D	No visible defects.	
2S-4S	5	5	D	5	5	D	No visible defects.	
4S-6S	5	5	D	5	5	D	No visible defects.	
6S-8S	5	5	D	5	5	D	1 #11 broken wire clamped, hanger connection slipped downhill 5 mm at 10S	53,55
8S-10S	5	5	D	5	5	D	1 #10 broken wire clamped	54
10S-12S	5	5	D	5	5	D	No visible defects.	
<b>South Tower</b>								
12S-14S	5	5	D	5	5	D	No visible defects.	
14S-16S	5	5	D	5	5	D	No visible defects.	
16S-18S	5	5	D	5	5	D	No visible defects.	
18S-20S	5	5	D	5	5	D	No rusted wires	
20S-22S	5	5	D	5	5	D	No visible defects.	
22S-24S	5	5	D	5	5	D	No visible defects.	
24S-26S	5	5	D	5	5	D	No visible defects.	
<b>Midspan</b>								
26N-24N	5	5	D	5	5	D	No visible defects.	
24N-22N	5	5	D	5	5	D	No visible defects.	
22N-20N	5	5	D	5	5	D	No visible defects.	
20N-18N	5	5	D	5	5	D	No visible defects.	
18N-16N	5	5	D	5	5	D	No visible defects.	
16N-14N	5	5	D	5	5	D	No visible defects.	
14N-12N	5	5	D	5	5	D	1 #6 broken wire clamped, just south of tower, 14N hanger clamp slipped 5 mm	63,64
<b>North Tower</b>								
12N-10N	5	5	D	5	5	D	No visible defects.	
10N-8N	5	5	D	5	5	D	Hanger connection slipped downhill 25 mm at 10N	87
8N-6N	5	5	D	5	5	D	No visible defects.	
6N-4N	5	5	D	5	5	D	No visible defects.	
4N-2N	5	5	D	5	5	D	No visible defects.	
2N-0N	5	5	D	5	5	D	No visible defects.	
<b>North Abutment</b>								



# Lower Liard River Bridge Alaska Highway km 763.3

<div style="display: flex; align-items: center; justify-content: space-between;"> <div style="text-align: center;">  </div> <div style="background-color: #ffff00; width: 50%;"></div> </div>								
Element	2009			2011			Observations	Photo References
	MCR	PCR	Priority	MCR	PCR	Priority		
<b>Main Suspension Cables – East</b>								
Note: Naming convention identical to as-built drawings and previous reports								
<b>South Abutment</b>								
0S-2S	5	5	D	5	5	D	No visible defects.	
2S-4S	5	5	D	5	5	D	No visible defects.	
4S-6S	5	5	D	5	5	D	No visible defects.	
6S-8S	5	5	D	5	5	D	1 #7 and 3 #8 broken wires clamped – 3 clamps on #8, rust under clamps	56,57
8S-10S	5	5	D	5	5	D	1 #5 broken wire clamped	58
10S-12S	5	5	D	5	5	D	3 #1 broken wires double clamped	59
<b>South Tower</b>								
12S-14S	5	5	D	5	5	D	No visible defects.	
14S-16S	5	5	D	5	5	D	1 #5, 2 #9 and 2 #8 broken wires clamped	67,68,69
16S-18S	5	5	D	5	5	D	1 #8, 1 #10 and 1 #11 broken wires clamped	70,71,72
18S-20S	5	5	D	5	5	D	1 #1 and 1 #10 broken wires clamped	73
20S-22S	5	5	D	5	5	D	2 #1, 1 #7, 1 #8, and 1 #10 broken wires, 2 clamps on #1, 1 clamp on #7, 1 clamp on #8, and 1 clamp on #10	74,75,76
22S-24S	5	5	D	5	5	D	1 #7 broken wire clamped	77
24S-26S	5	5	D	5	5	D	1 clamp on #8	78
<b>Midspan</b>								
26N-24N	5	5	D	5	5	D	2 #1 broken wires clamped	84,85
24N-22N	5	5	D	5	5	D	1 #7 broken wire clamped	83
22N-20N	5	5	D	5	5	D	3 #10 broken wires clamped – 2 clamps in 1 location and 1 clamp in another	81,82
20N-18N	5	5	D	5	5	D	No visible defects.	
18N-16N	5	5	D	5	5	D	1 #5 and 2 #7 broken wires clamped	79,80
16N-14N	5	5	D	5	5	D	No visible defects.	
14N-12N	5	5	D	5	5	D	No visible defects.	
<b>North Tower</b>								
12N-10N	5	5	D	5	5	D	No visible defects.	
10N-8N	5	5	D	5	5	D	1 #11 broken wire clamped	88
8N-6N	5	5	D	5	5	D	No visible defects.	
6N-4N	5	5	D	5	5	D	No visible defects.	
4N-2N	5	5	D	5	5	D	No visible defects.	
2N-0N	5	5	D	5	5	D	No visible defects.	
<b>North Abutment</b>								

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P01 - South Approach - All 4 Delineators and River Name Sign in Place**



**P02 - North Approach - Looking South - All 4 Delineators and River Name Sign in Place**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 12:13

**P03 - Upstream Watercourse to the West**



08.23.2011 11:38

**P04 - Downstream Watercourse to the East**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P05 - West Side - Looking South**



**P06 - Inspection of Stiffening Trusses and Floor System by Snooper**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P07 - Inspection of Suspension Cables by Crane**



**P08 - Overall Deck - Looking North**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P09 - Span 2 - Potholes Forming near Midspan**



**P10 - South Abutment - Expansion Joint**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P11 - South Tower - Finger Joint**



**P12 - North Tower - Finger Joint**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P13 - North Tower - Finger Joint - One Set of Fingers has Dropped 22 mm in West Lane - Rattles Loudly under Traffic**



**P14 - North Abutment - Expansion Joint**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.19.2011 14:02

**P15 - Deck Drains Clear and Functioning Properly - Typical**



08.19.2011 13:43

**P16 - Span 2 - Minor Ponding on West Side near Midspan**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P17 - North Approach - Abutment Barriers have Tapers Installed Since 2009 Inspection - Similar at South Abutment**



**P18 - South Abutment Curbs - Medium Scaling from Snowplow Abrasion**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P19 - North Abutment - NW Curb - Asphalt Taper is Eroding Away**



**P20 - Bridge Railing - Channel Secured to Stiffening Deck Truss - Narrow Steel Sidewalks both Sides of Bridge**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P21 - Span 2 - East Sidewalk Expansion Joint at South Tower**



**P22 - Deck Stiffening Truss - Expansion Plate on West Top Chord - Similar on East Side**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P23 - Span 1 - East Deck Truss - Looking South**



**P24 - Span 1 Soffit and Floor System - Looking North**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P25 - Span 1 - Floorbeam L12 at South Abutment**



**P26 - Span 1 - Corrosion Staining of Permanent Soffit Formwork and West Stringer Top Flange Near Midspan on West Side of Deck**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P27 - Span 1 - South Tower Floorbeams at L12 - Corrosion on Floorbeam Web below Finger Joint**



**P28 - South Tower - Gravel Leaking through Finger Joint onto Horizontal Surfaces - Rust Staining from Unpainted Surfaces**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.24.2011 18:36

**P29 - Span 1 - Floorbeam L12 - Pitting up to 2 mm Deep in Web**



08.24.2011 19:42

**P30 - Span 1 - South Tower Floorbeams at 12S - Corrosion from Inaccessible Surfaces**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P31 - Span 2 - West Truss - Looking South - Fibre Optic Cable along Bottom Chord - Profile Flattens out Near Midspan**



**P32 - Span 2 - East Truss Profile - Looking South - Profile Flattens out Near Midspan**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P33 - Span 2 - Floorbeam L15 - Looking South**



**P34 - Span 2 - East Truss - Typical Truss - Floorbeam Connection**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.24.2011 18:22

**P35 - Span 2 - Floorbeam L0**



08.24.2011 19:32

**P36 - Span 2 - Rust Staining in Soffit below Intermediate Deck Joint**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P37 - Span 2 - Rust Staining in East Sidewalk near Midspan**



**P38 - Span 2 - Near Midspan - Stringer Bottom Chords - Top Coat of Paint Flaking off**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P39 - Span 2 - Corrosion Staining of Permanent Soffit Formwork near Midspan on West Side of Deck**



**P40 - Span 2 - Bottom East Chord at L9-L10 - Localized Light Surface Corrosion**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P41 - Span 2 - Floorbeam L10 - Top Coat of Paint Incomplete at West End**



**P42 - Span 2 - Floorbeam L28 below North Finger Joint**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.24.2011 17:31

**P43 - Span 2 - Floorbeam L28 below North Finger Joint - Corrosion Staining from Unpainted areas below Joint**



08.19.2011 13:44

**P44 - Span 2 - West Truss - Top Chord Strengthened**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.19.2011 13:54

**P45 - Span 3 - Stringers L26 to L27**



08.19.2011 13:54

**P46 - Span 3 - Floorbeam L27**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.24.2011 17:21

**P47 - Span 3 - L5 to L6 Stringers**



08.24.2011 17:20

**P48 - Span 3 = Floorbeam 8N**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P49 - Crane Setup at Bridge Centreline for Cable Inspections**



**P50 - Span 1 - Hanger 2S West**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P51 - Span 2 - Hanger 16S West**



**P52 - Span 1 - West Cables**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P53 - Span 1 - West Cables 6S to 8S - 1 #11 Broken Wire Clamped**



**P54 - Span 1 - West Cables 8S to 10S - 1 #10 Broken Wire Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P55 - Span 1 - West Hanger 10S - Slipped 5 mm as Previously Noted - No Additional Slippage**



**P56 - Span 1 - East Cables 6S to 8S - 1 #7 and 3 #8 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P57 - Span 1 - East Cables 6S to 8S - 2 Additional Clamps on #8 Cable**



**P58 - Span 1 - East Cables 8S to 10S - 1 #5 Broken Wire Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 10:47

**P59 - Span 1 - East Cables 10S to 12S - 3 #1 Broken Wires Clamped**



08.23.2011 12:59

**P60 - Main Span 2 Cables**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P61 - Span 2 - West Cables - Looking South from North Tower**



**P62 - Timber Cable Spacer - Typical between all Hangers**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P63 - Span 2 - West Cables 14N to 12N - One #6 Broken Wires Clamped**



**P64 - Span 2 - West Hanger 14N - Slipped 5 mm as Previously Noted - No Additional Slippage**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P65 - Span 2 - West 22S Hanger**



**P66 - Span 2 - West 26 Hanger**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 11:16

**P67 - Span 2 - East Cables 14S to 16S - 1 #5 Broken Wire Clamped - Two #8 and Two #9 Wires Broken Above are Clamped Further up the Cable**



08.23.2011 11:17

**P68 - Span 2 - East Cables 14S to 16S - Two #8 and Two #9 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P69 - Span 2 - East Cables 14S to 16S - Two #8 Broken Wires Clamped**



**P70 - Span 2 - East Cables 16S to 18S - One #8 and One #11 Broken Wire Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P71 - Span 2 - East Cables 16S to 18S - One #8 Broken Wire Clamped**



**P72 - Span 2 - East Cables 16S to 18S - One #10 and One #11 Broken Wire Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 11:48

**P73 - Span 2 - East Cables 18S to 20S - One #1 and One #10 Broken Wire Clamped**



08.23.2011 11:47

**P74 - Span 2 - East Cables 20S to 22S - One #7 and One #8 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 11:46

**P75 - Span 2 - East Cables 20S to 22S - One #10 Broken Wire Clamped**



08.23.2011 11:46

**P76 - Span 2 - East Cables 20S to 22S - Two #1 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P77 - Span 2 - East Cables 22S to 24S - One #7 Broken Wire Clamped**



**P78 - Span 2 - East Cables 24S to 26S - 1 Clamp on #8**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P79 - Span 2 - East Cables 18N to 16N - One #5 Broken Wires Clamped**



**P80 - Span 2 - East Cables 18N to 16N - Two #7 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P81 - Span 2 - East Cables 22N to 20N - Three #10 Broken Wires Clamped**



**P82 - Span 2 - East Cables 22N to 20N - Three #10 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 09:35

**P83 - Span 2 - East Cables 24N to 22N - One #7 Broken Wire Clamped**



08.23.2011 09:33

**P84 - Span 2 - East Cables 26N to 24N - First #1 Broken Wire Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



08.23.2011 09:33

**P85 - Span 2 - East Cables 26N to 24N - Second #1 Broken Wire Clamped**



08.23.2011 12:13

**P86 - Span 3 Cables - Looking North from North Tower**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P87 - Span 3 - West Hanger 10N - Slipped 25 mm as Previously Noted - No Additional Slippage**



**P88 - Span 3 - East Cables 10N to 8N - One #11 Broken Wires Clamped**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P89 - South Abutment and Embankment - Minor Erosion Gully at Waterline**



**P90 - South Abutment - SW Cable Saddle and Anchorage**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P91 - South Abutment - SW Cable Anchorage**



**P92 - South Abutment**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P93 - South Abutment - Lateral Bracing**

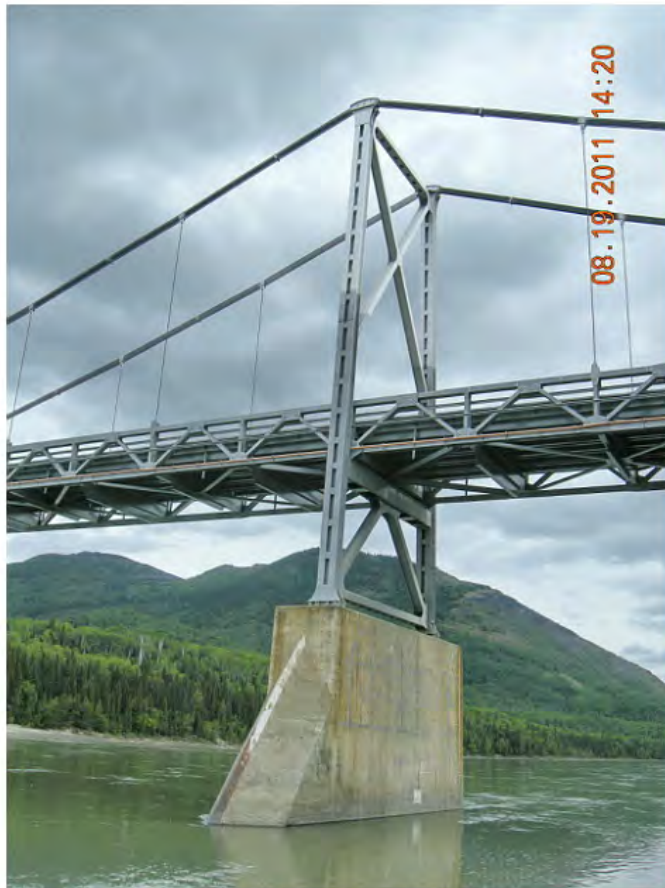


**P94 - South Abutment - West Bearing Anchor and Pins**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P95 - South Abutment - SW Cable Saddle**



**P96 - South Tower - South Face**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P97 - Underwater Inspection Team from Pelagic Technologies - U/W Inspections Carried out on Both Piers**



**P98 - South Pier = South Face**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P99 - South Pier - North Face**



**P100 - South Pier - East Bearing Pins**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P101 - South Tower**



**P102 - South Tower - Saddle for East Cables - Paint Peeling and Light Surface Corrosion on top of Gusset Plate**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P103 - South Tower - Saddle for West Cables**



**P104 - Deck Truss - Looking North from Midspan**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P105 - North Pier - South Face**



**P106 - North Pier - North Face**

**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P107 - North Tower - West Leg - Corrosion Staining Leaking from Unpainted Interior of Leg**



**P108 - North Tower - West Leg - Localized Paint Peeling below Deck**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P109 - North Tower - East Bearing Pins**



**P110 - North Tower - Looking North**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P111 - North Tower - West Saddle**



**P112 - North Abutment and Embankment**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P113 - North Abutment - NE Cable Saddle and Anchorage**



**P114 - North Abutment - NW Cable Anchorage**



**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P115 - North Abutment Wall and Bearing Seat**



**P116 - North Abutment - Repairs Carried out to Spalls in Bearing Seat Since 2009 Inspection**



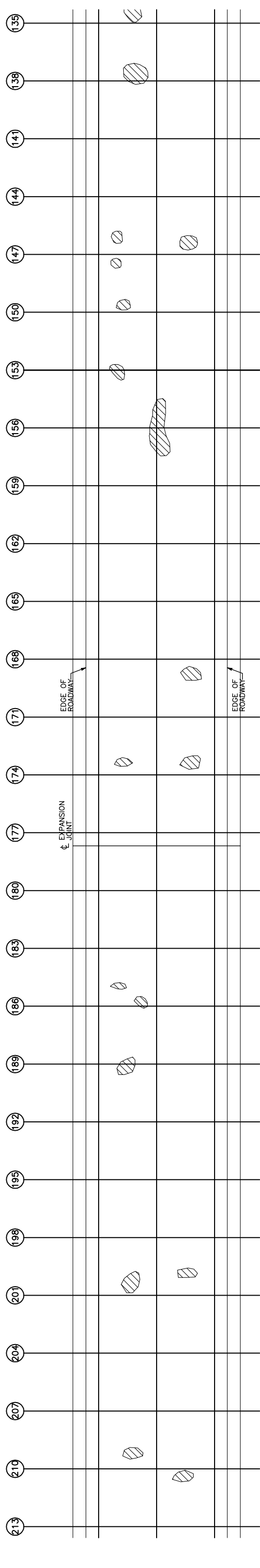
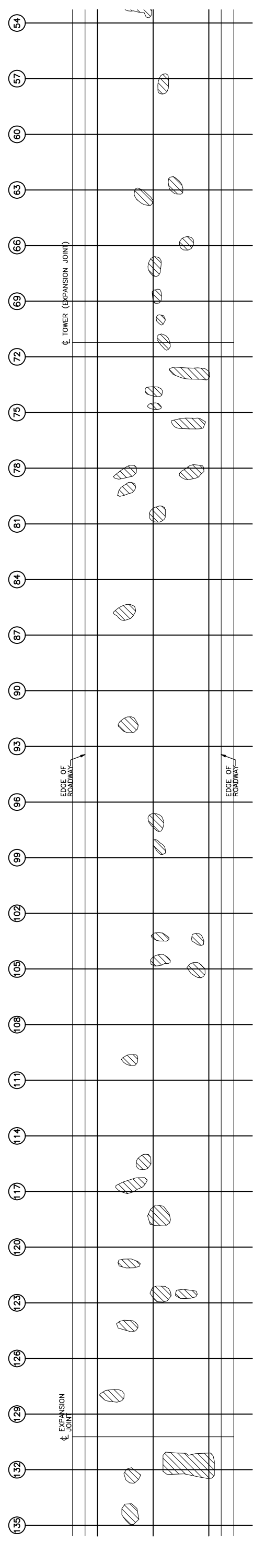
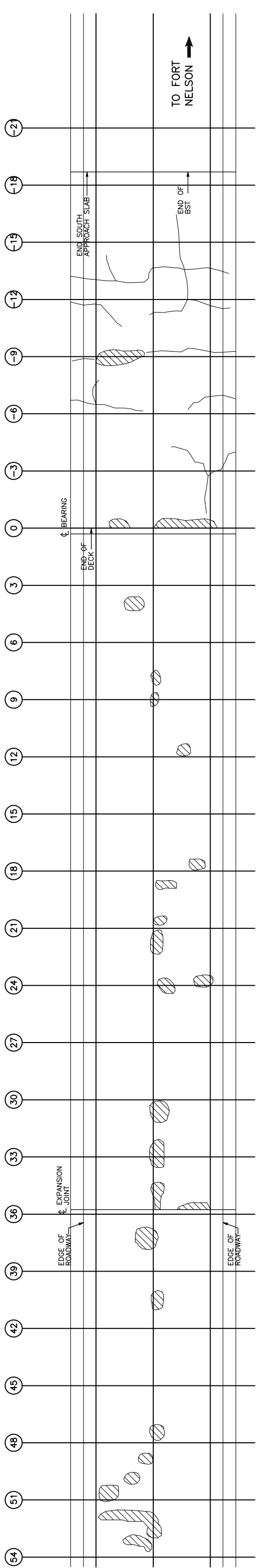
**Lower Liard River Bridge  
Alaska Highway km 763.3**



**P117 - North Abutment - Keeper Bars at NW Bearing**



**P118 - Deck Truss Vertical at NE Corner of Bridge - Bent Web - No Cracking**



PLAN VIEW

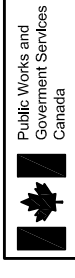
NOTE: GRID LINES AT 3.0m CENTRES

AREA OF DELAMINATION

BRIDGE DECK = 77 sq.m (3%)

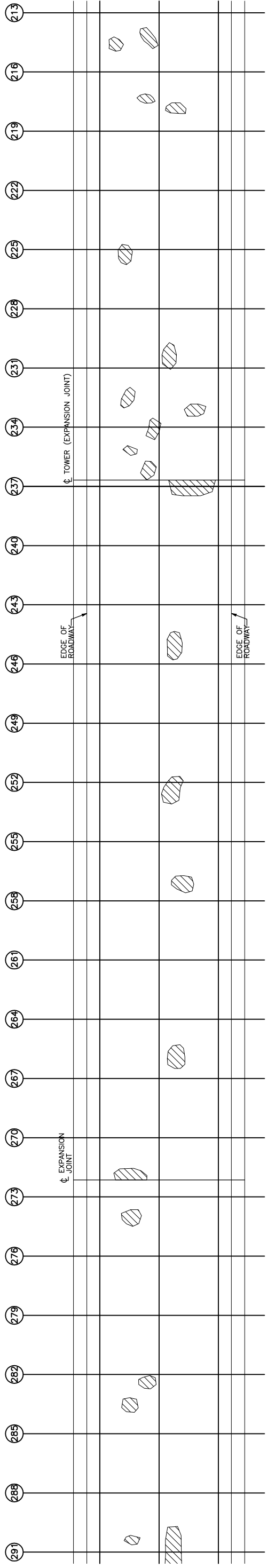
LEGEND

DELAMINATED



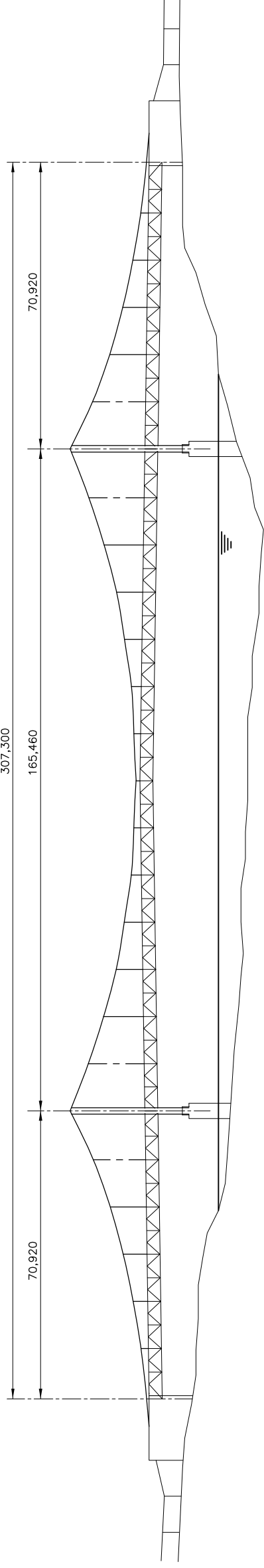
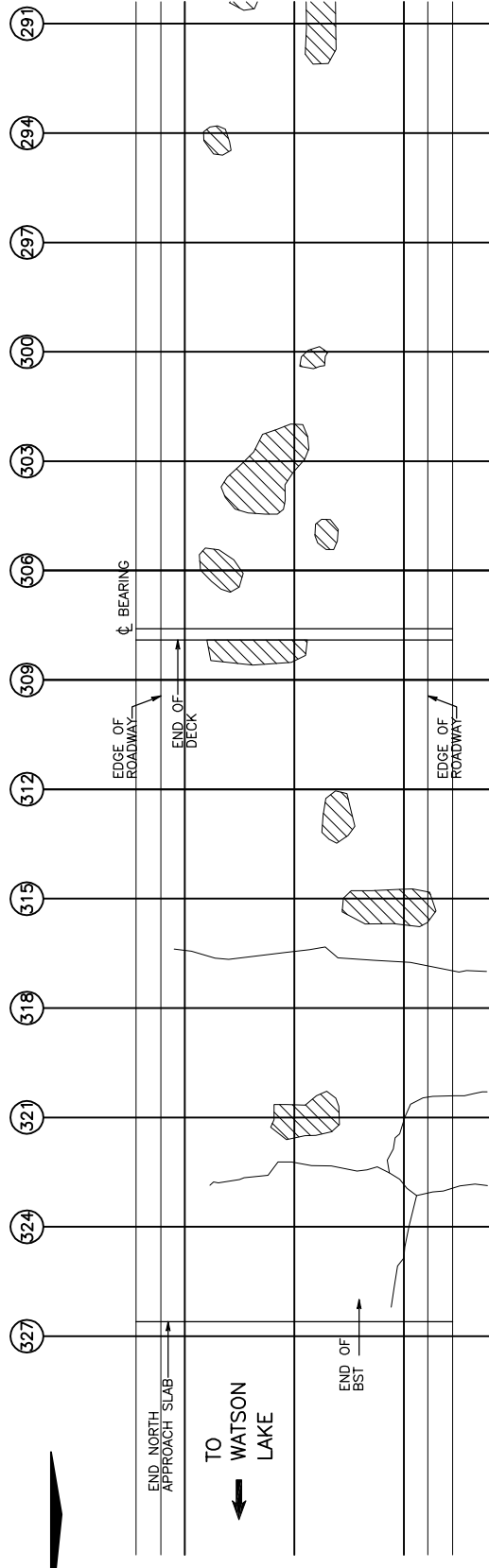
2011 ALASKA HIGHWAY BRIDGE INSPECTIONS  
KM 232 TO KM 938  
DECK DELAMINATION SURVEY

LOWER LIARD RIVER - km 763.3  
**DELSCAN**

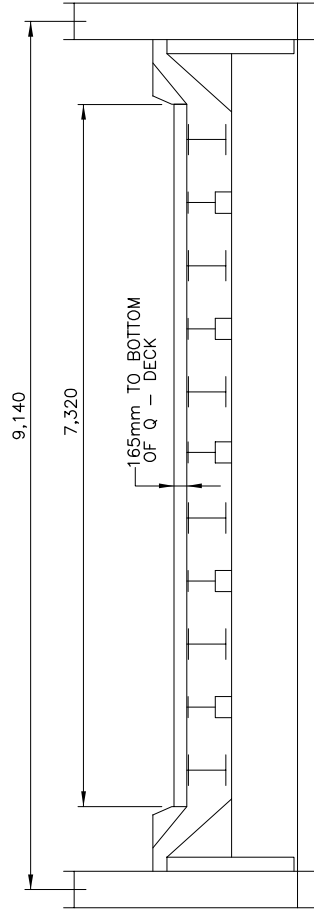


**PLAN VIEW**

NOTE: GRID LINES AT 3.0m CENTRES



**ELEVATION**



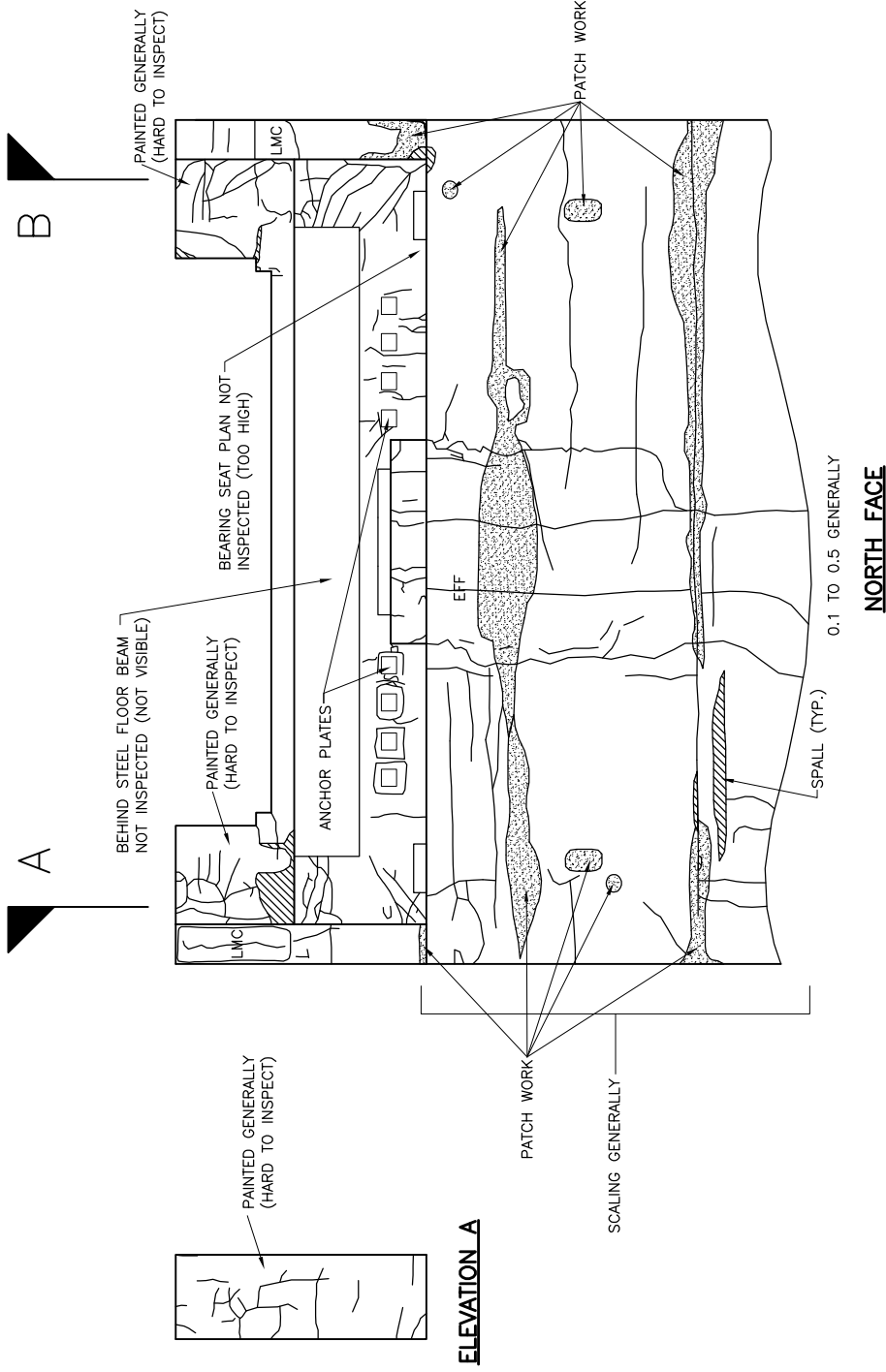
**SECTION**



2011 ALASKA HIGHWAY BRIDGE INSPECTIONS  
 KM 232 TO KM 938  
 DECK DELAMINATION SURVEY

**LOWER LIARD RIVER - km 763.3**  
**DELICAN**





**ELEVATION A**



**ELEVATION B**

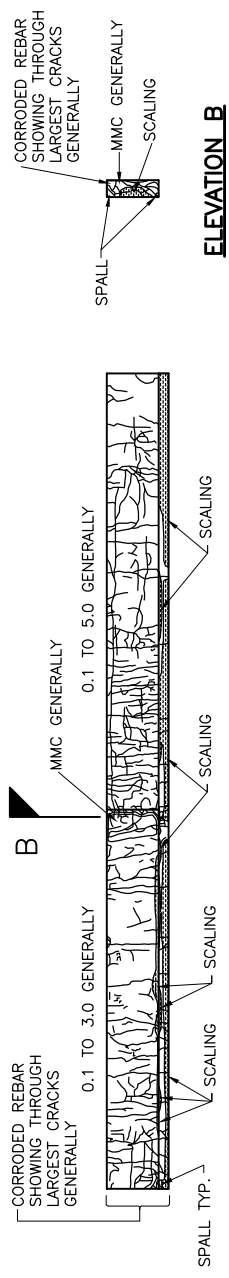
**NOTE:**  
 CRACK DIMENSIONS ARE IN MILLIMETRES.  
 EFF. DENOTES EFFLORESCENCE  
 LMC. DENOTES LIGHT MAP CRACKING  
 MMC. DENOTES MEDIUM MAP CRACKING



2011 ALASKA HIGHWAY BRIDGE INSPECTIONS  
 KM 232 TO KM 938  
 SUBSTRUCTURE AREA DEFECTS  
**LOWER LIARD RIVER BRIDGE—Km 763.3**  
**SOUTH ABUTMENT**

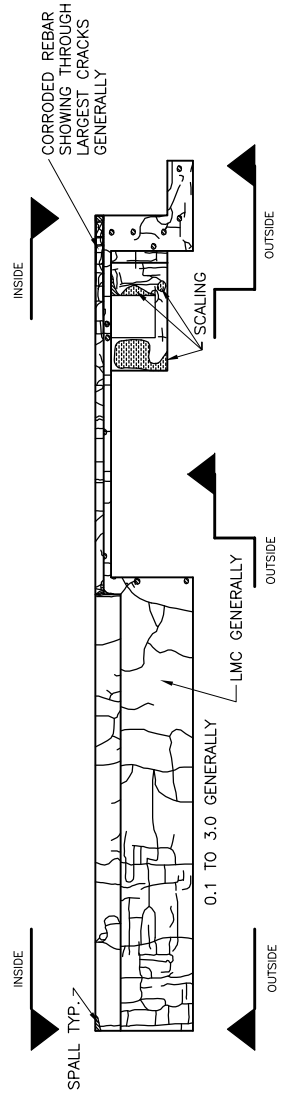






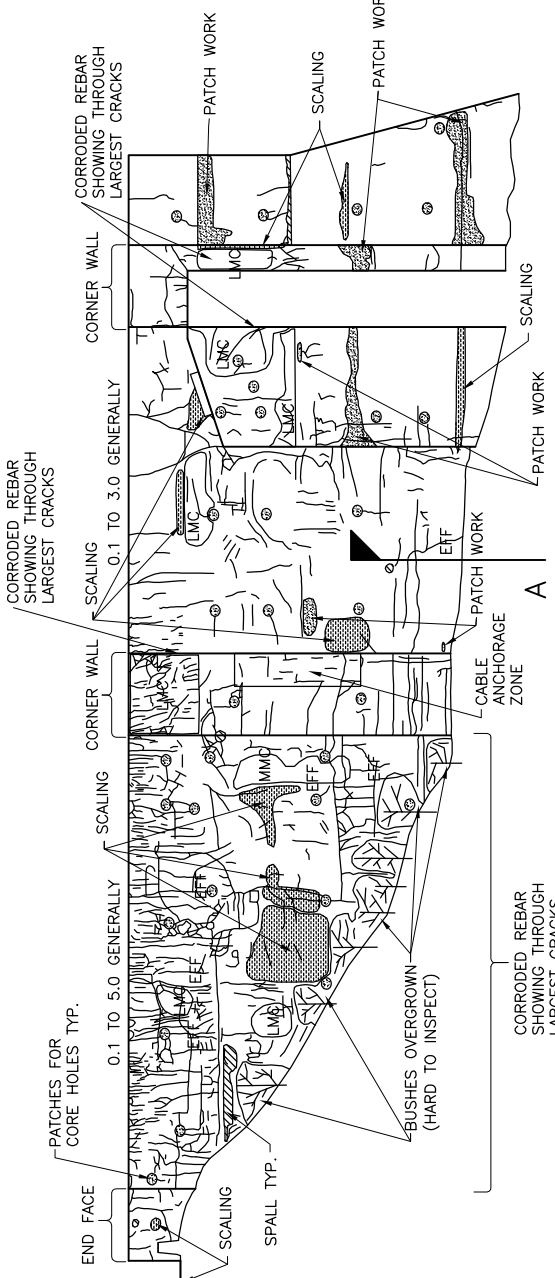
**ELEVATION B**

**EAST WINGWALL  
INSIDE FACE**



**ELEVATION A**

**EAST WINGWALL - PLAN**



**EAST WINGWALL  
OUTSIDE FACE**

**NOTE:**

CRACK DIMENSIONS ARE IN MILLIMETRES.

EFF. DENOTES EFFLORESCENCE  
LMC. DENOTES LIGHT MAP CRACKING  
MMC. DENOTES MEDIUM MAP CRACKING



2011 ALASKA HIGHWAY BRIDGE INSPECTIONS  
KM 232 TO KM 938

SUBSTRUCTURE AREA DEFECTS

**LOWER LIARD RIVER BRIDGE - Km 763.3**  
**Eastcan SOUTH ABUTMENT - EAST WINGWALL**



PAINTED GENERALLY  
(HARD TO INSPECT)

SPALL



**ELEVATION A**

SCALING TYP.

SPALL

**A**

BEHIND STEEL FLOOR BEAM  
NOT INSPECTED (NOT VISIBLE)

PAINTED GENERALLY  
(HARD TO INSPECT)

ANCHOR PLATES TYP.

BEARING SEAT PLAN  
NOT INSPECTED

SPALL

PAINTED GENERALLY  
(HARD TO INSPECT)

**B**

SPALL

SPALL

SPALL

SPALL

SPALL

SPALL

SCALING TYP.

MMC

**NORTH FACE**

SCALING TYP.

**ELEVATION B**

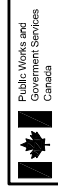
**NOTE:**

CRACK DIMENSIONS ARE IN MILLIMETRES.

EFF. DENOTES EFFLORESCENCE

LMC. DENOTES LIGHT MAP CRACKING

MMC. DENOTES MEDIUM MAP CRACKING



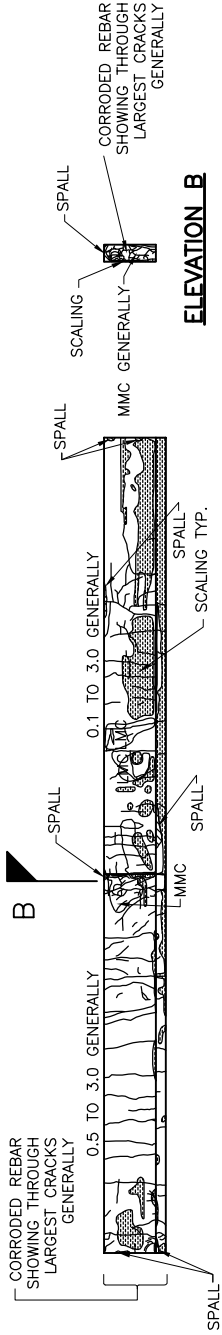
2011 ALASKA HIGHWAY BRIDGE INSPECTIONS  
KM 232 TO KM 938

SUBSTRUCTURE AREA DEFECTS

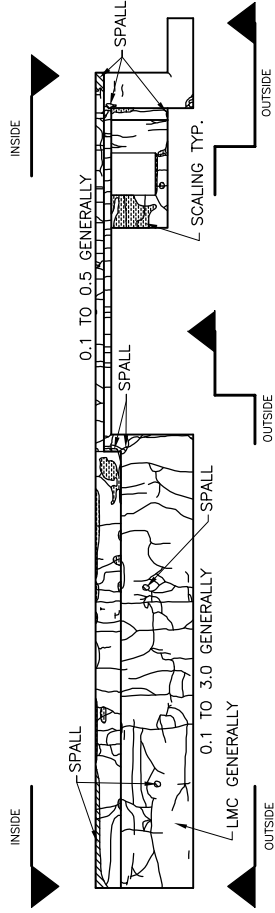
LOWER LIARD RIVER BRIDGE - Km 763.3

**NORTH ABUTMENT**

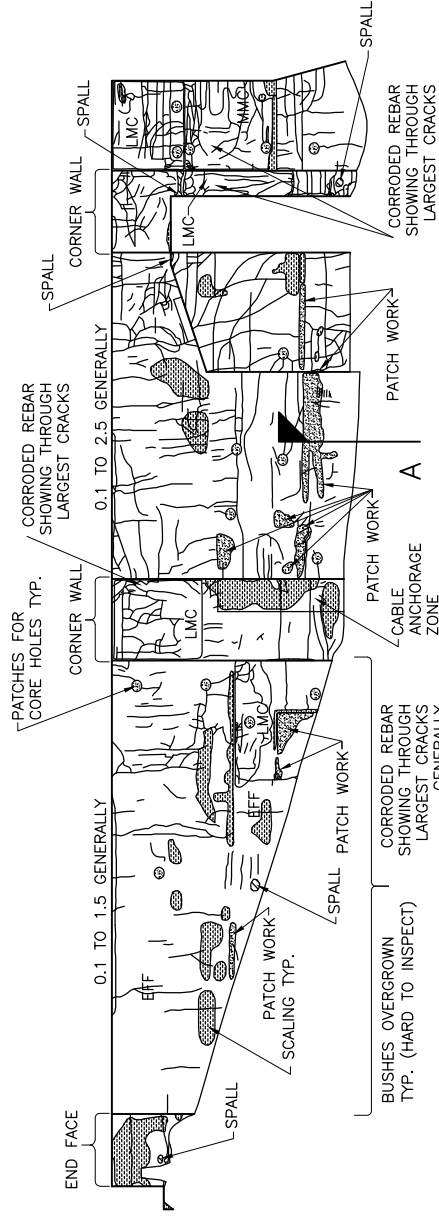
SHEET 3 OF 3



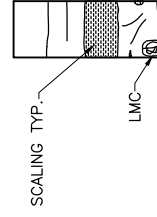
**WEST WINGWALL  
INSIDE FACE**



**WEST WINGWALL - PLAN**



**WEST WINGWALL  
OUTSIDE FACE**



NOTE:

CRACK DIMENSIONS ARE IN MILLIMETRES.

EFF. DENOTES EFFLORESCENCE

LMC. DENOTES LIGHT MAP CRACKING

MMC. DENOTES MEDIUM MAP CRACKING

**ELEVATION A**



2011 ALASKA HIGHWAY BRIDGE INSPECTIONS  
KM 232 TO KM 938

SUBSTRUCTURE AREA DEFECTS

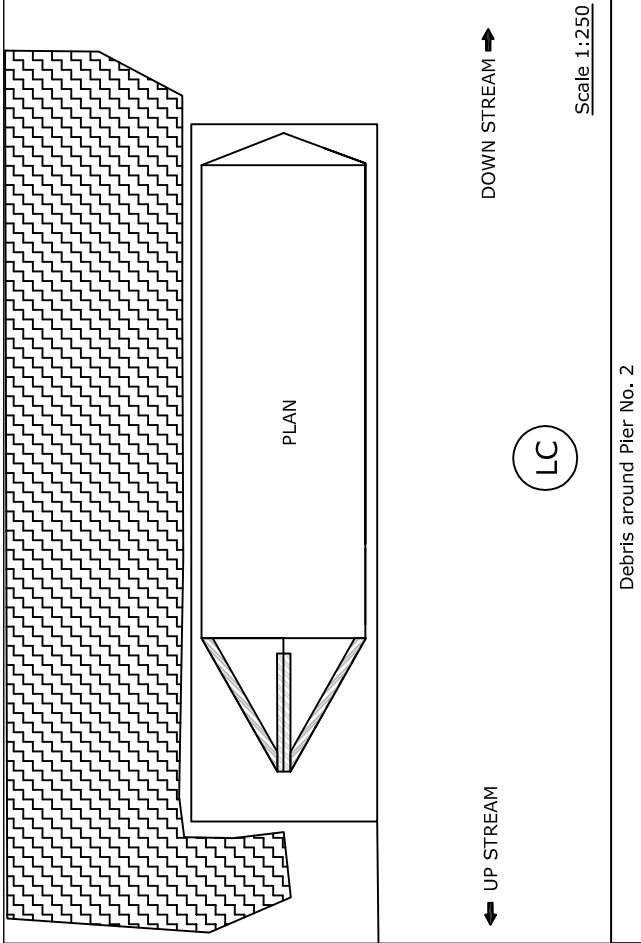
LOWER LIARD RIVER BRIDGE - Km 763.3

SHEET 1 OF 3

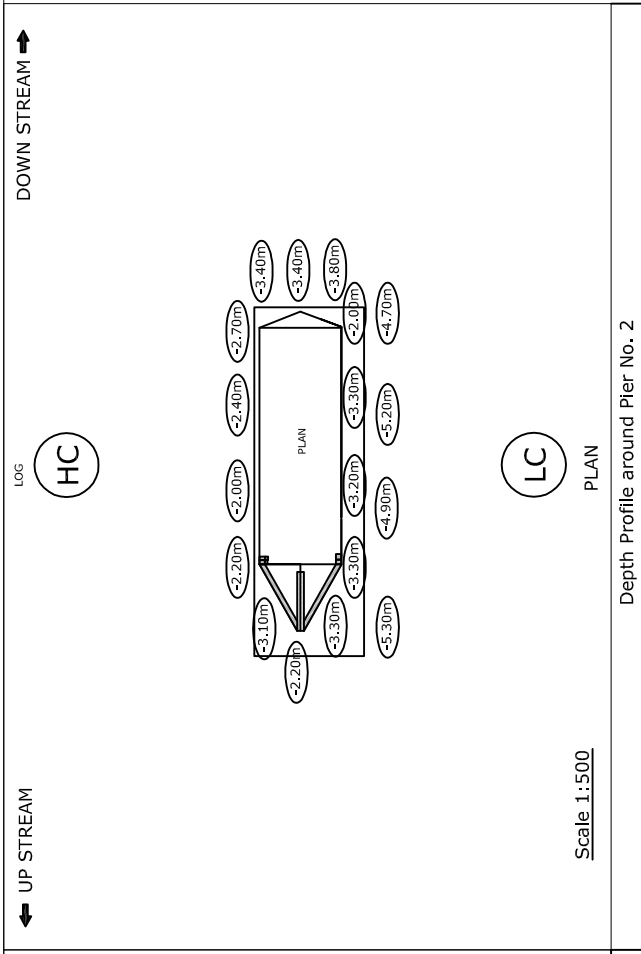
**Delcan** NORTH ABUTMENT - WEST WINGWALL



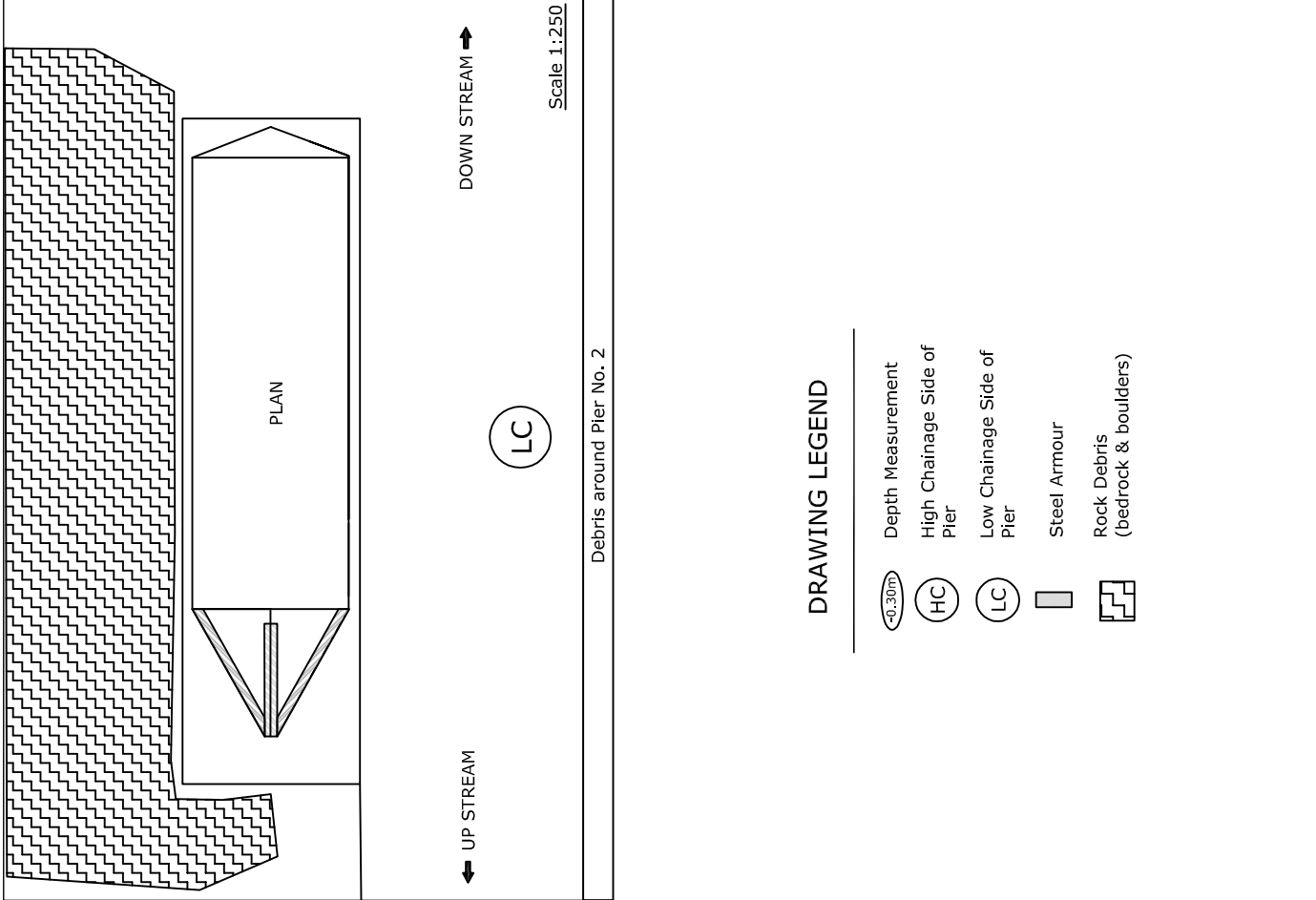




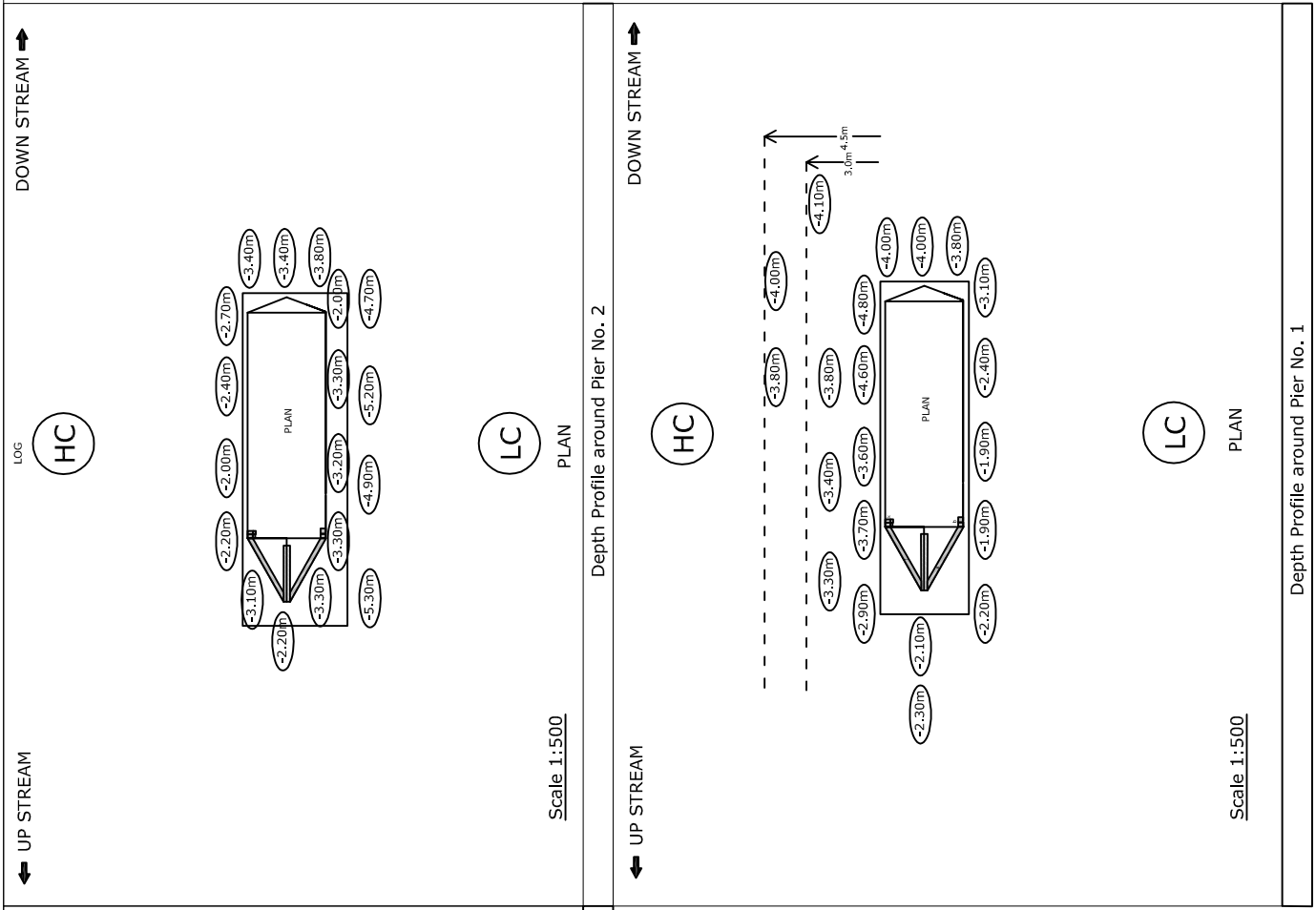
Debris around Pier No. 2



Depth Profile around Pier No. 2



Depth Profile around Pier No. 1



Depth Profile around Pier No. 1

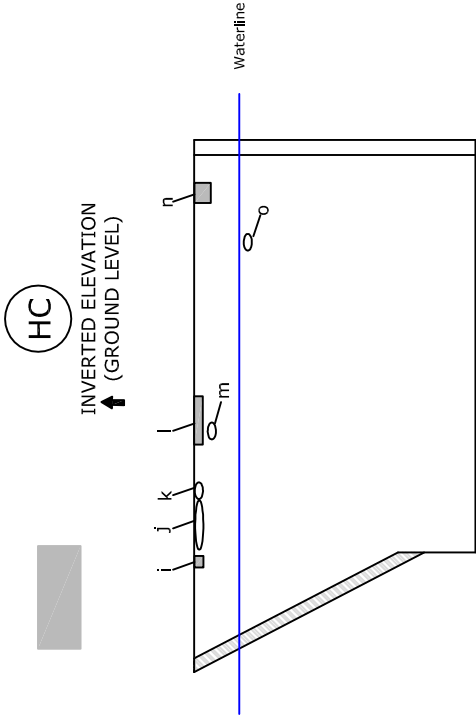
**DRAWING LEGEND**

- Depth Measurement
- High Chainage Side of Pier
- Low Chainage Side of Pier
- Steel Armour
- Rock Debris (bedrock & boulders)

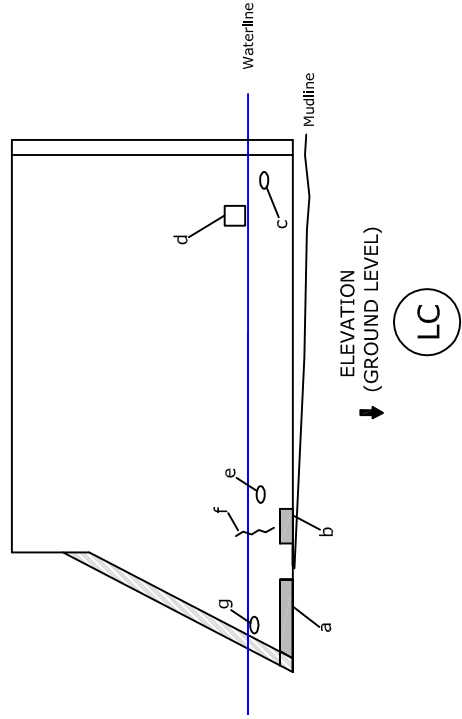
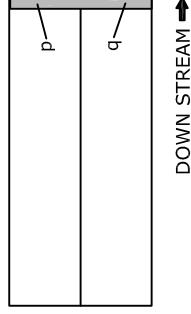
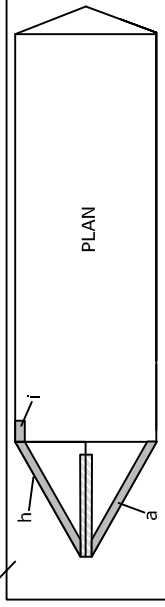
Box 2046, C. 10th, 5460  
604-885-3552 TEL  
604-885-4333 FAX  
info@pelagic.ca

# DRAWING NOTES

- Inspection date August 21 - 22, 2011.
  - Pier No.1 elevations from top of deck are 9.2m to top of pier and 18.2m to water line (at time of inspection)
- a) Plastic grout patch (lifting up at upstream end) - 305mm x upstream nose length
  - b) Plastic grout patch - 200mm x 1000mm
  - c) Spall with 230mm vertical x 356mm horizontal x 25mm penetration
  - d) Plastic grout patch - 610mm x 610mm
  - e) Spall with 100 vertical x 100mm horizontal x 25mm penetration
  - f) Surface crack 900mm vertical x 12mm penetration (150mm above water line)
  - g) Spall with 381mm vertical x 50mm horizontal x 25mm penetration
  - h) Plastic grout patch - 305mm x upstream nose width
  - i) Plastic grout patch - 305mm x 457mm
  - j) 2 Spalls with 75mm vertical x 75mm horizontal x 50mm penetration
  - k) Spall with 100mm vertical x 230mm horizontal x 25mm penetration
  - l) Plastic grout patch - 305mm x 1800mm
  - m) Spall with 300mm vertical x 152mm horizontal x 38mm penetration
  - n) Plastic grout patch - 381mm x 457mm
  - o) Spall with 150mm vertical x 305mm horizontal x 19mm penetration
  - p) Plastic grout patch - 230mm x HC downstream nose
  - q) Missing plastic grout patch (grout intact) - 230mm x LC downstream nose



Exposed Concrete Footing



# DRAWING LEGEND

- a) Spall Damage Identification Number
- HC High Chain Side of Pier
- LC High Chain Side of Pier
- Steel Armour
- Plastic Grout Patch
- Vertical Crack

Client:	Delcan ADVANCED TECHNOLOGIES CORPORATION	Drawn by:	PELAGIC TECHNOLOGIES INC. Box 2049, C. 1003, 340 S.W. 11th St., Ft. Lauderdale, FL 33322, TN 604.885.3332 TN 604.885.4332 Fax info@pelagic.ca	Title: Lower Liard Bridge Concrete Pier No. 1 Inspection Drawing	
				Draftsman: GH	Scale: 1:300
				Date: Nov. 15, '11	Page: 1/3

# DRAWING NOTES

- Inspection date August 21 - 22, 2011.
- Pier No.1 elevations from top of deck are 9.15m to top of pier and 18.1m to water line (at time of inspection)
- Do to extreme currents at time of inspection, some areas were not able to be inspected in detail such as the upstream nose and areas along the low chainage face.

- (a) Steel grout patch repair from upstream nose
- (b) Plastic grout patches - dimensions not measured
- (c) Small spall - dimensions and penetration not measured
- (d) Small spall - dimensions and penetration not measured
- (e) Small spall - dimensions and penetration not measured
- (f) Spall with 230mm vertical x 457mm horizontal x 50mm penetration
- (g) Spall with 255mm vertical x 305mm horizontal x 75mm penetration
- (h) Spall with 255mm vertical x 510mm horizontal x 50mm penetration
- (i) Grout repair with failing plastic cover (grout intact)
- (j) Steel grout repair - width of High Chainage nose
- (k) Multiple grout patches 460mm x 460mm
- (l) Spall with 75mm vertical x 1500mm horizontal x 75mm penetration

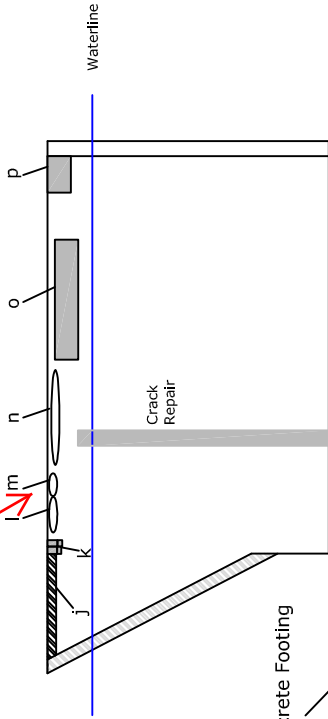
- (m) **Spall with 200mm vertical x 1800mm horizontal x 406mm penetration**
- (n) Spall with 127mm vertical x 3000mm horizontal x 75mm penetration
- (o) Plastic grout patch 900mm vertical x 4600mm horizontal
- (p) Plastic grout patch 900mm vertical x 1400mm horizontal
- (q) Spall with 600mm vertical across Low Chainage nose x 30mm penetration
- (r) Spall with 100mm vertical x 150mm horizontal x 62mm penetration
- (s) Missing plastic grout patch 300mm vertical x 610mm horizontal (grout intact)
- (t) Plastic grout patch 305mm vertical x 305mm horizontal

**m) spall 406 deep x 200 high x 1800 mm long**

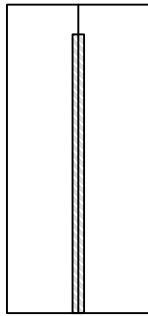


HC

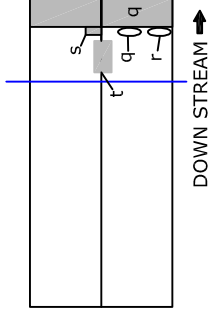
INVERTED ELEVATION  
↑ (GROUND LEVEL)



Exposed Concrete Footing



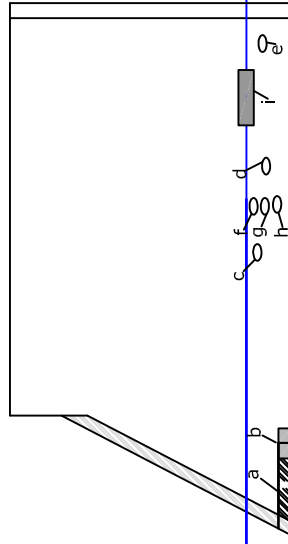
← UP STREAM



DOWN STREAM →

ELEVATION  
↓ (GROUND LEVEL)

LC



## DRAWING LEGEND

- (a) Spall Damage Identification Number
- HC High Chain Side of Pier
- LC High Chain Side of Pier
- Steel Armour / Patch
- Plastic Grout Patch
- Vertical Crack

Client:



Drawn by:



Title:

Lower Liard Bridge Concrete Pier  
No. 2 Inspection Drawing

Draftsman: GH

Scale: 1:300

Date: Nov. 15, '11

No: 1254-11

Page: 2/3



**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW01 - Pier 2 DS nose looking US**



**UW02 - Pier 1 DS nose 2**

**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW03 - Pier 1 HC face 2**



**UW04 - Pier 1 Spall repair HC face**



**Lower Liard River Bridge - Alaska Highway km 763.3**  
**Underwater Inspection Photos**



**UW05 - Pier 1 US nose HC side**



**UW06 - Pier 1 US nose LC side**



**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW07 - Pier 1 LC face spall at cold joint 5m long**



**UW08 - Pier 1 LC face**



**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW09 - Pier 1 Spall repair LC face 1.5' above water 2**



**UW10 - Pier 1 Typical crack repair with grout - Pier 1 LC face**

**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



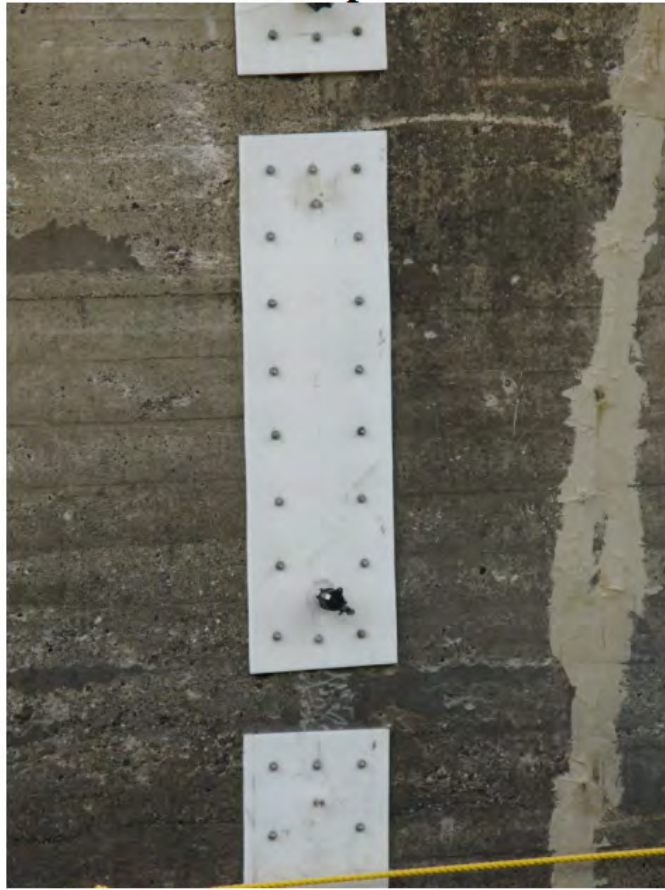
**UW11 - Pier 2 DS nose 2**



**UW12 - Pier 2 HC face 2**



**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**

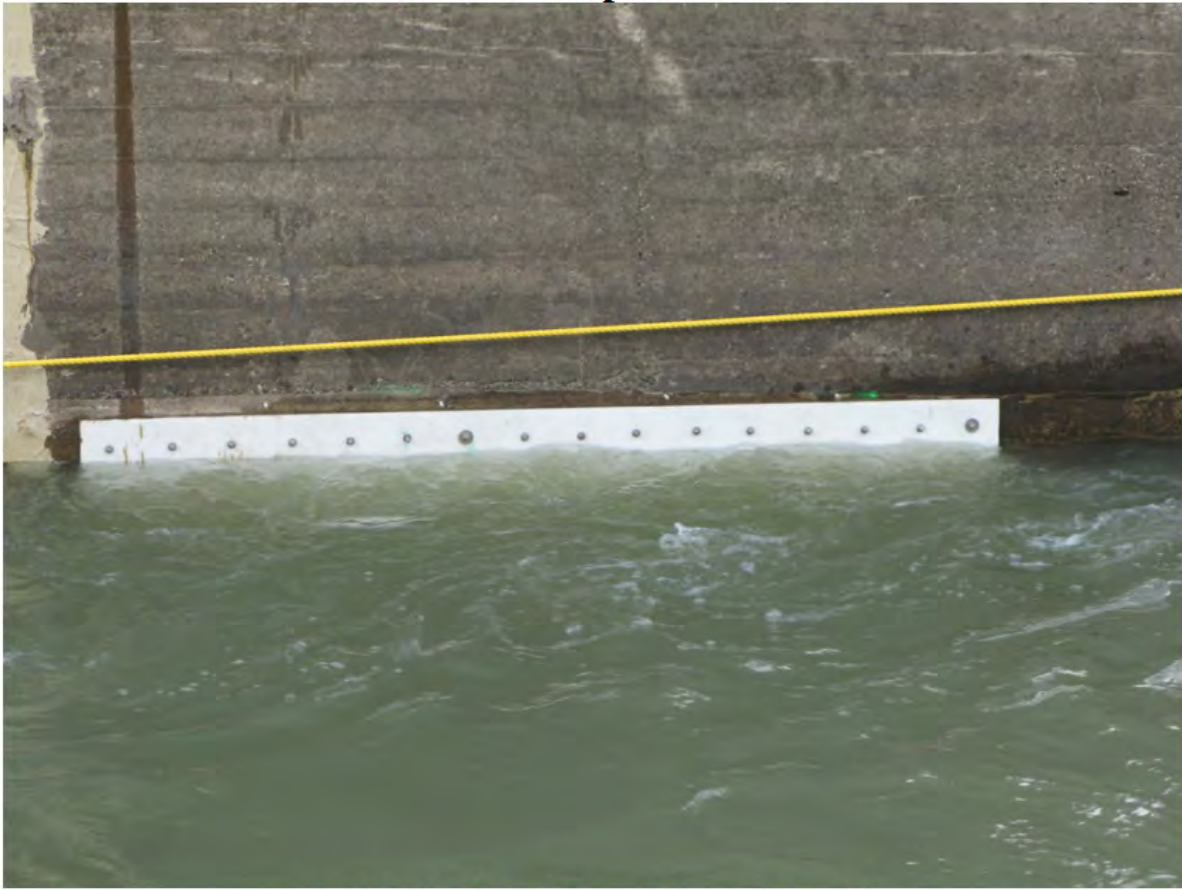


**UW13 - Pier 2 HC face close up of vertical repairs 16' from US**



**UW14 - Pier 2 HC face close up horz repair 33' from US**

**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW15 - Pier 2 HC face repair horz. 16' from US**



**UW16 - Pier 2 US nose HC face**



**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW17 - Pier 2 US nose LC face 2**



**UW18 - Pier 2 US nose LC face repair on nose**



**Lower Liard River Bridge - Alaska Highway km 763.3  
Underwater Inspection Photos**



**UW19 - Pier 2 LC face genera 2**



**UW20 - Pier 2 LC face 16' from DS damage repair**