Bridge Culvert Inspection

Bridge File Number	77272 -2 Bridge Culvert	Form Type	CUL1
Year Built	2009	Lot No.	4
Bridge or Town Name	PEACE RIVER	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO WHITEMUD RIVER, 8.10.48.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	743:02 C1 44.380	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	22-Mar-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 2 TWP 88 RGE 21 W5M	Data Entry Date	05-Apr-2013
Longitude, Latitude	-117:13:17, 56:36:28	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	03-Apr-2013
Contract Main. Area	CMA04	Dept. Reviewer Name	
Clear Roadway/Skew	8.5 / 35 deg. (RHF)	Dept. Review Date	
AADT/Year	120 / 2012 (A)	Follow-Up By	
Road Classification	RCU-208G-90		
Detour Length (km)	50		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3670	SP	84.25	152X51	4.2	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Bridge structure 150m S of culvert cl.
Vertical Alignment		5	5	Crest curve 50m N of culvert cl. Crest curve 400m S of culvert cl.
Roadway Width (m)	7.200			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **7**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	N	Snow covered
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		9	N	Snow/ice covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		9	N	Snow covered
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		9	N	Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3670, Type: SP**)				
Barrel Last Accessible Date	22-Mar-2013			1677mm ice to corwon ring 6 760mm ice to crown ring 16
Special Features				
Special Feature				Unable to access last 5 rings.
(Type :)				
Special Feature				
(Type :)				
Roof		9	8	
Measured Rise (mm)	3692			Ice on floor - unable to take measurements.
Measured At Ring No.	6			
Sag (mm)	22			Defelction upward
Percent Sag	0			
Sidewall		9	8	Unable to measure
Measured Span (mm)	3708			
Measured At Ring No.	6			
Deflection (mm)	38			
Percent Deflection	1			
Floor		9	N	Ice on floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)				
Longitudinal Seams		9	9	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		9	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3670, Type: SP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	8	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**9**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	9	
Collar		9	N	Snow covered
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		9	N	Snow/ice covered, 150mm ice to crown.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	N	Possible minor slump starting to form at NW corner just above riprap 1m x2m. Monitor.-13-Nov-2009
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	N	Snow covered
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	GR carried fwd.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**7**	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**100.0/88.9**	**Sufficiency Rating (Last/Now) (%)**	**97.4/86.8**	Est. Repl. Yr	2059	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor NW embankment of D/S bevel end.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina		
Next Inspection Date	22-Jun-2016	Previous Inspection Date	13-Nov-2009		
Inspection Cycle (Default) (months)	39				
Comment					