Bridge Culvert Inspection

Bridge File Number	71421 -1 Bridge Culvert	Form Type	CUL1
Year Built	1975	Lot No.	4
Bridge or Town Name	TRIANGLE	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO SOUTH HEART RIVER, 8.11.80.54.8.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	2:54 C1 18.489	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	12-Dec-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 13 TWP 76 RGE 19 W5M	Data Entry Date	12-Jan-2013
Longitude, Latitude	-116:48:28, 55:35:10	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	09-Jan-2013
Contract Main. Area	CMA06	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	9.7 / -30 deg. (LHF)	Dept. Review Date	20-Mar-2013
AADT/Year	900 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	80		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4370	2870	RPP	28.7	152X51	4.2	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	10 m west	Gas	North 20 m
Power		Municipal	
Others	Railway 15m west	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm access, NE corner 30m W.
Vertical Alignment		9	9	
Roadway Width (m)	9.700			
Embankment		N	N	Scour NW/SW ditch. 2m x 0.8m x 1m hole.-01-May-2009 Snow covered.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		N	N	(Wide, longitudinal cracks, pieces separating 500mm wide 1.8m long.-01-May-2009) Under snow
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		7	7	Silting in bevel South side.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	N	Riprap has washed into pipe.
(Type : **RIP RAP**)				Snow covered.
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		5	N	Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	GR carried fwd.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4370, Rise (mm): 2870, Type: RPP**)				
Barrel Last Accessible Date	12-Dec-2012			Ice to crown - 2394mm
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Ice on floor\\estimated
Measured Rise (mm)	2781			
Measured At Ring No.	4			
Sag (mm)	86			
Percent Sag	3			
Sidewall		8	8	
Measured Span (mm)	4379			
Measured At Ring No.	4			
Deflection (mm)	9			
Percent Deflection	0			
Floor		7	N	Ice on floor
Bulge (mm)	0			
Measured At Ring No.	4			
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Two bolts missing, 3rd seam from u/s. 2 and 4:00.
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		4	4	Scaling & pitting.
Corrosion By Soil (Y/N)	No			Alkaline stains through roof seams.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4370, Rise (mm): 2870, Type: RPP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	N	Snow covered
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	snow covered
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	Gen rating carried forward.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		5	5	
HWM (m below Top of Culvert)	1.5			Grass in brush.-01-May-2009
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			Couldn't tell due to snow cover.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**71.6/71.6**	Est. Repl. Yr	2024	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor cracking in concrete collar.-01-May-2009	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	12-Sep-2014	Previous Inspection Date	25-Jan-2011		
Inspection Cycle (Default) (months)	21				
Comment					