Bridge Culvert Inspection

Bridge File Number	82091 -1 Bridge Culvert	Form Type	CUL1
Year Built	2002	Lot No.	4
Bridge or Town Name	TWO HILLS	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO VERMILION RIVER, 6.5.28, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	36:20 C1 23.205	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Jan-2013
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SW SEC 6 TWP 54 RGE 12 W4M	Data Entry Date	12-Feb-2013
Longitude, Latitude	-111:46:16, 53:38:03	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	19-Jan-2013
Contract Main. Area	CMA14	Dept. Reviewer Name	Darron Ahlstedt
Clear Roadway/Skew	12 / 2 deg. (RHF)	Dept. Review Date	13-Feb-2013
AADT/Year	1,290 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3050	SP	72.54	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	1 wire 30m East of r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	On grade, long crest curve to the South.
Vertical Alignment		7	7	
Roadway Width (m)	12.000			
Embankment		7	N	Snow covered, but no signs of problems. Steepen to 3:1. West side measured.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **6.5**)				
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		9	8	
Collar		9	N	Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Buried.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	N	Under ice.
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		N	N	Snow covered but no sign of problem.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**N**	GR was 7 from 11Aug2009.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP**)				
Barrel Last Accessible Date	09-Jan-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	Roof deformed on SW u/s end, but functional; estimated 30mm.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Estimated.
Percent Sag	2			
Sidewall		N	7	Span at R2=3101=51mm Span at R9=3111=61mm=2% Span at R16=3056=6mm
Measured Span (mm)	3111			
Measured At Ring No.	9			
Deflection (mm)	61			
Percent Deflection	2			
Floor		N	N	Ice
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	8	
Separation (mm)	0			
Longitudinal Seams		N	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			2N
Coating		N	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			Typical standing water.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	8	(Ice 1.64m from roof near c/l. 02/12/10)
Icing (Y/N)	No			(10Dec2002).
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**6**	

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		N	N	Missing last bolt @ 10:00 along seam, minor. Iced over.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		N	N	Snow covered but no sign of problem.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**N**	GR was 7 from 11Aug2009.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	Meandering stream.
Bank Stability		7	7	Low marshy area.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			(10Dec2002).
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) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**72.1/70.3**	Est. Repl. Yr	2054	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection		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	Dave Lam	Previous Assistant's Name	
Next Inspection Date	09-Oct-2014	Previous Inspection Date	08-Dec-2010
Inspection Cycle (Default) (months)	21		
Comment			