Bridge Culvert Inspection

Bridge File Number	06912 -1 Bridge Culvert	Form Type	CUL1
Year Built	1987	Lot No.	4
Bridge or Town Name	FORT MACLEOD	Inspector Name	Jason Rusu
Located Over	MCNAB COULEE, 2.12.22.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	2:06 C1 18.193	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Oct-2011
Navigabil. Cl./Year		Data Entry By	Alyssa Boynton
Legal Land Location	NW SEC 8 TWP 8 RGE 25 W4M	Data Entry Date	18-Nov-2011
Longitude, Latitude	-113:21:18, 49:37:59	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	09-Nov-2011
Contract Main. Area	CMA26	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	11.9 / 30 deg. (RHF)	Dept. Review Date	21-Nov-2011
AADT/Year	1,520 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2000	MP	31	125X26	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch	Gas	200 m south
Power	1 wire crosses 200m S	Municipal	
Others	Fiberoptics West Row	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve 300 m north. Residental access 100m South
Vertical Alignment		9	8	
Roadway Width (m)	11.900			
Embankment		7	7	
Sideslope (__:1)	3.5			
(Height of Cover(m) : **1.7**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **600**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2000, Type: MP**)				
Barrel Last Accessible Date	09-Oct-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Ring 1- 1.7 m - 3 holes in roof - visible pit-run - no leakage- 120mm dia.
Measured Rise (mm)	1910			
Measured At Ring No.	3			
Sag (mm)	90			
Percent Sag	4			
Sidewall		7	7	
Measured Span (mm)	2070			
Measured At Ring No.	3			
Deflection (mm)	70			
Percent Deflection	3			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	70mm vertical gap @ seam #2.
Separation (mm)	120			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	7	SOME DAMAGED @ U/S DURING INSTALLATION - MINOR.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
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): 2000, Type: MP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	DENTED FROM ROCK PLACEMENT - MINOR
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Some 1000mm rock at north.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	Meandering stream.
Bank Stability		7	7	
HWM (m below Top of Culvert)				Not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**65.3/65.2**	Est. Repl. Yr	2033	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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	09-Jul-2013	Previous Inspection Date	22-Jan-2010
Inspection Cycle (Default) (months)	21		
Comment			