Bridge Culvert Inspection

Bridge File Number	00152 -1 Bridge Culvert	Form Type	CUL1
Year Built	1989	Lot No.	4
Bridge or Town Name	HIGH RIVER	Inspector Name	Jason Rusu
Located Over	TONGUE CREEK, 2.13.27.5, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	2A:04 C1 7.189	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Aug-2012
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	SW SEC 19 TWP 19 RGE 28 W4M	Data Entry Date	05-Sep-2012
Longitude, Latitude	-113:52:56, 50:37:08	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	19-Aug-2012
Contract Main. Area	CMA27	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	13.4 /	Dept. Review Date	06-Sep-2012
AADT/Year	8,550 / 2011 (A)	Follow-Up By	
Road Classification	RAU-213.4-120		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	10462	4421	RPA	25	152X51	5.0,4.0,4.0	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East ditch.	Gas	100 m East.
Power	3 wire East r/w - 30 m.	Municipal	
Others	Fibre optics @ West ditch.	Problem (Y/N)	No
Remarks	Trans Line 200m South.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	13.400			
Embankment		N	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.1**)				
Guardrail (Y/N)	Yes			
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)	CONCRETE			
Headwall		8	7	Conduit through headwall.
Collar		N	6	3mm wide cracks @ both ends @ NW & SW.
Wingwalls		N	7	
(Shape :)				
Cutoff Wall		N	N	Buried.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**N**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 10462, Rise (mm): 4421, Type: RPA**)				
Barrel Last Accessible Date	11-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Has good shape. (From previous insp) 05-feb-2007
Measured Rise (mm)	4220			
Measured At Ring No.	3			
Sag (mm)	201			Est.
Percent Sag	4			
Sidewall		7	7	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				Est.
Percent Deflection	4			
Floor		N	N	Silt and water.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	
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		N	6	
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): 10462, Rise (mm): 4421, Type: RPA**)				
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		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		N	8	
Collar		N	6	3 mm cracks @ ends of collar @ bottom @ NE & SE.
Wingwalls		N	8	
(Shape :)				
Cutoff Wall		N	N	Buried.
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**N**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	90 degree bend u/s and d/s.
Bank Stability		N	7	
HWM (m below Top of Culvert)	0.7			(Straw caught in roof seam) 05-feb-2007
Drift (Y/N)	No			None visible.
Channel Bottom Degrading/Aggrading	AGGRADING			
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) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**66.3/68.5**	Est. Repl. Yr	2038	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	Jason Rusu	Previous Assistant's Name			
Next Inspection Date	11-May-2014	Previous Inspection Date	10-Jan-2011		
Inspection Cycle (Default) (months)	21				
Comment					