Bridge Culvert Inspection

Bridge File Number	79035 -1 Bridge Culvert	Form Type	CUL1
Year Built	1981	Lot No.	4
Bridge or Town Name	LONGVIEW	Inspector Name	Garry Roberts
Located Over	STONY CREEK, 2.13.27.27, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	541:02 C1 2.162	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Mar-2013
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	SE SEC 33 TWP 16 RGE 5 W5M	Data Entry Date	06-Apr-2013
Longitude, Latitude	-114:37:21, 50:23:20	Reviewer Name	Ash Morjaria
Road Authority	Alberta Transportation (AIT)	Review Date	20-Mar-2013
Contract Main. Area	CMA27	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	11 /	Dept. Review Date	08-Apr-2013
AADT/Year	510 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
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	-	2314	SP	121.3	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North ROW.	Gas	
Power	South ROW and crosses West.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	On curve, superelevated. 60m West of Highwood Wildland Fire Base Curve 100m West.
Vertical Alignment		8	8	
Roadway Width (m)	11.000			
Embankment		8	8	1.0 m at U/S and 2.5m at D/S end.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.7**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		North end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		7	7	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	Buried.
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		8	8	
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): 2314, Type: SP**)				
Barrel Last Accessible Date	11-Mar-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Upward.
Measured Rise (mm)	2560			
Measured At Ring No.	16			Estimate due to ice/silt.
Sag (mm)	0			
Percent Sag				
Sidewall		6	6	Some minor rock dents. At three locations rocks have been punched through sidewalls. 100mm dia hole at Ring 3 at East and R16 West.
Measured Span (mm)	2350			
Measured At Ring No.	29			
Deflection (mm)	36			
Percent Deflection	1			
Floor		5	6	
Bulge (mm)	0			Salt and rock covered R25 to D/S.
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		6	6	Isolated tipping and pulling of bolts in West seam R26.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			1N stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust along floor where coating is worn off.
Corrosion By Soil (Y/N)	No			
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): , Rise (mm): 2314, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Silt- hard packed rock- 1.5m R25 to D/S.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		South end.
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	50% visible.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			@ D/S.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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) (%)**	**63.0/62.0**	Est. Repl. Yr	2025	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	11-Jun-2016	Previous Inspection Date	04-Oct-2009		
Inspection Cycle (Default) (months)	39				
Comment					