Bridge Culvert Inspection

Bridge File Number	79039 -1 Bridge Culvert	Form Type	CUL1
Year Built	1981	Lot No.	2
Bridge or Town Name	LONGVIEW	Inspector Name	Garry Roberts
Located Over	FIR CK, 2.13.27.23, WATERCRS-ST	Inspector Class	BR CLS A
Located On	541:02 C1 6.870	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	04-Mar-2013
Legal Land Location	SW SEC 1 TWP 17 RGE 5 W5M	Data Entry By	Lauren Korte
Longitude, Latitude	-114:33:50, 50:23:51	Data Entry Date	06-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Ash Morjaria
Contract Main. Area	CMA27	Review Date	20-Mar-2013
Clear Roadway/Skew	13.5 / 18 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	510 / 2011 (A)	Dept. Review Date	08-Apr-2013
Road Classification	RCU-209-110	Follow-Up By	
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	-	1724	SP	33.5	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	On curve, on hill, superelevated.
Vertical Alignment		5	5	No passing, short sight distance. Marked with Fir Creek sign.
Roadway Width (m)	11.000			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **0.7**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

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 :)				
Cutoff Wall		N	N	Mostly buried.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	N	Snow covered. P.R 7.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		6	N	P.R 6.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		6	N	(600 mm DP - 400 mm DIA ROCK @ U/S Some larger>1m rock).
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**N**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1724, Type: SP**)				
Barrel Last Accessible Date	11-Mar-2013			Pipe is 5% VE 1724 sp x 1901 rise.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	1940			
Measured At Ring No.	6			
Sag (mm)	39			Estimate due to ice.
Percent Sag	2			
Sidewall		7	7	Minor sidewall dents.
Measured Span (mm)	1730			
Measured At Ring No.	4			
Deflection (mm)	20			
Percent Deflection	1			
Floor		5	N	(D/S dented from rocks wasing down pipe).
Bulge (mm)	0			(Minor).
Measured At Ring No.				
Abrasion (Y/N)	Yes			Ice.
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Superficial corrosion on floor at abrasion.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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): 1724, Type: SP**)				
Fish Passage Adequacy		4	4	D/S end is 2.0m above streambed.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
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		S		South end.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			Bin wall support under pipe. Water falls into pool then on a 45 degree slope.
Above/Below (mm)	2000			
Scour Protection		5	4	Scoured back 2m each side. Barrel is no longer accessible from D/S.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **1000**)				
Scour/Erosion		5	4	2000 mm DIA @ SB & SE
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	5	Creek runs into a gorge @ D/S end. D/S waterfall.
Bank Stability		6	6	
HWM (m below Top of Culvert)				No visible HWM.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**5**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2013	20m3 Cl.2 at D/S.				
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) (%)**	**65.7/62.3**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes

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	04-Jun-2016	Previous Inspection Date	04-Oct-2009		
Inspection Cycle (Default) (months)	39				
Comment					