Bridge Culvert Inspection

Bridge File Number	00855 -1 Bridge Culvert	Form Type	CUL1
Year Built	1961	Lot No.	3
Bridge or Town Name	AIRDRIE	Inspector Name	Garry Roberts
Located Over	TRIBUTARY TO NOSE CREEK, 2.13.32.5, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	567:04 C1 5.800	Assistant Class	
Water Body Cl./Year		Inspection Date	25-Jul-2012
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	NE SEC 9 TWP 27 RGE 1 W5M	Data Entry Date	30-Aug-2012
Longitude, Latitude	-114:04:58, 51:17:60	Reviewer Name	Tom Carey
Road Authority	Alberta Transportation (AIT)	Review Date	07-Aug-2012
Contract Main. Area	CMA29	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	9.2 / -15 deg. (LHF)	Dept. Review Date	06-Sep-2012
AADT/Year	2,240 / 2011 (A)	Follow-Up By	
Road Classification	RLU-209-110		
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	-	2000	MP	44	68X13	3.0	ROUND

Special Features	
Special Features Comment	2000 CSP liner in SPCSP original.

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		6	6	
Roadway Width (m)	9.200			
Embankment		5	5	North is 3:2 then 3.5m bench then 2:1, South is 3:1.
Sideslope (__:1)	2.0			
(Height of Cover(m) : **4.9**)				
Guardrail (Y/N)	Yes			3 split post @ South.
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		South.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		7	7	Steel plate bulkhead.
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
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	25-Jul-2012			Liner.
Special Features				
Special Feature				2000 CSP liner in original SPCSP.
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Roof sagging 8.9m from South end @ 1:00.
Measured Rise (mm)	1865			
Measured At Ring No.				
Sag (mm)	135			
Percent Sag	6			
Sidewall		5	5	
Measured Span (mm)	2111			
Measured At Ring No.	2			
Deflection (mm)	111			
Percent Deflection	5			
Floor		6	6	Local bulge from 28.3m to 30.3m from installation.
Bulge (mm)	100			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	Welded.
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	7	Slight corrosion welded plugs.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			Slight negative camber.
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		5	5	
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		N		North.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		7	7	Steel plate bulkheads.
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		5	5	Previous sloughing on both sides of pipe is stable.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				NO HWM VISIBLE.
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**	**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	2013	Replace 3 split posts @ South guardrail.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**61.8/62.0**	Est. Repl. Yr	2036	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	25-Oct-2015	Previous Inspection Date	14-May-2009
Inspection Cycle (Default) (months)	39		
Comment			