Bridge Culvert Inspection

Bridge File Number	73366 -1 Bridge Culvert	Form Type	CUL1
Year Built	1986	Lot No.	4
Bridge or Town Name	LUNDBRECK	Inspector Name	Garry Roberts
Located Over	CALLUM CREEK, 2.12.48, WATERCRS-ST	Inspector Class	BR CLS A
Located On	22:08 C1 16.514	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Jun-2012
Legal Land Location	NE SEC 25 TWP 11 RGE 2 W5M	Data Entry By	Erin Roberts
Longitude, Latitude	-114:08:44, 49:56:30	Data Entry Date	17-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Joel Wozney
Contract Main. Area	CMA26	Review Date	27-Jun-2012
Clear Roadway/Skew	11.7 / -2 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	2,210 / 2011 (A)	Dept. Review Date	17-Jul-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	18		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3650	SP	45.1	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East ditch.	Gas	
Power		Municipal	Altalink @ West fenceline.
Others	Fibre optics @ East r/w.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Entrance @ SW.
Vertical Alignment		6	6	
Roadway Width (m)	11.700			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.8**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Narrow cracks.
Collar		7	7	Hairline to narrow transverse cracks.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		7	7	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	Bevel pushed in @ bottom approx 150mm.
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3650, Type: SP**)				
Barrel Last Accessible Date	07-Oct-2010			Water too deep to enter. Viewed from both ends.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	PR 7
Measured Rise (mm)	3563			
Measured At Ring No.	3			
Sag (mm)	87			
Percent Sag	2			
Sidewall		7	N	PR 7
Measured Span (mm)	3765			
Measured At Ring No.	1			
Deflection (mm)	115			
Percent Deflection	3			
Floor		7	N	PR 7
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	N	PR 7
Separation (mm)	0			
Longitudinal Seams		7	N	PR 7
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)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	N	(Minor superficial at floor) PR 5
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): 3650, Type: SP**)				
Fish Passage Adequacy		7	7	(Lots of 50mm to 100mm fish in pipe) 2001/10/18
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**N**	PR 7

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		6	6	Bevel @ top pushed in approx 300mm on both sides.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	Steep cut @ South @ D/S - 100m away.
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/55.6**	**Sufficiency Rating (Last/Now) (%)**	**72.3/60.9**	Est. Repl. Yr	2044	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	16-Mar-2014	Previous Inspection Date	07-Oct-2010		
Inspection Cycle (Default) (months)	21				
Comment					