Bridge Culvert Inspection

Bridge File Number	70878 -1 Bridge Culvert	Form Type	CULE
Year Built	1954	Lot No.	4
Bridge or Town Name	OBED	Inspector Name	Shane Hall
Located Over	SANDSTONE CREEK, 8.11.130, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	16:02 L1 43.556;16:02 R1 43.542	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 18 TWP 52 RGE 23 W5M	Data Entry Date	27-Aug-2012
Longitude, Latitude	-117:22:35, 53:29:13	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	27-Aug-2012
Contract Main. Area	CMA13	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	25.7 / -30 deg. (LHF)	Dept. Review Date	30-Aug-2012
AADT/Year	5,630 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1675	1675	BP	79.3			RECTANGLE
1	D/S	-	2430	SP	58.5	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North r/w.	Gas	
Power	4 lines power south r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag in place.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		7	7	
Roadway Width (m)	25.700			13.1 EB, 12.6 WB.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **6**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		4	4	Separating 10mm from barrel @ SW. SE has wide crack.
(Shape : **FLARE**)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1675, Rise (mm): 1675, Type: BP**)				
Barrel Last Accessible Date	11-Aug-2012			
Special Features				
Special Feature				CIP concrete trap transition.
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1675			Near cl Several medium cracks in roof.
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		6	5	
Measured Span (mm)	1678			Medium to wide cracks throughout.
Measured At Ring No.				near cl
Deflection (mm)	2			
Percent Deflection				
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	6	R9 - 27mm gap, at construction joint.
Separation (mm)	27			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	Rust stain @ few cracks in sidewall.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1675, Rise (mm): 1675, Type: BP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	(Ice within 1m of roof. 2000/04/21)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2430, Type: SP**)				
Barrel Last Accessible Date	11-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2388			
Measured At Ring No.	16			
Sag (mm)	42			
Percent Sag	2			
Sidewall		7	7	
Measured Span (mm)	2466			
Measured At Ring No.	16			
Deflection (mm)	30			
Percent Deflection	1			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
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				1N stagger
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust 2m width on floor.
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: D/S, Span (mm): , Rise (mm): 2430, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	(Ice to within 1m of roof. 2000/04/21)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
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	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	300mm settlement along bevel sides.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
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	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**62.2/62.2**	Est. Repl. Yr	2035	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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	11-May-2014	Previous Inspection Date	16-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					