

Bridge Culvert Inspection			
Bridge File Number	75364 -1 Bridge Culvert	Form Type	CUL1
Year Built	1961	Lot No.	1
Bridge or Town Name	ORION	Inspector Name	Jon Davies
Located Over	ROGERS COULEE, 11.1.1.2.1, WATERCRS-ST	Inspector Class	BR CLS B
Located On	61:06 C1 23.386	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Mar-2013
Legal Land Location	NW SEC 6 TWP 6 RGE 6 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-110:48:47, 49:26:51	Data Entry Date	08-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA24	Review Date	07-Apr-2013
Clear Roadway/Skew	7.3 / -15 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	160 / 2012 (A)	Dept. Review Date	22-Apr-2013
Road Classification	RAU-209-110	Follow-Up By	
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	2030	2240	SPE	29.9	152X51	3.5,3.5,3.5	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	West ditch.	Gas		
Power	3 wire East - 15m from c/l.	Municipal		
Others	Fibre optic cable at north ROW	Problem (Y/N)	No	
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		9	9	
Roadway Width (m)	7.300			
Embankment		7	7	6:1 directly over pipes.
Sideslope ( __:1)	3.0			
(Height of Cover(m) : <b>0.7</b> )				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>9</b>	<b>9</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction				East
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		3	N	(Is hanging slightly - 25mm. corrosion perforations @ floor.)11 June 2011 450 mm water
Heaving (mm)	150			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>250</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>3</b>	<b>3</b>	GR carried forward
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2030, Rise (mm): 2240, Type: SPE)				
Barrel Last Accessible Date	28-Mar-2013			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		3	3	Isolated perforations in Rings 2 and 3
Measured Rise (mm)	2200			
Measured At Ring No.	7			
Sag (mm)	40			
Percent Sag	2			
Sidewall		6	6	
Measured Span (mm)	2035			
Measured At Ring No.	7			
Deflection (mm)	5			
Percent Deflection	1			
Floor		3	N	(Corrosion perforations) 11 June 2011 (@ D/S bevel floor & throughout the pipe) 13- Sep- 2009 PR 3 450 mm of water throughtout
Bulge (mm)	0			
Measured At Ring No.	7			
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	Alkali staining at isolated seams  1N stagger
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)	Yes			
Coating		3	N	(Corrosion perforations up to 40mm dia @ U/S floor of bevel.) 11 June 2-11 Ring 3 has corrosion perforations in 1 isolated area up to 20mm dia. Corrosion with perforations @ ring 2 roof. Staining through bolt holes upper sidewall @ circ seams, soil & water rusting. (Corrosion with some pitting @ floor & perforations on the floor. ) 11 June 2011 PR 3
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2030, Rise (mm): 2240, Type: SPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction				West
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		5	5	Pitting
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	Shallow defined banks.
Bank Stability		7	5	Minor undercut bank at d/s NW
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)				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

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	2013	Install steel lining					
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>52.0/52.0</b>	Est. Repl. Yr	2020	Maint. Req. (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	Jon Davies		Previous Assistant's Name				
Next Inspection Date	28-Dec-2014		Previous Inspection Date	15-Jun-2011			
Inspection Cycle (Default) (months)	21						
Comment							