

Bridge Culvert Inspection			
Bridge File Number	07098 -1 Bridge Culvert	Form Type	CUL1
Year Built	1979	Lot No.	1
Bridge or Town Name	ORION	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO FOURWAYS CREEK, 11.1.1.2.2, WATERCRS-ST	Inspector Class	BR CLS B
Located On	887:04 C1 7.333	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	24-Jun-2012
Legal Land Location	SW SEC 6 TWP 7 RGE 6 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-110:49:03, 49:31:42	Data Entry Date	25-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA24	Review Date	09-Jul-2012
Clear Roadway/Skew	8.1 / -17 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	230 / 2011 (A)	Dept. Review Date	30-Jul-2012
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	16		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1830	MP	45.1		3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments							
Telephone	West side.			Gas			
Power				Municipal			
Others				Problem (Y/N)	No		
Remarks							

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Road curves to South.
Vertical Alignment		8	8	
Roadway Width (m)	8.100			
Embankment		8	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 4.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

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		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : NATURAL)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1 , Primary Span, Location Code: MAIN , Span (mm): , Rise (mm): 1830 , Type: MP)				
Barrel Last Accessible Date	24-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		2	2	Water and silt up to 700mm.
Measured Rise (mm)	1483			
Measured At Ring No.	6			Estimate.
Sag (mm)	347			
Percent Sag	19			
Sidewall		2	2	Manufactured spiral seam split 12m from U/S. Cracking on sidewall, 1400mm East of 3rd circ seam from U/S 40mm between cracks. Up to 80mm horizontal separation manufactured seam.
Measured Span (mm)	2098			
Measured At Ring No.	4			
Deflection (mm)	268			
Percent Deflection	15			
Floor		5	N	Only U/S 1/3 visible.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		4	4	Separation 12m from U/S end 5th seam from U/S end has grout around upper half.
Separation (mm)	80			
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		4	4	Moderate corrosion with light pitting at floor. Alkali staining.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
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): 1830, Type: MP)					
Fish Passage Adequacy		6	6		
Baffle		X	X		
(Type :)					
Waterway Adequacy		5	5	(Flooded 1/2 way up embankment (93)).	
Icing (Y/N)	No			Slit to 0.8 m for 3/4 length.	
Silting (Y/N)	Yes				
Drift (Y/N)	No				
Barrel General Rating		2	2		
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		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	500				
Scour Protection		6	6	Sparse rock.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 250)					
Scour/Erosion		6	6		
Beavers (Y/N)	No				
Downstream End General Rating		5	5		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		6	6	Dugout 25 m East of pipe (U/S) Dugout 50 m West of pipe (D/S)	
Bank Stability		7	7		
HWM (m below Top of Culvert)				No visible HWM.	
Drift (Y/N)	Yes			Fence at U/S at bevel acts as significant drift catch.	
Channel Bottom Degrading/Aggrading	AGGRADING				
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					
Channel General Rating		6	6		

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	2012	Strut until replaced or lined.					
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Place on the replacement list or line the pipe.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	41.3/41.4	Est. Repl. Yr	2012	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	24-Sep-2015		Previous Inspection Date	15-Jun-2009			
Inspection Cycle (Default) (months)	39						
Comment							