Bridge Culvert Inspection

Bridge File Number	06778 -1 Bridge Culvert	Form Type	CUL1
Year Built	1955	Lot No.	4
Bridge or Town Name	ORION	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO IRRIGATION CK, 11.1.1.3, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	61:06 C1 24.683	Assistant Class	
Water Body Cl./Year		Inspection Date	28-Mar-2013
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	SW SEC 6 TWP 6 RGE 6 W4M	Data Entry Date	08-Apr-2013
Longitude, Latitude	-110:48:47, 49:26:09	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	07-Apr-2013
Contract Main. Area	CMA24	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	7.3 /	Dept. Review Date	22-Apr-2013
AADT/Year	160 / 2012 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1829	1118	FP	14.6	68X13		ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch.	Gas	Crossing 100 m south
Power	3 wire East & 1 crosses 35m South.	Municipal	
Others	Water pipe west ROW	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Intersection to South 40m.
Vertical Alignment		8	8	Patch over the pipe. ACP crack over pipe.
Roadway Width (m)	7.300			
Embankment		5	5	2:1 over pipe. 4:1 Approaches.
Sideslope (__:1)	2.0			
(Height of Cover(m) : **0.9**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				East end.
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		N	N	Not visible. PR 6
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	N	PR 6
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		6	N	PR 6
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**N**	PR 6

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Barrel Last Accessible Date	21-Jan-2009			Barrel inaccessible due to high water.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	PR 4
Measured Rise (mm)	1035			
Measured At Ring No.	2			
Sag (mm)	83			
Percent Sag	7			
Sidewall		N	N	PR 5
Measured Span (mm)	1846			
Measured At Ring No.	2			
Deflection (mm)	17			
Percent Deflection				
Floor		N	N	PR 5
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Soil infiltration @ all seams - minor. Seams @ East two sections bent 100mm & 150mm.) 21- Jan -2009
Separation (mm)	100			
Longitudinal Seams		N	N	Rivetted CSP
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	(Superficial corrosion @ sidewall.) 21- Jan- 2009 PR 6
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			21- Jan -2009
Ponding (Y/N)	Yes			21- Jan -2009

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	PR carried forward

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				West end.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	PR 6
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	N	PR 6
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	N	PR 6
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	GR carried forward.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Drainage ditch @ 90 deg entry.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM Not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**53.4/52.4**	Est. Repl. Yr	2015	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	Jon Davies	Previous Assistant's Name			
Next Inspection Date	28-Dec-2014	Previous Inspection Date	15-Jun-2011		
Inspection Cycle (Default) (months)	21				
Comment					