

Bridge Culvert Inspection				
Bridge File Number	01003 -1 Bridge Culvert		Form Type	CUL1
Year Built	1962		Lot No.	2
Bridge or Town Name	DEL BONITA		Inspector Name	Jon Davies
Located Over	TRIBUTARY TO POTHOLE CREEK, 2.12.20.2.6, WATERCRS-ST		Inspector Class	BR CLS B
Located On	62:02 C1 28.502		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	04-Oct-2011
Legal Land Location	SE SEC 30 TWP 3 RGE 21 W4M		Data Entry By	Erin Roberts
Longitude, Latitude	-112:49:02, 49:14:10		Data Entry Date	17-Nov-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA25		Review Date	10-Nov-2011
Clear Roadway/Skew	10.2 / 0 deg.		Dept. Reviewer Name	Tim Davies
AADT/Year	360 / 2010 (A)		Dept. Review Date	21-Nov-2011
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	37			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2605	2880	SPE	34.1	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	IN West R/W		Gas	
Power	3 LINE East DITCH 15 m FROM CL		Municipal	
Others			Problem (Y/N)	No
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Grade to North. No passing SB. Curve 150 m to the South.
Vertical Alignment		6	6	
Roadway Width (m)	10.200			
Embankment		7	7	
Sideslope ( __:1)	4.0			
(Height of Cover(m) : 1.5)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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		7	5	Voids at haunches extend 600mm
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	5	Displaced rock
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>200</b> )				
Scour/Erosion		7	5	Minor scour below invert extends under 500mm
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2605, Rise (mm): 2880, Type: SPE)				
Barrel Last Accessible Date	04-Oct-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	7	
Measured Rise (mm)	2850			
Measured At Ring No.	6			
Sag (mm)	30			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2660			
Measured At Ring No.	6			
Deflection (mm)	55			
Percent Deflection	2			
Floor		6	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			1N stagger
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		4	4	Corrosion with some pitting @ floor
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2605, Rise (mm): 2880, Type: SPE)				
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>7</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	6	Bevel edge with no fill along sides
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	3	Not complete. Displaced rock
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		5	3	Scour hole and settlement- under mining SE embankment. Scour hole 12m x 5m x 2m
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>3</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	4	Outlet is directed towards a bank which has eroded.
Bank Stability		6	4	D/S South bank has slumped 4m from invert. 12m x 3m x 2m area worst affected causing back edge to invert
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			D/S only.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>5</b>	<b>4</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	Place 72m3 class 2 RipRap at D/S					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/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>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>74.3/67.7</b>	Est. Repl. Yr	2030	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	04-Jul-2013		Previous Inspection Date	20-Jan-2010			
Inspection Cycle (Default) (months)	21						
Comment							