

Bridge Culvert Inspection			
Bridge File Number	71107 -1 Bridge Culvert	Form Type	CUL1
Year Built	1953	Lot No.	4
Bridge or Town Name	TWIN BUTTE	Inspector Name	Jon Davies
Located Over	2ND ORDER TRIBUTARY TO DUNGARVAN CK, 2.12.22.5.16.1.1, WATERCRS-ST	Inspector Class	BR CLS B
Located On	6:04 C1 14.191	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	30-Oct-2011
Legal Land Location	NW SEC 28 TWP 3 RGE 29 W4M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-113:51:30, 49:14:46	Data Entry Date	28-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA26	Review Date	10-Nov-2011
Clear Roadway/Skew	10 /	Dept. Reviewer Name	Tim Davies
AADT/Year	1,010 / 2010 (A)	Dept. Review Date	01-Dec-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	30		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2000	2000	BP	27.7			RECTANGLE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	West ditch and east row.	Gas	
Power	1- Line East ditch	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Field entrance Northeast & Southwest.
Vertical Alignment		7	7	In sag curve with good sight distance.
Roadway Width (m)	10.000			NW ditch armoured.
Embankment		6	6	2.5:1 on West side.
Sideslope ( __:1)	2.0			
(Height of Cover(m) : 3.6)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	Vertical Alignment governs

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	6	
Collar		5	5	(Some cracks & vegetation growth.)
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	N	
Bevel End		4	4	Concrete, spalled cracked & delaminated @ South. Spall with exposed rebar @ North.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	Ingrown.
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2000, Rise (mm): 2000, Type: BP)				
Barrel Last Accessible Date	30-Oct-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	5	Typical settlement cracks up sidewalls and across roof. Some leaching. Damage at joints.
Measured Rise (mm)	2000			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		4	4	Scaled & delaminated @ SW. 5m x 1m area - no change
Measured Span (mm)	2000			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		4	4	Up to 50mm deep abrasion @ floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		5	5	West seam has an edge spall on roof.
Separation (mm)	10			
Longitudinal Seams		X	X	
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)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2000, Rise (mm): 2000, Type: BP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
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>4</b>	<b>4</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	6	
Collar		5	5	Cracked, vegetation through cracks.
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	N	
Bevel End		5	5	Minor scaling and edge spalls.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Ingrown.
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	7	
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	
Bank Stability		5	5	Vertical bank erosion 50m U/S
HWM (m below Top of Culvert)	1.2			
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</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							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>51.6/53.0</b>	Est. Repl. Yr	2020	Maint. Req. (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	Jason Rusu		Previous Assistant's Name				
Next Inspection Date	30-Jul-2013		Previous Inspection Date	29-Nov-2009			
Inspection Cycle (Default) (months)	21						
Comment							