

Bridge Culvert Inspection				
Bridge File Number	75098 -1 Bridge Culvert		Form Type	CUL1
Year Built	1961		Lot No.	2
Bridge or Town Name	COCHRANE		Inspector Name	Garry Roberts
Located Over	BIGHILL CREEK, 2.13.42, WATERCRS-ST		Inspector Class	BR CLS A
Located On	567:02 C1 6.779		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	25-Jul-2012
Legal Land Location	SW SEC 4 TWP 27 RGE 3 W5M		Data Entry By	Lauren Korte
Longitude, Latitude	-114:22:16, 51:16:15		Data Entry Date	30-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA28		Review Date	07-Aug-2012
Clear Roadway/Skew	9.5 /		Dept. Reviewer Name	Tim Davies
AADT/Year	3,660 / 2011 (A)		Dept. Review Date	06-Sep-2012
Road Classification	RCU-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	PI./Slab Thickness	Shape
1	MAIN	2606	2880	SPE	47	152X51	3.5	ELLIPSE
Special Features		VERT TIMBER STRUTS						
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone			Gas
Power	North ROW.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Sag curve.
Vertical Alignment		5	5	
Roadway Width (m)	9.500			
Embankment		7	7	
Sideslope ( _ :1)	3.0			
(Height of Cover(m) : 4.4)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>5</b>	<b>5</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		North.
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		6	6	Bevel projects 300mm from fill 200mm tear hole in roof. Appears to be install damage.
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2606, Rise (mm): 2880, Type: SPE)				
Barrel Last Accessible Date	25-Jul-2012			
<b>Special Features</b>				
Special Feature		3	3	3 struts fallen over at R2 U/S. Last 3 struts @ D/S leaning to East slightly.
(Type : <b>VERT TIMBER STRUTS</b> )				
Special Feature				
(Type : )				
Roof		5	5	Corrosion at roof plates R4-R8.
Measured Rise (mm)	2705			
Measured At Ring No.	5			
Sag (mm)	175			
Percent Sag	7			
Sidewall		3	3	Cracked seam.
Measured Span (mm)	2804			
Measured At Ring No.	6			
Deflection (mm)	198			
Percent Deflection	6			
Floor		5	5	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		3	3	MIN STEEL 75 MM remaining @ ring # 6 - photo. Crack in West wall in Ring 10 caused by bolt tipped and pulled through plates. 80mm remaining steel R11.
Total No. of Cracked Rings	7			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	75			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Roof rusted at R4-R8.
Corrosion By Soil (Y/N)	No			
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): 2606, Rise (mm): 2880, Type: SPE)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	Reduced until struts repaired.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		South.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	5	Minor erosion @ ends of bevel.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	Yes			
(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							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Repair 3 struts - check and tighten all others, or consider removal of struts- do not appear to be required with minimal deflections.					
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>48.9/46.0</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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	25-Oct-2015		Previous Inspection Date	14-May-2009			
Inspection Cycle (Default) (months)	39						
Comment							