

Bridge Culvert Inspection			
Bridge File Number	72741 -1 Bridge Culvert	Form Type	CUL1
Year Built	1954	Lot No.	1
Bridge or Town Name	WHITBURN	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO KSITUAN RIVER, 8.10.82.4, WATERCRS-ST	Inspector Class	BR CLS A
Located On	49:02 C1 48.539	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	06-Jul-2011
Legal Land Location	SW SEC 13 TWP 79 RGE 9 W6M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-119:16:04, 55:50:23	Data Entry Date	12-Aug-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA05	Review Date	13-Jul-2011
Clear Roadway/Skew	11.8 /	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,140 / 2010 (A)	Dept. Review Date	18-Nov-2011
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	6		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1829	SP	71.8	152X51	3.0,3.0,2.8	ROUND
Special Features	CONC FLOOR							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	North and South ROW	Gas	
Power	1 OH line South ROW	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		8	8	
Roadway Width (m)	11.800			
Embankment		5	3	Ditch erosion SW corner stablized with vegetation. Large erosion hole around d/s bevel.
Sideslope ( __:1)	4.0			
(Height of Cover(m) : 3.1)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>3</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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	
Heaving (mm)	200			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>200</b> )				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			2 large dams upstream, rais water level 2.5m
<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): , Rise (mm): 1829, Type: SP)				
Barrel Last Accessible Date	05-Jul-2011			Extension is 3050 mm diameter x 14.7 m at outlet.
<b>Special Features</b>				
Special Feature		7	7	
(Type : <b>CONC FLOOR</b> )				
Special Feature				
(Type : )				
Roof		6	6	Rise not measured due to conc. floor. est. 0.9% sag.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		3	2	Inward. Cracked rings and perforations at 7:00 position. (photo)
Measured Span (mm)	1775			
Measured At Ring No.	12			
Deflection (mm)				
Percent Deflection				
Floor		N	N	Covered by concrete
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SP)</b>				
Longitudinal Seams		2	2	Ring 16, 17 and 18 cracked at 7:00 position(photo) REMAINING STEEL IS 65MM RING 16 REMAINING STEEL IS 0MM RING 18(PHOTO)  1N
Total No. of Cracked Rings	2			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		2	2	Pitting rust near floor above concrete floor. PERFORATIONS AT 7:00 POSITION RING 16, 17 and 18. PHOTO Holes in floor of original bevel. (photo) (Perforations in sidewall of 3050mm extension(photo). - 27 Oct 2009)
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		3	3	1.0M DROP FROM MAIN CULVERT INTO EXTENSION.(photo)
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	(Spring U/S. Feb 29, 2008)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>2</b>	<b>2</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		6	3	Large erosion holes on both sides of extension bevel. Exposing outside of bevel. Both holes approx 8 x 2 x 2.
Heaving (mm)	0			

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Invert Above/Below Stream Bed				
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>3</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	5	Right angle d/s end.
Bank Stability		5	5	
HWM (m below Top of Culvert)				Hwm not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			large beaverdam 10m u.s
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</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	2011	Repair embankment.					
OTHER ACTION	2016	Replace					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>22.2/22.2</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>39.9/25.8</b>	Est. Repl. Yr	2016	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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	06-Apr-2013		Previous Inspection Date	27-Oct-2009			
Inspection Cycle (Default) (months)	21						
Comment							