

Bridge Culvert Inspection				
Bridge File Number	07025 -1 Bridge Culvert		Form Type	CUL1
Year Built	1968		Lot No.	3
Bridge or Town Name	CARBON		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO KNEEHILLS CREEK, 3.46.4, WATERCRS-ST		Inspector Class	BR CLS A
Located On	575:04 C1 9.664		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	26-Jan-2011
Legal Land Location	SE SEC 25 TWP 29 RGE 23 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:06:13, 51:30:12		Data Entry Date	03-Mar-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA21		Review Date	03-Feb-2011
Clear Roadway/Skew	8.4 /		Dept. Reviewer Name	Chris Black
AADT/Year	1,060 / 2009 (A)		Dept. Review Date	04-Mar-2011
Road Classification	RCU-208-110		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	1724	1901	SPE	90.8	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment		Appears to be elliptical installation.						

Utilities (Located at)

Utility Attachments				
Telephone	South side.		Gas	
Power	N side 3 wire O/H 20m from c/l		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Sag curve.
Vertical Alignment		6	6	
Roadway Width (m)	8.400			
Embankment		5	4	Flatter slopes at top, slope slumped at N with 1m drop about 1/2 way down.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 13)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		6	6	

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)	450			
Invert Above/Below Stream Bed	ABOVE			Drops from bevel end to 8.5m into barrel.
Above/Below (mm)	100			
Scour Protection		6	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	26-Jan-2011			Plate layout from invert is 5N,7N,5N,7N. S end in 0.8m of ice.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1810			
Measured At Ring No.	18			
Sag (mm)	91			
Percent Sag	4			4.8%
Sidewall		5	5	
Measured Span (mm)	1842			
Measured At Ring No.	19			
Deflection (mm)	118			
Percent Deflection	6			6.8%
Floor		4	N	(S end silted in. 05-Oct-2004). (Rust, no perforations. Pitting on first 3 sections from U/S. 22Feb2008). Snow covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Alkaline & rust present.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Fish Passage Adequacy		X	X	(Small fry in barrel, probably stickleback. 05-Oct-2004).
Baffle (Type :)		X	X	
Waterway Adequacy		5	5	Evidence that water runs to 1.5m high (of 1.8m). Grass at top seams.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	5	
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 (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		N	5	(Bevel end is set too low on D/S end. 22Feb2008).
Heaving (mm)	0			
Invert Above/Below Stream Bed		BELOW		
Above/Below (mm)	500			
Scour Protection (Type :) (Avg. Rock Size(mm) :)		5	N	Snow covered.
Scour/Erosion		5	N	(Erosion trend= continuation of ditch 2.5m W, 1.0m deep to E. 22Feb2008).
Beavers (Y/N)		No		
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				Grass in barrel indicates full flow toward D/S end.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading		NONE		
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

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 slump @ North slope, 50m3 pitrun.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	56.7/56.6	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2004.05.29 Culvert should be ok until 2023. Monitor normal BIM.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Bryan Wai		Previous Assistant's Name				
Next Inspection Date	26-Apr-2014		Previous Inspection Date	22-Feb-2008			
Inspection Cycle (Default) (months)	39						
Comment							