

Bridge Culvert Inspection			
Bridge File Number	77308 -1 Bridge Culvert	Form Type	CUL1
Year Built	1982	Lot No.	2
Bridge or Town Name	WHITEMUD CRE	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO LITTLE SMOKY RIVER, 8.10.58.7.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	676:04 C1 0.593	Assistant Name	Lisbeth Medina
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	02-Feb-2011
Legal Land Location	SW SEC 6 TWP 75 RGE 23 W5M	Data Entry By	Janie Assenheimer
Longitude, Latitude	-117:33:42, 55:27:42	Data Entry Date	24-Feb-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA03	Review Date	22-Feb-2011
Clear Roadway/Skew	9 / -12 deg. (LHF)	Dept. Reviewer Name	Steve Pasquan
AADT/Year	180 / 2011 (A)	Dept. Review Date	21-Nov-2011
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	Pl./Slab Thickness	Shape
1	MAIN	-	2000	MP	35	125X26	2.8	ROUND
Special Features	VERT STEEL STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	20 m south of c.l.	Gas		
Power	20 m N. of c.l. - 1 wire OH	Municipal		
Others		Problem (Y/N)	No	
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Residence 50m east
Vertical Alignment		8	8	
Roadway Width (m)	9.000			
Embankment		5	5	(5m x 1.3m x 1.3m crack west of culvert (Photo) Oct 23, 2007) Snow covered.
Sideslope (__:1)	4.0			
(Height of Cover(m) : 1.8)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		N	6	
Collar		7	N	Under ice.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	6	Rating based on 40% visibility.
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		6	5	
Beavers (Y/N)	Yes			
Upstream End General Rating		6	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1 , Primary Span, Location Code: MAIN , Span (mm): , Rise (mm): 2000 , Type: MP)				
Barrel Last Accessible Date	02-Feb-2011			
Special Features				
Special Feature		6	6	
(Type : VERT STEEL STRUTS)				
Special Feature				
(Type :)				
Roof		3	3	Measurements not taken due to ice on floor.
Measured Rise (mm)	1720			
Measured At Ring No.				At c.l. Est.
Sag (mm)	280			
Percent Sag	14			
Sidewall		3	3	@ c.l.
Measured Span (mm)	2262			
Measured At Ring No.				
Deflection (mm)	262			
Percent Deflection	13			
Floor		6	N	Under ice. @ c.l.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	
Separation (mm)	110			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		6	6	Minor superficial. 5 - 7 o'clock.
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): , Rise (mm): 2000, Type: MP)				
Fish Passage Adequacy		3	3	Outlet above S.B.
Baffle (Type :)		X	X	
Waterway Adequacy		3	3	Drift caught at C/L D.S. scour hole.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		5	4	Struts in place.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction				(NORTH)
End Treatment (Concrete, Steel, Others, None)		NONE		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		5	5	Bevel unsupported for 1.2m.
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)		900		
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		3	3	Scour hole 4m x 10m x 1.3m. Few rocks on east side - scour protection not sufficient.
Scour/Erosion		3	3	
Beavers (Y/N)		No		
Downstream End General Rating		3	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		5	5	
HWM (m below Top of Culvert)		0.0		HWM not visible. Drift on crown. Beaver cuttings u/s channel.
Drift (Y/N)		Yes		
Channel Bottom Degradation/Aggrading		DEGRADING		5m from u/s end.
Beavers (Y/N)		Yes		
(Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	6	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2011	30m3 CL II					
REMOVE DRIFT ACCUMULATION	2011						
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	41.6/36.3	Est. Repl. Yr	2027	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor culvert deflections.		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	Eric Carcoux		Previous Assistant's Name				
Next Inspection Date	02-May-2014		Previous Inspection Date	23-Oct-2007			
Inspection Cycle (Default) (months)	39						
Comment							