

Bridge Culvert Inspection			
Bridge File Number	79509 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	2
Bridge or Town Name	GRANDE PRAIR	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO KAKWA RIVER, 8.10.58.21.2, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:38 C1 25.052	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	23-Aug-2012
Legal Land Location	SE SEC 8 TWP 63 RGE 4 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:33:32, 54:25:51	Data Entry Date	25-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05	Review Date	24-Sep-2012
Clear Roadway/Skew	10.2 / -10 deg. (LHF)	Dept. Reviewer Name	David Morrison
AADT/Year	1,220 / 2011 (A)	Dept. Review Date	21-Jan-2013
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	300		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	6160	SP	74.4	152X51	5.0	ROUND
Special Features	SHOTCRETE BEAM							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Long gradual curve with steep grade est 7%. Superelevated. Passing both directions.
Vertical Alignment		5	5	
Roadway Width (m)	10.200			
Embankment		N	4	Ditch gully at NE, 400 x 400 x 50m, appears stablized.-vegetated
Sideslope (:1)	4.0			
(Height of Cover(m) : 2)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Medium vertical cracks.
Collar		N	6	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		N	6	0.45m dia log over bevel.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 600)				
Scour/Erosion		N	6	
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): , Rise (mm): 6160 , Type: SP)				
Barrel Last Accessible Date	27-Feb-2009			Could only access up to ring 5 as water and soft sand was too deep.
Special Features				
Special Feature		N	4	RINGS 16&17 @ 5:00 seam, 2 narrow diagonal cracks, rebar hosting no cracks.-27-Feb-2010 Horizontal cracking at ring 17.
(Type : SHOTCRETE BEAM)				
Special Feature				
(Type :)				
Roof		N	N	Seam is flattening out @ d/s end- 27-Feb-2010
Measured Rise (mm)				Est. sag Couldn't measure roof due to water height..
Measured At Ring No.				
Sag (mm)	300			
Percent Sag	5			
Sidewall		N	3	
Measured Span (mm)	6789			
Measured At Ring No.	1			
Deflection (mm)	629			
Percent Deflection	10			
Floor		N	N	800mm of silt and gravel
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	as viewed to ring 5
Separation (mm)	0			
Longitudinal Seams		N	5	CRACKED SEAM HAS BEEN SHOTCRETED.
Total No. of Cracked Rings	0			As viewed to ring 5.
Total No. of Rings with Two Cracked Seams				1N
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	4	Minor superficial rust on lower 1/3.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 6160, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	0.45m dia long over u/s bevel.-photo
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		3	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Medium vertical cracks in concrete
Collar		6	6	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	X	
Bevel End		N	5	Protruding from fill 800mm.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		N	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		N	5	
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		5	5	3m vertical banks downstream, does not affect structure.
HWM (m below Top of Culvert)				Hwm not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	7	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION	2013	u/s end					
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) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	48.0/49.4	Est. Repl. Yr	2021	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor sidewall roof deflection.		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	Russel Vanderschaaf		Previous Assistant's Name				
Next Inspection Date	23-May-2014		Previous Inspection Date	19-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							