

Bridge Culvert Inspection				
Bridge File Number	76191 -1 Bridge Culvert		Form Type	CUL1
Year Built	1966		Lot No.	1
Bridge or Town Name	HONDO		Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO ROURKE CK, 8.11.82.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	2:46 C1 3.984		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	28-Mar-2013
Legal Land Location	NE SEC 15 TWP 70 RGE 1 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:03:53, 55:03:44		Data Entry Date	23-Apr-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA10		Review Date	17-Apr-2013
Clear Roadway/Skew	10.6 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	2,370 / 2012 (A)		Dept. Review Date	23-Apr-2013
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	5			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2430	SP	59.7	152X51		ROUND
Special Features	VERT TIMBER STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power		Municipal	
Others	Flow monitoring guage u/s.	Problem (Y/N)	No
Remarks	BF tag installed @ top of East roof.		

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Limited sight distance both sides.
Vertical Alignment	6	6	No passing NBL 76109 300m South
Roadway Width (m)	10.600		
Embankment	4	N	1m dia x 1m deep sink hole in both sideslopes over pipe. Not affecting embankment stability.-Jul, 2011
Sideslope (__:1)	3.0		
(Height of Cover(m) : 7)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	6	6	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	E		
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls (Shape :)	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		4	4	Erroded 500mm around bevel but stablized in grass and willows.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	
Beavers (Y/N)	Yes			Dam on inlet.
Upstream End General Rating		4	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)				
Barrel Last Accessible Date	28-Mar-2013			1m ice
Special Features				
Special Feature		N	4	Double 100 x 300 TT.
(Type : VERT TIMBER STRUTS)				First vertical is missing or knocked over.
Special Feature				
(Type :)				
Roof		N	4	Cusping at ring 19.
Measured Rise (mm)				
Measured At Ring No.	13			est
Sag (mm)				
Percent Sag	9			
Sidewall		N	2	2 cracked seams in 7 rings.
Measured Span (mm)	2815			
Measured At Ring No.	13			
Deflection (mm)	315			
Percent Deflection	13			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		N	2	19 rings with defects of some kind. Either corrugation distortion or cusping or cracks. 7 rings cracked at 3 & 9 o'clock. No steel left & plates slide ove each other at ring 11. Steel ring installed to repair. Steel plate installed to repair rings 10 & 12. Several cracked rings have bolts torn out of plates.
Total No. of Cracked Rings	17			
Total No. of Rings with Two Cracked Seams	7			
Min. Remaining Steel Between Cracks (mm)	25			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			1N Stagger
Coating		N	5	Extensive corrosion lower 1/2 of barrel.-10-Sep-2010
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): 2430, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Hampered by perched outlet at low water.
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	Dam @ U/S opening. Large scour hole d/s.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	2	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		4	4	Bevel projects from fill 2000 mm is cantilevered and unsupported for 1000mm.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			20 x 10 x 1.5m(l.w.d.) scour pool downstream.
Above/Below (mm)	500			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 100)				
Scour/Erosion		4	4	
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		7	6	
HWM (m below Top of Culvert)				Not visible. Dam at inlet.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

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	Replace knocked down strut.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	26.6/26.6	Est. Repl. Yr	2014	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection	Jeff Zhang @ Region advised of low rating.-15-Apr-2013 This is a 2 man inspection during fast flowing seasons for safety to access the barrel, otherwise inspect in winter months or late summer/fall. Scheduled for replacement. Shown in wrong location on BF map. Site is between BF 76034 & BF 76109.		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	28-Dec-2014		Previous Inspection Date	13-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							