

Bridge Culvert Inspection				
Bridge File Number	79382 -1 Bridge Culvert		Form Type	CUL1
Year Built	1910		Lot No.	4
Bridge or Town Name	DUFFIELD		Inspector Name	Wade Nanninga
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	770:06 C1 9.570		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	15-Oct-2012
Legal Land Location	SW SEC 34 TWP 51 RGE 2 W5M		Data Entry By	Lisa Fairhurst
Longitude, Latitude	-114:13:23, 53:26:23		Data Entry Date	30-Oct-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA11		Review Date	25-Oct-2012
Clear Roadway/Skew	9 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	1,550 / 2011 (A)		Dept. Review Date	20-Nov-2012
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	25			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	18.9	65X13	2.8	ROUND
Special Features		CONC FLOOR						
Special Features Comment								

Posting Information									
Required Vert. Clearance Posting (m)									
Posted Vertical Clearance (Y/N)									
Posted:	Lane	NB	On Bridge (m)	In Advance (Y/N)	Lane	SB	On Bridge (m)	In Advance (Y/N)	
Remarks	Not required.								

Utilities (Located at)			
Utility Attachments			
Telephone	West r/w		Gas
Power	2 wire W r/w.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Entrances each way Limited sight distance to South-crest.
Vertical Alignment		6	6	
Roadway Width (m)	9.000			wide cracking in SB driving lane.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 1.2)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Barrel Last Accessible Date	15-Oct-2012			Rivet pipe
Special Features				
Special Feature		N	N	covered with manure
(Type : CONC FLOOR)				
Special Feature				
(Type :)				
Roof		5	5	
Measured Rise (mm)				West end dented.
Measured At Ring No.				CL
Sag (mm)	110			
Percent Sag	6			Est.
Sidewall		5	4	
Measured Span (mm)	1940			CI
Measured At Ring No.				
Deflection (mm)	140			
Percent Deflection	8			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	40			
Longitudinal Seams		6	6	Rivettted.
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)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Coating		6	6	Superficial corrosion @ rivets - minor
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	4	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed Above/Below (mm)	0			
Scour Protection (Type : NATURAL) (Avg. Rock Size(mm) :)		7	7	
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		9	9	
Roadway Surface (Type :)		5	6	
Icing (Y/N)	No			
Traffic Safety Features Type		X	X	

Structure Usage				
		Last	Now	Explanation of Condition
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		4	4	Ponding near East end.
Structure In Use (Y/N)	No			
Grade Separation General Rating		4	4	

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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	68.1/62.6	Est. Repl. Yr	2033	Maint. Req. (Y/N)	No
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	Arnold Assenheimer		Previous Assistant's Name				
Next Inspection Date	15-Jan-2016		Previous Inspection Date	10-Jul-2009			
Inspection Cycle (Default) (months)	39						
Comment							