Bridge Culvert Inspection

Bridge File Number	71761 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	BRETON	Inspector Name	Wade Nanninga
Located Over	2ND ORDER TRIBUTARY TO POPLAR CREEK, 6.132.8.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	616:02 C1 14.486	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Feb-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 5 TWP 48 RGE 5 W5M	Data Entry Date	22-Feb-2011
Longitude, Latitude	-114:41:14, 53:06:19	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	22-Feb-2011
Contract Main. Area	CMA11	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	9 /	Dept. Review Date	02-Mar-2011
AADT/Year	750 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	44.5	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment		BF tag on S crown.						

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 lines North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to East, entrance to West.
Vertical Alignment		8	8	
Roadway Width (m)	9.000			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
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)	350			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		6	6	SE corner fill settled by 0.45 but stable.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
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): 2019, Rise (mm): 2226, Type: SPE**)				
Barrel Last Accessible Date	14-Feb-2011			0.6m ice to crown.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	(2210 near c/l 0.7%. 01/Sept/2004)
Measured Rise (mm)	2210			
Measured At Ring No.				est
Sag (mm)	16			
Percent Sag	1			
Sidewall		7	7	(2050 near c/l 1.5%. 01/Sept/2004)
Measured Span (mm)	2050			
Measured At Ring No.				est
Deflection (mm)	31			
Percent Deflection	2			
Floor		N	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	8	
Separation (mm)	0			
Longitudinal Seams		N	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	6	Superficial rust at ice 1m.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			0.8m .

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE**)				
Fish Passage Adequacy		4	5	Steep inlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream 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	
Bevel End		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Winding U/S, turns West.
Bank Stability		7	7	
HWM (m below Top of Culvert)				Grass caught on fence u/s.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**55.9/72.4**	Est. Repl. Yr	2024	Maint. Reqd. (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	Jacob Oresile	Previous Assistant's Name			
Next Inspection Date	14-May-2014	Previous Inspection Date	21-Nov-2007		
Inspection Cycle (Default) (months)	39				
Comment					