Bridge Culvert Inspection

Bridge File Number	71797 -1 Bridge Culvert	Form Type	CUL1
Year Built	1958	Lot No.	4
Bridge or Town Name	ST. BRIDES	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO SADDLELAKE CREEK, 6.29.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	36:24 C1 4.706	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Apr-2012
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	NW SEC 23 TWP 58 RGE 11 W4M	Data Entry Date	25-Apr-2012
Longitude, Latitude	-111:32:22, 54:02:01	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	25-Apr-2012
Contract Main. Area	CMA08	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	13.1 /	Dept. Review Date	04-May-2012
AADT/Year	1,630 / 2011 (A)	Follow-Up By	
Road Classification	RAU-213.4-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1829	1118	FP	32.3	68X13	3.5	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	2 wires East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed @ East bevel.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Entrances in both directions.
Vertical Alignment		8	8	
Roadway Width (m)	13.100			
Embankment		8	8	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **1.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

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		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			Up to 300mm settlement along sides of bevel.
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Barrel Last Accessible Date	28-Jul-2008			Water too deep to access . Viewed from ends. Looks good
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	N	
Measured Rise (mm)	1045			@ c/l.-28-Jul-2008 Bulge of 50mm was accounted for.-28-Jul-2008
Measured At Ring No.				
Sag (mm)	23			
Percent Sag	2			
Sidewall		6	N	C/L 1842, D/S water too deep.-28-Jul-2008
Measured Span (mm)	1782			@ U/S.-28-Jul-2008
Measured At Ring No.				
Deflection (mm)	47			
Percent Deflection	3			
Floor		N	N	(Heavy corrosion/scaling. - 20Jul08) (Weakening from loss of section, not affecting sidewall/roof shape yet. 13/Nov/2006) Under water. (Sensed bulging from c/l towards D/S.-28-Jul-2008)
Bulge (mm)	50			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	30			
Longitudinal Seams		N	N	(Riveted longitudinal seams full length. - 28Jul10)
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		N	N	(Scaling and pitting along floor. - 28Jul10)
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**N**	GR 6 carried over from Jul08

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		N	N	Almost submerged.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		5	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	Settlement of up to 300 along side of bevel.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	90 degree smooth bend to North along ditch @ D/S end.
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/55.6**	**Sufficiency Rating (Last/Now) (%)**	**65.6/60.5**	Est. Repl. Yr	2018	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	Shane Hall	Previous Assistant's Name			
Next Inspection Date	10-Jan-2014	Previous Inspection Date	16-Jul-2010		
Inspection Cycle (Default) (months)	21				
Comment					