

Bridge Culvert Inspection				
Bridge File Number	70456 -1 Bridge Culvert		Form Type	CUL1
Year Built	1960		Lot No.	4
Bridge or Town Name	ST. LINA		Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO ST LINA CREEK, 7.22.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	867:02 C1 19.599		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	14-Dec-2012
Legal Land Location	NW SEC 6 TWP 62 RGE 10 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-111:30:12, 54:20:07		Data Entry Date	09-Jan-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08		Review Date	09-Jan-2013
Clear Roadway/Skew	10.8 /		Dept. Reviewer Name	Paul Catt
AADT/Year	230 / 2011 (A)		Dept. Review Date	18-Jan-2013
Road Classification	RAU-209-110		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	1724	1901	SPE	34.8	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment	File tag on crown of West end.							

Utilities (Located at)

Utility Attachments				
Telephone	West r/w.		Gas	
Power	1 wire OH 22m East of c/l.		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Field accesses North & South. Crest curve each way with no passing SB.
Vertical Alignment		7	7	
Roadway Width (m)	10.800			
Embankment		7	7	
Sideslope (:1)	3.0			
(Height of Cover(m) : 3.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	5	Fill settled along bevel.
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): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	14-Dec-2012			Design 1724 x 1901. 300mm water/ice along floor.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1830			
Measured At Ring No.	7			4% est due to ice.
Sag (mm)	71			
Percent Sag	4			
Sidewall		4	4	
Measured Span (mm)	1800			Bulge in ring 2 sidewall. Sidewalls are crimping from design. Missing nuts throughout.
Measured At Ring No.	7			
Deflection (mm)	76			
Percent Deflection	4			
Floor		5	4	
Bulge (mm)	0			Floor exhibiting irregular deformation. Floor drops down at the 2/3 point from upstream end due to extension of pipe. Floor pitting. Rocks in barrel.
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		4	4	
Separation (mm)	0			Missing nuts - loose bolts.
Longitudinal Seams		4	4	
Total No. of Cracked Rings	0			Numerous loose bolts. Missing 15-20 nuts in first 6 rings. Only 50% seams visible.
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				Staggered 1 N.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	
Corrosion By Soil (Y/N)	No			Pitting on floor.
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): 1724, Rise (mm): 1901, Type: SPE)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	
Downstream 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	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		4	4	Large scour @ end of pipe - stable. 10mx5mx1m
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			Brush at openings-small
Channel Bottom Degrading/Aggrading				none
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	57.1/57.1	Est. Repl. Yr	2018	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor corrosion and d/s scour and shape. Though some bolts are missing or loose, barrel still has reasonable shape.		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	Wade Nanninga		Previous Assistant's Name				
Next Inspection Date	14-Mar-2016		Previous Inspection Date	28-Apr-2011			
Inspection Cycle (Default) (months)	39						
Comment							