

Bridge Culvert Inspection				
Bridge File Number	81511 S-1 Bridge Culvert		Form Type	CUL1
Year Built	1991		Lot No.	4
Bridge or Town Name	MARIANA LAKE		Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO HOUSE RIVER, 8.11.47.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	63:08 C1 9.529		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	14-Nov-2011
Legal Land Location	NW SEC 25 TWP 81 RGE 13 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-111:54:07, 56:03:22		Data Entry Date	23-Nov-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA07		Review Date	23-Nov-2011
Clear Roadway/Skew	13.4 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	3,640 / 2010 (A)		Dept. Review Date	15-Dec-2011
Road Classification	RAU-213.4-120		Follow-Up By	
Detour Length (km)	250			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	CP	51.5			ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	East r/w.		Gas	
Power	3 wire, 100m E.		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Crest vertical curves North & South. Located @ km 155.5
Vertical Alignment		7	7	
Roadway Width (m)	13.400			
Embankment		6	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 5.1)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		End piece is a plant fabricated unit connected to the end barrel section. Shape is square with bevelled edges.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls		X	X	
(Shape : FLARE)				
Cutoff Wall		X	X	
Bevel End		7	7	Flared.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		7	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
Upstream End General Rating		7	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: CP)				
Barrel Last Accessible Date	14-Nov-2011			Barrel filled 1/4 with ice.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	1800			
Measured At Ring No.				est due to ice
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	
Measured Span (mm)	1840			
Measured At Ring No.				@ cl
Deflection (mm)	40			
Percent Deflection	2			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	30			
Longitudinal Seams		X	X	
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)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: CP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		N	N	
(Type :)				
Waterway Adequacy		6	6	(Iced up completely at outlet but not backed up at inlet - photos. 96/02/08)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	7	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : FLARE)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		7	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
Downstream End General Rating		7	6	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
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)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		8	8	

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) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	71.5/69.3	Est. Repl. Yr	2042	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	Wade Nanninga		Previous Assistant's Name				
Next Inspection Date	14-Aug-2013		Previous Inspection Date	10-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							