

Bridge Culvert Inspection			
Bridge File Number	73039 -1 Bridge Culvert	Form Type	CUL1
Year Built	1962	Lot No.	2
Bridge or Town Name	MALLAIG	Inspector Name	Wade Nanninga
Located Over	YELLING CREEK, 7.12.4.3, WATERCRS-ST	Inspector Class	BR CLS A
Located On	28:15 C1 19.555	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Apr-2012
Legal Land Location	SE SEC 17 TWP 60 RGE 9 W4M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-111:18:42, 54:10:50	Data Entry Date	24-Apr-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08	Review Date	17-Apr-2012
Clear Roadway/Skew	11.2 / -30 deg. (LHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	2,350 / 2011 (A)	Dept. Review Date	04-May-2012
Road Classification	RAU-211.8-110	Follow-Up By	
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	2019	2226	SPE	45.7	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	2 wires North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed @ top of South roof.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field & farm entrances each way. Crest curve 300 m West. 450 m East. No passing to the west.
Vertical Alignment		6	6	
Roadway Width (m)	11.200			
Embankment		7	7	Near culvert down to about 2:1. Wide transverse crack over pipe previously sealed.
Sideslope (__:1)	3.5			
(Height of Cover(m) : 3.8)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		6	6	

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 :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		5	5	End of barrel damaged from mower @ South end. Dam covered bevel floor/opening
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	250			
Scour Protection		4	4	Insufficient. About 200mm settlement along sides.(Piping under bevel - photo. 12/Nov/2006)
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		4	4	
Beavers (Y/N)	Yes			Large beaver dam @ inlet.-photo
Upstream End General Rating		4	4	
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-Jul-2010			1.0M water in barrel. Viewed from ends - looks good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Estimated
Measured Rise (mm)				
Measured At Ring No.	9			
Sag (mm)				
Percent Sag				
Sidewall		6	N	14 Jul 10
Measured Span (mm)	2036			
Measured At Ring No.	9			
Deflection (mm)	17			
Percent Deflection	1			
Floor		N	N	0.7m water/silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	N	
Separation (mm)	0			
Longitudinal Seams		8	N	1N stagger.
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)	Yes			
Coating		6	N	Superficial corrosion.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

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)				
Ponding (Y/N)	Yes			400mm towards North end.
Fish Passage Adequacy		5	5	(Inlet end heaved above S/B. 12/Nov/2006)
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	Drift @ U/S end.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		6	N	GR 6 carried from Jul 2010
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		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		6	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)	Yes			Drift at inlet.
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
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	2012	Remove beaverdam/drift from U/S opening.					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Fillcrete gap under South bevel or armour with rock riprap. (If not done)					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/55.6	Sufficiency Rating (Last/Now) (%)	66.8/61.7	Est. Repl. Yr	2028	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Consider concrete end treatment to keep South bevel down - July 16 2010		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							