

Bridge Culvert Inspection			
Bridge File Number	75989 -2 Bridge Culvert	Form Type	CUL1
Year Built	2002	Lot No.	1
Bridge or Town Name	MORINVILLE	Inspector Name	Kris Bosters
Located Over	3RD ORDER TRIBUTARY TO STURGEON RIVER, 6.65.6.2.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	LOCAL ROAD	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	BR CLS B
Navigabil. Cl./Year		Inspection Date	24-Apr-2013
Legal Land Location	NW SEC 28 TWP 54 RGE 25 W4M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-113:38:21, 53:42:06	Data Entry Date	02-May-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA09	Review Date	29-Apr-2013
Clear Roadway/Skew	8 /	Dept. Reviewer Name	
AADT/Year	2 / 2013 (E)	Dept. Review Date	
Road Classification	RLU-208G-90	Follow-Up By	
Detour Length (km)	999		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2440	2440	PCB	28.6			SQUARE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	
Power	1 wire east r/w.	Municipal	
Others	Fiber optic East	Problem (Y/N)	No
Remarks	File tag U/S, North.		

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Farm entrance from Hwy 2.
Vertical Alignment		7	7	
Roadway Width (m)	8.000			Guardrail along Hwy 2.
Embankment		9	9	
Sideslope (__:1)	4.0			
(Height of Cover(m) : <b>0.6</b> )				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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 : )				
Cutoff Wall		X	X	
Bevel End		9	9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>9</b>	<b>8</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2440, Rise (mm): 2440, Type: PCB)				
Barrel Last Accessible Date	14-May-2004			Not accessible. Approximately 1m deep.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	Viewed from ends. Shape looks good. Minor differential settlement, approx 20mm observed from outside barrel between rings 11 & 12.
Measured Rise (mm)	2440			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall		N	N	Viewed from ends. Shape appears to be in good condition.
Measured Span (mm)	2440			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	Under water.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	Minor concrete spall at the joint between ring 12 and D/S bevel end.
Separation (mm)	0			
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)				
Corrosion By Water (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2440, Rise (mm): 2440, Type: PCB)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		N	N	
(Type : )				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>N</b>	<b>N</b>	Previous G.R. was "9" on 14/May/2004.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		9	9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		9	9	(Scour hole 15m U/S. East bank failing (5 x .75 x 4).- May/2008)
Bank Stability		4	N	Bank still snow covered.
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)				

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
<b>Channel General Rating</b>		<b>4</b>	<b>4</b>	GR carried forward from May/2008

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2013	Place additional 15m3 of riprap U/S, if not completed.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Place additional 15m3 of riprap U/S, if not completed.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>75.6/74.7</b>	Est. Repl. Yr	2070	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	As this structure has not been accessed for 2 or more cycles, a Level II inspection is required as per BIM Manual Section 13.9.1.5. Based on observed site evaluations we are recommending that this be deferred to a later date.		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	24-Jan-2018		Previous Inspection Date	09-May-2008			
Inspection Cycle (Default) (months)	57						
Comment							