Bridge Culvert Inspection

Bridge File Number	00118 -1 Bridge Culvert	Form Type	CUL1
Year Built	2002	Lot No.	4
Bridge or Town Name	MORINVILLE	Inspector Name	Kris Bosters
Located Over	2ND ORDER TRIBUTARY TO STURGEON RIVER, 6.65.3.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	28:02 C1 21.689	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Apr-2012
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	NW SEC 10 TWP 56 RGE 24 W4M	Data Entry Date	25-Apr-2012
Longitude, Latitude	-113:29:11, 53:49:57	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	25-Apr-2012
Contract Main. Area	CMA09	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	11.8 / 16 deg. (RHF)	Dept. Review Date	04-May-2012
AADT/Year	6,120 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3360	SP	49.38	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North r/w.	Gas	
Power	3 wires South r/w.	Municipal	
Others	Fibre optic cable N r/w.	Problem (Y/N)	No
Remarks	File tag U/S.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve 100m West. Crest curve to east.
Vertical Alignment		7	7	
Roadway Width (m)	12.800			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	2 narrow cracks.
Collar		7	7	Couple narrow transverse cracks.
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	840			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Barrel Last Accessible Date	02-Oct-2008			Water 800mm+ deep. Viewed from ends, shape and condition look good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	
Measured Rise (mm)	3360			
Measured At Ring No.	4			
Sag (mm)	6			
Percent Sag				
Sidewall		8	N	Deflections inwards.
Measured Span (mm)	3351			
Measured At Ring No.	4			
Deflection (mm)	98			
Percent Deflection				
Floor		N	N	Covered with water.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			2N stagger.
Longitudinal Stagger (Y/N)	Yes			
Coating		7	7	Stains along seams.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	GR 7 - 02-Oct-2008

Downstream 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 :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	840			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	
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		**7**	**7**	

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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**70.0/70.0**	Est. Repl. Yr	2060	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	Arnold Assenheimer	Previous Assistant's Name			
Next Inspection Date	10-Jan-2014	Previous Inspection Date	22-Jun-2010		
Inspection Cycle (Default) (months)	21				
Comment					