Bridge Culvert Inspection

Bridge File Number	13526 -1 Bridge Culvert	Form Type	CUL1
Year Built	1992	Lot No.	4
Bridge or Town Name	MAGNOLIA	Inspector Name	Kris Bosters
Located Over	TRIBUTARY TO PEMBINA RIVER, 8.11.84.49, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	757:02 C1 11.335	Assistant Class	
Water Body Cl./Year		Inspection Date	07-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 20 TWP 54 RGE 6 W5M	Data Entry Date	20-Aug-2012
Longitude, Latitude	-114:50:56, 53:41:12	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	20-Aug-2012
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	12 / -8 deg. (LHF)	Dept. Review Date	22-Aug-2012
AADT/Year	1,060 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	32		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2740	SP	110.9	152X51	5.0	ROUND
Special Features		BARREL ELBOW						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East r/w.	Gas	Crosses road 50m North.
Power	1 wire East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	On curve with no passing. Farm entrance. Sag curve.
Vertical Alignment		7	7	
Roadway Width (m)	9.200			
Embankment		N	7	15m berm both sides.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		N	7	
Collar		N	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	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): 2740, Type: SP**)				
Barrel Last Accessible Date	07-Aug-2007			
Special Features				
Special Feature		7	7	Superficial rust on welds & floor. Elbow was very close to D/S end.
(Type : **BARREL ELBOW**)				
Special Feature				
(Type :)				
Roof		N	7	
Measured Rise (mm)	2710			
Measured At Ring No.	15			
Sag (mm)	30			
Percent Sag	1			
Sidewall		N	7	
Measured Span (mm)	2776			
Measured At Ring No.	15			
Deflection (mm)	36			
Percent Deflection	1			
Floor		N	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N Stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust on floor.
Corrosion By Soil (Y/N)	No			
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): , Rise (mm): 2740, Type: SP**)				
Fish Passage Adequacy		4	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		N	7	
Collar		N	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	350			
Scour Protection		N	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		N	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
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) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**65.4/74.6**	Est. Repl. Yr	2048	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	Jacob Oresile	Previous Assistant's Name	
Next Inspection Date	07-Nov-2015	Previous Inspection Date	29-Jan-2009
Inspection Cycle (Default) (months)	39		
Comment			