Bridge Culvert Inspection

Bridge File Number	73642 -2 Bridge Culvert	Form Type	CUL1
Year Built	2001	Lot No.	2
Bridge or Town Name	GREEN COURT	Inspector Name	Kris Bosters
Located Over	TRIBUTARY TO LITTLE PADDLE RIVER, 8.11.84.30.19.11, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	43:16 L1 32.378;43:16 R1 32.372	Assistant Class	
Water Body Cl./Year		Inspection Date	03-Oct-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 21 TWP 58 RGE 9 W5M	Data Entry Date	25-Oct-2011
Longitude, Latitude	-115:16:44, 54:01:29	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	23-Oct-2011
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	13 / 14 deg. (RHF)	Dept. Review Date	26-Oct-2011
AADT/Year	7,790 / 2010 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	4300	SP	109.72	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North r/w.	Gas	
Power	3 lines North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed on top of North end of pipe.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to east and West.
Vertical Alignment		7	7	
Roadway Width (m)	27.400			EB - 12.4; WB - 15.0.
Embankment		8	8	ACP has settled approx. 75mm over SPCSP in EBL creating slight bump.-photo
Sideslope (__:1)	4.0			
(Height of Cover(m) : **3.9**)				
Guardrail (Y/N)	Yes			S posts, 3 sections rail and turndwon damaged at NW.-photo Outside lanes only
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		8	8	
Collar		8	7	A couple medium cracks
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4300, Type: SP**)				
Barrel Last Accessible Date	19-Nov-2009			Could not enter barrel, H20 1.2m deep
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	As viewed from ends.
Measured Rise (mm)	4264			
Measured At Ring No.	15			
Sag (mm)	36			
Percent Sag	1			
Sidewall		8	8	As viewed from ends.
Measured Span (mm)	4351			
Measured At Ring No.	15			
Deflection (mm)	51			1.2%
Percent Deflection	1			
Floor		N	N	
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)				2N
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	N	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	Yes			300mm

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4300, Type: SP**)				
Fish Passage Adequacy		8	8	
Baffle		N	N	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**N**	GR was '7' in 2009

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		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable Beaver dams u/s and d/s
Beavers (Y/N)	Yes			
(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	2011	Replace damaged section of rail.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/55.6**	**Sufficiency Rating (Last/Now) (%)**	**80.8/68.8**	Est. Repl. Yr	2054	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor settlment in EBL.	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	Kris Bosters	Previous Assistant's Name	Sara Wadlow
Next Inspection Date	03-Jul-2013	Previous Inspection Date	19-Nov-2009
Inspection Cycle (Default) (months)	21		
Comment			