Bridge Culvert Inspection

Bridge File Number	81285 -1 Bridge Culvert	Form Type	CUL1
Year Built	1989	Lot No.	2
Bridge or Town Name	THREE CREEKS	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO PEACE RIVER, 8.10.51, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	986:01 C1 35.336	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	22-Mar-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 8 TWP 85 RGE 20 W5M	Data Entry Date	08-Apr-2013
Longitude, Latitude	-117:06:37, 56:21:18	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	08-Apr-2013
Contract Main. Area	CMA04	Dept. Reviewer Name	
Clear Roadway/Skew	15.6 / 13 deg. (RHF)	Dept. Review Date	
AADT/Year	1,030 / 2012 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	60		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1810	SP	210.9	152X51	5.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Survey markers 10m u/s of inv. and near fenceon West side.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Start of horizontal curve at top of hill. Curves E and W.
Vertical Alignment		6	6	
Roadway Width (m)	15.600			
Embankment		3	3	EROSION GULLY FROM SE DITCH DOWN TO INLET 1 M WIDE X.7 M DEEP. -photo Evident through snow. 40m long x 10m wide slide d/s embankment-photo-04-Apr-2011
Sideslope (__:1)	3.5			
(Height of Cover(m) : **40**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**3**	**3**	

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 :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	N	Snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	N	Snow covered
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	N	Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**N**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1810, Type: SP**)				
Barrel Last Accessible Date	22-Mar-2013			
Special Features				
Special Feature				Elbow at ring 24 & 46
(Type :)				
Special Feature				
(Type :)				
Roof		5	6	
Measured Rise (mm)	1711			
Measured At Ring No.	37			
Sag (mm)	99			
Percent Sag	5			
Sidewall		5	7	
Measured Span (mm)	1888			
Measured At Ring No.	37			
Deflection (mm)	78			
Percent Deflection	4			
Floor		N	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N stagger
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	7	
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): 1810, Type: SP**)				
Fish Passage Adequacy		X	6	Not a fish bearing stream-09-Oct-2009
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**6**	

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		7	3	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	N	Snow covered
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	3	Slide over bevel.
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**3**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		6	6	Erosion u/s.
HWM (m below Top of Culvert)	1.0			Oct 9, 2009 (HWM ON U/S FENCE - MINOR DEBRIS -00/06/22).
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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	2013	Repair slide & ditch erosion.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**45.0/43.6**	Est. Repl. Yr	2027	Maint. Reqd. (Y/N)	Yes

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	Brian Pientsch	Previous Assistant's Name	
Next Inspection Date	22-Jun-2016	Previous Inspection Date	04-Apr-2011
Inspection Cycle (Default) (months)	39		
Comment			