Bridge Culvert Inspection

Bridge File Number	77233 -2 Bridge Culvert	Form Type	CUL1
Year Built	2008	Lot No.	2
Bridge or Town Name	PEACE RIVER	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO PEACE RIVER, 8.10.50, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	743:02 C1 26.001	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 17 TWP 86 RGE 21 W5M	Data Entry Date	09-Apr-2013
Longitude, Latitude	-117:16:13, 56:27:15	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	03-Apr-2013
Contract Main. Area	CMA04	Dept. Reviewer Name	
Clear Roadway/Skew	8.4 / 10 deg. (RHF)	Dept. Review Date	
AADT/Year	120 / 2012 (A)	Follow-Up By	
Road Classification	RCU-208G-90		
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	80.47	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	16m W of centreline	Gas	
Power	1 wire OH 19m E of centreline.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 300m South and 400m North.
Vertical Alignment		7	7	
Roadway Width (m)	8.100			
Embankment		3	3	Gullying along West ditches. Average 0.9x0.6x47m West side of u.s invert, 2nd 0.5x0.9x65m East side of u/s invert.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **7**)				Can see outline in snow.
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		N	N	Covered with snow-limited inspection.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Inspected during construction

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	N	Snow/ice covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1100			
Scour Protection		3	N	Scour hole 1.2x1.4x0.8m within rock riprap apron - West of culvert invert.-03-Nov-2009 Snow covered
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		3	N	Scour/erosion 0.6x1m along East side of deck of rock rip rap apron.-03-Nov-2009 Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		**3**	**3**	GR carried fwd.

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	03-Nov-2009			900mm ice to crown u/s. 600mm ice to crown d/s.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	Unable to enter pipe.
Measured Rise (mm)	3338			
Measured At Ring No.	10			
Sag (mm)	22			
Percent Sag	1			
Sidewall		8	N	Unable to enter pipe.
Measured Span (mm)	3398			
Measured At Ring No.	10			
Deflection (mm)	38			
Percent Deflection	1			
Floor		6	N	Minor superficial rust.-03-Nov-2009
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	N	
Separation (mm)				
Longitudinal Seams		8	N	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		6	N	Minor superficial rust at culvert floor.-03-Nov-2009
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	GR carried fwd.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	N	Snow covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	840			
Scour Protection		3	N	2 scour holes 0.5x0.65x0.6m end. 0.25x0.7x0.6 E and W occuring at transition of ditch into top of rock rip rap aprons.-03-Nov-2009 Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		3	N	Top of rock at apron outlet 06.m higher than SB causing d/s streambed erosion and degulation.-03-Nov-2009 Snow covered
Beavers (Y/N)	No			
Downstream End General Rating		**3**	**3**	GR carrried fwd.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		3	N	Slide 4.3x1.2m East end of rock rip rap apron.-03-Nov-2009 SNow covered.
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**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		**3**	**3**	GR carried fwd.

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2013	Repair aprons at u/s and d/s end.-if not done.				
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2013	Repair gullying end erosion along W. ditches and rock rip rap at u/s end d/s, if not done.				
OTHER ACTION	2013	Repair erosion control barrier/covering, if not done.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**62.7/62.7**	Est. Repl. Yr	2053	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	Lisbeth Medina
Next Inspection Date	22-Jun-2016	Previous Inspection Date	03-Nov-2009
Inspection Cycle (Default) (months)	39		
Comment			