Bridge Culvert Inspection

Bridge File Number	09746 -2 Bridge Culvert	Form Type	CULM
Year Built	2008	Lot No.	4
Bridge or Town Name	PONOKA	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO BATTLE RIVER, 5.54, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	2A:22 C1 10.588	Assistant Class	
Water Body Cl./Year		Inspection Date	23-Nov-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SW SEC 30 TWP 42 RGE 25 W4M	Data Entry Date	21-Dec-2011
Longitude, Latitude	-113:36:10, 52:38:21	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	15-Dec-2011
Contract Main. Area	CMA17	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	12 / 0 deg.	Dept. Review Date	09-Jan-2012
AADT/Year	4,840 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	4		

Bridge Culvert Information

Number of Culverts		3						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	30.24	125X26	2.8	ROUND
2	MAIN	-	1800	MP	30.24	125X26	2.8	ROUND
3	MAIN	-	1800	MP	30.24	125X26	2.8	ROUND
Special Features								
Special Features Comment		Concrete fill rigid structure.						

Utilities (Located at)

Utility Attachments			
Telephone	East & West r/w.	Gas	
Power	1 wire 20m East of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 70m South. Transverse cracks.
Vertical Alignment		8	8	
Roadway Width (m)	12.500			
Embankment		7	N	Snow covered.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Direction		W		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		9	8	Not visible.
Heaving (mm)	0			
Invert Above/Below Stream Bed				Not visible.
Above/Below (mm)	0			
Scour Protection		9	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		9	N	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	02-Mar-2010			Ice within 900mm of roof; viewed from ends, shape appears good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	N	
Measured Rise (mm)	1790			
Measured At Ring No.	2			
Sag (mm)	10			
Percent Sag	0			
Sidewall		9	N	
Measured Span (mm)	1805			
Measured At Ring No.	2			
Deflection (mm)	5			
Percent Deflection	0			
Floor		N	N	Ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	N	(Internal coupler. 02Mar2010).
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Coating		7	N	(Some staining lower 1/3. 02Mar2010).
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**9**	**N**	GR was 9 from 02Mar2010.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	02-Mar-2010			Center pipe. Ice within 900mm of roof; viewed from ends, shape appears good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	N	
Measured Rise (mm)	1800			
Measured At Ring No.	2			
Sag (mm)	0			
Percent Sag	0			
Sidewall		9	N	
Measured Span (mm)	1806			
Measured At Ring No.	2			
Deflection (mm)	6			
Percent Deflection	0			
Floor		N	N	Ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	N	(Internal coupler. 02Mar2010).
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Coating		7	7	Some staining lower 1/3.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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		**9**	**N**	GR was 9 from 02Mar2010.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	02-Mar-2010			North pipe. Ice within 900mm of roof; pipe viewed from ends, shape appears good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	N	
Measured Rise (mm)	1800			
Measured At Ring No.	2			
Sag (mm)	0			
Percent Sag	0			
Sidewall		9	N	
Measured Span (mm)	1810			
Measured At Ring No.	2			
Deflection (mm)	10			
Percent Deflection	0			
Floor		N	N	Ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	N	(Internal couplers. 02Mar2010).
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Coating		9	8	Some staining lower 1/3.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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		**9**	**N**	GR was 9 from 02Mar2010.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Span Type:**)				
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		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)	1.0			Flow line.
Drift (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel Bottom Degrading/Aggrading				(Small beaver dam in each barrel section. 02Mar2010).
Beavers (Y/N)	Yes			
(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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**100.0/55.6**	**Sufficiency Rating (Last/Now) (%)**	**97.8/67.8**	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	Owen Salava	Previous Assistant's Name			
Next Inspection Date	23-Aug-2013	Previous Inspection Date	02-Mar-2010		
Inspection Cycle (Default) (months)	21				
Comment					