Bridge Culvert Inspection

Bridge File Number	08439 -1 Bridge Culvert	Form Type	CUL1
Year Built	1958	Lot No.	3
Bridge or Town Name	PONOKA	Inspector Name	Owen Salava
Located Over	2ND ORDER TRIBUTARY TO BATTLE RIVER, 5.60.3, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	53:06 C1 23.227	Assistant Class	
Water Body Cl./Year		Inspection Date	27-Nov-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 6 TWP 43 RGE 27 W4M	Data Entry Date	06-Dec-2012
Longitude, Latitude	-113:53:58, 52:40:05	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	04-Dec-2012
Contract Main. Area	CMA17	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	12 /	Dept. Review Date	10-Dec-2012
AADT/Year	1,930 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
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	2489	1753	RPP	33.5	152X51	3.0	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	In r/w to South.	Gas	
Power	1 O/H wire 30m North of c/l.	Municipal	
Others	No ID tag.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		8	8	
Roadway Width (m)	12.000			
Embankment		8	8	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **1.1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

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		6	6	Bevel projects from fill 300mm.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		6	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1753, Type: RPP**)				
Barrel Last Accessible Date	27-Nov-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	1790			
Measured At Ring No.	5			
Sag (mm)	37			-37mm
Percent Sag	2			-2%
Sidewall		7	7	
Measured Span (mm)	2460			
Measured At Ring No.	5			
Deflection (mm)	29			-29mm. Inwards.
Percent Deflection	1			-1%
Floor		N	6	Ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	6	3rd ring, 5 missing bolts 8 o'clock.
Separation (mm)	0			
Longitudinal Seams		5	5	Total of 24 missing bolt/nuts.
Total No. of Cracked Rings	0			-5m W sidewall @ R8 o'clock, 14 on W floor seam @ 7 o'clock R5-9.
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Floor, minor scaling at ends.
Corrosion By Soil (Y/N)	No			Surface rust lower 1/3.
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): 2489, Rise (mm): 1753, Type: RPP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

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		5	5	Minor damage at East side.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		4	4	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		4	4	4.0m x 10.0m x .6m eroded basin starting .5m from invert.
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

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	NONE			
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	2013	Line scour d/s 20m3 CL1.				
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**60.6/60.5**	Est. Repl. Yr	2039	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Concrete floor not required at this time; shape is very good.	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	27-Aug-2014	Previous Inspection Date	11-Apr-2011
Inspection Cycle (Default) (months)	21		
Comment			