Bridge Culvert Inspection

Bridge File Number	76146 -1 Bridge Culvert	Form Type	CUL1
Year Built/Lined	1965/2011	Lot No.	3
Bridge or Town Name	OHATON	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO BATTLE RIVER, 5.42, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	56:16 C1 37.013	Assistant Class	
Water Body Cl./Year		Inspection Date	13-Feb-2013
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SW SEC 28 TWP 45 RGE 19 W4M	Data Entry Date	14-Mar-2013
Longitude, Latitude	-112:42:48, 52:54:19	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	26-Feb-2013
Contract Main. Area	CMA16	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	12 / 30 deg. (RHF)	Dept. Review Date	14-Mar-2013
AADT/Year	1,590 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
2	MAIN FULL LINER	-	1800	MP	51.2	125X26	2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	3 wire 25m East of c/l, fence line.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Access road 100m North. Typical approach both directions. Crest curve to South, no passing SB. Located in a short but pronounced valley.
Vertical Alignment		6	6	
Roadway Width (m)	11.800			Wide crack in ACP.
Embankment		7	N	Snow covered.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **3.3**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream 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 :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		6	N	Bevel ends remain from the 2120mm SPCSP, installed 1965.
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	N	Snow covered, but no signs of problems.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**N**	GR was 6 from 09May2011.

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	18-Feb-2013			New liner, 2011.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	8	Rise at E end=1810=10mm Rise at midpipe=1809=9mm Rise at W end=1821=21=1.2%
Measured Rise (mm)	1821			
Measured At Ring No.				
Sag (mm)	21			
Percent Sag	1			
Sidewall		9	8	Span at E end=1805=5mm Span at midpipe=1812=12mm=0.7% Span at W end=1790=10mm
Measured Span (mm)	1812			
Measured At Ring No.				
Deflection (mm)	12			
Percent Deflection	1			
Floor		9	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	7	Couplers on inside.
Separation (mm)	0			
Longitudinal Seams		9	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)				
Coating		9	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**9**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	N	Bevel end remains from 2120mm SPCSP, installed 1965.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	N	Snow covered, but no signs of problems.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**N**	GR was 6 from 09May2011.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	Access road 100m U/S with approx 900mm pipes.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible. (Minor drift d/s. 09May2011).
Drift (Y/N)	Yes			
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						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2013	Seal ACP crack.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**100.0/88.9**	**Sufficiency Rating (Last/Now) (%)**	**84.8/77.2**	Est. Repl. Yr	2040	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	New liner installed 2011.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy	JU to check liner, check Q and use HMC. RS				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Owen Salava	Previous Assistant's Name			
Next Inspection Date	13-Nov-2014	Previous Inspection Date	09-May-2011		
Inspection Cycle (Default) (months)	21				
Comment					