Bridge Culvert Inspection

Bridge File Number	81958 -1 Bridge Culvert	Form Type	CUL1
Year Built	1993	Lot No.	4
Bridge or Town Name	EAST COULEE	Inspector Name	Jason Saly
Located Over	WATERCOURSE, WATERCRS-NI	Inspector Class	BR CLS A
Located On	570:01 C1 2.491	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	26-Nov-2010
Legal Land Location	NE SEC 22 TWP 27 RGE 18 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:26:55, 51:19:24	Data Entry Date	11-Jan-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA21	Review Date	12-Dec-2010
Clear Roadway/Skew	9.4 / -18 deg. (LHF)	Dept. Reviewer Name	Chris Black
AADT/Year	450 / 2009 (A)	Dept. Review Date	11-Jan-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	55	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	9.400			
Embankment		4	4	Ditch erosion over U/S end encroaching on fenceline
Sideslope (__:1)	2.0			
(Height of Cover(m) : **6.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	0			
Scour Protection		6	N	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	N	
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): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	26-Nov-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Rise measured at N end = 1608 - 8mm; 1/4pt = 1612 - 12mm=0.8%; Midpt = 1601 - 1mm; 3/4pt = 1600 - 0mm.
Measured Rise (mm)	1612			
Measured At Ring No.				
Sag (mm)	12			
Percent Sag	1			
Sidewall		8	8	Span measured at N end = 1593 - 7mm; 1/4pt = 1591 - 9mm=0.6%; Midpt = 1598 - 2mm; 3/4pt = 1607 - 7mm; S end = 1602 - 2mm.
Measured Span (mm)	1591			
Measured At Ring No.				
Deflection (mm)	9			
Percent Deflection	1			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	30			
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)				
Coating		7	6	
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): 1600, Type: MP**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

Downstream 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	
Bevel End		7	N	Covered by vegetation & snow.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	N	(Well grassed. 19Feb2009). Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			(Scour 3m from D/S bevel. 19Feb2009). Snow covered.
Downstream End General Rating		**7**	**N**	GR was 7 from 19Feb2009.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		6	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			(D/S only. 19Feb2009). Snow covered.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/88.9**	**Sufficiency Rating (Last/Now) (%)**	**79.5/78.0**	Est. Repl. Yr	2034	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor erosion in N ditches. Monitor erosion 3m S of d/s bevel.	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	Garry Roberts	Previous Assistant's Name			
Next Inspection Date	26-Feb-2014	Previous Inspection Date	19-Feb-2009		
Inspection Cycle (Default) (months)	39				
Comment					