Bridge Culvert Inspection

Bridge File Number	13069 -1 Bridge Culvert	Form Type	CUL1
Year Built	1998	Lot No.	4
Bridge or Town Name	ANDREW	Inspector Name	Jason Saly
Located Over	EGG CREEK, 6.48, WATERCRS-ST	Inspector Class	BR CLS A
Located On	45:04 C1 50.780	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	23-Jan-2013
Legal Land Location	SW SEC 5 TWP 57 RGE 16 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:20:56, 53:53:22	Data Entry Date	25-Feb-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA14	Review Date	13-Feb-2013
Clear Roadway/Skew	9.7 /	Dept. Reviewer Name	Chris Black
AADT/Year	900 / 2011 (A)	Dept. Review Date	14-Mar-2013
Road Classification	RAU-209-110	Follow-Up By	
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
1	MAIN	5000	4035	RPB	28	152X51	4.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Hazard markers @ all 4 corners.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Roadside turnout 150m East.
Vertical Alignment		8	8	
Roadway Width (m)	9.700			
Embankment		8	N	Snow covered, but no signs of problems.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	Yes			1 guardrail section is slightly bent, still functional.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	No fill behind headwall, built that way.
Collar		8	8	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	(Submerged. 06Jun2011).

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		8	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 5000, Rise (mm): 4035, Type: RPB**)				
Barrel Last Accessible Date	23-Jan-2013			
Special Features				
Special Feature				"6" Concrete Curbs. "7" Bridgerail/Galvanized Posts. Double layer.
(Type :)				
Special Feature				
(Type :)				
Roof		N	8	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	8	(@ mid length, span 4949, 1% deflection. 30Nov2004). Span at R3=4983=17mm Span at R9=4959=41mm=0.8% Span at R15=4971=29mm
Measured Span (mm)	4959			
Measured At Ring No.	9			
Deflection (mm)	41			
Percent Deflection	1			
Floor		N	N	~ 1.5m deep. (03/03/25)
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	8	
Separation (mm)	0			
Longitudinal Seams		N	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			2N stagger. Roof seam.
Coating		N	6	Superficial rust @ roof bolts.
Corrosion By Soil (Y/N)	Yes			
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): 5000, Rise (mm): 4035, Type: RPB**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		8	N	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Submerged.
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		5	N	Ditch drainage @ D/S end & end of riprap eroding bank, both sides.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		5	N	1m deep x 3m wide x 7m long @ East. Well vegetated.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	GR carried forward from 06Jun2011.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	Turns 80 degree 30m South, turns 80 degree 15m North.
Bank Stability		5	N	(Erosion from ditch drainage. 06Jun2011).
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				(Stable. 03/03/25) Deep water.
Beavers (Y/N)	No			
(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) (%)	**55.6/88.9**	**Sufficiency Rating (Last/Now) (%)**	**64.8/80.0**	Est. Repl. Yr	2054	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	Jason Saly	Previous Assistant's Name			
Next Inspection Date	23-Oct-2014	Previous Inspection Date	06-Jun-2011		
Inspection Cycle (Default) (months)	21				
Comment					