Bridge Culvert Inspection

Bridge File Number	75991 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	1
Bridge or Town Name	ST. ALBERT	Inspector Name	Kris Bosters
Located Over	2ND ORDER TRIBUTARY TO STURGEON RIVER, 6.65.6.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	2:34 L1 0.058;2:34 R1 0.058	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	24-Apr-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 21 TWP 54 RGE 25 W4M	Data Entry Date	30-Apr-2013
Longitude, Latitude	-113:38:23, 53:40:49	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	29-Apr-2013
Contract Main. Area	CMA09	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	26.4 /	Dept. Review Date	01-May-2013
AADT/Year	19,190 / 2012 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3380	2150	RPE	70	152X51	3.5	ELLIPSE
Special Features		STORM WATER DRAIN, BARREL ELBOW						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	1 wire 50m south.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag on D/S end. Fill does not allow for U/S installation.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		9	9	
Roadway Width (m)	26.400			4 lanes, 2 at 13.2.
Embankment		7	7	
Sideslope (__:1)	6.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	Yes			6 broken posts along SB lane. ALong NB 3 damaged spacer blocks and 3 damaged sections.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		Water to 0.1m from crown.
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	N	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	Carried fwd from 05-Jul-2011

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3380, Rise (mm): 2150, Type: RPE**)				
Barrel Last Accessible Date	16-Nov-2000			Water 2.0m deep. Viewed from ends, shape & condition look adequate.-05-Jul-2011 Could not view culvert.
Special Features				
Special Feature		8	8	Viewed from top
(Type : **STORM WATER DRAIN**)				
Special Feature		N	N	
(Type : **BARREL ELBOW**)				
Roof		N	N	Est 250mm sag.-16-N ov-2000
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	N	Pitting/scaling rust lower 1/2.-16-Nov-2000
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3380, Rise (mm): 2150, Type: RPE**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		N	N	
(Type :)				
Waterway Adequacy		6	N	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	(G.R. was "5" but last access 16/Nov/2000).

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		Water to 0.1m below crown
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	N	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	GR carried fwd from 05-Jul-2011

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.1			Spring 2013
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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	Repair guardrail, 3 section, 6 posts and 3 spacers.				
OTHER ACTION	2013	Dewater, Level II barrel inspection				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**58.7/69.0**	Est. Repl. Yr	2030	Maint. Reqd. (Y/N)	Yes

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	Melanie Johnson	Previous Assistant's Name	
Next Inspection Date	24-Jan-2015	Previous Inspection Date	05-Jul-2011
Inspection Cycle (Default) (months)	21		
Comment			