Bridge Culvert Inspection

Bridge File Number	73438 -1 Bridge Culvert	Form Type	CUL1
Year Built	1959	Lot No.	4
Bridge or Town Name	HIGH LEVEL	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO BOYER RIVER, 8.10.23.8, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	35:14 C1 21.790	Assistant Class	
Water Body Cl./Year		Inspection Date	15-Nov-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 2 TWP 107 RGE 20 W5M	Data Entry Date	13-Dec-2011
Longitude, Latitude	-117:14:05, 58:15:14	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	12-Dec-2011
Contract Main. Area	CMA01	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	10.8 /	Dept. Review Date	10-Jan-2012
AADT/Year	1,290 / 2010 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	60		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3658	SP	39	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	22m west of centerline	Gas	
Power	65m west of centerline-4 wire	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Sag curve - no passing southbound.
Vertical Alignment		7	7	
Roadway Width (m)	10.800			Step shoulder in area of new asphalt, otherwise 4:1. Wide crack on asphalt over culvert.
Embankment		4	4	Minor gully 0.2m deep x 4m long on West ditch - visible through snow.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1**)				Shoulder sagging on d/s end around culvert.
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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 :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		5	5	Small dent on top of bevel.
Heaving (mm)	400			
Invert Above/Below Stream Bed	ABOVE			Covered with snow.
Above/Below (mm)	200			
Scour Protection		5	4	Erosion N & S of culvert
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	4	Erosion N & S of culvert
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3658, Type: SP**)				
Barrel Last Accessible Date	18-Feb-2010			Could not access weak ice.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	N	Floor covered with ice.-18-Feb-2010
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		5	N	Superficial corrosion above ice level.-18-Feb-2010
Measured Span (mm)	3713			
Measured At Ring No.	6			
Deflection (mm)	55			
Percent Deflection	2			
Floor		N	N	Covered with ice.-18-Feb-2010
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	N	
Separation (mm)	0			
Longitudinal Seams		4	N	Severe corrosion through bolts.-18-Feb-2010
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			1N stagger.
Longitudinal Stagger (Y/N)	Yes			
Coating		4	N	Akaling stains though bolts. Superficial corrosion above ice level, Severe corrosion through bolts.-18-Feb-2010
Corrosion By Soil (Y/N)	Yes			
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): , Rise (mm): 3658, Type: SP**)				
Ponding (Y/N)	No			(Ponding 1.9m. 2005/03/19)
Fish Passage Adequacy		5	5	
Baffle		N	N	
(Type :)				
Waterway Adequacy		7	N	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	GR carried over 18-Feb-2010

Downstream 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 :)				
Cutoff Wall		X	X	
Bevel End		6	5	
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		6	4	Erosion wider than channel.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	4	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	6	Bends d/s.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM NOT VISIBLE
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**54.8/57.9**	Est. Repl. Yr	2015	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor sidewall deflection. Monitor corrosion through bolts. Monitor crack on asphalt over culvert.	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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina
Next Inspection Date	15-Aug-2013	Previous Inspection Date	18-Feb-2010
Inspection Cycle (Default) (months)	21		
Comment			