Bridge Culvert Inspection

Bridge File Number	73920 E-2 Bridge Culvert	Form Type	CUL1
Year Built	2000	Lot No.	2
Bridge or Town Name	WHITECOURT	Inspector Name	Russel Vanderschaaf
Located Over	TWO CREEK, 8.11.114, WATERCRS-ST	Inspector Class	BR CLS B
Located On	43:12 L1 33.939	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Nov-2012
Legal Land Location	SE SEC 28 TWP 61 RGE 16 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-116:19:45, 54:18:07	Data Entry Date	10-Feb-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA03	Review Date	17-Dec-2012
Clear Roadway/Skew	12.4 / 35 deg. (RHF)	Dept. Reviewer Name	David Morrison
AADT/Year	6,290 / 2011 (A)	Dept. Review Date	21-Mar-2013
Road Classification	RAD-412.4-120	Follow-Up By	
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	11340	6545	SCA	35.4	400X150	5.0	ARCH

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	Edge of North ROW(North WBL)	Gas	
Power	5 wire edge of N. ROW-North WBL)	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Long sag curve. Intersection to the E.
Vertical Alignment		7	7	
Roadway Width (m)	14.400			
Embankment		9	9	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **1.3**)				
Guardrail (Y/N)	Yes			2 posts broken on N side - photo & 2 sections bent rail.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		MSE wall.
End Treatment (Concrete, Steel, Others, None)	OTHERS			
Headwall		4	7	Wide crack at W. side - repaired. Vertical cracks with effloresence over crown of pipe.
Collar		X	X	
Wingwalls		8	8	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 11340, Rise (mm): 6545, Type: SCA**)				
Barrel Last Accessible Date	28-Nov-2012			Ice 5.4m from crown .
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	7	Estimated - due to ice..
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		8	7	
Measured Span (mm)	1129			
Measured At Ring No.	15			
Deflection (mm)	0			
Percent Deflection				
Floor		X	X	Natural streambed.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N Stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Leaching at bolt holes.
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): 11340, Rise (mm): 6545, Type: SCA**)				
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		MSE wall.
End Treatment (Concrete, Steel, Others, None)	OTHERS			
Headwall		4	7	Wide spall at E. side.-4.2m L X 0.2m W X 0.15, D-repaired Vertical cracks with efflor.
Collar		8	8	
Wingwalls		8	8	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	20 degree bend 20m d/s of invert
Bank Stability		7	7	
HWM (m below Top of Culvert)	3.5			Grass in brush at 73920W
Drift (Y/N)	No			
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	Replace broken guardrail posts & bent sections of rail.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/77.8**	**Sufficiency Rating (Last/Now) (%)**	**81.9/82.5**	Est. Repl. Yr	2054	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor headwall/wingwall movement.	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	Russel Vanderschaaf	Previous Assistant's Name			
Next Inspection Date	28-Aug-2014	Previous Inspection Date	07-Mar-2011		
Inspection Cycle (Default) (months)	21				
Comment					