

Bridge Culvert Inspection				
Bridge File Number	71631 -1 Bridge Culvert		Form Type	CUL1
Year Built	1954		Lot No.	1
Bridge or Town Name	VALLEYVIEW		Inspector Name	Russel Vanderschaaf
Located Over	WOODPECKER CREEK, 8.10.58.7.23.3, WATERCRS-ST		Inspector Class	BR CLS B
Located On	43:06 C1 42.899		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	05-Jul-2011
Legal Land Location	SE SEC 22 TWP 70 RGE 23 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:24:51, 55:04:07		Data Entry Date	17-Aug-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA03		Review Date	08-Aug-2011
Clear Roadway/Skew	12 /		Dept. Reviewer Name	Steve Pasquan
AADT/Year	4,760 / 2010 (A)		Dept. Review Date	29-Sep-2011
Road Classification	RAU-213.4-120		Follow-Up By	
Detour Length (km)	275			

Bridge Culvert Information								
Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	2314	SP	68.3	152X51	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	At S. side and N. side	Gas	
Power	At N. side - 3 lines	Municipal	
Others	Power crosses 50m East.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Residence access 75m east.
Vertical Alignment		8	8	
Roadway Width (m)	12.000			
Embankment		5	1	18.5mLx13mWx6mD scour u/s end.-photo 5mm wide crack along shoulder 2.4m from scour. Vertical edge near guardrail.-photo
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 15)				
Guardrail (Y/N)	Yes			2 broken posts & 2 damaged sections rail NE - photo.
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>1</b>	

Upstream 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 : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	1	Culvert torn away from concrete.-photo
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	1	18.5mL x13mWx6mD scour u/s end.-photo
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>500</b> )				
Scour/Erosion		N	1	
Beavers (Y/N)	No			18.5mL x13mWx6mD scour u/s end.-
<b>Upstream End General Rating</b>		<b>4</b>	<b>1</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2314, Type: SP)</b>				
Barrel Last Accessible Date	05-Jul-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	1	Rings 1-6 collapsed off silt
Measured Rise (mm)	2209			
Measured At Ring No.	19			
Sag (mm)	105			
Percent Sag	5			
Sidewall		3	1	Cracked seams. (photo) Rings 1-6 collapsed
Measured Span (mm)	2440			
Measured At Ring No.	19			
Deflection (mm)	126			
Percent Deflection	5			
Floor		2	2	Ring 5 sheared 5 o'clock. 300 x 300 x 1200 void behind plate - photo. Concrete floor rings 1-3.
Bulge (mm)	0			
Measured At Ring No.				Floor completely rusted through at bevel end + Ring 25.-photo
Abrasion (Y/N)	No			
Circumferential Seams		6	6	Ring 8 has large bulge @ seam. Construction damage.
Separation (mm)	0			
Longitudinal Seams		3	3	18, 19& 20 rings are cracked at 9:00 o'clock.
Total No. of Cracked Rings	3			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	64			
Proper Lap (Y/N)	No			1N stagger.
Longitudinal Stagger (Y/N)	Yes			
Coating		2	2	(Severe perforations rings 1-7.06-May-2009) + 20-25 photo
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2314, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		3	1	Rings 1-6 collapsed-photo
Baffle		X	X	
(Type : )				
Waterway Adequacy		3	1	Scour hole d/s + scour u/s.
Icing (Y/N)	No			Rings 1-6 collapsed.-photo.
Silting (Y/N)	Yes			Silt and rock build up throughout pipe.
Drift (Y/N)	No			Beaverdam debris.
<b>Barrel General Rating</b>		<b>2</b>	<b>1</b>	
Downstream 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	
Bevel End		2	2	Bevel unsupported for 3.0m L x 0.4m D.
Heaving (mm)	250			Floor completely rusted out (photo).
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	350			
Scour Protection		3	3	Scour hole d/s. 30mLx10mWx1.0mD-photo
(Type : <b>NONE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		3	3	Scour hole d/s 30mLx10mW les than 1.0m D-photo
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>2</b>	<b>2</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		5	3	u/s end banks show active erosion.
HWM (m below Top of Culvert)	1.6			(HWM 1996/08/13)
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			Cuttings present.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>3</b>	

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	2011	Replace/Complete temporary repairs.		2011						
OTHER ACTION	2011	Repair guardrail.								
OTHER ACTION										
OTHER ACTION										
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>22.2/11.1</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>16.6/0.0</b>	<b>Est. Repl. Yr</b>	<b>2011</b>	<b>Target Year</b>	<b>Maint. Req. (Y/N)</b>	<b>Est. Cost</b>	<b>Cat #</b>	<b>Yes</b>
Special Comments for Next Inspection	AT advised of low rating Oct 24, 2005 and 05-Jul-2011. If replacement is delayed repair guardrail, and inspection 1 month cycle.		Department Comments							
	Culvert scheduled for replacement 2012 - consider replacement for 2011.									
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	05-Apr-2012		Previous Inspection Date	10-Feb-2011						
Inspection Cycle (Modified) (months)	9									
Comment										

**Maintenance Recommendations**

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PLACE ADDITIONAL RIP RAP							
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Maintenance Reviewed By			Date			Estimated Total	0
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On 3-Year Program (Y/N)							
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Comment							