

Bridge Culvert Inspection				
Bridge File Number	01875 -1 Bridge Culvert		Form Type	CUL1
Year Built	1961		Lot No.	2
Bridge or Town Name	TORRINGTON		Inspector Name	Owen Salava
Located Over	SPRUCE CREEK, 3.46.24, WATERCRS-ST		Inspector Class	BR CLS A
Located On	27:08 C1 17.807		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	24-Oct-2012
Legal Land Location	SE SEC 4 TWP 33 RGE 27 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:46:03, 51:47:40		Data Entry Date	08-Nov-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA29		Review Date	29-Oct-2012
Clear Roadway/Skew	11 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,320 / 2011 (A)		Dept. Review Date	13-Nov-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	6			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3187	3522	SPE	87.2	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	South slope, North of D/S end.		Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Steep grades (6%).
Vertical Alignment		5	5	
Roadway Width (m)	11.000			
Embankment		5	5	Some erosion on north bank and cattle action adjacent to north bevel. Well vegetated.
Sideslope ( :1)	3.0			
(Height of Cover(m) : 9.7)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>5</b>	<b>5</b>	

Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		N	5	Starting to crumble 0.8 m above invert elevation.
(Type : <b>CONCRETE</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		N	5	Cattle action around top of pipe.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3187, Rise (mm): 3522, Type: SPE)				
Barrel Last Accessible Date	24-Oct-2012			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	(3550 rise @ 1/4L, 3540 rise @ mid. 07-aug-2005). Unable to measure due to ice.
Measured Rise (mm)	3550			(At mid span. 22Sep2009).
Measured At Ring No.				
Sag (mm)	28			(Upwards. 07Aug2005).
Percent Sag	1			(0.8%. 07Aug2005).
Sidewall		8	8	
Measured Span (mm)	3210			
Measured At Ring No.	8			
Deflection (mm)	23			0.7%
Percent Deflection	1			
Floor		N	N	(Scaling - photo. 22Sep2009). Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	(Scaling & some pitting @ floor U/S - photo. 22Sep2009). Rust through 10 o'clock seam @ U/S.
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): 3187, Rise (mm): 3522, Type: SPE)					
Fish Passage Adequacy		7	7		
Baffle		X	X		
(Type : )					
Waterway Adequacy		8	8	Minor, small logs & concrete bags washed into barrel.	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	Yes				
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>		
Downstream 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 : )					
Cutoff Wall		X	X		
Bevel End		7	7		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	0				
Scour Protection		N	5	Concrete deteriorating along bottom 1/4 dia.	
(Type : <b>CONCRETE</b> )					
(Avg. Rock Size(mm) : <b>300</b> )					
Scour/Erosion		N	5		
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>		
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		5	5	90 degree cut bank @ SW. Downstream channel at 30 degree from pipe.	
Bank Stability		5	5	Scour at D/S encroaching on farmers field along west bank. Scour stable - no change 10 years.	
HWM (m below Top of Culvert)	1.5			(20/Feb/2008) HWM not visible.	
Drift (Y/N)	No				
Channel Bottom Degrading/Aggrading	DEGRADING				
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : <b>NONE</b> )					
(Fish Compensation Measure 2 : <b>NONE</b> )					
<b>Channel General Rating</b>		<b>5</b>	<b>5</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	2013	Consider concrete floor.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>73.3/73.3</b>	Est. Repl. Yr	2023	Maint. Req. (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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	24-Jul-2014		Previous Inspection Date	08-Feb-2011			
Inspection Cycle (Default) (months)	21						
Comment							