

Bridge Culvert Inspection			
Bridge File Number	09659 -1 Bridge Culvert	Form Type	CULM
Year Built	1986	Lot No.	
Bridge or Town Name	BUSBY	Inspector Name	Melanie Johnson
Located Over	REDWATER RIVER, 6.63, WATERCRS-ST	Inspector Class	BR CLS B
Located On	651:02 C1 38.566	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Jun-2011
Legal Land Location	SE SEC 29 TWP 57 RGE 26 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:49:51, 53:56:57	Data Entry Date	06-Jul-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	
Contract Main. Area	CMA09	Review Date	
Clear Roadway/Skew	9.2 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,120 / 2010 (A)	Dept. Review Date	18-Jul-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	6		

**Bridge Culvert Information**

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	27	125X26	2.8	ROUND
2	MAIN	-	1600	MP	27	125X26	2.8	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	South r/w.	Gas	
Power	1 OH line North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed on top of West pipe South bevel.		

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		9	7	Clear sight distance for 1 km & both directions. FIELD ACCESS AT ne -20M FROM CULVERTS. HWY 44 INTERSECTION-800M WEST.  Patched over pipes . Transverse cracks developed, full width of roadway.
Vertical Alignment		8	8	
Roadway Width (m)	9.200			
Embankment		6	6	
Sideslope ( _ :1)	3.0			
(Height of Cover(m) : 1.5)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>9</b>	<b>7</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Direction		S		West pipe - tagged.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection (Type : ) (Avg. Rock Size(mm) : )		N	7	
Scour/Erosion		N	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>7</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)</b>				
Barrel Last Accessible Date	28-Jun-2011			
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		8	7	
Measured Rise (mm)	1640			
Measured At Ring No.	3			
Sag (mm)	40			
Percent Sag	3			
Sidewall		8	7	
Measured Span (mm)	1590			
Measured At Ring No.				
Deflection (mm)	10			
Percent Deflection	1			
Floor		N	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	50			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)</b>				
Coating		4	4	Pitting rust lower 1/3.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	(Minnoes swimming in culvert. Aug/21/01)
Baffle		X	X	
<b>(Type : )</b>				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Direction		N		West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
<b>(Shape : )</b>				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	7	
<b>(Type : RIP RAP)</b>				
<b>(Avg. Rock Size(mm) : 200)</b>				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Direction		S		East pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	7	
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)</b>				
Barrel Last Accessible Date	29-Jun-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		4	5	Small hole in top of roof where exposed at South end.
Measured Rise (mm)	1590			
Measured At Ring No.	29			
Sag (mm)	108			
Percent Sag	16			
Sidewall		8	7	
Measured Span (mm)	1610			
Measured At Ring No.	21			
Deflection (mm)	101			
Percent Deflection	12			
Floor		N	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	50			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)</b>				
Coating		4	4	Pitting rust starting to develop on lower1/3.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	(Minnoes swimming in culvert. Aug/21/01)
Baffle		X	X	
<b>(Type : )</b>				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>5</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Direction		N		East pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
<b>(Shape : )</b>				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	7	
<b>(Type : RIP RAP)</b>				
<b>(Avg. Rock Size(mm) : 200)</b>				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	Mostly swampy marsh land U/S & D/S. Small pond D/S 50m.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>60.0/65.5</b>	Est. Repl. Yr	2034	Maint. Req. (Y/N)	No
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	Dave Lam		Previous Assistant's Name	Bryce Clayton			
Next Inspection Date	28-Sep-2014		Previous Inspection Date	12-Mar-2008			
Inspection Cycle (Default) (months)	39						
Comment							