

Bridge Culvert Inspection			
Bridge File Number	71415 -1 Bridge Culvert	Form Type	CULM
Year Built	1960	Lot No.	3
Bridge or Town Name	BLACKIE	Inspector Name	Tom Carey
Located Over	TRIBUTARY TO FRANK LAKE, 2.12.12.16.1.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	23:08 C1 29.250	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	18-Feb-2013
Legal Land Location	SW SEC 3 TWP 19 RGE 27 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-113:40:13, 50:34:20	Data Entry Date	17-Mar-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA27	Review Date	03-Mar-2013
Clear Roadway/Skew	13.2 /	Dept. Reviewer Name	Tim Davies
AADT/Year	2,030 / 2011 (A)	Dept. Review Date	25-Mar-2013
Road Classification	RAU-213-120	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	6000	3000	BP	37.2			RECTANGLE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	South ditch.	Gas		
Power	1 wire - South fence 25m South.	Municipal		
Others		Problem (Y/N)	No	
Remarks				

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	4	4	Curves at both East and West.
Vertical Alignment	8	8	Advisory speed posted @ 85 km/hr W/B & E/B.
Roadway Width (m)	13.200		
Embankment	5	5	
Sideslope (__:1)	3.0		
(Height of Cover(m) : )			
Guardrail (Y/N)	Yes		
<b>Approach Road / Embankment General Rating</b>	<b>4</b>	<b>4</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction			North end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	5	5	Exposed rebar at back at NW corner. Minor
Collar	X	X	
Wingwalls	6	6	Anchored to prevent moving.
(Shape : <b>FLARE</b> )			Wingwall moved towards stream 100mm & away 120mm. At North West
Cutoff Wall	N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			Iced over
Above/Below (mm)	350			
Scour Protection		4	4	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		4	4	
Beavers (Y/N)	No			1.0m DP X 0.5m WD X 0.5m LG void behind North West wing.
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3000, Rise (mm): 3000, Type: BP, Cell Sequence: 1)</b>				
Barrel Last Accessible Date	18-Feb-2013			West box. Carries drainage.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	7	Minor transverse cracks.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall		6	6	(West wall has 2 corroded low cover rebar areas) - minor vert cracks. Submerged
Measured Span (mm)	3040			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	Iced over
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	Seam @ mid.
Separation (mm)	2			
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)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 3000, Rise (mm): 3000, Type: BP, Cell Sequence: 1)				
Fish Passage Adequacy		X	X	
Baffle (Type : )		X	X	
Waterway Adequacy		7	7	
Icing (Y/N)		No		
Siltting (Y/N)		No		
Drift (Y/N)		No		
Barrel General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3000, Rise (mm): 3000, Type: BP, Cell Sequence: 2)				
Barrel Last Accessible Date		18-Feb-2013		East box.
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		7	7	
Measured Rise (mm)				Estimate
Measured At Ring No.				
Sag (mm)		0		
Percent Sag		0		
Sidewall		6	6	Minor cracking and low cover. Rebar at center wall. Exposed
Measured Span (mm)		3040		
Measured At Ring No.				
Deflection (mm)		0		
Percent Deflection		0		
Floor		N	N	700mm silt and 300mm water. Iced over
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)		No		
Circumferential Seams		7	7	Seam @ mid.
Separation (mm)		2		
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)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 3000, Rise (mm): 3000, Type: BP, Cell Sequence: 2)					
Fish Passage Adequacy		X	X		
Baffle		X	X		
(Type : )					
Waterway Adequacy		7	7	This cell used as cattle pass. 700 mm rock & dirt placed on floor.	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>6</b>	<b>6</b>		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction				South end.	
End Treatment (Concrete, Steel, Others, None)	CONCRETE				
Headwall		6	6	300mm spall.	
Collar		X	X		
Wingwalls		6	6	Anchored - moved towards stream 70mm & away 60mm	
(Shape : <b>FLARE</b> )					
Cutoff Wall		N	N	Dirt covered.	
Bevel End		X	X		
Heaving (mm)					
Invert Above/Below Stream Bed	BELOW			Iced over	
Above/Below (mm)	350				
Scour Protection		4	4	2.0m DP x 0.5m WD x 0.5m LG void behind South East wing.	
(Type : <b>NATURAL</b> )					
(Avg. Rock Size(mm) : )					
Scour/Erosion		4	4	Bank cut 2.5m wide by 1.0m DP at South West - behind fence.	
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>		
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		6	6		
Bank Stability		7	7		
HWM (m below Top of Culvert)	2.0			No visible HWM	
Drift (Y/N)	No				
Channel Bottom Degrading/Aggrading	AGGRADING			Snow covered	
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : <b>NONE</b> )					
(Fish Compensation Measure 2 : <b>NONE</b> )					
<b>Channel General Rating</b>		<b>6</b>	<b>6</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	2014	Fill void behind North West and South East wings - 2m3 granular and backing plates.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>53.4/53.5</b>	Est. Repl. Yr	2031	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	Tom Carey		Previous Assistant's Name				
Next Inspection Date	18-Nov-2014		Previous Inspection Date	20-May-2011			
Inspection Cycle (Default) (months)	21						
Comment							