

Bridge Culvert Inspection				
Bridge File Number	01832 -1 Bridge Culvert		Form Type	CUL1
Year Built	1955		Lot No.	4
Bridge or Town Name	ELKWATER		Inspector Name	Tom Carey
Located Over	BULLSHEAD CREEK, 2.7.2, WATERCRS-ST		Inspector Class	BR CLS A
Located On	514:02 C1 0.963		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Mar-2012
Legal Land Location	SW SEC 7 TWP 8 RGE 3 W4M		Data Entry By	Anne Roberts
Longitude, Latitude	-110:24:19, 49:37:46		Data Entry Date	08-Apr-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA23		Review Date	24-Mar-2012
Clear Roadway/Skew	12 / 42 deg. (RHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	70 / 2011 (A)		Dept. Review Date	17-Apr-2012
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	10			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2027	2240	SPE	69.6	152X51		ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	West side.		Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	In start of "S" curve, goes to North.
Vertical Alignment		6	6	
Roadway Width (m)	11.200			
Embankment		7	7	6m berm West, then 6:1.
Sideslope (__:1)	4.0			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>5</b>	<b>5</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East
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		X	X	
Bevel End		6	6	(5 bolts in circumferential seams missing) 2 seen, ice on floor.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			Snow covered
Above/Below (mm)	1100			
Scour Protection		N	N	Snow covered, only NE rock at side of bevel seen.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>250</b> )				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>N</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE)				
Barrel Last Accessible Date	12-Mar-2012			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		6	7	Estimate
Measured Rise (mm)	2147			
Measured At Ring No.	15			
Sag (mm)	93			
Percent Sag	4			
Sidewall		6	7	
Measured Span (mm)	2060			
Measured At Ring No.	15			
Deflection (mm)	33			
Percent Deflection	2			
Floor		N	N	Ice & Snow Covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	Bolts missing or appear not torqued - a few
Separation (mm)	0			
Longitudinal Seams		5	5	Not nestled up to 8mm gap ring 4 at South side. 7 missing bolts at R13 at South. U/S half has stagger
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)	No			
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	(At D/S half). (From ring 15 to D/S end silt covered up to 400mm).
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>5</b>	<b>5</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		West
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		6	6	1 bolt missing @ barrel connection at South
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			snow covered
Above/Below (mm)	300			
Scour Protection		N	N	snow covered
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>N</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		5	5	High bank slumping D/S 3m to South.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
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>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>66.4/64.3</b>	Est. Repl. Yr	2020	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	Tim Davies		Previous Assistant's Name				
Next Inspection Date	12-Jun-2015		Previous Inspection Date	12-Mar-2009			
Inspection Cycle (Default) (months)	39						
Comment							