

Bridge Culvert Inspection			
Bridge File Number	79156 -1 Bridge Culvert	Form Type	CUL1
Year Built	1981	Lot No.	1
Bridge or Town Name	BRAGG CREEK	Inspector Name	Calvin Roberts
Located Over	TRIBUTARY TO ELBOW RIVER, 2.13.33.18, WATERCRS-ST	Inspector Class	BR CLS B
Located On	66:04 C1 3.122	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	03-Apr-2013
Legal Land Location	NW SEC 24 TWP 22 RGE 6 W5M	Data Entry By	Lauren Korte
Longitude, Latitude	-114:42:35, 50:53:09	Data Entry Date	11-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA27	Review Date	13-Apr-2013
Clear Roadway/Skew	10.6 / 19 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	1,580 / 2012 (A)	Dept. Review Date	06-May-2013
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	999		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1524	SP	95.1	152X51	3.0	ROUND
Special Features	CONC FLOOR							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	West upstream ditch.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	Superelevated curve.
Vertical Alignment	7	7	
Roadway Width (m)	10.600		
Embankment	7	7	
Sideslope ( __:1)	3.0		
(Height of Cover(m) : 8.5)			
Guardrail (Y/N)	Yes		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

**Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	N	Snow covered. P.R 5.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		6	N	Snow covered. P.R 5.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>N</b>	P.R 5.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1</b> , Primary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>1524</b> , Type: <b>SP</b> )				
Barrel Last Accessible Date	02-Jul-2011			Unable to enter, ice to within 300mm of barrel roof.
<b>Special Features</b>				
Special Feature		5	N	Concrete floor with concrete wall extending half way up sidewall, begins just East of elbow in pipe.
(Type : <b>CONC FLOOR</b> )				
Special Feature				
(Type : )				
Roof		6	N	P.R 6.
Measured Rise (mm)	1500			
Measured At Ring No.	5			
Sag (mm)	24			
Percent Sag	1			
Sidewall		2	N	Continuous 100mm x 3m long perforations Through North side wall 25m from d/s end - photo
Measured Span (mm)	1552			
Measured At Ring No.	5			(Perforations and severe corrosion - photo Extending up sidewall into steel not covered by concrete. Water piping entire length of pipe - coming through sidewall, perfs and seams. Observed evidence of piping).
Deflection (mm)	28			
Percent Deflection	2			P.R 2.
Floor		4	N	Rating 1/2 of barrel without concrete floor. Corrosion stains @ haunch seam bolt holes West of concrete floor - no perforations seen.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			P.R 4.
Circumferential Seams		5	N	P.R 5.
Separation (mm)	0			
Longitudinal Seams		5	N	P.R 5.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		2	N	(Corrosion. Perforations @ side wall - corrosion staining throughout- photo). P.R 2.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: SP)					
Ponding (Y/N)	No				
Fish Passage Adequacy		5	5		
Baffle		X	N		
(Type : )					
Waterway Adequacy		6	5	Ice to roof of barrel.	
Icing (Y/N)	Yes				
Silting (Y/N)	No				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>2</b>	<b>2</b>	General rating carried forward.	
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction		E		East.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		5	N	Snow covered.	
Wingwalls		X	X		
(Shape : )					
Cutoff Wall		X	X		
Bevel End		6	N	(Concrete floor extends to bevel end). P.R 6.	
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	800				
Scour Protection		4	N	(Rip-rap has settled downward into scour hole). P.R 4. Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 600)					
Scour/Erosion		4	N	(1.5m(w) x 2.5m(l) x 1.5m(d) scour hole).	
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>4</b>	<b>N</b>	P.R 4.	
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		5	5	1016 mm MP 25 m East for NW ditch drainage.	
Bank Stability		4	4	Sloughing just D/S to South.	
HWM (m below Top of Culvert)				Not visible. Dishwasher disposed of at D/S end.	
Drift (Y/N)	No				
Channel Bottom Degrading/Aggrading	AGGRADING				
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					
<b>Channel General Rating</b>		<b>4</b>	<b>4</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	Remove dishwasher from D/S end.					
OTHER ACTION	2013	Install liner from elbow to outlet- photo 1200mm DIA (if not already done).					
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>22.2/22.2</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>36.8/34.5</b>	Est. Repl. Yr	2014	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	Jason Rusu		Previous Assistant's Name				
Next Inspection Date	03-Jan-2015		Previous Inspection Date	02-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							