Bridge Culvert Inspection

Bridge File Number	79468 -1 Bridge Culvert	Form Type	CUL1
Year Built	1982	Lot No.	4
Bridge or Town Name	BRAGG CREEK	Inspector Name	Calvin Roberts
Located Over	CONNOP CREEK, 2.13.33.14, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	66:04 C1 9.560	Assistant Class	
Water Body Cl./Year		Inspection Date	03-Apr-2013
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	SW SEC 33 TWP 22 RGE 5 W5M	Data Entry Date	11-Apr-2013
Longitude, Latitude	-114:38:18, 50:54:41	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	13-Apr-2013
Contract Main. Area	CMA27	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	14 / -25 deg. (LHF)	Dept. Review Date	06-May-2013
AADT/Year	1,580 / 2012 (A)	Follow-Up By	
Road Classification	RAU-210-110		
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	2316	2560	SPE	45.1	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Located in South ditch.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Alberta supernet North ditch.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Turning lane on North side.
Vertical Alignment		7	7	
Roadway Width (m)	4.000			
Embankment		4	4	Erosion 20m LG x 4m wide x 1m DP at SW-rock lined. Rock and fill has been pushed in to fill erosion.
Sideslope (__:1)	2.0			
(Height of Cover(m) : **5.1**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		South.
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	N	Snow covered. P.R 7.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	N	Snow covered. P.R 7.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**N**	P.R 7.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2316, Rise (mm): 2560, Type: SPE**)				
Barrel Last Accessible Date	02-Jul-2011			Unable to enter, ice to within 200mm of roof.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	P.R 7.
Measured Rise (mm)				
Measured At Ring No.				Estimated.
Sag (mm)	0			
Percent Sag	1			
Sidewall		7	N	P.R 7.
Measured Span (mm)	2280			
Measured At Ring No.	7			Inward.
Deflection (mm)	36			
Percent Deflection	1			
Floor		N	N	(Avg 500mm deep rock on floor throughout pipe).
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	N	
Separation (mm)	0			
Longitudinal Seams		6	N	(Poor plate match at 10 o'clock at rings 7, 9 and 10 - 15 mm gap. Isolated bolts are pulling into plate).
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			P.R 6.
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	N	(Minor superficial. Rusting at bolt holes-overtorqued).
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2316, Rise (mm): 2560, Type: SPE**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	5	Ice to roof of barrel.
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**N**	P.R 6.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		North.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	N	Snow covered. P.R 7.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		7	N	Snow covered. P.R 7.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**N**	P.R 7.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		6	6	
HWM (m below Top of Culvert)				Not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			AT D/S
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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						

Structural Condition Rating (Last/Now) (%)	**66.7/55.6**	**Sufficiency Rating (Last/Now) (%)**	**68.1/51.6**	Est. Repl. Yr	2028	Maint. Reqd. (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	Jason Rusu	Previous Assistant's Name	
Next Inspection Date	03-Jan-2015	Previous Inspection Date	02-Jul-2011
Inspection Cycle (Default) (months)	21		
Comment			