Bridge Culvert Inspection

Bridge File Number	78663 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	BRAGG CREEK	Inspector Name	Jason Rusu
Located Over	PRAIRIE CREEK, 2.13.33.20, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	66:02 C1 8.679	Assistant Class	
Water Body Cl./Year		Inspection Date	02-Jul-2011
Navigabil. Cl./Year		Data Entry By	Erin Roberts
Legal Land Location	SE SEC 17 TWP 22 RGE 6 W5M	Data Entry Date	21-Jul-2011
Longitude, Latitude	-114:47:20, 50:51:59	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	08-Jul-2011
Contract Main. Area	CMA27	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	11 /	Dept. Review Date	27-Jul-2011
AADT/Year	1,460 / 2010 (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	6121	4140	RPE	55.7	152X51	6.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve starts over pipe. Steady downhill grade of 3%.
Vertical Alignment		7	7	
Roadway Width (m)	12.200			
Embankment		7	7	
Sideslope (__:1)	3.0			
(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				West end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		6	6	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		8	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	7	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6121, Rise (mm): 4140, Type: RPE**)				
Barrel Last Accessible Date	02-Jul-2011			Too large to measure. Barrel has good shape
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Shape looks good.
Measured Rise (mm)	4140			ESTIMATED ISOLATED AREAS SAG OF 50mm AT LONGITUDINAL SEAMS-@ ends of pipe
Measured At Ring No.				
Sag (mm)	50			
Percent Sag				
Sidewall		8	8	Estimate.
Measured Span (mm)	6121			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	ROCK COVERED-avg 500mm deep
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
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		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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): 6121, Rise (mm): 4140, Type: RPE**)				
Fish Passage Adequacy		8	8	
Baffle		7	6	4m long concrete walls, average 300mm high, spaced @ 5m for entire length of culvert
(Type : **SPOILER**)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				East end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		7	6	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		7	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		4	4	Large section of rip-rap approx. 15m D/S of outlet has sloughed into stream bed
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		4	4	
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		5	4	Severe slope erosion 25-50m D/S - not impacting culvert performance but may affort road fill stabiltiy in future.
HWM (m below Top of Culvert)				None (HWM 980924)
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			At D/S and U/S
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**4**	

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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**76.8/75.3**	Est. Repl. Yr	2044	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	02-Apr-2013	Previous Inspection Date	18-Oct-2009		
Inspection Cycle (Default) (months)	21				
Comment					