Bridge Culvert Inspection

Bridge File Number	75176 -1 Bridge Culvert	Form Type	CUL1
Year Built	1960	Lot No.	3
Bridge or Town Name	BROOKS	Inspector Name	Jon Davies
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS B
Located On	36:06 C1 37.213	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Jan-2012
Legal Land Location	NW SEC 28 TWP 18 RGE 15 W4M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-112:00:53, 50:33:20	Data Entry Date	22-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	20-Jan-2012
Clear Roadway/Skew	11.1 /	Dept. Reviewer Name	Tim Davies
AADT/Year	2,260 / 2010 (A)	Dept. Review Date	24-Feb-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	8		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	CP	25.8			ROUND
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)		No									
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)		In Advance (Y/N)
Remarks	Not required										

Utilities (Located at)

Utility Attachments			
Telephone	West fence	Gas	
Power	3 line crosses road above pipe	Municipal	
Others	3 W 20 m east of c.l	Problem (Y/N)	No
Remarks	Large transformer complex and microwave tower to west. Fibre optic cable west ditch		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	7	Intersection North. Crest curves North and South.
Vertical Alignment		9	7	
Roadway Width (m)	11.100			
Embankment		8	7	
Sideslope (__:1)	4.5			
(Height of Cover(m) : **0.8**)				
Guardrail (Y/N)	Yes			Guardrail collision damage at East.
Approach Road / Embankment General Rating		**9**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		X	6	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	6	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: CP**)				
Barrel Last Accessible Date	11-Jan-2012			
Special Features				
Special Feature				Cable connects top 4 units together @ ends - both cables broken
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Some visible rebar on outside ring 2. Minor spall @ E end in roof rebar exposed. Numerous h line to 1.0 mm wide longit, transverse cracks along roof and sidewalk.
Measured Rise (mm)	1987			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		5	5	Hairline to medium width longitudinal cracks.
Measured Span (mm)	1835			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	4	Spalls on the floor through out with some exposed steel.
Bulge (mm)	0			
Measured At Ring No.	1			
Abrasion (Y/N)	No			
Circumferential Seams		5	4	Caulked with foam @ 75% of joints. Soil infiltration @ most seams-some @ minor. Spalls @ circ seams ring 1,2
Separation (mm)	20			
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)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: CP**)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	7	Carries ditch drainage water flow.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		X	6	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	6	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		X	X	
Roadway Surface		7	5	
(Type : **SOIL**)				
Icing (Y/N)	No			(Leakage through circ seams-minor) June 23 2012
Traffic Safety Features		X	X	
Type				

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	Yes			
Drainage		4	4	Ponds 300mm Frozen MVD present. 750 mm csp 8 m south.
Structure In Use (Y/N)	No			Fences down @ E
Grade Separation General Rating		**5**	**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	2012	Replace G T.T blocks at posts at East. Replace 2 sections of W-beam at South East.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**68.5/59.3**	Est. Repl. Yr	2021	Maint. Reqd. (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	11-Oct-2013	Previous Inspection Date	22-Jun-2010		
Inspection Cycle (Default) (months)	21				
Comment					