Bridge Culvert Inspection

Bridge File Number	75170 -1 Bridge Culvert	Form Type	CUL1
Year Built	1960	Lot No.	3
Bridge or Town Name	SCANDIA	Inspector Name	Jon Davies
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS B
Located On	36:06 C1 3.277	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	02-Jan-2012
Legal Land Location	SW SEC 17 TWP 15 RGE 15 W4M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-112:02:15, 50:15:26	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	11.4 /	Dept. Reviewer Name	Tim Davies
AADT/Year	1,580 / 2010 (A)	Dept. Review Date	24-Feb-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

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	24.3			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		Gas	
Power		Municipal	
Others	Fibre Optic Cable north ditch	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		9	9	
Roadway Width (m)	10.700			
Embankment		5	5	Minor sloughing @ d/s Goes to less than 0.5-1 almost 90 deg @ d/s end @ pipe
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.3**)				
Guardrail (Y/N)	Yes			Damage at NE turn down end.
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		North.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	25			
Scour Protection		X	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	5	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**5**	

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	02-Jan-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Damage to south end with top female bell lip knocked off.
Measured Rise (mm)	2000			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		5	5	Hairline vertical & longit cracks. 1mm wide long cracks at every section East and West sidewall.
Measured Span (mm)	1830			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	[10/13 units have rebar spalls on the floor] June 23 2010. Mostly dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	4	Caulked with foam. Minor infiltration.
Separation (mm)	50			
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)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (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**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	7	Carries water flow to D/S slough.
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		S		South.
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				
Above/Below (mm)	0			
Scour Protection		X	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	5	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		X	X	
Roadway Surface		7	6	
(Type :)				Average 50mm mud
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				
Lighting		X	X	
Barrel Leakage (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Drainage		4	4	Ponds 300mm water
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		**7**	**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 2 W beam sections at NE T.D. Reset 135 degree bracket post.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**71.9/60.0**	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	02-Oct-2013	Previous Inspection Date	22-Jun-2010
Inspection Cycle (Default) (months)	21		
Comment			