Bridge Culvert Inspection

Bridge File Number	73882 -1 Bridge Culvert	Form Type	CULE
Year Built	1952	Lot No.	2
Bridge or Town Name	SUFFIELD	Inspector Name	Tom Carey
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	1:20 R1 33.520;1:20 L1 33.491	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Feb-2012
Legal Land Location	SW SEC 14 TWP 14 RGE 8 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-110:59:51, 50:10:13	Data Entry Date	24-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	26-Feb-2012
Clear Roadway/Skew	25 /	Dept. Reviewer Name	Tim Davies
AADT/Year	8,440 / 2011 (A)	Dept. Review Date	29-Mar-2012
Road Classification	RAD-412.4-120	Follow-Up By	
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	2575	2330	RPE	45.7			ELLIPSE
1	MAIN	1980	1980	BP	16.9			RECTANGLE
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	S & N R/W (fibre optic)	Gas	
Power	North	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	2-damaged sections of guardrail @ NE turndown - still functional
Vertical Alignment		7	7	
Roadway Width (m)	25.000			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **0.9**)				
Guardrail (Y/N)	Yes			One split post at South
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				South end. Benchmark atop SW corner headwall. Ottawa geodetic #68A171
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): 2575, Rise (mm): 2330, Type: RPE**)				
Barrel Last Accessible Date	10-Feb-2012			SPCSP
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	est.
Measured Rise (mm)	2305			Longitudinal seams at roof C/L
Measured At Ring No.	1			
Sag (mm)	25			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2600			
Measured At Ring No.	8			
Deflection (mm)	25			
Percent Deflection	1			
Floor		N	N	Covered with dirt.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): 2575, Rise (mm): 2330, Type: RPE**)				
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	X	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1980, Rise (mm): 1980, Type: BP**)				
Barrel Last Accessible Date	10-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		7	7	Vertical cracks
Measured Span (mm)	1980			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	Covered with dirt.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)				
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): 1980, Rise (mm): 1980, Type: BP**)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	X	
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				North end. SPCSP
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Asphalt at bevel
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		X	X	
Roadway Surface		7	7	
(Type : **SOIL**)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		7	7	
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		**7**	**7**	

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 guardrail post at South				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**76.2/83.0**	Est. Repl. Yr	2020	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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	10-Nov-2013	Previous Inspection Date	15-Jul-2010
Inspection Cycle (Default) (months)	21		
Comment			