Bridge Culvert Inspection

Bridge File Number	77879 -1 Bridge Culvert	Form Type	CUL1
Year Built	1975	Lot No.	4
Bridge or Town Name	STRATHMORE	Inspector Name	Jon Davies
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS B
Located On	1:12 L1 5.366;1:12 R1 5.367	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	27-Feb-2012
Legal Land Location	NW SEC 8 TWP 24 RGE 26 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-113:36:10, 51:02:15	Data Entry Date	21-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA30	Review Date	01-Mar-2012
Clear Roadway/Skew	29 /	Dept. Reviewer Name	Tim Davies
AADT/Year	14,270 / 2010 (A)	Dept. Review Date	22-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	MAIN	-	2134	MP	70	68X13	2.8	ROUND
Special Features		CONC FLOOR						
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	In south ditch.	Gas	
Power	North and South ROW	Municipal	
Others	Fibre optics @ N R/W	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	INTERSECTION 60 m WEST, EBL HAS ACCELERATION LANE FROM WEIGH SCALES. Turning lanes w/b
Vertical Alignment		8	8	
Roadway Width (m)	33.500			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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)	300			
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: MAIN, Span (mm): , Rise (mm): 2134, Type: MP**)				
Barrel Last Accessible Date	27-Feb-2012			
Special Features				
Special Feature		5	N	PR 5 Ice covered Average 300 mm dirt & ice over concrete floor at D/S
(Type : **CONC FLOOR**)				
Special Feature				
(Type :)				
Roof		4	4	Estimated Rating due to deflection
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	176			
Percent Sag	8			
Sidewall		4	4	
Measured Span (mm)	2315			
Measured At Ring No.	5			
Deflection (mm)	176			
Percent Deflection	8			
Floor		N	N	Concrete floor
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	6	
Separation (mm)	20			
Longitudinal Seams		6	6	RIVETED.
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)				
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2134, Type: MP**)				
Coating		5	5	MINOR SUPERFICIAL CORROSION @ D/S CROWN @ SOIL LINE. Superficial @ Haunch
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			THIS IS A POORLY DRAINED AREA AND WATER AND MUD ARE WASHED INTO CULVERT AND CANNOT DRAIN SINCE CULVERT @ LOW POINT. 300mm mud and ice at south end
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	Hwy drainage
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
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)	400			
Scour Protection		7	7	
(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		4	4	
(Type : **SOIL**)				
Icing (Y/N)	Yes			
Traffic Safety Features		X	X	
Type				

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		4	4	400mm deep ice @ D/S D/S INVERT 2.0 m BELOW HILL
Structure In Use (Y/N)	No			GUIDE FENCING DOWN.
Grade Separation General Rating		**4**	**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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**61.3/57.7**	Est. Repl. Yr	2023	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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	27-Nov-2013	Previous Inspection Date	12-Oct-2010
Inspection Cycle (Default) (months)	21		
Comment			