

Bridge Culvert Inspection			
Bridge File Number	07035 -1 Bridge Culvert	Form Type	CUL1
Year Built	1958	Lot No.	1
Bridge or Town Name	MAGRATH	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO POTHOLE CREEK, 2.12.20.2.4, WATERCRS-ST	Inspector Class	BR CLS B
Located On	62:02 C1 40.640	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	04-Oct-2011
Legal Land Location	NW SEC 25 TWP 4 RGE 22 W4M	Data Entry By	Erin Roberts
Longitude, Latitude	-112:51:10, 49:20:00	Data Entry Date	17-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA25	Review Date	10-Nov-2011
Clear Roadway/Skew	10.1 / -35 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	360 / 2010 (A)	Dept. Review Date	21-Nov-2011
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	4		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2320	2560	SPE	51.8	152X51		ELLIPSE
Special Features	VERT TIMBER STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments							
Telephone	WEST DITCH	Gas	100 m SOUTH				
Power	3 WIRE EAST, crosses North	Municipal	Waterline 60m South				
Others		Problem (Y/N)	No				
Remarks							

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	In sag curve, limited sight distance.
Vertical Alignment		5	5	No passing. Farm access 4 corners.
Roadway Width (m)	10.100			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 3.8)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		EAST
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	6	(Asphalt apron 6m long) 2006/12/01
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		6	6	Also lots of vegetation
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		6	6	
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): 2320, Rise (mm): 2560, Type: SPE)				
Barrel Last Accessible Date	04-Oct-2011			
Special Features				
Special Feature		7	6	Struts in R5-R9
(Type : VERT TIMBER STRUTS)				
Special Feature				
(Type :)				
Roof		4	4	SOME ROOF & UPPER SIDEWALL LONGIT SEAMS NOT NESTED TIGHT (UP TO 15 mm GAP U/S.
Measured Rise (mm)	2354			
Measured At Ring No.	11			Confirmed ring 9 rise is 2369mm. Ring 10 rise is 2354mm. Concrete floor exists from ring 11 onwards
Sag (mm)	206			
Percent Sag	8			
Sidewall		2	2	Two cracked seams ring 9.
Measured Span (mm)	2555			
Measured At Ring No.	9			
Deflection (mm)	235			
Percent Deflection	10			
Floor		N	N	(ASPHALT COVERED. FLR REMOVED @ STRUT LOCATION) Jan.16 2009
Bulge (mm)	0			
Measured At Ring No.	9			Partial concrete floor. In poor condition around strut location
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		2	2	Rings 5,6,7,8 have 1 seam cracked. Ring 9 has two seams cracked with 81mm of steel left. No change in dimension of remaining steel. No other seams cracked
Total No. of Cracked Rings	5			
Total No. of Rings with Two Cracked Seams	1			
Min. Remaining Steel Between Cracks (mm)	81			1N stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	Minor isolated superficial corrosion @ Floor by struts Soil corrosion at isolated bolt holes.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2320, Rise (mm): 2560, Type: SPE)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	GR raised 2 points due to struts in good condition & no change in defects
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		WEST
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		4	4	Lack of rock @ haunch areas of d/s. Well vegetated @ sides of 4 bevel.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		4	4	10mx12mx1m deep scour hole Minor scour along North side of bevel haunch
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	Turns 90 deg downstream
Bank Stability		5	5	D/S banks are sloughing and general streambed degradation d/s only
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

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) (%)	51.0/50.9	Est. Repl. Yr	2020	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Pipe appears stable- J.Davies 04-Oct-2011		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	04-Jul-2013		Previous Inspection Date	20-Jan-2010			
Inspection Cycle (Default) (months)	21						
Comment							