

Bridge Culvert Inspection			
Bridge File Number	13313 -1 Bridge Culvert	Form Type	CUL1
Year Built	1978	Lot No.	1
Bridge or Town Name	DRUMHELLER	Inspector Name	Owen Salava
Located Over	FISH CREEK, 3.30.3, WATERCRS-ST	Inspector Class	BR CLS A
Located On	851:02 C1 4.021	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Jan-2011
Legal Land Location	SW SEC 16 TWP 28 RGE 16 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:12:10, 51:23:26	Data Entry Date	03-Mar-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA21	Review Date	03-Feb-2011
Clear Roadway/Skew	8.9 / -10 deg. (LHF)	Dept. Reviewer Name	Chris Black
AADT/Year	60 / 2009 (A)	Dept. Review Date	07-Mar-2011
Road Classification	RCU-208-110	Follow-Up By	
Detour Length (km)	21		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2920	3230	SPE	54.9	152X51	4.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South ditch.	Gas	
Power		Municipal	
Others	Water monitoring station east row	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Grade increase to the East.
Vertical Alignment	7	7	
Roadway Width (m)	8.900		
Embankment	8	8	Starts as 4:1 & flattens out to 6:1.
Sideslope (_ :1)	5.3		
(Height of Cover(m) : 2)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	E		
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		6	6	Inlet twisted 300mm.
Heaving (mm)	250			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	350			
Scour Protection		7	N	(Sparse rock. 18Feb2009). Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
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): 2920, Rise (mm): 3230, Type: SPE)				
Barrel Last Accessible Date	28-Jan-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	5	(R7 span 3010, rise 3065 (mid). R11 span 2965, rise 3100. SW span 2905, rise 3185. Measured 3015 x 3115 @ R4 cracks. 14/10/04).
Measured Rise (mm)	3065			
Measured At Ring No.	7			Not measured due to ice. (5.1%. 14Oct2004)
Sag (mm)	165			
Percent Sag	5			
Sidewall		6	3	Minor abrasion & rust. Wavy throughout. Seam cracks.
Measured Span (mm)	2996			
Measured At Ring No.	9			
Deflection (mm)	76			
Percent Deflection	3			
Floor		N	N	Ice 1m deep.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		4	3	R4 has 5 cracks in bolt holes.
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	83			1N stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	Isolated alkali at upper 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): 2920, Rise (mm): 3230, Type: SPE)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	Outlet twisted 300mm. Corrosion & minor dent along N side.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			Streambed material washed D/S to form dam.
Above/Below (mm)	1000			
Scour Protection		5	N	(Undermined 250 below pipe. 010711). (Riprap good @ sides of pipe. 18Feb2009). (Ponding of water D/S end. Scour - from end of bevel out 25m. Has been filled with rock. 18Feb2009). Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		5	5	GR carried forward from 18Feb2009.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		6	6	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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) (%)	44.4/33.3	Sufficiency Rating (Last/Now) (%)	59.6/54.6	Est. Repl. Yr	2024	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	(Rise 3147,3135,3085,3057,3149,3160 Span 2941,2966,3018,2947,2940. Taken at every 3rd ring. 1997/12/09). Monitor R4 cracks.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2004.05.30 Monitor normal BIM. Culvert should be ok until 2028.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	28-Apr-2014		Previous Inspection Date	18-Feb-2009			
Inspection Cycle (Default) (months)	39						
Comment							