

Bridge Culvert Inspection			
Bridge File Number	71713 -1 Bridge Culvert	Form Type	CUL1
Year Built	1956	Lot No.	1
Bridge or Town Name	MEDICINE HAT	Inspector Name	Tom Carey
Located Over	2ND ORDER TRIBUTARY TO SEVEN PERSONS CK, 2.7.1.1.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	3:16 C1 22.928	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Nov-2011
Legal Land Location	NW SEC 10 TWP 12 RGE 6 W4M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-110:45:12, 49:59:02	Data Entry Date	01-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	23-Nov-2011
Clear Roadway/Skew	13 / 45 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	4,040 / 2010 (A)	Dept. Review Date	06-Dec-2011
Road Classification	RAU-213-130	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	2027	2240	SPE	54.9	152X51	3.5,3.5,3.5	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments							
Telephone	4 wire 100m W. of c.l & 150m S and 4 west 30m east.			Gas	Crosses hwy 75 m south		
Power				Municipal			
Others	Fibre optics in west R/W			Problem (Y/N)	No		
Remarks							

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Local road 75m South of culvert 20 mm wide crack in ACP over west end of pipe.
Vertical Alignment		8	8	
Roadway Width (m)	13.000			
Embankment		7	7	
Sideslope ( :1)	2.5			
(Height of Cover(m) : 3.6)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>8</b>	<b>8</b>	

**Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	Pitted rust on floor.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Grass growing through the rocks
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>200</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE)				
Barrel Last Accessible Date	11-Nov-2011			
<b>Special Features</b>				
Special Feature				Rings from numbered from U/S West
(Type : )				
Special Feature				
(Type : )				
Roof		3	3	Isolated perforations at rings 6 and 7.
Measured Rise (mm)	2190			
Measured At Ring No.	6			
Sag (mm)	50			
Percent Sag	2			
Sidewall		6	6	Start soil corrosion thru boltholes.
Measured Span (mm)	2067			
Measured At Ring No.	6			
Deflection (mm)	40			
Percent Deflection	2			
Floor		N	5	Pitted rust and scaling on 1.0 m strip along floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	(Spring leaking into barrel at 5 o'clock at 1/3 L.)
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	3	1m strip of floor has deep pitting and scaling Isolated corrosion perforations at Ring 4- 20mm x 100mm at roof. Corrosion with pitting at roof at rings 6 and 7 starting to perforate. Corrosion at lower seams.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	
Downstream 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	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	5	Scour below bevel goes back under 1.5m & is 300mm deep along SE haunch- minor Grassed In No problems
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		6	6	BENDS 45 DEG. - 25 m D/S
Bank Stability		7	7	
HWM (m below Top of Culvert)	1.0			(940331)
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>6</b>	<b>6</b>	

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	2020						
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Seal crack in ACP					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>52.3/52.2</b>	Est. Repl. Yr	2020	Maint. Req. (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	11-Aug-2013		Previous Inspection Date	25-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							