Bridge Culvert Inspection

Bridge File Number	75146 -1 Bridge Culvert	Form Type	CUL1
Year Built	1959	Lot No.	4
Bridge or Town Name	MILK RIVER	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO MILK RIVER, 1.16, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	501:06 C1 2.627	Assistant Class	
Water Body Cl./Year		Inspection Date	04-Jun-2012
Navigabil. Cl./Year		Data Entry By	Kelsey Roberts
Legal Land Location	SW SEC 27 TWP 2 RGE 16 W4M	Data Entry Date	23-Jun-2012
Longitude, Latitude	-112:04:01, 49:08:41	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	15-Jun-2012
Contract Main. Area	CMA24	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	8.4 /	Dept. Review Date	29-Jun-2012
AADT/Year	580 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1520	MP	25.3	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South Row	Gas	Crossing 30m West
Power	North Row	Municipal	
Others	Fibre Optic cable North Row	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	CURVE TO WEST Rises to the E
Vertical Alignment		7	7	
Roadway Width (m)	8.400			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				NORTH INVERT
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	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1520, Type: MP**)				
Barrel Last Accessible Date	04-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	
Measured Rise (mm)	1462			
Measured At Ring No.	3			
Sag (mm)	58			
Percent Sag	4			
Sidewall		6	6	
Measured Span (mm)	1587			
Measured At Ring No.	3			
Deflection (mm)	67			
Percent Deflection	4			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	100 mm vertical separation at R3 seam. Minor infiltration at same location.
Separation (mm)	50			
Longitudinal Seams		7	6	Riveted seams
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)	Yes			
Coating		4	4	PITTED RUST ON FLOOR ONLY
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			D/S 1/3 OF PIPE DROPS 500 MM
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1520, Type: MP**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				SOUTH
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	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			HEAVY ROCK AND VEG.
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)	1.0			No HWM visible
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		**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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**61.0/65.7**	Est. Repl. Yr	2020	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	04-Sep-2015	Previous Inspection Date	17-Jun-2009
Inspection Cycle (Default) (months)	39		
Comment			