Bridge Culvert Inspection

Bridge File Number	70599 -1 Bridge Culvert	Form Type	CUL1
Year Built	1963	Lot No.	4
Bridge or Town Name	DIDSBURY	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO DOGPOUND CREEK, 3.89.8.4, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	766:06 C1 4.802	Assistant Class	
Water Body Cl./Year		Inspection Date	15-Feb-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 35 TWP 31 RGE 3 W5M	Data Entry Date	08-Mar-2012
Longitude, Latitude	-114:19:57, 51:42:26	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	29-Feb-2012
Contract Main. Area	CMA29	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	7.1 /	Dept. Review Date	09-Mar-2012
AADT/Year	140 / 2010 (A)	Follow-Up By	
Road Classification	RCU-208-110		
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	-	1524	MP	20.7	68X13	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch.	Gas	
Power	2 wires OH East ditch.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Intersection 40m North. Uphill grade to South.
Vertical Alignment		7	7	
Roadway Width (m)	7.800			
Embankment		8	N	Snow covered.
Sideslope (__:1)	2.5			
(Height of Cover(m) : **1.1**)				
Guardrail (Y/N)	Yes			
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		4	N	(Bevel heaved causing piping - photo. 28Sep2009).
Heaving (mm)	150			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		4	N	(Insufficient due to piping under bevel. 28Sep2009).
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		4	N	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	GR carried forward from 28Sep2009.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
Barrel Last Accessible Date	15-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	5	Rise at E end=1465=35mm Rise at Midpipe=1415=85mm=5.6% Rise at W end=1429=71mm
Measured Rise (mm)	1415			
Measured At Ring No.				
Sag (mm)	85			5.6%
Percent Sag	6			
Sidewall		5	5	Span at E end=1542=42mm Span at Midpipe=1611=111mm=7.3% Span at W end=1574=74mm
Measured Span (mm)	1611			
Measured At Ring No.				
Deflection (mm)	111			7.3%
Percent Deflection	7			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	6	
Separation (mm)	100			
Longitudinal Seams		7	7	Riveted.
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		4	4	Some pitting & light scaling @ haunches.
Corrosion By Soil (Y/N)	No			
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): , Rise (mm): 1524, Type: MP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**5**	

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	N	
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	75			
Scour Protection		5	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**N**	GR was 5 from 28Sep2009 - scour & erosion.

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)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Grassed in, not visible.
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) (%)	**44.4/55.6**	**Sufficiency Rating (Last/Now) (%)**	**58.0/63.1**	Est. Repl. Yr	2021	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection		Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy	2006.07.28 With normal maintenance culvert should be good until 2023.				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Dave Lam	Previous Assistant's Name			
Next Inspection Date	15-May-2015	Previous Inspection Date	28-Sep-2009		
Inspection Cycle (Default) (months)	39				
Comment					