Bridge Culvert Inspection

Bridge File Number	76711 -1 Bridge Culvert	Form Type	CULE
Year Built	1967	Lot No.	4
Bridge or Town Name	GROUARD	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO SALT CREEK, 8.11.80.54.1.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Lisbeth Medina
Located On	679:06 C1 23.985	Assistant Class	
Water Body Cl./Year		Inspection Date	02-Dec-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 29 TWP 76 RGE 14 W5M	Data Entry Date	03-Jan-2011
Longitude, Latitude	-116:08:37, 55:36:35	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	20-Dec-2010
Contract Main. Area	CMA06	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	11 /	Dept. Review Date	31-Mar-2011
AADT/Year	140 / 2009 (A)	Follow-Up By	
Road Classification	RCU-210-110		
Detour Length (km)	25		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2400	MP	10.5	125X26	2.8	ROUND
1	MAIN	-	2100	SP	23.6	152X51	3.0	ROUND
1	D/S	-	2400	MP	8	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	2 wires o/h approx 20m North from cl	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve to the west.
Vertical Alignment		7	7	
Roadway Width (m)	11.000			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		(North)
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		7	7	Construction dent at 9 o'clock.
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
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: U/S, Span (mm): , Rise (mm): 2400, Type: MP**)				
Barrel Last Accessible Date	02-Dec-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Measurements not taken due to ice on floor.
Measured Rise (mm)	2480			@cl-JUly 25, 2007
Measured At Ring No.				
Sag (mm)	80			
Percent Sag	3			
Sidewall		8	8	
Measured Span (mm)	2335			at C.L.
Measured At Ring No.				deflection inward.
Deflection (mm)	65			
Percent Deflection	3			
Floor		8	N	Under ice
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)				
Longitudinal Seams		X	X	
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		7	7	Minor superficial rust.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2400, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**8**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2100, Type: SP**)				
Barrel Last Accessible Date	02-Dec-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2094			Measurements not taken due to ice on floor.
Measured At Ring No.	6			
Sag (mm)	6			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2189			
Measured At Ring No.	6			
Deflection (mm)	89			
Percent Deflection	5			
Floor		7	N	Floor under ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)				
Longitudinal Seams		7	7	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Superficial rust.
Corrosion By Soil (Y/N)	Yes			Alkaline stains through roof bolts.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2100, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		(South)
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
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)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**7**	

Structure Usage				
		Last	Now	Explanation of Condition

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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**75.4/75.4**	Est. Repl. Yr	2017	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	Brian Pientsch	Previous Assistant's Name	Tim Miskiman
Next Inspection Date	02-Mar-2014	Previous Inspection Date	25-Jul-2007
Inspection Cycle (Default) (months)	39		
Comment			