Bridge Culvert Inspection

Bridge File Number	77407 -1 Bridge Culvert	Form Type	CUL1
Year Built	1967	Lot No.	4
Bridge or Town Name	ROSEMARY	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO MATZHIWIN CREEK, 3.15.5, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	550:02 C1 16.970	Assistant Class	
Water Body Cl./Year		Inspection Date	24-Oct-2010
Navigabil. Cl./Year		Data Entry By	Alyssa Boynton
Legal Land Location	SW SEC 16 TWP 21 RGE 16 W4M	Data Entry Date	10-Dec-2010
Longitude, Latitude	-112:10:06, 50:46:33	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	07-Nov-2010
Contract Main. Area	CMA23	Dept. Reviewer Name	Lorenz Bohnert
Clear Roadway/Skew	9.6 / -30 deg. (LHF)	Dept. Review Date	13-Dec-2010
AADT/Year	760 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
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	2159	1372	FP	20.1		4.2	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	SOUTH DITCH	Gas	
Power	3 WIRE - NORTH DITCH	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	7	INT 300m west
Vertical Alignment		9	8	
Roadway Width (m)	9.600			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
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)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		6	6	
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): 2159, Rise (mm): 1372, Type: FP**)				
Barrel Last Accessible Date	24-Oct-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	4	Rise measured 1045 at R3 + approx 200mm bulge
Measured Rise (mm)	1245			
Measured At Ring No.	3			
Sag (mm)	127			
Percent Sag	9			
Sidewall		5	5	
Measured Span (mm)	2281			
Measured At Ring No.	3			
Deflection (mm)	122			
Percent Deflection	6			
Floor		4	4	Floor bulge not @ least rise measurement
Bulge (mm)	260			
Measured At Ring No.	3			
Abrasion (Y/N)	No			
Circumferential Seams		4	4	SEAM PARTIALLY SEPARATED 10m D/S ON WEST WALL.
Separation (mm)	120			
Longitudinal Seams		5	5	Rivetted MP.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	CORROSION WITH PITTING.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2159, Rise (mm): 1372, Type: FP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	@ u/s end follows road then curves 60 deg into pipe
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)	**55.6/44.4**	**Sufficiency Rating (Last/Now) (%)**	**64.6/59.7**	Est. Repl. Yr	2015	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	Tim Davies	Previous Assistant's Name	
Next Inspection Date	24-Jan-2014	Previous Inspection Date	29-Jan-2007
Inspection Cycle (Default) (months)	39		
Comment			