Bridge Culvert Inspection

Bridge File Number	73460 -1 Bridge Culvert	Form Type	CUL1
Year Built	1961	Lot No.	2
Bridge or Town Name	MEANDER RIVE	Inspector Name	Brian Pientsch
Located Over	SAMS CREEK, 9.3.4, WATERCRS-ST	Inspector Class	BR CLS A
Located On	35:20 C1 7.607	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Jan-2012
Legal Land Location	NW SEC 35 TWP 122 RGE 19 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:09:48, 59:38:32	Data Entry Date	28-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA01	Review Date	26-Feb-2012
Clear Roadway/Skew	10.7 / 15 deg. (RHF)	Dept. Reviewer Name	David Morrison
AADT/Year	370 / 2011 (A)	Dept. Review Date	30-Mar-2012
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	999		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2134	SP	41.1	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		8	8	
Roadway Width (m)	10.700			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.9**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		5	5	
Heaving (mm)	300			
Invert Above/Below Stream Bed				Bevel under water/ice.
Above/Below (mm)	0			
Scour Protection		5	N	Snow covered
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		5	N	
Beavers (Y/N)	Yes			Dam 2m u/s under snow, can hear water.
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): 2134, Type: SP**)				
Barrel Last Accessible Date	10-Jan-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	60mm construction tear-ring1 at 11 o'clock. Rings 1 & 2.
Measured Rise (mm)	2180			Measurements not taken due to ice on floor.
Measured At Ring No.				
Sag (mm)	46			
Percent Sag	2			
Sidewall		7	7	
Measured Span (mm)	2065			Taken @ CL.
Measured At Ring No.				
Deflection (mm)	69			
Percent Deflection	3			
Floor		N	N	1.192 crown to ice
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	5	Loose nut @ ring 5.
Separation (mm)				
Longitudinal Seams		N	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	6	Pitting rust lower 1/2 culvert.
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): , Rise (mm): 2134, Type: SP**)				
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		**N**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		Ice 1.0m below crown.
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	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	N	End of bevel under water/ice.
(Type : **RIP RAP**)				Snow covered.
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	U/S CHANNEL ENTERING AT 60 degrees
Bank Stability		7	7	
HWM (m below Top of Culvert)				Hwm not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable. U/S channel. Not visible
Beavers (Y/N)	Yes			
(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	2012	Remove u/s beaverdam.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**60.1/65.6**	Est. Repl. Yr	2016	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor corrosion -22-Nov-2006	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	Lisbeth Medina		
Next Inspection Date	10-Oct-2013	Previous Inspection Date	26-May-2010		
Inspection Cycle (Default) (months)	21				
Comment					