Bridge Culvert Inspection

Bridge File Number	75906 S-1 Bridge Culvert	Form Type	CUL1
Year Built	1989	Lot No.	4
Bridge or Town Name	WANDERING RIVER	Inspector Name	Eric Carcoux
Located Over	TRIBUTARY TO HOUSE RIVER, 8.11.47.4, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	63:04 C1 43.362	Assistant Class	
Water Body Cl./Year		Inspection Date	13-Jan-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 36 TWP 76 RGE 15 W4M	Data Entry Date	17-Jan-2012
Longitude, Latitude	-112:11:41, 55:37:26	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	16-Jan-2012
Contract Main. Area	CMA07	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	13.4 / -15 deg. (LHF)	Dept. Review Date	18-Jan-2012
AADT/Year	3,800 / 2010 (A)	Follow-Up By	
Road Classification	RAU-213.4-120		
Detour Length (km)	250		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	4610	SP	116.4	152X51	7.0	ROUND
Special Features		FLOOR ABR PLATES						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	In gradual sag curve with no passing up hills. East sideslope benched approx 6m.
Vertical Alignment		7	7	
Roadway Width (m)	13.400			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **13.9**)				
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)	CONCRETE			
Headwall		4	4	Cracked.
Collar		4	4	Random transverse cracks, typical.
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		7	7	Ice covered-no evident problems
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		6	6	Snow ocvered - no evident problems
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4610, Type: SP**)				
Barrel Last Accessible Date	06-Mar-2010			Barrel 1/4 to 1/2 filled with ice.
Special Features				
Special Feature		N	N	
(Type : **FLOOR ABR PLATES**)				
Special Feature				
(Type :)				
Roof		5	5	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	250			(5.4%. 01/07/13)
Percent Sag	5			
Sidewall		5	5	
Measured Span (mm)	4844			
Measured At Ring No.	9			
Deflection (mm)	234			
Percent Deflection	5			
Floor		N	N	Ice covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N stagger
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust visible above ice.
Corrosion By Soil (Y/N)	Yes			
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): 4610, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		N	N	
(Type :)				
Waterway Adequacy		7	7	(Iced to within 1400 mm of crown - photo. 96/02/08)
Icing (Y/N)	No			Appears to be a spring @ d/s end - ice color is light brown.
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	
Collar		5	5	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	(Rebar visible & seperation between shoulder and wall on both sides. 16/Aug/2006)
Bevel End		N	N	Buried in ice .
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1100			
Scour Protection		N	N	(SW corner geotextile fabric visible, no rock left - photo. 16/Aug/2006) Snow covered .
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	GR carried forward from 16-Aug-2006

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			Dam u/s
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**6**	

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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**57.2/56.6**	Est. Repl. Yr	2030	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	Wade Nanninga	Previous Assistant's Name	
Next Inspection Date	13-Oct-2013	Previous Inspection Date	10-Mar-2010
Inspection Cycle (Default) (months)	21		
Comment			