Bridge Culvert Inspection

Bridge File Number	80895 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	4
Bridge or Town Name	CONKLIN	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO CHRISTINA RIVER, 8.11.39.4.10, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	881:22 C1 8.753	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Sep-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 31 TWP 77 RGE 7 W4M	Data Entry Date	21-Sep-2010
Longitude, Latitude	-111:04:19, 55:42:43	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	16-Sep-2010
Contract Main. Area	CMA07	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	10 / -30 deg. (LHF)	Dept. Review Date	05-Oct-2010
AADT/Year	790 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
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	2314	2552	SPE	44.5	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	Fibre optic West r/w.	Problem (Y/N)	No
Remarks	File tag installed on top of East end roof.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Roadway superelevated across pipe in horizontal curve. No passing both directions.
Vertical Alignment		7	7	
Roadway Width (m)	10.000			
Embankment		5	5	Ditch erosion on NE slope, well vegetated. Minor sloughing of slope on north side of inlet - stabilized.
Sideslope (__:1)	1.0			
(Height of Cover(m) : **4.7**)				Over outlet-2:1 otherwise
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

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 :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE**)				
Barrel Last Accessible Date	13-Jun-2007			Water 1000mm deep, viewed from ends- pipe looks to be in good shape.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	2474			At c/l.
Measured At Ring No.				
Sag (mm)	78			
Percent Sag	3			
Sidewall		6	6	
Measured Span (mm)	2402			At c/l.
Measured At Ring No.				
Deflection (mm)	88			
Percent Deflection	4			
Floor		N	N	Floor has 300 mm to 600 mm of mud.-13-Jun-2007
Bulge (mm)	0			Minor, from rocks flowing through.-13-Jun-2007
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		8	N	
Separation (mm)	0			
Longitudinal Seams		7	N	Unable to see bottom row of longitudinal seams due to depth of water.
Total No. of Cracked Rings	0			
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	5	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE**)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	(98/12/17)
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**N**	Previous rating '6' 13-Jun-2007

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		8	8	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		5	5	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	Deadfall in channel.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		**6**	**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) (%)	**66.7/55.6**	**Sufficiency Rating (Last/Now) (%)**	**74.2/63.4**	Est. Repl. Yr	2034	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor channel NE ditch erosion.	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	Dave Lam	Previous Assistant's Name			
Next Inspection Date	09-Dec-2013	Previous Inspection Date	13-Jun-2007		
Inspection Cycle (Default) (months)	39				
Comment					