Bridge Culvert Inspection

Bridge File Number	00511 -1 Bridge Culvert	Form Type	CUL1
Year Built	1974	Lot No.	2
Bridge or Town Name	EDSON	Inspector Name	Todd Warshawski
Located Over	2ND ORDER TRIBUTARY TO EDSON RIVER, 8.11.107.25.1.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	16:06 R1 12.387;16:06 L1 12.387	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 23 TWP 53 RGE 17 W5M	Data Entry Date	27-Aug-2012
Longitude, Latitude	-116:24:09, 53:35:05	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	21-Aug-2012
Contract Main. Area	CMA13	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	30.8 / 24 deg. (RHF)	Dept. Review Date	30-Aug-2012
AADT/Year	8,250 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	123.8	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North & south r/w.	Gas	Between service road and west lanes.
Power		Municipal	
Others	Lighting - north & south	Problem (Y/N)	No
Remarks	File tag U/S end.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Hwy curves to the north 100 m west.
Vertical Alignment		7	7	
Roadway Width (m)	20.400			EBL & WBL 10.4m. Service road 10m.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **4.3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	5	
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	4	Scour along bevel.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	4	Bevel undermined for 1m.
Beavers (Y/N)	Yes			
Upstream End General Rating		**7**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE**)				
Barrel Last Accessible Date	10-Dec-1992			Only accessible to R5 from u/s.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	50			
Percent Sag				
Sidewall		N	N	(Damage to East sidewall 2nd ring from North end.
Measured Span (mm)	2068			
Measured At Ring No.	20			
Deflection (mm)	49			
Percent Deflection	2			
Floor		N	N	(Damage 1/3 from U/S end. 100 x 100 holes, 2x silt covered floor. 20/July/2005)
Bulge (mm)				
Measured At Ring No.				Under water/rock
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	(Extension lapped correctly. No longitudinal stagger on North end - 1992/12/10)
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)	Yes			
Coating		N	N	Corrosion noted at upper seam bolts.
Corrosion By Soil (Y/N)	Yes			
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): 2019, Rise (mm): 2226, Type: SPE**)				
Fish Passage Adequacy		5	5	
Baffle		N	X	
(Type :)				
Waterway Adequacy		4	4	(1992/12/10) D/S end buried in ice.
Icing (Y/N)	Yes			
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		**4**	**4**	General rating carried forward from 2005

Downstream 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	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		5	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
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	Sharp turns at outlet.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	AGGRADING			Silt buildup in d/s channel.
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	2012	10m3 CL2 at inlet.				
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2012	Dewater, for full inspection.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**48.0/45.1**	Est. Repl. Yr	2030	Maint. Reqd. (Y/N)	Yes

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	Todd Warshawski	Previous Assistant's Name			
Next Inspection Date	09-May-2014	Previous Inspection Date	27-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					