Bridge Culvert Inspection

Bridge File Number	80787 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	2
Bridge or Town Name	NEERLANDIA	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO SHOAL CREEK, 8.11.84.12.4, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	661:04 C1 7.785	Assistant Class	
Water Body Cl./Year		Inspection Date	27-May-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 17 TWP 62 RGE 2 W5M	Data Entry Date	21-Jun-2010
Longitude, Latitude	-114:15:26, 54:21:21	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	03-Jun-2010
Contract Main. Area	CMA10	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	10.5 / 35 deg. (RHF)	Dept. Review Date	29-Jun-2010
AADT/Year	160 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209G-90		
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	3300	2110	SPE	37.8	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 line, North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to East. Field access to West.
Vertical Alignment		8	8	
Roadway Width (m)	10.500			
Embankment		N	7	
Sideslope (__:1)	3.5			
(Height of Cover(m) : **1.1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		Tagged on top of bevel.
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	6	1m deep silt in bevel.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	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): 3300, Rise (mm): 2110, Type: SPE**)				
Barrel Last Accessible Date	23-Jan-2004			Water level to high. iewed from ends.
Special Features				
Special Feature				Shape and condition appears ok.
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)	2010			
Measured At Ring No.	5			
Sag (mm)	100			
Percent Sag	5			
Sidewall		N	N	
Measured Span (mm)	3382			
Measured At Ring No.	5			
Deflection (mm)	142			
Percent Deflection	4			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	(Some gaps a resting R3 roof. Under water. 23/Jan/2004)
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		N	6	Top 1/2 rated.
Corrosion By Soil (Y/N)				
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): 3300, Rise (mm): 2110, Type: SPE**)				
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type :)				
Waterway Adequacy		N	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	(G.R. carried forward from 23/Jan/2004).

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		N	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	5	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	4	Scour hole from ditch culvert West of outlet. 2mx4mx1m-photo
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	Drainage channel.
Bank Stability		8	7	
HWM (m below Top of Culvert)				HWm not visible.
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		**7**	**7**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2010	10m3 at outlet and ditch.				
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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**70.8/53.7**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor deflections.	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	27-Aug-2013	Previous Inspection Date	02-Mar-2007		
Inspection Cycle (Default) (months)	39				
Comment					