Bridge Culvert Inspection

Bridge File Number	79554 -1 Bridge Culvert	Form Type	CULE
Year Built	1983	Lot No.	2
Bridge or Town Name	WORSLEY	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO PEACE RIVER, 8.10.87, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	64:02 C1 52.723	Assistant Class	
Water Body Cl./Year		Inspection Date	03-Nov-2011
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	SE SEC 17 TWP 85 RGE 8 W6M	Data Entry Date	16-Dec-2011
Longitude, Latitude	-119:12:60, 56:21:49	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	12-Dec-2011
Contract Main. Area	CMA04	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	9.2 / 58 deg. (RHF)	Dept. Review Date	11-Jan-2012
AADT/Year	420 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	67		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2120	SP	34.5	152X51	3.0	ROUND
1	MAIN	1724	1901	SPE	203	152X51	3.0,4.0	ELLIPSE
1	D/S	-	2120	SP	43.1	152X51	3.0	ROUND
1	D/S	-	2120	SP	17.8			ROUND

Special Features	BARREL ELBOW
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	South of highway - buries	Gas	
Power	North of highway OH	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 100m east.
Vertical Alignment		8	8	
Roadway Width (m)	9.200			
Embankment		2	8	
Sideslope (__:1)	3.5			
(Height of Cover(m) : **16**)				
Guardrail (Y/N)	Yes			40m damaged on south side - photo
Approach Road / Embankment General Rating		**2**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	9	
Collar		X	9	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	N	
Bevel End		5	9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	450			
Scour Protection		5	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		5	7	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP**)				
Barrel Last Accessible Date	04-Nov-2011			
Special Features				
Special Feature			8	SPCSP extension with elbow at u/s end
(Type : **BARREL ELBOW**)				Bends 45 deg. at ring 16
Special Feature				
(Type :)				
Roof			8	
Measured Rise (mm)	2119			
Measured At Ring No.	10			
Sag (mm)	125			
Percent Sag	0			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP**)				
Sidewall			8	
Measured Span (mm)	2123			
Measured At Ring No.	10			
Deflection (mm)	30			
Percent Deflection	0			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP**)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP**)				
Floor			8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams			8	
Separation (mm)				
Longitudinal Seams			8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating			8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG				
Ponding (Y/N)				
Fish Passage Adequacy			4	
Baffle			X	
(Type :)				
Waterway Adequacy			7	
Icing (Y/N)				
Silting (Y/N)				
Drift (Y/N)				
Barrel Extension General Rating			**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE**)				
Barrel Last Accessible Date	04-Nov-2011			
Special Features				
Special Feature		7	6	Main CSP with elbow at d/s end Bend 25 deg.@ ring 57
(Type : **BARREL ELBOW**)				
Special Feature				
(Type :)				
Roof		7	6	
Measured Rise (mm)	1904			
Measured At Ring No.	43			
Sag (mm)				
Percent Sag				
Sidewall		4	6	
Measured Span (mm)	1748			
Measured At Ring No.	43			
Deflection (mm)				
Percent Deflection				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE**)				
Floor		5	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	6	
Separation (mm)	0			
Longitudinal Seams		7	6	
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		4	5	Pitting rust along floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			N 500mm
Ponding (Y/N)	No			
Fish Passage Adequacy		X	7	Not fish bearing.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**2**	

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		2	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		3	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **600**)				
Scour/Erosion		3	8	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Beavers (Y/N)	No			
Downstream End General Rating		**3**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		2	7	
Bank Stability		2	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**2**	**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	Repair damaged guardrail				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/22.2**	**Sufficiency Rating (Last/Now) (%)**	**29.1/42.5**	Est. Repl. Yr	2040	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	03-Aug-2013	Previous Inspection Date	08-Oct-2009		
Inspection Cycle (Default) (months)	21				
Comment					