Bridge Culvert Inspection

Bridge File Number	72872 -2 Bridge Culvert	Form Type	CUL1
Year Built	2009	Lot No.	2
Bridge or Town Name	WOKING	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO SADDLE RIVER, 8.10.72.17.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	677:02 C1 11.471	Assistant Class	
Water Body Cl./Year		Inspection Date	05-Mar-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 16 TWP 76 RGE 6 W6M	Data Entry Date	02-Apr-2012
Longitude, Latitude	-118:51:16, 55:35:01	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	27-Mar-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	12 / 42 deg. (RHF)	Dept. Review Date	29-Aug-2012
AADT/Year	190 / 2011 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	49		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3360	SP	91.44	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Line above ground in East ditch.	Gas	
Power	O/H 2 wire East r/w ditch.	Municipal	
Others		Problem (Y/N)	Yes
Remarks	Bury Telus line.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve over centerline of pipe.
Vertical Alignment		8	8	
Roadway Width (m)	12.000			
Embankment		9	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **6.3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	9	
Collar		9	9	
Wingwalls		9	X	
(Shape :)				
Cutoff Wall		9	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		9	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	2040			
Scour Protection		9	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Barrel Last Accessible Date	05-Mar-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	9	Measurements taken during construction on 24-Sep-2009 with 0.3m backfill over culvert.
Measured Rise (mm)	3374			
Measured At Ring No.	7			Ice on floor to roof 3084mm.
Sag (mm)	14			
Percent Sag	1			
Sidewall		9	9	
Measured Span (mm)	3370			
Measured At Ring No.	12			
Deflection (mm)	10			
Percent Deflection				
Floor		9	N	300mm ice
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)				
Longitudinal Seams		9	9	2N
Total No. of Cracked Rings				
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		9	9	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**9**	**9**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		9	X	
Collar		9	X	
Wingwalls		9	X	
(Shape :)				
Cutoff Wall		9	X	
Bevel End		9	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1230			
Scour Protection		9	4	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		9	4	Erosion above pipe 7m x 3m x 1m deep. Material falling in pipe.-photo
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		9	8	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable
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						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2012	Repair slump @ d/s end.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**100.0/100.0**	**Sufficiency Rating (Last/Now) (%)**	**98.5/92.9**	Est. Repl. Yr	2070	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	Russel Vanderschaaf	Previous Assistant's Name	
Next Inspection Date	05-Jun-2015	Previous Inspection Date	28-Jun-2010
Inspection Cycle (Default) (months)	39		
Comment			