Bridge Culvert Inspection

Bridge File Number	09211 -2 Bridge Culvert	Form Type	CUL1
Year Built	2005	Lot No.	4
Bridge or Town Name	SANGUDO	Inspector Name	Kris Bosters
Located Over	TRIBUTARY TO PEMBINA RIVER, 8.11.84.44, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	757:02 C1 31.958	Assistant Class	
Water Body Cl./Year		Inspection Date	20-Jul-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 30 TWP 56 RGE 6 W5M	Data Entry Date	15-Aug-2012
Longitude, Latitude	-114:53:40, 53:51:39	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	06-Aug-2012
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	9.6 / 12 deg. (RHF)	Dept. Review Date	16-Aug-2012
AADT/Year	1,060 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
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	-	3990	SP	102.41	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East r/w.	Gas	
Power	2 lines OH West r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	No file tag.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Entrance at SE. Slight sag.
Vertical Alignment		8	8	
Roadway Width (m)	9.000			
Embankment		N	8	
Sideslope (__:1)	3.4			
(Height of Cover(m) : **11.7**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

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

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1500			
Scour Protection		N	5	Rock all settled about 1.0m at NE corner.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		N	9	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3990, Type: SP**)				
Barrel Last Accessible Date	20-Jul-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Rocks on floor approx 200 dia U/S.
Measured Rise (mm)	3926			
Measured At Ring No.	13			
Sag (mm)	64			
Percent Sag	2			
Sidewall		8	8	U/S - 4011mm. Ring 13 - 3936mm. Small dent at R2 10 o'clock
Measured Span (mm)	4011			
Measured At Ring No.	1			
Deflection (mm)	15			
Percent Deflection	0			
Floor		9	9	
Bulge (mm)	0			
Measured At Ring No.	13			
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)	0			
Longitudinal Seams		9	9	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				2N
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	NEG			
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): 3990, Type: SP**)				
Fish Passage Adequacy		9	9	
Baffle		9	9	
(Type : **WEIR**)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		N	9	
Collar		N	9	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	9	
Bevel End		N	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	9	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	9	
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		N	8	
HWM (m below Top of Culvert)				
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/88.9**	**Sufficiency Rating (Last/Now) (%)**	**92.7/91.6**	Est. Repl. Yr	2055	Maint. Reqd. (Y/N)	No

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	Jacob Oresile	Previous Assistant's Name			
Next Inspection Date	20-Oct-2015	Previous Inspection Date	29-Jan-2009		
Inspection Cycle (Default) (months)	39				
Comment					