Bridge Culvert Inspection

Bridge File Number	84513 -1 Bridge Culvert	Form Type	CULM
Year Built	2002	Lot No.	4
Bridge or Town Name	ENV IRRIGATION CANAL STRUCTURE ON PROVINCIAL HIGHWAY 527 NEA	Inspector Name	Garry Roberts
		Inspector Class	BR CLS A
Located Over	ENV - PINE COULEE, WATERCRS-IC	Assistant Name	
Located On	527:02 C1 1.129	Assistant Class	
Water Body Cl./Year		Inspection Date	22-May-2010
Navigabil. Cl./Year		Data Entry By	Alyssa Boynton
Legal Land Location	SE SEC 32 TWP 13 RGE 28 W4M	Data Entry Date	17-Aug-2010
Longitude, Latitude	-113:46:43, 50:07:41	Reviewer Name	Ash Morjaria
Road Authority	Alberta Transportation (AIT)	Review Date	28-May-2010
Contract Main. Area	CMA26	Dept. Reviewer Name	Lorenz Bohnert
Clear Roadway/Skew	9.1 / 30 deg. (RHF)	Dept. Review Date	18-Aug-2010
AADT/Year	490 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)			

Bridge Culvert Information

Number of Culverts		3						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2400	SP	33	152X51	3.5	ROUND
2	MAIN	-	2400	SP	33	152X51	3.5	ROUND
3	MAIN	-	2400	SP	33	152X51	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South Row	Gas	
Power	North row	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment			6	Curve West
Vertical Alignment			7	
Roadway Width (m)	10.000			
Embankment			8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	Yes			Cable/Post system
Approach Road / Embankment General Rating			**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Direction		N		West Pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			7	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection			8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion			8	
Beavers (Y/N)	No			
Upstream End General Rating			**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP**)				
Barrel Last Accessible Date	22-May-2010			West Pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			7	Barrel entered 1/2 way from U/S Est
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall			8	
Measured Span (mm)	2413			
Measured At Ring No.	1			
Deflection (mm)				
Percent Deflection				
Floor			N	800mm water flowing
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			8	
Separation (mm)	0			
Longitudinal Seams			7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP**)				
Coating			7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG				
Ponding (Y/N)	No			
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP**)				
Barrel Last Accessible Date	22-May-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall			7	
Measured Span (mm)	2433			EST Barrel entered from U/S 1/2
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor			N	800mm of flowing water
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			8	
Separation (mm)	0			
Longitudinal Seams			7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP**)				
Coating			7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP**)				
Barrel Last Accessible Date	22-May-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			7	
Measured Rise (mm)				EST Barrel entered from U/S half
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall			7	
Measured Span (mm)	2433			
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor			N	800mm flowing water
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			8	
Separation (mm)	0			
Longitudinal Seams			7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP**)				
Coating			7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Span Type:**)				
Direction		S		Middle Pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection			8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion			8	
Beavers (Y/N)				
Downstream End General Rating			**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment			6	Bend U/S channel
Bank Stability			8	
HWM (m below Top of Culvert)				No visable HWM
Drift (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating			**6**	

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) (%)	**/77.8**	**Sufficiency Rating (Last/Now) (%)**	**/74.4**	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		Previous Assistant's Name			
Next Inspection Date	22-Aug-2013	Previous Inspection Date			
Inspection Cycle (Default) (months)	39				
Comment					