

Bridge Culvert Inspection			
Bridge File Number	75069 -1 Bridge Culvert	Form Type	CUL1
Year Built	1993	Lot No.	4
Bridge or Town Name	RANIER	Inspector Name	Jon Davies
Located Over	EID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	36:06 C1 18.792	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Jan-2012
Legal Land Location	NW SEC 33 TWP 16 RGE 15 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-112:01:04, 50:23:26	Data Entry Date	25-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	20-Jan-2012
Clear Roadway/Skew	11.3 / 20 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	1,780 / 2010 (A)	Dept. Review Date	11-Mar-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	6287	3888	RPE	40.8	152X51	4.0	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	W R/W	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Fibre optic west ditch		

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		9	9	
Roadway Width (m)	11.300			
Embankment		8	6	4:1 @ W
Sideslope ( _ :1)	3.0			
(Height of Cover(m) : 1.4)				
Guardrail (Y/N)	Yes			2 LAYERS
<b>Approach Road / Embankment General Rating</b>		<b>9</b>	<b>9</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	6	
Collar		9	7	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	buried

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		6	6	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>450</b> )				
Scour/Erosion		6	5	Minor slope instability at SW
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 6287, Rise (mm): 3888, Type: RPE)				
Barrel Last Accessible Date	11-Jan-2012			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	
Measured Rise (mm)	3183			Estimate
Measured At Ring No.	5			
Sag (mm)	100			
Percent Sag	2			
Sidewall		N	7	
Measured Span (mm)	6393			
Measured At Ring No.	6			
Deflection (mm)	106			
Percent Deflection	2			
Floor		N	N	Ice covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		N	7	
Total No. of Cracked Rings	0			3N stagger at roof
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		N	N	(Corrosion with some pitting on the floor 2002/10/06) Efflorescence visible at 25% of roof
Corrosion By Soil (Y/N)	Yes			
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): 6287, Rise (mm): 3888, Type: RPE)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		9	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>N</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	7	
Collar		6	5	2.0 to 10.0 mm wide cracks- 3 at North and 1 at South
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 350)				
Scour/Erosion		8	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		8	7	Rocks placed across channel 10 m u/s of bevel.
Bank Stability		5	5	Starting to scour at 8m long section at SE
HWM (m below Top of Culvert)	2.6			Drop structure 100m U/S
Drift (Y/N)	No			No visible HWM
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>8</b>	<b>7</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>72.4/72.7</b>	Est. Repl. Yr	2042	Maint. Req. (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	Tom Carey		Previous Assistant's Name				
Next Inspection Date	11-Oct-2013		Previous Inspection Date	22-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							