

Bridge Culvert Inspection				
Bridge File Number	06723 -1 Bridge Culvert		Form Type	CUL1
Year Built	1982		Lot No.	1
Bridge or Town Name	WARNER		Inspector Name	Jon Davies
Located Over	SMR - IRRIGATION C, WATERCRS-IC		Inspector Class	BR CLS B
Located On	36:02 C1 7.456		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	06-Dec-2011
Legal Land Location	NW SEC 35 TWP 4 RGE 17 W4M		Data Entry By	Anne Roberts
Longitude, Latitude	-112:12:10, 49:20:49		Data Entry Date	14-Jan-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA24		Review Date	18-Dec-2011
Clear Roadway/Skew	11.3 /		Dept. Reviewer Name	Tim Davies
AADT/Year	540 / 2010 (A)		Dept. Review Date	18-Jan-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	10			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	1600	MP	58.6	68X13		ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	West R/W	Gas	
Power	3 WIRE POWER EAST ROW	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	8	7	Hill 350 m to the south.
Vertical Alignment	6	6	
Roadway Width (m)	11.300		
Embankment	8	7	Level over pipe at u/s.
Sideslope (___:1)	6.0		
(Height of Cover(m) : 1.1)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

**Upstream End**

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

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>150</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1</b> , Primary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>1600</b> , Type: <b>MP</b> )				
Barrel Last Accessible Date	06-Dec-2011			
Special Features				
Special Feature				1350 steel liner grouted in. Steel liner starts 3.4m from the west end and ends 21.7m from the east end.
(Type : )				
Special Feature				1350mm Diameter throughout liner
(Type : )				
Roof		3	3	2nd Ring from D/S Isolated perforations in roof up to 10 mm in diameter d/s of liner  Up ward
Measured Rise (mm)	1605			
Measured At Ring No.	10			
Sag (mm)	5			
Percent Sag	1			
Sidewall		3	3	Inward 2nd ring from D/S Isolated perforatons in sidewall up to 10 mm in diameter, d/s of liner.
Measured Span (mm)	1550			
Measured At Ring No.	10			
Deflection (mm)	50			
Percent Deflection	3			
Floor		N	N	150mm dark water
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	(RUBBER GASKETS AROUND EACH SEAM) 2002/10/07
Separation (mm)	20			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		3	3	Isolated perforations in sidewall 8m past liner at D/S end. Scaling with pitting at side walls of 1600 mP Isolated perforations in roof up to 10 mm in diameter d/s of liner
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): , Rise (mm): 1600, Type: MP)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	(Has run full recently) 24 June 2010
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)		NONE		
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)		0		
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		5	5	
Beavers (Y/N)		No		
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	Canal takes a rounded 90 deg corner into inlet.
Bank Stability		6	6	
HWM (m below Top of Culvert)		0.0		(Debris on banks indicate water to crown of pipe in last high water last week). 24 June 2010 No HWM visible
Drift (Y/N)		Yes		
Channel Bottom Degrading/Aggrading		AGGRADING		
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>6</b>	<b>6</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	2012	Extend liner 10m further East					
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>45.7/45.6</b>	Est. Repl. Yr	2021	Maint. Req. (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	Tom Carey		Previous Assistant's Name				
Next Inspection Date	06-Sep-2013		Previous Inspection Date	24-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							