

Bridge Culvert Inspection				
Bridge File Number	71392 -1 Bridge Culvert		Form Type	CUL1
Year Built	1966		Lot No.	1
Bridge or Town Name	EAST COULEE		Inspector Name	Jon Davies
Located Over	ATLAS MINE COULEE, 3.28, WATERCRS-ST		Inspector Class	BR CLS B
Located On	569:02 C1 19.559		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	30-Jan-2012
Legal Land Location	SE SEC 20 TWP 27 RGE 18 W4M		Data Entry By	Lauren Korte
Longitude, Latitude	-112:29:28, 51:19:04		Data Entry Date	08-Mar-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA21		Review Date	03-Feb-2012
Clear Roadway/Skew	9.1 /		Dept. Reviewer Name	Tim Davies
AADT/Year	180 / 2010 (A)		Dept. Review Date	11-Mar-2012
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	20			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2897	3201	SPE	25.6	152X51	4.0	ELLIPSE
Special Features	CONC FLOOR							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	South ROW.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	"T" intersection 100M E-Jct Hwy 10 & 564 bottom of hill
Vertical Alignment		5	5	
Roadway Width (m)	9.100			
Embankment		3	3	Erosion N side- Significant at road sideslope above crown of barrel.
Sideslope ( :1)	1.0			Large erosion from road ditch drainage at NW 20 m approximately from D/S invert.
(Height of Cover(m) : 1.2)				
Guardrail (Y/N)	No			Needs rail both sides 0.5-1:1 slopes
<b>Approach Road / Embankment General Rating</b>		<b>3</b>	<b>3</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction				South
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
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 # : 1, Primary Span, Location Code: MAIN, Span (mm): 2897, Rise (mm): 3201, Type: SPE)				
Barrel Last Accessible Date	30-Jan-2010			
<b>Special Features</b>				
Special Feature		N	N	Ice covered.
(Type : <b>CONC FLOOR</b> )				
Special Feature				
(Type : )				
Roof		3	3	Heavy corrosion with isolated perforations in Ring 1 + 7, Roof not under roadway surface. Perforation at Ring 1 up to 20 mm X 100 mm long.  Est. Roof Shape is good.
Measured Rise (mm)	3170			
Measured At Ring No.	5			
Sag (mm)	31			
Percent Sag	1			
Sidewall		3	3	Heavy corrosion with isolated perforations in Ring 1+ 7 at sidewall.
Measured Span (mm)	3060			
Measured At Ring No.	5			
Deflection (mm)	163			
Percent Deflection	6			
Floor		N	N	Concrete covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		4	4	TWO CRACKED RINGS 108mm remain ring 6 - photo 110 remain ring 5- At West sidewalls only. No change.  1N stagger
Total No. of Cracked Rings	2			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	108			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	3	Isolated perforations in roof and sidewall of Ring 1 + 7.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2897, Rise (mm): 3201, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	7	
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				North
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		8	3	No rock or fill remains at NE.
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		8	3	Void at NE invert extends to a scour of 5m long X 3 m wide X 2 m deep.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>3</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	5	
Bank Stability		5	5	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	Contingent on plan for liner to extend barrel.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING	2012	Consider liner to extend barrel length so new side slope of road can be established.					
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	20 M of guardrail North and South sides.					
OTHER ACTION	2012	Drainage plan review required for NW road ditch.					
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>44.0/39.0</b>	Est. Repl. Yr	2020	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	William Reardon		Previous Assistant's Name				
Next Inspection Date	30-Apr-2015		Previous Inspection Date	25-Nov-2008			
Inspection Cycle (Default) (months)	39						
Comment							