

Bridge Culvert Inspection				
Bridge File Number	75126 -1 Bridge Culvert		Form Type	CUL1
Year Built	1959		Lot No.	3
Bridge or Town Name	WAYNE		Inspector Name	Jon Davies
Located Over	HOME COULEE, 3.33.1, WATERCRS-ST		Inspector Class	BR CLS B
Located On	56:08 C1 14.823		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	29-Nov-2011
Legal Land Location	SW SEC 21 TWP 27 RGE 19 W4M		Data Entry By	Alyssa Boynton
Longitude, Latitude	-112:37:38, 51:18:56		Data Entry Date	04-Jan-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA21		Review Date	06-Dec-2011
Clear Roadway/Skew	10.4 / -20 deg. (LHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	940 / 2010 (A)		Dept. Review Date	10-Jan-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	Pl./Slab Thickness	Shape
1	MAIN	1737	1920	SPE	82.6	152X51	3.5,3.5,3.5	ELLIPSE
Special Features	BARREL ELBOW, VERT TIMBER STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch	Gas	
Power		Municipal	
Others	Bell fibre optic line- ROW	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	5	5	In center of "S" curve with 3% grades. No passing Northbound
Vertical Alignment	6	6	
Roadway Width (m)	10.400		
Embankment	3	3	1m x 2m x 20m long erosion gully at SE. At toe of road side slope.
Sideslope (___:1)	3.0		
(Height of Cover(m) : 10)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	5	5	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	E		
End Treatment (Concrete, Steel, Others, None)	STEEL		
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		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	Vegetation
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1737, Rise (mm): 1920, Type: SPE)				
Barrel Last Accessible Date	29-Nov-2011			All rings seen up close except for 3 west of elbow due to water depth and thin ice.
Special Features				
Special Feature		6	6	Sections 1-20 @ u/s strutted. Rise measured S side of struts
(Type : BARREL ELBOW)				
Special Feature		7	7	
(Type : VERT TIMBER STRUTS)				
Roof		4	4	Sag measurement appears stable.
Measured Rise (mm)	1740			
Measured At Ring No.	17			
Sag (mm)	180			
Percent Sag	9			
Sidewall		3	3	Sidewall buckling @ N sidewall @ ring 17 Cracks in sidewall @ northside ring # 16 in 4 valleys 52mm remaining steel
Measured Span (mm)	1900			
Measured At Ring No.	17			
Deflection (mm)	163			
Percent Deflection	9			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Ring #12 missing 6 bolts @ circ seam
Separation (mm)	20			
Longitudinal Seams		5	5	cracks are in sidewall not @ seam
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Alkali staining Light corrosion
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1737, Rise (mm): 1920, Type: SPE)				
Ponding (Y/N)	Yes			D/S elbow below water 800 mm
Fish Passage Adequacy		4	4	Vertical elbow
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	Rating incr 1pt due to presence of struts
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	Bevel end fenced off
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	Creek is @ 80 degrees @ d/s end;
Bank Stability		7	7	
HWM (m below Top of Culvert)				NO HWM VISIBLE
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

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	2012	Repair ditch erosion 40m3 pit run or Cl. 1					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	53.9/53.8	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	29-Aug-2013		Previous Inspection Date	13-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							