

Bridge Culvert Inspection			
Bridge File Number	77294 -1 Bridge Culvert	Form Type	CULM
Year Built	1971	Lot No.	1
Bridge or Town Name	MAYERTHORPE	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO PADDLE RIVER, 8.11.84.30.27, WATERCRS-ST	Inspector Class	BR CLS A
Located On	22:32 C1 30.275	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	03-Oct-2011
Legal Land Location	SW SEC 28 TWP 56 RGE 8 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:08:32, 53:51:44	Data Entry Date	25-Oct-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12	Review Date	25-Oct-2011
Clear Roadway/Skew	8.6 / -45 deg. (LHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,420 / 2010 (A)	Dept. Review Date	26-Oct-2011
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	13		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1200	MP	200	68X13	2.8	ROUND
2	MAIN	-	1200	MP	200	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w. Telephone cable @ SE quadrant of Twp Rd 564 along property line.	Gas	
Power	2 wire East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	No passing. Blinding crest curve to North.
Vertical Alignment	6	6	
Roadway Width (m)	8.300		
Embankment	6	6	
Sideslope (_:1)	3.0		
(Height of Cover(m) : 2.5)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	6	6	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	E		East inlet is @ SE corner of Twp 564 intersection. South pipe
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	Superficial rust on floor.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		4	4	Erosion 1m x 0.25m deep x 3m wide around bevel.
Beavers (Y/N)	No			
Upstream End General Rating		6	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	03-Oct-2011			Barrel follows East ditch before crossing the Hwy. Top of pipe cut out near mid length to receive ditch drainage.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		2	2	18m from downstream end.
Measured Rise (mm)	990			
Measured At Ring No.				
Sag (mm)	210			
Percent Sag	18			
Sidewall		2	2	U/S portion has rust up to 1/2 pipe. (Corrugation beginning to buckle - photo. Sept. 08, 2004)
Measured Span (mm)	1450			
Measured At Ring No.				18m from downstream end.
Deflection (mm)	250			
Percent Deflection	21			
Floor		4	4	(Floor undulating in east ditch. 2004/09/08) Extensive corrosion and pitting rust.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		2	2	1st coupler separated with infiltration and scour. 0.3m deep erosion on sidewalls.
Separation (mm)	250			
Longitudinal Seams		4	4	Riveted seams.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Coating		4	4	Pitting rust on floor and lower sidewall. Leaking through bolt holes.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	Steep grade
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	2	

Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		W		South pipe. Outlet is approx 150m North Twp Rd 564 intersection.	
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	Some pitting rust on floor of bevel.	
Heaving (mm)	100				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	100				
Scour Protection		4	4		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 150)					
Scour/Erosion		4	4	Scour hole 4m long x 1m wide x 0.5m deep, covered with vegetation.	
Beavers (Y/N)	No				
Downstream End General Rating		4	4		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North pipe. Inlet @ SE corner Twp 564 intersection.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Wingwalls (Shape :)		X	X		
Cutoff Wall		X	X		
Bevel End		5	5	Pitting rust on floor.	
Heaving (mm)	25				
Invert Above/Below Stream Bed		ABOVE			
Above/Below (mm)	350				
Scour Protection (Type : RIP RAP)		4	4	Scour hole 1mx0.5x3m	
(Avg. Rock Size(mm) : 150)					
Scour/Erosion		4	4		
Beavers (Y/N)	No				
Upstream End General Rating		4	4		
Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)					
Barrel Last Accessible Date	03-Oct-2011			Barrel follows East ditch before crossing the Hwy. Top of pipe cut out near mid length to receive ditch drainage.	
Special Features					
Special Feature (Type :)					
Special Feature (Type :)					
Roof		2	3	cl	
Measured Rise (mm)	1060				
Measured At Ring No.					
Sag (mm)	140				
Percent Sag	12				
Sidewall		2	3	15m from downstream end.	
Measured Span (mm)	1370				
Measured At Ring No.					
Deflection (mm)	170				
Percent Deflection	14				
Floor		4	4	Extensive corrosion and pitting rust.	
Bulge (mm)	0				
Measured At Ring No.					
Abrasion (Y/N)	No				
Circumferential Seams		5	3	Void near cl ~ 100m	
Separation (mm)	50				
Longitudinal Seams		4	4	Riveted seams.	
Total No. of Cracked Rings	0				
Total No. of Rings with Two Cracked Seams					
Min. Remaining Steel Between Cracks (mm)					
Proper Lap (Y/N)	Yes				
Longitudinal Stagger (Y/N)	Yes				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Coating		4	4	Pitting rust on floor and lower sidewall. Leaking through bolt holes.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	3	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
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		4	5	Pitting rust on floor.
Heaving (mm)	50			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	50			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		4	4	Scour hole 4m long x 1m wide x 0.5m deep.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	30 deg. bend to enter pipe.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	DEGRADING			
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	2011	Complete assessment for repairs/replacement, if not done.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	38.3/35.3	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	The pipes at this site are now connected to BF 13470 through a CSP culvert that runs along the East ditch. Low rating advisory issued Nov 2009 and Oct. 2011.		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	Kris Bosters		Previous Assistant's Name	Sara Wadlow			
Next Inspection Date	03-Jul-2013		Previous Inspection Date	19-Nov-2009			
Inspection Cycle (Default) (months)	21						
Comment							