

Bridge Culvert Inspection				
Bridge File Number	80853 -1 Bridge Culvert		Form Type	CUL1
Year Built	1970		Lot No.	1
Bridge or Town Name	BODO		Inspector Name	Jason Saly
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	899:08 C1 35.981		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Jun-2011
Legal Land Location	SW SEC 17 TWP 37 RGE 1 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-110:07:19, 52:10:20		Data Entry Date	28-Jun-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA22		Review Date	19-Jun-2011
Clear Roadway/Skew	12 /		Dept. Reviewer Name	Chris Black
AADT/Year	380 / 2010 (A)		Dept. Review Date	30-Jun-2011
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	5			

Bridge Culvert Information								
Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	1828	MP	27	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Posting Information											
Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)											
Posted:	Lane	NB	On Bridge (m)	In Advance (Y/N)	No	Lane	SB	On Bridge (m)	In Advance (Y/N)	No	
Remarks	Not required.										

Utilities (Located at)			
Utility Attachments			
Telephone	South r/w.	Gas	
Power	South r/w-1 wire OH.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Crest to West, RR 15 100m NW.
Vertical Alignment		6	6	
Roadway Width (m)	10.000			
Embankment		8	7	South side measured. Estimate from North side.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 0.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		Concrete box extension @ N end. Cracking & rebar showing in concrete box extension but not a problem.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		X	X	Square end.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection (Type : NATURAL) (Avg. Rock Size(mm) :)		7	7	
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): , Rise (mm): 1828, Type: MP)				
Barrel Last Accessible Date	08-Jun-2011			
Special Features				
Special Feature (Type :)				Concrete box extension at N end should be CULE form.
Special Feature (Type :)				
Roof		N	2	Roof flattened. Estimated rise at midpipe=1501=327mm=17.9%
Measured Rise (mm)	1490			
Measured At Ring No.				
Sag (mm)	338			From past inspection.
Percent Sag	18			
Sidewall		2	3	Span at S end=1831=3mm Span at 1/4 pt=2009=181mm Span at 1/2 pt=2051=233mm=12.7% Span at 3/4 pt=1993=165mm Span at N end=1856=28mm
Measured Span (mm)	2051			
Measured At Ring No.				
Deflection (mm)	233			
Percent Deflection	13			
Floor		N	N	Dirt @ invert.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Some infiltration of backfill at one seam.
Separation (mm)	50			
Longitudinal Seams		6	6	Riveted seams.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1828, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	
Icing (Y/N)	No			
Siltng (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	2	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	6	
Collar		7	7	
Wingwalls		7	7	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Square end.
Heaving (mm)	0			Gate across end; minor bend at square end.
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Conc. apron.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	6	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		7	7	High end is North.
Roadway Surface		7	7	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	NONE			
Lighting		X	X	
Barrel Leakage (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Drainage		8	8	
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		7	7	

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	2015	Consider replacement.		2015						
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	58.3/57.4	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	Since strutting is not an option, plan for replacement. Pipe continues to get worse & roof starting to flatten. Design will likely have to consider investment landowner has made at ends. Height if 1450 becoming a concern for cattle. LRA sent 19Jun2011.		Department Comments							
Maintenance Reviewed By		Date			Estimated Total	0				
Proposed Long-Term Strategy	2003.08.18 Replacement on spot program 2009+. Culvert ok until 2020. Monitor normal BIM.									
On 3-Year Program (Y/N)	N									
Proposed Action	2007.05.21 Revisit site again in two years to determine continued usage. Bridge Branch could determine if guardrails are required.									
Previous Inspector's Name	Bryan Wai		Previous Assistant's Name							
Next Inspection Date	08-Sep-2014		Previous Inspection Date	26-Mar-2008						
Inspection Cycle (Default) (months)	39									
Comment										

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	2015	Consider replacement.	Programmed for replacement.	2018		
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	58.3/57.4	Est. Repl. Yr	2015	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	Since strutting is not an option, plan for replacement. Pipe continues to get worse & roof starting to flatten. Design will likely have to consider investment landowner has made at ends. Height if 1450 becoming a concern for cattle. LRA sent 19Jun2011.		Department Comments	Currently programmed in PMA for replacement in 2018. Reduced inspection cycle to 27 months based on condition. DA		
Maintenance Reviewed By	Darron Ahlstedt		Date	28-May-2012	Estimated Total	0
Proposed Long-Term Strategy	2003.08.18 Replacement on spot program 2009+. Culvert ok until 2020. Monitor normal BIM.					
On 3-Year Program (Y/N)	N					
Proposed Action	2007.05.21 Revisit site again in two years to determine continued usage. Bridge Branch could determine if guardrails are required.					
Previous Inspector's Name	Bryan Wai		Previous Assistant's Name			
Next Inspection Date	08-Sep-2013		Previous Inspection Date	26-Mar-2008		
Inspection Cycle (Modified) (months)	27					
Comment	Reduced inspection cycle to 27 months based on condition.					