

Bridge Culvert Inspection				
Bridge File Number	01884 -1 Bridge Culvert		Form Type	CUL1
Year Built	1971		Lot No.	1
Bridge or Town Name	BLACKFALDS		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO RED DEER RIVER, 3.77, WATERCRS-ST		Inspector Class	BR CLS A
Located On	597:02 C1 7.502		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Jul-2012
Legal Land Location	NW SEC 17 TWP 39 RGE 26 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:43:17, 52:21:39		Data Entry Date	01-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA19		Review Date	30-Jul-2012
Clear Roadway/Skew	11.6 / 9 deg. (RHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,720 / 2011 (A)		Dept. Review Date	02-Aug-2012
Road Classification	RCU-210-110		Follow-Up By	
Detour Length (km)	16			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1829	SP	65.8	152X51	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	20m South of centerline.		Gas
Power	3 wires 20m North of centerline.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	On beginning of curve, 5100m from 2A East. Bottom of gully.
Vertical Alignment		6	6	
Roadway Width (m)	9.800			
Embankment		7	7	
Sideslope (:1)	2.0			
(Height of Cover(m) : 6)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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		6	6	At streambed.
Heaving (mm)	40			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm):				Rise (mm): 1829, Type: SP)
Barrel Last Accessible Date	21-Mar-2006			1.2m water at centre, viewed from ends; no failure seen, shape distorted.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Ring 7 roof flat, almost reverse curvature - photo. 3 holes in roof ring 7 - photos. 21/Mar/2006).
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	80			
Percent Sag				
Sidewall		N	N	(Span = 1880 @ 1.5m D/S from joint of new to old. Ring 7 West sidewall starting to buckle - photo. Unable to measure span due to 1.2m ice - photo. 21/Mar/2006).
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	50			
Percent Deflection				
Floor		N	N	There is a 30 degree bend where the new pipe joins the old.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	(As visible above ice. Ring 7 rip @ roof - photo. Coupler spans sealation missing bolts rings 7 & 8. At ring 8. 21/Mar/2006).
Separation (mm)	30			
Longitudinal Seams		N	N	(Ring 6 upper East seam 2 bolts loose, several others tipping - photo. 21/Mar/2006).
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	
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): , Rise (mm): 1829, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	5	(1.3m ice @ mid - photo. 21/Mar/2006).
Icing (Y/N)	Yes			
Silting (Y/N)	Yes			
Drift (Y/N)	No			Silt >0.4m thick near ends.
Barrel General Rating		2	2	G.R. carried over from 21/Mar/2006. Roof governed.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed				At streambed.
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	8	

Maintenance Recommendations												
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	Structural Condition Rating (Last/Now) (%)	Sufficiency Rating (Last/Now) (%)	Est. Repl. Yr	Maint. Req. (Y/N)	Yes	
SHOTCRETE REPAIRS									2025			
PLACE ADDITIONAL RIP RAP												
REMOVE DRIFT ACCUMULATION												
INSTALL CONCRETE/STEEL LINING												
INSTALL STRUTS												
INSTALL CONCRETE COLLAR/CUTOFF												
REPAIR SEAMS												
OTHER ACTION	2012	Level 2 barrel inspection.										
OTHER ACTION												
OTHER ACTION												
OTHER ACTION												
Special Comments for Next Inspection	LRA emailed to Donald Saunders 24Jul2012.											
Maintenance Reviewed By	Department Comments											
Proposed Long-Term Strategy	Date											
On 3-Year Program (Y/N)	Estimated Total 0											
Proposed Action												
Previous Inspector's Name	Owen Salava	Previous Assistant's Name										
Next Inspection Date	12-Oct-2015	Previous Inspection Date										
Inspection Cycle (Default) (months)	39	08-Oct-2009										
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	2012	Level 2 barrel inspection.	Defer, AT to inspect in winter when frozen			
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	40.6/39.2	Est. Repl. Yr	2025	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	LRA emailed to Donald Saunders 24Jul2012.		Department Comments	Replacement programmed 2021		
Maintenance Reviewed By	Andrew Smikles		Date	30-Nov-2012	Estimated Total	0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Owen Salava		Previous Assistant's Name			
Next Inspection Date	12-Oct-2015		Previous Inspection Date	08-Oct-2009		
Inspection Cycle (Default) (months)	39					
Comment						