

Bridge Culvert Inspection				
Bridge File Number	76336 -1 Bridge Culvert		Form Type	CUL1
Year Built	1967		Lot No.	1
Bridge or Town Name	RIVERCOURSE		Inspector Name	Jason Saly
Located Over	BLACKFOOT CREEK, 23, WATERCRS-ST		Inspector Class	BR CLS A
Located On	17:06 C1 21.896		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	27-Jun-2012
Legal Land Location	SW SEC 12 TWP 47 RGE 1 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-110:01:19, 53:02:05		Data Entry Date	13-Jul-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	UNDEFINED CMA		Review Date	05-Jul-2012
Clear Roadway/Skew	10.3 / -16 deg. (LHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,370 / 2011 (A)		Dept. Review Date	19-Jul-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	PI./Slab Thickness	Shape
1	MAIN	-	2314	SP	46.9	152X51	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	Buried in W ditch.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Located in tangent of two curves. At bottom of sag curve through both horizontal curves, limited sight distance. Approx. 6.0% grade to the north.
Vertical Alignment		5	5	
Roadway Width (m)	10.300			
Embankment		6	6	
Sideslope (__:1)	3.6			
(Height of Cover(m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	7	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	Buried.
Bevel End		5	5	Has a cracked seam on N. side.
Heaving (mm)	175			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			(Dam at W. 01Sep2010).
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2314, Type: SP)				
Barrel Last Accessible Date	21-Nov-2000			Viewed from ends; 1m deep at inlet & 1.5m deep at outlet; shape appears good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Estimate rise 2456 - 3.8%. 19Mar2004).
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	96			
Percent Sag				
Sidewall		N	N	(4.2% sidewall. Perforations & rusting at sidewalls - various locations. 19Mar2004).
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	96			
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
Total No. of Cracked Rings	1			
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		4	4	Superficial corrosion along all sidewalls at water line.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2314, Type: SP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	(Water overtopped grade in 1974 - 940323) - May have been plugged pipe.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		4	4	GR carried over from 19Mar2004, based on longit. seam rating.
Downstream 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	
Bevel End		6	6	
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Culvert)				(Hwm 0.75 m over outlet crown in 1974 - 940323). Over road on U/S side. This may have been caused by a plugged pipe - 950509).
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		8	8	

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	Lvl 2 inspection c/w dewatering.								
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	51.6/51.4	Est. Repl. Yr	2014	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	(JAE 92/12/29 - from Lvl 2 dated 92.07.16 by Darrell Trapp: max. span in R5,9,15,17 measured 2390mm (3.5%, 80mm def.); min. rise in R9,10 measured 2460mm (3.6%, 90mm def.). Majority of visible seams are improperly lapped. Barrell should be checked for cracks when water/ice are lower. No local power for cathodic protection.									
Maintenance Reviewed By	Date									Estimated Total
Proposed Long-Term Strategy	2004.06.17 Culvert good until 2017.									0
On 3-Year Program (Y/N)										
Proposed Action										
Previous Inspector's Name	Owen Salava	Previous Assistant's Name								
Next Inspection Date	27-Mar-2014	Previous Inspection Date		01-Sep-2010						
Inspection Cycle (Default) (months)	21									
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	Lvl 2 inspection c/w dewatering.	Replacement programmed	2017		
OTHER ACTION						
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Maintenance Reviewed By	Andrew Smikles	Date	20-Nov-2012	Estimated Total	0	
Proposed Long-Term Strategy	2004.06.17 Culvert good until 2017.					
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Owen Salava	Previous Assistant's Name				
Next Inspection Date	27-Mar-2014	Previous Inspection Date	01-Sep-2010			
Inspection Cycle (Default) (months)	21					
Comment						