

Bridge Culvert Inspection				
Bridge File Number	74345 -1 Bridge Culvert		Form Type	CULE
Year Built	1954		Lot No.	4
Bridge or Town Name	HINTON		Inspector Name	Shane Hall
Located Over	TRAIL CREEK, 8.11.134, WATERCRS-ST		Inspector Class	BR CLS A
Located On	16:02 R1 37.771;16:02 L1 37.768		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Aug-2012
Legal Land Location	SE SEC 3 TWP 52 RGE 24 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:26:53, 53:27:28		Data Entry Date	27-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA13		Review Date	26-Aug-2012
Clear Roadway/Skew	25.1 / 10 deg. (RHF)		Dept. Reviewer Name	Brent Herrick
AADT/Year	5,630 / 2011 (A)		Dept. Review Date	30-Aug-2012
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2120	SP	35.3	152X51	3.0	ROUND
1	MAIN	1675	1675	BP	91.9			SQUARE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	North r/w.		Gas	
Power	5 lines South r/w.		Municipal	
Others			Problem (Y/N)	No
Remarks	File tag South headwall.			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	On curve, entrance to SE. Slight grade.
Vertical Alignment		8	8	
Roadway Width (m)	25.100			12.9 EB, 12.2 WB.
Embankment		5	4	10m berm North side. North sideslope rutted and settled from recent row clearing/chipping on utility row.-photo
Sideslope (__:1)	3.0			
(Height of Cover(m) : 5)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		5	5	Wide cks both sides.
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		7	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	4	Fill settled 0.4m on both sides of bevel and collar undermined.-photo
Beavers (Y/N)	No			
Upstream End General Rating		5	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP)				
Barrel Last Accessible Date	12-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	2049			
Measured At Ring No.	9			
Sag (mm)	71			
Percent Sag	3			
Sidewall		7	7	
Measured Span (mm)	2184			
Measured At Ring No.	9			
Deflection (mm)	64			
Percent Deflection	3			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	5	One bolt pulling through @ 9:00 @ Ring 9-likely during construction.-photo
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N stagger.
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust lower third.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Stepped outfall at outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		6	6	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1675, Rise (mm): 1675, Type: BP)				
Barrel Last Accessible Date	12-Aug-2012			
Special Features				
Special Feature				CIP Concrete Transition.
(Type :)				
Special Feature				Wide cracks in roof and floor of transition.-photo
(Type :)				
Special Feature				Wide cracks at connection point to conc. box.-photo
(Type :)				
Roof		6	6	Measured at U/S.
Measured Rise (mm)	1670			Poorly consolidated concrete in several areas.
Measured At Ring No.				
Sag (mm)	5			
Percent Sag	0			
Sidewall		6	6	At U/S.
Measured Span (mm)	1672			Random med to wide cracks throughout.
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		5	5	Top 15mm abraided off.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	6	Seepage through most construction joints @ bottom wall; dry @ top.
Separation (mm)	8			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1675, Rise (mm): 1675, Type: BP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Stepped outfall at outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	X	
Wingwalls		4	4	Severe scaling at nose of NW wingwall end. Wide diagonal wingwall cracks, NE & NW. Wide vertical cracks and delams at transition to box section.
(Shape : FLARE)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	Streambed drops off beyond pool.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			Small sized drift.
Channel Bottom Degrading/Aggrading	DEGRADING			Deg d/s.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel 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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	60.0/59.1	Est. Repl. Yr	2040	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor scour/erosion at u/s end. Monitor cracking in transition and wingwalls.		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	Eric Carcoux		Previous Assistant's Name				
Next Inspection Date	12-May-2014		Previous Inspection Date	16-Sep-2010			
Inspection Cycle (Default) (months)	21						
Comment							