

Bridge Culvert Inspection				
Bridge File Number	74346 -1 Bridge Culvert		Form Type	CULM
Year Built	1987		Lot No.	2
Bridge or Town Name	HINTON		Inspector Name	Shane Hall
Located Over	TRIBUTARY TO ATHABASCA RIVER, 8.11.135, WATERCRS-ST		Inspector Class	BR CLS A
Located On	16:02 L1 35.917;16:02 R1 35.904		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Aug-2012
Legal Land Location	NE SEC 33 TWP 51 RGE 24 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:28:08, 53:26:52		Data Entry Date	10-Sep-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA13		Review Date	30-Aug-2012
Clear Roadway/Skew	25.3 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	5,630 / 2011 (A)		Dept. Review Date	18-Sep-2012
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

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	90	68X13	2.8	ROUND
2	MAIN	-	1200	MP	90	68X13	2.8	ROUND
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 in place.			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		8	8	
Roadway Width (m)	25.300			12.9 EB, 12.4 WB.
Embankment		5	3	5 m berm on north side.
Sideslope (:1)	3.0			Sideslope is 1:1 on North side of berm. 10m longx1m deepx1.5m wide.
(Height of Cover(m) : 5)				Erosion gully over West pipe.-photo
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
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): 1200, Type: MP)				
Barrel Last Accessible Date	12-Jul-2005			West pipe. Water levels too high with gravel build up in inlet. Both of these pipes are MP on the EBL & a 1200mm x 25mm thick smooth wall pipe on WBL. Water became deeper D/S. Viewed from ends-shape looks adequate.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)	1100			
Measured At Ring No.				(8.3%. 10/Mar/2007)
Sag (mm)	100			
Percent Sag	8			
Sidewall		N	N	
Measured Span (mm)	1300			At c/l.
Measured At Ring No.				
Deflection (mm)	100			(8.3%. 10/Mar/2007)
Percent Deflection	8			
Floor		N	N	
Bulge (mm)	0			(Rock accumulated along floor, abrasion & rust. Minor pitting. 10/Mar/2007)
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		3	3	
Separation (mm)	100			Fill at joint between D/S CSP and WSPI pipe is exposed, with backfill spilling through.-photo
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)				

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		N	N	(Minor superficial rust full circumference of pipe. 10/Mar/2007)	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		7	7		
Baffle		X	X		
(Type :)					
Waterway Adequacy		7	7	(Ice to crown is 0.3m. 2000/04/21)	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
Barrel General Rating		4	4	G.R. carried over from 10/Mar/2007.	
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		N		West pipe.	
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)	50				
Invert Above/Below Stream Bed					
Above/Below (mm)	0				
Scour Protection		5	5	300mm settlement/loss around bevel.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		5	5		
Beavers (Y/N)	No				
Downstream End General Rating		5	5		
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		S		East pipe.	
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		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			Inlet is 50% full of gravel.
Above/Below (mm)	700			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	

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	12-Jul-2005			East pipe. (Both pipes are MP on the EBL & a 1200mm x 25mm thick smooth wall pipe on WBL. There is a MP section after the SWSP. 12/July/2005) Pipe not accessible due to gravel buildup. Shape appears ok as viewed from ends.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Limited view from U/S. Portion viewed appears to be in good shape.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	150			
Percent Sag				
Sidewall		N	N	Limited view from U/S. Portion viewed appears to be in good shape.
Measured Span (mm)	1300			
Measured At Ring No.				
Deflection (mm)	100			
Percent Deflection	8			
Floor		N	N	Up to 50% gravel wash along floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		3	3	Backfill material isleaking in at D/S CSP/WSP connection.-photo Visible from end of pipe.
Separation (mm)	100			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
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		N	N	(Minor superficial rust on full circumference of smooth wall pipe and floor of CSP. 12/July/2005)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Hanging inlet & 50% gravel accumulation.
Baffle		X	X	(Type :)
Waterway Adequacy		4	4	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	(G.R. carried forward 12/July/2005)
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East pipe.
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	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	5	300mm settlement/loss around bevel.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	5	Channel makes 90 deg bend immediately d/s of culverts.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
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		6	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	2013	Excavate out and reattach d/s CSP sections of both pipes.					
OTHER ACTION	2013	Repair embankment erosion at N end over W pipe.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	41.9/41.2	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor CSP barrels for deflections.		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							