

Bridge Culvert Inspection				
Bridge File Number	77336 -1 Bridge Culvert		Form Type	CUL1
Year Built	1971		Lot No.	2
Bridge or Town Name	AMBER VALLEY		Inspector Name	Eric Carcoux
Located Over	FLAT CREEK, 8.11.55.5.8, WATERCRS-ST		Inspector Class	BR CLS A
Located On	55:10 C1 26.257		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Apr-2012
Legal Land Location	SE SEC 25 TWP 66 RGE 20 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-112:53:10, 54:43:58		Data Entry Date	30-Apr-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA10		Review Date	30-Apr-2012
Clear Roadway/Skew	12 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	2,440 / 2011 (A)		Dept. Review Date	04-May-2012
Road Classification	RAU-213.4-120		Follow-Up By	
Detour Length (km)	29			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4390	4841	SPE	47.5	152X51	4.0,5.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	1 OH 20m North. Power line merges with r/w 40m West.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag @ top of South roof.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Slight sag curve. No passing EB.
Vertical Alignment		7	7	
Roadway Width (m)	12.000			
Embankment		5	5	Gullying in NW ditch that has removed rock from channel 20 m D/S. Grassed in.
Sideslope (:1)	4.0			
(Height of Cover(m) : 3)				
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		X	X	
Collar		5	5	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			Beaver dam 2m high directly U/S of bevel.
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): 4390, Rise (mm): 4841, Type: SPE)				
Barrel Last Accessible Date	01-Jun-2010			Appears to be 5% VE. Ice and water 1.5m deep, shape looks good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	
Measured Rise (mm)	4840			
Measured At Ring No.	6			
Sag (mm)				
Percent Sag				
Sidewall		4	N	Too high to measure from floor-deflection(inward) estimated. Insufficient thread projection on several bolts.-01-Jun-2010
Measured Span (mm)	4235			
Measured At Ring No.	6			
Deflection (mm)	155			
Percent Deflection				
Floor		5	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	N	
Separation (mm)	0			
Longitudinal Seams		4	N	Also missing 2 bolts in 7 o'clock seam.Insufficient thread projection on several bolts.-01-Jun-2010
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N Stagger
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	N	Some corrosion in sidewall & roof joints around bolts from soil. Pitting and scaling 5-7 o'clock.-01-Jun-2010
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: MAIN, Span (mm): 4390, Rise (mm): 4841, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Hanging @ outlet.
Baffle		4	N	Anchors for rock have corroded away.-01-Jun-2010
(Type : LARGE BOULDER)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	GR carried fwd.
Downstream 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	
Bevel End		6	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		5	5	East bank 8 m D/S has lost rock protection. Old precast placed at end of the bevel.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
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		7	7	
Bank Stability		7	7	Gabion baskets 40 m D/S & rock slope protection.
HWM (m below Top of Culvert)				HWM not visible. Pipe has flowed half full in the past.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			D/S only. Dam @ u/s end.
Beavers (Y/N)	Yes			
(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	2012	Remove beaver dam @ U/S end.					
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) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	51.6/51.5	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			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-Jan-2014		Previous Inspection Date	10-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							