

Bridge Culvert Inspection				
Bridge File Number	73904 -1 Bridge Culvert		Form Type	CULM
Year Built	1953		Lot No.	2
Bridge or Town Name	LINDBERGH		Inspector Name	Todd Warshawski
Located Over	FROG CREEK, 6.7, WATERCRS-ST		Inspector Class	BR CLS B
Located On	897:08 C1 8.384		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	14-Dec-2011
Legal Land Location	SW SEC 16 TWP 56 RGE 3 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-110:24:05, 53:50:09		Data Entry Date	14-Jan-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08		Review Date	04-Jan-2012
Clear Roadway/Skew	9.6 / 3 deg. (RHF)		Dept. Reviewer Name	Brent Herrick
AADT/Year	1,280 / 2010 (A)		Dept. Review Date	18-Jan-2012
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	10			

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1810	SP	59.7	152X51	3.0,3.0,2.8	ROUND
2	MAIN	-	1500	SP	56.1	152X51	3.0,3.0,2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	4 wires East r/w.	Municipal	
Others	Fiber optics East r/w.	Problem (Y/N)	No
Remarks	BF tag installed on top of East end roof, North pipe.		

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	No passing SB. Field entrance to North. Intersection to South.
Vertical Alignment	6	6	
Roadway Width (m)	9.600		Wide transverse crack over pipe, -photo.
Embankment	5	5	SE ditch erosion 5 x 1 x 0.5. Well vegetated. SW ditch erosion 20 x 3 x 2m. Well vegetated.
Sideslope (_ :1)	3.0		
(Height of Cover(m) : 6.8)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	6	6	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	E		North culvert.
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)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Well vegetated.
(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): 1810, Type: SP)				
Barrel Last Accessible Date	10-Aug-2008			Not accessible. Viewed from ends, shape and condition appear ok.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	N	
Measured Rise (mm)	1760			
Measured At Ring No.				
Sag (mm)	50			
Percent Sag	3			
Sidewall		5	N	
Measured Span (mm)	1885			
Measured At Ring No.				
Deflection (mm)	75			
Percent Deflection	4			
Floor		N	N	1m og water/ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	N	Many loose bolts on several seams.-Aug,2008
Separation (mm)	0			
Longitudinal Seams		4	N	Loose bolts on some seams. Portions of lower seam under silt/water.-Aug, 2008
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)	No			
Coating		5	N	Superficial rust lower 1/2.-AUG, 2008
Corrosion By Soil (Y/N)				
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): 1810, Type: SP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Remnants of dam in barrel at d/s bevel.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		4	4	GEneral rating carried fwd from Aug, 2008
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		North culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			
Downstream End General Rating		7	7	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		South culvert.
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
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		6	6	Couple dents and tear 30mm.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			Bevel section rotated 10 degrees.
Above/Below (mm)	1050			
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): 1500, Type: SP)				
Barrel Last Accessible Date	14-Dec-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Measured near c/l, pipe is elipsed at ends.
Measured Rise (mm)	1450			
Measured At Ring No.	9			
Sag (mm)	50			
Percent Sag	2			
Sidewall		6	6	
Measured Span (mm)	1530			
Measured At Ring No.	9			
Deflection (mm)	30			
Percent Deflection	2			
Floor		N	N	0.3m silt on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	
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)	No			
Coating		5	5	Superficial rust lower 1/2.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	X	Overflow pipe
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		6	6	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		South culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	900			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			
Downstream End General Rating		7	7	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Channel skewed 30 degree RHF to both U/S and D/S ends.
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			

Structure Usage				
		Last	Now	Explanation of Condition
(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 drift from outlet on N pipe.					
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) (%)	52.1/52.2	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	Dave Lam		Previous Assistant's Name				
Next Inspection Date	14-Mar-2015		Previous Inspection Date	10-Aug-2008			
Inspection Cycle (Default) (months)	39						
Comment							