

Bridge Culvert Inspection			
Bridge File Number	74292 -1 Bridge Culvert	Form Type	CULE
Year Built	1954	Lot No.	1
Bridge or Town Name	THORSBY	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO WEED CREEK, 6.110.6, WATERCRS-ST	Inspector Class	BR CLS B
Located On	616:04 C1 26.771	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Feb-2011
Legal Land Location	SW SEC 3 TWP 48 RGE 1 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:03:54, 53:06:18	Data Entry Date	22-Feb-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA11	Review Date	22-Feb-2011
Clear Roadway/Skew	12 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	600 / 2009 (A)	Dept. Review Date	02-Mar-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	1500	SP	12.19			ROUND
1	MAIN	-	1500	SP	12.2	152X51	3.0	ROUND
1	D/S	-	1500	SP	12.19			ROUND
2	MAIN	-	1220	MP	35	68X13	2.8	ROUND
2	D/S	-	1200	MP	5	65X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North & South r/w.	Gas	
Power	2 lines 21 m north of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	8	8	Entrance to residence SE.
Vertical Alignment	7	7	
Roadway Width (m)	9.500		
Embankment	7	N	Slight erosion gullies in both ditches, (east side) no problem.-21-Nov-2007
Sideslope (:1)	3.0		
(Height of Cover(m) : 2)			Height of cover over east pipe 3.0. Height of cover over west pipe 2.0.
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	7	7	

Upstream End

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

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 400)		7	7	
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 # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1500, Type: SP)				
Barrel Last Accessible Date	14-Feb-2011			Barrel 1/2 full with ice.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		6	5	(Rise 1430 at c/l, 4.6%. 03/Sept/2004)
Measured Rise (mm)	1430			Hole in roof near cl-100mm
Measured At Ring No.				4.6%
Sag (mm)	70			
Percent Sag	5			
Sidewall		N	N	Could not confirm cracked seams due to ice. 200mm bulge in West wall near c/l.
Measured Span (mm)	1580			
Measured At Ring No.				
Deflection (mm)	80			
Percent Deflection	5			
Floor		N	N	Ice on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	Old pipe has wavy sides.
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1500, Type: SP)				
Longitudinal Seams		N	N	(Ring 5 cracked both sides 115mm steel remaining - photos. 03/Sept/2004)
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	1			
Min. Remaining Steel Between Cracks (mm)	115			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Minor superficial rust lower half.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	300mm ponding.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		2	2	(G.R. carried over from 03/Sept/2004)
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary 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	BELOW			
Above/Below (mm)	300			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		6	5	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 400)		8	8	
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1220, Type: MP)				
Barrel Last Accessible Date	14-Feb-2011			
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		N	6	D/S
Measured Rise (mm)	1160			
Measured At Ring No.				
Sag (mm)	60			
Percent Sag	3			
Sidewall		N	7	D/S
Measured Span (mm)	1230			
Measured At Ring No.				
Deflection (mm)	10			
Percent Deflection	1			
Floor		N	7	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1220, Type: MP)				
Longitudinal Seams		N	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	7	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG				
Ponding (Y/N)				
Fish Passage Adequacy		N	4	Above S.B.
Baffle		N	X	
(Type :)				
Waterway Adequacy		N	5	Above S.B. - overflow pipe.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	7	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: D/S, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	14-Feb-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	CL
Measured Rise (mm)	1190			
Measured At Ring No.				
Sag (mm)	30			
Percent Sag	2			
Sidewall		8	8	At c/l.
Measured Span (mm)	1210			
Measured At Ring No.				
Deflection (mm)	10			
Percent Deflection	1			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: D/S, 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		8	8	Minor.
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	1m above streambed at inlet & outlet.
Baffle		X	X	(Type :)
Waterway Adequacy		7	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		8	8	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary 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		8	8	5m long flume present. Bevel end extension.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		8	8	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		4	4	NE bank sloughing.
HWM (m below Top of Culvert)				No evidence of HWM.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

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	2011	Reduce inspection cycle to 19 months.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	35.4/34.4	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor cracking in ring 5, amin barrel, until replaced.		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	Jacob Oresile		Previous Assistant's Name				
Next Inspection Date	14-May-2014		Previous Inspection Date	21-Nov-2007			
Inspection Cycle (Default) (months)	39						
Comment							