

Bridge Culvert Inspection			
Bridge File Number	76995 -1 Bridge Culvert	Form Type	CULM
Year Built	1997	Lot No.	2
Bridge or Town Name	GRANDE CACHE	Inspector Name	Russel Vanderschaaf
Located Over	MALCOLM CREEK, 8.10.58.38, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:36 C1 2.200	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	18-Nov-2010
Legal Land Location	SE SEC 7 TWP 57 RGE 8 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-119:10:20, 53:54:34	Data Entry Date	03-Jan-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA05	Review Date	09-Dec-2010
Clear Roadway/Skew	12.4 / -24 deg. (LHF)	Dept. Reviewer Name	David Morrison
AADT/Year	1,070 / 2009 (A)	Dept. Review Date	11-Mar-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	40		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3360	SP	39.6	152X51	4.0	ROUND
2	MAIN	-	3360	SP	39.6	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	4W o/h E r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Access Road 10m North. curve south. ON CREST CURVE - NO PASSING
Vertical Alignment	7	7	
Roadway Width (m)	12.400		
Embankment	8	8	
Sideslope (_ :1)	5.0		
(Height of Cover(m) : 1.6)			
Guardrail (Y/N)	Yes		STEEL POSTS & CABLE
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	W		South pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	6	6	Cracking on head wall.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Collar		N	N	Spall at the bottom of the south collar. May 25, 2007
Wingwalls (Shape :)		X	X	
Cutoff Wall		N	N	
Bevel End		N	N	Snow/ice covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection (Type : CONCRETE) (Avg. Rock Size(mm) :)		N	N	(Floor is cracking and spalling - 2007/09/23) Snow/ice covered.
Scour/Erosion		N	N	Snow/ice covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	GR carried over, May 25, 2007

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP)				
Barrel Last Accessible Date	25-May-2007			Could not access due to uncertain ice conditions.
Special Features				
Special Feature (Type :)				Gravel covered. May 25, 2007
Special Feature (Type :)				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Estimated - shape looks good.
Percent Sag				
Sidewall		7	7	
Measured Span (mm)				
Measured At Ring No.	6			Estimated defl.
Deflection (mm)	10			
Percent Deflection	1			
Floor		N	N	Covered with gravel wash, ice
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			2N Stagger
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP)				
Coating		7	N	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	1m of gravel.
Icing (Y/N)	Yes			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	N	GR 7 - 25-May-2002
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		South pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Snow/ice covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		N	N	Wire mesh visible on south side.May 25, 2007 Snow/ice covered.
(Type : CONCRETE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow/ice covered.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	GR carried over May 25, 2007
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		North pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Chip at top of face.
Collar		N	N	Med. cracks @ 600.May 25, 2007

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		N	N	Snow/ice/silt covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	N	500m dia spalls NW end.May 25, 2007
(Type : CONCRETE)				Snow/ice/silt covered.
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow/ice/silt covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	GR carried over, May 25, 2007

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP)				
Barrel Last Accessible Date	25-Feb-2009			Could not access pipe due to uncertain ice conditions.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Floor 50m tear 3rd rib ring 1,2 O'clock.May 25, 2007
Measured Rise (mm)				Estimated shape looks good.
Measured At Ring No.				Ice covered- could not measure
Sag (mm)				Est sag
Percent Sag				
Sidewall		7	7	20-30mm @ holes at d/s end at 2:00-25-Feb-2009
Measured Span (mm)				
Measured At Ring No.	6			Est. defl. due to silt buildup.
Deflection (mm)	10			
Percent Deflection				
Floor		N	N	Covered with gravel wash.May 25, 2007
Bulge (mm)				Ice covered.
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				2n stagger.
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP)				
Coating		7	N	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	N	Buildup of silt/riprap. 2-Feb-2009
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	N	1.75m of gravel and riprap.-25-Feb-2009
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	N	GR 7 - 25-Feb-2009
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Numerous holes in bevel, possibly from bullets.20-30mm in 0. Snow/ice covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		N	N	
(Type : CONCRETE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	GR carried over May 25, 2007
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	Bermed to contain water.
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				Stable.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		8	8	

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	Remove gravel/silt/riprap accumulation in North pipe. Carry over from 29-Feb-2010					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	77.8/55.6	Sufficiency Rating (Last/Now) (%)	53.4/59.1	Est. Repl. Yr	2042	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	Laurie McCarron		Previous Assistant's Name	Russel Vanderschaaf			
Next Inspection Date	18-Aug-2012		Previous Inspection Date	25-Feb-2009			
Inspection Cycle (Default) (months)	21						
Comment							