

Bridge Culvert Inspection			
Bridge File Number	71787 -1 Bridge Culvert	Form Type	CUL1
Year Built	1964	Lot No.	4
Bridge or Town Name	DUCHESS	Inspector Name	Tom Carey
Located Over	EID - ONE TREE CK, WATERCRS-IC	Inspector Class	BR CLS A
Located On	544:02 C1 8.282	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	15-Feb-2010
Legal Land Location	SE SEC 15 TWP 20 RGE 14 W4M	Data Entry By	Kelsey Roberts
Longitude, Latitude	-111:51:13, 50:41:18	Data Entry Date	03-Mar-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	23-Feb-2010
Clear Roadway/Skew	8.5 /	Dept. Reviewer Name	Lorenz Bohnert
AADT/Year	1,520 / 2008 (A)	Dept. Review Date	08-Mar-2010
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	3		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1738	1920	SPE	40.8	152X51	2.8,2.8,2.8	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	south side	Gas	crossing 150m west
Power	north side, 3-wire	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm ent 20m West In sag curve
Vertical Alignment		4	5	
Roadway Width (m)	8.500			
Embankment		N	N	Snow
Sideslope ( _ :1)	2.1			
(Height of Cover (m) : 5.8)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>4</b>	<b>5</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		S		South
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	Fence across bevel @ u/s

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	N	(Pitting rust Missing bolts @ west seam) Ice and snow
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	N	snow covered
(Type : )				
(Avg. Rock Size (mm) : )				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>N</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1738, Rise (mm): 1920, Type: SPE)				
Barrel Last Accessible Date	15-Feb-2010			
Special Features				
Special Feature				Ice 600mm from roof @ midpsan & 1000mm from ends. Entered 1/3 of way in @ both ends- shape is good.
(Type : )				
Special Feature				
(Type : )				
Roof		6	6	From past measurements Ice
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	88			
Percent Sag	4			
Sidewall		7	7	Shape looks good Ice too deep to measure. Past measurements.
Measured Span (mm)	1760			
Measured At Ring No.	4			
Deflection (mm)	22			
Percent Deflection	1			
Floor		N	N	(Pitting rust in floor & sidewall) Ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	(some minor tipping)
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	N	(Some pitting on floor & sidewalls & water) Ice
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			1.2m of ice @ midspan

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1738, Rise (mm): 1920, Type: SPE)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	(Grass in fence above culvert @ u/s)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>6</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		North
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		5	N	(Some pitting) Snow
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection (Type : ) (Avg. Rock Size (mm) : )		N	N	snow covered
Scour/Erosion		N	N	snow covered
Beavers (Y/N)		No		
<b>Downstream End General Rating</b>		<b>5</b>	<b>N</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	Minor cut banks (Grass in fence @ u/s)
Bank Stability		5	N	Snow
HWM (m below Top of Culvert)				
Drift (Y/N)		Yes		
Channel Bottom Degrading/Aggrading		DEGRADING		Snow
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</b>	

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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>55.2/59.4</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	No
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	Tim Davies		Previous Assistant's Name				
Next Inspection Date	15-May-2013		Previous Inspection Date	21-Feb-2007			
Inspection Cycle (Default) (months)	39						
Comment							