

Bridge Culvert Inspection				
Bridge File Number	72399 -1 Bridge Culvert		Form Type	CULM
Year Built	1969		Lot No.	4
Bridge or Town Name	MUNDARE		Inspector Name	Jason Saly
Located Over	TRIBUTARY TO NORRIS CREEK, 6.62.10.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	16:22 L1 12.012;16:22 R1 12.013		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	19-Jul-2012
Legal Land Location	NE SEC 12 TWP 53 RGE 19 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-112:39:41, 53:34:13		Data Entry Date	31-Jul-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA14		Review Date	28-Jul-2012
Clear Roadway/Skew	25 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	10,610 / 2011 (A)		Dept. Review Date	02-Aug-2012
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2134	1549	RPP	70.7	152X51	3.0,3.0,2.8	PIPE ARCH
2	MAIN	2134	1549	RPP	70.7	152X51	3.0,3.0,2.8	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	Plowed in North ditch.		Gas	
Power	3 wires OH 30m North of WBL c/l.		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to SH 834 300 m to East.
Vertical Alignment		8	8	
Roadway Width (m)	25.000			
Embankment		6	6	South side is 5:1 then 3:1, North side is 6:1.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 1.8)				
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		N		West 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		N	5	Heavy scaling rust on floor.
Heaving (mm)	75			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	7	Abundance willow and poplar growing around beveled end. Grass well established in riprap.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		N	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2134, Rise (mm): 1549, Type: RPP)				
Barrel Last Accessible Date	19-Jul-2012			West culvert.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	Roof is slightly cusped & seams separated 13mm but everything else looks good.
Measured Rise (mm)	1555			
Measured At Ring No.	6			
Sag (mm)	6			
Percent Sag	0			
Sidewall		N	6	
Measured Span (mm)	2170			
Measured At Ring No.	6			
Deflection (mm)	36			
Percent Deflection	1			
Floor		N	N	Covered with 50-100mm silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		N	5	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	3	Galvanizing in floor all sacrificed. Heavy scaling.
Corrosion By Soil (Y/N)	No			
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): 2134, Rise (mm): 1549, Type: RPP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	8	~100mm - minor.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		N	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		West culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	6	
Heaving (mm)	75			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	7	Well vegetated.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		N	6	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East 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		N	5	Heavy scaling rust on floor.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	7	Abundance willow and poplar growing around beveled ends.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		N	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2134, Rise (mm): 1549, Type: RPP)				
Barrel Last Accessible Date	19-Jul-2012			E culvert.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	Roof is slightly cusped & seams separated 15mm but everything else looks good. Could not measure rise due to silt build-up.
Measured Rise (mm)	1580			
Measured At Ring No.	6			
Sag (mm)	31			
Percent Sag	2			
Sidewall		N	6	1.3%
Measured Span (mm)	2155			
Measured At Ring No.	6			
Deflection (mm)	21			
Percent Deflection	1			
Floor		N	N	Floor not visible due to dirty water.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		N	5	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	3	Galvanizing in floor all sacrificed. Heavy scaling.
Corrosion By Soil (Y/N)	No			
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): 2134, Rise (mm): 1549, Type: RPP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		X	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		East culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	6	(Beveled end rotated 1 bolt hole from being set level. 05Feb2008) - Unconfirmed.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			(Minor bend @ SW. 15-Mar-2006).
Above/Below (mm)	250			
Scour Protection		N	7	Well vegetated.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		N	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	68.6/66.1	Est. Repl. Yr	2015	Maint. Req'd. (Y/N)	No
Special Comments for Next Inspection	No action required fro coating corrosion at this time.		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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	19-Apr-2014		Previous Inspection Date	16-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							