Bridge Culvert Inspection

Bridge File Number	77559 -1 Bridge Culvert	Form Type	CUL1
Year Built	1975	Lot No.	4
Bridge or Town Name	DRUMHELLER	Inspector Name	Owen Salava
Located Over	WILLOW CREEK, 3.30, WATERCRS-ST	Inspector Class	BR CLS A
Located On	576:02 C1 25.180	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	27-Jan-2011
Legal Land Location	SE SEC 18 TWP 29 RGE 17 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:22:42, 51:28:27	Data Entry Date	04-Mar-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA21	Review Date	03-Feb-2011
Clear Roadway/Skew	8 / 15 deg. (RHF)	Dept. Reviewer Name	Chris Black
AADT/Year	520 / 2009 (A)	Dept. Review Date	06-Mar-2011
Road Classification	RCU-208-110	Follow-Up By	
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1724	1901	SPE	54.9	152X51	3.0	ELLIPSE

Special Features	
Special Features Comment	5% vertical ellipse.

Utilities (Located at)

Utility Attachments			
Telephone	In S ditch.	Gas	
Power	30m N, 3 wires O/H.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Limited sight distance due to crest curves. No passing EB.
Vertical Alignment		6	6	
Roadway Width (m)	8.000			
Embankment		7	7	
Sideslope (__:1)	2.5			
(Height of Cover(m) : **6.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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**
Bevel End		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		5	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	(Haunch minor erosion 200mm @ end of bevel. 18Feb2009). Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	GR carried forward from 18Feb2009.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE**)				
Barrel Last Accessible Date	27-Jan-2011			5% VE. 1724 Span x 1901 Rise
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Unable to measure due to ice.
Measured Rise (mm)	1930			
Measured At Ring No.	6			
Sag (mm)	29			(18Feb2009).
Percent Sag	1			
Sidewall		8	8	
Measured Span (mm)	1700			
Measured At Ring No.	6			
Deflection (mm)	24			
Percent Deflection	1			
Floor		7	N	Snow/ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
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		5	5	Light corrosion on floor & bottom seams. Alkali staining at all seams. Manure stains.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
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)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		4	N	(Minor erosion along east side. 18Feb2009). Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	N	(4mx6m scour hole approx .5m deep at D/S channel. 18Feb2009). Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	GR carried forward from 18Feb2009.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	Winding both U/S & D/S ends
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**70.0/70.1**	Est. Repl. Yr	2025	Maint. Reqd. (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	Garry Roberts	Previous Assistant's Name			
Next Inspection Date	27-Apr-2014	Previous Inspection Date	18-Feb-2009		
Inspection Cycle (Default) (months)	39				
Comment					