Bridge Culvert Inspection

Bridge File Number	06679 -1 Bridge Culvert	Form Type	CULM
Year Built	1996	Lot No.	4
Bridge or Town Name	MAYERTHORPE	Inspector Name	Wade Nanninga
Located Over	LITTLE PADDLE RIVER, 8.11.84.30.19, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	22:32 C1 41.539	Assistant Class	
Water Body Cl./Year		Inspection Date	03-Oct-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 28 TWP 57 RGE 8 W5M	Data Entry Date	26-Oct-2011
Longitude, Latitude	-115:08:32, 53:57:41	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	13-Oct-2011
Contract Main. Area	CMA10	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	7.8 / 0 deg.	Dept. Review Date	14-Nov-2011
AADT/Year	880 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	6780	SP	70.1	152X51	5.0	ROUND
2	MAIN	-	6780	SP	70.1	152X51	5.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West East r/w.	Gas	
Power	3 wires East r/w.	Municipal	
Others	File tag @ West end of South pipe.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 150m north.
Vertical Alignment		5	5	In sag curve. 50 kph, limited sight distances. No passing.
Roadway Width (m)	7.500			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

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		7	7	Minor hairline vertical cracks.
Collar		7	7	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Cutoff Wall		N	N	
Bevel End		8	8	Rock wash deposit on bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
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 # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 6780, Type: SP**)				
Barrel Last Accessible Date	19-Nov-2009			Viewed from ends - looks good
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				estimate
Percent Sag	1			
Sidewall		8	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				estimate
Percent Deflection	1			
Floor		N	N	Water and gravel covering floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	N	
Separation (mm)	0			
Longitudinal Seams		8	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				2N
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		8	N	
Corrosion By Soil (Y/N)	Yes			
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): , Rise (mm): 6780, Type: SP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		7	7	Only 3 sets installed.
(Type : **SPOILER**)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**N**	Previous rating '8' from 19-Nov-2009

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)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **700**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

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		8	8	
Collar		7	7	Medium transverse cracks @ 1.2m spacing. No problem.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
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): 6780, Type: SP**)				
Barrel Last Accessible Date	19-Nov-2009			Viewed from ends - looks good
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				estimate
Percent Sag	1			
Sidewall		8	N	
Measured Span (mm)	6809			
Measured At Ring No.	9			
Deflection (mm)	29			estimate
Percent Deflection	0			
Floor		N	N	Silt & gravel covered floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	N	
Separation (mm)	0			
Longitudinal Seams		8	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				2N
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		8	N	
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 # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 6780, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		7	N	Only 3 sets installed.
(Type : **SPOILER**)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**N**	Previous rating '8' -19-Nov-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)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **700**)				
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		6	6	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
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) (%)	**88.9/55.6**	**Sufficiency Rating (Last/Now) (%)**	**85.0/69.4**	Est. Repl. Yr	2054	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	Kris Bosters	Previous Assistant's Name	Sara Wadlow		
Next Inspection Date	03-Jul-2013	Previous Inspection Date	19-Nov-2009		
Inspection Cycle (Default) (months)	21				
Comment					