Bridge Culvert Inspection

Bridge File Number	73824 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	BROOKS	Inspector Name	Tom Carey
Located Over	EID - ONE TREE CK, WATERCRS-IC	Inspector Class	BR CLS A
Located On	1:18 R1 12.448;1:18 L1 12.469	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	15-Feb-2012
Legal Land Location	NW SEC 34 TWP 18 RGE 14 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-111:51:12, 50:34:02	Data Entry Date	26-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	26-Feb-2012
Clear Roadway/Skew	25.6 / 22 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	7,280 / 2011 (A)	Dept. Review Date	29-Mar-2012
Road Classification	RFD-412.4-130	Follow-Up By	
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4440	2785	RPE	70.1	152X51		ELLIPSE

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	North and South ROW.	Gas	
Power	3 wire, X's road 10m W.	Municipal	
Others	Light standards.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		9	9	
Roadway Width (m)	25.600			
Embankment		7	7	5:1 @ South.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.1**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		South.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Buried.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Iced over.
Above/Below (mm)	100			
Scour Protection		7	7	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
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): 4440, Rise (mm): 2785, Type: RPE**)				
Barrel Last Accessible Date	15-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	Est.
Measured Rise (mm)	2671			
Measured At Ring No.	2			
Sag (mm)	114			
Percent Sag	4			
Sidewall		N	7	
Measured Span (mm)	4508			
Measured At Ring No.	8			
Deflection (mm)	68			
Percent Deflection	2			
Floor		N	N	500mm DP ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	Several roof/side seams with 4706mm gap. Minor25mm cusping. Ends only - not below traffic.
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	4	Pitting @ lower sidewall seams & floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4440, Rise (mm): 2785, Type: RPE**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

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		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			Iced over.
Above/Below (mm)	300			
Scour Protection		7	7	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	(Rock in barrel) Smaller arch pipe in South service road.- U/S
Bank Stability		7	5	Steep cut @ U/S.
HWM (m below Top of Culvert)	1.6			No visible HWM.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			Rock @ D/S.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**7**	

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) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**65.6/76.2**	Est. Repl. Yr	2030	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	15-Nov-2013	Previous Inspection Date	15-Jul-2010
Inspection Cycle (Default) (months)	21		
Comment			