Bridge Culvert Inspection

Bridge File Number	75824 -1 Bridge Culvert	Form Type	CUL1
Year Built	1986	Lot No.	4
Bridge or Town Name	GEM	Inspector Name	Tom Carey
Located Over	EID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS A
Located On	862:04 C1 12.423	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Feb-2010
Legal Land Location	SE SEC 2 TWP 24 RGE 16 W4M	Data Entry By	Erin Roberts
Longitude, Latitude	-112:07:44, 51:00:31	Data Entry Date	08-Mar-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	24-Feb-2010
Clear Roadway/Skew	8.5 /	Dept. Reviewer Name	Lorenz Bohnert
AADT/Year	110 / 2008 (A)	Dept. Review Date	09-Mar-2010
Road Classification	RAU-212-110	Follow-Up By	
Detour Length (km)	10		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3870	2480	RPE	25.6	152X51		ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	south	Gas	
Power	3-wire north	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm ent-120m W CREST APPROX. 120m WEST
Vertical Alignment		6	6	
Roadway Width (m)	9.000			
Embankment		7	N	Snow
Sideslope (__:1)	3.0			
(Height of Cover (m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				SOUTH END
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	N	70% snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	N	Snow
(Type : **RIP RAP**)				
(Avg. Rock Size (mm) : **200**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**N**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3870, Rise (mm): 2480, Type: RPE**)				
Barrel Last Accessible Date	09-Feb-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	8	ESTIMATE
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	70			
Percent Sag	2			
Sidewall		N	6	
Measured Span (mm)	3940			
Measured At Ring No.	3			
Deflection (mm)	70			
Percent Deflection	1			
Floor		N	N	Ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)				
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)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	5	20mm soil corrosion all along West side- coating is deteriorated at these spots- no loss of section or perforationos
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3870, Rise (mm): 2480, Type: RPE**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				NORTH END
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	N	Bevel 50% snow covered
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		7	N	Snow
(Type : **RIP RAP**)				
(Avg. Rock Size (mm) : **200**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**N**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	N	Snow
HWM (m below Top of Culvert)	0.4			Snow
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		**8**	**8**	GR carried forward

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) (%)	**77.8/66.7**	**Sufficiency Rating (Last/Now) (%)**	**81.3/72.8**	Est. Repl. Yr	2033	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	Tim Davies	Previous Assistant's Name			
Next Inspection Date	09-May-2013	Previous Inspection Date	30-Jan-2007		
Inspection Cycle (Default) (months)	39				
Comment					