					D : -	- 0 -							
D.I. El M	,	00000	4.0.1	,	Bridg	e Culve	ert Insp			OLU M			
Bridge File Number 80902 -1 Bridge Culvert						Form Type		CULM					
Year Built		1986					Lot No.		4				
Bridge or Town	Name						Inspector Name			Wade Nanninga			
Located Over		2ND ORDER TRIBUTARY TO COTTONWOOD CREEK, 8.11.39.4.4.1.2,					Inspector Class			BR CLS B			
		WATER	ATERCRS-ST					Assistant Name					
Located On 881:22 C1 54.876							Assistant Class						
Water Body Cl./Year							tion Date		09-Sep-2010				
Navigabil. Cl./Year						Data Entry By			Theresa Lacusta				
			C 16 TWP 81 R		Data Entry Date		21-Sep-2010						
			2:57, 56:01:27				Reviewer Name			Arnold Assenheimer			
Road Authority			Transportation	(AIT)			Review Date		16-Sep-2010				
Contract Main.		CMA07	<u> </u>	,			Dept. I	Reviewer	Name	Brent Herrick			
Clear Roadway		10 /					Dept. I	Review Da	ate	05-Oct-2010			
AADT/Year	,, 0.1.0 1.	790 / 20	009 (A)				Follow	-Up By					
Road Classifica	ation	RCU-20					1						
Detour Length		250											
Bridge Culver	` '												
Number of Cul			2										
Pipe #	Barrel		Span	Rise (or	Dia.)	Туре		Length		Corr. Profile	Pl./Slab Thickness	Shape	
1	MAIN		-	2000		MP		24		125X26	2.8	ROUND	
2	MAIN		_	800		MP		24		68X13	2.0	ROUND	
Special Feature				000		IVII		27		00/13	2.0	ROOND	
Special Feature		ment											
					Uti	lities (L	ocated	at)					
Utility Attachme	ents												
Telephone							Gas						
Power		East r/v					Munici						
Others	Bell fi	bre optic	: West r/w.				Problem (Y/N) No						
Remarks	File ta	ig install	ed on top of We										
				Ap				ankment					
					Last	Now		nation of					
Horizontal Aligi					7 7		Horizontal curve to the north.						
Vertical Alignm	ent				8	8							
Roadway Widtl	h (m)		10.800										
Embankment					8	8							
Sideslope (:1)		3.0										
(Height of Co		1.4)											
Guardrail (Y/N)		· · · · ·)	No										
Approach Roa	ad / Eml	oankme	nt General Rat	ing	7	7							
						Upstre	am End						
Culvert Comp	onent							nation of	Condi	tion			
(Pipe # : 1, Sp		e: Prima	ary Span)										
Direction	7.				W								
End Treatment (Concrete, Steel, STEE Others, None)		el, STEEL											
Headwall					Х	Х							
Collar					Х	Х							

80902 -1 Bridge Culvert

Last Now Explanation of Condition				Upstre	am End
	Culvert Component		1		
Shape:)		/ Span)			
Shape:)	Wingwalls		Х	Х	
Bevel End					
Heaving (mm)			Х	Х	
Invert Above/Below Stream Bed	Bevel End		8	8	
Above/Below (mm) 300 7 7 7 7 7 7 7 7 7	Heaving (mm)	100			
Scour Protection 7	Invert Above/Below Stream Bed	ABOVE			
(Type : RIP RAP)	Above/Below (mm)	300		_	
CAVG. Rock Size(mm) : 200	(Pipe # : 1, Span Type: Primary Span) Wingwalls (Shape :) Cutoff Wall Bevel End Heaving (mm)		7	7	
Scour/Erosion 7	(Type : RIP RAP)				
Deavers (Y/N) Yes 5m u/s	(Avg. Rock Size(mm) : 200)			_	
Second Percent Sag	Scour/Erosion		7	7	
Bridge Culvert Barrel Last Now Explanation of Condition	Beavers (Y/N)	Yes			5m u/s
Last Now Explanation of Condition Rise (mm): 2000, Type: MP)	Heaving (mm) Invert Above/Below Stream Bed ABOVE Above/Below (mm) Scour Protection (Type: RIP RAP) (Avg. Rock Size(mm): 200) Scour/Erosion Beavers (Y/N) Ves Upstream End General Rating Culvert Component (Pipe #: 1, Primary Span, Location Code: MAIN, Searrel Last Accessible Date Special Features Special Feature (Type:) Special Feature (Type:) Roof Measured Rise (mm) Measured At Ring No. Sag (mm) Percent Sag Sidewall Measured At Ring No. Deflection (mm) 300		8	7	
Last Now Explanation of Condition Rise (mm): 2000, Type: MP)			Dui:	dae C-	lyort Porrol
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): Rise (mm): 2000, Type: MP) Barrel Last Accessible Date 09-Sep-2010 Special Feature (Type :) Special Feature (Type :) Roof Roesured Rise (mm) 1970 Measured At Ring No. At c/l. Sag (mm) 30 Percent Sag 2 Sidewall 8 Measured Span (mm) 2030 Measured At Ring No. At c/l. Deflection (mm) 30 Percent Deflection 2 Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Culvert Component			_	
Barrel Last Accessible Date 09-Sep-2010	-	tion Code: MAIN Sna			
Special Feature Crype : Description Special Feature			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	· <u>/·</u>	
Special Feature Coupler preventing infiltration. Special Feature Special Feature		09-3ер-2010			
Type : Special Feature					
Special Feature CType : CT	·				
Type : Roof					
Roof 8	Special Feature (Type:) Special Feature (Type:)				
Measured Rise (mm) 1970 Measured At Ring No. Sag (mm) 30 Percent Sag 2 Sidewall 8 8 8 Measured Span (mm) 2030 Measured At Ring No. Deflection (mm) 30 Percent Deflection 2 Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Special Feature (Type:) Special Feature (Type:) Roof			_	
Measured At Ring No.		T	8	8	A+ o/l
Sag (mm) 30 Percent Sag 2		1970			At 01.
Percent Sag 2	Measured At Ring No.				
Sidewall	Sag (mm)				
Measured Span (mm) 2030 Measured At Ring No. Deflection (mm) 30 Percent Deflection 2 Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Percent Sag	2			
Measured At Ring No. Deflection (mm) 30 Percent Deflection 2 Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Sidewall		8	8	A
Deflection (mm) 30 Percent Deflection 2 Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Measured Span (mm)	2030			At c/l.
Percent Deflection 2 Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Measured At Ring No.				
Floor 7 7 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Deflection (mm)	30			
Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Percent Deflection	2			
Measured At Ring No. Abrasion (Y/N) Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Floor		7	7	
Abrasion (Y/N) Circumferential Seams 6 6 Coupler preventing infiltration. Separation (mm) Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Bulge (mm)	0			
Circumferential Seams Separation (mm) Longitudinal Seams X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Measured At Ring No.				
Separation (mm) 170 Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Abrasion (Y/N)	No			
Longitudinal Seams X X Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Circumferential Seams		6	6	Coupler preventing infiltration.
Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Separation (mm)	170			
Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	(Avg. Rock Size(mm) : 200) Scour/Erosion Beavers (Y/N) Yes Upstream End General Rating Culvert Component (Pipe # : 1, Primary Span, Location Code: MAIN, Span Barrel Last Accessible Date 09-Sep-2010 Special Features Special Feature (Type :) Special Feature (Type :) Roof Measured Rise (mm) 1970 Measured At Ring No. Sag (mm) 30 Percent Sag 2 Sidewall Measured Span (mm) 2030 Measured At Ring No. Deflection (mm) 30 Percent Deflection 2 Floor Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams Separation (mm) 170 Longitudinal Seams Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm)		Х	X	
Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)	Total No. of Cracked Rings				
Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N)					
Proper Lap (Y/N)					

Bridge Culvert Barrel								
Culvert Component			Now	Explanation of Condition				
(Pipe # : 1, Primary Span, Local	tion Code: MAIN, Spa	n (mm):	, Rise (mm): 2000, Type: MP)				
Coating		5	5	Superficial rust on lower 1/3.				
Corrosion By Soil (Y/N)	No							
Corrosion By Water (Y/N)	Yes							
Camber POS/ZERO/NEG	ZERO							
Ponding (Y/N)	No							
Fish Passage Adequacy		5	5					
Baffle		Х	X					
(Type:)								
Waterway Adequacy		8	8	(981215)				
Icing (Y/N)	Yes							
Silting (Y/N)	No			Minor at both bevel ends.				
Drift (Y/N)	Yes							
Barrel General Rating		8	8					
		D	ownstr	ream End				
Culvert Component		Last	Now	Explanation of Condition				
(Pipe # : 1, Span Type: Primary	/ Span)							
Direction		Е						
End Treatment (Concrete, Steel, Others, None)	STEEL							
Headwall		Х	Х					
Collar		Х	Х					
Wingwalls		Х	Х					
(Shape:)								
Cutoff Wall		X	Х					
Bevel End		8	8					
Heaving (mm)	0							
Invert Above/Below Stream Bed	BELOW							
Above/Below (mm)	100							
Scour Protection		5	5	Overgrown with grass & willows.				
(Type : RIP RAP)								
(Avg. Rock Size(mm) : 200)								
Scour/Erosion		5	5					
Beavers (Y/N)	No		'	Small amount of drift at opening.				
Downstream End General Ratio	ng	8	5					
			Upstre	am End				
Culvert Component				Explanation of Condition				
(Pipe # : 2, Span Type: Second	ary Span)							
Direction		W						
End Treatment (Concrete, Steel, Others, None)	STEEL							
Headwall		Х	Х					
Collar		Х	Х					

80902 -1 Bridge Culvert

			Upstream End						
Culvert Component		Last	Now	Explanation of Condition					
(Pipe # : 2, Span Type: Second	lary Span)								
Wingwalls		X	X						
(Shape :)									
Cutoff Wall		X	X						
Bevel End		7	7						
Heaving (mm)	0								
Invert Above/Below Stream Bed	ABOVE								
Above/Below (mm)	500								
Scour Protection		5	5						
(Type : RIP RAP)									
(Avg. Rock Size(mm) : 200)									
Scour/Erosion		5	5						
Beavers (Y/N)	Yes			5m u/s					
Upstream End General Rating		7	5						
		Brid	dae Cu	llvert Barrel					
Culvert Component			Now	Explanation of Condition					
(Pipe # : 2, Secondary Span, Lo	cation Code: MAIN. S			, Rise (mm): 800, Type: MP)					
Barrel Last Accessible Date				Viewed from ends.					
Special Features									
Special Feature									
(Type:)									
Special Feature									
(Type:)									
Roof		7	4	Sag estimated @ cl to be 7-10%					
Measured Rise (mm)									
Measured At Ring No.									
Sag (mm)									
Percent Sag									
Sidewall		7	4	Deflection estimated @ cl to be 7-10%					
Measured Span (mm)									
Measured At Ring No.									
Deflection (mm)									
Percent Deflection									
Floor		N	N						
Bulge (mm)	0								
Measured At Ring No.									
Abrasion (Y/N)	No								
Circumferential Seams		N	N						
Separation (mm)									
Longitudinal Seams		Х	Х						
Total No. of Cracked Rings									
Total No. of Rings with Two Cracked Seams									
Min. Remaining Steel Between Cracks (mm)									
Proper Lap (Y/N)									
Longitudinal Stagger (Y/N)									

Bridge Culvert Barrel									
Culvert Component				Explanation of Condition					
(Pipe # : 2, Secondary Span, Lo	cation Code: MAIN, S	Span (r	nm):	, Rise (mm): 800, Type: MP)					
Coating		6	6	Superficial rust on lower 1/3.					
Corrosion By Soil (Y/N)	Yes								
Corrosion By Water (Y/N)	Yes								
Camber POS/ZERO/NEG	ZERO								
Ponding (Y/N)	No								
Fish Passage Adequacy		3	3	Above SB					
Baffle		Х	Х						
(Type:)									
Waterway Adequacy		7	5						
Icing (Y/N)	No								
(Pipe # : 2, Secondary Span, Location Code: MAIN, Coating Corrosion By Soil (Y/N) Yes Corrosion By Water (Y/N) Yes Camber POS/ZERO/NEG ZERO Ponding (Y/N) No Fish Passage Adequacy Baffle (Type :) Waterway Adequacy									
Drift (Y/N)	No								
Barrel General Rating		N	4						
		D	ownstr	ream End					
Culvert Component		Last		Explanation of Condition					
	ary Span)								
		Е							
End Treatment (Concrete, Steel, Others, None)	STEEL								
		Х	Х						
Collar		Х	Х						
Wingwalls		Х	X						
		Х	Х						
Bevel End		7	7						
Heaving (mm)	0								
	ABOVE								
Above/Below (mm)	500								
Scour Protection		5	4	Well grassed in.					
(Type : RIP RAP)									
		5	4	Unsupporterd bevel for 200mm.					
Beavers (Y/N)	No								
Downstream End General Ratio	ng	7	4						
			Structu	re Usage					
			Now	Explanation of Condition					
Channel (U/S and D/S)									
Alignment		9	9	Wide sloughy area.					
				Large dam across inlet.					
Bank Stability		8	8						
HWM (m below Top of Culvert)				HWM not visible.					
Drift (Y/N)	Yes								
,	4			al .					

Structure Usage								
		Last	Now	Explanation of Condition				
Channel Bottom Degrading/Aggrading								
Beavers (Y/N)	Yes							
(Fish Compensation Measure 1 :	NONE)							
(Fish Compensation Measure 2 :	NONE)							
Channel General Rating		8	8					

		Maintenance R	ecommen	dations					
Inspector Recommendations	Year	Inspector Comments		Department Comm	ents		Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS									
PLACE ADDITIONAL RIP RAP									
REMOVE DRIFT ACCUMULATION									
INSTALL CONCRETE/STEEL LINING	3								
INSTALL STRUTS									
INSTALL CONCRETE COLLAR/CUT	OFF								
REPAIR SEAMS									
OTHER ACTION									
OTHER ACTION									
OTHER ACTION									
OTHER ACTION									
Structural Condition Rating (Last/N (%)	ow) 88.9/44	.4 Sufficiency Rating (Last/	Now)	73.8/39.4	Est. Repl. Yr	2028 Maint. Re		qd. (Y/N)	No
Special Monitor secondary Comments for Next Inspection	span deflection.			Department Comments					
Maintenance Reviewed By				Date		E	Estimated Tota	1 0	
Proposed Long-Term Strategy									
On 3-Year Program (Y/N)									
Proposed Action									
Previous Inspector's Name	Dave Lam		Previous	Assistant's Name					
Next Inspection Date	09-Dec-2013		Previous	ıs Inspection Date 14-Jun-2007					
Inspection Cycle (Default) (months)	39								
Comment									