				Brio	ge <u>Culv</u>	ert Inspection						
Bridge File N	umber	01217	-1 Bridge Culv			Form Type		CULM				
Year Built	4111001	1967	1 Briage Gart	<u> </u>		Lot No.		2				
Bridge or Tov	vn Name		1			Inspector Name Owen Salava						
Located Over				WATERCRS-ST		Inspector Clas		BR CLS A				
Located On			C1 9.606	William C.		Assistant Nam		DIX OLO IX				
Water Body C	Cl /Year	00.10	71 0.000			Assistant Clas						
Navigabil. Cl.						Inspection Da	-	16-Jul-2012				
Legal Land L		SW SE	C 16 TWP 45	RGE 13 W4M		Data Entry By			7			
Longitude, La):32, 52:52:43	TOL 10 WHIN		Data Entry Da		Marcia Chavez				
Road Authori			Transportation	n (ΔIT)		Reviewer Nan		01-Aug-2012 John O'Brien				
Contract Mair		CMA16	·	II (AII)		Review Date	iie	31-Jul-2012				
Clear Roadwa		12.1 /					or Namo					
AADT/Year	ay/OKEW					Dept. Review		Andrew Smikles 02-Aug-2012				
Road Classifi	ication	990 / 2011 (A) RAU-211.8-110				Follow-Up By		02-Aug-2012				
Detour Lengt			11.0-110			Follow-Op By						
Bridge Culve		3 nation										
Number of Cu		iauUII	2									
Pipe #	Barrel		Span	Rise (or Dia.)	Туре	Lengtl	h	Corr. Profile	Pl./Slab Thickness	Shape		
1	MAIN		-	4300	SP	37.8		152X51	3.0	ROUND		
2	MAIN		-	4300	SP	37.8		152X51	3.0	ROUND		
Special Featu	ures Com	ment		U	tilities (Located at)						
Special Featu		ment		U	tilities (Located at)						
				U	tilities (Located at) Gas						
Utility Attachr	ments East r		t.	U	tilities (
Utility Attachr	ments East r	·/w.	t.	U	tilities (Gas) No					
Utility Attachr Telephone Power	ments East r	·/w.	ıt.	U	tilities (Gas Municipal) No					
Utility Attachr Telephone Power Others	ments East r	·/w.	t.			Gas Municipal						
Utility Attachr Telephone Power Others	ments East r	·/w.	ıt.		ach Roa	Gas Municipal Problem (Y/N)	nt	iion				
Utility Attachr Telephone Power Others	ments East r	·/w.	t.	Appro	ach Roa	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to	nt of Condit					
Utility Attachr Telephone Power Others Remarks Horizontal Ali	East range of the second secon	·/w.		Appro-	ach Roa	Gas Municipal Problem (Y/N) d / Embankme Explanation of	nt of Condit					
Utility Attachr Telephone Power Others Remarks	East range of the second secon	·/w.	t. 12.100	Approa Last	ach Roa Now	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to	nt of Condit					
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid	East range of the second secon	·/w.		Approx Last 8 6	ach Roa Now 8	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance	nt of Condit o the Sout					
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid	East r 1 line ignment ment dth (m)	·/w.	12.100	Approa Last	ach Roa Now	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to	nt of Condit o the Sout					
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wick Embankment Sideslope (East range of the second secon	r/w. OH Eas		Approx Last 8 6	ach Roa Now 8	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance	nt of Condit o the Sout					
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid	East r 1 line gnment ment dth (m) ::1) Cover(m)	r/w. OH Eas	12.100	Approx Last 8 6	ach Roa Now 8	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a	nt of Condit othe Sout . t pipe.	th with limited	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid Embankment Sideslope ((Height of C) Guardrail (Y/I)	East r 1 line gnment ment dth (m) cuit (m)	:/w. OH Eas	12.100	Approx Lass 8 6	ach Roa Now 8 6	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a	nt of Condit othe Sout . t pipe.	th with limited	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid Embankment Sideslope ((Height of C) Guardrail (Y/I)	East r 1 line gnment ment dth (m) cuit (m)	:/w. OH Eas	12.100 2.0 Yes	Approx Lass 8 6	Roa Now 8 6	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a	nt of Condit othe Sout . t pipe.	th with limited	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid Embankment Sideslope ((Height of C Guardrail (Y/I	East r 1 line ignment ment dth (m) ::1) Cover(m) N)	:/w. OH Eas	12.100 2.0 Yes	Approx Lass 8 6	Roa Now 8 6 7	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a There are 7 daguardrail posts	othe Sout t pipe.	sections of flex ne E guardrail.	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid Embankment Sideslope ((Height of C Guardrail (Y/I	East r 1 line gnment ment dth (m) cover(m) N) coad / Eml	: 2)	12.100 2.0 Yes nt General Ra	Approx Last 8 6 N	Roa Now 8 6 7	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a There are 7 daguardrail posts	othe Sout t pipe.	sections of flex ne E guardrail.	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid Embankment Sideslope ((Height of C Guardrail (Y/I) Approach Ro	East r 1 line gnment ment dth (m) cover(m) N) coad / Eml	: 2)	12.100 2.0 Yes nt General Ra	Approx Last 8 6 N	Roa Now 8 6 7	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a There are 7 daguardrail posts	othe Sout t pipe.	sections of flex ne E guardrail.	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Align Roadway Wid Embankment Sideslope ((Height of C Guardrail (Y/I) Approach Ro Culvert Com (Pipe #: 1, S Direction	East r 1 line ignment ment dth (m) : ::1) Cover(m) N) coad / Eml span Type nt (Concre	: 2) bankme	12.100 2.0 Yes nt General Ra	Approx Last 8 6 N	Roa Now 8 6 7	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a There are 7 diguardrail posts eam End Explanation of Company	othe Sout t pipe.	sections of flex ne E guardrail.	beam & 6 brok	en timber		
Utility Attachr Telephone Power Others Remarks Horizontal Ali Vertical Align Roadway Wid Embankment Sideslope ((Height of C Guardrail (Y/I Approach Ro Culvert Com (Pipe # : 1, S Direction End Treatme	East r 1 line ignment ment dth (m) : ::1) Cover(m) N) coad / Eml span Type nt (Concre	: 2) bankme	12.100 2.0 Yes nt General Ra	Approx Last 8 6 N	Roa Now 8 6 7	Gas Municipal Problem (Y/N) d / Embankme Explanation of Crest curve to sight distance 4:1 then 2:1 a There are 7 diguardrail posts eam End Explanation of Company	othe Sout t pipe.	sections of flex ne E guardrail.	beam & 6 brok	en timber		

01217 -1 Bridge Culvert

			Upstre	am End
Culvert Component		Last	Now	Explanation of Condition
(Pipe #: 1, Span Type: Primary	Span)			
Wingwalls		Х	X	
(Shape:)				
Cutoff Wall		N	N	Buried.
Bevel End		5	5	
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	5	
(Type: RIP RAP)				
(Avg. Rock Size(mm): 300)				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
Upstream End General Rating		3	3	
		Brid	dae Cu	lvert Barrel
Culvert Component		1	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Loca	tion Code: MAIN, Spa			, Rise (mm): 4300, Type: SP)
Barrel Last Accessible Date	09-Mar-2011			South barrel.
Special Features				1.2m water in pipe; viewed from ends, shape looks good.
Special Feature				
(Type:)				-
Special Feature				
(Type:)		<u> </u>		
Roof		6	N	(Roof sag estimated. 31/May/2006).
Measured Rise (mm)	4300		1.4	(Noor sag estimated: 5 //way/2500).
Measured At Ring No.	1000			
Sag (mm)	0			
Percent Sag	0			
Sidewall		6	N	
Measured Span (mm)	4257			
Measured At Ring No.	8			
Deflection (mm)	43			
Percent Deflection	1			
Floor		N	N	
Bulge (mm)		- ' '		
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams	110	7	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			-
	0			
Total No. of Rings with Two Cracked Seams	-			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

		Bric	lge Cu	Ivert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe #: 1, Primary Span, Locat	tion Code: MAIN, Spa	n (mm):	, Rise (mm): 4300, Type: SP)
Coating		3	N	Alkaline stains and rust stains through seams. (Lower wall scaling.
Corrosion By Soil (Y/N)	Yes			27Aug2009). Rating based on past inspection info.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		Х	Х	
(Type:)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	N	GR was 6 from 09Mar2011.
		D	ownstr	ream End
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary	/ Span)			
Direction		E		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		Х	Х	
Collar		Х	Х	
Wingwalls		Х	Х	
(Shape:)				
Cutoff Wall		Х	Х	
Bevel End		6	6	Minor dents.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	4	
(Type: RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	4	Along lower edge of bevel at SE bevel - minor.
Beavers (Y/N)	No			
Downstream End General Ratio	ng	6	4	
			Upstre	am End
Culvert Component				Explanation of Condition
(Pipe # : 2, Span Type: Second	ary Span)			
Direction		W		North pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		Х	Х	
Collar		3	3	Slab alongside collar has settled 300mm & separated 100mm & tilted slightly.

01217 -1 Bridge Culvert

			Upstre	eam End
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Second	lary Span)			
Wingwalls		X	X	
(Shape:)				
Cutoff Wall		N	N	Buried.
Bevel End		6	6	
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm): 300)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Upstream End General Rating		3	3	
		Brid	dae Cu	Ilvert Barrel
Culvert Component		1	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Lo	cation Code: MAIN, S			, Rise (mm): 4300, Type: SP)
Barrel Last Accessible Date	09-Mar-2011			1.2m water in barrel; viewed from ends, shape looks good.
Special Features				
Special Feature				
(Type:)				
Special Feature				
(Type:)				
Roof		6	N	(Roof sag estimated. 09Mar2011).
Measured Rise (mm)				1)
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall		6	N	
Measured Span (mm)	4269			
Measured At Ring No.	6			
Deflection (mm)	31			
Percent Deflection	1			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	N	
Separation (mm)	0			1
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			1
	0			1
Total No. of Rings with Two Cracked Seams	-			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

		Brio	lge Cu	lvert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Lo	cation Code: MAIN, S	Span (n	nm):	, Rise (mm): 4300, Type: SP)
Coating		3	N	(Lower wall scaling. 27Aug2009). Alkaline stains and rust stains
Corrosion By Soil (Y/N)	Yes			through seams. Rating based o scaling comment.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		Х	Х	
(Type:)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	N	GR was 6 from 09Mar2011.
		D	ownstr	ream End
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Second	lary Span)			
Direction		Е		North pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		Х	X	
Wingwalls		Х	Х	
(Shape:)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	4	Substrate below rock settled approx 1.0m along bevel, riprap ok.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	4	Erosion at SE bevel.
Beavers (Y/N)	No			
Downstream End General Ratio	ng	6	4	
		S	tructu	re Usage
		1	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Gently meandering.
Bank Stability		N	4	D/S North bank failing.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

	Structure Usage							
		Last	Now	Explanation of Condition				
Channel Bottom Degrading/Aggrading	NONE							
Beavers (Y/N)	No							
(Fish Compensation Measure 1 :	NONE)							
(Fish Compensation Measure 2:	NONE)							
Channel General Rating		4	4					

			Maintenance Recommendations	nendations					
Inspector Recommendations	Year	Inspecto	Inspector Comments	Department Comments	ments	Tar	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS									
PLACE ADDITIONAL RIP RAP	2012	10m3 Cl	10m3 Class 1 @ North outlet.						
REMOVE DRIFT ACCUMULATION									
INSTALL CONCRETE/STEEL LINING	-								
INSTALL STRUTS									
INSTALL CONCRETE COLLAR/CUTOFF	OFF								
REPAIR SEAMS									
OTHER ACTION	2012	Place fo	Place foam fill btwn collars & apron.						
OTHER ACTION									
OTHER ACTION									
OTHER ACTION									
Structural Condition Rating (Last/Now) (%)	ow) 66.7/55.6	5.6	Sufficiency Rating (Last/Now) (%)	64.7/57.8	Est. Repl. Yr	2024	Maint. Reqd. (Y/N)		Yes
Special View coating next inspection. Comments for Next Inspection	nspection.			Department Comments					
Maintenance Reviewed By				Date		Estin	Estimated Total	0	
Proposed Long-Term Strategy									
On 3-Year Program (Y/N)									
Proposed Action									
Previous Inspector's Name	Jason Saly		Prev	Previous Assistant's Name					
Next Inspection Date	16-Apr-2014		Prev	Previous Inspection Date	09-Mar-2011				
Inspection Cycle (Default) (months)	21								
Comment									

Maintenance Recommen					ations						
Inspector Recommendations	Ye	ear In	nspector Comments		Department C	commen	S		Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS											
PLACE ADDITIONAL RIP RAP	20 ⁻	12 10	0m3 Class 1 @ North outlet.		Programmed	2013					
REMOVE DRIFT ACCUMULATION											
INSTALL CONCRETE/STEEL LINING											
INSTALL STRUTS											
INSTALL CONCRETE COLLAR/CUT	STALL CONCRETE COLLAR/CUTOFF										
REPAIR SEAMS	PAIR SEAMS										
OTHER ACTION	20°	Place foam fill btwn collars & apron.			Programmed			2013			
OTHER ACTION											
OTHER ACTION											
OTHER ACTION	TION										
Structural Condition Rating (Last/Now) 66.7/55.6 Sufficiency Rating (Last/Now) (%)			w) 6	64.7/57.8	Est.	Repl. Yr	2024	Maint. Re	qd. (Y/N)	Yes	
Special Comments for Next Inspection View coating next in	omments for				Department Comments	Items n	noved to 2013	3. DA			
Maintenance Reviewed By	Darron Ah	hlstedt			Date	27-Nov	-2012		Estimated Tota	1 0	
Proposed Long-Term Strategy											
On 3-Year Program (Y/N)											
Proposed Action											
Previous Inspector's Name	Jason Sal	ly	Pr	Previous Assistant's Name							
Next Inspection Date	16-Apr-20	014	Pr	evious I	nspection Date	9	09-Mar-2011				
	21										
Comment											