				Brid	ge Culv	ert Inspection						
Bridge File Nu	ımber	01710	-1 Bridge Cu			Form Type		CULM				
Year Built		1956				Lot No.		1				
Bridge or Tow	n Name	PENH	OLD			Inspector Nan	ne	Owen Salava				
Located Over		TRIBU	JTARY TO TH	REEHILLS CK,		Inspector Clas	SS	BR CLS A				
			.25, WATER(CRS-ST		Assistant Nan	ne					
Located On	I /\/	42:08	C1 15.396			Assistant Clas	SS					
Water Body C						Inspection Da	te	26-Nov-2012				
Navigabil. Cl./		NE OF	-			Data Entry By	•	Marcia Chavez				
Legal Land Lo		1		6 RGE 26 W4M		Data Entry Da	ite	06-Dec-2012				
Longitude, Lat		1	9:31, 52:07:4			Reviewer Nar	ne	John O'Brien	ohn O'Brien			
Road Authority Contract Main		CMA1	a Transportat	IOH (AH)		Review Date		04-Dec-2012				
			9			Dept. Review	er Name	Andrew Smikles				
Clear Roadwa	iy/SkeW	8.5 /	/ 2011 / / / /			Dept. Review	Date	10-Dec-2012				
AADT/Year 2,020 / 20 Road Classification RAU-210-					Follow-Up By							
		3	10-110									
Detour Length Bridge Culver												
Number of Cul		iation	2									
Pipe #	Barrel			Rise (or Dia.)	Туре	Lengt	h	Corr. Profile	Pl./Slab Thickness	Shape		
1	MAIN		-	1200	MP	50		68X13	2.8,2.8	ROUND		
2	MAIN		-	1200	MP	35		68X13	2.0,2.0	ROUND		
z Special Featur	-			1200	1411	33		JUNTO		INCOIND		
Special Featur		mont										
Геlephone	South		f c/l	U	tilities (Gas						
Telephone Power Others	South	n r/w. 5m N of	f c/l.	U	tilities () No					
Telephone Power Others	South		f c/l.			Gas Municipal						
Utility Attachm Telephone Power Others Remarks	South		f c/l.		nch Roa	Gas Municipal Problem (Y/N	nt	tion				
Telephone Power Others Remarks	South 3W 29		f c/l.	Approa	ıch Roa	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access	nt of Condi	 Е.				
Telephone Power Others Remarks	South 3W 29		f c/l.	Approa Last	nch Roa	Gas Municipal Problem (Y/N d / Embankme Explanation	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig	South 3W 2		f c/l.	Approa Last	Now	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt	South 3W 2			Approa Last	Now	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt	South 3W 29			Approx Last 8 6	Now 8	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt	South 3W 2s	5m N of	10.800	Approx Last 8 6	Now 8	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co	gnment nent th (m) _:1) over(m)	5m N of	10.800	Approx Last 8 6	Now 8	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co	gnment nent th (m) _:1) over(m)	5m N of	10.800 3.5 No	Approx Last 8 6	Now 8	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom	nt of Condi	 Е.				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co	South 3W 2s gnment nent th (m) _:1) over(m)	5m N of	10.800 3.5 No	Approa Last 8 6	Now 8 6	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co Guardrail (Y/N Approach Ro	South 3W 29 gnment nent th (m) _:1) over(m) l) ad / Emi	: 3)	3.5 No ent General I	Approx Last 8 6	Now 8 6	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co Guardrail (Y/N Approach Ro Culvert Comp	South 3W 29 gnment nent th (m) _:1) over(m) l) ad / Emi	: 3)	3.5 No ent General I	Approa Last 8 6	Now 8 6	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co Guardrail (Y/N Approach Ro Culvert Comp (Pipe # : 1, Sp Direction End Treatmen	gnment nent th (m) _:1) over(m) l) ad / Emi	: 3) bankme	3.5 No ent General I	Approa Last 8 6	Now 8 6	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_	gnment nent th (m) _:1) over(m) l) ad / Emi	: 3) bankme	3.5 No ent General I	Approa Last 8 6	Now 8 6	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co Guardrail (Y/N Approach Ro Culvert Comp (Pipe # : 1, Sp Direction End Treatmen Others, None) Headwall	gnment nent th (m) _:1) over(m) l) ad / Emi	: 3) bankme	3.5 No ent General I	Approa Last 8 6 7	Now 8 6 7	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				
Telephone Power Others Remarks Horizontal Alig Vertical Alignn Roadway Widt Embankment Sideslope (_ (Height of Co Guardrail (Y/N Approach Ro Culvert Comp (Pipe # : 1, Sp Direction End Treatmen Others, None)	gnment nent th (m) _:1) over(m) l) ad / Emi	: 3) bankme	3.5 No ent General I	Approx Last 8 6 7	Roa Now 8 6 7	Gas Municipal Problem (Y/N d / Embankme Explanation of Farm access In the bottom passing EB.	nt of Condi 100 m Sl of a sag	E. curve, no				

			Unctro	eam End
Culvert Component				Explanation of Condition
(Pipe # : 1, Span Type: Primary	/ Snan)	Last	INOW	Explanation of condition
Cutoff Wall	, Opa ,	X	Х	
Bevel End	I	X	X	Bevel removed. Inlet crown bent inward restricting opening.
Heaving (mm)	0			The Crown bent inward restricting opening.
Invert Above/Below Stream Bed				
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered.
(Type : NATURAL)				
(Avg. Rock Size(mm):)			1 .	
Scour/Erosion		N	4	Snow covered. Appears to have possible erosion around pipe.
Beavers (Y/N)	No			Trapposition to make processing of control and proper
Upstream End General Rating		N	4	
		Bri	dae Cu	lvert Barrel
Culvert Component			Now	Explanation of Condition
(Pipe # : 1, Primary Span, Loca	tion Code: MAIN, Sp			, Rise (mm): 1200, Type: MP)
Barrel Last Accessible Date	26-Nov-2012			East pipe.
Special Features			1	
Special Feature				
(Type:)			1	
Special Feature				
(Type:)			T _	
Roof	I	N	5	
Measured Rise (mm)	1120			Midspan.
Measured At Ring No.				
Sag (mm)	80			
Percent Sag	6			
Sidewall Span (mm)	1210	N	4	
Measured Span (mm) Measured At Ring No.	1310			Midspan.
	110			-
Deflection (mm) Percent Deflection	9			_
Floor	J 3	N	N	Ice/water covered.
Bulge (mm)	0	IN	111	ice/water covered.
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams	1	N	5	
Separation (mm)	0	- ' '		-
Longitudinal Seams		N	5	Riveted.
Total No. of Cracked Rings			<u> </u>	
Total No. of Rings with Two				1
Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		N	5	Minor rusting.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

		Bri	dge Cu	Ivert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe #: 1, Primary Span, Loca	tion Code: MAIN, Spa	ın (mm	1):	, Rise (mm): 1200, Type: MP)
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Outlet perched 0.3m.
Baffle		Х	Х	
(Type:)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			4	
				eam End
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary	y Span)			
Direction	I	S		East pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar			X	
Wingwalls		X	X	
(Shape:)				
Cutoff Wall		X	X	
Bevel End		3	3	Crown torn, damage along shoulder (photo).
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500		_	
Scour Protection		4	4	
(Type : NONE)				
(Avg. Rock Size(mm):)				
Scour/Erosion		4	4	Pipe overhangs embankment - minor erosion.
Beavers (Y/N)	No			
Downstream End General Ratio	ng	3	3	
			Upstre	am End
Culvert Component			Now	Explanation of Condition
(Pipe # : 2, Span Type: Second	lary Span)			
Direction		N		West pipe. Overflow pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		Х	Х	
Collar		Х	Х	
Wingwalls		Х	Х	
(Shape:)				
Cutoff Wall		X	X	

			Unstre	eam End
Culvert Component				Explanation of Condition
(Pipe # : 2, Span Type: Second	ary Span)			
Bevel End	· · ·	4	4	Crown dented downwards est. 200mm (photo).
Heaving (mm)	0			Y,
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1200			
Scour Protection		4	4	
(Type: NATURAL)				
(Avg. Rock Size(mm):)				
Scour/Erosion		4	4	Bevel protruding from fill, gap under bevel.
Beavers (Y/N)	No			
Upstream End General Rating		4	4	
		Brid	dge Cu	ilvert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Lo	cation Code: MAIN,	Span (r	mm):	, Rise (mm): 1200, Type: MP)
Barrel Last Accessible Date	26-Nov-2012			West barrel.
Special Features				
Special Feature				
(Type:)				
Special Feature				
(Type:)				
Roof		2	2	
Measured Rise (mm)	1015			Midspan.
Measured At Ring No.				- Iviiuspan.
Sag (mm)	185			15.4%
Percent Sag	15			
Sidewall		2	2	Barrel shape is uniform with adequate arching capability.
Measured Span (mm)	1380			Midspan.
Measured At Ring No.				1
Deflection (mm)	180			15.7%.
Percent Deflection	15			
Floor		N	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	5	No infiltration.
Separation (mm)	125			
Longitudinal Seams		X	6	Rivetted.
Total No. of Cracked Rings	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			
Coating		5	5	Superficial rusting on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

		Brid	dae Cu	Ivert Barrel				
Culvert Component		1	Now	Explanation of Condition				
(Pipe # : 2, Secondary Span, Lo	cation Code: MAIN, S	Span (r	mm):	, Rise (mm): 1200, Type: MP)				
Ponding (Y/N)	No							
Fish Passage Adequacy		3	3	Outlet 1m above streambed; no flow.				
Baffle		Х	Х					
(Type:)								
Waterway Adequacy		6	6					
Icing (Y/N)	No							
Silting (Y/N)	No							
Drift (Y/N)	No							
Barrel General Rating		2	2					
		D	ownstr	ream End				
Culvert Component				Explanation of Condition				
(Pipe # : 2, Span Type: Second	larv Span)	1_0.01	1					
Direction	, ,	s						
End Treatment (Concrete, Steel, Others, None)	STEEL							
Headwall		Х	Х					
Collar			X					
Wingwalls			X					
(Shape:)		Х	1					
Cutoff Wall			X					
Bevel End		5	5	Minor damage				
Heaving (mm)	0							
Invert Above/Below Stream Bed	ABOVE							
Above/Below (mm)	1000							
Scour Protection		4	4					
(Type : NONE)								
(Avg. Rock Size(mm):)								
Scour/Erosion		4	4	Overhang over embankment, erosion around bevel.				
Beavers (Y/N)	No							
Downstream End General Ratio	ng	4	4					
		•	Structu	re Usage				
			Now	Explanation of Condition				
Channel (U/S and D/S)		Luot	11011	Explanation of Condition				
Alignment		7	7					
Bank Stability		7	7					
HWM (m below Top of Culvert)			1	HWN not visible.				
Drift (Y/N)	No							
Channel Bottom Degrading/Aggrading				Unknown.				
Beavers (Y/N)	No							
(Fish Compensation Measure 1 :	NONE)							
(Fish Compensation Measure 2 :	NONE)							
Channel General Rating		7	7					

		Maintenance Ro	Maintenance Recommendations				
Inspector Recommendations	Year	Inspector Comments	Department Comments	omments	Target Year	Est. Cost	Cat#
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2013	15m3 CL1 at ends.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2020	Replace culvert.					
OTHER ACTION	2013	Jack out bends in bevels. Cut-off torn roof at outlet.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	.2 Sufficiency Rating (Last/Now) (%)	Now) 29.9/29.9	Est. Repl. Yr 2016	Maint. Reqd. (Y/N)		Yes
Special No need to shorten inspection cycle at this time; current Comments for sufficient, but measure span & rise at each inspection. No action on outlet crown of E pipe. LRA sent to Donald Saunders on 03Dec2012.	ection cycle span & rise a n of E pipe. Inders on 03	at this time; current inpection frequency is at each inspection. 5Dec2012.	ocy is Department Comments				
Maintenance Reviewed By			Date		Estimated Total	0	
Proposed Long-Term Strategy Cul	Iverts should	Culverts should be good until 2020.RS					
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name Ow	Owen Salava		Previous Assistant's Name	Je			
Next Inspection Date 26-	26-Aug-2014		Previous Inspection Date	12-Apr-2011			
Inspection Cycle (Default) (months) 21							
Comment							

				Maintenance Red	commend	dations					
Inspector Recomm	mendations		Year	Inspector Comments		Department C	comments		Target Year	Est. Cost	Cat #
SHOTCRETE RE	PAIRS										
PLACE ADDITION	NAL RIP RAP		2013	15m3 CL1 at ends.		Defer until rep	lacement	2023			
REMOVE DRIFT	ACCUMULATION										
INSTALL CONCR	ETE/STEEL LINING	G									
INSTALL STRUTS	3										
INSTALL CONCR	ETE COLLAR/CUT	OFF									
REPAIR SEAMS											
OTHER ACTION			2020	Replace culvert.		Defer until replacement			2023		
OTHER ACTION			2013	Jack out bends in bevels. Cut-off torn roof at outlet.		Defer until replacement			2023		
OTHER ACTION											
OTHER ACTION											
OTHER ACTION											
Structural Condition Rating (Last/Now (%)			22.2/22	.2 Sufficiency Rating (Last/N	Now)	29.9/29.9	Est. Rep	. Yr 2016	Maint. Re	eqd. (Y/N)	Yes
Special Comments for Next Inspection No need to shorten inspection Sufficient, but measure so the sufficient sufficient so the sufficient sufficien		sure spa crown c	n & rise of E pipe) <u>.</u>	ncy is	Department Comments	Currently sch	neduled for rep	placment in 2023.	DA	
Maintenance Reviewed By Darro		Darron	Darron Ahlstedt Date 04-Mar-2013						Estimated Total	al O	
·		Culvert	ts should	d be good until 2020.RS							
On 3-Year Progra	m (Y/N)										
Proposed Action											
Previous Inspecto	r's Name	Owen S	Salava		Previous	s Assistant's Name					
Next Inspection D	ate	26-Aug	g-2014		Previous	Inspection Date	e 12-Ap	or-2011			
Inspection Cycle ((Default) (months)	21									
Comment											