					3rida	e Culve	ert Insp	ection					
Bridge File Nur	mber	75370 -	1 Bridge Culve				Form 7			CULM			
Year Built		1963					Lot No			4			
Bridge or Towr	Name	WETAS	KIWIN					tor Name		Owen Salava			
Located Over			NE CREEK, 5	.47.4, WA1	ΓERC	RS-ST		tor Class		BR CLS A			
Located On			3.532;2:30 R1					ant Name					
Water Body CI	./Year						Assista	ant Class					
						Inspec	tion Date		20-Feb-2013				
Legal Land Location  SE SEC 25 TWP 46 RGE 26 W4N  Longitude, Latitude -113:38:37, 52:59:29  Road Authority Alberta Transportation (AIT)  Contract Main. Area CMA17  Clear Roadway/Skew 23 /  AADT/Year 24,410 / 2011 (A)  Road Classification RAD-412.4-120  Detour Length (km)  Bridge Culvert Information  Number of Culverts 4				M			ntry By		Marcia Chavez				
Longitude, Lati	tude	-113:38:	37, 52:59:29				Data E	ntry Date		11-Mar-2013			
Road Authority	,	Alberta -	Transportation	(AIT)			Reviev	ver Name		John O'Brien			
Contract Main.	Area	CMA17					Reviev	v Date		27-Feb-2013			
Clear Roadway	//Skew	23 /					Dept. F	Reviewer	Name	Chris Black			
AADT/Year		24,410 /	2011 (A)	11 (A)			Dept. F	Review Da	ate	14-Mar-2013			
Road Classification RAD-412.			2.4-120				Follow	-Up By					
Detour Length	(km)	1											
Number of Cul-	verts		4										
Pipe #	Barrel		Span	Rise (or D	Dia.)	Туре		Length		Corr. Profile	Pl./Slab Thickness	Shape	
1	MAIN		2314	2552		SPE		65.7		152X51	3.5,3.5,3.5	ELLIPSE	
2	MAIN		2610	2879		SPE		65.7		152X51	3.5,3.5,3.5	ELLIPSE	
3	MAIN		2610	2879		SPE		65.7		152X51	3.5,3.5,3.5	ELLIPSE	
4	MAIN		2314	2552		SPE		65.7		152X51	3.5,3.5,3.5	ELLIPSE	
Special Features													
Special Feature	es Comi	ment											
					1175	U:(! /I		-1)					
Litility Attachma	onto				Uti	lities (L	ocated	at)					
Utility Attachmo	enis						Gas		1				
Power							Munici	nal					
Others								m (Y/N)	No				
Remarks							1 TODIC	111 (1714)	110				
Romano				Ap	oproach Road / Embankment								
				T	Last	Now		ation of		tion			
Horizontal Alig	nment				8	8							
Vertical Alignm					8	8							
Roadway Widt	h (m)		23.000										
Embankment					7	7							
Sideslope (_	_:1)		4.0										
(Height of Co	ver(m)	: 2)	·										
Guardrail (Y/N)	)		Yes										
Approach Roa	ad / Eml	bankmer	nt General Rat	ing	8	8							
						Upstre	am End						
<b>Culvert Comp</b>	onent				Last	Now		nation of	Condi	tion			
(Pipe # : <b>1, S</b> p	an Typ	e: Prima	ry Span)										
Direction					W		South	pipe.					
End Treatment Others, None)	(Concre	ete, Stee	I, STEEL										
Headwall					Х	Х							
Collar					Х	Х							

75370 -1 Bridge Culvert

			Unstre	eam End			
Culvert Component		1		Explanation of Condition			
(Pipe # : 1, Span Type: Primary	v Span)		1.1011				
Wingwalls	,	Х	Х				
(Shape: )		, , ,					
Cutoff Wall		Х	X				
		, ,					
Bevel End		4	N	(Small mower tears in roof. 12Jul2011) - Not visible due to snow.			
Heaving (mm)	0						
Invert Above/Below Stream Bed	ABOVE						
Above/Below (mm)	200						
Scour Protection		5	N	Snow covered.			
(Type : RIP RAP)							
(Avg. Rock Size(mm) : 300)							
Scour/Erosion		5	N	Snow covered.			
Beavers (Y/N)	No						
Upstream End General Rating		4	4	GR carried forward from 12Jul2011.			
		D::	dae Cr	Ivert Barrel			
Culvert Component		_		Explanation of Condition			
(Pipe # : 1, Primary Span, Loca	tion Code: MAIN Sna						
Barrel Last Accessible Date	20-Feb-2013		i). 2314	South pipe.			
Barrel Last Accessible Date	20-1 60-2013			South pipe.			
Special Features							
Special Feature							
(Type:)							
Special Feature							
(Type:)							
Roof		7	7				
Measured Rise (mm)	2496						
Measured At Ring No.	5			F + 0.004			
Sag (mm)	56			Est 2.2%.			
Percent Sag	2						
Sidewall		7 7		Span @ R5 = 2355, 41mm. R12 = 2304, 10mm.			
Measured Span (mm)	2357						
Measured At Ring No.	20						
Deflection (mm)	43			1.9%			
Percent Deflection	2						
Floor		N	N	Silt & ice covered.			
Bulge (mm)							
Measured At Ring No.							
Abrasion (Y/N)	No						
Circumferential Seams		7	7				
Separation (mm)	0						
Longitudinal Seams		7	7				
Total No. of Cracked Rings 0							
Total No. of Rings with Two Cracked Seams							
Min. Remaining Steel Between Cracks (mm)				TN.			
Proper Lap (Y/N)	No						
Longitudinal Stagger (Y/N)	Yes						

Bridge Culvert Barrel								
Culvert Component				Explanation of Condition				
(Pipe #: 1, Primary Span, Local	tion Code: MAIN, Spa	n (mm	): 2314	, Rise (mm): 2552, Type: SPE)				
Coating		4	4	Minor pitting & scaling in lower 1/2 of pipe.				
Corrosion By Soil (Y/N)	No							
Corrosion By Water (Y/N)	Yes							
Camber POS/ZERO/NEG	ZERO							
Ponding (Y/N)	No							
Fish Passage Adequacy		6	6					
Baffle		Х	Х					
(Type:)								
Waterway Adequacy		6	6					
Icing (Y/N)	No							
Silting (Y/N)	Yes							
Drift (Y/N)	No							
Barrel General Rating		7	7					
		D	ownstr	ream End				
Culvert Component		Last	Now	Explanation of Condition				
(Pipe # : 1, Span Type: Primary	/ Span)			, <u> </u>				
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					
Heaving (mm)	150							
Invert Above/Below Stream Bed	ABOVE							
Above/Below (mm)	300							
Scour Protection		5	N	Snow covered.				
(Type : RIP RAP)								
(Avg. Rock Size(mm) : 300)								
Scour/Erosion		5	N	Snow covered.				
Beavers (Y/N)	No							
Downstream End General Ratio	ng	5	5	GR carried forward from 11Jul2011.				
			Upstre	am End				
Culvert Component		Last	Now	Explanation of Condition				
(Pipe # : 2, Span Type: Second	ary Span)							
Direction		W		2nd pipe from the North.				
End Treatment (Concrete, Steel, Others, None)	STEEL							
Headwall		Х	Х					
Collar		Х	Х					

75370 -1 Bridge Culvert

			Unetre	eam End
Culvert Component				Explanation of Condition
(Pipe # : 2, Span Type: Second	larv Span)		1.1011	- Appariation of Containon
Wingwalls	,,	Х	X	
(Shape: )				
Cutoff Wall		Х	X	
0.000				
Bevel End		6	6	
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	N	Bevel projects 600mm from fill.
(Type: RIP RAP)				Snow covered.
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	(Scour at side, typical from S. 12Jul2011) - Snow covered.
5 0(4)				
Beavers (Y/N)	No			
Upstream End General Rating		5	5	GR carried forward from 12Jul2011.
	Ī	1		Ivert Barrel
Culvert Component				Explanation of Condition
		Span (ı	nm): 2	610, Rise (mm): 2879, Type: SPE)
Barrel Last Accessible Date	20-Feb-2013			2nd pipe from south.
Special Features				
Special Feature				
(Type:)				
Special Feature				
(Type:)				
Roof		7	7	Unable to measure rise due to silt.
Measured Rise (mm)		/		Orlable to measure rise due to siit.
, ,				_
Measured At Ring No. Sag (mm)				-
Percent Sag				(Est 2%. Unknown date).
		7	7	Cnor @ D40 2007 22mm D5 2004 44mm
Sidewall On any (same)	0077	7	7	Span @ R12 = 2587, 23mm. R5 = 2651, 41mm.
Measured Span (mm)	2677			
Measured At Ring No.	20			-
Deflection (mm)	67			2.6%
Percent Deflection	3			Cite and a cite in
Floor		N	N	Silt covered with ice.
Bulge (mm)				-
Measured At Ring No.	NI-			-
Abrasion (Y/N)	No			
Circumferential Seams		7	7	-
Separation (mm)	0			
Longitudinal Seams	I -	7	7	
Total No. of Cracked Rings 0				-
Total No. of Rings with Two Cracked Seams				1N.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

		Brid	dge Cu	Ivert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe #: 2, Secondary Span, Lo	cation Code: MAIN, S	Span (r	nm): 26	610, Rise (mm): 2879, Type: SPE)
Coating		4	4	Minor pitting & scaling in lower 1/3 of pipe.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		Х	Х	
(Type:)				
Waterway Adequacy		6	6	Silt deposit approx 200-400mm between R7 & R12.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	7	
Culvert Component		Last	Now	ream End
Culvert Component (Pipe # : 2, Span Type: Second	lary Snan)	Lasi	INOW	Explanation of Condition
Direction	lary Opari)	Е		2nd pipe from the South.
	CTEEL			2 nd pipe nom the South.
End Treatment (Concrete, Steel, Others, None)	SIEEL			
Headwall		Х	Х	
Collar		Х	Х	
Wingwalls		Х	X	
(Shape: )				
Cutoff Wall		Х	Х	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		4	4	Scour @ D/S. Hole 4m x 2m x 0.5, streambed on pipe eroded 0.5m; partially visible with snow.
Beavers (Y/N)	No			
Downstream End General Ratio	 ng	4	4	
	3			
Culvert Common				am End
Culvert Component	lary Span	Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Second	iai y Spali)	١٨/		2rd nine from Couth
Direction	CTEEL	W		3rd pipe from South.
End Treatment (Concrete, Steel, Others, None)	SIEEL			
Headwall		Х	Х	
Collar		Х	Х	

Alberta Transportation

			l les a terra	am End
Culvert Component				eam End
Culvert Component	long Chan)	Last	NOW	Explanation of Condition
(Pipe # : 3, Span Type: Second	iary Span)			
Wingwalls		X	X	
(Shape: )				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	300			
Scour Protection	,	5	N	Bevel projects 300mm beyond fill.
(Type : <b>RIP RAP</b> )				Snow covered.
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		5	N	Snow covered.
			L '`	Onen covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
		Brid	dge Cu	lvert Barrel
<b>Culvert Component</b>		Last	Now	Explanation of Condition
(Pipe #: 3, Secondary Span, Lo	ocation Code: MAI	N, Span (r	nm): 2	610, Rise (mm): 2879, Type: SPE)
Barrel Last Accessible Date	20-Feb-2013			3rd pipe from S.
Special Features				
Special Feature				
(Type:)				
Special Feature				
(Type:)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	2813			
Measured At Ring No.	10			
Sag (mm)	66			(Est 2.3%. Unknown date).
Percent Sag	2			
Sidewall		7	7	Span @ R12 = 2606, 4mm. R20 = 2689, 79mm.
Measured Span (mm)	2697			
Measured At Ring No.	5			
Deflection (mm)	87			3.3%
Percent Deflection	3			
Floor		N	N	Silt & ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			1
Total No. of Rings with Two				1
Cracked Seams				1.11
Min. Remaining Steel Between Cracks (mm)				TN.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel								
Culvert Component		Last	Now	Explanation of Condition				
(Pipe #: 3, Secondary Span, Lo	cation Code: MAIN, S	Span (r	nm): 26	610, Rise (mm): 2879, Type: SPE)				
Coating		4	4	Minor pitting & scaling in lower 1/3 of pipe.				
Corrosion By Soil (Y/N)	No							
Corrosion By Water (Y/N)	Yes							
Camber POS/ZERO/NEG	ZERO							
Ponding (Y/N)	No							
Fish Passage Adequacy		6	6					
Baffle		Х	Х					
(Type:)								
Waterway Adequacy		6	6					
Icing (Y/N)	No							
Silting (Y/N)	Yes							
Drift (Y/N)	No							
Barrel General Rating		7	7					
		D	ownstr	eam End				
Culvert Component		Last	Now	Explanation of Condition				
(Pipe #: 3, Span Type: Second	ary Span)							
Direction		Е		3rd pipe from South.				
End Treatment (Concrete, Steel, Others, None)	STEEL							
Headwall		Х	Х					
Collar		Х	X					
Wingwalls		Х	Х					
(Shape: )								
Cutoff Wall		Х	X					
Bevel End		5	5					
Heaving (mm)	0							
Invert Above/Below Stream Bed	ABOVE							
Above/Below (mm)	200							
Scour Protection		4	4					
(Type : RIP RAP)								
(Avg. Rock Size(mm) : 300)								
Scour/Erosion		4	4	Scour 5mx4m @ SE, shallow basin; partially visible with snow.				
Beavers (Y/N)	No							
Downstream End General Ratin	ng	4	4					
			Upstre	am End				
Culvert Component		Last		Explanation of Condition				
(Pipe # : 4, Span Type: Second	lary Span)							
Direction		W		North pipe.				
End Treatment (Concrete, Steel, Others, None)	STEEL	.,		1 L.P.				
Headwall		Х	Х					
Collar		Х	Х					

Alberta Transportation

			Heatus	om Fod			
Culvert Component				eam End			
Culvert Component	lami Casa)	Last	INOW	Explanation of Condition			
(Pipe # : 4, Span Type: Second	iary Span)						
Wingwalls		X	X	_			
(Shape: )							
Cutoff Wall		X	X				
Bevel End		5	5				
Heaving (mm)	0						
Invert Above/Below Stream Bed							
Above/Below (mm)	200						
Scour Protection	1_00	5	N	Snow covered.			
(Type : RIP RAP)							
(Avg. Rock Size(mm) : <b>300</b> )				-			
Scour/Erosion		5	N	Snow covered.			
Codu/Erosion			_ '` <u> </u>	Onew covered.			
Beavers (Y/N)	No						
Upstream End General Rating	'	5	5				
		Brid	dae Cu	Ilvert Barrel			
Culvert Component				Explanation of Condition			
	ocation Code: MA			314, Rise (mm): 2552, Type: SPE)			
Barrel Last Accessible Date	20-Feb-2013		,. <u>-</u>	North pipe.			
Barrer East / todessible Bate	20100 2010			Horar pipe.			
Special Features							
Special Feature							
(Type:)							
Special Feature							
(Type:)							
Roof		7	7	Unable to measure due to ice.			
Measured Rise (mm)	2588						
Measured At Ring No.	12						
Sag (mm)	36			(1.4%. 12Jul2011).			
Percent Sag	1			(11770) 1254(2511)			
Sidewall		7	7	Span @ R12 = 2302, 12mm. R20 = 2359, 45mm.			
Measured Span (mm)	2372						
Measured At Ring No.	5						
Deflection (mm)	58			2.5%			
Percent Deflection	3						
Floor		N	N	Silt & ice.			
Bulge (mm)				1			
Measured At Ring No.							
Abrasion (Y/N)	No			1			
Circumferential Seams		7	7				
Separation (mm)	0			-			
Longitudinal Seams	-	7	7				
Total No. of Cracked Rings	0			-			
				-			
Total No. of Rings with Two Cracked Seams				1N.			
Min. Remaining Steel Between Cracks (mm)							
Proper Lap (Y/N)	No						
Longitudinal Stagger (Y/N)	Yes						

75370 -1 Bridge Culvert

		Brio	lge Cu	Ivert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe #: 4, Secondary Span, Lo	cation Code: MAIN, S	Span (n	nm): 23	314, Rise (mm): 2552, Type: SPE)
Coating		4	4	Minor pitting & scaling in lower 1/2 of pipe.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		Х	Х	
(Type:)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	7	
		D	ownstr	ream End
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Span Type: Second	ary Span)			
Direction		Е		North pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		Х	X	
Collar		Х	Х	
Wingwalls		Х	Х	
(Shape: )				
Cutoff Wall		Х	Х	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Ratio	ng	5	5	
		s	tructu	re Usage
		1	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	West side near 75 degree bends to South.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage									
		Last	Now	Explanation of Condition					
Channel Bottom Degrading/Aggrading				Unknown.					
Beavers (Y/N)	No								
(Fish Compensation Measure 1 :	NONE)								
(Fish Compensation Measure 2 :	(Fish Compensation Measure 2 : NONE)								
Channel General Rating			6						

		Maintenanc	e Recommen	dations					
Inspector Recommendations	Year	Inspector Comments		Department Com	ments		Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS									
PLACE ADDITIONAL RIP RAP									
REMOVE DRIFT ACCUMULATION									
INSTALL CONCRETE/STEEL LINING	i								
INSTALL STRUTS									
INSTALL CONCRETE COLLAR/CUTO	OFF								
REPAIR SEAMS									
OTHER ACTION									
OTHER ACTION									
OTHER ACTION									
OTHER ACTION									
Structural Condition Rating (Last/No. (%)	ow) 77.8/77	77.8/77.8 Sufficiency Rating (Las		65.0/65.0	Est. Repl. Yr	2033 Maint. Re		qd. (Y/N)	No
Special No action for floor control Next Inspection	orrosion or scou	ur at this time.		Department Comments					
Maintenance Reviewed By				Date		Е	Estimated Tota	1 0	
Proposed Long-Term Strategy									
On 3-Year Program (Y/N)									
Proposed Action									
Previous Inspector's Name	Owen Salava		Previous	us Assistant's Name					
Next Inspection Date	20-Nov-2014		Previous	us Inspection Date 12-Jul-2011					
Inspection Cycle (Default) (months)	21								
Comment									