

Sudbury, October 29, 2019

Mr. Barry Turcotte, Public Works Superintendent

Municipality of Temagami,

7 Lakeshore Drive, P.O. Box 220, Temagami, Ontario, POH 2HO

Your Ref.:

2019 Municipal Bridge Inspections

Our Ref.:

SUD-00019064-IS

Subject:

2019 Municipal Bridge Inspections

Dear Mr. Turcotte:

Further to your request, we visually reviewed the general condition of the following three (3) municipal bridges on October 4, 2019:

- Bridge No. 001 Wilson Lake Road Bridge No. 1,
- Bridge No. 002 Wilson Lake Road Bridge No. 2, and
- Bridge No. 003 Temagami Lake Access Road Bridge

The reviews were carried out, by Mr. Stephen Ho, M. Eng., P. Eng. of EXP Services Inc., in conformance to the requirements of a typical inspection of the Ontario Structure Inspection Manual (OSIM) published by the Ministry of Transportation, Ontario. The extent of the visual reviews was limited to areas readily accessible without the use of special inspection equipment. The bridge was observed from the road surface and riverbank only. No destructive or non-destructive or any other performance testing were conducted as part of this assignment. Therefore, identifying concealed physical deficiencies are specifically excluded from our scope of work. Findings and our recommendations are summarized in the following paragraphs:

Bridge No. 001 Wilson Lake Road Bridge No. 1

The subject bridge is a three-span steel girder timber deck bridge. The superstructure, completely replaced in 2014, consists of $5 - W410 \times 54$ steel girders, and $38 \text{mm} \times 190 \text{mm}$ transverse laminated timber deck overlain by a 75 mm thick timber wear deck. C250 x 23 diaphragms are provided at abutment and pier bearing locations. Traffic barrier consists of steel beam guide rails and timber posts. The substructure, both abutment and pier, consists of timber pile bents constructed with 5 - 300 mm diameter piles. New steel W250 x 73 pile caps were installed during the 2014 Rehabilitation.

Superstructure and all pile caps are generally in good to excellent condition. Timber pile bent abutments and piers appear to be stable. No evidence of movement is observed.

Completed OSIM Forms and site photographs are attached at the end of this report letter.

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Mr. Barry Turcott Municipality of Temagami Re: 2019 Municipal Bridge Inspections EXP Project Number: SUD-00019064-IS Date: October 29, 2019

Bridge No. 002 Wilson Lake Road Bridge No. 2

The subject structure is a single span 7-bay long (21.34m) Triple-Single (TS) standard width Bailey Bridge with two (2) transoms per bay. Bridge deck consists of 38mm x 140mm timber planks at 230mm c/c and 38mm thick full width wear deck. Substructure consists of standard Bailey base plates and bearing timbers founded directly on grade.

The Bailey panels and components are generally in fair condition. Medium corrosion is observed on some of the panels and transoms. Swaybraces appears to be correctly tensioned. Some minor damages were observed on the panels.

The bridge is currently posted with a triple load posting of 50t; 36t and 21t for vehicle trains; two-unit vehicles and single-unit vehicles respectively.

The bridge is generally in fair to good condition. Severe deteriorations were observed on timber curbs and approach guide rail timber posts. Minor settlements/movements were observed at three of the four bearing pads. We would recommend monitoring the settlements at all four (4) corners of the bridge where bearing pads are found.

Completed OSIM Forms and site photographs are attached at the end of this report letter.

Bridge No. 003 Temagami Lake Access Road Bridge

Temagami Lake Access Road Bridge is a single span steel stringer type bridge with timber/fiber glass composite deck. Substructure consists of concrete abutments with steel panel facings.

The bridge is general in good condition. Light to medium corrosion were observed at some of the girder ends. Coating on the abutment and wingwall steel panels were heavily deteriorating. Area of severe corrosion on base metal were observed. We would recommend the Municipality considering re-coating the steel components of the bridge. In addition, one identified broken timber guide rail post should also be replaced.

Completed OSIM Forms and site photographs are attached at the end of this report letter.

We trust the above is satisfactory for your consideration. However, should you have any questions, please do not hesitate to contact our office.

Best regards,

Digitally signed by Stephen Ho
DN: C=CA,
E=steve.ho@exp.com,
O=EXP Services Inc,
OU#Infrastructure,
CN=Stephen Ho
Date: 2019.10.29
16:52:43-04'00'

Stephen H. Ho, M.Eng., P.Eng. Project Manager

Professional License #: 90221938

Enclosed: 2019 OSIM Inspection Forms and Site Photos



Mr. Barry Turcott Municipality of Temagami Re: 2019 Municipal Bridge Inspections EXP Project Number: SUD-00019064-IS Date: October 29, 2019

2019 OSIM FORM Bridge #001 – Wilson Lake Road Bridge No. 1



Municipality of	Temagami,	Bridge #	001

${\bf Ontario\ Structure\ Inspection\ Manual-Inspection\ Form}$

MTO Site Number: N/A

Inventory Data: 2019							
Structure Name	Wilson Lake Ro	oad Bridge I					
Main Hwy/Road #	N/A	On ☑ Under □	Crossing □ Navig. Water □ Non-Navig. Water □ Rail Type: □ Road □ Ped. □ Other				
Hwy/Road Name	Wilson Lake Ro	pad					
Structure Location	6.8 km South V	Vest of Hwy 11					
Latitude	46° 55' 28" N		Longitude 79° 48' 35" W				
Owner(s)	Municipality of	Temagami	Heritage ☑ Not Cons. ☐ Cons./not App. ☐ List/not Desig. Designation: ☐ Desig./not List ☐ Desig. & List				
MTO Region	Northern		Road Class: Freeway 🗆 Arterial 🗆 Collector 🖸 Local 🗈				
MTO District	Sudbury		Posted Speed No. of Lanes 2				
Old County			AADT % Trucks				
Geographic Twp.			Inspection Route Sequence				
Structure Type	Steel Girder, Ti	mber Deck	Interchange Number				
Total Deck Length	12.2	(m)	Interchange Structure Number				
Overall Str. Width	5.9	(m)	Min. Vertical Clearance (m)				
Total Deck Area	-1-	(sq.m)	Special Routes: ☐ Transit ☐ Truck ☐ School ☐ Bicycle				
Roadway Width	5.2	(m)	Detour Length Around Bridge (km)				
Skew Angle	0	(Degrees)	Direction of Structure				
No. of Spans	3		Fill on Structure (m)				
Span Lengths	North 3.9 m; 4.2	2 m; 3.9 m South	(m)				
Historical Data:							
Year Built			Year of Last Major Rehab. 2014				
Last OSIM Inspecti	on Oct	ober 2017	Last Evaluation Aug 2014				
Last Enhanced OSIM	I Inspection		Current Load Limit / / (tonnes)				
Enhanced Access E (ladder, boat, lift, et			Load Limit By-Law #				
Last Underwater Ins	spection		By-Law Expiry Date				
Last Condition Surv	vey						
Rehab History: (Da	•						
2014 - new steel p	oile caps, new tim	nber ballast walls, e	entire new superstructure and railing.				



Municipality of Temagami, Bridge #

#	001	
	2112	١

Ontario Structure Inspection Manual – Inspection Form

MTO Site	Number:	N/A
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Scheduled Improvements:		
Regional Priority Number		Programmed Work Year
Nature of Program Work:	=	
Appraisal Indices:		Comments
Fatigue		
Seismic		
Scour	1	The second secon
Flood		
Geometrics		
Barrier	the second	100 E
Curb		
Load Capacity		Times many and

Municipality of	Temagami,	Bridge #	001	

Ontario Structure Inspection Manual – Inspection Fo

MTO Site Number:	N/A
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Field Inspection In	formation:									
Date of Inspection:	October	4, 2019								
Inspector:	Stephen	Ho, M.Er	ng., P.Eng	J., EXP Services	Inc.					
Others in Party:										
Access Equipment Used:	N/A			. ,		.				
Weather:	Sunny									
Temperature:	10° C									
1	10 0									
Additional Investig	ations Requ	iired:		B. S. Land Blook		Priority				
					None	Normal	Urgent			
Material Condition Su				<u> </u>						
Detailed Deck Co			<u></u>							
Non-destructive 1	<u>Delamination</u>	Survey o	f Asphalt	-Covered Deck:						
Concrete Substru			y:			31				
Detailed Coating		ırvey:								
Detailed Timber										
Post-Tensioned S										
Underwater Investigat	ion:									
Fatigue Investigation:					_					
Seismic Investigation:										
Structure Evaluation:										
Monitoring										
Monitoring of De	formations, S	Settlement	ts and Mo	vements:						
Monitoring Crack	Widths:									
Investigation Notes:										
Bridge generally in go	od condition.	Beaver a	ctivities n	oted						
Overall Structure N	Total		Miles and							
Recommended Work of Structure:		☑ None	☐ Mi	nor Rehab.	☐ Major Reh	ab. Rep	olace			
Timing of Recommend	ded Work:	□ 1 to 5	years	☐ 6 to 10 years						
Overall Comments:				ture in excellent od to fair condition						
Date of Next Inspection	October	October 2021								
spected Performance Deficien	nios		·							
specied I et lot mance Dencien	rica	06	Bearing no	ot uniformly loaded/un	stable 12	Slippery surface	es			
Load carrying capacity Excessive deformations (def	Tections &	07	Jammed e	xpansion joint	13	Flooding/chann	el blockage			
Continuing settlement	nections & rotation	ns) 08 09		/vehicular hazard ing surface	14 15	Undermining of Unstable emban				
Continuing movements		10	Surface po	nding	16	Other				
Seized bearings		11	Deck drain	nage						
intenance Needs Lift and Swing Bridge Main	tenance	07	Panair to 6	Structural Staal	14 17	on Company	بالمائلة			
Bridge Cleaning		08		Structural Steel Bridge Concrete		osion Control at B oncrete Sealing	nages			
Bridge Handrail Maintenand		09	Repair of	Bridge Timber	15 R	out and Seal				
Painting Steel Bridge Struct Bridge Deck Joint Repair	uies	10 11	Animal/Pe	lges - Maintenance		ridge Deck Drainag aling (Loose Conc				
Bridge Bearing Maintenance	;	12		face Repair		ther	rete of ACR Stee			

Element Group	:	Abutments		Length:		0.25	m	
Element Name:		Pile Cap		Width:		5.94 m		
Location:		North and South	Abutments	Height: 0.25 m		m		
Material:		Steel	dur	Count:		2		100
Element Type:		W250x73		Total Qua	ntity:	11.9	m²	1111 - 1111
Environment:		Benign		Limited In		_		
Protection Syste	em•	Structural steel co	ating	Dimited II	порессион			Perform.
Condition	CIII.	Units	Exc.	Good	Fa	:	Poor*	Deficiencies
Data:				Good	га	A.E.	FOOT"	
		m²	11.9					00
Comments:	l Woı							00
		□1-5 y	ears \square 6-10 ye	ars	Urge	nt [] 1 year □ 2	year
Element Group Element Name: Location: Material: Element Type:		Abutments Pile Bents North and South A Wood Timber Piles	Abutments	Length: Width: Height: Count: Total Qua	<u> </u>	0.3 m 0.3 m 0.4 m 10 3.8 m	1	
Environment:		Moderate	Limited Ir	spection	1 🛮	TO THE STATE OF		
Protection Syste	em:	Treated						Perform.
Condition	at I	Units	Exc.	Good	Fa	Fair Poor*		Deficiencies
Data:		m²		3.5	0.3			00
Recommended	l Woı	r k: □ Reha □ 1-5 y		ars	Main □ Urge			00 year
Element Group		Abutments		Length:	N/A			
Element Name:		Ballast Walls	HELEVISIA HETE	Width:		7.14	m	the land to the land
Location:		North and South A	Abutments	Height:		0.84		
Material:		Wood		Count:		2		
Element Type:		Dimension Lumbe	r	Total Qua	ntity:	12.0	m²	100
Environment:		Moderate	- II-	Limited In				
Protection Syste	·m·	Treated		1 Limited II	ispection			Perform.
Condition	-111.	Units	Exc.	Good	E-S		Poor*	Deficiencies
Data:				Good	Fai	rit.	roor"	
12-17-0		m²	12					00
Comments:								
Recommended	l Wor	rk: 🔲 Reha	b Replace		Main	tenan	ce Needs:	00
			ears 6-10 year	ars	Urge			2 year

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Nam	up:	Piers		Length:	0.25			
	ie:	Pile Caps		Width:	5.94	5.94 m		
Location:	-	North and South F	Piers	Height:	0.25	m	·	
Material:		Steel		Count:	2			
Element Type		W250x73		Total Qua				
Environment		Benign		Limited I	nspection 🔲		Perform.	
Protection Sy	stem:	Structural Steel Co	T					
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies	
Data:	<u> </u>	m²	11.5	0.4			00	
Comments:	led Wo	ork: □ Reha	ıb □Replace		Maintenan	co Naods	00	
□ 1-5 years □ 6-10 years □ Urgent □ 1 year □ 2 year								
		L 1-5 <u>y</u>	cais Lib-10 y	ais	LI Orgent L	⊐ı year ⊔∠	. year	
Element Grou		Piers		Length:	0.3 n	n		
Element Nam	ie:	Pile Bents	Width:	0.3 n	n Age			
Location:		North and South P	Height:	1.3 n	n			
Material:		Wood	Count:	10				
Element Type		Timber Pile	Total Qua	ntity: 12.3	ntity: 12.3 m ²			
Environment		Benign	<u> التراسيسية التراسية التراسي</u>	Limited Ir	mited Inspection			
Protection Sy	stem:	Treated			Perform			
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies	
Data:		m²	U - 12-	11.3	1.0		00	
Comments:								
Recommend	led Wo	ork: □Reha □1-5 ye		ears	Maintenan □Urgent □		00 year	
Recommend	-	□1-5 ye	ears 6-10 ye	ears				
Recommend	-		ears 6-10 ye	ears Length:				
Recommend Element Grou	ıp:	Main Longitudnal E	ears 6-10 yo	Length:	□Urgent []1 year □2		
Recommend Element Grou Element Nam Location:	ıp:	Main Longitudnal E Girders Ends - 2m each er	ears 6-10 yo	Length: Width: Height:	4 m 0.177	1 year □ 2		
Recommend Element Groutelement Nam Location: Material:	ıp: e:	Main Longitudnal E Girders Ends - 2m each er Steel	ears 6-10 yo	Length: Width: Height: Count:	4 m 0.177 0.403 5	1 year		
Element Grou Element Nam Location: Material: Element Type	ıp: e:	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54	ears 6-10 yo	Length: Width: Height: Count: Total Qua	Urgent	1 year		
Element Grou Element Nam Location: Material: Element Type Environment:	ip: ::	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate	ears 6-10 ye	Length: Width: Height: Count: Total Qua	4 m 0.177 0.403 5	1 year	year	
Element Grou Element Nam Location: Material: Element Type Environment: Protection Sy	ip: ::	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate Structural steel coa	ears 6-10 ye	Length: Width: Height: Count: Total Qua	Urgent	1 year	year Perform.	
Element Grou Element Nam Location: Material: Element Type Environment: Protection Sys	ip: ::	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate	ears 6-10 ye	Length: Width: Height: Count: Total Qua	Urgent	1 year	year	
Element Grou Element Nam Location: Material: Element Type Environment: Protection Sy	ip: ::	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate Structural steel coa	Elements ating	Length: Width: Height: Count: Total Qua	Urgent	7 m 3 m	year Perform.	
Element Ground Element Name Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ıp: e: :: stem:	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate Structural steel coa Units m²	Elements ating Exc.	Length: Width: Height: Count: Total Qua Limited In	Urgent	7 m 3 m	Perform. Deficiencies	
Element Grou Element Nam Location: Material: Element Type Environment: Protection Sys Condition Data:	ıp: e: :: stem:	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate Structural steel coa Units m²	Elements ating Exc. 26.0	Length: Width: Height: Count: Total Qua Limited In	Urgent	7 m 3 m Poor*	Perform. Deficiencies	
Element Ground Element Name Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ıp: e: :: stem:	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate Structural steel coa Units m²	Elements ating Exc. 26.0	Length: Width: Height: Count: Total Qua Limited In	Urgent	7 m 3 m Poor*	Perform. Deficiencies	
Element Ground Element Name Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ıp: e: :: stem:	Main Longitudnal E Girders Ends - 2m each er Steel W 410x54 Moderate Structural steel coa Units m²	Elements ating Exc. 26.0	Length: Width: Height: Count: Total Qua Limited In	4 m 0.177 0.403 5 ntity: 26.7 nspection Fair	7 m 3 m Poor*	Perform. Deficiencies 00	



^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Group		Main Longitudinal	Elements	Length:				and the second second	
Element Name	:	Girders		Width:		0.177 m			
Location:		Middle		Height:		0.40	3 m	- 143	
Material:		Steel	TalW	Count:		5	miles it all		
Element Type:		W 410x54	THE DESCRIPTION OF	Total Qua					
Environment:		Benign	n I an aid I a	Limited In	Limited Inspection				
Protection Syst	tem:	Structural Steel Co			ili ili	1 (2)	P.In.	Perform.	
Condition	=0 _	Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:		m²	54.5	0.5				00	
Recommended Work:									
Recommende	d Wo								
□1-5 years □6-10 ye				ears	□Urge	nt]1 year	year	
Element Group	o:	Main Longitudinal	Elements	Length:		1.22	m		
Element Name		Diaphragm	Width:		0.06				
Location:		End (at abutments	Height:		0.254	4 m	1,000		
Material:		Steel	Count:		8				
Element Type:	arch.	C 250x23	Total Qua						
Environment:		Moderate	Limited In	Limited Inspection					
Protection Syst	tem:	Structural Steel Co	Perform				Perform.		
Condition	mili	Units	Exc.	Good	Fair Poor*		Poor*	Deficiencies	
Data:		each	8		leri .			00	
Recommended Work: Replace Maintenance Needs: 00 1-5 years 6-10 years Urgent 1 year 2 year									
Elamant Comm	-	Mate Legisland	El	T an adh a		1.00			
Element Group		Main Longitudinal	⊏iements	Length: Width:					
Location:	•	Diaphragm Intermediate (at pi	ore)	Height:					
Material:		Steel	513)	Count:).254 m		
Element Type:		C 250x23			Count: 8 Total Quantity: 8		TALK IN THE	4.00	
Environment:		Benign	was and trade	Limited Ir					
Protection Syst	tem:	Structural Steel Co	nating		ispection			Perform.	
Condition		Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:	_	each	8	Good	1 41		1 001	00	
Comments:		eacii	0 1		EG.		101	1 00	
Recommende	d Woı	r k: □ Rehal		ars	Maint Urger			00	

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Grou	up:	Coating		Length:	1	V/A		
Element Nam	ie:	Structural Steel		Width:	1	N/A		
Location:		End		Height:	N	N/A		
Material:		epoxy paint		Count:	N	N/A		
Element Type	e:	Epoxy-Zinc Epoxy	-Polyurethane	Total Qua	intity: 3	32.9 m ² (including	diaphragms)	
Environment	:	Moderate		Limited I	nspection			
Protection Sy	stem:	structrual steel co	ating			-	Perform.	
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies	
Data:		m²	31.9	1.0			00	
Comments:	led Wo	rk: □Reha	b □ Replace		Mainte	nance Needs:	00	
		□ 1-5 y		ars	□Urgent		year	
Element Grou		Coating		Length: Width:		I/A		
Element Nam	ie:				- N	I/A		
Location:		Middle		Height:		I/A		
Material:		epoxy paint	Count:		I/A			
Element Type		Epoxy-Zinc Epoxy	Total Qua	ntity: 6	1.2 m ² (including	diaphragms)		
Environment:		Benign		Limited In	nspection			
Protection Sys	stem:	Structural steel co	ating		Perform.			
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies	
1.000								
Data: Comments:		m²	60.7	0.5	1 2 3	Fee	00	
320	led Wo		b □ Replace		Mainte ☐ Urgent	nance Needs:	00 00 year	
Comments:		rk: □ Reha □ 1-5 yo	b □ Replace	ars	Urgent	nance Needs: (□ 1 year □ 2	00	
Comments: Recommend Element Grou	ıp:	rk: □ Reha □ 1-5 ye □ Deck	b □ Replace	ars Length:	□ Urgent	nance Needs: 0	00	
Recommend Element Grou	ıp:	rk: □ Reha □ 1-5 yo	b □ Replace	Length:	Urgent 1	nance Needs: (1 year 12 2.22 m	00	
Comments: Recommend Element Grou	ıp:	rk:	b □ Replace	Length: Width: Height:	Urgent 1 5	nance Needs: (☐ 1 year ☐ 2 2.22 m .5 m .19 m	00	
Recommend Element Group Element Nam Location: Material:	ıp: :e:	rk:	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count:	Urgent 1 5	nance Needs: 0 □ 1 year □ 2 2.22 m 0.5 m 0.19 m	00	
Recommend Element Grou Element Nam Location:	ıp: e:	rk:	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua	Urgent 1 5 0 N intity: 6	nance Needs: 0 □ 1 year □ 2 2.22 m 5.5 m 1.19 m 1/A 17.21 m ²	00	
Recommend Element Groute Element Nam Location: Material: Element Type	ip: :::	rk:	b Replace ears 6-10 ye.	Length: Width: Height: Count: Total Qua	Urgent 1 5	nance Needs: 0 □ 1 year □ 2 2.22 m 5.5 m 1.19 m 1/A 17.21 m ²	00 year	
Recomments: Recommend Element Grou Element Nam Location: Material: Element Type Environment:	ip: :::	rk:	b □ Replace ears □ 6-10 ye. r treatment	Length: Width: Height: Count: Total Qua	Urgent 1 5 0 Nontity: 6	nance Needs: (□ 1 year □ 2 2.22 m 5.5 m 1.19 m 1/A 17.21 m ²	00	
Element Groutelement Nam Location: Material: Element Type Environment: Protection Sys	ip: :::	rk:	b Replace ears 6-10 year r treatment Exc.	Length: Width: Height: Count: Total Qua	Urgent 1 5 0 N intity: 6	nance Needs: 0 □ 1 year □ 2 2.22 m 5.5 m 1.19 m 1/A 17.21 m ²	Perform. Deficiencies	
Element Group Element Nam Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ip: e: e: s:	Deck Deck Top Wood Dimension Lumbe Moderate wood preservative Units m²	b Replace ears 6-10 years r treatment Exc. 65.0	Length: Width: Height: Count: Total Qua	Urgent 1 5 0 N Intity: 6 Inspection	nance Needs: 0 □ 1 year □ 2 2.22 m 0.5 m 0.19 m 1/A 17.21 m ² □ Poor*	Perform. Deficiencies	
Element Groue Element Nam Location: Material: Element Type Environment: Protection System Condition Data:	ip: e: e: s:	rk:	b Replace ears 6-10 yes r treatment Exc. 65.0	Length: Width: Height: Count: Total Qua Limited In	Urgent 1 5 0 Nontity: 6 nspection Fair	nance Needs: 0 1 year 2 2.22 m 5.5 m 1.19 m 1/A 7.21 m ² Poor*	Perform. Deficiencies 00	
Element Group Element Nam Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ip: e: e: s:	Deck Deck Top Wood Dimension Lumbe Moderate wood preservative Units m²	b Replace ears 6-10 yes r treatment Exc. 65.0	Length: Width: Height: Count: Total Qua Limited In	Urgent 1 5 0 N Intity: 6 Inspection	nance Needs: 0 1 year 2 2.22 m 5.5 m 1.19 m 1/A 7.21 m ² Poor*	Perform. Deficiencies	



^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Group			Length:	12	.22 m			
Element Name	Soffit		Width:		5.0 m			
Location:		nt-s	Height:		N/A			
Material:	Wood		Count:	N/A	A			
Element Type:	Dimension Lum	ber	Total Qu	antity: 61	.1 m²			
Environment:	Benign	THE THREE PLANS	Limited I	nspection 🗌	0.00	THE REST		
Protection Syst	em: wood preservati	ve treatment	1.00	Internal new	Act of the last till the	Perform.		
Condition	Units	Exc.	Good	Fair	Poor*	Deficiencies		
Data:	m²	59.6	1.5		rt Dr	00		
Comments: Recommende	d Work: □Re	hab 🗆 Replace		Maintens	ance Needs:	00		
Accommende		years 6-10 years	aare	Urgent		2 year		
		years 10-10 ye	cars	Li Oigent	Li i year Li z	z ycai		
Element Group			Length:	12.	.22 m	n Harris		
Element Name:	Wearing Surfac	e	Width:		m	THE REST		
Location:		L Ma	Height:	. N/		DUAL PILOTON		
Material:	Wood		Count:	N/A				
Element Type:				Total Quantity: 59.9 m ²				
Environment:				Limited Inspection				
Protection Syst				1		Perform.		
Condition	Units	Exc.	Good	Fair	Poor*	Deficiencies		
Data:	m ²	58.0	1.9		m	00		
Recommende		hab □ Replace years □ 6-10 ye	ears	Maintena □Urgent		00 2 year		
Element Group	: Sidewalks/Curbs		Longth	10	.22 m			
Element Name:			Length: Width:					
Location:	East and West		Height:		0.14 m			
Material:	Wood	1	Count:	2				
Element Type:	Dimension Lumb	ner	Total Qua		4 m²	HILL THE LAND		
Environment:	Severe	301		nspection \square				
Protection Syste		ve treatment		порессион 🖂		Perform.		
Condition	Units	Exc.	Good	Fair	Poor*	Deficiencies		
Data:	m ²	6.64	0.2	7 411	1 001	00		
Comments:		0.04	0.2	bain	n znavána mag	1 00		
Recommende		hab □Replace years □6-10 ye	ears	Maintena Urgent	nce Needs: ☐ 1 year	00 □ 2 year		

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Gro		Barriers		Length:		0.19	m_		
Element Nam	ie:	Posts		Width:		0.19 m			
Location:		East and West sid	le	Height:		0.9 m			
Material:		Wood		Count:		22			
Element Type		Dimension Lumbe	r	Total Qua	antity:	22	100		
Environment		Severe		Limited I	nspection				
Protection Sy	stem:	Wood Preservative	e Treatment					Perform.	
Condition		Units	Exc.	Good	Fair		Poor*	Deficiencies	
Data:		each	20	2				00	
Comments:	30 Oct 18							. ,,,,,	
Recommend	led Wo	rk: Reha	b Replace		Main	tenan	ce Needs:	00	
Element Com		□ 1-5 y	ears 6-10 ye		Urge			year	
Element Grou		Barriers		Length:		3.81	m		
	ie:	Railing System		Width:		N/A			
Location:		East and West sid	е	Height:		0.9 m	1		
Material:				Count:		10			
Element Type					al Quantity: 38.1 m				
Environment		Severe		Limited I	nspection			Perform.	
Protection Sy	stem:	Galvanized							
Condition		Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:		m	37.1	1				00	
Recommend	led Wo	rk: □ Reha □ 1-5 yo		ears	Maint □ Urger			00 year	
Element Grou		Embankment and		Length:		N/A			
Element Nam	ie:	Streams and Water	erways	Width:		N/A			
Location:			19	Height:		N/A			
Material:			,		Count: N/A				
Element Type					Total Quantity:				
Environment		ļ		Limited In	nspection				
Protection Sy	stem:	L	· · · · · · · · · · · · · · · · · · ·					Perform.	
Condition		Units	Exc.	Good	Fair	r	Poor*	Deficiencies	
Data:		all		Х				00	
Comments:	light be	aver activities noted	I						
Recommend	ed Wo	rk: □Reha	b Replace		Maint	tenana	ce Needs:	00	
		□ 1-5 ye		ears	Urger			□2 year	
		=			- 5.50		<u> </u>	<u> </u>	
* A quantity mus				_					



A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Ontario Structure Inspection Manual – Inspection Form MTO Site Number:

n/a

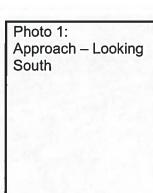
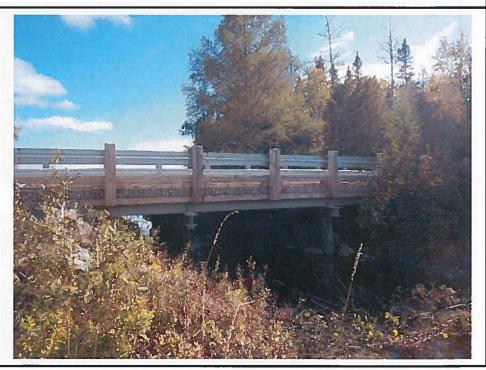


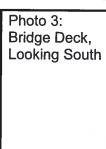


Photo 2: West Elevation



Ontario Structure Inspection Manual – Inspection Form

MTO Site Number: n/a



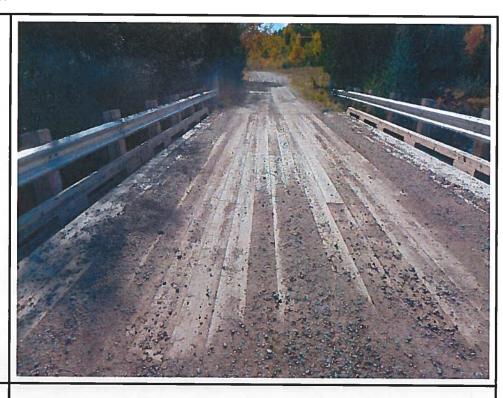


Photo 4: Typical Abutment -South abutment shown.



Ontario Structure Inspection Manual – Inspection Form

MTO Site Number:

n/a

2019 Site Photographs

Photo 5: Typical Pile Bent Pier – south pier shown

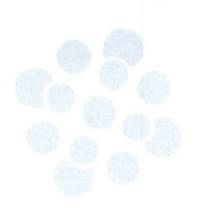


Photo 6: Typical Guide Rail End Treatment – SE corner shown



Mr. Barry Turcott Municipality of Temagami Re: 2019 Municipal Bridge Inspections EXP Project Number: SUD-00019064-IS Date: October 29, 2019

2019 OSIM FORM Bridge #002 – Wilson Lake Road Bridge No. 2



Municipality of Temagami, Bric	dae#	Bridae #
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002	

Ontario Structure Inspection Manual – Inspection Form

MTO Site Number: N/A

Inventory Data: 20)19			
Structure Name	Wilson Lake Ro	ad Bridge II		
Main Hwy/Road #	N/A	On 🗹 Under		Crossing ☐ Navig. Water ☐ Non-Navig. Water ☐ Rail Type: ☐ Road ☐ Ped. ☐ Other
Hwy/Road Name	Wilson Lake Ro	ad		
Structure Location	12.4 km South	West of Hwy 1	1	
Latitude	46° 52' 38" N			Longitude 79° 48' 36" W
Owner(s)	Municipality of	Temagami		Heritage ☑ Not Cons. ☐ Cons./not App. ☐ List/not Desig. Designation: ☐ Desig./not List ☐ Desig. & List
MTO Region	Northern			Road Class: Freeway ☐ Arterial ☐ Collector ☑ Local ☐
MTO District	Sudbury			Posted Speed No. of Lanes 1
Old County				AADT % Trucks
Geographic Twp.				Inspection Route Sequence
Structure Type	Bailey Bridge (riple-Single)		Interchange Number
Total Deck Length	21.3	(m)		Interchange Structure Number
Overall Str. Width	5.49	(m)		Min. Vertical Clearance (m)
Total Deck Area	116.9	(sq.m)		Special Routes: ☐ Transit ☐ Truck ☐ School ☐ Bicycle
Roadway Width	3.3	(m)		Detour Length Around Bridge (km)
Skew Angle	0	(Degre	es)	Direction of Structure S-N
No. of Spans	1			Fill on Structure (m)
Span Lengths	21.3 m (7 bays)			(m)
Historical Data:				
Year Built]	Year of Last Major Rehab.
Last OSIM Inspecti	on Oct	ober 2017]	Last Evaluation June 2008
Last Enhanced OSIM	1 Inspection]	Current Load Limit 50/36/21 (tonnes)
Enhanced Access E (ladder, boat, lift, et				Load Limit By-Law #
Last Underwater Ins	spection]	By-Law Expiry Date
Last Condition Surv	/ey]	
Rehab History: (Da	te/description)			
2011 - replaced al bearing timbers to			guide	e rail posts, raised north end of bridge by installing additional

Municipality	of	Temagami,	Bridge	#
				•••

002

Ontario Structure Inspection Manual – Inspection Form

MTO Site Number: N

/ ^	
/A	

Scheduled Improvements:	
Regional Priority Number	Programmed Work Year
Nature of Program Work:	
Appraisal Indices:	Comments
Fatigue	
Seismic	
Scour	
Flood	
Geometrics	
Barrier	
Curb	
Load Capacity	

ntario Structure Inspect	ion Manual – I1	spection Form	MTO S	ite Number: 🛚	V/A
Field Inspection Inform	ation:				
Date of Inspection:	Oct 4, 2019	Type of Inspect	tion: OSI	M 🛮 Enha	nced OSIN
Inspector:	Stephen Ho, M.En	g., P.Eng., EXP Services	Inc.		
Others in Party:		Hillian .	- 4.1		
Access Equipment Used:	N/A		.g., hind		
Weather:	Sunny	lysica and		ш	man bi
Femperature: 1	0° C			1	
Additional Investigation	s Required:			Priority	
			None	Normal	Urgent
Material Condition Survey			0:4		
Detailed Deck Condition		<u> </u>	1 1 1 1 1		
		Asphalt-Covered Deck:			
Concrete Substructure		•			
Detailed Coating Cond				11 15	
Detailed Timber Invest					
Post-Tensioned Strand	Investigation			3 6 -	
Underwater Investigation:					
Fatigue Investigation:					
Seismic Investigation:					
Structure Evaluation:			Time		100
Monitoring					
Monitoring of Deforma	ations, Settlements	s and Movements:		X	
Monitoring Crack Wid					
Overall Structure Notes				1000	
Recommended Work on Structure:	□None	☐ Minor Rehab.	☐ Major Reh	ab. Rep	lace
Timing of Recommended W	/ork: □ 1 to 5	years	3		
Overall Comments:	settlemer	st, South West and Soutl nt. n guide rail posts and cur		1005	ns of
Date of Next Inspection:	October 2	2021		Little	
Load carrying capacity Excessive deformations (deflections Continuing settlement Continuing movements Seized bearings ntenance Needs	06 07 s & rotations) 08 09 10	Bearing not uniformly loaded/un Jammed expansion joint Pedestrian/vehicular hazard Rough riding surface Surface ponding Deck drainage	nstable 12 13 14 15 16	Slippery surface Flooding/channe Undermining of Unstable emband	l blockage foundation
Lift and Swing Bridge Maintenance Bridge Cleaning Bridge Handrail Maintenance	07 08 09	Repair to Structural Steel Repair of Bridge Concrete Repair of Bridge Timber	14 Co	osion Control at Broncrete Sealing out and Seal	ridges

Repair of Bridge Timber Bailey bridges - Maintenance Animal/Pest Control

Bridge Surface Repair

Painting Steel Bridge Structures Bridge Deck Joint Repair

Bridge Bearing Maintenance

Element Grou	p:	Abutments		Length:					
Element Name	e:	Bearing Cribs		Width:	Width:		2.0m		
Location:		North and South		Height:		0.85m			
Material:		Wood		Count:		4			
Element Type:	:	Bearing Timbers		Total Qua	antity:	6.8m ²	·		
Environment:		Benign		Limited I					
Protection Sys	tem:	Treated						Perform.	
Condition		Units	Exc.	Good	Fai	r I	Poor*	Deficiencies	
Data:		m²		4.0	2.8			00	
B	Bearing	e bearing crib cons Cribs exhibit signs	tructed with 20 of settlement.	0x200 treate	ed timber	under ead	ch Bailey	base plate.	
Recommende	ed Wo	rk: ☐ Reha	b Replace		Main	tenance N	eeds:	06	
		□1-5 y	ears	ears	□Urge	nt 🛮 1 ye	ear 🗆 2	year	
			4		monito	r moveme	nt		
Element Grou		Abutments		Length:		N/A			
Element Name: Bearings			Width:		N/A	- 1.15			
Location:	Location: North and South			Height:		N/A			
Material:	sterial: Steel			Count:		8			
Element Type:	lement Type: Bailey Bearing			Total Qua	ntity:	8			
Environment:		Moderate	Limited I	Limited Inspection					
Protection Sys	tem:	Galvanized			Perform.				
Condition		Units	Exc.	Good	Fai	r l	Poor*	Deficiencies	
Data:		Each		6	2			00	
Recommende	ed Wo	rk: □ Reha □ 1-5 ye		ears	Maint Urger	tenance N		00 year	
			L Bes		THE				
Element Group	p:	Abutments		Length:		N/A	10		
Element Name		Base Plates		Width:		N/A			
Location:	Т.			Height:		N/A			
Material:		Steel		Count:			4		
Element Type:		Bailey Base Plate			Total Quantity: 4				
Environment:		Moderate		Limited I	Limited Inspection				
Protection Syst	tem:	Galvanized						Perform.	
Condition		Units	Exc.	Good	Fai	r I	oor*	Deficiencies	
Data:		Each			4				
Comments: de	ebris a	ccumulate on base	plates						
Recommende	d Wo	rk: Reha	b Replace		Maint	tenance N	eeds:)6	
						aintenance Needs: 06 rgent □1 year □2 year			
		□1-5 ye	ears 🛮 6-10 ye	ears	☐ Urger	nt 🗹 🛭	year l	☐ 2 year	



^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Grou	ıp:	Main Longitudinal Elements		Length: N/A				THEAT SELLING	
Element Nam	e:	Floor Beams	Width:	N/A					
Location:				Height:	N/A				
Material:		Steel		Count:		14			
Element Type	:	Bailey Transom	when I had	Total Qua	ntity:	14			
Environment:		Benign		Limited Ir					
Protection Sys	stem:	Galvanized					250	Perform.	
Condition	ext.	Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:		Each			14		1004	01	
Comments: Load carry capacity deficiencies (2 transoms per bay). Light to medium corrosion noted.									
Recommended Work: Rehab Replace Maintenance Needs: 00							_ ·		
		□ 1-5 ye	ears 6-10 year	ırs	Urge	nt 🗆	llyear □2	year	
				**					
Element Grou	ın•	Main Longitudinal	Flements	Length:		N/A			
Element Nam		Stringers	Liomonto	Width:		N/A		N 501	
Location:		Ottrigoro		Height:		N/A	1.0		
Material:		Steel		Count:		35 Se	ets		
Element Type	:	Bailey Stringer		Total Qua		35 Sets			
Environment:		Benign	and to be to the	Limited In				100	
Protection Sys		Galvanized		_ Diffice X	Perform.				
Condition	HVI T	Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:		Set			35	\rightarrow		00	
Recommend		medium corrosion i rk: □ Reha □ 1-5 ye	b Replace	urs	Maint □Urger			90 year	
Element Grou		Approaches		Length:	0 - 0	3.3 m			
Element Name	e:	Approach Ramps			Width: 3.6 m			Acres and	
Location:		North and South		Height:		0.13 m			
Material:		Steel		Count:		2			
Element Type		Bailey Ramp		1	Total Quantity: 23.8 m ²				
Environment:		Moderate		Limited In	Limited Inspection 🛮				
Protection Sys	stem:	N/A						Perform.	
Condition	19	Units	Exc.	Good	Fair	r	Poor*	Deficiencies	
Data:		m²		20.0	3.8			0	
Recommended Work: Replace Maintenance Needs: 00									
□ 1-5 years □ 6-10 years				ırs	Urger			□ 2 year	

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

3	up:	Barriers		Length:					
Element Nam				Width:	0.2 m				
Location:		West and East Sid	Height:	1.0	1.0 m				
Material:		Wood		Count:	16				
Element Type		Post		Total Qua	ntity: 16	tity: 16			
Environment:		Moderate		Limited In	spection 🛘				
Protection Sy	stem:	N/A					Perform.		
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies		
Data:		Each			14	2	00		
Comments: installed fall 2011									
Recommend	ed Wo					nce Needs:			
		□ 1-5 y	ears	ears	□Urgent	□1 year □2	year		
						35			
Element Grou	ın:	Barriers		Length:	3.8	1 m			
Element Nam		Railing System		Width:	3.8 N/A				
Location:		West and East Sic	toe	Height:	0.7				
Material:		Steel	103	Count:		Beams			
Element Type		Flex Beam		Total Qua					
Environment:		TICX Dealit			spection) III			
Protection Sys		Galvanized		Limited II	Perform.				
Condition		Units	Exc.	Good	Good Fair		Deficiencies		
Data:			Ext.			Poor*			
		m		38	42	3.8	00		
Comments: SBGR end treatments as per OPSD Standards.									
		rk: Reha	b □Replace			nce Needs:	00		
			b □Replace			nce Needs:	ym godi y todo		
		rk: Reha	b □Replace			nce Needs:	00		
		rk: Reha	b □Replace			nce Needs:	00		
Recommend	ed Wo	rk: □ Reha □ 1-5 ye	b □Replace	ears	Urgent	nce Needs: [0 □ 1 year □ 2	00 year		
	ed Wo	rk: ☐ Reha ☐ 1-5 ye Deck	b □Replace	ears Length:	Urgent	nce Needs: (00 year		
Recommend	ed Wo	rk: □ Reha □ 1-5 ye	b □Replace	Length:	□ Urgent 27.4 3.6r	nce Needs: [0 1 year 2 Im (including ram	00 year		
Recommend	ed Wo	rk: Reha 1-5 ye Deck Deck Top	b □Replace	Length: Width:	27.4 3.6r 0.03	nce Needs: [0 1 year 2 Im (including ram	00 year		
Recommend Element Grou Element Name Location:	ed Wo	rk: Reha 1-5 ye Deck Deck Top wood	b □Replace	Length: Width: Height: Count:	27.4 3.6r 0.03 n/a	nce Needs: 0 1 year 2 4m (including ram 88m	00 year		
Element Groutelement Name Location:	ed Wo	rk: Reha 1-5 ye Deck Deck Top	b □Replace	Length: Width: Height: Count: Total Qua	27.4 3.6r 0.03 n/a ntity: 98.6	nce Needs: [0 1 year 2 Im (including ram	00 year		
Element Grou Element Name Location: Material: Element Type Environment:	ed Wo	rk: ☐ Reha ☐ 1-5 ye Deck Deck Top wood dimension lumber moderate	b □Replace	Length: Width: Height: Count: Total Qua	27.4 3.6r 0.03 n/a	nce Needs: 0 1 year 2 4m (including ram 88m	year amps)		
Element Groutelement Name Location: Material: Element Type Environment: Protection Sys	ed Wo	Deck Deck Top wood dimension lumber moderate treated	b □Replace ears □6-10 ye	Length: Width: Height: Count: Total Qua	27.4 3.6r 0.03 n/a ntity: 98.6 spection	nce Needs: 0 1 year 2 4m (including rain 38m	oo year amps) Perform.		
Element Grou Element Name Location: Material: Element Type Environment:	ed Wo	Peck Deck Deck Top wood dimension lumber moderate treated Units	b □Replace	Length: Width: Height: Count: Total Qua	27.4 3.6r 0.03 n/a ntity: 98.6 spection	Ince Needs: 0 1 year 2 Im (including rain) 38m 6 m2 Poor*	year amps)		
Element Grou Element Name Location: Material: Element Type Environment: Protection Sys Condition Data:	ed Wo	Deck Deck Top wood dimension lumber moderate treated Units sq m	b Replace ears 6-10 ye	Length: Width: Height: Count: Total Qua Limited In	27.4 3.6r 0.03 n/a ntity: 98.6 spection	Ince Needs: 0 1 year 2 Im (including ram) 38m 6 m2 Poor* 10	oo year amps) Perform.		
Element Grou Element Name Location: Material: Element Type Environment: Protection Sys Condition Data:	ed Wo	Peck Deck Deck Top wood dimension lumber moderate treated Units	b Replace ears 6-10 ye	Length: Width: Height: Count: Total Qua Limited In	27.4 3.6r 0.03 n/a ntity: 98.6 spection	Ince Needs: 0 1 year 2 Im (including ram) 38m 6 m2 Poor* 10	oo year amps) Perform.		
Element Grou Element Name Location: Material: Element Type Environment: Protection Sys Condition Data:	ed Wo	Deck Deck Top wood dimension lumber moderate treated Units sq m curb at NW corner b	Exc.	Length: Width: Height: Count: Total Qua Limited In	27.4 3.6r 0.03 n/a ntity: 98.6 spection Fair 88.6	Ince Needs: 0 1 year 02 Implies 1 year 12 Implies 1 year 12 Implies 2 year Implies 2 year Implies 38 year Implies 48 ye	pear Perform. Deficiencies		
Element Groutelement Name Location: Material: Element Type Environment: Protection Sys Condition Data: Comments: to	ed Wo	Deck Deck Top wood dimension lumber moderate treated Units sq m curb at NW corner b	Exc. b □ Replace ears □ 6-10 ye Exc. b □ Replace	Length: Width: Height: Count: Total Qual Limited In	27.4 3.6r 0.03 n/a ntity: 98.6 spection Fair 88.6 condition ov	nce Needs: 0 1 year 2 Im (including ram) 88m 6 m2 Poor* 10 verall	Perform. Deficiencies		
Element Grout Element Name Location: Material: Element Type Environment: Protection System Condition Data: Comments: to	ed Wo	Deck Deck Top wood dimension lumber moderate treated Units sq m curb at NW corner b	Exc. b □ Replace ears □ 6-10 ye Exc. b □ Replace	Length: Width: Height: Count: Total Qual Limited In	27.4 3.6r 0.03 n/a ntity: 98.6 spection Fair 88.6	Ince Needs: 0 I year	pear Perform. Deficiencies		



^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

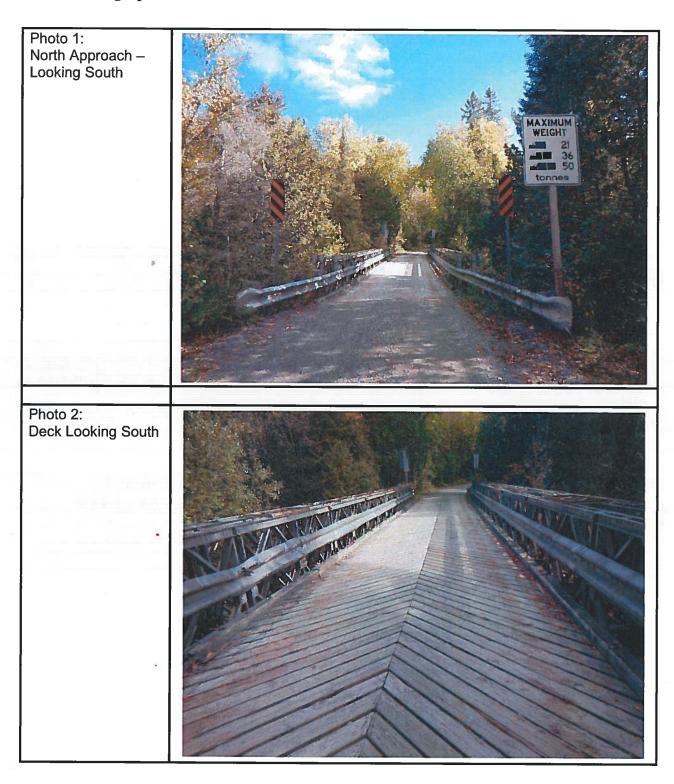
Element Group: Element Name: Location:	Deck		Length:		7 4			
					27.4m			
Location:				3.3m (curb to curb)				
			Height:	0	0.038m			
Material:	wood		Count:					
Element Type:	dimension lumbe	r	Total Qu	antity: 9	0.4m	For E		
Environment:	severe		Limited	Inspection [
Protection System:					10	Perform.		
Condition	Units	Exc.	Good	Fair	Poor*	Deficiencies		
Data:	m2			70.4	20			
Comments:				lac.	N			
Recommended W					nance Needs:			
	□1-5 ;	years	years	Urgent	☐ 1 year ☐	2 year		
Element Group:	Truss		Length:	MARKET S				
Element Name:	Bailey Panel		Width:		r lai			
Location:			Height:					
Material:	Steel		Count:	4:	2			
Element Type:	Baily Panel		Total Qu	antity: 4	2			
Environment:	moderate		Limited	Inspection [
SHAII AUIUCUT.					Perform.			
	galvanized							
Protection System:	galvanized Units	Exc.	Good	Fair	Poor*			
Protection System: Condition Data:	galvanized Units arry capacity deficie	Exc.	Good r at SE corne	Fair 42 r deformed	Poor*	Deficiencies 01		
Protection System: Condition Data: Comments: load can	Units arry capacity deficie	ency, one rake	r at SE corne	42 r deformed	nance Needs:	Deficiencies		
Protection System: Condition Data: Comments: load commended W	Units arry capacity deficie ork: □ Reh	ency, one rake	r at SE corne	42 r deformed Mainter	nance Needs:	Deficiencies 01		
Protection System: Condition Data: Comments: load commended W	Units arry capacity deficie ork: □ Reh	ency, one rake	r at SE corne	42 r deformed Mainter	nance Needs:	Deficiencies 01		
Protection System: Condition Data: Comments: load commended W Element Group: Element Name:	Units arry capacity deficie ork: □ Reh	ency, one rake	years Length: Width:	42 r deformed Mainter	nance Needs:	Deficiencies 01		
Protection System: Condition Data: Comments: load commended W Element Group: Element Name: Location:	Units arry capacity deficie ork: □ Reh	ency, one rake	years Length: Width: Height:	42 r deformed Mainter	nance Needs:	Deficiencies 01		
Protection System: Condition Data: Comments: load of the commended William Commend	Units arry capacity deficie ork: □ Reh	ency, one rake	r at SE corne years Length: Width: Height: Count:	42 r deformed Mainter Urgent	nance Needs:	Deficiencies 01		
Protection System: Condition Data: Comments: load commended With the system of the s	Units arry capacity deficie ork: □ Reh	ency, one rake	years Length: Width: Height: Count: Total Qu	Mainter Urgent antity:	nance Needs: □1 year □	Deficiencies 01		
Protection System: Condition Data: Comments: load commended W Element Group: Element Name: Location: Material: Element Type: Environment:	Units arry capacity deficie ork: □ Reh	ency, one rake	years Length: Width: Height: Count: Total Qu	42 r deformed Mainter Urgent	nance Needs: □1 year □	Deficiencies 01 2 year		
Protection System: Condition Data: Comments: load comments load comments Recommended W Element Group: Element Name: Location: Material: Element Type: Environment: Protection System:	Units arry capacity deficie ork:	ency, one rake	Length: Width: Height: Count: Total Qu	Mainter Urgent antity: Inspection	nance Needs:	Deficiencies 01 2 year Perform.		
Protection System: Condition Data: Comments: load commended W Element Group: Element Name: Location: Material: Element Type: Environment:	Units arry capacity deficie ork: □ Reh	ency, one rake	years Length: Width: Height: Count: Total Qu	Mainter Urgent antity:	nance Needs: □1 year □	Deficiencies 01 2 year Perform.		
Protection System: Condition Data: Comments: load comments: load comments Recommended W Element Group: Element Name: Location: Material: Element Type: Environment: Protection System: Condition Data:	Units arry capacity deficie ork:	ency, one rake	Length: Width: Height: Count: Total Qu	Mainter Urgent antity: Inspection	nance Needs:	Deficiencies 01 2 year Perform.		
Protection System: Condition Data: Comments: load commended Westernament State Sta	Units arry capacity deficie ork:	ency, one rake	Length: Width: Height: Count: Total Qu	Mainter Urgent antity: Inspection	nance Needs:	Deficiencies 01 2 year		
Protection System: Condition Data: Comments: load commended With the system of the system: Element Group: Element Name: Location: Material: Element Type: Environment: Protection System: Condition	Units arry capacity deficie ork: Reh 1-5 y	ency, one rake	Length: Width: Height: Count: Total Qu Limited	Mainter Mainter Urgent antity: Inspection	nance Needs:	Deficiencies 01 2 year Perform.		

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Ontario Structure Inspection Manual – Inspection Form

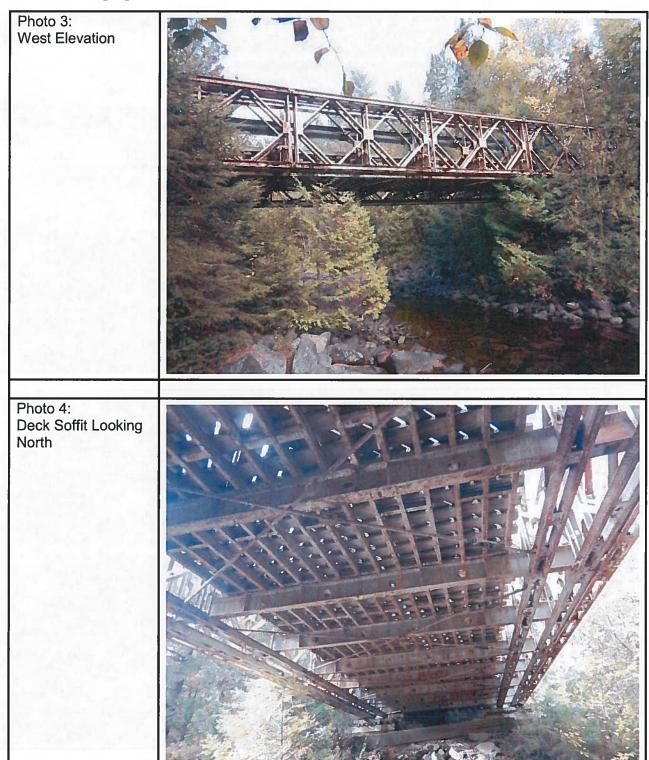
MTO Site Number:

n/a



Ontario Structure Inspection Manual – Inspection Form MTO Site Number:

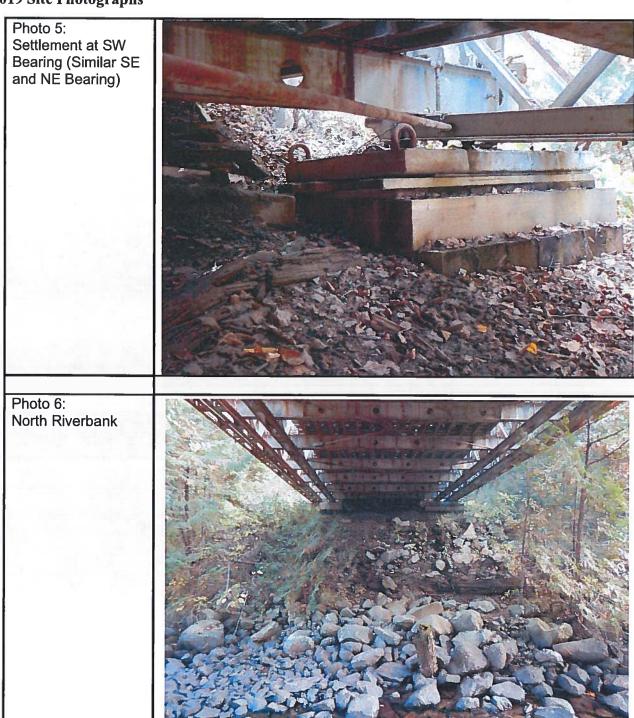
n/a





Ontario Structure Inspection Manual – Inspection Form

MTO Site Number: n/a





Mr. Barry Turcott Municipality of Temagami Re: 2019 Municipal Bridge Inspections EXP Project Number: SUD-00019064-IS Date: October 29, 2019

2019 OSIM FORM Bridge #003 – Temagami Lake Access Road Bridge



Municipality	of Temag	gami, Bridge	∍# 003

${\bf Ontario\ Structure\ Inspection\ Manual-Inspection\ Form}$

MTO Site Number:	N/A
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Inventory Data: C	october 2019		
Structure Name	Temagami Lake	Access Rd Bridge	
Main Hwy/Road #	N/A	On ☑ Under □	Crossing ☐ Navig. Water ☐ Non-Navig. Water ☐ Rail Type: ☐ Road ☐ Ped. ☐ Other
Hwy/Road Name	Lake Temagam	Access Rd	
Structure Location	5.0 km west of I	lwy 11	
Latitude	47° 00' 21" N		Longitude 79° 52' 47" W
Owner(s)	Municipality of T	emagami	Heritage ☑ Not Cons. ☐ Cons./not App. ☐ List/not Desig. Designation: ☐ Desig./not List ☐ Desig. & List
MTO Region	Northern		Road Class: Freeway Arterial Collector Local
MTO District	Sudbury		Posted Speed No. of Lanes 2
Old County			AADT % Trucks
Geographic Twp.			Inspection Route Sequence
Structure Type	steel girder		Interchange Number
Total Deck Length	7.3	(m)	Interchange Structure Number
Overall Str. Width	8.1	(m)	Min. Vertical Clearance (m)
Total Deck Area	59.1	(sq.m)	Special Routes: ☐ Transit ☐ Truck ☐ School ☐ Bicycle
Roadway Width	7.9	(m)	Detour Length Around Bridge (km)
Skew Angle	30	(Degrees)	Direction of Structure W-E
No. of Spans	1		Fill on Structure (m)
Span Lengths	6.15 clear		(m)
Historical Data:			
Year Built	201	0	Year of Last Major Rehab.
Last OSIM Inspecti	on Octo	ober 2017	Last Evaluation
Last Enhanced OSIM	I Inspection		Current Load Limit / / (tonnes)
Enhanced Access Education (ladder, boat, lift, et	* *		Load Limit By-Law #
Last Underwater Ins	spection		By-Law Expiry Date
Last Condition Surv	rey		
Rehab History: (Dat	te/description)		

Municipality of Temagami, Bridge # 003

Ontario Structure Inspection Manual – Inspection Form

MTO Site Number: N/A

Scheduled Improvements:						
Regional Priority Number	Programmed Work Year					
Nature of Program Work:						
Appraisal Indices:	Comments					
Fatigue						
Seismic						
Scour						
Flood						
Geometrics						
Barrier						
Curb						
Load Capacity	and the second of the second o					

Municipality of Temagami, Brid	# apb
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Ontario Structure Inspection Manual - Inspection Form

мто	Site	Number:	N/A
WILL	SHE	Mulliber:	

Date of Inspection:	October 4, 2019	Type of Inspec	tion: OSI	M	anced OSIN
Inspector:		P.Eng., EXP Services			
Others in Party:	Otephen 110, W.Ling.,	T.LIIg., EXP Services			
Access Equipment		·			 -
Used:	N/A				
Weather:	Sunny				
Temperature:	10° C		·	_	
Additional Investigat	ions Required:			Priority	1
Material Condition Surv	OV.		None	Normal	Urgent
Detailed Deck Con-		-			
	lamination Survey of As	anhalt Carrand Dagler	·		ļ
	ire Condition Survey of As	sphan-Covered Deck:			
Detailed Coating Co					
Detailed Timber In					
Post-Tensioned Stra					
Underwater Investigation					
Fatigue Investigation:	**				
Seismic Investigation:					
Structure Evaluation:					
Monitoring					
	rmations, Settlements ar	nd Movements:			
Monitoring Crack V		Ta 1110 V OIN OIN OIN O			
Investigation Notes:					
Overall Structure No	tes:				
Recommended Work on Structure:	□None	Minor Rehab.	☐ Major Reha	ıb. Rep	olace
Timing of Recommende	d Work:	ars	3		
Overall Comments:	Coat girder l approved str	bearings, abutments a ructural steel coating	and wingwalls system	steel panels	with

Bridge Bearing Maintenance

01 02 03 04 05	Load carrying capacity Excessive deformations (deflections & rotations) Continuing settlement Continuing movements Seized bearings	06 07 08 09 10	Bearing not uniformly loaded/unstable Jammed expansion joint Pedestrian/vehicular hazard Rough riding surface Surface ponding Deck drainage		12 13 14 15 16	Slippery surfaces Flooding/channel blockage Undermining of foundation Unstable embankments Other	
Mair	itenance Needs						
01	Lift and Swing Bridge Maintenance	07	Repair to Structural Steel	13	Ere	osion Control at Bridges	
02	Bridge Cleaning	08	Repair of Bridge Concrete	14		oncrete Sealing	
03	Bridge Handrail Maintenance	09	Repair of Bridge Timber	15	Ro	out and Seal	
04	Painting Steel Bridge Structures	10	Bailey bridges - Maintenance	16	Bri	idge Deck Drainage	
05	Bridge Deck Joint Repair	11	Animal/Pest Control	17		aling (Loose Concrete or ACR Steel)	
04	Deidas Daning Maintanana	10	D 1 C C D 1				

Bridge Surface Repair

12

18

Other

Element Gro	up:	Abutments		Length:				: # EM	
Element Nam				Width:	11.36m			10014 Poli	
Location:		West and East		Height:	1.22m				
Material:		Steel		Count:		2		L nti	
Element Type		Steel Panels	and man't be	Total Qua	antity: 27.7 m2				
Environment		Benign	1	Limited I	nspection		Lesson 1	THE IN	
Protection Sy	stem:	steel coating					discoller 1	Perform.	
Condition		Units	Exc.	Good	Fair	r	Poor*	Deficiencies	
Data:		m2	1 9	15.7	12			00	
		oating peeling. Larg	ge crack noted	at concrete		u ugu	the contract	idge)	
Recommend	led Wo	rk: Reha	b Replace		Maint	enanc	e Needs:	04	
		□1-5 ye	ears □ 6-10 y	ears	Urger	nt 🛘	ll year ☑2	year	
					re-coat	abutm	nent panels		
Element Grou	up:	Abutment	TO BE WELL	Length:	Wilstein	2.15n	n	s link offi	
Element Nam	ie:	Wingwall		Width:		n/a		Manusable	
Location:		NE, NW, SE, SW		Height:		0.9m	avg		
Material:		Steel		Count:		4	es and		
Element Type		Steel Panel		Total Qua	antity:	7.8 m	2	7 0	
Environment		Benign		Limited I	nspection		a minute	ini sil	
Protection Sy	stem:	steel coating			Perform.				
Condition		Units	Exc.	Good	Fair	r	Poor*	Deficiencies	
Data:		m2 oating peeling.		4.8	3		10-4	00	
Recommend	led Wo	r k: □ Reha □ 1-5 ye	-	ears	Urger	nt 🗆)4 year	
Element Grou	ın:	Main Longitudinal	Elements	Length:	-/4	2m (b	oth ends tota	al)	
Element Nam		Girders		Width:		0.31m			
Location:		Ends		Height:		0.3m			
Material:	and.	Steel		Count:					
Element Type	2:	W Section	nama Ari	Total Qua	Total Quantity: 15.3 m2				
Environment		Moderate	ansar ay fazin		Limited Inspection				
Protection Sy	stem:	steel coating						Perform.	
Condition	E41	Units	Exc.	Good	Fair	-	Poor*	Deficiencies	
Data:		m2		7.3	8			00	
Comments:			b Replace		Maint	enanc	e Needs:	m John on on	
		□1-5 ye	ears	ears	Urger	ıt	☐ 1 year	□2 year	

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Grou	ıp:	Main Longitudinal	Elements	Length: 5.3m					
Element Nam	e:	Girders		Width:	0.00.000				
Location:		Middle		Height:	lo				
Material:		Steel	-	Count:	5	5			
Element Type		W Section		Total Quantity: 40.5 m2					
Environment:	:	Benign		Limited Inspection					
Protection Sys	stem:	steel coating			Perform.				
Condition		Units	Exc.	Good	Fair Poor*		Deficiencies		
Data:		m2		30.5	10		00		
Comments: numerous redundant bolt holes were observed in the girders bottom flange. Girders were pre-assembled into two groups with 3 and 2 girders respectively and jointed together in the field with one single transverse link member at mid-span.									
Recommend	ed Wo					enance Needs:			
		□ 1-5 ye	ears 6-10 year	ırs	☐ Urgent	t 🗌 l year 🔲	2 year		
Element Grou	ıp:	Main Longitudinal	Elements	Length:	2	2.06m			
Element Name	e:	Diaphragms		Width:).1m			
Location:		End	The state of the s	Height:		0.15m			
Material:		Steel		Count:	4				
Element Type	:	L-section		Total Qua	ntity: 4	1			
Environment:		moderate		Limited Ir	Limited Inspection				
Protection Sys	stem:	steel coating			Perfo				
Condition	and the	Units	Exc.	Good	Fair	Poor*	Deficiencies		
Data:		each		4			00		
Comments: no end diaphragm between two pre-assembled girder sections Recommended Work:									
Recommende	ed Wo	rk: □Reha	b Replace		Mainte		2 year		
		rk: □ Reha □ 1-5 ye	b □ Replace ears □ 6-10 yea	nrs	Mainte	t □1 year □	2 year		
Element Grou	p:	r k: □ Reha □ 1-5 yo Main Longitudinal	b □ Replace ears □ 6-10 yea	Length:	Mainte ☐Urgent		2 year		
Element Grou	p:	rk: □ Reha □ 1-5 yo Main Longitudinal Diaphragms	b □ Replace ears □ 6-10 yea	Length:	Mainte □Urgent	2.06m and 1.0m	2 year		
Element Grou Element Name Location:	p:	rk:	b □ Replace ears □ 6-10 yea	Length: Width:	Mainte Urgent	2.06m and 1.0m 0.31m 0.3m			
Element Grou Element Name Location: Material:	p: e:	rk:	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count:	Mainte Urgent	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.			
Element Grou Element Name Location: Material: Element Type:	ip: e:	Main Longitudinal Diaphragms Intermediate Steel W Section	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua	Mainte □Urgent 2 0 0 6 ntity: 8	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.			
Element Grou Element Name Location: Material: Element Type: Environment:	ip: e:	Main Longitudinal Diaphragms Intermediate Steel W Section benign	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count:	Mainte □Urgent 2 0 0 6 ntity: 8	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.	.0m		
Element Grou Element Name Location: Material: Element Type: Environment: Protection Sys	ip: e:	Main Longitudinal Diaphragms Intermediate Steel W Section benign steel coating	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua	Mainte Urgent 2 0 0 6 ntity: 8	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.	.0m Perform.		
Element Grou Element Name Location: Material: Element Type: Environment: Protection Sys	ip: e:	Main Longitudinal Diaphragms Intermediate Steel W Section benign	b □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua Limited In	Mainte Urgent 2 0 0 6 ntity: 8 spection	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.	.0m Perform. Deficiencies		
Element Grou Element Name Location: Material: Element Type: Environment: Protection Sys Condition Data:	e:	Main Longitudinal Diaphragms Intermediate Steel W Section benign steel coating Units	b Replace ears 6-10 yea Elements Exc.	Length: Width: Height: Count: Total Qua Limited In	Mainte Urgent 2 0 0 6 ntity: 8 spection Fair 2	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.3 Poor*	Perform. Deficiencies		
Element Grou Element Name Location: Material: Element Type: Environment: Protection Sys Condition Data: Comments:	e: : : : : : : : : : : : : : : : : : :	Main Longitudinal Diaphragms Intermediate Steel W Section benign steel coating Units	B Replace ears 6-10 year Elements Exc. s between two p	Length: Width: Height: Count: Total Qua Limited In	Mainte Urgent 2 0 6 ntity: 8 spection Fair 2 ed section	2.06m and 1.0m 0.31m 0.3m 0-2.06m and 2-1. 3	Perform. Deficiencies		
Element Grou Element Name Location: Material: Element Type: Environment: Protection Sys Condition Data:	e: : : : : : : : : : : : : : : : : : :	Main Longitudinal Diaphragms Intermediate Steel W Section benign steel coating Units Tk:	Elements Exc. Separate Description of the second description of the	Length: Width: Height: Count: Total Qua Limited In Good 6	Mainte Urgent 2 0 0 6 ntity: 8 spection Fair 2 ed section	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.3 Poor* Ins, only one link chance Needs:	Perform. Deficiencies		
Element Grou Element Name Location: Material: Element Type: Environment: Protection Sys Condition Data: Comments:	e: : : : : : : : : : : : : : : : : : :	Main Longitudinal Diaphragms Intermediate Steel W Section benign steel coating Units	Elements Exc. Separate Description of the second description of the	Length: Width: Height: Count: Total Qua Limited In Good 6	Mainte Urgent 2 0 6 ntity: 8 spection Fair 2 ed section	2.06m and 1.0m 0.31m 0.3m 6-2.06m and 2-1.3 Poor* Ins, only one link chance Needs:	Perform. Deficiencies		



^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Gro	Element Group: Coating					n/a			
Element Nam	ie:	Structural Steel	Width:	Width:		n/a			
Location:		Ends		Height:	Height:		n/a		
Material:			l lum	Count:	Count: n/a		n/a		
Element Type	e:	1011327	_ remové la	Total Qua	Total Quantity: 17.4m2			per la marg	
Environment	:	moderate	part - 10	Limited I	Limited Inspection			- lune - run	
Protection Sy	stem:				Perform.				
Condition	20	Units	Good	Fai	ir	Poor*	Deficiencies		
Data:		m2	Exc.		15.	4	2	00	
	only).(antity includes 15.3 Coating Peeling, st	3 sq m girder er eel corroded.	nds and 2.1 s	sq m enc	l diaph	ragms (top a	nd front face	
Recommend	led Wo	rk: Reh	ab Replace		Main	tenand	e Needs:)4	
		□1-5 y	years 26-10 ye	ars	□Urge	nt 🗆	ll year	year	
			7/2		re-coat	girder	ends		
Element Grou	up:	Coating		Length:		n/a		75-71 PV -11-7	
Element Nam		Structural Steel	THE PROPERTY OF	Width:		n/a	T ' F ' In 'i l	- me are mil	
Location:		Middle		Height:		n/a	المصالين ينهملو	in in	
Material:				Count:		n/a			
Element Type	e:	IIII E I E	Fig. 4	Total Qua	al Quantity: 62.5 sq m			y"T fresh	
Environment	:	Benign			Limited Inspection □				
Protection Sy	stem:							Perform.	
Condition	16 0	Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:		sq m	- Zaco	32.5	25		5	00	
Recommend	peeling	antity includes 40.9 in middle. rk: Rehation 1-5 y	ab □Replace			tenanc	e Needs:	year	
Element Grou	up:	Decks	924 I Nove - 11 Pro-	Length:	1	7.3m			
Element Nam		Deck Top		Width:			8.1m		
Location:			nin.	Height:			0.2m		
Material:	1.0	Wood/fiber glass		Count:		n/a			
Element Type	2:	transverse lamina	ited deck	Total Qua	ntity:	59.1 s	sa m	AT III E E	
Environment	:	Moderate	all the second Books	Limited Ir			and the same of	M 55 50	
Protection Sy	stem:	Treated						Perform.	
Condition	mo ,	Units	Exc.	Good	Fai	r	Poor*	Deficiencies	
Data:		sq m	*	*	*	-	*	Fide	
Comments:	* deck t	op covered by 125	mm of gravel, c	ondition unk	nown			= ti =i = p	
Recommend	ed Wo	rk:	ab Replace		Main	tonana	e Needs:		
ACCOMMEND		□ 1-5 y	-	ars	Urge			□2 year	
		L 1-3 y		w. U	- Orge	ist	Liyeai I	LL year	
					I				

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Element Nam	ıp:	Decks		Length:		6.15m (face to face abut. walls)		
	e:	Sofft		Width:		6.6m		
Location:				Height:		n/a		
Material:		Wood/fiber glass		Count:				
Element Type				Total Qua				
Environment :		benign		Limited In	nspection [
Protection Sy	stem:						Perform.	
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies	
Data:		sq m		40.6				
Comments:								
Recommend	ed Wo	rk: □ Reha	b Replace		Mainter	nance Needs:		
		□1-5 y	ears	ars	□Urgent	☐ 1 year	□ 2 year	
Element Grou		Barriers		Length:	7.	33m		
Element Nam	e:	Railing System		Width:	n/			
Location:		north and south si	de of deck	Height:	0.	77m	8	
Material:		steel		Count:	4	(2 rails each	side)	
Element Type		HSS 100x100		Total Qua	ntity: 2	9.3m		
Environment:		severe		Limited Inspection				
Protection Sys	stem:	steel coating		Perfor				
Condition		Units	Exc.	Good	Fair	Poor*	Deficiencies	
Data:		m		10	19.3		00	
	Light to	medium comosion	UII 1133					
Recommend		rk: Reha	ıb 🔲 Replace	ars	Mainter Urgent	nance Needs:	□2 year	
Recommend	ed Wo	rk: □ Reha □ 1-5 y	ıb □ Replace		Urgent	□ 1 year	□2 year	
Recommend	ed Wo	rk: □ Reha □ 1-5 y Barriers	ıb □ Replace	Length:	□ Urgent	□ l year	□2 year	
Recommend Element Grou	ed Wo	rk: □ Reha □ 1-5 y Barriers Posts	ab □ Replace ears □ 6-10 yea	Length:	Urgent 0.	□ l year 2m 2m	□2 year	
Recommend Element Grou Element Nam Location:	ed Wo	rk: ☐ Reha ☐ 1-5 y Barriers Posts north and south si	ab □ Replace ears □ 6-10 yea	Length: Width: Height:	0. 0. 0.	□ l year 2m 2m 77m		
Recommend Element Grov Element Nam Location: Material:	ed Wo	rk: ☐ Reha ☐ 1-5 y Barriers Posts north and south sisteel	ab □ Replace ears □ 6-10 yea	Length: Width: Height: Count:	0. 0. 0. 8	□ l year 2m 2m		
Element Grove Element Name Location: Material: Element Type	ed Wo	rk: ☐ Reha☐ 1-5 y☐ Barriers Posts north and south sisteel W-section	ab □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua	□ Urgent 0. 0. 0. 8 ntity: 8	□ 1 year 2m 2m 77m (4 posts each		
Element Grove Element Name Location: Material: Element Type Environment:	et Wo	rk:	ab □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua	0. 0. 0. 8	□ 1 year 2m 2m 77m (4 posts each	side)	
Element Ground Element Name Location: Material: Element Type Environment: Protection Sys	et Wo	Reha 1-5 y Barriers Posts north and south sisteel W-section severe steel coating	ab Replace ears 6-10 yea des	Length: Width: Height: Count: Total Qua	0. 0. 8 ntity: 8	□ 1 year 2m 2m 77m (4 posts each	side) Perform.	
Element Groute Element Name Location: Material: Element Type Environment: Protection System Condition	et Wo	Reha 1-5 y Barriers Posts north and south si steel W-section severe steel coating Units	ab □ Replace ears □ 6-10 yea	Length: Width: Height: Count: Total Qua Limited In	Urgent 0. 0. 0. 8 ntity: 8 spection [□ 1 year 2m 2m 77m (4 posts each	side)	
Element Grove Element Name Location: Material: Element Type Environment: Protection System Condition Data:	et Wo	Reha 1-5 y Barriers Posts north and south sisteel W-section severe steel coating	ab Replace ears 6-10 yea des	Length: Width: Height: Count: Total Qua	0. 0. 8 ntity: 8	□ 1 year 2m 2m 77m (4 posts each	side) Perform.	
Element Group Element Nam Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ed Wo	Reha 1-5 y Barriers Posts north and south si steel W-section severe steel coating Units each	des Replace ears 6-10 years des	Length: Width: Height: Count: Total Qua Limited In	O. O. 8 ntity: 8 nspection [2m 2m 77m (4 posts each	side) Perform.	
Element Grove Element Name Location: Material: Element Type Environment: Protection System Condition Data:	ed Wo	rk: □ Reha □ 1-5 y Barriers Posts north and south si steel W-section severe steel coating Units each	des Exc.	Length: Width: Height: Count: Total Qua Limited In	O. O. 8 ntity: 8 nspection [Fair 4	2m 2m 77m (4 posts each	Perform. Deficiencies	
Element Group Element Nam Location: Material: Element Type Environment: Protection System Condition Data: Comments:	ed Wo	rk: □ Reha □ 1-5 y Barriers Posts north and south si steel W-section severe steel coating Units each	des Replace ears 6-10 years des	Length: Width: Height: Count: Total Qua Limited In	O. O. 8 ntity: 8 nspection [2m 2m 77m (4 posts each	side) Perform.	



^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Material: Stone	Element Grou	nent Group: Embankments and Streams			Length: n/a					
Stone		ie:	Slope protection	Width:	1					
Comment Comm	Location:		abutment front and	d side slopes			n/a			
Deficience Def	Material:			-5m						
Perform Perform Perform Data: each 2			rip rap	21112						
Condition Units Exc. Good Fair Poor* Deficiencies			benign	-de-, 1						
Data: each	Protection Sy	stem:								
Comments: Embankment slopes too steep. Gabion baskets added in front of abutment walls. Commended Work:	Condition	ball.	Units	Exc.	Good	Fair		Poor*	Deficiencies	
Commended Work: Rehab Replace Maintenance Needs: -5 years 6-10 years Urgent 1 year 2 year -5 years 6-10 years Urgent 1 year 2 year -5 years 6-10 years Urgent 1 year 2 year -5 years G-10 years Urgent 1 year 2 year -5 years G-10 years Urgent 1 year 2 year -5 years G-10 years Count: n/a -5 years G-10 years Count: n/a -5 years G-10 years Count: Naintenance Needs: 13 -5 years G-10 years Count: 1/2 -7 years G-10 years Co	Data:		each			2		-	- 114	
Clement Group: Embankments and Streams Length: n/a	Comments:	Embanl	kment slopes too st	eep. Gabion ba	askets addec	d in front c	of abu	tment walls	The second second	
Clement Group: Embankments and Streams Length: n/a	Recommend	led Wo	rk: □ Reha	b Replace		Mainte	enanc	e Needs:		
Embankments and Streams Length:					ars				2 vear	
Streams and Waterways Width: n/a			plant Albana, market A	-talm-						
Streams and Waterways Width: n/a	Element Grou	up:	Embankments and	d Streams	Length:	<u>'</u>	n/a			
Height: n/a										
Condition Units Exc. Good Fair Poor* Deficiencies	Location:				Height:					
Condition Data: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximately 0.6m high) noted immediately upstream of bridge. Comments: Beaver dam (approximate	Material:				Count:	1	n/a		14748	
Perform. Perform. Perform. Deficiencies Perform. Deficiencies Perform. Deficiencies Data: all	Element Type	e:		iviiliiniit v)i.	Total Qua	otal Quantity: all				
Condition Units Exc. Good Fair Poor* Deficiencies	Environment	:		ملكة ومساد	Limited I	Limited Inspection				
Data: all	Protection Sys	stem:				Perform.				
Recommended Work:	Condition	11-12	Units	Exc.	Good	Fair		Poor*	Deficiencies	
Recommended Work:	Data:		all			Х			1.19	
Element Group: Approaches	Recommend	led Wo			ars					
Color Barrier Width: n/a Cocation: east and west approaches Height: 0.9m Count: 4 Count: 4 Count: 15.2m Count: Severe Limited Inspection Perform. Perform. Condition Units Exc. Good Fair Poor* Deficiencies Data: m 10.0 5.2 16 16 Comments: No transitions/connection from approach guide rail to bridge railing. No guide rail end treatments. Rehab Replace Maintenance Needs: 18 Counter Coun				1		clear be	aver o	dam upstrea	ım	
Color Barrier Width: n/a Cocation: east and west approaches Height: 0.9m Count: 4 Count: 4 Count: 15.2m Count: Severe Limited Inspection Perform. Perform. Condition Units Exc. Good Fair Poor* Deficiencies Data: m 10.0 5.2 16 16 Comments: No transitions/connection from approach guide rail to bridge railing. No guide rail end treatments. Rehab Replace Maintenance Needs: 18 Counter Coun	Element Grou	ıp:	Approaches		Length:	13	3.81m	1		
Location: east and west approaches Height: 0.9m Material: steel Count: 4 Element Type: steel beam guide rail Total Quantity: 15.2m Environment: severe Limited Inspection Perform. Protection System: galvanized Perform. Condition Units Exc. Good Fair Poor* Deficiencies Data: m 10.0 5.2 16 Comments: No transitions/connection from approach guide rail to bridge railing. No guide rail end treatments. Rehab Replace Maintenance Needs: 18										
Steel Count: 4	Location:			roaches	Height:					
Steel beam guide rail Total Quantity: 15.2m	Material:									
Environment: severe Limited Inspection	Element Type	e:	steel beam guide r	rail	Total Qua	ntity:	15.2m	1	tue Union	
Perform. Condition Data: Maintenance Needs: 18 1-5 18 18 19 19 19 19 19 19	Environment	•		المحال الراب على عال	Limited In	nspection			L street and the	
Data: m 10.0 5.2 16 Comments: No transitions/connection from approach guide rail to bridge railing. No guide rail end treatments. Recommended Work: □Rehab □Replace □Urgent □1 year □2 year install transition to bridge railing and end	Protection Sys	stem:	galvanized							
Comments: No transitions/connection from approach guide rail to bridge railing. No guide rail end treatments. Recommended Work: Rehab Replace Maintenance Needs: 18 Urgent 1 year 2 year install transition to bridge railing and end	Condition		Units	Exc.	Good	Fair		Poor*	Deficiencies	
Comments: No transitions/connection from approach guide rail to bridge railing. No guide rail end treatments. Recommended Work:	Data:		m		10.0	5.2			16	
☐ 1-5 years ☐ 6-10 years ☐ Urgent ☐ 1 year ☐ 2 year install transition to bridge railing and end	Comments:	No trans No guid	sitions/connection f e rail end treatmen	rom approach (guide rail to I	bridge rail	ing.		La. Up	
☐ 1-5 years ☐ 6-10 years ☐ Urgent ☐ 1 year ☐ 2 year install transition to bridge railing and end	Recommend	ed Wo	rk: Reha	h Replace		Mainte	enanc	e Needs:	18	
install transition to bridge railing and end	- Locolimienu	110			ars					
			L 1-5 J.							

^{*} A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

Liement Grou			proaches Length:			0.2 m				
Element Nam	ie:	Barrier, po	rrier, posts		Width:		0.2 m			
Location:		east and w	and west approaches		Height:			0.9 m		
Material:		wood			Count:			12		
Element Type	e:	dimension	sion lumber T			Quantity: 12			·	
Environment	:	severe	Limited I							
Protection Sy	stem:	treated							Perform.	
Condition		Units		Exc.	Good	Fair		Poor*	Deficiencies	
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				_ 3] 3		2	16		
Comments:		***	ner brok	en		_				
Recommend	led Wo	rk:	☐ Rehal	Replace		Main	tenan	ce Needs:)3	
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Element Grou		15 75 75			Length:		-			
	ie:				Width:			The Hall		
Location:					Height:					
Material:			_		Count:					
Element Type					Total Qua					
Environment:					Limited I	nspection				
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Data:									TO ME	
Comments:	ed Wo	rk:	☐ Rehab ☐ Replace ☐ 1-5 years ☐ 6-10 years			Maintenance Needs: ☐ Urgent ☐ 1 year ☐ 2 year				
THE AC										
Element Grou					200					
Element Name:					Length:					
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Location: Material: Element Type Environment:	»: :				Width: Height: Count:					
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Location: Material: Element Type Environment: Protection Sys	»: :	Units		Exc.	Width: Height: Count: Total Qua	nspection		Poor*		
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Location: Material: Element Type Environment: Protection Sys Condition Data: Comments:	stem:		□ Rehat □ 1-5 ye	Replace	Width: Height: Count: Total Qua Limited I	rai Maint	r	e Needs:	Deficiencies	
Location: Material: Element Type Environment: Protection Sys Condition Data: Comments:	stem:			Replace	Width: Height: Count: Total Qua Limited I	nspection Fai	r	e Needs:		



A quantity must be estimated using the appropriate unit (e.g. m²). Percent should not be used.

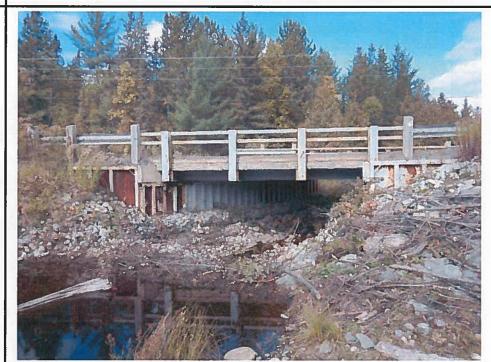
Ontario Structure Inspection Manual – Inspection Form MTO Site Number:

n/a

Photo 1: East Approach – Looking West



Photo 2: South Elevation (Upstream, note beaver dam)



Ontario Structure Inspection Manual – Inspection Form

MTO Site Number:

n/a

Photo 3: Abutment Wall – East abutment shown, West abutment similar



Photo 4: SE Corner of Bridge – note wide crack in concrete ballast wall and broken approach guide rail post.





Ontario Structure Inspection Manual – Inspection Form

MTO Site Number:

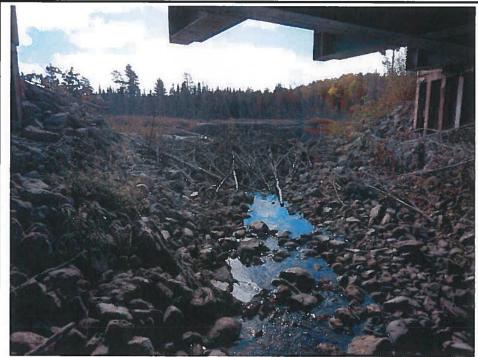
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2019 Site Photographs

Photo 5: Bridge Soffit – showing deck panel link member



Photo 6: Channel Looking Upstream – note beaver dam



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