



**Township of Strong
D.M. Wills Project No. 24-9217**

**2018 Municipal Structure
Inspection Program**

Summary Report



September 2018

Prepared for: The Township of Strong

Table of Contents

1. OSIM Bridge and Culvert Inspections.....	1
2. Municipal Structures Inventory and Data	1
3. 5 Year Structure Rehabilitation Program	2
4. Bridge By-Laws and Load Postings	3
5. Closure.....	4

Appendices

Appendix A:	Inventory List
Appendix B:	Inventory Map
Appendix C:	Inspection Summary Report
Appendix D:	OSIM Inspection Forms & Photos (By Structure)
Appendix E:	Copies of Current By-Laws

1. OSIM Bridge and Culvert Inspections

D.M. Wills Associates Limited ("Wills") was retained by the Township of Strong to complete detailed visual inspections of their structure inventory in accordance with the Public Transportation and Improvement Act. Specifically, Ontario Regulation 104/97 'Standards for Bridges' made under the Act requires that:

"The structural integrity, safety and condition of every bridge shall be determined through the performance of at least one inspection in every second calendar year under the direction of a professional engineer and in accordance with the Ontario Structure Inspection Manual ..."

Wills completed the detailed visual inspections of ten (10) roadway structures on behalf of the Township in 2018. An inventory of all bridges and culverts inspected is provided in **Appendix A**.

During completion of the bridge inspections, each structural element was measured and assessed for condition in accordance with the OSIM reporting format. The bridge inspection forms (OSIM format) are provided in **Appendix D**.

2. Municipal Structures Inventory and Data

The following Maintenance Needs are identified for the bridge and culvert inventory. The list is not priority based however urgent items have been identified. It is assumed that for non-urgent items the Township's Public Works staff will perform all necessary maintenance on an intermittent basis as resources are available. The Maintenance Needs are a check list of works that should be completed and monitored by Township staff on a regular basis. **The Township should strive to ensure that all maintenance items are addressed within one year.**

The maintenance needs for the roadway bridges and culverts fall into the following categories:

<u>Maintenance Activity</u>	<u>Location</u>
Bridge deck cleaning (debris removal)	BR1 – Adams Road Bridge BR3 – Brookside Road Bridge BR4 – Robins Road Bridge BR6 – Stirling Creek Bridge BR7 – Pevensey Road Bridge
Rout and seal	BR5 – Muskoka Road Bridge
Bridge bearing maintenance (debris removal)	BR6 – Stirling Creek Bridge
Repair of Barrier Posts/Guide Rail	BR3 – Brookside Road Bridge (Urgent) BR6 – Stirling Creek Bridge BR7 – Pevensey Road Bridge
Repair washouts / unstable embankments	BR2 – Forest Lake Rd. Culvert

Install Narrow Bridge signage	BR3 – Brookside Road Bridge BR7 – Pevensey Road Bridge BR6 – Stirling Creek Rd. Bridge (Urgent)
Install Load Limit signage	BR3 – Brookside Road Bridge (Urgent)
Install Hazard signage	BR6 – Stirling Creek Rd. Bridge (Urgent)
Bridge Deck Drainage	BR5 – Muskoka Road Bridge

The maintenance activities can be easily grouped into work order tasks for completion and assigned to Township works crews accordingly. If internal resources are not available to complete the maintenance activities, the Township should consider contracting the necessary labour, equipment and materials to complete the work.

As maintenance activities are completed or additional maintenance needs are identified the Maintenance Needs lists should be kept up-to-date such that management staff can direct work accordingly.

3. 5 Year Structure Rehabilitation Program

Of the ten (10) bridges and culverts inspected, five (5) structures require some form of repair, rehabilitation and/or replacement. The urgency of rehabilitation varies based on the condition of individual bridge elements, therefore priority should be given to the rehabilitation of structures that exhibit advanced states of deterioration or have sustained serious structural damage.

The rehabilitation needs for the 5 Year Structure Rehabilitation Program are higher priority needs that are short-listed from all the current structure needs. Lower priority needs should be monitored throughout future inspection periods and their priority adjusted as necessary, however addressing these needs is not critical at this time.

A recommended 5-Year Capital Bridge Program is presented in **Table 1** and has total estimated cost of **\$ 919,750**. Please refer to **Appendix C** for a complete list of all required rehabilitation measures.

TABLE 1: Recommended 5 Year Capital Bridge Program

Capital Budget Year	Structure No. - Location	Recommended Works	Estimated Costs (\$2018)
2019	BR12 – Rodeo Road Bridge	Replace Culvert	\$ 423,750
2020	BR7 – Peveny Road Bridge	Repair Undermining. Repair Barrier Concrete.	\$ 15,000
2021	BR3 – Brookside Road Bridge	Remove and reset modular bridge on new abutments.	\$ 195,000
2022	BR2 – Forest Lake Road Culvert	New wearing surface. Install New Inlet Components. Install New Outlet Components. Replace culvert with New Concrete Box Culvert. Install Steel Beam Guide Rail.	\$ 256,000
2023	BR6 – Stirling Creek Bridge	Replace Timber Wearing Surface and Curbs. Repair Deck Top Timbers.	\$ 30,000

4. Bridge By-Laws and Load Postings

Copies of the current Township "Load Posting" Bylaws are enclosed as **Appendix E**.

Based upon documents provided by the Township of Strong, the following structures are understood to have legal By-Laws and Load Posting restrictions:

Bridge Name	By-Law#	Load Limit(s)
3 Brookside Road Bridge	2010-041	20 tonnes

Until the recommended work is completed at Brookside Road Bridge, the current Bylaw# 2010-041 shall remain in place along with all required on site signage.

5. Closure

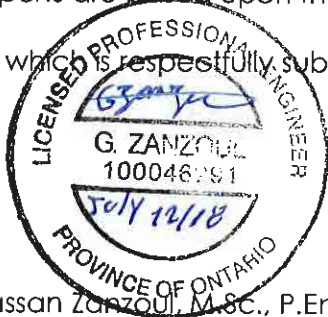
D.M. Wills Associates Ltd. completed the Township of Strong 2018 OSIM Structure Inspection program under the supervision of Ghassan Zanzoul, P.Eng. and Michael McDonnell.

The Recommended 5 Year Capital Program is provided to ensure that the Township continues to invest in the bridge asset class with a goal to maintain a minimum maintenance standard for all structures. The projects listed above represent the best opportunity for the Township to improve overall structure inventory condition.

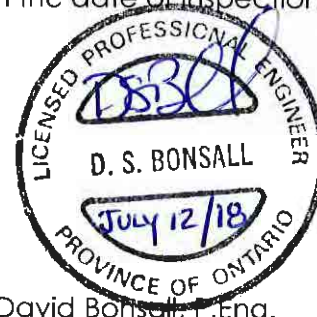
The contents of this Summary Report shall be read in conjunction with the detailed OSIM Inspection Report for each structure. The Summary Report is intended to be a concise summary of the individual OSIM Reports; however the detailed (individual) OSIM Reports must be consulted to verify accuracy of any information contained within the Summary Report.

All reports are based upon the visual condition observed on the date of inspection.

All of which is respectfully submitted,



Ghassan Zanzoul, M.Sc., P.Eng.
Sr. Structural Engineer



David Bonsall, P.Eng.
Manager / Structural Engineering

Appendix A

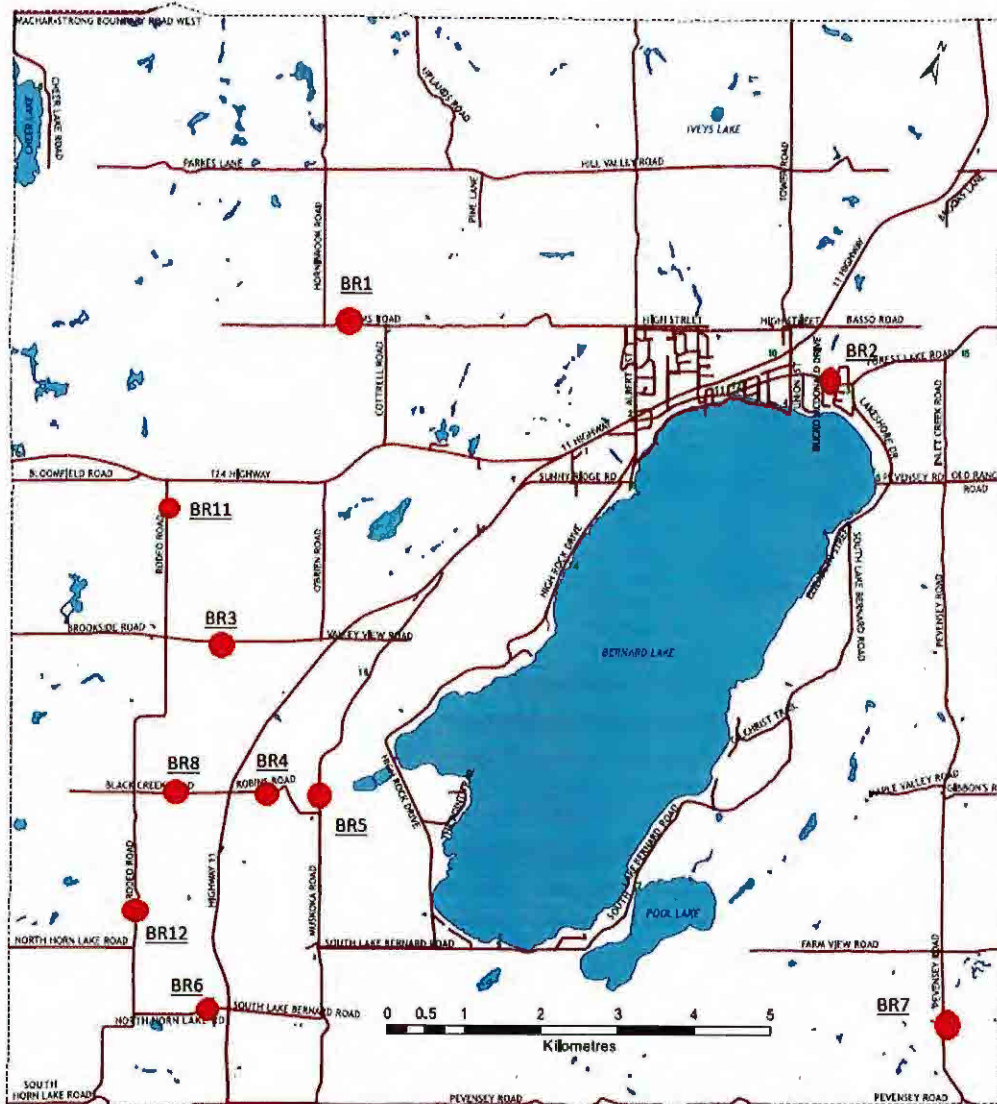
Inventory List

Strong Township - List of Structures

Str. ID	Structure Name	Road Name	Location	BCI Value
BR1	Adams Road Bridge	Adams Road	Adams Road at Hornibrook Road	83.53
BR2	Forest Lake Road Culvert	Forest Lake Road	West of Bernard Crescent	66.79
BR3	Brookside Road Bridge	Brookside Road	650m East of Rodeo Road	72.78
BR4	Robins Road Bridge	Robins Road	East of HWY 11	75
BR5	Muskoka Road Bridge	Muskoka Road	200m North of Robin Road	100
BR6	Stirling Creek Bridge	North Horn Lake Road	West of HWY 11	71.03
BR7	Peveny Road Bridge	Peveny Road	South of Farm View Road	74.72
BR8	Black Creek Road Culvert	Black Creek Road	500m West of HWY 11	75
BR11	Rodeo Road Culvert	Rodeo Road	South of HWY 124	75
BR12	Rodeo Road Bridge	Rodeo Road	1km South of Black Creek Road	58.93

Appendix B

Inventory Map



Township Of Strong

Inventory Map:

- 1 – Adams Road Bridge
- 2- Forest Lake Road Culvert
- 3 – Brookside Road Bridge
- 4 – Robins Road Bridge
- 5 – Muskoka Road Bridge
- 6 – North Horn Lake Road
- 7- Pevensey Road Bridge
- 8 – Black Creek Road Culvert
- 11 – Rodeo Road Culvert
- 12 – Rodeo Road Bridge

Appendix C

Complete List of Required Rehabilitation Needs

Strong Township - Complete List of Rehabilitation Needs

Structure No.	Structure Name	Priority	Rehabilitation Need	Estimated Cost
BR2	Forest Lake Road Culvert	1-5 Years	New wearing surface	\$20,000.00
			Install New Inlet Components	\$10,000.00
			Install New Outlet Components	\$10,000.00
			Replace culvert with New Concrete Box Culvert	\$150,000.00
			Install Steel Beam Guide Rail	\$20,000.00
			Traffic Control	\$5,000.00
			Engineering	\$20,000.00
			Contingencies	\$21,000.00
			Total:	\$256,000.00
BR3	Brookside Road Bridge	1-5 Years	Reconstruct embankments with New Abutments	\$25,000.00
			Remove Old Structure and Reconstruct Abutments	\$150,000.00
			Engineering and Contract Admin.	\$20,000.00
			Total:	\$195,000.00
BR6	Stirling Creek Bridge	1-5 Years	Replace Timber Curbs	\$5,000.00
			Replace Wearing Surface	\$10,000.00
			Repair Deck Top Timbers	\$15,000.00
			Total:	\$30,000.00
BR7	Peveny Road Bridge	1-5 Years	Repair Undermining	\$10,000.00
			Repair Barrier Concrete	\$5,000.00
			Total:	\$15,000.00
BR12	Rodeo Road Bridge	1-5 Years	Replace culvert	\$248,600.00
			Excavation and Road Reconstruction	\$45,200.00
			Environmental Controls and Dewatering	\$28,250.00
			Eng. Design and Contract Administration	\$56,500.00
			Contingency Allowance	\$45,200.00
			Total:	\$423,750.00
5-Year Plan Total Cost:				\$919,750.00

Appendix D

OSIM Inspection Forms & Photos (By Structure)

Inventory Data

Structure Name	Adams Rd Bridge		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Adams Road		
Structure Location	Adams Road at Hornibrook Road		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	Not Cons		
Road Class:	Local		
MTO Region	Northern		
MTO District	Huntsville		
Old County	Parry Sound		
Geographic Twp	Township of Strong		
Structure Type	Rigid Frame, Vertical legs		
Total Deck Length	<input type="text" value="7"/> (m)	Posted Speed	<input type="text" value="80"/>
Overall Str Width	<input type="text" value="5.6"/> (m)	AADT	<input type="text" value="0"/>
Total Deck Area	<input type="text" value="39.2"/> (sq. m)	No of Lanes	<input type="text" value="1"/>
Roadway Width	<input type="text" value="4.6"/> (m)	% Trucks	<input type="text" value="0"/>
Span Lengths	<input type="text" value="7"/> (m)	Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
		Detour Length Around Bridge	<input type="text"/> (km)
		Fill on Structure	<input type="text" value="0"/> (m)
		Skew Angle	<input type="text" value="0"/> (Degrees)
		Direction of Structure	<input type="text" value="East/West"/>
		No of Spans	<input type="text" value="1"/>

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			
2017: New curbs. New bridge railing and posts. New guide rail and signs. Concrete repairs.			

Field Inspection Information

Date of Inspection: 6/26/2018 Temperature: 21° C
 Inspected By: D.M. Wills Associates Ltd.
 Inspector: Ghassan Zanzoul, P. Eng.
 Others in Party: Michael McDonnell
 Equipment Used: Camera, tape measure.
 Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting:Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 83.53

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |



Element Data

Element Group:	Barriers				Length:		
Element Name:	Railing Systems				Width:		
Location:	Each side of bridge				Height:		
Material:	Steel				Count:		
Element Type:	Steel Flex Beam on steel post				Total Quantity:	24.4	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot dip galvanizing				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	m	24.4				None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Element Group:	Sidewalks/curbs				Length:	13.2	
Element Name:	Curbs				Width:	0.6	
Location:	North				Height:	0.25	
Material:	Cast-in-place concrete				Count:	1	
Element Type:					Total Quantity:	14.52	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:	None				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m	14.52				None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Element Group:	Abutments				Length:		
Element Name:	Abutment walls				Width:	4.5	
Location:	Each End				Height:	1	
Material:	Cast-in-place concrete				Count:	2	
Element Type:	Legs of Rigid Frame				Total Quantity:	9	
Environment:	Benign				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		9			None	
Comments	Inspection not possible due to very small freeboard.					Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR1

Element Group:	Abutments				Length:	2.6	
Element Name:	Wingwalls				Width:		
Location:	Each quadrant				Height:	0.8	
Material:	Cast-in-place concrete				Count:	4	
Element Type:	Reinforced concrete				Total Quantity:	8.31	
Environment:	Benign				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		8.31			None	
Comments							
Recommended Work							
Estimated Construction Cost:						\$0.00	
Priority						None	
						6-10 yrs	
						1-5 yrs	
						Within 1 yr	
						Urgent	

Element Group:	Approaches				Length:	3	
Element Name:	Wearing surface				Width:	5	
Location:	Each End				Height:	0.08	
Material:	Gravel				Count:	2	
Element Type:					Total Quantity:	30	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		30			None	
Comments							
Recommended Work							
Estimated Construction Cost:						\$0.00	
Priority						None	
						6-10 yrs	
						1-5 yrs	
						Within 1 yr	
						Urgent	

Element Group:	Barriers				Length:	0.15	
Element Name:	Posts				Width:	0.15	
Location:	Each side of bridge				Height:	0.45	
Material:	Steel				Count:	12	
Element Type:	I-type				Total Quantity:	12	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot dip galvanizing				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Each	12				None	
Comments							
Recommended Work							
Estimated Construction Cost:						\$0.00	
Priority						None	
						6-10 yrs	
						1-5 yrs	
						Within 1 yr	
						Urgent	

Municipal Structure Inspection Form

STRUCTURE ID BR1

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Railing Systems</td></tr> <tr><td>Location:</td><td>Approaches</td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Steel Flex Beam on steel post</td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> m 48 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Barriers	Element Name:	Railing Systems	Location:	Approaches	Material:	Steel	Element Type:	Steel Flex Beam on steel post	Environment:	Severe	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td></td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">48</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:		Total Quantity:	48	Limited Inspection	<input type="checkbox"/>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Barriers																															
Element Name:	Railing Systems																															
Location:	Approaches																															
Material:	Steel																															
Element Type:	Steel Flex Beam on steel post																															
Environment:	Severe																															
Protection System:	Hot dip galvanizing																															
Length:																																
Width:																																
Height:																																
Count:																																
Total Quantity:	48																															
Limited Inspection	<input type="checkbox"/>																															
None																																
6-10 yrs																																
1-5 yrs																																
Within 1 yr																																
Urgent																																

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Decks</td></tr> <tr><td>Element Name:</td><td>Soffit - Thick Slab</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 27.44 </p> <p>Comments</p> <p>Not accessible due to water depth.</p> <p>Recommended Work</p>	Element Group:	Decks	Element Name:	Soffit - Thick Slab	Location:		Material:	Cast-in-place concrete	Element Type:		Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">6.1</td></tr> <tr><td>Width:</td><td style="text-align: right;">4.5</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">27.44</td></tr> <tr><td>Limited Inspection</td><td><input checked="" type="checkbox"/></td></tr> </table> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	6.1	Width:	4.5	Height:		Count:	1	Total Quantity:	27.44	Limited Inspection	<input checked="" type="checkbox"/>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Decks																															
Element Name:	Soffit - Thick Slab																															
Location:																																
Material:	Cast-in-place concrete																															
Element Type:																																
Environment:	Benign																															
Protection System:																																
Length:	6.1																															
Width:	4.5																															
Height:																																
Count:	1																															
Total Quantity:	27.44																															
Limited Inspection	<input checked="" type="checkbox"/>																															
None																																
6-10 yrs																																
1-5 yrs																																
Within 1 yr																																
Urgent																																

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Decks</td></tr> <tr><td>Element Name:</td><td>Deck top</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Cast-in-place concrete on supports</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 32.2 </p> <p>Comments</p> <p>Extensive light scaling. Clean bridge as maintenance.</p> <p>Recommended Work</p>	Element Group:	Decks	Element Name:	Deck top	Location:		Material:	Cast-in-place concrete	Element Type:	Cast-in-place concrete on supports	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">7</td></tr> <tr><td>Width:</td><td style="text-align: right;">4.6</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">32.2</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs Bridge Cleaning</p> <p>Perform. Deficiencies None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	7	Width:	4.6	Height:		Count:	1	Total Quantity:	32.2	Limited Inspection	<input type="checkbox"/>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Decks																															
Element Name:	Deck top																															
Location:																																
Material:	Cast-in-place concrete																															
Element Type:	Cast-in-place concrete on supports																															
Environment:	Benign																															
Protection System:																																
Length:	7																															
Width:	4.6																															
Height:																																
Count:	1																															
Total Quantity:	32.2																															
Limited Inspection	<input type="checkbox"/>																															
None																																
6-10 yrs																																
1-5 yrs																																
Within 1 yr																																
Urgent																																

Municipal Structure Inspection Form

STRUCTURE ID BR1

<p>Element Group: Embankments & Streams</p> <p>Element Name: Embankments</p> <p>Location: Each Quadrant</p> <p>Material:</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System: None</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> <input type="text" value="4"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: <input type="text" value="4"/></p> <p>Total Quantity: <input type="text" value="4"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p style="text-align: right;">Priority</p> <p style="margin-right: 20px;">None</p> <p style="margin-right: 20px;">6-10 yrs</p> <p style="margin-right: 20px;">1-5 yrs</p> <p style="margin-right: 20px;">Within 1 yr</p> <p style="margin-right: 20px;">Urgent</p>
--	--

<p>Element Group: Embankments & Streams</p> <p>Element Name: Streams and Waterways</p> <p>Location: Under Bridge</p> <p>Material:</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System: None</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">% <input type="text"/> <input type="text"/> <input type="text" value="100"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: <input type="text" value="1"/></p> <p>Total Quantity: <input type="text" value="1"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p style="text-align: right;">Priority</p> <p style="margin-right: 20px;">None</p> <p style="margin-right: 20px;">6-10 yrs</p> <p style="margin-right: 20px;">1-5 yrs</p> <p style="margin-right: 20px;">Within 1 yr</p> <p style="margin-right: 20px;">Urgent</p>
--	--

<p>Element Group: Foundations</p> <p>Element Name: Foundation (below ground level)</p> <p>Location:</p> <p>Material: Cast-in-place concrete</p> <p>Element Type: Spread</p> <p>Environment: Benign</p> <p>Protection System: None</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Sq. m <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: <input type="text" value="2"/></p> <p>Total Quantity: <input type="text" value="2"/></p> <p>Limited Inspection <input checked="" type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p style="text-align: right;">Priority</p> <p style="margin-right: 20px;">None</p> <p style="margin-right: 20px;">6-10 yrs</p> <p style="margin-right: 20px;">1-5 yrs</p> <p style="margin-right: 20px;">Within 1 yr</p> <p style="margin-right: 20px;">Urgent</p>
---	---

Municipal Structure Inspection Form

STRUCTURE ID BR1

<p>Element Group: Accessories</p> <p>Element Name: Signs</p> <p>Location:</p> <p>Material: Steel</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System:</p> <p>Condition Data: Units Exc Good Fair Poor</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%; border: 1px solid black;">Each</td> <td style="width:20%; border: 1px solid black;"></td> <td style="width:20%; border: 1px solid black; text-align: center;">6</td> <td style="width:20%; border: 1px solid black;"></td> <td style="width:20%; border: 1px solid black;"></td> </tr> </table> <p>Comments</p> <p>5 Hazard signs. 1 Stop sign.</p> <p>Recommended Work</p>	Each		6			<p>Length:</p> <p>Width:</p> <p>Height:</p> <p>Count: 6</p> <p>Total Quantity: 6</p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table style="width:100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black;">None</td></tr> <tr><td style="border: 1px solid black;">6-10 yrs</td></tr> <tr><td style="border: 1px solid black;">1-5 yrs</td></tr> <tr><td style="border: 1px solid black;">Within 1 yr</td></tr> <tr><td style="border: 1px solid black;">Urgent</td></tr> </table>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Each		6									
None											
6-10 yrs											
1-5 yrs											
Within 1 yr											
Urgent											

<p>Element Group: Sidewalks/curbs</p> <p>Element Name: Curbs</p> <p>Location: South</p> <p>Material: Cast-in-place concrete</p> <p>Element Type:</p> <p>Environment: Severe</p> <p>Protection System:</p> <p>Condition Data: Units Exc Good Fair Poor</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%; border: 1px solid black;">Sq. m</td> <td style="width:20%; border: 1px solid black; text-align: center;">8.96</td> <td style="width:20%; border: 1px solid black;"></td> <td style="width:20%; border: 1px solid black;"></td> <td style="width:20%; border: 1px solid black;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Sq. m	8.96				<p>Length: 11.2</p> <p>Width: 0.4</p> <p>Height: 0.2</p> <p>Count: 1</p> <p>Total Quantity: 8.96</p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table style="width:100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black;">None</td></tr> <tr><td style="border: 1px solid black;">6-10 yrs</td></tr> <tr><td style="border: 1px solid black;">1-5 yrs</td></tr> <tr><td style="border: 1px solid black;">Within 1 yr</td></tr> <tr><td style="border: 1px solid black;">Urgent</td></tr> </table>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Sq. m	8.96										
None											
6-10 yrs											
1-5 yrs											
Within 1 yr											
Urgent											

Associated Work

	Comments	Estimated Cost
Approaches	<input type="text"/>	<input type="text" value="\$0.00"/>
Detours	<input type="text"/>	<input type="text" value="\$0.00"/>
Traffic Control	<input type="text"/>	<input type="text" value="\$0.00"/>
Utilities	<input type="text"/>	<input type="text" value="\$0.00"/>
Right of Way	<input type="text"/>	<input type="text" value="\$0.00"/>
Environmental Study	<input type="text"/>	<input type="text" value="\$0.00"/>
Other	<input type="text"/>	<input type="text" value="\$0.00"/>
Contingencies	<input type="text"/>	<input type="text" value="\$0.00"/>
Total Estimated Const. Cost		<input type="text" value="\$0.00"/>

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR1



Roadway looking West



South railing

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR1



North railing



South railing

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR1



North railing



South elevation

Inventory Data

Structure Name	Forest Lake Road Culvert		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text"/> Non-navig water
Road Name	Forest Lake Road		
Structure Location	Forest Lake Road, west of Bernard Crescent		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	<input type="text"/> Not Cons		
Road Class:	<input type="text"/> Local		
MTO Region	<input type="text"/> Northern		
MTO District	<input type="text"/> Huntsville		
Old County	<input type="text"/> Parry Sound		
Geographic Twp	Township of Strong		
Structure Type	<input type="text"/> Frame, Inclined Legs		
Total Deck Length	<input type="text"/> 3.6	(m)	
Overall Str Width	<input type="text"/> 12.4	(m)	
Total Deck Area	<input type="text"/> 44.64	(sq. m)	
Roadway Width	<input type="text"/> 6.8	(m)	
Span Lengths	<input type="text"/> 3.0 (m)		
Posted Speed	<input type="text"/> 80	No of Lanes	<input type="text"/> 2
AADT	<input type="text"/> 0	% Trucks	<input type="text"/> 0
Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>		
Detour Length Around Bridge	<input type="text"/>	(km)	
Fill on Structure	<input type="text"/> 0.3	(m)	
Skew Angle	<input type="text"/> 0	(Degrees)	
Direction of Structure	<input type="text"/> East/West		
No of Spans	<input type="text"/> 1		

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text"/> 11/5/2016
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018

Temperature: 21° C

Inspected By: D.M. Wills Associates Ltd.

Inspector: Ghassan Zanzoul, P. Eng.

Others in Party: Michael McDonnell

Equipment Used: Camera, tape measure.

Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 66.79

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data

Element Group: Approaches
 Element Name: Wearing surface
 Location:
 Material: Asphalt
 Element Type:
 Environment: Severe
 Protection System:

Length: 6
 Width: 6.8
 Height: 0.08
 Count: 2
 Total Quantity: 81.6
 Limited Inspection

Condition Data:	Units	Exc	Good	Fair	Poor
	Sq. m			81.6	

Comments
 Extensive raveling and medium cracks.

Recommended Work

Maint. Needs
 None
 Perform. Deficiencies
 None
 Estimated Construction Cost: \$0.00
 Priority: None
 6-10 yrs
 1-5 yrs
 Within 1 yr
 Urgent

Element Group: Barriers
 Element Name: Barrier/Parapet Walls
 Location: North
 Material: Cast-in-place concrete
 Element Type: Parapet Wall without railing
 Environment: Moderate
 Protection System:

Length: 3.6
 Width:
 Height: 1.3
 Count: 1
 Total Quantity: 4.67
 Limited Inspection

Condition Data:	Units	Exc	Good	Fair	Poor
	Sq. m		4.67		

Comments
 Medium to severe scaling.

Recommended Work
 Install steel beam guide rail. Costed under South barrier wall.

Maint. Needs
 None
 Perform. Deficiencies
 None
 Estimated Construction Cost: \$0.00
 Priority: None
 6-10 yrs
 1-5 yrs
 Within 1 yr
 Urgent

Element Group: Barriers
 Element Name: Barrier/Parapet Walls
 Location: South
 Material: Cast-in-place concrete
 Element Type: Parapet Wall without railing
 Environment: Moderate
 Protection System:

Length: 3.6
 Width:
 Height: 1.3
 Count: 1
 Total Quantity: 4.67
 Limited Inspection

Condition Data:	Units	Exc	Good	Fair	Poor
	Sq. m		4.67		

Comments
 Severe to medium scaling. Height of railing system is insufficient.

Recommended Work
 Install steel beam guide rail.

Maint. Needs
 None
 Perform. Deficiencies
 Pedestrian/vehicular hazard
 Estimated Construction Cost: \$20,000.00
 Priority: None
 6-10 yrs
 1-5 yrs
 Within 1 yr
 Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR2

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Culverts</td></tr> <tr><td>Element Name:</td><td>Barrels</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Frames - Articulated</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%;">64.16</td> <td style="width:15%;">4.5</td> <td style="width:15%;">4.5</td> </tr> </table> <p>Comments</p> <p>Concrete disintegration on east wall. Spall and exposed reinforcement on soffit. Top of footings are exposed. Severe erosion and undermining of West wall.</p> <p>Recommended Work</p> <p>Replace with new concrete box culvert.</p>	Element Group:	Culverts	Element Name:	Barrels	Location:		Material:	Cast-in-place concrete	Element Type:	Frames - Articulated	Environment:	Benign	Protection System:		Sq. m		64.16	4.5	4.5	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>12.4</td></tr> <tr><td>Width:</td><td>3.1</td></tr> <tr><td>Height:</td><td>1.4</td></tr> <tr><td>Count:</td><td>1</td></tr> <tr><td>Total Quantity:</td><td>73.16</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$150,000.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	12.4	Width:	3.1	Height:	1.4	Count:	1	Total Quantity:	73.16	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Culverts																																		
Element Name:	Barrels																																		
Location:																																			
Material:	Cast-in-place concrete																																		
Element Type:	Frames - Articulated																																		
Environment:	Benign																																		
Protection System:																																			
Sq. m		64.16	4.5	4.5																															
Length:	12.4																																		
Width:	3.1																																		
Height:	1.4																																		
Count:	1																																		
Total Quantity:	73.16																																		
None																																			
6-10 yrs																																			
1-5 yrs																																			
Within 1 yr																																			
Urgent																																			

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Culverts</td></tr> <tr><td>Element Name:</td><td>Inlet Components</td></tr> <tr><td>Location:</td><td>East</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Retained soil systems</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%;">2.4</td> <td style="width:15%;">0.5</td> <td style="width:15%;">0.5</td> </tr> </table> <p>Comments</p> <p>Severe scaling and localized spalls.</p> <p>Recommended Work</p> <p>Install new cutoff wall.</p>	Element Group:	Culverts	Element Name:	Inlet Components	Location:	East	Material:	Cast-in-place concrete	Element Type:	Retained soil systems	Environment:	Benign	Protection System:		Sq. m		2.4	0.5	0.5	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>1.7</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td>1</td></tr> <tr><td>Count:</td><td>2</td></tr> <tr><td>Total Quantity:</td><td>3.4</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$10,000.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	1.7	Width:		Height:	1	Count:	2	Total Quantity:	3.4	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Culverts																																		
Element Name:	Inlet Components																																		
Location:	East																																		
Material:	Cast-in-place concrete																																		
Element Type:	Retained soil systems																																		
Environment:	Benign																																		
Protection System:																																			
Sq. m		2.4	0.5	0.5																															
Length:	1.7																																		
Width:																																			
Height:	1																																		
Count:	2																																		
Total Quantity:	3.4																																		
None																																			
6-10 yrs																																			
1-5 yrs																																			
Within 1 yr																																			
Urgent																																			

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Culverts</td></tr> <tr><td>Element Name:</td><td>Outlet Components</td></tr> <tr><td>Location:</td><td>West End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Retained soil systems</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%;">2.8</td> <td style="width:15%;">0.3</td> <td style="width:15%;">0.3</td> </tr> </table> <p>Comments</p> <p>Severe to medium scaling noted. Minor separation at construction joint. Severe erosion and severe undermining at Southwest wingwall.</p> <p>Recommended Work</p> <p>Install new cutoff wall.</p>	Element Group:	Culverts	Element Name:	Outlet Components	Location:	West End	Material:	Cast-in-place concrete	Element Type:	Retained soil systems	Environment:	Benign	Protection System:		Sq. m		2.8	0.3	0.3	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>1.7</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td>1</td></tr> <tr><td>Count:</td><td>2</td></tr> <tr><td>Total Quantity:</td><td>3.4</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$10,000.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	1.7	Width:		Height:	1	Count:	2	Total Quantity:	3.4	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Culverts																																		
Element Name:	Outlet Components																																		
Location:	West End																																		
Material:	Cast-in-place concrete																																		
Element Type:	Retained soil systems																																		
Environment:	Benign																																		
Protection System:																																			
Sq. m		2.8	0.3	0.3																															
Length:	1.7																																		
Width:																																			
Height:	1																																		
Count:	2																																		
Total Quantity:	3.4																																		
None																																			
6-10 yrs																																			
1-5 yrs																																			
Within 1 yr																																			
Urgent																																			

Municipal Structure Inspection Form

STRUCTURE ID

BR2

<p>Element Group: <input type="text" value="Decks"/></p> <p>Element Name: <input type="text" value="Wearing surface"/></p> <p>Location: <input type="text"/></p> <p>Material: <input type="text" value="Asphalt"/></p> <p>Element Type: <input type="text"/></p> <p>Environment: <input type="text" value="Severe"/></p> <p>Protection System: <input type="text"/></p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"><input type="text" value="Sq. m"/> <input type="text"/> <input type="text"/> <input type="text" value="24.47"/> <input type="text"/></p> <p>Comments</p> <p>Extensive raveling and medium cracks.</p> <p>Recommended Work</p> <p>Replace with culvert.</p>	<p>Length: <input type="text" value="3.6"/></p> <p>Width: <input type="text" value="6.8"/></p> <p>Height: <input type="text" value="0.09"/></p> <p>Count: <input type="text" value="1"/></p> <p>Total Quantity: <input type="text" value="24.47"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p><input type="text" value="None"/></p> <p>Perform. Deficiencies</p> <p><input type="text" value="None"/></p> <p>Estimated Construction Cost: <input type="text" value="\$20,000.00"/></p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:50%;"><input type="text" value="None"/></td></tr> <tr><td><input type="text" value="6-10 yrs"/></td></tr> <tr><td><input type="text" value="1-5 yrs"/></td></tr> <tr><td><input type="text" value="Within 1 yr"/></td></tr> <tr><td><input type="text" value="Urgent"/></td></tr> </table>	<input type="text" value="None"/>	<input type="text" value="6-10 yrs"/>	<input type="text" value="1-5 yrs"/>	<input type="text" value="Within 1 yr"/>	<input type="text" value="Urgent"/>
<input type="text" value="None"/>						
<input type="text" value="6-10 yrs"/>						
<input type="text" value="1-5 yrs"/>						
<input type="text" value="Within 1 yr"/>						
<input type="text" value="Urgent"/>						

<p>Element Group: <input type="text" value="Embankments & Streams"/></p> <p>Element Name: <input type="text" value="Embankments"/></p> <p>Location: <input type="text" value="All"/></p> <p>Material: <input type="text"/></p> <p>Element Type: <input type="text"/></p> <p>Environment: <input type="text" value="Benign"/></p> <p>Protection System: <input type="text" value="None"/></p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"><input type="text" value="Each"/> <input type="text"/> <input type="text" value="3"/> <input type="text" value="1"/> <input type="text"/></p> <p>Comments</p> <p>Washout noted at NW corner.</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: <input type="text" value="4"/></p> <p>Total Quantity: <input type="text" value="4"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p><input type="text" value="None"/></p> <p>Perform. Deficiencies</p> <p><input type="text" value="None"/></p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:50%;"><input type="text" value="None"/></td></tr> <tr><td><input type="text" value="6-10 yrs"/></td></tr> <tr><td><input type="text" value="1-5 yrs"/></td></tr> <tr><td><input type="text" value="Within 1 yr"/></td></tr> <tr><td><input type="text" value="Urgent"/></td></tr> </table>	<input type="text" value="None"/>	<input type="text" value="6-10 yrs"/>	<input type="text" value="1-5 yrs"/>	<input type="text" value="Within 1 yr"/>	<input type="text" value="Urgent"/>
<input type="text" value="None"/>						
<input type="text" value="6-10 yrs"/>						
<input type="text" value="1-5 yrs"/>						
<input type="text" value="Within 1 yr"/>						
<input type="text" value="Urgent"/>						

<p>Element Group: <input type="text" value="Embankments & Streams"/></p> <p>Element Name: <input type="text" value="Streams and Waterways"/></p> <p>Location: <input type="text" value="Under Bridge"/></p> <p>Material: <input type="text"/></p> <p>Element Type: <input type="text"/></p> <p>Environment: <input type="text" value="Benign"/></p> <p>Protection System: <input type="text" value="None"/></p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"><input type="text" value="Each"/> <input type="text"/> <input type="text" value="1"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: <input type="text" value="1"/></p> <p>Total Quantity: <input type="text" value="1"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p><input type="text" value="None"/></p> <p>Perform. Deficiencies</p> <p><input type="text" value="None"/></p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:50%;"><input type="text" value="None"/></td></tr> <tr><td><input type="text" value="6-10 yrs"/></td></tr> <tr><td><input type="text" value="1-5 yrs"/></td></tr> <tr><td><input type="text" value="Within 1 yr"/></td></tr> <tr><td><input type="text" value="Urgent"/></td></tr> </table>	<input type="text" value="None"/>	<input type="text" value="6-10 yrs"/>	<input type="text" value="1-5 yrs"/>	<input type="text" value="Within 1 yr"/>	<input type="text" value="Urgent"/>
<input type="text" value="None"/>						
<input type="text" value="6-10 yrs"/>						
<input type="text" value="1-5 yrs"/>						
<input type="text" value="Within 1 yr"/>						
<input type="text" value="Urgent"/>						

Repair and Rehabilitation Required

Element Group	Element Name	Comments Repair/Rehabilitation	Priority (Years)	Estimated Cost
Decks	Wearing surface	Replace with culvert.	1-5 yrs	\$20,000.00
Culverts	Outlet Components	Install new cutoff wall.	1-5 yrs	\$10,000.00
Culverts	Inlet Components	Install new cutoff wall.	1-5 yrs	\$10,000.00
Culverts	Barrels	Replace with new concrete box culvert.	1-5 yrs	\$150,000.00
Barriers	Barrier/Parapet Walls	Install steel beam guide rail.	1-5 yrs	\$20,000.00
			Total	\$210,000.00

Associated Work

	Comments	Estimated Cost
Approaches		\$0.00
Detours		\$0.00
Traffic Control		\$5,000.00
Utilities		\$0.00
Right of Way		\$0.00
Environmental Study		\$0.00
Other	Engineering and Contract Admin.	\$20,000.00
Contingencies	10%	\$21,000.00
Total Estimated Const. Cost		\$256,000.00

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



Roadway looking East



North barrier wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



South barrier wall



Spall at Northeast

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



Cracks on wearing surface



Barrel looking South

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



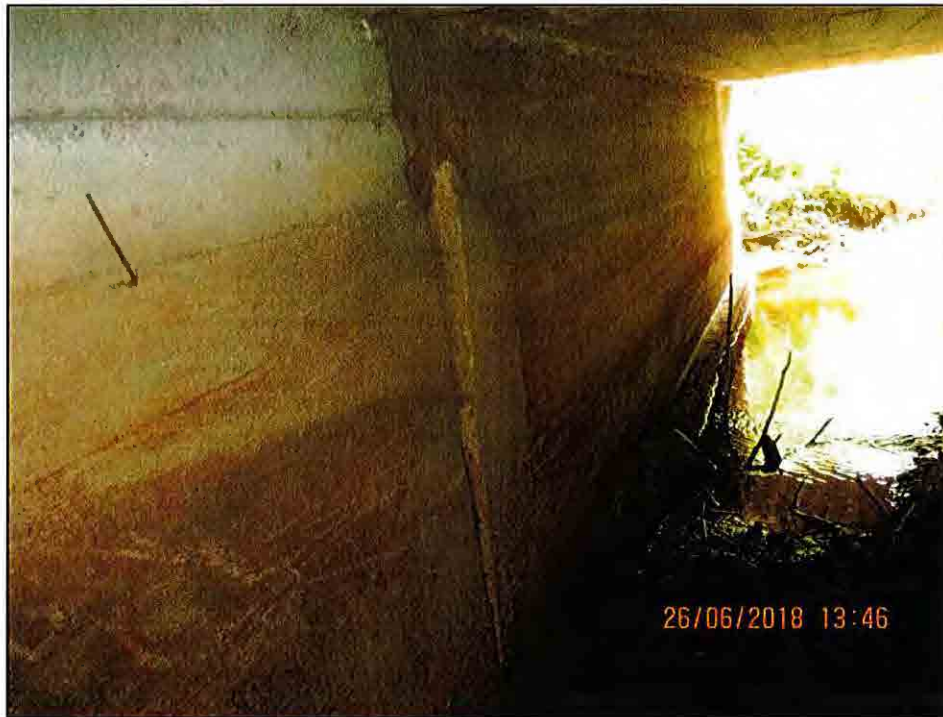
Spall at soffit



Concrete disintegration of abutment wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



Concrete disintegration of abutment wall



Inlet

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



Severe undermining and scouring at Southwest wing wall



Severe spall at soffit (South end)

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR2



Outlet (South end)

Inventory Data

Structure Name	Brookside Road Bridge		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Brookside Road		
Structure Location	Brookside Road, 650 east of Rodeo Road		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	<input type="text" value="Not Cons"/>		
Road Class:	<input type="text" value="Local"/>		
MTO Region	<input type="text" value="Northern"/>		
MTO District	<input type="text" value="Huntsville"/>		
Old County	<input type="text" value="Parry Sound"/>		
Geographic Twp	<input type="text" value="Township of Strong"/>		
Structure Type	<input type="text" value="I-beam or Girders"/>		
Total Deck Length	<input type="text" value="12.3"/> (m)	Posted Speed	<input type="text" value="80"/>
Overall Str Width	<input type="text" value="4.7"/> (m)	AADT	<input type="text" value="0"/>
Total Deck Area	<input type="text" value="57.81"/> (sq. m)	No of Lanes	<input type="text" value="1"/>
Roadway Width	<input type="text" value="5.1"/> (m)	% Trucks	<input type="text" value="0"/>
Span Lengths	<input type="text" value="9.3"/> (m)		
		Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
		Detour Length Around Bridge	<input type="text"/> (km)
		Fill on Structure	<input type="text" value="0"/> (m)
		Skew Angle	<input type="text" value="0"/> (Degrees)
		Direction of Structure	<input type="text" value="East/West"/>
		No of Spans	<input type="text" value="1"/>

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text" value="20"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>

Rehab History: (Date/description)

Field Inspection Information

Date of Inspection: 6/26/2018 Temperature: 21° C

Inspected By: D.M. Wills Associates Ltd.

Inspector: Ghassan Zanzoul, P. Eng.

Others in Party: Michael McDonnell

Equipment Used: Camera, tape measure.

Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 72.78

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |



Element Data

Element Group:	Approaches				Length:	6	
Element Name:	Wearing surface				Width:	5.1	
Location:	Each End				Height:		
Material:	Gravel				Count:	2	
Element Type:					Total Quantity:	61.19	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	Erosion Control at Bridges	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		57.19	2	2	None	
Comments	Severe localized erosion of embankment at Southwest and Northeast.					Estimated Construction Cost:	\$0.00
Recommended Work	Reinstate sections of roadway and embankments as maintenance.					Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Element Group:	Abutments				Length:		
Element Name:	Abutment walls				Width:	5	
Location:	Each End				Height:	0.9	
Material:	Wood				Count:	2	
Element Type:	Crib or gabion				Total Quantity:	9	
Environment:	Benign				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:	Penetrant applied				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		9			None	
Comments						Estimated Construction Cost:	\$150,000.00
Recommended Work	Remove old structure and reconstruct abutments.					Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Element Group:	Barriers				Length:	0.2	
Element Name:	Posts				Width:	0.2	
Location:					Height:		
Material:	Wood				Count:	14	
Element Type:					Total Quantity:	14	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	Penetrant applied				Maint. Needs	Bridge Handrail Maintenance	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Each		7	1	6	None	
Comments	Splitting and collision damage noted. 6 posts damaged on south side.					Estimated Construction Cost:	\$0.00
Recommended Work	Replacement of posts and railing urgently needed as maintenance.					Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR3

Element Group:	Barriers				Length:	12.5	
Element Name:	Railing Systems				Width:		
Location:					Height:		
Material:	Steel				Count:	2	
Element Type:	Steel Flex Beam on wood post				Total Quantity:	25	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot dip galvanizing				Maint. Needs	Bridge Handrail Maintenance	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	m		25			None	
Comments	Collision damage noted.						
Recommended Work	Replace damaged sections of railing as maintenance.						
						Estimated Construction Cost:	\$0.00
						Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Element Group:	Beams/MLE's				Length:	12.3	
Element Name:	Girders				Width:	0.19	
Location:					Height:	0.46	
Material:	Steel				Count:	8	
Element Type:	I-type				Total Quantity:	146.61	
Environment:	Benign				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:	Epoxy zinc/acrylic/acrylic				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		136.61	10		None	
Comments	Medium corrosion of bottom flanges of exterior beams. Limited inspection due to the existence of old bridge below new bridge.						
Recommended Work							
						Estimated Construction Cost:	\$0.00
						Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Element Group:	Beams/MLE's				Length:	4.7	
Element Name:	Stringers				Width:	0.05	
Location:					Height:	0.1	
Material:	Steel				Count:	50	
Element Type:	Channel				Total Quantity:	50	
Environment:	Benign				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:	Epoxy zinc/acrylic/acrylic				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Each		50			None	
Comments	Limited inspection due to previous bridge structure being present.						
Recommended Work							
						Estimated Construction Cost:	\$0.00
						Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR3

<p>Element Group: Coatings</p> <p>Element Name: Structural Steel</p> <p>Location:</p> <p>Material:</p> <p>Element Type: Epoxy zinc/acrylic/acrylic</p> <p>Environment: Benign</p> <p>Protection System:</p>	<p>Length:</p> <p>Width:</p> <p>Height:</p> <p>Count: 1</p> <p>Total Quantity: 1</p> <p>Limited Inspection <input checked="" type="checkbox"/></p>
<p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m </p>	<p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority: None</p> <p>6-10 yrs</p> <p>1-5 yrs</p> <p>Within 1 yr</p> <p>Urgent</p>
<p>Comments</p> <p>Limited inspection due to previous bridge structure being present. Corrosion and pitting of coating at abutments.</p>	
<p>Recommended Work</p>	

<p>Element Group: Decks</p> <p>Element Name: Soffit - Thin Slab</p> <p>Location:</p> <p>Material: Steel</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System: Hot dip galvanizing</p>	<p>Length: 9.3</p> <p>Width: 4.7</p> <p>Height:</p> <p>Count: 1</p> <p>Total Quantity: 43.7</p> <p>Limited Inspection <input checked="" type="checkbox"/></p>
<p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 43.7 </p>	<p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority: None</p> <p>6-10 yrs</p> <p>1-5 yrs</p> <p>Within 1 yr</p> <p>Urgent</p>
<p>Comments</p> <p>Not visible. Bridge over bridge.</p>	
<p>Recommended Work</p>	

<p>Element Group: Decks</p> <p>Element Name: Deck top</p> <p>Location:</p> <p>Material: Steel</p> <p>Element Type: Steel Plate - composite</p> <p>Environment: Benign</p> <p>Protection System: Hot dip galvanizing</p>	<p>Length: 12.3</p> <p>Width: 4.7</p> <p>Height: 0.01</p> <p>Count: 1</p> <p>Total Quantity: 57.8</p> <p>Limited Inspection <input type="checkbox"/></p>
<p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 57.8 </p>	<p>Maint. Needs</p> <p>Bridge Cleaning</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority: Within 1 yr</p> <p>6-10 yrs</p> <p>1-5 yrs</p> <p>Urgent</p>
<p>Comments</p> <p>Debris build up on deck top.</p>	
<p>Recommended Work</p> <p>Clean debris off deck top as maintenance.</p>	

Municipal Structure Inspection Form

STRUCTURE ID BR3

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Embankments</td></tr> <tr><td>Location:</td><td>Each Quadrant</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 4</p> <p>Comments</p> <p>All quadrants have heavy erosion of granular material.</p> <p>Recommended Work</p> <p>Reconstruct with new abutments.</p>	Element Group:	Embankments & Streams	Element Name:	Embankments	Location:	Each Quadrant	Material:		Element Type:		Environment:	Benign	Protection System:	None	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td><input type="text"/></td></tr> <tr><td>Width:</td><td><input type="text"/></td></tr> <tr><td>Height:</td><td><input type="text"/></td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">4</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Erosion Control at Bridges</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$25,000.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td style="background-color: #cccccc;">1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	<input type="text"/>	Width:	<input type="text"/>	Height:	<input type="text"/>	Count:	4	Total Quantity:	4	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Embankments & Streams																													
Element Name:	Embankments																													
Location:	Each Quadrant																													
Material:																														
Element Type:																														
Environment:	Benign																													
Protection System:	None																													
Length:	<input type="text"/>																													
Width:	<input type="text"/>																													
Height:	<input type="text"/>																													
Count:	4																													
Total Quantity:	4																													
None																														
6-10 yrs																														
1-5 yrs																														
Within 1 yr																														
Urgent																														

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Streams and Waterways</td></tr> <tr><td>Location:</td><td>Under Bridge</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> <input type="text"/> 1 <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Embankments & Streams	Element Name:	Streams and Waterways	Location:	Under Bridge	Material:		Element Type:		Environment:	Benign	Protection System:	None	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td><input type="text"/></td></tr> <tr><td>Width:</td><td><input type="text"/></td></tr> <tr><td>Height:</td><td><input type="text"/></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">1</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	<input type="text"/>	Width:	<input type="text"/>	Height:	<input type="text"/>	Count:	1	Total Quantity:	1	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Embankments & Streams																													
Element Name:	Streams and Waterways																													
Location:	Under Bridge																													
Material:																														
Element Type:																														
Environment:	Benign																													
Protection System:	None																													
Length:	<input type="text"/>																													
Width:	<input type="text"/>																													
Height:	<input type="text"/>																													
Count:	1																													
Total Quantity:	1																													
None																														
6-10 yrs																														
1-5 yrs																														
Within 1 yr																														
Urgent																														

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Accessories</td></tr> <tr><td>Element Name:</td><td>Signs</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> <input type="text"/> 7 <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>4 Hazard signs. 1 Load limit at West approach. 2 One lane signs.</p> <p>Recommended Work</p> <p>Install missing load limit sign at East approach as maintenance.</p>	Element Group:	Accessories	Element Name:	Signs	Location:		Material:	Steel	Element Type:		Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td><input type="text"/></td></tr> <tr><td>Width:</td><td><input type="text"/></td></tr> <tr><td>Height:</td><td><input type="text"/></td></tr> <tr><td>Count:</td><td style="text-align: right;">7</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">7</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Other</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td style="background-color: #cccccc;">Urgent</td></tr> </table>	Length:	<input type="text"/>	Width:	<input type="text"/>	Height:	<input type="text"/>	Count:	7	Total Quantity:	7	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Accessories																													
Element Name:	Signs																													
Location:																														
Material:	Steel																													
Element Type:																														
Environment:	Benign																													
Protection System:																														
Length:	<input type="text"/>																													
Width:	<input type="text"/>																													
Height:	<input type="text"/>																													
Count:	7																													
Total Quantity:	7																													
None																														
6-10 yrs																														
1-5 yrs																														
Within 1 yr																														
Urgent																														

Repair and Rehabilitation Required

Element Group	Element Name	Comments Repair/Rehabilitation	Priority (Years)	Estimated Cost
Embankments & Streams	Embankments	Reconstruct with new abutments.	1-5 yrs	\$25,000.00
Abutments	Abutment walls	Remove old structure and reconstruct abutments.	1-5 yrs	\$150,000.00
Total				\$175,000.00

Associated Work

	Comments	Estimated Cost
Approaches		\$0.00
Detours		\$0.00
Traffic Control		\$0.00
Utilities		\$0.00
Right of Way		\$0.00
Environmental Study		\$0.00
Other	Engineering and Contract Admin.	\$20,000.00
Contingencies		\$0.00
Total Estimated Const. Cost		\$195,000.00

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



Roadway looking East



Severely damaged South railing

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



North railing



Debris on deck

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



South railing – damaged posts



South railing – damaged posts

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



South elevation



West abutment

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



West abutment



Corrosion of bottom flange

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



Flaking of exterior girder



Localized severe erosion of the embankment and loss of material at Northwest

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR3



Localized severe erosion of the embankment and loss of material at Northeast

Inventory Data

Structure Name	Robins Rd. Bridge		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Robins Road		
Structure Location	Robins Road, East of Highway 11		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	<input type="text" value="Not Cons"/>		
Road Class:	<input type="text" value="Local"/>		
MTO Region	<input type="text" value="Northern"/>		
MTO District	<input type="text" value="Huntsville"/>		
Old County	<input type="text" value="Parry Sound"/>		
Geographic Twp	<input type="text" value="Township of Strong"/>		
Structure Type	<input type="text" value="I-beam or Girders"/>		
Total Deck Length	<input type="text" value="21.8"/> (m)	Posted Speed	<input type="text" value="80"/> No of Lanes <input type="text" value="2"/>
Overall Str Width	<input type="text" value="11.5"/> (m)	AADT	<input type="text" value="0"/> % Trucks <input type="text" value="0"/>
Total Deck Area	<input type="text" value="250.7"/> (sq. m)	Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
Roadway Width	<input type="text" value="10"/> (m)	Detour Length Around Bridge	<input type="text"/> (km)
Span Lengths	<input type="text" value="20.0"/> (m)	Fill on Structure	<input type="text" value="0"/> (m)
		Skew Angle	<input type="text" value="0"/> (Degrees)
		Direction of Structure	<input type="text" value="East/West"/>
		No of Spans	<input type="text" value="1"/>

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018

Temperature: 21° C

Inspected By: D.M. Wills Associates Ltd.

Inspector: Ghassan Zanzoul, P. Eng.

Others in Party: Michael McDonnell

Equipment Used: Camera, tape measure.

Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 75

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Bearings</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td>Elastomeric pad</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> <input type="text"/> 8 <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Minor loss of contact at Northeast, Southeast, Northwest and Southwest bearings.</p> <p>Recommended Work</p>	Element Group:	Abutments	Element Name:	Bearings	Location:		Material:		Element Type:	Elastomeric pad	Environment:	Benign	Protection System:	None	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">0.35</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.45</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.04</td></tr> <tr><td>Count:</td><td style="text-align: right;">8</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">8</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	0.35	Width:	0.45	Height:	0.04	Count:	8	Total Quantity:	8	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Abutments																																								
Element Name:	Bearings																																								
Location:																																									
Material:																																									
Element Type:	Elastomeric pad																																								
Environment:	Benign																																								
Protection System:	None																																								
Length:	0.35																																								
Width:	0.45																																								
Height:	0.04																																								
Count:	8																																								
Total Quantity:	8																																								
Maint. Needs	None																																								
Perform. Deficiencies	None																																								
Estimated Construction Cost:	\$0.00																																								
Priority	None																																								
	6-10 yrs																																								
	1-5 yrs																																								
	Within 1 yr																																								
	Urgent																																								

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Abutment walls</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Conventional closed</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Sq. m <input type="text"/> <input type="text"/> 45.59 <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Vertical isolated hairline cracks.</p> <p>Recommended Work</p>	Element Group:	Abutments	Element Name:	Abutment walls	Location:	Each End	Material:	Cast-in-place concrete	Element Type:	Conventional closed	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">11.4</td></tr> <tr><td>Width:</td><td style="text-align: right;">2</td></tr> <tr><td>Height:</td><td style="text-align: right;">2</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">45.59</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	11.4	Width:	2	Height:	2	Count:	2	Total Quantity:	45.59	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Abutments																																								
Element Name:	Abutment walls																																								
Location:	Each End																																								
Material:	Cast-in-place concrete																																								
Element Type:	Conventional closed																																								
Environment:	Benign																																								
Protection System:																																									
Length:	11.4																																								
Width:	2																																								
Height:	2																																								
Count:	2																																								
Total Quantity:	45.59																																								
Maint. Needs	None																																								
Perform. Deficiencies	None																																								
Estimated Construction Cost:	\$0.00																																								
Priority	None																																								
	6-10 yrs																																								
	1-5 yrs																																								
	Within 1 yr																																								
	Urgent																																								

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Wingwalls</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Reinforced concrete</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Sq. m <input type="text"/> <input type="text"/> 21.83 <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Abutments	Element Name:	Wingwalls	Location:		Material:	Cast-in-place concrete	Element Type:	Reinforced concrete	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">4.2</td></tr> <tr><td>Width:</td><td style="text-align: right;">1.3</td></tr> <tr><td>Height:</td><td style="text-align: right;">4</td></tr> <tr><td>Count:</td><td style="text-align: right;">21.83</td></tr> </table> <p>Limited Inspection <input checked="" type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	4.2	Width:	1.3	Height:	4	Count:	21.83	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Abutments																																						
Element Name:	Wingwalls																																						
Location:																																							
Material:	Cast-in-place concrete																																						
Element Type:	Reinforced concrete																																						
Environment:	Benign																																						
Protection System:																																							
Length:	4.2																																						
Width:	1.3																																						
Height:	4																																						
Count:	21.83																																						
Maint. Needs	None																																						
Perform. Deficiencies	None																																						
Estimated Construction Cost:	\$0.00																																						
Priority	None																																						
	6-10 yrs																																						
	1-5 yrs																																						
	Within 1 yr																																						
	Urgent																																						

Municipal Structure Inspection Form

STRUCTURE ID

BR4

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Posts</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Each</td> <td style="width:20%;"></td> <td style="width:20%; text-align: center;">38</td> <td style="width:20%;"></td> <td style="width:20%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Barriers	Element Name:	Posts	Location:		Material:	Steel	Element Type:		Environment:	Severe	Protection System:	Hot dip galvanizing	Each		38			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">0.15</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.15</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.625</td></tr> <tr><td>Count:</td><td style="text-align: right;">38</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">38</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	0.15	Width:	0.15	Height:	0.625	Count:	38	Total Quantity:	38	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Barriers																																				
Element Name:	Posts																																				
Location:																																					
Material:	Steel																																				
Element Type:																																					
Environment:	Severe																																				
Protection System:	Hot dip galvanizing																																				
Each		38																																			
Length:	0.15																																				
Width:	0.15																																				
Height:	0.625																																				
Count:	38																																				
Total Quantity:	38																																				
None																																					
None																																					
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Railing Systems</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Steel Post >108 mm & 1 rect. & 1 sq. tube</td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">m</td> <td style="width:20%;"></td> <td style="width:20%; text-align: center;">67.31</td> <td style="width:20%;"></td> <td style="width:20%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Barriers	Element Name:	Railing Systems	Location:		Material:	Steel	Element Type:	Steel Post >108 mm & 1 rect. & 1 sq. tube	Environment:	Severe	Protection System:	Hot dip galvanizing	m		67.31			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">1.87</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td style="text-align: right;">0.62</td></tr> <tr><td>Count:</td><td style="text-align: right;">36</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">67.31</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	1.87	Width:		Height:	0.62	Count:	36	Total Quantity:	67.31	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Barriers																																				
Element Name:	Railing Systems																																				
Location:																																					
Material:	Steel																																				
Element Type:	Steel Post >108 mm & 1 rect. & 1 sq. tube																																				
Environment:	Severe																																				
Protection System:	Hot dip galvanizing																																				
m		67.31																																			
Length:	1.87																																				
Width:																																					
Height:	0.62																																				
Count:	36																																				
Total Quantity:	67.31																																				
None																																					
None																																					
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Beams/ML'E's</td></tr> <tr><td>Element Name:</td><td>Girders</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Precast concrete</td></tr> <tr><td>Element Type:</td><td>I-type</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Sq. m</td> <td style="width:20%;"></td> <td style="width:20%; text-align: center;">282.33</td> <td style="width:20%;"></td> <td style="width:20%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Beams/ML'E's	Element Name:	Girders	Location:		Material:	Precast concrete	Element Type:	I-type	Environment:	Benign	Protection System:		Sq. m		282.33			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">17.3</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.56</td></tr> <tr><td>Height:</td><td style="text-align: right;">1.2</td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">282.33</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	17.3	Width:	0.56	Height:	1.2	Count:	4	Total Quantity:	282.33	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Beams/ML'E's																																				
Element Name:	Girders																																				
Location:																																					
Material:	Precast concrete																																				
Element Type:	I-type																																				
Environment:	Benign																																				
Protection System:																																					
Sq. m		282.33																																			
Length:	17.3																																				
Width:	0.56																																				
Height:	1.2																																				
Count:	4																																				
Total Quantity:	282.33																																				
None																																					
None																																					
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

Municipal Structure Inspection Form

STRUCTURE ID BR4

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td colspan="3">Decks</td></tr> <tr><td>Element Name:</td><td>Soffit - Thin Slab</td><td colspan="2">Interior</td></tr> <tr><td>Location:</td><td colspan="3"> </td></tr> <tr><td>Material:</td><td colspan="3">Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td colspan="3"> </td></tr> <tr><td>Environment:</td><td colspan="3">Benign</td></tr> <tr><td>Protection System:</td><td colspan="3"> </td></tr> <tr><td>Condition Data:</td><td>Units</td><td>Exc</td><td>Good</td><td>Fair</td><td>Poor</td></tr> <tr><td></td><td>Sq. m</td><td> </td><td>107.12</td><td> </td><td> </td></tr> <tr><td>Comments</td><td colspan="5"> </td></tr> <tr><td>Recommended Work</td><td colspan="5"> </td></tr> </table>	Element Group:	Decks			Element Name:	Soffit - Thin Slab	Interior		Location:				Material:	Cast-in-place concrete			Element Type:				Environment:	Benign			Protection System:				Condition Data:	Units	Exc	Good	Fair	Poor		Sq. m		107.12			Comments						Recommended Work						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>19.3</td></tr> <tr><td>Width:</td><td>1.85</td></tr> <tr><td>Height:</td><td> </td></tr> <tr><td>Count:</td><td>3</td></tr> <tr><td>Total Quantity:</td><td>107.12</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td>\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	19.3	Width:	1.85	Height:		Count:	3	Total Quantity:	107.12	Limited Inspection	<input type="checkbox"/>	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Decks																																																																																
Element Name:	Soffit - Thin Slab	Interior																																																																															
Location:																																																																																	
Material:	Cast-in-place concrete																																																																																
Element Type:																																																																																	
Environment:	Benign																																																																																
Protection System:																																																																																	
Condition Data:	Units	Exc	Good	Fair	Poor																																																																												
	Sq. m		107.12																																																																														
Comments																																																																																	
Recommended Work																																																																																	
Length:	19.3																																																																																
Width:	1.85																																																																																
Height:																																																																																	
Count:	3																																																																																
Total Quantity:	107.12																																																																																
Limited Inspection	<input type="checkbox"/>																																																																																
Maint. Needs	None																																																																																
Perform. Deficiencies	None																																																																																
Estimated Construction Cost:	\$0.00																																																																																
Priority	None																																																																																
	6-10 yrs																																																																																
	1-5 yrs																																																																																
	Within 1 yr																																																																																
	Urgent																																																																																

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td colspan="3">Decks</td></tr> <tr><td>Element Name:</td><td>Wearing surface</td><td colspan="2"> </td></tr> <tr><td>Location:</td><td colspan="3"> </td></tr> <tr><td>Material:</td><td colspan="3">Asphalt</td></tr> <tr><td>Element Type:</td><td colspan="3"> </td></tr> <tr><td>Environment:</td><td colspan="3">Severe</td></tr> <tr><td>Protection System:</td><td colspan="3"> </td></tr> <tr><td>Condition Data:</td><td>Units</td><td>Exc</td><td>Good</td><td>Fair</td><td>Poor</td></tr> <tr><td></td><td>Sq. m</td><td> </td><td>218</td><td> </td><td> </td></tr> <tr><td>Comments</td><td colspan="5">Sand along North. Clean as maintenance.</td></tr> <tr><td>Recommended Work</td><td colspan="5"> </td></tr> </table>	Element Group:	Decks			Element Name:	Wearing surface			Location:				Material:	Asphalt			Element Type:				Environment:	Severe			Protection System:				Condition Data:	Units	Exc	Good	Fair	Poor		Sq. m		218			Comments	Sand along North. Clean as maintenance.					Recommended Work						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>21.8</td></tr> <tr><td>Width:</td><td>10</td></tr> <tr><td>Height:</td><td>0.09</td></tr> <tr><td>Count:</td><td>1</td></tr> <tr><td>Total Quantity:</td><td>218</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> <tr><td>Maint. Needs</td><td>Bridge Cleaning</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td>\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	21.8	Width:	10	Height:	0.09	Count:	1	Total Quantity:	218	Limited Inspection	<input type="checkbox"/>	Maint. Needs	Bridge Cleaning	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Decks																																																																																
Element Name:	Wearing surface																																																																																
Location:																																																																																	
Material:	Asphalt																																																																																
Element Type:																																																																																	
Environment:	Severe																																																																																
Protection System:																																																																																	
Condition Data:	Units	Exc	Good	Fair	Poor																																																																												
	Sq. m		218																																																																														
Comments	Sand along North. Clean as maintenance.																																																																																
Recommended Work																																																																																	
Length:	21.8																																																																																
Width:	10																																																																																
Height:	0.09																																																																																
Count:	1																																																																																
Total Quantity:	218																																																																																
Limited Inspection	<input type="checkbox"/>																																																																																
Maint. Needs	Bridge Cleaning																																																																																
Perform. Deficiencies	None																																																																																
Estimated Construction Cost:	\$0.00																																																																																
Priority	None																																																																																
	6-10 yrs																																																																																
	1-5 yrs																																																																																
	Within 1 yr																																																																																
	Urgent																																																																																

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td colspan="3">Decks</td></tr> <tr><td>Element Name:</td><td>Soffit - Thin Slab</td><td colspan="2">Exterior</td></tr> <tr><td>Location:</td><td colspan="3"> </td></tr> <tr><td>Material:</td><td colspan="3">Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td colspan="3"> </td></tr> <tr><td>Environment:</td><td colspan="3">Moderate</td></tr> <tr><td>Protection System:</td><td colspan="3"> </td></tr> <tr><td>Condition Data:</td><td>Units</td><td>Exc</td><td>Good</td><td>Fair</td><td>Poor</td></tr> <tr><td></td><td>Sq. m</td><td> </td><td>71.41</td><td> </td><td> </td></tr> <tr><td>Comments</td><td colspan="5"> </td></tr> <tr><td>Recommended Work</td><td colspan="5"> </td></tr> </table>	Element Group:	Decks			Element Name:	Soffit - Thin Slab	Exterior		Location:				Material:	Cast-in-place concrete			Element Type:				Environment:	Moderate			Protection System:				Condition Data:	Units	Exc	Good	Fair	Poor		Sq. m		71.41			Comments						Recommended Work						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>19.3</td></tr> <tr><td>Width:</td><td>1.85</td></tr> <tr><td>Height:</td><td> </td></tr> <tr><td>Count:</td><td>2</td></tr> <tr><td>Total Quantity:</td><td>71.41</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td>\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	19.3	Width:	1.85	Height:		Count:	2	Total Quantity:	71.41	Limited Inspection	<input type="checkbox"/>	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Decks																																																																																
Element Name:	Soffit - Thin Slab	Exterior																																																																															
Location:																																																																																	
Material:	Cast-in-place concrete																																																																																
Element Type:																																																																																	
Environment:	Moderate																																																																																
Protection System:																																																																																	
Condition Data:	Units	Exc	Good	Fair	Poor																																																																												
	Sq. m		71.41																																																																														
Comments																																																																																	
Recommended Work																																																																																	
Length:	19.3																																																																																
Width:	1.85																																																																																
Height:																																																																																	
Count:	2																																																																																
Total Quantity:	71.41																																																																																
Limited Inspection	<input type="checkbox"/>																																																																																
Maint. Needs	None																																																																																
Perform. Deficiencies	None																																																																																
Estimated Construction Cost:	\$0.00																																																																																
Priority	None																																																																																
	6-10 yrs																																																																																
	1-5 yrs																																																																																
	Within 1 yr																																																																																
	Urgent																																																																																

Municipal Structure Inspection Form

STRUCTURE ID

BR4

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Decks</td></tr> <tr><td>Element Name:</td><td>Deck top</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Cast-in-place conc on supports, composite</td></tr> <tr><td>Environment:</td><td>Moderate</td></tr> <tr><td>Protection System:</td><td>Hot rubberized asphalt membrane</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"> <input type="text" value="Sq. m"/> <input type="text"/> <input type="text" value="250.69"/> <input type="text"/> <input type="text"/> </p> <p>Comments</p> <p>Judged from wearing surface condition.</p> <p>Recommended Work</p>	Element Group:	Decks	Element Name:	Deck top	Location:		Material:	Cast-in-place concrete	Element Type:	Cast-in-place conc on supports, composite	Environment:	Moderate	Protection System:	Hot rubberized asphalt membrane	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">21.8</td></tr> <tr><td>Width:</td><td style="text-align: right;">11.5</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.225</td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">250.69</td></tr> <tr><td>Limited Inspection</td><td><input checked="" type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <p style="margin-left: 100px;"> <input type="text" value="None"/> <input type="text" value="6-10 yrs"/> <input type="text" value="1-5 yrs"/> <input type="text" value="Within 1 yr"/> <input type="text" value="Urgent"/> </p>	Length:	21.8	Width:	11.5	Height:	0.225	Count:	1	Total Quantity:	250.69	Limited Inspection	<input checked="" type="checkbox"/>
Element Group:	Decks																										
Element Name:	Deck top																										
Location:																											
Material:	Cast-in-place concrete																										
Element Type:	Cast-in-place conc on supports, composite																										
Environment:	Moderate																										
Protection System:	Hot rubberized asphalt membrane																										
Length:	21.8																										
Width:	11.5																										
Height:	0.225																										
Count:	1																										
Total Quantity:	250.69																										
Limited Inspection	<input checked="" type="checkbox"/>																										

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Embankments</td></tr> <tr><td>Location:</td><td>Each Quadrant</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"> <input type="text" value="Each"/> <input type="text"/> <input type="text" value="4"/> <input type="text"/> <input type="text"/> </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Embankments & Streams	Element Name:	Embankments	Location:	Each Quadrant	Material:		Element Type:		Environment:	Benign	Protection System:	None	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">4</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <p style="margin-left: 100px;"> <input type="text" value="None"/> <input type="text" value="6-10 yrs"/> <input type="text" value="1-5 yrs"/> <input type="text" value="Within 1 yr"/> <input type="text" value="Urgent"/> </p>	Length:		Width:		Height:		Count:	4	Total Quantity:	4	Limited Inspection	<input type="checkbox"/>
Element Group:	Embankments & Streams																										
Element Name:	Embankments																										
Location:	Each Quadrant																										
Material:																											
Element Type:																											
Environment:	Benign																										
Protection System:	None																										
Length:																											
Width:																											
Height:																											
Count:	4																										
Total Quantity:	4																										
Limited Inspection	<input type="checkbox"/>																										

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Slope protection</td></tr> <tr><td>Location:</td><td>Each End of Bridge</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td>Rock protection</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"> <input type="text" value="Each"/> <input type="text"/> <input type="text" value="2"/> <input type="text"/> <input type="text"/> </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Embankments & Streams	Element Name:	Slope protection	Location:	Each End of Bridge	Material:		Element Type:	Rock protection	Environment:	Benign	Protection System:	None	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">2</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <p style="margin-left: 100px;"> <input type="text" value="None"/> <input type="text" value="6-10 yrs"/> <input type="text" value="1-5 yrs"/> <input type="text" value="Within 1 yr"/> <input type="text" value="Urgent"/> </p>	Length:		Width:		Height:		Count:	2	Total Quantity:	2	Limited Inspection	<input type="checkbox"/>
Element Group:	Embankments & Streams																										
Element Name:	Slope protection																										
Location:	Each End of Bridge																										
Material:																											
Element Type:	Rock protection																										
Environment:	Benign																										
Protection System:	None																										
Length:																											
Width:																											
Height:																											
Count:	2																										
Total Quantity:	2																										
Limited Inspection	<input type="checkbox"/>																										

Municipal Structure Inspection Form

STRUCTURE ID **BR4**

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Streams and Waterways</td></tr> <tr><td>Location:</td><td>Under Bridge</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">%</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">100</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Embankments & Streams	Element Name:	Streams and Waterways	Location:	Under Bridge	Material:		Element Type:		Environment:	Benign	Protection System:	None	%			100			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">1</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Perform. Deficiencies</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:	1	Total Quantity:	1	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Embankments & Streams																																			
Element Name:	Streams and Waterways																																			
Location:	Under Bridge																																			
Material:																																				
Element Type:																																				
Environment:	Benign																																			
Protection System:	None																																			
%			100																																	
Length:																																				
Width:																																				
Height:																																				
Count:	1																																			
Total Quantity:	1																																			
None																																				
6-10 yrs																																				
1-5 yrs																																				
Within 1 yr																																				
Urgent																																				

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Foundations</td></tr> <tr><td>Element Name:</td><td>Foundation (below ground level)</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Spread</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">%</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Foundations	Element Name:	Foundation (below ground level)	Location:		Material:	Cast-in-place concrete	Element Type:	Spread	Environment:	Benign	Protection System:	None	%						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td></td></tr> <tr><td>Total Quantity:</td><td></td></tr> </table> <p>Limited Inspection <input checked="" type="checkbox"/></p> <p>Maint. Needs</p> <p>Perform. Deficiencies</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:		Total Quantity:		None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Foundations																																			
Element Name:	Foundation (below ground level)																																			
Location:																																				
Material:	Cast-in-place concrete																																			
Element Type:	Spread																																			
Environment:	Benign																																			
Protection System:	None																																			
%																																				
Length:																																				
Width:																																				
Height:																																				
Count:																																				
Total Quantity:																																				
None																																				
6-10 yrs																																				
1-5 yrs																																				
Within 1 yr																																				
Urgent																																				

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Approaches</td></tr> <tr><td>Element Name:</td><td>Curb/gutters</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">m</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">24</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Approaches	Element Name:	Curb/gutters	Location:		Material:	Cast-in-place concrete	Element Type:		Environment:	Severe	Protection System:		m			24			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">6</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td style="text-align: right;">0.18</td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">24</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Perform. Deficiencies</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	6	Width:		Height:	0.18	Count:	4	Total Quantity:	24	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Approaches																																			
Element Name:	Curb/gutters																																			
Location:																																				
Material:	Cast-in-place concrete																																			
Element Type:																																				
Environment:	Severe																																			
Protection System:																																				
m			24																																	
Length:	6																																			
Width:																																				
Height:	0.18																																			
Count:	4																																			
Total Quantity:	24																																			
None																																				
6-10 yrs																																				
1-5 yrs																																				
Within 1 yr																																				
Urgent																																				

Municipal Structure Inspection Form

STRUCTURE ID BR4

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Approaches</td></tr> <tr><td>Element Name:</td><td>Approach slabs</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Moderate</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">120</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments Judged from wearing surface condition.</p> <p>Recommended Work</p>	Element Group:	Approaches	Element Name:	Approach slabs	Location:	Each End	Material:	Cast-in-place concrete	Element Type:		Environment:	Moderate	Protection System:		Sq. m		120			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">6</td></tr> <tr><td>Width:</td><td style="text-align: right;">10</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.25</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">120</td></tr> </table> <p>Limited Inspection <input checked="" type="checkbox"/></p> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> </table> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="background-color: black; color: white;">None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	6	Width:	10	Height:	0.25	Count:	2	Total Quantity:	120	Estimated Construction Cost:	\$0.00	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Approaches																																				
Element Name:	Approach slabs																																				
Location:	Each End																																				
Material:	Cast-in-place concrete																																				
Element Type:																																					
Environment:	Moderate																																				
Protection System:																																					
Sq. m		120																																			
Length:	6																																				
Width:	10																																				
Height:	0.25																																				
Count:	2																																				
Total Quantity:	120																																				
Estimated Construction Cost:	\$0.00																																				
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Approaches</td></tr> <tr><td>Element Name:</td><td>Wearing surface</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Asphalt</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">120</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments Minor raveling noted on both approaches.</p> <p>Recommended Work</p>	Element Group:	Approaches	Element Name:	Wearing surface	Location:	Each End	Material:	Asphalt	Element Type:		Environment:	Severe	Protection System:		Sq. m		120			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">6</td></tr> <tr><td>Width:</td><td style="text-align: right;">10</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.08</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">120</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> </table> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="background-color: black; color: white;">None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	6	Width:	10	Height:	0.08	Count:	2	Total Quantity:	120	Estimated Construction Cost:	\$0.00	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Approaches																																				
Element Name:	Wearing surface																																				
Location:	Each End																																				
Material:	Asphalt																																				
Element Type:																																					
Environment:	Severe																																				
Protection System:																																					
Sq. m		120																																			
Length:	6																																				
Width:	10																																				
Height:	0.08																																				
Count:	2																																				
Total Quantity:	120																																				
Estimated Construction Cost:	\$0.00																																				
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Sidewalks/curbs</td></tr> <tr><td>Element Name:</td><td>Curbs</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">35.1</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Sidewalks/curbs	Element Name:	Curbs	Location:		Material:	Cast-in-place concrete	Element Type:		Environment:	Severe	Protection System:		Sq. m		35.1			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">21.8</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.625</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.18</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">35.1</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> </table> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="background-color: black; color: white;">None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	21.8	Width:	0.625	Height:	0.18	Count:	2	Total Quantity:	35.1	Estimated Construction Cost:	\$0.00	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Sidewalks/curbs																																				
Element Name:	Curbs																																				
Location:																																					
Material:	Cast-in-place concrete																																				
Element Type:																																					
Environment:	Severe																																				
Protection System:																																					
Sq. m		35.1																																			
Length:	21.8																																				
Width:	0.625																																				
Height:	0.18																																				
Count:	2																																				
Total Quantity:	35.1																																				
Estimated Construction Cost:	\$0.00																																				
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

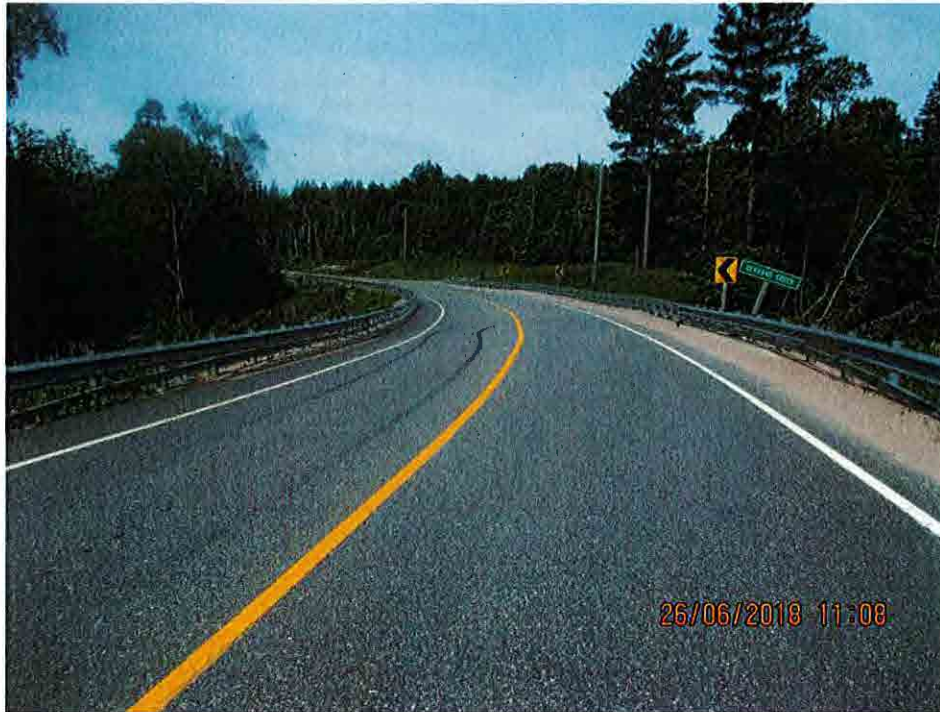
Associated Work

	Comments	Estimated Cost
Approaches	<input type="text"/>	\$0.00
Detours	<input type="text"/>	\$0.00
Traffic Control	<input type="text"/>	\$0.00
Utilities	<input type="text"/>	\$0.00
Right of Way	<input type="text"/>	\$0.00
Environmental Study	<input type="text"/>	\$0.00
Other	<input type="text"/>	\$0.00
Contingencies	<input type="text"/>	\$0.00
Total Estimated Const. Cost		\$0.00

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



Roadway looking West



South railing

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



North railing



Accumulated sand on road

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



Northeast wing wall (Typ.)



West abutment

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



Interior soffit (Typ.)



Exterior soffit (Typ.)

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



Northeast bearing – minor loss of contact of bearing (Typ. Southeast, Southwest, Northwest)



Minor loss of bearing contact

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



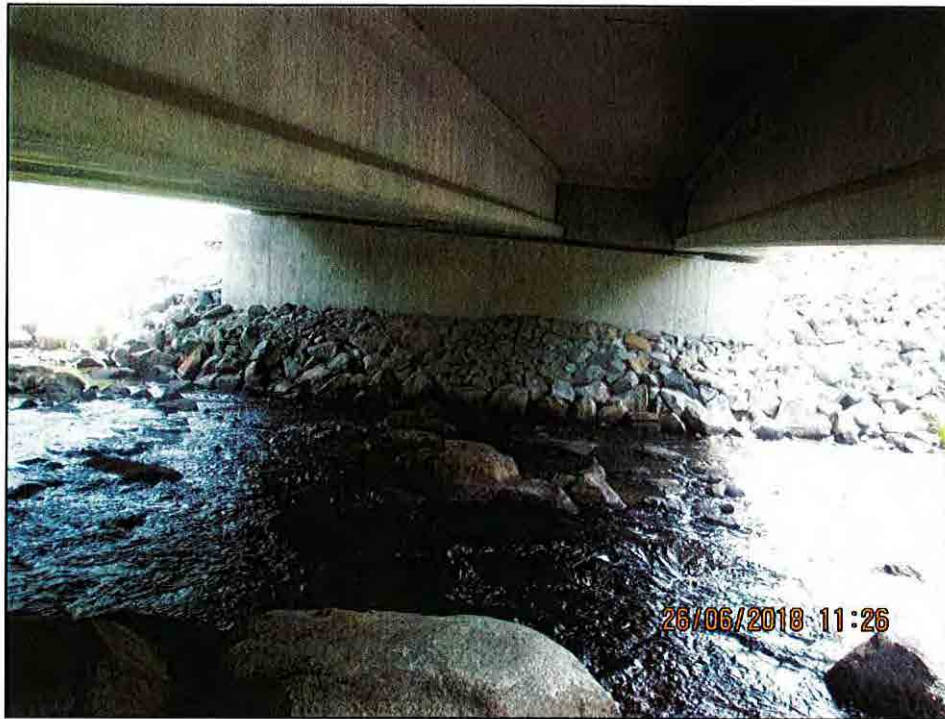
South elevation



Southwest wing wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR4



East abutment

Inventory Data

Structure Name	Muskoka Rd. Bridge		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Muskoka Rd.		
Structure Location	0.2km north of Robins Rd.		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	<input type="text" value="Not Cons"/>		
Road Class:	<input type="text" value="Local"/>		
MTO Region	<input type="text" value="Northern"/>		
MTO District	<input type="text" value="Huntsville"/>		
Old County	<input type="text" value="Parry Sound"/>		
Geographic Twp	<input type="text" value="Township of Strong"/>		
Structure Type	<input type="text" value="I-beam or Girders"/>		
Total Deck Length	<input type="text" value="16"/> (m)	Posted Speed	<input type="text" value="80"/>
Overall Str Width	<input type="text" value="8.1"/> (m)	No of Lanes	<input type="text" value="2"/>
Total Deck Area	<input type="text" value="129.6"/> (sq. m)	AADT	<input type="text" value="0"/>
Roadway Width	<input type="text" value="7"/> (m)	% Trucks	<input type="text" value="0"/>
Span Lengths	<input type="text" value="14.0"/> (m)		
		Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
		Detour Length Around Bridge	<input type="text"/> (km)
		Fill on Structure	<input type="text" value="0"/> (m)
		Skew Angle	<input type="text" value="0"/> (Degrees)
		Direction of Structure	<input type="text" value="North/South"/>
		No of Spans	<input type="text" value="1"/>

Historical Data

Year Built:	<input type="text" value="2014"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018

Temperature: 21° C

Inspected By: D.M. Wills Associates Ltd.

Inspector: Ghassan Zanzoul, P. Eng.

Others in Party: Michael McDonnell

Equipment Used: Camera, tape measure.

Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 100

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data								
Element Group:	Decks				Length:	16		
Element Name:	Wearing surface				Width:	7		
Location:						Height:	0.09	
Material:	Asphalt					Count:		
Element Type:						Total Quantity:	112	
Environment:	Severe					Limited Inspection	<input type="checkbox"/>	
Protection System:						Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	None	
	Sq. m	112				Estimated Construction Cost:	\$0.00	
Comments							Priority	None
Recommended Work								6-10 yrs
								1-5 yrs
								Within 1 yr
								Urgent

Element Group:	Decks				Length:	14		
Element Name:	Soffit - Thin Slab		Interior		Width:	5.48		
Location:						Height:	0.225	
Material:	Cast-in-place concrete					Count:	1	
Element Type:	Cast-in-place concrete on supports					Total Quantity:	76.72	
Environment:	Benign					Limited Inspection	<input type="checkbox"/>	
Protection System:						Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	None	
	Sq. m	76.72				Estimated Construction Cost:	\$0.00	
Comments							Priority	None
Recommended Work								6-10 yrs
								1-5 yrs
								Within 1 yr
								Urgent

Element Group:	Decks				Length:	16		
Element Name:	Deck top				Width:	7		
Location:						Height:	0.225	
Material:	Cast-in-place concrete					Count:	1	
Element Type:	Cast-in-place concrete on supports					Total Quantity:	112	
Environment:	Benign					Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot rubberized asphalt membrane					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	None	
	Sq. m	112				Estimated Construction Cost:	\$0.00	
Comments							Priority	None
Recommended Work								6-10 yrs
								1-5 yrs
								Within 1 yr
								Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR5

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td colspan="2">Decks</td></tr> <tr><td>Element Name:</td><td>Soffit - Thin Slab</td><td>Exterior</td></tr> <tr><td>Location:</td><td colspan="2"></td></tr> <tr><td>Material:</td><td colspan="2">Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td colspan="2">Cast-in-place concrete on supports</td></tr> <tr><td>Environment:</td><td colspan="2">Benign</td></tr> <tr><td>Protection System:</td><td colspan="2"></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;">31.92</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Decks		Element Name:	Soffit - Thin Slab	Exterior	Location:			Material:	Cast-in-place concrete		Element Type:	Cast-in-place concrete on supports		Environment:	Benign		Protection System:			Sq. m	31.92				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">14</td></tr> <tr><td>Width:</td><td style="text-align: right;">2.28</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">31.92</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	14	Width:	2.28	Height:		Count:	1	Total Quantity:	31.92	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Decks																																											
Element Name:	Soffit - Thin Slab	Exterior																																										
Location:																																												
Material:	Cast-in-place concrete																																											
Element Type:	Cast-in-place concrete on supports																																											
Environment:	Benign																																											
Protection System:																																												
Sq. m	31.92																																											
Length:	14																																											
Width:	2.28																																											
Height:																																												
Count:	1																																											
Total Quantity:	31.92																																											
None																																												
None																																												
None																																												
6-10 yrs																																												
1-5 yrs																																												
Within 1 yr																																												
Urgent																																												

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td colspan="2">Decks</td></tr> <tr><td>Element Name:</td><td>Drainage</td><td></td></tr> <tr><td>Location:</td><td colspan="2"></td></tr> <tr><td>Material:</td><td colspan="2">Steel</td></tr> <tr><td>Element Type:</td><td colspan="2">Metal drain pipes</td></tr> <tr><td>Environment:</td><td colspan="2">Severe</td></tr> <tr><td>Protection System:</td><td colspan="2"></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Each</td> <td style="width:15%;">4</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; padding: 2px;">1 drain blocked. Clear as maintenance.</div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Decks		Element Name:	Drainage		Location:			Material:	Steel		Element Type:	Metal drain pipes		Environment:	Severe		Protection System:			Each	4				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">4</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Bridge Deck Drainage</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:	4	Total Quantity:	4	Bridge Deck Drainage	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Decks																																											
Element Name:	Drainage																																											
Location:																																												
Material:	Steel																																											
Element Type:	Metal drain pipes																																											
Environment:	Severe																																											
Protection System:																																												
Each	4																																											
Length:																																												
Width:																																												
Height:																																												
Count:	4																																											
Total Quantity:	4																																											
Bridge Deck Drainage																																												
None																																												
None																																												
6-10 yrs																																												
1-5 yrs																																												
Within 1 yr																																												
Urgent																																												

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td colspan="2">Sidewalks/curbs</td></tr> <tr><td>Element Name:</td><td>Curbs</td><td></td></tr> <tr><td>Location:</td><td colspan="2"></td></tr> <tr><td>Material:</td><td colspan="2">Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td colspan="2"></td></tr> <tr><td>Environment:</td><td colspan="2">Moderate</td></tr> <tr><td>Protection System:</td><td colspan="2"></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;">30.22</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Sidewalks/curbs		Element Name:	Curbs		Location:			Material:	Cast-in-place concrete		Element Type:			Environment:	Moderate		Protection System:			Sq. m	30.22				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">.22</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.5</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.18</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">30.22</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	.22	Width:	0.5	Height:	0.18	Count:	2	Total Quantity:	30.22	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Sidewalks/curbs																																											
Element Name:	Curbs																																											
Location:																																												
Material:	Cast-in-place concrete																																											
Element Type:																																												
Environment:	Moderate																																											
Protection System:																																												
Sq. m	30.22																																											
Length:	.22																																											
Width:	0.5																																											
Height:	0.18																																											
Count:	2																																											
Total Quantity:	30.22																																											
None																																												
None																																												
None																																												
6-10 yrs																																												
1-5 yrs																																												
Within 1 yr																																												
Urgent																																												

Municipal Structure Inspection Form

STRUCTURE ID **BR5**

Element Group:	Barriers				Length:	0.15	
Element Name:	Posts				Width:	0.16	
Location:					Height:	0.63	
Material:	Steel				Count:	24	
Element Type:	I-type				Total Quantity:	24	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot dip galvanizing				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Each	24				None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Element Group:	Barriers				Length:	22	
Element Name:	Railing Systems				Width:	0.5	
Location:					Height:		
Material:	Steel				Count:	2	
Element Type:	Thrie Beam on steel post				Total Quantity:	44	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot dip galvanizing				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	m	44				None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Element Group:	Beams/ML'E's				Length:	15.5	
Element Name:	Girders				Width:	0.23	
Location:					Height:	0.61	
Material:	Steel				Count:	5	
Element Type:	I-type				Total Quantity:	148.02	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m	148.02				None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR5

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Beams/MLE's</td></tr> <tr><td>Element Name:</td><td>Diaphragms</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Channel</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text" value="10"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Beams/MLE's	Element Name:	Diaphragms	Location:		Material:	Steel	Element Type:	Channel	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">1.6</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.065</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.25</td></tr> <tr><td>Count:</td><td style="text-align: right;">10</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">10</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	1.6	Width:	0.065	Height:	0.25	Count:	10	Total Quantity:	10	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Beams/MLE's																																								
Element Name:	Diaphragms																																								
Location:																																									
Material:	Steel																																								
Element Type:	Channel																																								
Environment:	Benign																																								
Protection System:																																									
Length:	1.6																																								
Width:	0.065																																								
Height:	0.25																																								
Count:	10																																								
Total Quantity:	10																																								
Maint. Needs	None																																								
Perform. Deficiencies	None																																								
Estimated Construction Cost:	\$0.00																																								
Priority	None																																								
	6-10 yrs																																								
	1-5 yrs																																								
	Within 1 yr																																								
	Urgent																																								

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Abutment walls</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Conventional closed</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Sq. m <input type="text" value="16"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Abutments	Element Name:	Abutment walls	Location:	Each End	Material:	Cast-in-place concrete	Element Type:	Conventional closed	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">8</td></tr> <tr><td>Width:</td><td style="text-align: right;">1</td></tr> <tr><td>Height:</td><td style="text-align: right;">2</td></tr> <tr><td>Count:</td><td style="text-align: right;">16</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">16</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	8	Width:	1	Height:	2	Count:	16	Total Quantity:	16	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Abutments																																								
Element Name:	Abutment walls																																								
Location:	Each End																																								
Material:	Cast-in-place concrete																																								
Element Type:	Conventional closed																																								
Environment:	Benign																																								
Protection System:																																									
Length:	8																																								
Width:	1																																								
Height:	2																																								
Count:	16																																								
Total Quantity:	16																																								
Maint. Needs	None																																								
Perform. Deficiencies	None																																								
Estimated Construction Cost:	\$0.00																																								
Priority	None																																								
	6-10 yrs																																								
	1-5 yrs																																								
	Within 1 yr																																								
	Urgent																																								

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Wingwalls</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Reinforced concrete</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Sq. m <input type="text" value="11.2"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Abutments	Element Name:	Wingwalls	Location:		Material:	Cast-in-place concrete	Element Type:	Reinforced concrete	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">3.5</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.45</td></tr> <tr><td>Height:</td><td style="text-align: right;">1.6</td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">11.2</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Maint. Needs</td><td>None</td></tr> <tr><td>Perform. Deficiencies</td><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	3.5	Width:	0.45	Height:	1.6	Count:	4	Total Quantity:	11.2	Maint. Needs	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Abutments																																								
Element Name:	Wingwalls																																								
Location:																																									
Material:	Cast-in-place concrete																																								
Element Type:	Reinforced concrete																																								
Environment:	Benign																																								
Protection System:																																									
Length:	3.5																																								
Width:	0.45																																								
Height:	1.6																																								
Count:	4																																								
Total Quantity:	11.2																																								
Maint. Needs	None																																								
Perform. Deficiencies	None																																								
Estimated Construction Cost:	\$0.00																																								
Priority	None																																								
	6-10 yrs																																								
	1-5 yrs																																								
	Within 1 yr																																								
	Urgent																																								

Municipal Structure Inspection Form

STRUCTURE ID BR5

<p>Element Group: Foundations</p> <p>Element Name: Foundation (below ground level)</p> <p>Location:</p> <p>Material: Steel</p> <p>Element Type: Piles</p> <p>Environment: Benign</p> <p>Protection System: None</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: 10</p> <p>Total Quantity: 10</p> <p>Limited Inspection <input checked="" type="checkbox"/></p> <p>Maint. Needs: None</p> <p>Perform. Deficiencies: None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority: None</p> <p style="margin-left: 20px;">6-10 yrs</p> <p style="margin-left: 20px;">1-5 yrs</p> <p style="margin-left: 20px;">Within 1 yr</p> <p style="margin-left: 20px;">Urgent</p>
--	---

<p>Element Group: Embankments & Streams</p> <p>Element Name: Streams and Waterways</p> <p>Location: Under Bridge</p> <p>Material:</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System: None</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">% 100 <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: 1</p> <p>Total Quantity: 1</p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs: None</p> <p>Perform. Deficiencies: None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority: None</p> <p style="margin-left: 20px;">6-10 yrs</p> <p style="margin-left: 20px;">1-5 yrs</p> <p style="margin-left: 20px;">Within 1 yr</p> <p style="margin-left: 20px;">Urgent</p>
---	--

<p>Element Group: Embankments & Streams</p> <p>Element Name: Embankments</p> <p>Location: Each Quadrant</p> <p>Material:</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System: None</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;">Each <input type="text"/> 4 <input type="text"/> <input type="text"/></p> <p>Comments</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: 4</p> <p>Total Quantity: 4</p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs: None</p> <p>Perform. Deficiencies: None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority: None</p> <p style="margin-left: 20px;">6-10 yrs</p> <p style="margin-left: 20px;">1-5 yrs</p> <p style="margin-left: 20px;">Within 1 yr</p> <p style="margin-left: 20px;">Urgent</p>
---	--

Municipal Structure Inspection Form

STRUCTURE ID BR5

<p>Element Group: Accessories</p> <p>Element Name: Signs</p> <p>Location:</p> <p>Material: Steel</p> <p>Element Type:</p> <p>Environment: Benign</p> <p>Protection System:</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"> <input checked="" type="checkbox"/> Each <input type="checkbox"/> <input type="checkbox"/> 4 <input type="checkbox"/> <input type="checkbox"/> </p> <p>Comments</p> <p>4- hazard warning signs.</p> <p>Recommended Work</p>	<p>Length: <input type="text"/></p> <p>Width: <input type="text"/></p> <p>Height: <input type="text"/></p> <p>Count: <input type="text" value="4"/></p> <p>Total Quantity: <input type="text" value="4"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p>Priority</p> <p><input checked="" type="checkbox"/> None</p> <p><input type="checkbox"/> 6-10 yrs</p> <p><input type="checkbox"/> 1-5 yrs</p> <p><input type="checkbox"/> Within 1 yr</p> <p><input type="checkbox"/> Urgent</p>
---	---

<p>Element Group: Approaches</p> <p>Element Name: Wearing surface</p> <p>Location: Each End</p> <p>Material: Asphalt</p> <p>Element Type:</p> <p>Environment: Severe</p> <p>Protection System:</p> <p>Condition Data: Units Exc Good Fair Poor</p> <p style="margin-left: 20px;"> <input checked="" type="checkbox"/> Sq. m <input type="checkbox"/> <input type="checkbox"/> 84 <input type="checkbox"/> <input type="checkbox"/> </p> <p>Comments</p> <p>Narrow to medium transverse cracks at both North and South.</p> <p>Recommended Work</p> <p>Rout and seal cracks as maintenance.</p>	<p>Length: <input type="text" value="6"/></p> <p>Width: <input type="text" value="7"/></p> <p>Height: <input type="text" value="0.08"/></p> <p>Count: <input type="text" value="2"/></p> <p>Total Quantity: <input type="text" value="84"/></p> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Rout and Seal</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: <input type="text" value="\$0.00"/></p> <p>Priority</p> <p><input checked="" type="checkbox"/> None</p> <p><input type="checkbox"/> 6-10 yrs</p> <p><input type="checkbox"/> 1-5 yrs</p> <p><input type="checkbox"/> Within 1 yr</p> <p><input type="checkbox"/> Urgent</p>
--	--

Associated Work

	Comments	Estimated Cost
Approaches	<input type="text"/>	<input type="text" value="\$0.00"/>
Detours	<input type="text"/>	<input type="text" value="\$0.00"/>
Traffic Control	<input type="text"/>	<input type="text" value="\$0.00"/>
Utilities	<input type="text"/>	<input type="text" value="\$0.00"/>
Right of Way	<input type="text"/>	<input type="text" value="\$0.00"/>
Environmental Study	<input type="text"/>	<input type="text" value="\$0.00"/>
Other	<input type="text"/>	<input type="text" value="\$0.00"/>
Contingencies	<input type="text"/>	<input type="text" value="\$0.00"/>
Total Estimated Const. Cost		<input type="text" value="\$0.00"/>

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR5



Roadway looking South



Minor damage at Northeast

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR5



West railing



East railing

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR5



Medium transverse crack on North approach



Narrow crack on South approach

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR5



Soffit



South abutment

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR5



North abutment



East elevation

Inventory Data

Structure Name	Stirling Creek Bridge		
Main Hwy/Road #	On <input checked="" type="checkbox"/>	Under <input type="checkbox"/>	Crossing Type Non-navig water
Road Name	North Horn Lake Road		
Structure Location	West of Highway 11		
Latitude		Longitude	
Owner(s)	Township of Strong		
Heritage Designation	Not Cons		
Road Class:	Local		
MTO Region	Northern		
MTO District	Huntsville		
Old County	Parry Sound		
Geographic Twp	Township of Strong		
Structure Type	Bailey Panel		
Total Deck Length	12.2	(m)	Posted Speed 50
Overall Str Width	6.37	(m)	No of Lanes 1
Total Deck Area	77.714	(sq. m)	AADT 0
Roadway Width	5.05	(m)	% Trucks 0
Span Lengths	12.2 (m)		
			Special Routes: Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
			Detour Length Around Bridge (km)
			Fill on Structure (m)
			Skew Angle (Degrees)
			Direction of Structure East/West
			No of Spans 1

Historical Data

Year Built:		Last Biennial Inspection:	11/5/2016
Current Load Limit:		Last BridgeMaster Inspection:	
Load Limit By-Law #:		Last Evaluation:	
By-Law Expiry Date:		Last Underwater Inspection:	
Min Vertical Clearance:		Last Condition Survey:	
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018 Temperature: 21° C
 Inspected By: D.M. Wills Associates Ltd.
 Inspector: Ghassan Zanzoul, P. Eng.
 Others in Party: Michael McDonnell
 Equipment Used: Camera, tape measure.
 Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 71.03

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data

Element Group:	Barriers				Length:	1.1	
Element Name:	Posts				Width:	0.15	
Location:	Bridge				Height:	0.15	
Material:	Steel				Count:	18	
Element Type:					Total Quantity:	18	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:	Hot dip galvanizing				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	None
	Each		18			Estimated Construction Cost:	\$0.00
Comments					Priority	None	
Recommended Work						6-10 yrs	
						1-5 yrs	
						Within 1 yr	
						Urgent	

Element Group:	Decks				Length:	12	
Element Name:					Width:	5.05	
Location:	Soffit				Height:	0.06	
Material:	Wood				Count:	1	
Element Type:					Total Quantity:	60.6	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	None
	Sq. m		59.1		1.5	Estimated Construction Cost:	\$0.00
Comments	Localized split timbers and rotting.				Priority	None	
Recommended Work	Replace with wearing surface. Costed under deck top.					6-10 yrs	
						1-5 yrs	
						Within 1 yr	
						Urgent	

Element Group:	Accessories				Length:		
Element Name:	Signs				Width:		
Location:					Height:		
Material:	Steel				Count:	1	
Element Type:					Total Quantity:	1	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	Other	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	None
	Each		1			Estimated Construction Cost:	\$0.00
Comments	1 Hazard sign.				Priority	None	
Recommended Work	Install 3 hazard signs and 2 narrow bridge signs as maintenance.					6-10 yrs	
						1-5 yrs	
						Within 1 yr	
						Urgent	

Municipal Structure Inspection Form

STRUCTURE ID

BR6

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Ballast walls</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Reinforced concrete</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">18.92</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Rust stains noted. Large spall noted on top of Southeast ballast wall.</p> <p>Recommended Work</p>	Element Group:	Abutments	Element Name:	Ballast walls	Location:	Each End	Material:	Cast-in-place concrete	Element Type:	Reinforced concrete	Environment:	Benign	Protection System:		Sq. m		18.92			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">0.35</td></tr> <tr><td>Width:</td><td style="text-align: right;">8.6</td></tr> <tr><td>Height:</td><td style="text-align: right;">1.1</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">18.92</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	0.35	Width:	8.6	Height:	1.1	Count:	2	Total Quantity:	18.92	Limited Inspection	<input type="checkbox"/>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Abutments																																				
Element Name:	Ballast walls																																				
Location:	Each End																																				
Material:	Cast-in-place concrete																																				
Element Type:	Reinforced concrete																																				
Environment:	Benign																																				
Protection System:																																					
Sq. m		18.92																																			
Length:	0.35																																				
Width:	8.6																																				
Height:	1.1																																				
Count:	2																																				
Total Quantity:	18.92																																				
Limited Inspection	<input type="checkbox"/>																																				
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Bearings</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Hinge</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Each</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">8</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Bearings covered in debris.</p> <p>Recommended Work</p> <p>Clean bearings as maintenance.</p>	Element Group:	Abutments	Element Name:	Bearings	Location:		Material:	Steel	Element Type:	Hinge	Environment:	Benign	Protection System:	Hot dip galvanizing	Each		8			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">0.46</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.38</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">8</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">8</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>Bridge Bearing Maintenance</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	0.46	Width:	0.38	Height:		Count:	8	Total Quantity:	8	Limited Inspection	<input type="checkbox"/>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Abutments																																				
Element Name:	Bearings																																				
Location:																																					
Material:	Steel																																				
Element Type:	Hinge																																				
Environment:	Benign																																				
Protection System:	Hot dip galvanizing																																				
Each		8																																			
Length:	0.46																																				
Width:	0.38																																				
Height:																																					
Count:	8																																				
Total Quantity:	8																																				
Limited Inspection	<input type="checkbox"/>																																				
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Abutment walls</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Conventional closed</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">61.06</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Abutment bearing seat covered in debris. Minor bug holes noted.</p> <p>Recommended Work</p> <p>Clean abutment bearing seat as maintenance.</p>	Element Group:	Abutments	Element Name:	Abutment walls	Location:	Each End	Material:	Cast-in-place concrete	Element Type:	Conventional closed	Environment:	Benign	Protection System:		Sq. m		61.06			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td style="text-align: right;">8.6</td></tr> <tr><td>Height:</td><td style="text-align: right;">3.55</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">61.06</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>Bridge Bearing Maintenance</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:		Width:	8.6	Height:	3.55	Count:	2	Total Quantity:	61.06	Limited Inspection	<input type="checkbox"/>	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Abutments																																				
Element Name:	Abutment walls																																				
Location:	Each End																																				
Material:	Cast-in-place concrete																																				
Element Type:	Conventional closed																																				
Environment:	Benign																																				
Protection System:																																					
Sq. m		61.06																																			
Length:																																					
Width:	8.6																																				
Height:	3.55																																				
Count:	2																																				
Total Quantity:	61.06																																				
Limited Inspection	<input type="checkbox"/>																																				
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

Municipal Structure Inspection Form

STRUCTURE ID BR6

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Approaches</td></tr> <tr><td>Element Name:</td><td>Wearing surface</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Gravel</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">76</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Approaches	Element Name:	Wearing surface	Location:	Each End	Material:	Gravel	Element Type:		Environment:	Severe	Protection System:		Sq. m			76			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">7.6</td></tr> <tr><td>Width:</td><td style="text-align: right;">5</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">76</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>Perform. Deficiencies</td></tr> <tr><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	7.6	Width:	5	Height:		Count:	2	Total Quantity:	76	Limited Inspection	<input type="checkbox"/>	None	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Approaches																																															
Element Name:	Wearing surface																																															
Location:	Each End																																															
Material:	Gravel																																															
Element Type:																																																
Environment:	Severe																																															
Protection System:																																																
Sq. m			76																																													
Length:	7.6																																															
Width:	5																																															
Height:																																																
Count:	2																																															
Total Quantity:	76																																															
Limited Inspection	<input type="checkbox"/>																																															
None																																																
Perform. Deficiencies																																																
None																																																
Estimated Construction Cost:	\$0.00																																															
Priority	None																																															
	6-10 yrs																																															
	1-5 yrs																																															
	Within 1 yr																																															
	Urgent																																															

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Posts</td></tr> <tr><td>Location:</td><td>Approaches</td></tr> <tr><td>Material:</td><td>Wood</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Each</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">40</td> <td style="width:15%; text-align: center;">2</td> <td style="width:15%; text-align: center;">2</td> </tr> </table> <p>Comments</p> <p>Recommended Work</p> <p>Replace damaged posts as maintenance.</p>	Element Group:	Barriers	Element Name:	Posts	Location:	Approaches	Material:	Wood	Element Type:		Environment:	Benign	Protection System:		Each			40	2	2	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">0.2</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.2</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">44</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">44</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Bridge Handrail Maintenance</td></tr> <tr><td>Perform. Deficiencies</td></tr> <tr><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:	0.2	Width:	0.2	Height:		Count:	44	Total Quantity:	44	Limited Inspection	<input type="checkbox"/>	Bridge Handrail Maintenance	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Barriers																																															
Element Name:	Posts																																															
Location:	Approaches																																															
Material:	Wood																																															
Element Type:																																																
Environment:	Benign																																															
Protection System:																																																
Each			40	2	2																																											
Length:	0.2																																															
Width:	0.2																																															
Height:																																																
Count:	44																																															
Total Quantity:	44																																															
Limited Inspection	<input type="checkbox"/>																																															
Bridge Handrail Maintenance																																																
Perform. Deficiencies																																																
None																																																
Estimated Construction Cost:	\$0.00																																															
Priority	None																																															
	6-10 yrs																																															
	1-5 yrs																																															
	Within 1 yr																																															
	Urgent																																															

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Railing Systems</td></tr> <tr><td>Location:</td><td>Approaches</td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Steel Flex Beam on wood post</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">m</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">59</td> <td style="width:15%; text-align: center;">8</td> <td style="width:15%; text-align: center;">8</td> </tr> </table> <p>Comments</p> <p>Northeast and Southwest corner radii damaged.</p> <p>Recommended Work</p> <p>Replace damaged guide rail sections as maintenance.</p>	Element Group:	Barriers	Element Name:	Railing Systems	Location:	Approaches	Material:	Steel	Element Type:	Steel Flex Beam on wood post	Environment:	Benign	Protection System:	Hot dip galvanizing	m			59	8	8	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td></td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">75</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Bridge Handrail Maintenance</td></tr> <tr><td>Perform. Deficiencies</td></tr> <tr><td>None</td></tr> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:		Total Quantity:	75	Limited Inspection	<input type="checkbox"/>	Bridge Handrail Maintenance	Perform. Deficiencies	None	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Barriers																																															
Element Name:	Railing Systems																																															
Location:	Approaches																																															
Material:	Steel																																															
Element Type:	Steel Flex Beam on wood post																																															
Environment:	Benign																																															
Protection System:	Hot dip galvanizing																																															
m			59	8	8																																											
Length:																																																
Width:																																																
Height:																																																
Count:																																																
Total Quantity:	75																																															
Limited Inspection	<input type="checkbox"/>																																															
Bridge Handrail Maintenance																																																
Perform. Deficiencies																																																
None																																																
Estimated Construction Cost:	\$0.00																																															
Priority	None																																															
	6-10 yrs																																															
	1-5 yrs																																															
	Within 1 yr																																															
	Urgent																																															

Municipal Structure Inspection Form

STRUCTURE ID BR6

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Railing Systems</td></tr> <tr><td>Location:</td><td>Bridge</td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Severe</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">26</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Barriers	Element Name:	Railing Systems	Location:	Bridge	Material:	Steel	Element Type:		Environment:	Severe	Protection System:	Hot dip galvanizing	m		26			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">13</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">26</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	13	Width:		Height:		Count:	2	Total Quantity:	26	Limited Inspection	<input type="checkbox"/>	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Barriers																																						
Element Name:	Railing Systems																																						
Location:	Bridge																																						
Material:	Steel																																						
Element Type:																																							
Environment:	Severe																																						
Protection System:	Hot dip galvanizing																																						
m		26																																					
Length:	13																																						
Width:																																							
Height:																																							
Count:	2																																						
Total Quantity:	26																																						
Limited Inspection	<input type="checkbox"/>																																						
None																																							
None																																							
None																																							
6-10 yrs																																							
1-5 yrs																																							
Within 1 yr																																							
Urgent																																							

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Beams/ML'E's</td></tr> <tr><td>Element Name:</td><td>Floor Beams</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>I-type</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">60.43</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Beams/ML'E's	Element Name:	Floor Beams	Location:		Material:	Steel	Element Type:	I-type	Environment:	Benign	Protection System:	Hot dip galvanizing	Sq. m		60.43			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">7.9</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.2</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.465</td></tr> <tr><td>Count:</td><td style="text-align: right;">5</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">60.43</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	7.9	Width:	0.2	Height:	0.465	Count:	5	Total Quantity:	60.43	Limited Inspection	<input type="checkbox"/>	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Beams/ML'E's																																						
Element Name:	Floor Beams																																						
Location:																																							
Material:	Steel																																						
Element Type:	I-type																																						
Environment:	Benign																																						
Protection System:	Hot dip galvanizing																																						
Sq. m		60.43																																					
Length:	7.9																																						
Width:	0.2																																						
Height:	0.465																																						
Count:	5																																						
Total Quantity:	60.43																																						
Limited Inspection	<input type="checkbox"/>																																						
None																																							
None																																							
None																																							
6-10 yrs																																							
1-5 yrs																																							
Within 1 yr																																							
Urgent																																							

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Beams/ML'E's</td></tr> <tr><td>Element Name:</td><td>Stringers</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>I-type</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Each</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">11</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p>Recommended Work</p> <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	Element Group:	Beams/ML'E's	Element Name:	Stringers	Location:		Material:	Steel	Element Type:	I-type	Environment:	Benign	Protection System:	Hot dip galvanizing	Each		11			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">12.2</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.04</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.1</td></tr> <tr><td>Count:</td><td style="text-align: right;">11</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">11</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	12.2	Width:	0.04	Height:	0.1	Count:	11	Total Quantity:	11	Limited Inspection	<input type="checkbox"/>	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Beams/ML'E's																																						
Element Name:	Stringers																																						
Location:																																							
Material:	Steel																																						
Element Type:	I-type																																						
Environment:	Benign																																						
Protection System:	Hot dip galvanizing																																						
Each		11																																					
Length:	12.2																																						
Width:	0.04																																						
Height:	0.1																																						
Count:	11																																						
Total Quantity:	11																																						
Limited Inspection	<input type="checkbox"/>																																						
None																																							
None																																							
None																																							
6-10 yrs																																							
1-5 yrs																																							
Within 1 yr																																							
Urgent																																							

Municipal Structure Inspection Form

STRUCTURE ID BR6

Element Group:	Bracing	Length:	4.3
Element Name:	Bracing	Width:	0.1
Location:	Horizontal Bracing	Height:	0.05
Material:	Steel	Count:	8
Element Type:	Channel	Total Quantity:	8
Environment:	Benign	Limited Inspection	<input type="checkbox"/>
Protection System:	Hot dip galvanizing	Maint. Needs	None
Condition Data:	Units	Exc	Good
	Each		8
Comments			
Recommended Work			
	Perform. Deficiencies	Estimated Construction Cost:	\$0.00
	None	Priority	None
			6-10 yrs
			1-5 yrs
			Within 1 yr
			Urgent

Element Group:	Coatings	Length:	
Element Name:	Structural Steel	Width:	
Location:		Height:	
Material:		Count:	1
Element Type:	Hot dip galvanizing	Total Quantity:	1
Environment:	Benign	Limited Inspection	<input type="checkbox"/>
Protection System:		Maint. Needs	None
Condition Data:	Units	Exc	Good
	%		100
Comments			
Recommended Work			
	Perform. Deficiencies	Estimated Construction Cost:	\$0.00
	None	Priority	None
			6-10 yrs
			1-5 yrs
			Within 1 yr
			Urgent

Element Group:	Decks	Length:	12
Element Name:	Deck top	Width:	5.05
Location:		Height:	0.06
Material:	Wood	Count:	1
Element Type:	Wood Planks	Total Quantity:	60.6
Environment:	Benign	Limited Inspection	<input checked="" type="checkbox"/>
Protection System:		Maint. Needs	Bridge Cleaning
Condition Data:	Units	Exc	Good
	Sq. m		59.1
Comments	Minor rotting and moisture damage.		
Recommended Work	Replace timber deck top.		
	Perform. Deficiencies	Estimated Construction Cost:	\$15,000.00
	None	Priority	None
			6-10 yrs
			1-5 yrs
			Within 1 yr
			Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR6

Element Group:	Decks				Length:	12
Element Name:	Wearing surface				Width:	5.05
Location:					Height:	0.045
Material:	Wood				Count:	1
Element Type:					Total Quantity:	60.6
Environment:	Severe				Limited Inspection	<input checked="" type="checkbox"/>
Protection System:					Maint. Needs	
Condition Data:	Units	Exc	Good	Fair	Poor	Bridge Cleaning
	Sq. m			56.6		4
Comments	Rotting and moisture damage throughout wearing surface.					
Recommended Work	Replace whole wearing surface. Clean wearing surface as maintenance.					
	Estimated Construction Cost:					\$10,000.00
	Priority					None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Element Group:	Embankments & Streams				Length:	
Element Name:	Embankments				Width:	
Location:	All				Height:	
Material:					Count:	1
Element Type:					Total Quantity:	1
Environment:	Benign				Limited Inspection	<input type="checkbox"/>
Protection System:	None				Maint. Needs	
Condition Data:	Units	Exc	Good	Fair	Poor	None
	Each		4			
Comments						
Recommended Work						
	Estimated Construction Cost:					\$0.00
	Priority					None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Element Group:	Embankments & Streams				Length:	
Element Name:	Streams and Waterways				Width:	
Location:	Under Bridge				Height:	
Material:					Count:	1
Element Type:					Total Quantity:	1
Environment:	Benign				Limited Inspection	<input type="checkbox"/>
Protection System:	None				Maint. Needs	
Condition Data:	Units	Exc	Good	Fair	Poor	None
	%		100			
Comments						
Recommended Work						
	Estimated Construction Cost:					\$0.00
	Priority					None 6-10 yrs 1-5 yrs Within 1 yr Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR6

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Sidewalks/curbs</td></tr> <tr><td>Element Name:</td><td>Curbs</td></tr> <tr><td>Location:</td><td>Each side</td></tr> <tr><td>Material:</td><td>Wood</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> m 22 1 1</p> <p>Comments</p> <p>Curb covered in debris. Clean debris off curb as maintenance.</p> <p>Recommended Work</p> <p>Replace curbs with replacement of wearing surface.</p>	Element Group:	Sidewalks/curbs	Element Name:	Curbs	Location:	Each side	Material:	Wood	Element Type:		Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>12</td></tr> <tr><td>Width:</td><td>0.2</td></tr> <tr><td>Height:</td><td>0.2</td></tr> <tr><td>Count:</td><td>2</td></tr> <tr><td>Total Quantity:</td><td>24</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Bridge Cleaning</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$5,000.00</p> <p>Priority</p> <p>None 6-10 yrs 1-5 yrs Within 1 yr Urgent</p>	Length:	12	Width:	0.2	Height:	0.2	Count:	2	Total Quantity:	24
Element Group:	Sidewalks/curbs																								
Element Name:	Curbs																								
Location:	Each side																								
Material:	Wood																								
Element Type:																									
Environment:	Benign																								
Protection System:																									
Length:	12																								
Width:	0.2																								
Height:	0.2																								
Count:	2																								
Total Quantity:	24																								

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Trusses/Arches</td></tr> <tr><td>Element Name:</td><td>Bottom chords</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Channel</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 9.76 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Trusses/Arches	Element Name:	Bottom chords	Location:		Material:	Steel	Element Type:	Channel	Environment:	Benign	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>12.2</td></tr> <tr><td>Width:</td><td>0.05</td></tr> <tr><td>Height:</td><td>0.1</td></tr> <tr><td>Count:</td><td>4</td></tr> <tr><td>Total Quantity:</td><td>9.76</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None 6-10 yrs 1-5 yrs Within 1 yr Urgent</p>	Length:	12.2	Width:	0.05	Height:	0.1	Count:	4	Total Quantity:	9.76
Element Group:	Trusses/Arches																								
Element Name:	Bottom chords																								
Location:																									
Material:	Steel																								
Element Type:	Channel																								
Environment:	Benign																								
Protection System:	Hot dip galvanizing																								
Length:	12.2																								
Width:	0.05																								
Height:	0.1																								
Count:	4																								
Total Quantity:	9.76																								

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Trusses/Arches</td></tr> <tr><td>Element Name:</td><td>Connections</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Bolted</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Each 208 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Trusses/Arches	Element Name:	Connections	Location:		Material:	Steel	Element Type:	Bolted	Environment:	Benign	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td>208</td></tr> <tr><td>Total Quantity:</td><td>208</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None 6-10 yrs 1-5 yrs Within 1 yr Urgent</p>	Length:		Width:		Height:		Count:	208	Total Quantity:	208
Element Group:	Trusses/Arches																								
Element Name:	Connections																								
Location:																									
Material:	Steel																								
Element Type:	Bolted																								
Environment:	Benign																								
Protection System:	Hot dip galvanizing																								
Length:																									
Width:																									
Height:																									
Count:	208																								
Total Quantity:	208																								

Municipal Structure Inspection Form

STRUCTURE ID

BR6

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Trusses/Arches</td></tr> <tr><td>Element Name:</td><td>Top chords</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Channel</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 14.64 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Trusses/Arches	Element Name:	Top chords	Location:		Material:	Steel	Element Type:	Channel	Environment:	Benign	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>12.2</td></tr> <tr><td>Width:</td><td>0.05</td></tr> <tr><td>Height:</td><td>0.1</td></tr> <tr><td>Count:</td><td>4</td></tr> <tr><td>Total Quantity:</td><td>14.64</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None</p> <p>6-10 yrs</p> <p>1-5 yrs</p> <p>Within 1 yr</p> <p>Urgent</p>	Length:	12.2	Width:	0.05	Height:	0.1	Count:	4	Total Quantity:	14.64	Limited Inspection	<input type="checkbox"/>
Element Group:	Trusses/Arches																										
Element Name:	Top chords																										
Location:																											
Material:	Steel																										
Element Type:	Channel																										
Environment:	Benign																										
Protection System:	Hot dip galvanizing																										
Length:	12.2																										
Width:	0.05																										
Height:	0.1																										
Count:	4																										
Total Quantity:	14.64																										
Limited Inspection	<input type="checkbox"/>																										

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Trusses/Arches</td></tr> <tr><td>Element Name:</td><td>Verticals/diagonals</td></tr> <tr><td>Location:</td><td>Verticals</td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Channel</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Each 48 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Trusses/Arches	Element Name:	Verticals/diagonals	Location:	Verticals	Material:	Steel	Element Type:	Channel	Environment:	Benign	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>0.04</td></tr> <tr><td>Width:</td><td>0.08</td></tr> <tr><td>Height:</td><td>1.2</td></tr> <tr><td>Count:</td><td>48</td></tr> <tr><td>Total Quantity:</td><td>48</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None</p> <p>6-10 yrs</p> <p>1-5 yrs</p> <p>Within 1 yr</p> <p>Urgent</p>	Length:	0.04	Width:	0.08	Height:	1.2	Count:	48	Total Quantity:	48	Limited Inspection	<input type="checkbox"/>
Element Group:	Trusses/Arches																										
Element Name:	Verticals/diagonals																										
Location:	Verticals																										
Material:	Steel																										
Element Type:	Channel																										
Environment:	Benign																										
Protection System:	Hot dip galvanizing																										
Length:	0.04																										
Width:	0.08																										
Height:	1.2																										
Count:	48																										
Total Quantity:	48																										
Limited Inspection	<input type="checkbox"/>																										

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Trusses/Arches</td></tr> <tr><td>Element Name:</td><td>Verticals/diagonals</td></tr> <tr><td>Location:</td><td>Diagonals</td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Channel</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Each 128 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Trusses/Arches	Element Name:	Verticals/diagonals	Location:	Diagonals	Material:	Steel	Element Type:	Channel	Environment:	Benign	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>1.34</td></tr> <tr><td>Width:</td><td>0.05</td></tr> <tr><td>Height:</td><td>0.08</td></tr> <tr><td>Count:</td><td>128</td></tr> <tr><td>Total Quantity:</td><td>128</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None</p> <p>6-10 yrs</p> <p>1-5 yrs</p> <p>Within 1 yr</p> <p>Urgent</p>	Length:	1.34	Width:	0.05	Height:	0.08	Count:	128	Total Quantity:	128	Limited Inspection	<input type="checkbox"/>
Element Group:	Trusses/Arches																										
Element Name:	Verticals/diagonals																										
Location:	Diagonals																										
Material:	Steel																										
Element Type:	Channel																										
Environment:	Benign																										
Protection System:	Hot dip galvanizing																										
Length:	1.34																										
Width:	0.05																										
Height:	0.08																										
Count:	128																										
Total Quantity:	128																										
Limited Inspection	<input type="checkbox"/>																										

Repair and Rehabilitation Required

Element Group	Element Name	Comments Repair/Rehabilitation	Priority (Years)	Estimated Cost
Sidewalks/curbs	Curbs	Replace curbs with replacement of wearing surface.	1-5 yrs	\$5,000.00
Decks	Wearing surface	Replace whole wearing surface. Clean wearing surface as maintenance.	1-5 yrs	\$10,000.00
Decks	Deck top	Replace timber deck top.	1-5 yrs	\$15,000.00
			Total	\$30,000.00

Associated Work

	Comments	Estimated Cost
Approaches	<input type="text"/>	<input type="text" value="\$0.00"/>
Detours	<input type="text"/>	<input type="text" value="\$0.00"/>
Traffic Control	<input type="text"/>	<input type="text" value="\$0.00"/>
Utilities	<input type="text"/>	<input type="text" value="\$0.00"/>
Right of Way	<input type="text"/>	<input type="text" value="\$0.00"/>
Environmental Study	<input type="text"/>	<input type="text" value="\$0.00"/>
Other	<input type="text"/>	<input type="text" value="\$0.00"/>
Contingencies	<input type="text"/>	<input type="text" value="\$0.00"/>
Total Estimated Const. Cost		<input type="text" value="\$30,000.00"/>

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



Roadway looking West



Damaged guide rail at Northeast

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



Damaged guide rail at Southwest



South truss

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



North truss



Rotting and splitting of wearing surface

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



Damaged curb (North side)



North elevation

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



West abutment



East abutment

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



Soffit



Split soffit timbers

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



Split soffit timbers



Debris at bearings (Typ.)

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



Localized spalls on Southeast ballast wall



Moisture and rotting of soffit

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR6



East Abutment

Inventory Data

Structure Name	Peveny Road Bridge		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Peveny Road		
Structure Location	South of Farm View Road		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	<input type="text" value="Not Cons"/>		
Road Class:	<input type="text" value="Local"/>		
MTO Region	<input type="text" value="Northern"/>		
MTO District	<input type="text" value="Huntsville"/>		
Old County	<input type="text" value="Parry Sound"/>		
Geographic Twp	Township of Strong		
Structure Type	<input type="text" value="I-beam or Girders"/>		
Total Deck Length	<input type="text" value="15.05"/>	(m)	Posted Speed <input type="text" value="80"/>
Overall Str Width	<input type="text" value="6.05"/>	(m)	No of Lanes <input type="text" value="1"/>
Total Deck Area	<input type="text" value="91.0525"/>	(sq. m)	AADT <input type="text" value="0"/>
Roadway Width	<input type="text" value="5.45"/>	(m)	% Trucks <input type="text" value="0"/>
Span Lengths	<input type="text" value="13.65"/>		
			Special Routes: Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
			Detour Length Around Bridge <input type="text"/> (km)
			Fill on Structure <input type="text" value="0"/> (m)
			Skew Angle <input type="text" value="0"/> (Degrees)
			Direction of Structure <input type="text" value="North/South"/>
			No of Spans <input type="text" value="1"/>

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>

Rehab History: (Date/description)

New superstructure on older substructure.

Field Inspection Information

Date of Inspection: 6/26/2018 Temperature: 21° C
 Inspected By: D.M. Wills Associates Ltd.
 Inspector: Ghassan Zanzoul, P. Eng.
 Others in Party: Michael McDonnell
 Equipment Used: Camera, tape measure.
 Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 74.72

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data							
Element Group:	Decks				Length:	12.5	
Element Name:	Soffit - Thin Slab				Width:	1.89	
Location:	Interior				Height:		
Material:	Cast-in-place concrete				Count:	2	
Element Type:					Total Quantity:	47.25	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		47.25			None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Element Group:	Abutments				Length:	0.6	
Element Name:	Bearings				Width:	0.6	
Location:					Height:	0.1	
Material:					Count:	6	
Element Type:	Elastomeric pad				Total Quantity:	6	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	None				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Each		6			None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Element Group:	Abutments				Length:		
Element Name:	Abutment walls				Width:	6.05	
Location:	Each End				Height:	2.4	
Material:	Cast-in-place concrete				Count:	2	
Element Type:	Conventional closed				Total Quantity:	29.04	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		28.04	1		None	
Comments						Estimated Construction Cost:	\$10,000.00
Light scaling on north abutment, medium scaling on south abutment. Undermining at South abutment.						Priority	None
Recommended Work							6-10 yrs
Repair undermining.							1-5 yrs
							Within 1 yr
							Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR7

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Abutments</td></tr> <tr><td>Element Name:</td><td>Wingwalls</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Reinforced concrete</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">16.37</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments All in good condition with minor honeycombing.</p> <p>Recommended Work</p>	Element Group:	Abutments	Element Name:	Wingwalls	Location:		Material:	Cast-in-place concrete	Element Type:	Reinforced concrete	Environment:	Benign	Protection System:		Sq. m		16.37			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">3.15</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td style="text-align: right;">1.3</td></tr> <tr><td>Count:</td><td style="text-align: right;">4</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">16.37</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="background-color: #cccccc;">None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	3.15	Width:		Height:	1.3	Count:	4	Total Quantity:	16.37	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Abutments																																		
Element Name:	Wingwalls																																		
Location:																																			
Material:	Cast-in-place concrete																																		
Element Type:	Reinforced concrete																																		
Environment:	Benign																																		
Protection System:																																			
Sq. m		16.37																																	
Length:	3.15																																		
Width:																																			
Height:	1.3																																		
Count:	4																																		
Total Quantity:	16.37																																		
None																																			
6-10 yrs																																			
1-5 yrs																																			
Within 1 yr																																			
Urgent																																			

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Approaches</td></tr> <tr><td>Element Name:</td><td>Approach slabs</td></tr> <tr><td>Location:</td><td>Each End</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Moderate</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">65.39</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments Light scaling and snow plow abrasion.</p> <p>Recommended Work</p>	Element Group:	Approaches	Element Name:	Approach slabs	Location:	Each End	Material:	Cast-in-place concrete	Element Type:		Environment:	Moderate	Protection System:		Sq. m		65.39			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">6</td></tr> <tr><td>Width:</td><td style="text-align: right;">5.45</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.25</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">65.39</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="background-color: #cccccc;">None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	6	Width:	5.45	Height:	0.25	Count:	2	Total Quantity:	65.39	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Approaches																																		
Element Name:	Approach slabs																																		
Location:	Each End																																		
Material:	Cast-in-place concrete																																		
Element Type:																																			
Environment:	Moderate																																		
Protection System:																																			
Sq. m		65.39																																	
Length:	6																																		
Width:	5.45																																		
Height:	0.25																																		
Count:	2																																		
Total Quantity:	65.39																																		
None																																			
6-10 yrs																																			
1-5 yrs																																			
Within 1 yr																																			
Urgent																																			

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Barrier/Parapet Walls</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Parapet Wall with single railing</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">87.38</td> <td style="width:15%; text-align: center;">0.5</td> <td style="width:15%; text-align: center;">0.5</td> </tr> </table> <p>Comments Minor spalls on all four corners.</p> <p>Recommended Work Repair concrete spalls.</p>	Element Group:	Barriers	Element Name:	Barrier/Parapet Walls	Location:		Material:	Cast-in-place concrete	Element Type:	Parapet Wall with single railing	Environment:	Benign	Protection System:		Sq. m		87.38	0.5	0.5	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">20.8</td></tr> <tr><td>Width:</td><td style="text-align: right;">0.25</td></tr> <tr><td>Height:</td><td style="text-align: right;">0.93</td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">87.78</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs None</p> <p>Perform. Deficiencies None</p> <p>Estimated Construction Cost: \$5,000.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="background-color: #cccccc;">None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td style="background-color: #cccccc;">1-5 yrs</td></tr> <tr><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	20.8	Width:	0.25	Height:	0.93	Count:	2	Total Quantity:	87.78	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Barriers																																		
Element Name:	Barrier/Parapet Walls																																		
Location:																																			
Material:	Cast-in-place concrete																																		
Element Type:	Parapet Wall with single railing																																		
Environment:	Benign																																		
Protection System:																																			
Sq. m		87.38	0.5	0.5																															
Length:	20.8																																		
Width:	0.25																																		
Height:	0.93																																		
Count:	2																																		
Total Quantity:	87.78																																		
None																																			
6-10 yrs																																			
1-5 yrs																																			
Within 1 yr																																			
Urgent																																			

Municipal Structure Inspection Form

STRUCTURE ID BR7

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Barriers</td></tr> <tr><td>Element Name:</td><td>Hand Railings</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td>Single Railing</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>Hot dip galvanizing</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> m 38.4 </p> <p>Comments</p> <p>Missing end cap at Southwest and Northeast ends.</p> <p>Recommended Work</p> <p>Replace missing end caps as maintenance.</p>	Element Group:	Barriers	Element Name:	Hand Railings	Location:		Material:	Steel	Element Type:	Single Railing	Environment:	Benign	Protection System:	Hot dip galvanizing	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>19.2</td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td>2</td></tr> <tr><td>Total Quantity:</td><td>38.4</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>Bridge Handrail Maintenance</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None 6-10 yrs 1-5 yrs Within 1 yr Urgent</p>	Length:	19.2	Width:		Height:		Count:	2	Total Quantity:	38.4	Limited Inspection	<input type="checkbox"/>
Element Group:	Barriers																										
Element Name:	Hand Railings																										
Location:																											
Material:	Steel																										
Element Type:	Single Railing																										
Environment:	Benign																										
Protection System:	Hot dip galvanizing																										
Length:	19.2																										
Width:																											
Height:																											
Count:	2																										
Total Quantity:	38.4																										
Limited Inspection	<input type="checkbox"/>																										

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Beams/ML's</td></tr> <tr><td>Element Name:</td><td>Diaphragms Middle</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Weathering steel</td></tr> <tr><td>Element Type:</td><td>I-type</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Each 4 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Beams/ML's	Element Name:	Diaphragms Middle	Location:		Material:	Weathering steel	Element Type:	I-type	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>2</td></tr> <tr><td>Width:</td><td>0.05</td></tr> <tr><td>Height:</td><td>0.25</td></tr> <tr><td>Count:</td><td>4</td></tr> <tr><td>Total Quantity:</td><td>4</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None 6-10 yrs 1-5 yrs Within 1 yr Urgent</p>	Length:	2	Width:	0.05	Height:	0.25	Count:	4	Total Quantity:	4	Limited Inspection	<input type="checkbox"/>
Element Group:	Beams/ML's																										
Element Name:	Diaphragms Middle																										
Location:																											
Material:	Weathering steel																										
Element Type:	I-type																										
Environment:	Benign																										
Protection System:																											
Length:	2																										
Width:	0.05																										
Height:	0.25																										
Count:	4																										
Total Quantity:	4																										
Limited Inspection	<input type="checkbox"/>																										

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Beams/ML's</td></tr> <tr><td>Element Name:</td><td>Girders</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Weathering steel</td></tr> <tr><td>Element Type:</td><td>I-type</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <p> Sq. m 86.4 </p> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Beams/ML's	Element Name:	Girders	Location:		Material:	Weathering steel	Element Type:	I-type	Environment:	Benign	Protection System:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td>15</td></tr> <tr><td>Width:</td><td>0.24</td></tr> <tr><td>Height:</td><td>0.6</td></tr> <tr><td>Count:</td><td>3</td></tr> <tr><td>Total Quantity:</td><td>86.4</td></tr> <tr><td>Limited Inspection</td><td><input type="checkbox"/></td></tr> </table> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <p>Estimated Construction Cost: \$0.00</p> <p>Priority</p> <p>None 6-10 yrs 1-5 yrs Within 1 yr Urgent</p>	Length:	15	Width:	0.24	Height:	0.6	Count:	3	Total Quantity:	86.4	Limited Inspection	<input type="checkbox"/>
Element Group:	Beams/ML's																										
Element Name:	Girders																										
Location:																											
Material:	Weathering steel																										
Element Type:	I-type																										
Environment:	Benign																										
Protection System:																											
Length:	15																										
Width:	0.24																										
Height:	0.6																										
Count:	3																										
Total Quantity:	86.4																										
Limited Inspection	<input type="checkbox"/>																										

Municipal Structure Inspection Form

STRUCTURE ID BR7

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Decks</td></tr> <tr><td>Element Name:</td><td>Soffit - Thin Slab</td></tr> <tr><td>Location:</td><td>Exterior</td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">37.5</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Decks	Element Name:	Soffit - Thin Slab	Location:	Exterior	Material:	Cast-in-place concrete	Element Type:		Environment:	Benign	Protection System:		Sq. m		37.5			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">12.5</td></tr> <tr><td>Width:</td><td style="text-align: right;">1.5</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">2</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">37.5</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr style="background-color: #cccccc;"><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	12.5	Width:	1.5	Height:		Count:	2	Total Quantity:	37.5	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Decks																																				
Element Name:	Soffit - Thin Slab																																				
Location:	Exterior																																				
Material:	Cast-in-place concrete																																				
Element Type:																																					
Environment:	Benign																																				
Protection System:																																					
Sq. m		37.5																																			
Length:	12.5																																				
Width:	1.5																																				
Height:																																					
Count:	2																																				
Total Quantity:	37.5																																				
None																																					
None																																					
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Decks</td></tr> <tr><td>Element Name:</td><td>Deck top</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Cast-in-place conc on supports, composite</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Sq. m</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">91.05</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Build up of debris on deck top.</p> <p>Recommended Work</p> <p>Clean deck top as maintenance.</p>	Element Group:	Decks	Element Name:	Deck top	Location:		Material:	Cast-in-place concrete	Element Type:	Cast-in-place conc on supports, composite	Environment:	Benign	Protection System:		Sq. m		91.05			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td style="text-align: right;">15.05</td></tr> <tr><td>Width:</td><td style="text-align: right;">6.05</td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">91.05</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Bridge Cleaning</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr style="background-color: #cccccc;"><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:	15.05	Width:	6.05	Height:		Count:	1	Total Quantity:	91.05	Bridge Cleaning	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Decks																																				
Element Name:	Deck top																																				
Location:																																					
Material:	Cast-in-place concrete																																				
Element Type:	Cast-in-place conc on supports, composite																																				
Environment:	Benign																																				
Protection System:																																					
Sq. m		91.05																																			
Length:	15.05																																				
Width:	6.05																																				
Height:																																					
Count:	1																																				
Total Quantity:	91.05																																				
Bridge Cleaning																																					
None																																					
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Embankments</td></tr> <tr><td>Location:</td><td>Each Quadrant</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Each</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">4</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Embankments & Streams	Element Name:	Embankments	Location:	Each Quadrant	Material:		Element Type:		Environment:	Benign	Protection System:	None	Each		4			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">1</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Perform. Deficiencies</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> </table> <p>Estimated Construction Cost: \$0.00</p> <p style="text-align: right;">Priority</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>None</td></tr> <tr><td>6-10 yrs</td></tr> <tr><td>1-5 yrs</td></tr> <tr style="background-color: #cccccc;"><td>Within 1 yr</td></tr> <tr><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:	1	Total Quantity:	1	None	None	None	6-10 yrs	1-5 yrs	Within 1 yr	Urgent
Element Group:	Embankments & Streams																																				
Element Name:	Embankments																																				
Location:	Each Quadrant																																				
Material:																																					
Element Type:																																					
Environment:	Benign																																				
Protection System:	None																																				
Each		4																																			
Length:																																					
Width:																																					
Height:																																					
Count:	1																																				
Total Quantity:	1																																				
None																																					
None																																					
None																																					
6-10 yrs																																					
1-5 yrs																																					
Within 1 yr																																					
Urgent																																					

Municipal Structure Inspection Form

STRUCTURE ID BR7

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Embankments & Streams</td></tr> <tr><td>Element Name:</td><td>Streams and Waterways</td></tr> <tr><td>Location:</td><td>Under Bridge</td></tr> <tr><td>Material:</td><td></td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%; text-align: center;">%</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">100</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Recommended Work</p>	Element Group:	Embankments & Streams	Element Name:	Streams and Waterways	Location:	Under Bridge	Material:		Element Type:		Environment:	Benign	Protection System:	None	%		100			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">1</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:	1	Total Quantity:	1	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Embankments & Streams																																									
Element Name:	Streams and Waterways																																									
Location:	Under Bridge																																									
Material:																																										
Element Type:																																										
Environment:	Benign																																									
Protection System:	None																																									
%		100																																								
Length:																																										
Width:																																										
Height:																																										
Count:	1																																									
Total Quantity:	1																																									
Estimated Construction Cost:	\$0.00																																									
Priority	None																																									
	6-10 yrs																																									
	1-5 yrs																																									
	Within 1 yr																																									
	Urgent																																									

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Foundations</td></tr> <tr><td>Element Name:</td><td>Foundation (below ground level)</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Cast-in-place concrete</td></tr> <tr><td>Element Type:</td><td>Spread</td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td>None</td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%; text-align: center;">%</td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>Undermining at South. Repair is recommended under abutment wall.</p> <p>Recommended Work</p>	Element Group:	Foundations	Element Name:	Foundation (below ground level)	Location:		Material:	Cast-in-place concrete	Element Type:	Spread	Environment:	Benign	Protection System:	None	%					<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">1</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">1</td></tr> </table> <p>Limited Inspection <input checked="" type="checkbox"/></p> <p>Maint. Needs</p> <p>None</p> <p>Perform. Deficiencies</p> <p>None</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:	1	Total Quantity:	1	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Foundations																																									
Element Name:	Foundation (below ground level)																																									
Location:																																										
Material:	Cast-in-place concrete																																									
Element Type:	Spread																																									
Environment:	Benign																																									
Protection System:	None																																									
%																																										
Length:																																										
Width:																																										
Height:																																										
Count:	1																																									
Total Quantity:	1																																									
Estimated Construction Cost:	\$0.00																																									
Priority	None																																									
	6-10 yrs																																									
	1-5 yrs																																									
	Within 1 yr																																									
	Urgent																																									

<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Element Group:</td><td>Accessories</td></tr> <tr><td>Element Name:</td><td>Signs</td></tr> <tr><td>Location:</td><td></td></tr> <tr><td>Material:</td><td>Steel</td></tr> <tr><td>Element Type:</td><td></td></tr> <tr><td>Environment:</td><td>Benign</td></tr> <tr><td>Protection System:</td><td></td></tr> </table> <p>Condition Data: Units Exc Good Fair Poor</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%; text-align: center;">Each</td> <td style="width:15%;"></td> <td style="width:15%; text-align: center;">5</td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> </table> <p>Comments</p> <p>4 Hazard signs. 1 One lane bridge sign at North.</p> <p>Recommended Work</p> <p>Install one lane bridge at South as maintenance.</p>	Element Group:	Accessories	Element Name:	Signs	Location:		Material:	Steel	Element Type:		Environment:	Benign	Protection System:		Each		5			<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Length:</td><td></td></tr> <tr><td>Width:</td><td></td></tr> <tr><td>Height:</td><td></td></tr> <tr><td>Count:</td><td style="text-align: right;">5</td></tr> <tr><td>Total Quantity:</td><td style="text-align: right;">5</td></tr> </table> <p>Limited Inspection <input type="checkbox"/></p> <p>Maint. Needs</p> <p>Other</p> <p>Perform. Deficiencies</p> <p>None</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Estimated Construction Cost:</td><td style="text-align: right;">\$0.00</td></tr> <tr><td>Priority</td><td>None</td></tr> <tr><td></td><td>6-10 yrs</td></tr> <tr><td></td><td>1-5 yrs</td></tr> <tr><td></td><td>Within 1 yr</td></tr> <tr><td></td><td>Urgent</td></tr> </table>	Length:		Width:		Height:		Count:	5	Total Quantity:	5	Estimated Construction Cost:	\$0.00	Priority	None		6-10 yrs		1-5 yrs		Within 1 yr		Urgent
Element Group:	Accessories																																									
Element Name:	Signs																																									
Location:																																										
Material:	Steel																																									
Element Type:																																										
Environment:	Benign																																									
Protection System:																																										
Each		5																																								
Length:																																										
Width:																																										
Height:																																										
Count:	5																																									
Total Quantity:	5																																									
Estimated Construction Cost:	\$0.00																																									
Priority	None																																									
	6-10 yrs																																									
	1-5 yrs																																									
	Within 1 yr																																									
	Urgent																																									

Repair and Rehabilitation Required

Element Group	Element Name	Comments Repair/Rehabilitation	Priority (Years)	Estimated Cost
Barriers	Barrier/Parapet Walls	Repair concrete spalls.	1-5 yrs	\$5,000.00
Abutments	Abutment walls	Repair undermining.	1-5 yrs	\$10,000.00
			Total	\$15,000.00

Associated Work

	Comments	Estimated Cost
Approaches	<input type="text"/>	<input type="text" value="\$0.00"/>
Detours	<input type="text"/>	<input type="text" value="\$0.00"/>
Traffic Control	<input type="text"/>	<input type="text" value="\$0.00"/>
Utilities	<input type="text"/>	<input type="text" value="\$0.00"/>
Right of Way	<input type="text"/>	<input type="text" value="\$0.00"/>
Environmental Study	<input type="text"/>	<input type="text" value="\$0.00"/>
Other	<input type="text"/>	<input type="text" value="\$0.00"/>
Contingencies	<input type="text"/>	<input type="text" value="\$0.00"/>
Total Estimated Const. Cost		<input type="text" value="\$15,000.00"/>

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



Roadway looking North



East parapet wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



Potholes at South approach



West parapet wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



Spall at Southwest



Spall at Northwest

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



Northwest wing wall (Typ.)



West elevation

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



Bearing (Typ.)



Soffit

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



South abutment



Undermining of South abutment

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR7



North abutment



East elevation

Inventory Data

Structure Name	Black Creek Road Culvert		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Black Creek Road		
Structure Location	500m west of HWY 11		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	Not Cons		
Road Class:	Arterial		
MTO Region	Northern		
MTO District	Huntsville		
Old County	Parry Sound		
Geographic Twp	Township of Strong		
Structure Type	Rectangular Culvert		
Total Deck Length	<input type="text" value="6.2"/> (m)	Posted Speed	<input type="text" value="80"/>
Overall Str Width	<input type="text" value="42.1"/> (m)	No of Lanes	<input type="text" value="2"/>
Total Deck Area	<input type="text" value="261.02"/> (sq. m)	AADT	<input type="text" value="0"/>
Roadway Width	<input type="text" value="7.5"/> (m)	% Trucks	<input type="text" value="0"/>
Span Lengths	<input type="text" value="6.20"/> (m)		
		Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
		Detour Length Around Bridge	<input type="text"/> (km)
		Fill on Structure	<input type="text" value="0.6"/> (m)
		Skew Angle	<input type="text" value="30"/> (Degrees)
		Direction of Structure	<input type="text" value="North/South"/>
		No of Spans	<input type="text" value="1"/>

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018

Temperature: 21° C

Inspected By: D.M. Wills Associates Ltd.

Inspector: Ghassan Zanzoul, P. Eng.

Others in Party: Michael McDonnell

Equipment Used: Camera, tape measure.

Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 75

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 01 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 02 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 03 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 04 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 05 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data

Element Group:	Barriers				
Element Name:	Railing Systems				
Location:	North				
Material:					
Element Type:	Wood post and 3 cable				
Environment:	Benign				
Protection System:					
Condition Data:	Units	Exc	Good	Fair	Poor
	m		100		

Length:	
Width:	
Height:	
Count:	
Total Quantity:	100
Limited Inspection	<input type="checkbox"/>

Maint. Needs	None
Perform. Deficiencies	None
Estimated Construction Cost:	\$0.00
Priority	None
	6-10 yrs
	1-5 yrs
	Within 1 yr
	Urgent

Comments

Recommended Work

Element Group:	Embankments & Streams				
Element Name:	Streams and Waterways				
Location:	Under Bridge				
Material:					
Element Type:					
Environment:	Benign				
Protection System:	None				
Condition Data:	Units	Exc	Good	Fair	Poor
	%		100		

Length:	
Width:	
Height:	
Count:	1
Total Quantity:	1
Limited Inspection	<input type="checkbox"/>

Maint. Needs	None
Perform. Deficiencies	None
Estimated Construction Cost:	\$0.00
Priority	None
	6-10 yrs
	1-5 yrs
	Within 1 yr
	Urgent

Comments

Recommended Work

Element Group:	Embankments & Streams				
Element Name:	Embankments				
Location:	All				
Material:					
Element Type:					
Environment:	Benign				
Protection System:	None				
Condition Data:	Units	Exc	Good	Fair	Poor
	Each		4		

Length:	
Width:	
Height:	
Count:	4
Total Quantity:	4
Limited Inspection	<input type="checkbox"/>

Maint. Needs	None
Perform. Deficiencies	None
Estimated Construction Cost:	\$0.00
Priority	None
	6-10 yrs
	1-5 yrs
	Within 1 yr
	Urgent

Comments

Recommended Work

Municipal Structure Inspection Form

STRUCTURE ID

BR8

Element Group:	Culverts				Length:	5.5	
Element Name:	Barrels				Width:	42.1	
Location:					Height:	3	
Material:	Precast concrete				Count:	1	
Element Type:	Box				Total Quantity:	694.65	
Environment:	Benign				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		694.65			None	
Comments	Water level too high.					Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Associated Work		
	Comments	Estimated Cost
Approaches		\$0.00
Detours		\$0.00
Traffic Control		\$0.00
Utilities		\$0.00
Right of Way		\$0.00
Environmental Study		\$0.00
Other		\$0.00
Contingencies		\$0.00
Total Estimated Const. Cost		\$0.00

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR8



Roadway Looking West



North inlet

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR8



Barrel looking South



Top of culvert at North end

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR8



South end (Outlet)



Barrel looking South

Inventory Data

Structure Name	Rodeo Road Culvert		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Non-navig water"/>
Road Name	Rodeo Road		
Structure Location	South of HWY 124		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	Not Cons		
Road Class:	Local		
MTO Region	Northern		
MTO District	Huntsville		
Old County	Parry Sound		
Geographic Twp	Township of Strong		
Structure Type	Arch Culvert		
Total Deck Length	<input type="text" value="3.3"/>	(m)	Posted Speed <input type="text" value="80"/>
Overall Str Width	<input type="text" value="22"/>	(m)	No of Lanes <input type="text" value="2"/>
Total Deck Area	<input type="text" value="72.6"/>	(sq. m)	AADT <input type="text" value="0"/>
Roadway Width	<input type="text" value="7"/>	(m)	% Trucks <input type="text" value="0"/>
Span Lengths	<input type="text" value="3.3"/> (m)		
			Special Routes: Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
			Detour Length Around Bridge <input type="text"/> (km)
			Fill on Structure <input type="text" value="0.6"/> (m)
			Skew Angle <input type="text" value="0"/> (Degrees)
			Direction of Structure <input type="text" value="East/West"/>
			No of Spans <input type="text" value="1"/>

Historical Data

Year Built:	<input type="text" value="2015"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018 Temperature: 21° C
 Inspected By: D.M. Wills Associates Ltd.
 Inspector: Ghassan Zanzoul, P. Eng.
 Others in Party: Michael McDonnell
 Equipment Used: Camera, tape measure.
 Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 75

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Municipal Structure Inspection Form

STRUCTURE ID BR11

Element Data

Element Group: Culverts
 Element Name: Barrels
 Location:
 Material: Steel
 Element Type: Pipe Arch
 Environment: Benign
 Protection System: Other

Length: 22
 Width: 3.3
 Height: 2.08
 Count: 1
 Total Quantity: 189.42
 Limited Inspection

Condition Data:	Units	Exc	Good	Fair	Poor
	Sq. m		189.42		

Comments

Recommended Work

Maint. Needs: None
 Perform. Deficiencies: None
 Estimated Construction Cost: \$0.00
 Priority: None
 6-10 yrs
 1-5 yrs
 Within 1 yr
 Urgent

Element Group: Embankments & Streams
 Element Name: Streams and Waterways
 Location: Under Bridge
 Material:
 Element Type:
 Environment: Benign
 Protection System: None

Length:
 Width:
 Height:
 Count: 1
 Total Quantity: 1
 Limited Inspection

Condition Data:	Units	Exc	Good	Fair	Poor
	%		100		

Comments

Recommended Work

Maint. Needs: None
 Perform. Deficiencies: None
 Estimated Construction Cost: \$0.00
 Priority: None
 6-10 yrs
 1-5 yrs
 Within 1 yr
 Urgent

Element Group: Embankments & Streams
 Element Name: Embankments
 Location: All
 Material:
 Element Type:
 Environment: Benign
 Protection System: None

Length:
 Width:
 Height:
 Count: 2
 Total Quantity: 2
 Limited Inspection

Condition Data:	Units	Exc	Good	Fair	Poor
	Each		2		

Comments: Minor erosion at Southeast.

Recommended Work

Maint. Needs: None
 Perform. Deficiencies: None
 Estimated Construction Cost: \$0.00
 Priority: None
 6-10 yrs
 1-5 yrs
 Within 1 yr
 Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR11

Element Group:	Approaches				Length:	15.3	
Element Name:	Wearing surface				Width:	10	
Location:	Each End				Height:		
Material:	Gravel				Count:	2	
Element Type:					Total Quantity:	306	
Environment:	Severe				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		306			None	
Comments	Minor erosion at Southeast.					Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
							6-10 yrs
							1-5 yrs
							Within 1 yr
							Urgent

Associated Work

	Comments	Estimated Cost
Approaches		\$0.00
Detours		\$0.00
Traffic Control		\$0.00
Utilities		\$0.00
Right of Way		\$0.00
Environmental Study		\$0.00
Other		\$0.00
Contingencies		\$0.00
Total Estimated Const. Cost		\$0.00

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR11



Roadway looking North



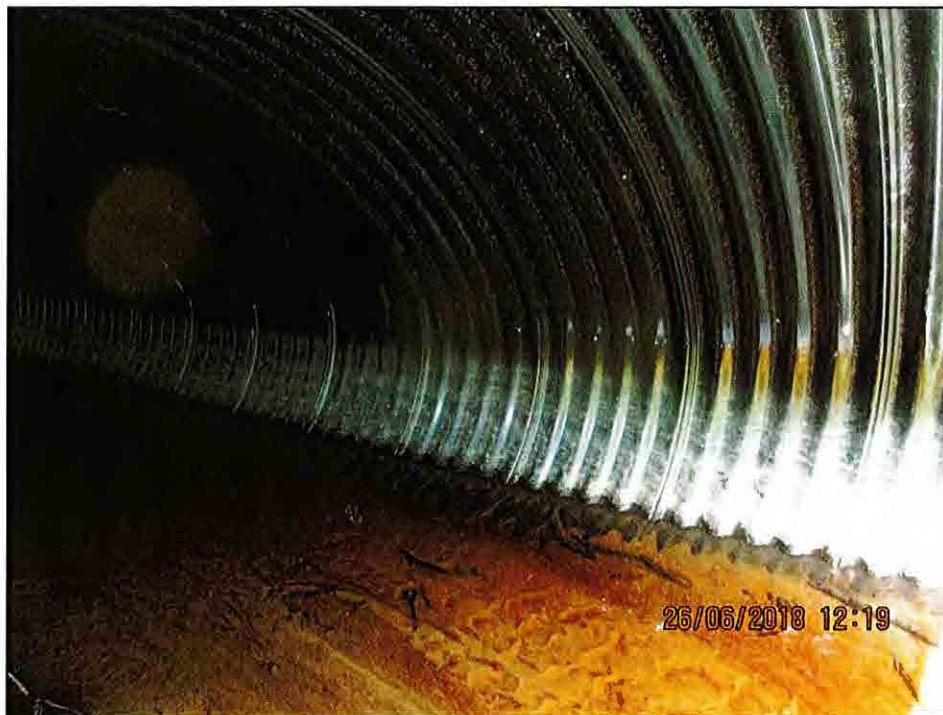
Minor erosion of embankment at Southeast

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR11



Barrel looking West



Barrel wall (Typ.)

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR11



Outlet (East end)



Inlet (West end)

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR11



Barrel looking East

Inventory Data

Structure Name	Rodeo Road Bridge		
Main Hwy/Road #	<input type="text"/>	On <input checked="" type="checkbox"/> Under <input type="checkbox"/>	Crossing Type <input type="text" value="Navig water"/>
Road Name	Rodeo Road		
Structure Location	1km south of Black Creek Road		
Latitude	<input type="text"/>	Longitude	<input type="text"/>
Owner(s)	Township of Strong		
Heritage Designation	Not Cons		
Road Class:	Local		
MTO Region	Northern		
MTO District	Huntsville		
Old County	Parry Sound		
Geographic Twp	Township of Strong		
Structure Type	Rigid Frame, Vertical legs		
Total Deck Length	<input type="text" value="16"/>	(m)	Posted Speed <input type="text" value="80"/>
Overall Str Width	<input type="text"/>	(m)	No of Lanes <input type="text" value="2"/>
Total Deck Area	<input type="text"/>	(sq. m)	AADT <input type="text" value="0"/>
Roadway Width	<input type="text" value="6"/>	(m)	% Trucks <input type="text" value="0"/>
Span Lengths	<input type="text" value="1.8"/> (m)		
			Special Routes: Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
			Detour Length Around Bridge <input type="text"/> (km)
			Fill on Structure <input type="text" value="2.7"/> (m)
			Skew Angle <input type="text" value="0"/> (Degrees)
			Direction of Structure <input type="text" value="East/West"/>
			No of Spans <input type="text" value="1"/>

Historical Data

Year Built:	<input type="text"/>	Last Biennial Inspection:	<input type="text" value="11/5/2016"/>
Current Load Limit:	<input type="text"/> (tonnes)	Last BridgeMaster Inspection:	<input type="text"/>
Load Limit By-Law #:	<input type="text"/>	Last Evaluation:	<input type="text"/>
By-Law Expiry Date:	<input type="text"/>	Last Underwater Inspection:	<input type="text"/>
Min Vertical Clearance:	<input type="text"/> (m)	Last Condition Survey:	<input type="text"/>
Rehab History: (Date/description)			

Field Inspection Information

Date of Inspection: 6/26/2018 Temperature: 21° C
 Inspected By: D.M. Wills Associates Ltd.
 Inspector: Ghassan Zanzoul, P. Eng.
 Others in Party: Michael McDonnell
 Equipment Used: Camera, tape measure.
 Weather: Sunny

Additional Investigations Required

	Priority	Estimated Cost
Detailed Deck Condition Survey:	<input type="text"/>	<input type="text"/>
DART Survey	<input type="text"/>	<input type="text"/>
Detailed Coating Condition Survey:	<input type="text"/>	<input type="text"/>
Underwater Investigation:	<input type="text"/>	<input type="text"/>
Fatigue Investigation:	<input type="text"/>	<input type="text"/>
Seismic Investigation:	<input type="text"/>	<input type="text"/>
Structure Evaluation:	<input type="text"/>	<input type="text"/>
Load Posting: Estimated Load	<input type="text"/>	<input type="text"/>
	Total Cost	<input type="text"/>
Next Date Inspection:	<input type="text" value="6/26/2020"/>	

BCI 58.93

Special Notes:

Suspected Performance Deficiencies

- | | | |
|---|--|------------------------------|
| 00 None | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 01 Load carrying capacity | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 02 Excessive deformations (deflections rotations) | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 03 Continuing settlement | 09 Rough riding surface | 15 Unstable embankments |
| 04 Continuing movements | 10 Surface ponding | 16 Other |
| 05 Seized bearings | 11 Deck drainage | |

Maintenance Needs

- | | | |
|--------------------------------------|---------------------------------|-------------------------------|
| 01 Lift and Swing Bridge Maintenance | 07 Repair to Structural Steel | 13 Erosion Control at Bridges |
| 02 Bridge Cleaning | 08 Repair of Bridge Concrete | 14 Concrete Sealing |
| 03 Bridge Handrail Maintenance | 09 Repair of Bridge Timber | 15 Rout and Seal |
| 04 Painting Steel Bridge Structures | 10 Bailey Bridges - Maintenance | 16 Bridge deck Drainage |
| 05 Bridge Deck Joint Repair | 11 Animal/Pest Control | 17 Other |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | |

Element Data							
Element Group:	Abutments				Length:		
Element Name:	Abutment walls				Width:	16	
Location:	Each End				Height:	2	
Material:	Masonry				Count:	2	
Element Type:					Total Quantity:	64	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		24.4	10	10	Undermining of foundation	
Comments	Severe undermining under all walls.					Estimated Construction Cost:	\$90,400.00
Recommended Work						Priority	None
	Remove. Culvert to be replaced.					6-10 yrs	1-5 yrs
						Within 1 yr	Urgent

Element Group:	Abutments				Length:	3	
Element Name:	Wingwalls				Width:		
Location:					Height:	2	
Material:	Masonry				Count:	4	
Element Type:					Total Quantity:	24	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m			20	4	Undermining of foundation	
Comments	Severe undermining under Northeast wall. Loss of mortar on Northeast side. Undermining noted under both West wingwalls.					Estimated Construction Cost:	\$45,200.00
Recommended Work						Priority	None
	Remove. Culvert to be replaced.					6-10 yrs	1-5 yrs
						Within 1 yr	Urgent

Element Group:	Approaches				Length:	12	
Element Name:	Wearing surface				Width:	6	
Location:	Each End				Height:	0.08	
Material:	Gravel				Count:	2	
Element Type:					Total Quantity:	144	
Environment:	Severe				Limited Inspection	<input checked="" type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor	Perform. Deficiencies	
	Sq. m		144			None	
Comments						Estimated Construction Cost:	\$0.00
Recommended Work						Priority	None
						6-10 yrs	1-5 yrs
						Within 1 yr	Urgent

Municipal Structure Inspection Form

STRUCTURE ID BR12

Element Group:	Decks				Length:	16	
Element Name:	Soffit - Thick Slab				Width:	1.8	
Location:					Height:		
Material:	Masonry				Count:	1	
Element Type:					Total Quantity:	28.79	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:					Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor		
	Sq. m		96				
Comments							
Recommended Work	Remove. Culvert to be replaced.						
					Estimated Construction Cost:	\$56,500.00	
					Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent	

Element Group:	Embankments & Streams				Length:		
Element Name:	Streams and Waterways				Width:		
Location:	Under Bridge				Height:		
Material:					Count:	1	
Element Type:					Total Quantity:	1	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	None				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor		
	Each			1			
Comments							
Recommended Work							
					Estimated Construction Cost:	\$0.00	
					Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent	

Element Group:	Foundations				Length:	16	
Element Name:	Foundation (below ground level)				Width:		
Location:					Height:		
Material:					Count:	2	
Element Type:					Total Quantity:	32	
Environment:	Benign				Limited Inspection	<input type="checkbox"/>	
Protection System:	None				Maint. Needs	None	
Condition Data:	Units	Exc	Good	Fair	Poor		
	m						
Comments	Severe undermining of footing. Culvert too small to allow workers due to confined space.						
Recommended Work	Replace culvert.						
					Estimated Construction Cost:	\$56,500.00	
					Priority	None 6-10 yrs 1-5 yrs Within 1 yr Urgent	

Repair and Rehabilitation Required

Element Group	Element Name	Comments Repair/Rehabilitation	Priority (Years)	Estimated Cost
Foundations	Foundation (below ground le	Replace culvert.	1-5 yrs	\$56,500.00
Decks	Soffit - Thick Slab	Remove. Culvert to be replaced.	1-5 yrs	\$56,500.00
Abutments	Wingwalls	Remove. Culvert to be replaced.	1-5 yrs	\$45,200.00
Abutments	Abutment walls	Remove. Culvert to be replaced.	1-5 yrs	\$90,400.00
			Total	\$248,600.00

Associated Work

	Comments	Estimated Cost
Approaches	Excavation and Road Reconstruction	\$45,200.00
Detours		\$0.00
Traffic Control		\$0.00
Utilities		\$0.00
Right of Way	Environmental Controls and Dewatering	\$28,250.00
Environmental Study		\$0.00
Other	Eng. Design and Contract Administration	\$56,500.00
Contingencies	Contingency Allowance	\$45,200.00
Total Estimated Const. Cost		\$423,750.00

Justification

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR12



Roadway looking North



Partial failure at Northeast wing wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR12



Barrel looking West



Partial failure of Northeast wing wall

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR12



Barrel looking East



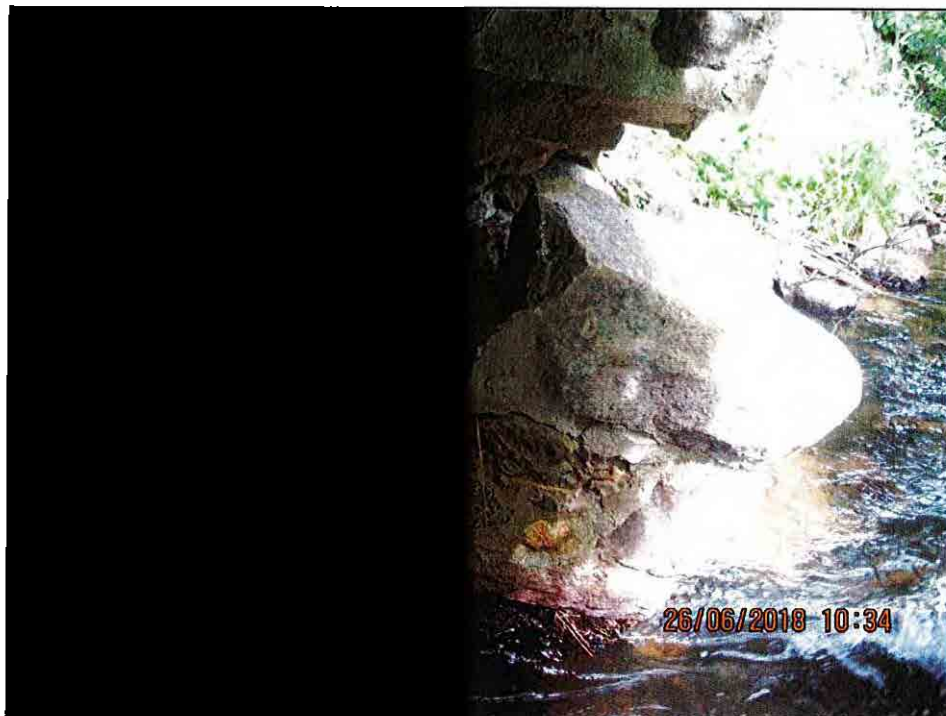
Scouring along the abutment walls

SITE PHOTOGRAPHS

STRUCTURE NUMBER: BR12



Scouring along the abutment walls



Partial failure at Northeast wing wall

Appendix E

Copies of Current By-Laws

THE CORPORATION OF THE TOWNSHIP OF STRONG

BY-LAW NO. 2010-041

**Being a by-law to restrict the weight of vehicles
Passing over the Bridges under the Township of Strong Jurisdiction**

WHEREAS Section 123(2) of the Highway Traffic Act, Chapter H8, R.S.O. 1990, provides that the Municipal Corporation or other authority having jurisdiction over the Bridges may be By-law limit the gross weight of any vehicle or any class thereof passing over the Bridge;

AND WHEREAS the Corporation of the Township of Strong deems it necessary and expedient to limit the weight of vehicles passing over the Bridges in the Township of Strong;

NOW THEREFORE the Council of the Corporation of the Township of Strong hereby enacts the following:

No Vehicle or combination of vehicles or any class thereof whether empty or loaded, shall be operated over the Bridge in the Township of Strong in the following location with weight in excess of:

**BROOKSIDE ROAD – BRIDGE CON. 7, LOT 7 20 TONNES
PART LOT 6.**

1. Any person violating the provisions of the By-law shall be subject to the penalties provided in Section 124 of the Highway Traffic Act.
2. This By-law shall not become effective until the Limit of Weight Signs have been posted in a conspicuous place at each end of the Bridge.

READ A FIRST AND SECOND TIME THIS 26TH DAY OF OCTOBER 2010

AS READ A THIRD TIME AND FINALLY PASSED IN OPEN COUNCIL ON A MOTION BY: Merlyn Snow AND SECONDED BY: J. D. Newstead THIS 26TH DAY OF OCTOBER 2010.

MAYOR, STEPHEN RAWN

**CLERK/TREASURER
LINDA MAURER**

Seal

**Certified to be a true copy
Of By-law 2010-041 passed
In open council this 26th
Day of October 2010.**