

ROCKFORD BRIDGE

Site Number 010047

CONCESSION 11 ROAD, TOWNSEND

2.17 km W of County Road 70

Inventory Data:	
Structure Name	<input type="text" value="Rockford Bridge"/>
Main Hwy/Road #	<input type="text" value="CON 11 TOWNSEND"/> <input checked="" type="checkbox"/> On <input type="checkbox"/> Under Crossing Type: <input type="checkbox"/> Rail <input type="checkbox"/> Road <input type="checkbox"/> Navig. Water <input type="checkbox"/> Ped. <input type="checkbox"/> Other <input checked="" type="checkbox"/> Non-Navig. Water
Hwy/Road Name	<input type="text" value="CONCESSION 11, TOWNSEND"/>
Structure Location	<input type="text" value="2.17 km W of County Road 70"/>
Latitude	<input n"="" type="text" value="42d 55' 03"/>
Longitude	<input type="text" value="80d 10' 10" w"=""/>
Owner(s)	<input type="text" value="Norfolk County"/> Heritage Designation: <input checked="" type="checkbox"/> Not Cons. <input type="checkbox"/> Cons./not App. <input type="checkbox"/> List/not Design. <input type="checkbox"/> Desig./not List <input type="checkbox"/> Desig. & List
MTO Region	<input type="text" value="30"/> Southwestern Road Class: <input type="checkbox"/> Freeway <input type="checkbox"/> Arterial <input type="checkbox"/> Collector <input checked="" type="checkbox"/> Local
MTO District	<input type="text" value="31"/> London / Stratford Posted Speed <input type="text" value="80"/> No. of Lanes <input type="text" value="2"/>
Old County	<input type="text" value="20"/> Norfolk AADT <input type="text" value="304"/> % Trucks <input type="text"/>
Geographic Twp.	<input type="text" value="125"/> Townsend Inspection Route Sequence <input type="text"/>
Structure Type	<input type="text" value="6"/> I-Beam or Girders Interchange Number <input type="text"/>
Total Deck Length	<input type="text" value="14"/> (m)
Overall Str. Width	<input type="text" value="10"/> (m)
Total Deck Area	<input type="text" value="140"/> (m ²)
Roadway Width	<input type="text" value="9"/> (m)
Skew Angle	<input type="text"/> (Degrees)
No. of Spans	<input type="text" value="1"/>
Span Length	<input type="text" value="12"/> (m)
	Interchange Structure Number <input type="text"/> Min. Vertical Clearance <input type="text" value="1.9"/> (m) Special Route: <input type="checkbox"/> Truck <input type="checkbox"/> Emergency <input checked="" type="checkbox"/> School <input type="checkbox"/> Bicycle Detour Length Around Bridge <input type="text" value="10"/> (km) Direction of Structure <input type="text" value="East / West"/> Fill on Structure <input type="text" value="0"/> (m)

Historical Data:			
Year Built	<input type="text" value="2012"/>	Year of Last Major Rehab.	<input type="text"/>
Last OSIM Inspection	<input type="text" value="June 9, 2014"/>	Last Evaluation	<input type="text"/>
Last Enhanced OSIM Inspection	<input type="text"/>	Current Load Limit	<input type="text" value="/ /"/> (tonnes)
Enhanced Access Equipment (ladder, boat, lift, etc.)	<input type="text"/>	Load Limit By-Law #	<input type="text"/>
Last Underwater Inspection	<input type="text"/>	By-Law Expiry Date	<input type="text"/>
Last Condition Survey	<input type="text"/>		
Rehab History: (Date/description) Constructed by Engineered Concrete			

Ontario Structure Inspection Manual - Inspection Form

Site Number:

Field Inspection Information:	
Date of Inspection:	July 7, 2016
Type of Inspection:	<input checked="" type="checkbox"/> OSIM <input type="checkbox"/> Enhanced OSIM
Inspector:	Ben Buchwald M.Eng., EIT, G. Douglas Vallee Ltd.
Others in Party:	N/A
Access Equipment Used:	Hammer, Binoculars, Measuring Tape, Camera, etc.
Weather:	Cloudy
Temperature:	23 °C

Additional Investigation Required:	Priority		
	None	Normal	Urgent
Material Condition Survey			
<input checked="" type="checkbox"/> Detailed Deck Condition Survey:	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Non-destructive Delamination Survey of Asphalt-Covered Deck:	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Concrete Substructure Condition Survey:	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Detailed Coating Condition Survey:	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Detailed Timber Investigation	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Post-Tensioned Strand Investigation	<input checked="" type="checkbox"/>		
Underwater Investigation:	<input checked="" type="checkbox"/>		
Fatigue Investigation:	<input checked="" type="checkbox"/>		
Seismic Investigation:	<input checked="" type="checkbox"/>		
Structure Evaluation:	<input checked="" type="checkbox"/>		
Monitoring			
<input checked="" type="checkbox"/> Monitoring of Deformations, Settlements and Movements:	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Monitoring Crack Widths:	<input checked="" type="checkbox"/>		
Investigation Notes: Structure is in poor condition and is need of evaluation. Scheduled for replacement in summer of 2012.			

Overall Structure Notes:	
Recommended Work on Structure:	<input type="checkbox"/> None <input type="checkbox"/> Minor Rehab. <input type="checkbox"/> Replace <input checked="" type="checkbox"/> Maintenance <input type="checkbox"/> Major Rehab.
Timing of Recommended Work:	<input type="checkbox"/> 1 to 5 years <input type="checkbox"/> 6 to 10 years
Overall Comments:	
Date of next Inspection:	July 1, 2018

Suspected Performance Deficiencies

- | | | |
|--|---|-------------------------------------|
| 01 Load carrying capacity | 07 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 02 Excessive deformations (deflections & rotations) | 08 Jammed expansion joint | 13 Flooding/channel blockage |
| 03 Continuing settlement | 09 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 04 Continuing movements | 10 Rough riding surface | 15 Unstable embankments |
| 05 Seized bearings | 11 Deck drainage | 16 Other |

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 Scaling (Loose concrete or ACR steel) |
| 06 Bridge bearing maintenance | 12 Bridge surface repair | 18 Other |

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Element Data

Element Group:		400 Barriers				Length:	23.5
Element Name:		402 Railing System				Width:	
Location:						Height:	1.1
Material:		4 Cast-in-place Concrete				Count:	2
Element Type:		Concrete Posts and Bars				Total Quantity:	51.7 sq.m
Environment:		Severe				Limited Inspection:	
Protection System:		Unknown				Perform. Deficiencies	
Condition Data:	Units	Exc.	Good	Fair	Poor		
	sq.m	51.7	0	0	0		
Comments: Minor impact damage on south barrier wall.							
Recommended Work:				Rehab <input type="checkbox"/> Replace <input type="checkbox"/>		Maintenance Needs:	
Timing:				Urgent <input type="checkbox"/> < 1yr <input type="checkbox"/> 1 - 5 yr <input type="checkbox"/> 6 - 10 yr <input type="checkbox"/>		<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year	

Element Group:		500 Beams/MLE's				Length:	13
Element Name:		501 Girders				Width:	1.2
Location:		Below Deck				Height:	0.6
Material:		12 Precast Concrete				Count:	8
Element Type:						Total Quantity:	124 sq.m
Environment:		Moderate				Limited Inspection:	
Protection System:		Unknown				Perform. Deficiencies	
Condition Data:	Units	Exc.	Good	Fair	Poor		
	sq.m	122.5	0	0	0		
Comments:							
Recommended Work:				Rehab <input type="checkbox"/> Replace <input type="checkbox"/>		Maintenance Needs:	
Timing:				Urgent <input type="checkbox"/> < 1yr <input type="checkbox"/> 1 - 5 yr <input type="checkbox"/> 6 - 10 yr <input type="checkbox"/>		<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year	

Element Group:		100 Decks				Length:	23.5
Element Name:		103 Soffit Thin Slab				Width:	
Location:		North and South Fascia				Height:	0.6
Material:		4 Cast-in-place Concrete				Count:	2
Element Type:						Total Quantity:	28.2 sq.m
Environment:		Severe				Limited Inspection:	
Protection System:		Unknown				Perform. Deficiencies	
Condition Data:	Units	Exc.	Good	Fair	Poor		
	sq.m	28.2	0	0	0		
Comments: Visible hairline cracking on fascia. Broken asphalt drain at southeast quadrant.							
Recommended Work:				Rehab <input type="checkbox"/> Replace <input type="checkbox"/>		Maintenance Needs: Bridge Cleaning	
Timing:				Urgent <input type="checkbox"/> < 1yr <input type="checkbox"/> 1 - 5 yr <input type="checkbox"/> 6 - 10 yr <input type="checkbox"/>		<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input checked="" type="checkbox"/> 2 year	

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Element Data

Element Group:	100 Decks	Length:	14		
Element Name:	101 Wearing Surface	Width:	9		
Location:	Top of Deck	Height:			
Material:	2 Asphalt	Count:	1		
Element Type:		Total Quantity:	126 sq.m		
Environment:	Severe	Limited Inspection:			
Protection System:	Unknown	Perform. Deficiencies			
Condition Data:	Units	Exc.	Good	Fair	Poor
	sq.m	126	0	0	0
Comments:					
Recommended Work:			Maintenance Needs:		
Rehab <input type="checkbox"/> Replace <input type="checkbox"/> Timing: Urgent <input type="checkbox"/> < 1yr <input type="checkbox"/> 1 - 5 yr <input type="checkbox"/> 6 - 10 yr <input type="checkbox"/>			<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year		

Element Group:	1600 Approaches	Length:	6		
Element Name:	1601 Wearing Surface (Approaches)	Width:	9		
Location:	East and West	Height:			
Material:	10 Other	Count:	2		
Element Type:		Total Quantity:	108 sq.m		
Environment:	Severe	Limited Inspection:			
Protection System:	Unknown	Perform. Deficiencies			
Condition Data:	Units	Exc.	Good	Fair	Poor
	sq.m	106.5	0	1.5	0
Comments:					
Centerline crack on East approach wearing surface.					
Recommended Work:			Maintenance Needs:		
Rehab <input type="checkbox"/> Replace <input type="checkbox"/> Timing: Urgent <input type="checkbox"/> < 1yr <input type="checkbox"/> 1 - 5 yr <input type="checkbox"/> 6 - 10 yr <input type="checkbox"/>			Rout and Seal <input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input checked="" type="checkbox"/> 2 year		



Figure 1 East Approach



Figure 2 West Approach



Figure 3 North Profile



Figure 4 South Profile



Figure 5 Upstream



Figure 6 Downstream



Figure 7 East Abutment



Figure 8 West Abutment



Figure 9 Soffit



Figure 10 Typical Hairline Crack in Fascia



Figure 11 Centreline Longitudinal Crack in Wearing Surface



Figure 12 Broken Asphalt Drain at Southeast Quadrant



Figure 13 Structure Number and Date