

VENISON CREEK BRIDGE

Site Number 986001

COUNTY ROAD 60, CONCESSION 5 SOUTH, SOUTH WALSINGHAM

2.8 km W of County Highway 59

Ontario Structure Inspection Manual - Inspection Form

Site Number:

Inventory Data:			
Structure Name <input type="text" value="Venison Creek Bridge"/>			
Main Hwy/Road # <input type="text" value="NORFOLK COUNTY RD 60"/>	<input checked="" type="checkbox"/> On <input type="checkbox"/> Under	Crossing Type: <input type="checkbox"/> Rail <input type="checkbox"/> Ped. <input type="checkbox"/> Road <input type="checkbox"/> Other <input type="checkbox"/> Navig. Water <input checked="" type="checkbox"/> Non-Navig. Water	
Hwy/Road Name <input type="text" value="COUNTY ROAD 60, CONCESSION 5 SOUTH, SOUTH WALSINGHAM"/>			
Structure Location <input type="text" value="2.8 km W of County Highway 59"/>			
Latitude <input n"="" type="text" value="42d 39' 12"/>	Longitude <input type="text" value="80d 32' 55.5" 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"/> Design./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="131"/>	% Trucks <input type="text"/>	
Geographic Twp. <input type="text" value="585"/> South Walsingham	Inspection Route Sequence <input type="text"/>		
Structure Type <input type="text" value="15"/> Rigid Frame, Vertical Legs	Interchange Number <input type="text"/>		
Total Deck Length <input type="text" value="6.7"/> (m)	Interchange Structure Number <input type="text"/>		
Overall Str. Width <input type="text" value="19.5"/> (m)	Min. Vertical Clearance <input type="text" value="3.1"/> (m)		
Total Deck Area <input type="text" value="130.7"/> (m ²)	Special Route <input type="checkbox"/> Truck <input type="checkbox"/> Emergency <input checked="" type="checkbox"/> School <input type="checkbox"/> Bicycle		
Roadway Width <input type="text" value="7"/> (m)	Detour Length Around Bridge <input type="text" value="10"/> (km)		
Skew Angle <input type="text"/> (Degrees)	Direction of Structure <input type="text" value="North / South"/>		
No. of Spans <input type="text" value="1"/>	Fill on Structure <input type="text" value="0.5"/> (m)		
Span Length <input type="text" value="6.1"/> (m)			

Historical Data:			
Year Built <input type="text" value="1958"/>	Year of Last Major Rehab. <input type="text"/>		
Last OSIM Inspection <input type="text" value="July 2, 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)			

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Field Inspection Information:		
Date of Inspection:	July 12, 2016	Type of Inspection: <input checked="" type="checkbox"/> OSIM <input type="checkbox"/> Enhanced OSIM
Inspector:	Matt Alderson, G. Douglas Vallee Ltd.	
Others in Party:	N/A	
Access Equipment Used:	Hammer, Binoculars, Measuring Tape, Camera, etc.	
Weather:	Sunny	
Temperature:	31 °C	

Additional Investigation Required:	Priority		
	None	Normal	Urgent
Material Condition Survey			
<input checked="" type="checkbox"/> Detailed Deck Condition Survey:		X	
<input checked="" type="checkbox"/> Non-destructive Delamination Survey of Asphalt-Covered Deck:	X		
<input checked="" type="checkbox"/> Concrete Substructure Condition Survey:	X		
<input checked="" type="checkbox"/> Detailed Coating Condition Survey:	X		
<input checked="" type="checkbox"/> Detailed Timber Investigation	X		
<input checked="" type="checkbox"/> Post-Tensioned Strand Investigation	X		
Underwater Investigation:	X		
Fatigue Investigation:	X		
Seismic Investigation:	X		
Structure Evaluation:	X		
Monitoring			
<input checked="" type="checkbox"/> Monitoring of Deformations, Settlements and Movements:	X		
<input checked="" type="checkbox"/> Monitoring Crack Widths:	X		
Investigation Notes: DCS recommended to assess salt damage to top.			

Overall Structure Notes:	
Recommended Work on Structure:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Minor Rehab. <input type="checkbox"/> Replace <input type="checkbox"/> Maintenance <input type="checkbox"/> Major Rehab.
Timing of Recommended Work:	<input type="checkbox"/> 1 to 5 years <input checked="" type="checkbox"/> 6 to 10 years
Overall Comments:	South fascia and slope protection / drainage improvements.
Date of next Inspection:	July 12, 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:		1200 Culverts				Length:		19.5
Element Name:		1203 Barrels				Width:		6.1
Location:		Inside				Height:		3
Material:						Count:		1
Element Type:		Frames - Rigid				Total Quantity:		356.9 sq.m
Environment:		Moderate				Limited Inspection:		
Protection System:		Unknown				Perform. Deficiencies		
Condition	Units	Exc.	Good	Fair	Poor			
Data:	sq.m	0	356.85	0	0			
Comments: Walls, fascia, under deck. Deck top not visible.								
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:		1200 Culverts				Length:		
Element Name:		1201 Inlet Components				Width:		6.1
Location:		North End				Height:		3
Material:						Count:		1
Element Type:						Total Quantity:		18.3 sq.m
Environment:		Moderate				Limited Inspection:		
Protection System:		Unknown				Perform. Deficiencies		
Condition	Units	Exc.	Good	Fair	Poor			
Data:	sq.m	0	17.8	0.5	0			
Comments: Minor scaling on fascia.								
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:		1200 Culverts				Length:		
Element Name:		1202 Outlet Components				Width:		6.1
Location:		South End				Height:		3.1
Material:		4 Cast-in-place Concrete				Count:		1
Element Type:						Total Quantity:		18.9 sq.m
Environment:		Moderate				Limited Inspection:		
Protection System:		Unknown				Perform. Deficiencies		
Condition	Units	Exc.	Good	Fair	Poor			
Data:	sq.m	0	16.9	1	1			
Comments: Deterioration at SW corner including cracking and efflorescence. Cracks on South fascia.								
Recommended Work: Rehab <input type="checkbox"/> Replace <input type="checkbox"/>				Maintenance Needs: Repair of Bridge Concrete				
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:	20
Element Name:		101 Wearing Surface				Width:	7
Location:		Top of Deck				Height:	
Material:		2 Asphalt				Count:	1
Element Type:						Total Quantity:	140 sq.m
Environment:		Severe				Limited Inspection:	
Protection System:		Deck Top				Perform. Deficiencies	
Condition Data:	Units	Exc.	Good	Fair	Poor	Unstable Embankments	
	sq.m	0	140	0	0		
Comments: Roadway fill slopes stable, however are eroding from road drainage. Road repaved since 2014 inspection. Asphalt in good condition.							
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:		1400 Embankments & Streams				Length:	
Element Name:		1402 Embankments				Width:	
Location:		Venison Creek				Height:	
Material:		Earth/Native Material				Count:	1
Element Type:						Total Quantity:	1.0 Each
Environment:						Limited Inspection:	
Protection System:		Unknown				Perform. Deficiencies	
Condition Data:	Units	Exc.	Good	Fair	Poor		
	Each	0	0	1	0		
Comments: Improve drainage. Clear Vegetation, add slope protection on banks. Overgrown.							
Recommended Work: Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/>				Maintenance Needs: Erosion Control at Bridges			
Timing: Urgent <input type="checkbox"/> < 1yr <input type="checkbox"/> 1 - 5 yr <input type="checkbox"/> 6 - 10 yr <input checked="" type="checkbox"/>				<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1 year <input type="checkbox"/> 2 year			

Element Group:		1300 Foundations				Length:	20
Element Name:		1301 Foundation (below ground level)				Width:	
Location:		Under East and West Walls				Height:	
Material:		4 Cast-in-place Concrete				Count:	2
Element Type:						Total Quantity:	40 m
Environment:		Moderate				Limited Inspection:	
Protection System:		Unknown				Perform. Deficiencies	
Condition Data:	Units	Exc.	Good	Fair	Poor		
	m	0	40	0	0		
Comments: Visible at Northwest corner.							
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			



Figure 1 East Approach



Figure 2 West Approach



Figure 3 North Profile, Inlet



Figure 4 Upstream



Figure 5 Downstream



Figure 6 Barrel, Looking North



Figure 7 Barrel, Looking South



Figure 8 Minor Deterioration on South Fascia



Figure 9 Scaling on Fascia



Figure 10 Staining on Culvert Walls



Figure 11 Damaged Handrail on South Culvert Top



Figure 12 New Asphalt Wearing Surface