



Summary Action Report

MTO Site Number: Unknown

Structure ID: D-0007

<u>Structure Name:</u>	Sideroad 3 Bridge	Bridge Condition Index (BCI): 34
<u>Road Name:</u>	Sideroad 3	
<u>Location:</u>	Lot 3/4 Concession 11, Derby	<u>Inspection Date:</u> May 31, 2024
<u>Structure Type:</u>	Concrete Rigid Frame	<u>Inspected By:</u> Jesse Borges, P.Eng.
<u>No. of Spans:</u>	Single Span	<u>Spans Lengths:</u> 6.3m
<u>Road Width:</u>	5.5m	<u>Overall Structure Width:</u> 6.3m
<u>Year of Construction:</u>	1925	<u>Current Load Limit:</u> Closed



Overall Comments:

The structure is in overall poor condition and has been closed to traffic since 2018. The wingwalls are experiencing wide shear cracking and outward rotation. The footings are exposed exhibiting severe deterioration and scouring. The west footing has experienced settlement and inward rotation. Abutment walls are in poor condition with multiple wide cracks noted. It is recommended that the bridge remain closed to traffic until the structure can be permanently removed or replaced.

Estimated Costs for Replacement or Removal					
Construction Project Type	Urgent, Within 1 Year	1 to 5 Years	6 to 10 Years	Contingencies, Associated Costs and Engineering	Total
Replacement		\$700,000		\$620,000	\$1,320,000
Removal		\$200,000		\$195,000	\$395,000



Inventory Data:					
Structure Name	Sideroad 3 Bridge				
Main Hwy/Road #		<input type="checkbox"/> On <input type="checkbox"/> Under	Crossing Type:	<input type="checkbox"/> Navig. Water <input checked="" type="checkbox"/> Non-Navig. Water <input type="checkbox"/> Rail <input type="checkbox"/> Road <input type="checkbox"/> Ped. <input type="checkbox"/> Other	
Hwy/Road Name	Derby Sideroad Rd. 3				
Structure Location	Lot 3/4 Concession 11, 1.5km East of Grey Bruce Line				
Latitude:	44.487545	Longitude:	-80.944299		
Owner(s):	The Township of Georgian Bluffs	Heritage Designation:	<input checked="" type="checkbox"/> Not Cons. <input type="checkbox"/> Cons./not App. <input type="checkbox"/> List/not Desig. <input type="checkbox"/> Desig./not List <input type="checkbox"/> Desig. & List		
MTO Region:	30	Road Class:	<input type="checkbox"/> Freeway <input type="checkbox"/> Arterial <input type="checkbox"/> Collector <input checked="" type="checkbox"/> Local		
MTO District:	33	Posted Speed:	80km/h	No. of Lanes:	2
Old County:	County of Grey	AADT:		% Trucks:	
Geographic Twp.:	Derby – 314	Inspection Route Sequence:			
Structure Type:	CIP Rigid Frame	Interchange No.:			
Total Deck Length:	6.0m	Interchange Structure No.:			
Overall Str. Width:	6.3m	Min Vertical Clearance:			
Total Deck Area:	37.8m ²	Special Routes:	<input type="checkbox"/> Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle		
Roadway Width:	5.5m	Detour Length Around Bridge:	9.1 km		
Skew Angle:	0°	Direction of Structure:	E-W		
No. of Spans:	1	Fill on Structure:			
Span Lengths:	3.6m				

Historical Data:			
Year Built:	1925	Year of Last Major Rehab:	Unknown
Last OSIM Inspection:	2022	Last Load Evaluation:	2010
Last Enhanced OSIM Inspection:	2014	Current Load Limit:	Closed
Enhanced Access Equipment (ladder, boat, lift, etc.):	None	Load Limit By-Law #:	N/A
Last Underwater Inspection:	N/A	By-Law Expiry Date:	N/A
Last Condition Survey:	Unknown		
Rehab History (Date and Description): Unknown.			



Field Inspection Information:			
Date of Inspection:	05/31/2024	Type of Inspection:	<input checked="" type="checkbox"/> OSIM <input type="checkbox"/> Enhanced OSIM
Inspector:	Jesse Borges, P.Eng.		
Others in Party:	David DeBoer, E.I.T.		
Access Equipment Used:	Hammer, Tape Measure, Camera		
Weather:	15°C - Sunny		

Additional Investigations Required:	Priority			Estimated Cost
	None	Normal	Urgent	
Material Condition Survey	X			
Detailed Deck Condition Survey:	X			
Non-destructive Delam. Survey of Asphalt-Covered Deck:	X			
Concrete Substructure Condition Survey:	X			
Detailed Coating Condition Survey:	X			
Detailed Timber Investigation	X			
Post-Tensioned Strand Investigation	X			
Underwater Investigation:	X			
Fatigue Investigation:	X			
Seismic Investigation:	X			
Structure Evaluation:	X			
Monitoring (deformations, settlements, movements, crack widths)	X			
Load Posting – Estimated Load			Total Cost	
Investigation Notes:				

Overall Structure Notes:	
Overall Comments:	The structure is in overall poor condition and has been closed to traffic since 2018. The wingwalls are experiencing wide shear cracking and outward rotation. The footings are exposed exhibiting severe deterioration and scouring. The west footing has experienced settlement and inward rotation. Abutment walls are in poor condition with multiple wide cracks noted. It is recommended that the bridge remain closed to traffic until the structure can be permanently removed or replaced.
Date of Next Inspection:	2026

Suspected Performance Deficiencies

- | | | |
|--|---|-------------------------------------|
| 01 Load carrying capacity | 06 Bearing not uniformly loaded/unstable | 12 Slippery surfaces |
| 02 Excessive deformations (deflections & rotations) | 07 Jammed expansion joint | 13 Flooding/channel blockage |
| 03 Continuing settlement | 08 Pedestrian/vehicular hazard | 14 Undermining of foundation |
| 04 Continuing movements | 09 Rough riding surface | 15 Unstable embankments |
| 05 Seized bearings | 10 Surface ponding | 16 Other |
| | 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 Scaling (Loose Concrete or ACR Steel) |
| 06 Bridge Bearing Maintenance | 12 Bridge Surface Repair | 18 Other |



Element Data

Element Group:	Abutments	Length:	
Element Name:	Abutment Walls	Width:	6.3m
Location:	Each Side	Height:	1.5m
Material:	CIP Concrete	Count:	2
Element Type:	Reinforced Concrete	Total Quantity:	18.9m ²
Environment:	Benign / Moderate / Severe	Limited Inspection	<input type="checkbox"/>
Protection System:			
Condition	Units	Exc.	Good
Data:	m ² / m / each / % / all		
			Fair
			Poor
			18.9
			Perform. Deficiencies
			None
Comments: Severe spalling on bottom 0.6m of west abutment for the entire length, up to 0.5m deep. Extreme section loss noted at the northwest corner. East abutment has severe spalling at the north corner. Wide cracking is noted on the north side of the walls on both the east and west side.			
Recommended Work:		Maintenance Needs:	None
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None		<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year	
Structure to be permanent removed or replaced.			

Element Group:	Abutments	Length:	1.4m
Element Name:	Wingwalls	Width:	
Location:	Each Quadrant	Height:	1.8m
Material:	CIP Concrete	Count:	4
Element Type:	Reinforced Concrete	Total Quantity:	10.1m ²
Environment:	Benign / Moderate / Severe	Limited Inspection	<input type="checkbox"/>
Protection System:			
Condition	Units	Exc.	Good
Data:	m ² / m / each / % / all		
			Fair
			Poor
			5.1
			5
			Perform. Deficiencies
			02
Comments: Severe shear cracking noted at the wingwall/abutment wall interface at all 4 corners of the structure. All of the wingwalls are rotating away from the structure.			
Recommended Work:		Maintenance Needs:	None
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None		<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year	
Structure to be permanent removed or replaced.			

Element Group:	Accessories	Length:	
Element Name:	Signs	Width:	
Location:	Each Quadrant	Height:	
Material:	Steel	Count:	7
Element Type:	Hazard & Load Limit Signs	Total Quantity:	7
Environment:	Benign / Moderate / Severe	Limited Inspection	<input type="checkbox"/>
Protection System:			
Condition	Units	Exc.	Good
Data:	m ² / m / each / % / all		
			Fair
			Poor
			7
			Perform. Deficiencies
			None
Comments: Signs appear to be in good condition.			
Recommended Work:		Maintenance Needs:	None
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None		<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year	
Structure to be permanent removed or replaced.			



Element Data

Element Group:		Approaches		Length:		5.5m							
Element Name:		Wearing Surface		Width:		5.0m							
Location:		Each Side		Height:									
Material:		Gravel		Count:		2							
Element Type:				Total Quantity:		55m ²							
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>									
Protection System:							Perform. Deficiencies						
Condition		Units		Exc.		Good		Fair		Poor		Perform. Deficiencies	
Data:		m ² / m / each / % / all				27.5		27.5				None	
Comments: Gravel roadway appears to be in good to fair condition. Vegetation is noted to be growing on the roadway and minor rutting is noted in the tire tracks.													
Recommended Work:						Maintenance Needs:			None				
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace						<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				
Structure to be permanent removed or replaced.													

Element Group:		Approaches		Length:		37m							
Element Name:		Barriers		Width:									
Location:		Each Quadrant		Height:									
Material:		Steel Beam Guiderail		Count:		1							
Element Type:				Total Quantity:		37m							
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>									
Protection System:							Perform. Deficiencies						
Condition		Units		Exc.		Good		Fair		Poor		Perform. Deficiencies	
Data:		m ² / m / each / % / all				37						None	
Comments: Steel beam guardrail appears to be in good condition. End treatments may not meet current code standards.													
Recommended Work:						Maintenance Needs:			None				
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace						<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				
Structure to be permanent removed or replaced.													

Element Group:		Barriers		Length:		0.2m							
Element Name:		Posts		Width:		0.2m							
Location:		Each Side		Height:		1m							
Material:		Wood		Count:		12							
Element Type:				Total Quantity:		12							
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>									
Protection System:							Perform. Deficiencies						
Condition		Units		Exc.		Good		Fair		Poor		Perform. Deficiencies	
Data:		m ² / m / each / % / all				12						None	
Comments: Wood posts fastened to bridge appear to be in good condition.													
Recommended Work:						Maintenance Needs:			None				
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace						<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				
Structure to be permanent removed or replaced.													



Element Data

Element Group:		Barriers		Length:		19m	
Element Name:		Railing System		Width:			
Location:		Each Side		Height:			
Material:		Steel		Count:		1	
Element Type:		Steel Beam Guiderail		Total Quantity:		19m	
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>			
Protection System:							Perform. Deficiencies
Condition	Units		Exc.	Good	Fair	Poor	Perform. Deficiencies
Data:	m ² / m / each / % / all			19			None
Comments: Steel beam guiderail appears to be in good condition.							
Recommended Work:				Maintenance Needs:		None	
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			
Structure to be permanent removed or replaced.							

Element Group:		Decks		Length:		6m	
Element Name:		Deck Top		Width:		6.3m	
Location:				Height:			
Material:		CIP Concrete		Count:		1	
Element Type:		Reinforced Concrete		Total Quantity:		37.8m ²	
Environment:		Benign / Moderate / Severe		Limited Inspection <input checked="" type="checkbox"/>			
Protection System:							Perform. Deficiencies
Condition	Units		Exc.	Good	Fair	Poor	Perform. Deficiencies
Data:	m ² / m / each / % / all				37.8		None
Comments: Limited inspection due to wearing surface cover. Based on the condition of the soffit, the deck top is assumed to be in fair condition.							
Recommended Work:				Maintenance Needs:		None	
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			
Structure to be permanent removed or replaced.							

Element Group:		Decks		Length:		6m	
Element Name:		Soffit – Thick Slab Exterior		Width:		1m	
Location:		Each Side		Height:			
Material:		CIP Concrete		Count:		2	
Element Type:		Reinforced Concrete		Total Quantity:		12m ²	
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>			
Protection System:							Perform. Deficiencies
Condition	Units		Exc.	Good	Fair	Poor	Perform. Deficiencies
Data:	m ² / m / each / % / all				12		None
Comments: Exterior soffit appears to be in fair condition.							
Recommended Work:				Maintenance Needs:		None	
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			
Structure to be permanent removed or replaced.							



Element Data

Element Group:		Decks		Length:		6m		
Element Name:		Soffit – Thick Slab Interior		Width:		4.3m		
Location:				Height:				
Material:		CIP Concrete		Count:		1		
Element Type:		Reinforced Concrete		Total Quantity:		51.6m ²		
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>				
Protection System:							Perform. Deficiencies	
Condition Data:		Units m ² / m / each / % / all		Exc.		Good 47.6		
						Fair 4		
						Poor		
						None		
Comments: Narrow cracking with efflorescence noted along the centerline of the construction joint. Longitudinal crack with efflorescence noted near the centerline of bridge that extends into the abutment walls.								
Recommended Work:				Maintenance Needs:		None		
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year				
Structure to be permanent removed or replaced.								

Element Group:		Decks		Length:		7.1m		
Element Name:		Wearing Surface		Width:		5.5m		
Location:				Height:				
Material:		Gravel		Count:		1		
Element Type:				Total Quantity:		39.1m ²		
Environment:		Benign / Moderate / Severe		Limited Inspection <input type="checkbox"/>				
Protection System:							Perform. Deficiencies	
Condition Data:		Units m ² / m / each / % / all		Exc.		Good 19.5		
						Fair 19.5		
						Poor		
						None		
Comments: Gravel roadway appears to be in good to fair condition. Vegetation is noted to be growing in the roadway and minor rutting is noted in the tire tracks.								
Recommended Work:				Maintenance Needs:		None		
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year				
Structure to be permanent removed or replaced.								

Element Group:		Foundations		Length:				
Element Name:		Foundations (below ground level)		Width:				
Location:		Each Side		Height:				
Material:		CIP Concrete		Count:		2		
Element Type:		Reinforced Concrete		Total Quantity:		2		
Environment:		Benign / Moderate / Severe		Limited Inspection <input checked="" type="checkbox"/>				
Protection System:							Perform. Deficiencies	
Condition Data:		Units m ² / m / each / % / all		Exc.		Good		
						Fair		
						Poor 2		
						None 14		
Comments: Top of the footings are exposed with severe deterioration of the concrete. Wide cracks are noted on the top of the east footing at the centerline of the road. 2 wide cracks are noted on the west footing on the north and south sides of the footing. Center portion of the west footing has rotated inward.								
Recommended Work:				Maintenance Needs:		None		
<input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None				<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year				
Structure to be permanent removed or replaced.								



Element Data

Element Group:		Embankments and Streams			Length:			
Element Name:		Embankments			Width:			
Location:		Each Quadrant			Height:			
Material:		Native Soil			Count:		6	
Element Type:					Total Quantity:		6	
Environment:		Benign / Moderate / Severe			Limited Inspection <input type="checkbox"/>			
Protection System:							Perform. Deficiencies	
Condition Data:		Units		Exc.	Good	Fair	Poor	
		m ² / m / each / % / all					6	
Perform. Deficiencies: 15								
Comments: Embankments at all 4 corners of the structure are steep and unstable. Embankments in front of the abutment walls have washed out and have left the footings exposed.								
Recommended Work: <input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace					Maintenance Needs:		None	
<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None					<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			
Structure to be permanent removed or replaced.								

Element Group:		Embankments and Streams			Length:			
Element Name:		Streams and Waterways			Width:			
Location:					Height:			
Material:					Count:		1	
Element Type:		Stream			Total Quantity:		1	
Environment:		Benign / Moderate / Severe			Limited Inspection <input type="checkbox"/>			
Protection System:							Perform. Deficiencies	
Condition Data:		Units		Exc.	Good	Fair	Poor	
		m ² / m / each / % / all			1			
Perform. Deficiencies: None								
Comments: Appears to be in good condition.								
Recommended Work: <input type="checkbox"/> Rehab <input type="checkbox"/> Replace					Maintenance Needs:		None	
<input type="checkbox"/> Urgent <input type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input checked="" type="checkbox"/> None					<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			

Element Group:		Sidewalks/Curbs			Length:		9	
Element Name:		Curbs			Width:		0.4	
Location:		Each Side			Height:		0.25	
Material:		CIP Concrete			Count:		2	
Element Type:		Reinforced Concrete			Total Quantity:		11.7m ²	
Environment:		Benign / Moderate / Severe			Limited Inspection <input checked="" type="checkbox"/>			
Protection System:							Perform. Deficiencies	
Condition Data:		Units		Exc.	Good	Fair	Poor	
		m ² / m / each / % / all				5.9	5.8	
Perform. Deficiencies: None								
Comments: Wide shear cracking at all 4 corners where abutments and wingwalls intersect. Severe spalling at locations of old barrier posts. North curb has severe spalling with exposed reinforcing at the east and west end.								
Recommended Work: <input type="checkbox"/> Rehab <input checked="" type="checkbox"/> Replace					Maintenance Needs:		None	
<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> 1-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> None					<input type="checkbox"/> Urgent <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year			
Structure to be permanent removed or replaced.								



Performance Deficiencies			
Element Group	Element Name	Performance Deficiency	
Foundations	Foundations	14 – Foundation Undermining	
Abutments	Wingwalls	02 – Outward Rotation	
Embankments & Streams	Embankments	15 – Unstable Embankments	
Maintenance Needs			
Element Group	Element Name	Maintenance Needs	
Permanent Bridge Removal			
		Priority	Cost Estimate
Permanent Removal of Bridge Structure		1-5 Years	\$200,000
Bridge Replacement			
		Priority	Cost Estimate
Full Replacement of Bridge Structure		1-5 Years	\$700,000
Associated Work			
	Comments	Removal	Replacement
Site Mob./Demob.		\$20,000	\$80,000
Traffic Control		\$10,000	\$10,000
Utilities			
Approaches	Install Dead End Barricades / Guiderails	\$20,000	\$60,000
Right-of-way			
Background Studies	Geotechnical, Hydrology, EIS, Excess Soil Management, etc.	\$20,000	\$50,000
Environmental Study	Schedule 'A' EA	\$50,000	\$50,000
Worksite Isolation and Dewatering			\$150,000
Environmental Protection		\$10,000	\$20,000
Other			
	Contingencies (10%):	\$25,000	\$100,000
	Engineering (10%):	\$40,000	\$100,000
	Total Associated Work Cost:	\$130,000	\$420,000
	Total Cost:	\$395,000	\$1,320,000

Justification:

Due to the age and the state of deterioration of the structure, we recommend keeping the bridge closed to public and vehicular traffic.

The Municipality is currently in the process of completing a Schedule 'A' EA in 2024/2025 which will determine if the preferred alternative is to have the bridge structure permanently closed or replaced. It is recommended that the preferred design alternative be implemented within 1 to 5 years.



Photo 1 - View of Structure Facing South



Photo 2 - View of Structure Facing East.



Photo 3 - View of Soffit.



Photo 4 - View of West Footing and Abutment Wall.

Date of Photos: May 31, 2024

Inspector: Jesse Borges, P.Eng.



Photo 5 - View of Wide Cracking in West Footing.



Photo 6 - View of Wide Cracking at Abutment / Wingwall Interface.



Photo 7 - View of Wide Crack in Curb and Outward Rotation of Wingwall (typ.).



Photo 8 - View of Spalling on East Abutment.

Date of Photos: May 31, 2024

Inspector: Jesse Borges, P.Eng.



Photo 9 - View of Cracking in the Soffit and Abutment Wall.

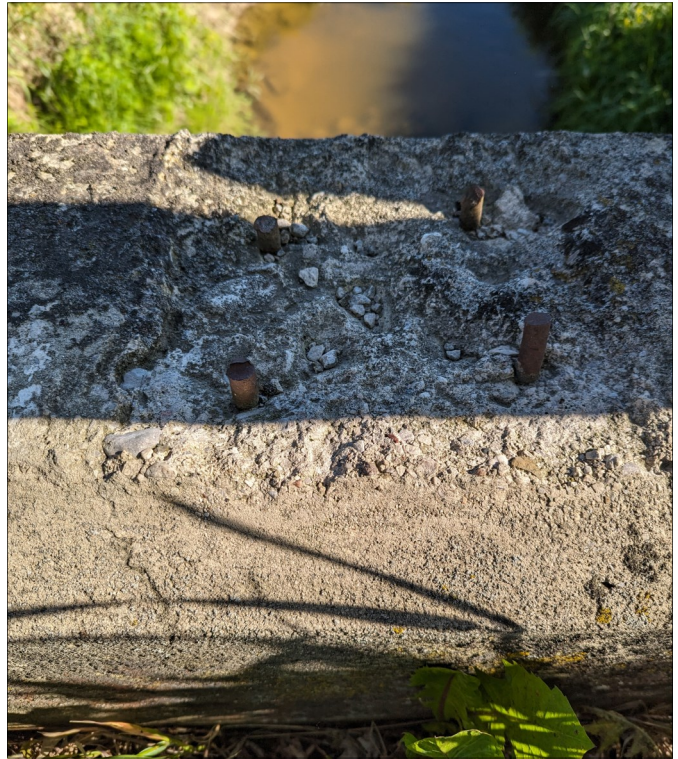


Photo 10 - View of Spalling at Previous Post Locations (typ.).



Photo 11 - View of Steep Embankments.



Photo 12 - View of Wearing Surface.

Date of Photos: May 31, 2024

Inspector: Jesse Borges, P.Eng.