



MUNICIPALITY OF WEST GREY

REQUEST FOR TENDER

FOR

REHABILITATION OF STRUCTURE 17

CONTRACT NO.: 5302-20      AUGUST, 2020

TRITON ENGINEERING SERVICES LIMITED  
Consulting Engineers  
The Old Post - 39 Elora Street South  
P.O. Box 159  
HARRISTON, Ontario N0G 1Z0

Laura Johnston  
Chief Administrative Officer/Deputy Clerk  
Municipality of West Grey  
402813 Grey Road 4, R.R. #2  
DURHAM, Ontario N0G 1R0

PROJECT No. B5302A

### LOCATION AND SCOPE OF WORK

The work comprises of the Rehabilitation of Structure 17, along Concession 4 NDR between 30<sup>th</sup> Sideroad NDR and Mulock Road in the Former Township of Bentinck, Municipality of West-Grey as follows:

Replacement of a New 5588mm x 31115mm Timber Deck and Wearing Surface for motor vehicle use, Repair of Existing Substructure and all other work necessary for a complete job in accordance with the details set out more specifically hereafter and as shown on the accompanying Contract Plans.

### DEFINITION OF OWNER AND CONTRACT ADMINISTRATOR

Wherever the word "Owner", "Corporation" or Authority appears in this Contract, it may be interpreted as meaning the "Municipality of West Grey".

Wherever the word "Contract Administrator" or "Engineer" appears in this Contract, it shall be interpreted as meaning the "Consulting Engineers, Triton Engineering Services Limited" or such other officers as may be authorized by the Corporation to act in any particular capacity.

FORM OF TENDER  
FOR  
MUNICIPALITY OF WEST GREY  
REHABILITATION OF STRUCTURE 17  
CONTRACT NO.: 5302-20

This Tender is Submitted by

\_\_\_\_\_

Firm Name

\_\_\_\_\_

Address

\_\_\_\_\_

Telephone No.

\_\_\_\_\_

Date

SCHEDULE OF UNIT PRICES

CONTRACT NO.: 5302-20

In the column headed "Spec. No.", the number refers to the latest issue of the Ontario Provincial Standard Specification. Where the number is preceded by "M", the number refers to the latest issue of the Ontario Provincial Standards for Roads and Public Works – Volume 7 – Municipal Oriented. "S.P." refers to the Special Provision.

ITEM NO.	SPEC NO.	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	TOTAL PRICE
<b>STRUCTURE 17</b>						
1.01	S.P.	Mobilization and Demobilization	100%	L.S.		
1.02	S.P.	Remove and Dispose of Existing Timber Decking	100%	L.S.		
1.03	S.P.	Clean and Coat the Top Flange of the Floor Beams and Stringers (Provisional)	100%	L.S.		
1.04	S.P.	Access to Work Areas, Platforms and Scaffolding	100%	L.S.		
1.05	907 S.P.	Supply and Install New Nail Laminated Timber Deck (NLT)	100%	L.S.		
1.06	907 S.P.	Supply and Install New Timber Hearing Boards	100%	L.S.		
<b>SUB-TOTAL – STRUCTURE 17</b>						\$ _____
<b>CONTINGENCY ALLOWANCE</b>						\$ <u>20,000.00</u>
<b>TOTAL PRICE (Excluding H.S.T.)</b>						\$ _____

## SCHEDULE OF PROVISIONS, PLANS, STANDARD DRAWINGS, SPECIFICATIONS AND GENERAL CONDITIONS

The work specified in this Contract will be performed in strict accordance with the following Provisions, Plans, Standard Drawings, Specifications and General Conditions.

Only the Municipal and Provincial common standards in OPS Volume 1 and 4 and the Municipal-oriented specifications in OPS Volume 7 and 8 apply to the Contract, unless specified otherwise in the Contract Drawings

### Special Provisions

Special Provisions – Items

### Plan

Drawing No. 01 - Plan and Details

### General Conditions

Ontario Provincial Standard Specifications and Municipal-Oriented General Conditions of Contract, November 2019 (OPSS.MUNI 100)

It will be the Contractor's responsibility to obtain current copies of the General Conditions of Contract, which form part of this Contract.

By my/our signature(s), hereunder, I/we hereby agree to complete this Contract in accordance with the terms contained herein.

DATED AT \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signature of Authorized Person  
Signing for Contractor

\_\_\_\_\_  
H.S.T. Registration Number

\_\_\_\_\_  
Position

**TENDER SUBMISSION**

Sealed Tender, clearly marked Tender for Contract No. 5302-20, to be submitted to the Attention: Mr. Vance Czerwinski, Director of Infrastructure and Public Works.

Municipality of West Grey  
Municipal Office  
402813 Grey Road 4  
R.R. #2  
DURHAM, Ontario  
N0G 1R0

By **2:00 p.m. (local time), Friday, September 11, 2020.**

**PROGRESS AND TIME FOR COMPLETION**

All works are to be completed by **December 18, 2020**

## SPECIAL PROVISION – ITEMS

### MOBILIZATION/DEMOBILIZATION --- ITM NO. 1.01

a) Measurement for Payment

Measurement for payment shall be by the lump sum. No measurement of quantities will be made for this item.

b) Payment

Payment at the unit bid price shall be for the compensation of the costs associated with the transportation of labour, equipment, offices, conveniences, temporary facilities, construction plant and other items not required to form part of the permanent works and not covered by the other items.

Payment shall be made as follows:

50% payment shall be made under the first monthly progress payment certificate and the remaining 50% shall be made under the final monthly progress payment certificate.

### REMOVE AND DISPOSE OF EXISTING TIMBER DECKING – ITEM NO. 1.02

a) Scope

Work under this Item shall conform with OPSS.MUNI 180, except as amended or extended herein.

Part of the Work in this Item shall include, but not be limited to, the following:

- Removal and disposal of the chip and tar coating on parts of the timber deck; and
- Removal and disposal of all timber and metal components in the deck include the nail laminated timber deck, curbs, flange/deck anchors and all fasteners.

NOTE: SVCA is aware of these works and is general agreement with the deck replacement methods. A permit will be obtained by the Municipality of West Grey. Deck removal works cannot commence until SVCA approval has been attained.

b) Construction

Removal shall take place in such a manner to not damage any components to be retained.

If excavators, backhoes or their devices are to be used to remove the deck timbers, the operating weight of said machines must not exceed the posted load limits.

Even if the machine weight does not exceed the posted load limits, the Contractor must still satisfy themselves of the ability of the existing timber deck to support wheel loads.

Prior to commencing removal, the Contractor shall install nets or tarps or other devices to collect debris of all nature that may fall from the deck during removal. This is paid under this Item unless there is a separate Item for payment. This method of operation must avoid any in-water activity.

All bidders shall visit the site and review the timber and complete any testing (drilling/sampling) to confirm if there are any preservative treatments which may affect the

cost of removing, hauling or disposal of the existing deck timbers. All disposal costs shall be borne by the successful Bidder.

When the timber decking has been fully removed, the Contractor shall arrange with the Contract Administrator an inspection to review if the provisional item (1.02) is required. No work can commence on the decking or hearing boards can commence until this review has been completed.

c) Measurement for Payment

There will be no measurement for payment for this lump sum (LS) tender Item.

d) Basis of Payment

Payment at the Contract price bid for this Item shall include all Labour, Materials and Equipment to complete the Work.

CLEAN AND COAT THE TOP FLANGE OF THE FLOOR BEAMS AND STRINGERS (PROVISIONAL) - ITEM NO. 1.03

a) Scope

Work under this Provisional Item shall conform with OPSS.MUNI 911, except as amended or extended in the following.

Part of the Work for this Item shall include, but not be limited to, the following:

- Use hand tools to clean the top flange of the stringers and floor beams;
- Apply two (2) brush applied coats of the coating material identified herein; and
- Undertake all environmental protection measures to ensure that the dust, corrosion product or coating does not enter the River.

b) Construction

The cleaning shall remove all loose corrosion product. Tightly adhering rust that cannot be removed with reasonable effort using a paint scrapper may remain.

The coating shall be applied to the top surface of all floor beams and stringers.

Two (2) brush applied coats shall be provided following the coating manufacturer's recommendations. The total build thickness for the coating shall meet the manufacturer's recommendation (4.0 – 8.0 mils).

The coating product shall be BAR-Rust 235 (Devoe High Performance Coating 5) by AkzoNobel.

The Contractor shall provide all environmental protection and all access required to complete the Work under this tender Item in accordance with OPSS.MUNI 911.

c) Measurement for Payment

There will be no measurement for this lump sum (LS) Item.



d) Basis of Payment

Payment at the Contract price bid for this Item shall include all Labour, Materials and Equipment to complete the Work. This Item is Provisional and may be deleted in whole by the Owner with no claim for loss of overhead or profit.

ACCESS TO WORK AREAS, PLATFORMS AND SCAFFOLDING - ITEM NO. 1.04

a) Scope

Work under this Item shall conform with the requirements of OPSS.MUNI 928.04.03, except as amended or extended herein.

Part of the Work in this Item shall include, but not be limited to, the following:

- Ensuring by Engineered calculations that the proposed access, as may be suspended or attached to the existing bridge, does not extend the capacity of the bridge during construction; and
- Design and submit working drawings for all access to work areas, platforms and scaffolding.
- The general contractor must provide, install and maintain appropriate signage and/or barrier of passage (buoys) to recreational use of the watercourse during construction.

Construction

No access may be placed in whole or in part within the water of the River without the Saugeen Valley Conservation Authority's approval.

All access to work areas must be removed prior to re-opening the bridge to traffic.

The access may not be within 2000 mm of the normal water surface (elevation) to permit the passage of recreational water traffic.

b) Measurement for Payment

There will be no measurement for this lump sum (LS) Item.

c) Basis of Payment

Payment at the Contract price bid for this Item shall include all Labour, Materials and Equipment to complete the Work.

WOOD IN NAIL LAMINATED DECK – ITEM NO. 1.05

WOOD IN HEARING BOARDS – ITEM NO. 1.06

a) Scope

OPSS 907 shall apply to these Items except as amended or extended in this Special Provision.

Clause 907.01 of OPSS 907 is amended by the addition of the following:

This specification also covers the construction requirements for supply and installation of all timber including the Nail Laminated Timber Deck.

b) Definitions

Clause 907.03 of OPSS 907 is amended by the addition of the following:

**Manufacturer:** means the manufacturer and treater of the timber laminations.

**NLT Deck:** Nail Laminated Timber Deck are site fabricated by stacking timber lamination edge to edge and fastening them together with nails.

**Clip Plates:** Shop fabricated steel plates installed on site to fasten the girder to the NLT Deck.

c) 907.05 Materials

**907.05.03.05 Nails and Spikes**

Clause 907.05.03.05 of OPSS 907 is amended by the addition of the following:

Nails between lamination in the NLT decks shall be 4 inch (20d) common nails galvanized to ASTM A123 or approved equivalent.

**907.05.08 Clip Plates**

Clip Plates shall be fabricated of steel conforming to the requirements of CSA G40.20/G40/21, Grade 300W.

d) Construction

**907.07.04.02 Nailing for Laminated Decks**

Clause 907.07.04.02 of OPSS 907 is amended by the addition of the following:

Individual timber laminations shall be treated prior to nailing. The NLT laminations shall be incised and pressure treated, using Chromated Copper Arsenate (CCA) conforming to CSA 080 and AWPA Standards M1, M2, and M4.

Horizontal nailing between laminations shall be completed with common nails used to fasten each lamination to the preceding one at intervals as shown on the drawings. The nails shall be of sufficient length to pass through two (2) laminates and at least halfway through the third. The nails shall be driven alternately near the top and bottom edges. At least one nail shall be placed within 100 mm of the end of each lamination.

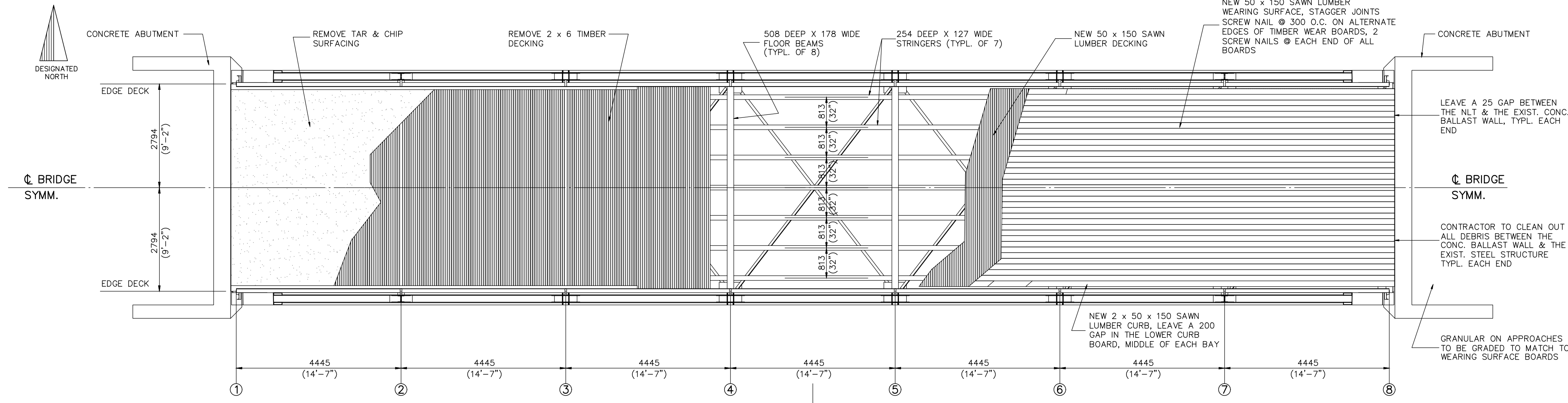
**907.07.06.02 Laminated Wood Deck**

To Clause 907.07.06.02 of OPSS 907 is amended by the addition of the following:

The Contractor shall install the deck-to-girder Clip Plates as detailed in the Contract Drawings.

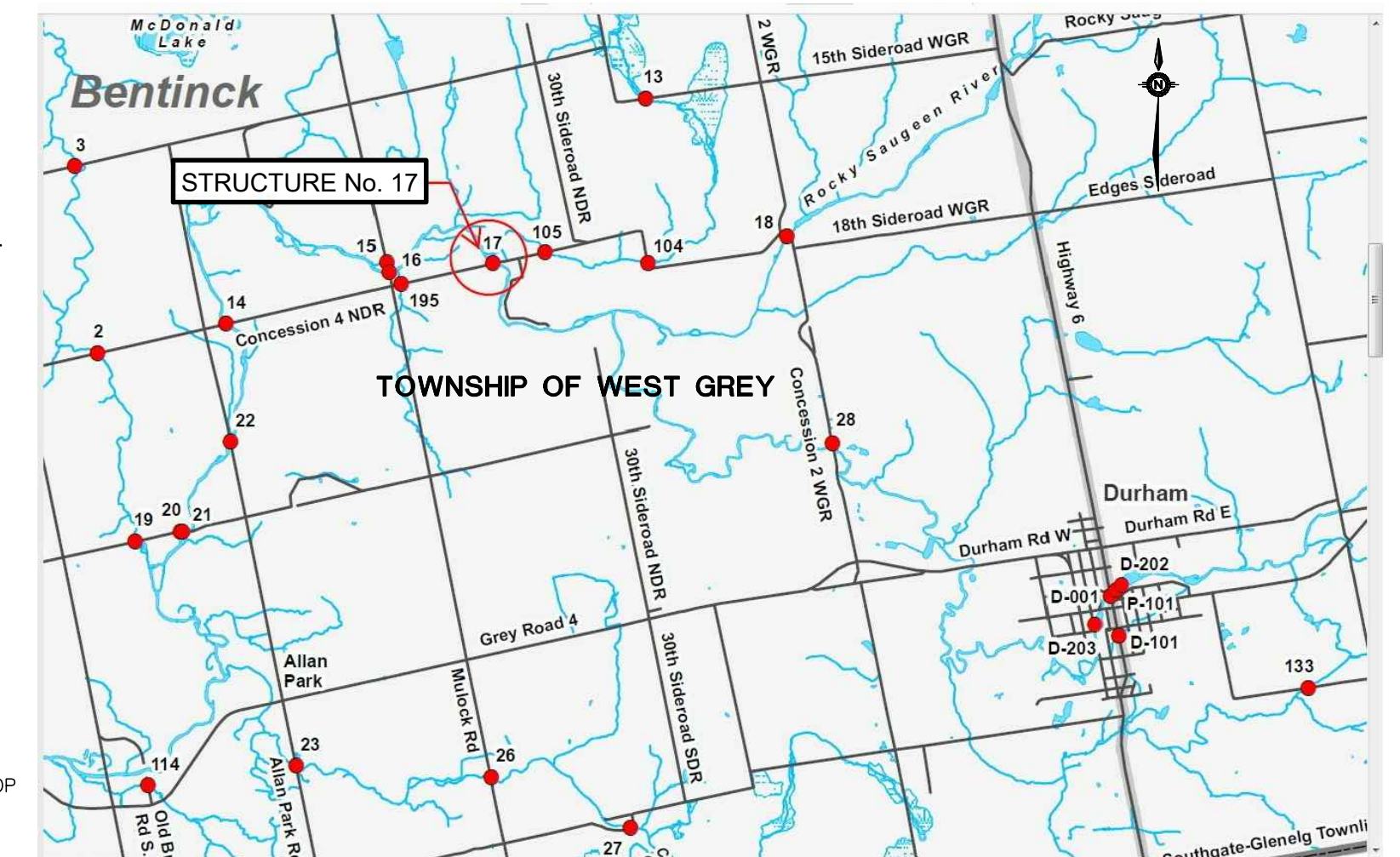
Following the installation of the NLT deck, the Contractor shall install the wearing timbers as detailed in the Contract Drawings.

DRAWING

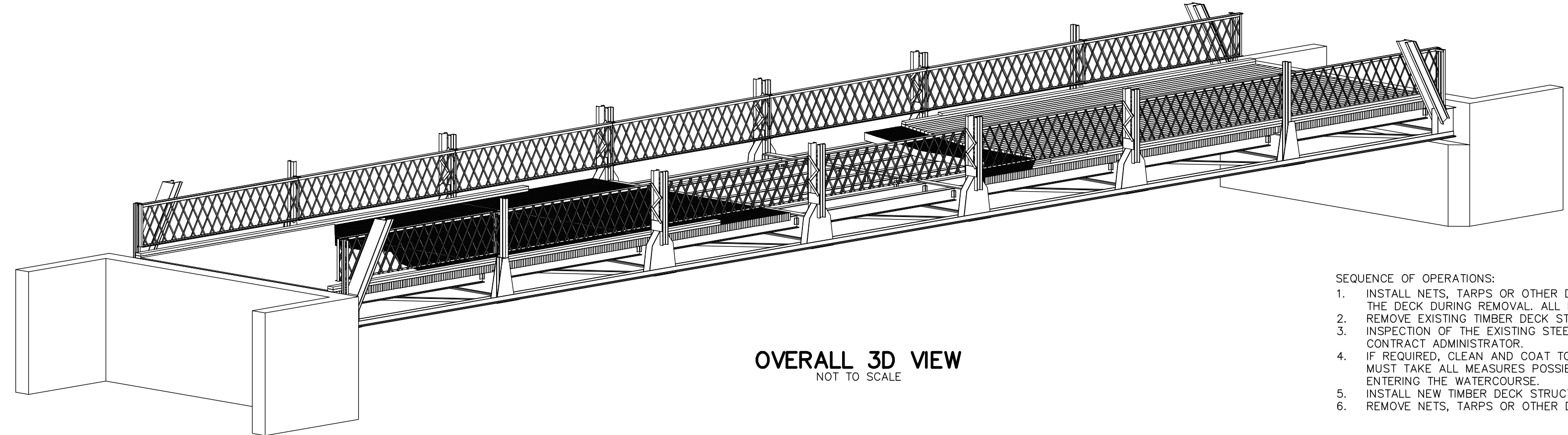


**DECK PLAN**  
SCALE 1:75

**NOTE:**  
- GUIDE RAIL NOT SHOWN FOR CLARITY  
- THE HEIGHT OF THE EXIST. CONC. BALLAST WALL IS UNKNOWN. ONCE THE EXIST. ROAD SURFACE TREATMENT IS REMOVED, THE BALLAST WALL WILL BE BROUGHT TO THE NEW WOOD WEARING SURFACE LEVEL BY ADDING PRESERVATIVE TREATED WOOD TO THE TOP OF THE BALLAST WALL & ANCHORING THE WOOD WITH STAINLESS STEEL HILT ANCHORS COUNTERSUNK INTO THE NEW WOOD. AS WHAT IS REQUIRED IS UNKNOWN THIS WORK WILL BE PAID FOR UNDER THE CONTINGENCY ALLOWANCE



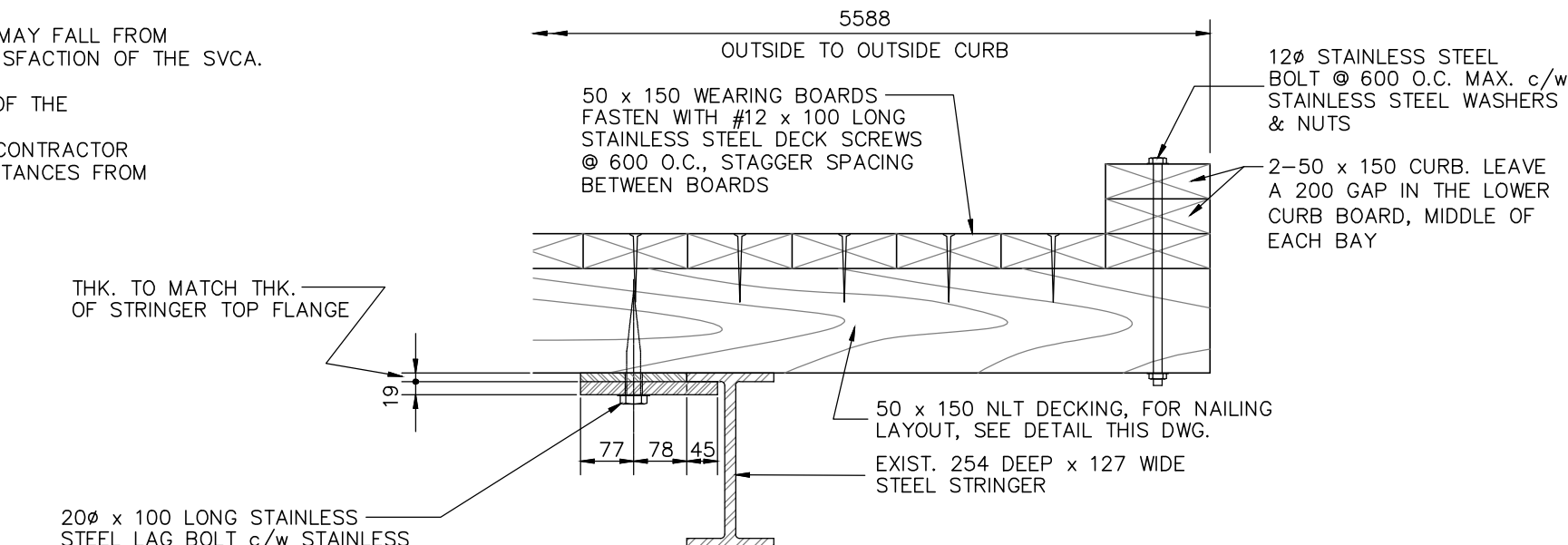
**LOCATION PLAN**  
NOT TO SCALE



**OVERALL 3D VIEW**  
NOT TO SCALE

- NOTES:**
- ALL EXISTING DIMENSIONS ARE APPROXIMATE ONLY AND ARE TO BE CONFIRMED ON SITE.
  - ALL NAIL LAMINATED TIMBER (NLT) SHALL BE TREATED DOUGLAS FIR OR SPF STRUCTURAL SELECT GRADE.
  - ALL WEARING SURFACE PLANKS SHALL BE TREATED SPF GRADE No. 2 OR BETTER.
  - ALL WOOD SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH STANDARD CSA/CAN-080 AND AWA STANDARDS M1, M2 & M4.
  - PRESERVATIVE TREATMENT OF WOOD SHALL BE PENTACHLOROPHENOL TYPE A HYDROCARBON SOLVENT IN ACCORDANCE WITH OPS 1601. PENETRATION DEPTH OF PRESERVATIVE SHALL BE 10mm AND 90% OF THE DEPTH OF THE SAPWOOD.
  - NO CHAINS, HOOKS OR PREAVES SHALL BE USED IN HANDLING TREATED WOOD. SURFACES EXPOSED BY FIELD CUTTING OR DRILLING SHALL BE TREATED BY SOAKING WITH AN APPROVED PRESERVATIVE EQUAL TO OR LESS THAN THE ORIGINAL PRESERVATIVE TOXICITY, THREE APPLICATIONS ARE REQUIRED, EACH TO AIR DRIED SURFACES.
  - ALL BOLTS TO BE STAINLESS STEEL COMPLETE WITH STAINLESS STEEL NUTS & WASHERS.
  - TIMBER DECK LAMINATIONS TO BE NAILED TOGETHER WITH 20 PENNY GALVANIZED NAILS. ALL NAILS TO BE GALVANIZED.
  - CONTRACTOR TO CONFIRM THAT THE NAILING PATTERN DOES NOT CONFLICT WITH NEITHER THE WEARING SURFACE TIMBER NOR THE CLIP PLATE FASTENERS.

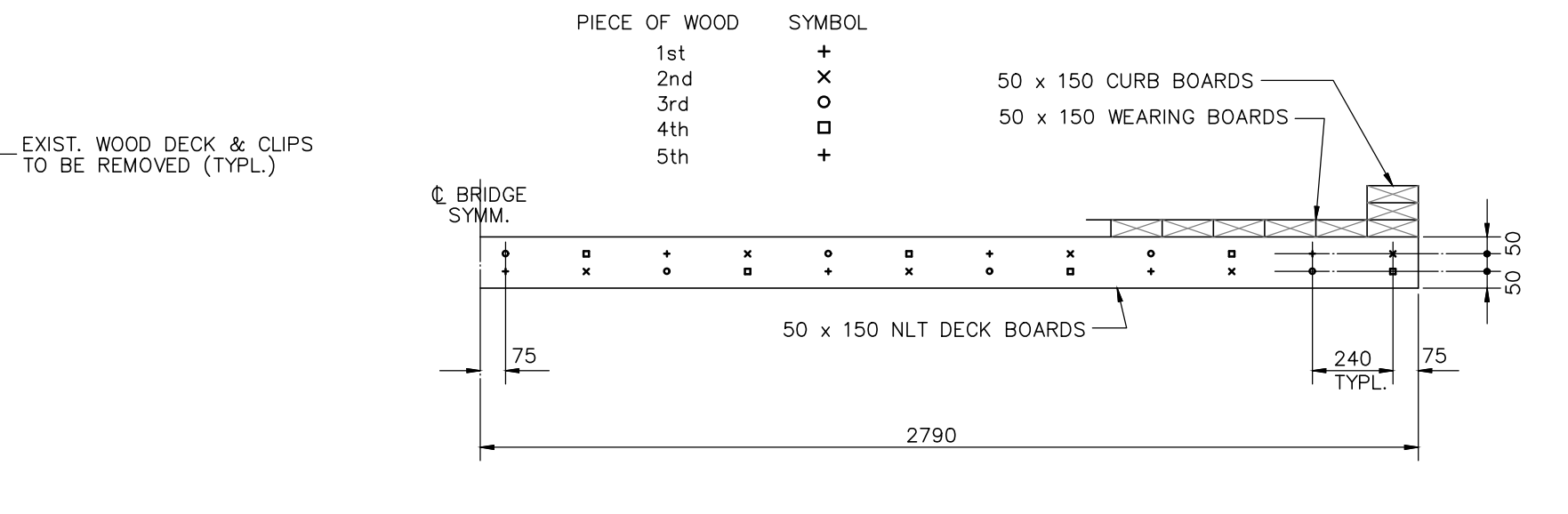
- SEQUENCE OF OPERATIONS:**
- INSTALL NETS, TARPS OR OTHER DEVICES TO COLLECT DEBRIS OF ALL NATURE THAT MAY FALL FROM THE DECK DURING REMOVAL. ALL DEBRIS COLLECTION METHODS MUST BE TO THE SATISFACTION OF THE SVCA.
  - REMOVE EXISTING TIMBER DECK STRUCTURE.
  - INSPECTION OF THE EXISTING STEEL STRINGER SUBSTRUCTURE TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR.
  - IF REQUIRED, CLEAN AND COAT TOP FLANGE OF THE FLOOR BEAMS AND STRINGERS. CONTRACTOR MUST TAKE ALL MEASURES POSSIBLE TO AVOID THE TRANSFER OF DELETERIOUS SUBSTANCES FROM ENTERING THE WATERCOURSE.
  - INSTALL NEW TIMBER DECK STRUCTURE.
  - REMOVE NETS, TARPS OR OTHER DEBRIS COLLECTION DEVICES.



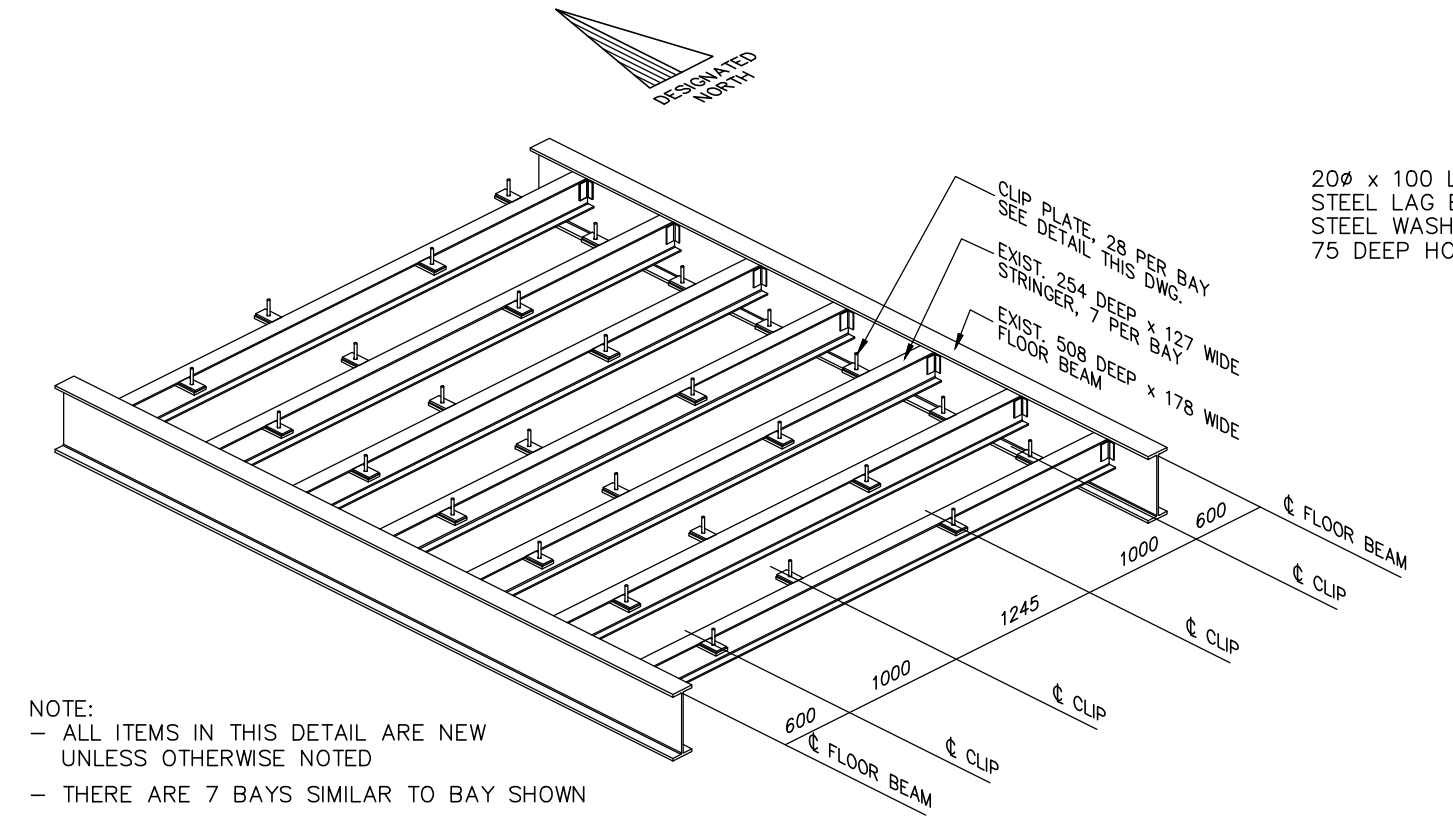
**TYPICAL SECTION**



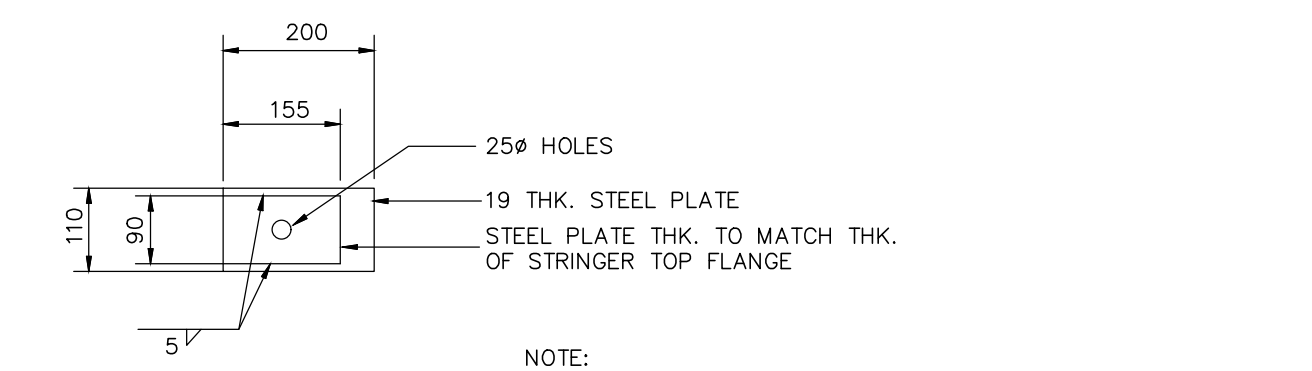
**EXISTING UNDERSIDE DECK & CLIP SYSTEM**  
NOT TO SCALE



**NAIL LAMINATED TIMBER (NLT) NAILING LAYOUT**  
SCALE 1:20



**TYPICAL CLIP PLATE LAYOUT**  
SCALE 1:50



**DECK & STEEL CLIP PLATE DETAIL**  
SCALE 1:10

No	DATE	REVISION	INITIAL	NOTES					
1	AUGUST 2020	ISSUED FOR TENDER	C.P.C.						

REHABILITATION OF  
BRIDGE STRUCTURE No. 17  
CONCESSION 4 NDR  
OVER THE ROCKY SAUGEEN RIVER

**TOWNSHIP OF WEST GREY**  
402813 GREY COUNTY RD. 4  
DURHAM, ONTARIO NOG 1R0

**PLANS & DETAILS**

PROJECT No  
**B5302**

DRAWN BY: d.r.t.  
(AMC/S)

CHECKED BY: D.D.

APPROVED BY: C.P.C.

DATE: AUGUST 2020

**TRITON ENGINEERING SERVICES LIMITED**  
Consulting Engineers

**SCALES**  
AS SHOWN

HORIZONTAL	VERTICAL
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**DRAWING NUMBER 01**