REQUEST FOR QUOTATION BOOM CAMP BOAT LAUNCH IMPROVEMENTS THE CORPORATION OF THE TOWN OF BLIND RIVER CONTRACT NO. 23-1077

MUNICIPALITY



CONSULTANT



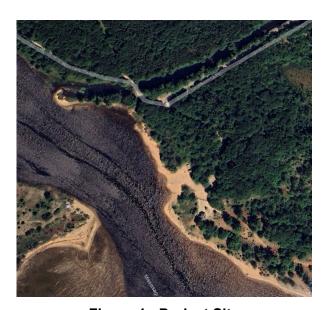


Figure 1 - Project Site

Quotation Close: Friday February 9th, 2024 at 2:00PM

BOOM CAMP BOAT LAUNCH IMPROVEMENTS

QUOTATION FORM

THE CORPORATION OF THE TOWN OF BLIND RIVER PROJECT NO. 23-1077

Owner: The Corporation of the Town of Blind River

Engineer: TULLOCH

Location: 243 Causley St, Blind River, ON

Quotations will be received in sealed envelopes clearly marked "Project No. 23-1077 Boom Camp Boat Launch Improvements" at the Corporation of the Town of Blind River Municipal Office at 11 Hudson St., Blind River, ON, until 2:00 pm, local time, Friday February 9th, 2024, for the Blind River visitor center improvement project. Quotations will be opened publicly at 2:15PM at the Municipal Office.

All questions during the tendering period must be submitted to the Engineer in writing via email, prior to 12:00pm on Wednesday, January 31st, 2024. No such communications are to be directed to anyone other than the Engineer as follows.

Chris Kirby, P.Eng, Project Manager TULLOCH Engineering Inc. Email chris.kirby@tulloch.ca

The Engineer will issue all responses as soon as possible after receipt, however no later than **5:00pm on Friday, February 2nd, 2024**. Responses will be via addendum posted on the Town of Blind River website. No oral interpretation will be effective to modify any provision of the Contract Documents.

CONDITIONS OF QUOTATION

- 1. The bidder shall submit their Quotation on the "Quotation & Acceptance" by inserting unit prices for each item and completing the item amount based on the estimated quantity. The bidder shall sum the item amounts including \$15,000.00 for contingency for the subtotal and adding 13% HST for the Total Cost.
- 2. The lowest or any quotation will not necessarily be accepted by the Owner. The Owner reserves the right to make corrections to calculations including the extension of the estimated

quantity and the tendered unit price; a discrepancy in addition or subtraction in a tender. The Owner reserves the right to waive formalities at their discretion.

- 3. The Contractor is to provide a deposit in the form of a certified cheque in the amount of 10% of the quotation value, payable to the Corporation of the Town of Blind River. The successful bidder will be required to provide confirmation of insurance and WSIB Certificate of Clearance prior to construction start. The deposit will be retained by the Owner as a guarantee that the contractor will complete the project. The cheque will be released to the contractor upon successful completion of the work. If the Contractor fails to commence construction by July 15th, 2024, the Contractor will forfeit the deposit cheque to the Corporation of the Town of Blind River and the project will be awarded to another bidder.
- 4. The quoted price will be open for acceptance by the Owner for a period of thirty (30) days.
- 5. The Ontario Provincial Standards Municipal General Conditions of Contract, November 2019 apply to this contract.
- 6. Drawings 23-1077-C1 and 23-1077-C2, REV 0, Sealed IFT, January 19th, 2024, are included as part of the quotation documents.
- 7. The contractor shall arrange for buried utility locates and inform the Consultant of any potential conflicts with the work prior to starting excavation work.
- 8. Working area is to be fenced off while construction operations are underway/ongoing. The Contractor shall remain responsible for the security of the site.
- 9. The Contractor guarantees completion of the Boom Camp Boat Launch Improvement project by Friday August 30th, 2024. A penalty clause of \$1,000/day will be deducted from the quoted price for each day the work remains uncompleted after Friday, August 30th, 2024, based on Award of Contract by March 1st, 2024. The completion date will extend one additional day for each day that the award date is after March 1st, 2024.
- 10. The Contractor must complete the works within a three week consecutive construction period. The in-water timing window is July 15th to August 31st, 2024. No work in the water will be permitted outside the timing window.
- 11. General Liability Insurance shall be in the name of the Contractor with the Owner and Engineer named as additional insured with a limit of not less than \$5,000,000.00 per occurrence for bodily injury, death, and damage to property with a property damage deductible of not more than \$10,000.00.

- 12. The quotation includes the contingency sum of \$15,000.00 and that no part of this sum shall be expended without the written direction of the Engineer, and any part not so expended shall be deducted from the final quotation price.
- 13. Payment will be made to the contractor on completion of the work. Payment at the unit prices bid for each item shall be full compensation for all labour, equipment, and materials to do the work. Payment will be subject to a 10% statutory holdback in accordance with the Construction Lien Act. Payment will also be subject to a warranty holdback of 3% for one year as a guarantee of the proper performance of the work.
- 14. The Contractor is to complete construction in accordance with the conditions indicated within this Quotation Document and the applicable Ontario Provincial Standards.
- 15. All damages to surrounding property to repaired to the satisfaction of the Town of Blind River.
- 16. The Engineer may supervise all the work to the extent of ensuring the fulfillment of the contract and the completion of the work in accordance with the plans and specifications.

The Engineer shall determine the quantities of the several kinds of work which are to be paid for under contract and determine all questions relating to the said work and construction thereof. The Engineer shall in all cases decide every question which may arise relative to the performance of the contract, and his estimate and findings shall be final.

The Engineer shall, within a reasonable time, render a decision on all claims by the Contractor and all questions which may arise relative to the performance of the work, or the interpretation of the contract. The Contractor shall at all times and at his own expense furnish all reasonable aid and assistance required by the Engineer or any Inspector for the proper inspection and examination of the work or part thereof.

The Contractor, at his own expense, shall furnish samples for testing when required and shall furnish all reasonable facilities for the inspection of the material and workmanship. The contractor shall obey the directions and instructions of any Inspector and they shall be made in writing at the request of the Contractor.

Notwithstanding any inspection that the Corporation might carry out, the failure of the Engineer or the Inspector to condemn or object to any defective work or material shall not constitute a waiver of any specifications of the approval or acceptance of such defective work or material and, except as otherwise provided herein, the contractor shall be and remain liable for such defective work or material and any loss, costs, charges, or expenses in connection therewith.

17. Should the Contractor become insolvent or at any time refuse to or neglect to supply sufficient properly skilled workers or materials of the proper quality, or fail in any respect at any time to

prosecute the work with promptness or diligence, or fail in the performance of any agreements herein contained, such refusal, neglect, or failure being certified by the Engineer, the Owner shall be at liberty after three days written notice to the Contractor to provide any such labour or materials, and to deduct the cost thereof from any money then due under the contract or thereafter to become due under the contract to the Contractor. If the Engineer should notify the Owner that such refusal, neglect, or failure is sufficient grounds for such actions, the Owner shall also be at liberty to terminate the employment of the Contractor for said work and to enter upon the premises and take possession for the purpose of completing the work under the contract, all materials, tools, and appliances thereof and employ any other persons to furnish the work.

In case of any discontinuance of the employment of the Contractor, they shall not be entitled to receive further payments under the contract until the said work will be wholly finished, at which time, if the unpaid balance of the amount to be paid under the contract shall exceed such unpaid balance the Contractor shall pay the difference to the Owner. The expense incurred by the Owners as hereinafter provided either for furnishing materials or for finishing work, and any damage incurred through such default shall be audited and certified by the Engineer whose certificate shall be conclusive upon all parties.

18. The Contractor shall be responsible for the management and disposal of all excess excavated materials from the works and shall be delivered to the Town of Blind River Municipal Landfill located at 1182 Highway 17 and left in a neat and uniform manner.

The Contractor must discuss with the Town Foreman in advance to identify the locations for disposal at the landfill site, and materials shall be levelled and left in a neat and uniform manner acceptable to the Town Foreman. Upon completion of the hauling, or at any time deemed necessary by the Owner or Contract Administrator, the delivered materials shall be piled-up with a front-end loader or equivalent to minimize occupied space. End dumped piles will not be considered as satisfactory permanent stockpiles.

At a minimum, the Contractor will be responsible for tracking all truck loads of material with time, date, stationing and receiving location information, based on truck box measurements. Other tracking measures may be required to ensure compliance with the regulations and will be the responsibility of the Contractor. The Contractor will also be responsible for securing the applicable property release forms in accordance with the regulations and OPSS.MUNI 180.

- 19. All material that does not meet specifications, as determined by the Engineer, will be rejected and must be removed and replaced. This shall be done at the Contractor's expense.
- 20. TULLOCH will provide QA Material Testing, on behalf of the Owner, however the Contractor will be responsible for coordinating all required testing with TULLOCH's site inspector or TULLOCH's Materials Testing Lab in Sault Ste. Marie. In addition, any inefficiencies on the

part of the Contractor, ie. cancelled testing, excessive delays or standbys, or failed testing which will require retesting, will be the responsibility of the Contractor and the associated costs will be retained by the Owner from monies owed to the Contractor. The Contractor shall also be responsible for completing their own QC testing per OPSS.

21. The Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawing (OPSD) listed below and those referenced therein form part of the Contract Documents. Specifications can be downloaded at the web site address: https://www.ragsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage

Ontario Provincial Standard Specifications

OPSS	Standard		
Vol.	No.	Abbreviated Title	Date
100	7	General Conditions of Contract	NOV 2019
127	7	Rental Rates for Construction	APR 2023
180	7	Management of Excess Material	NOV 2021
206	7	Grading	APR 2019
314	7	Granulars	NOV 2023
491	7	Preservation & Protection of Existing Facilities	NOV 2017
492	7	Site Restoration	NOV 2020
511	7	Rock Protection	NOV 2019
517	7	Dewatering	NOV 2021
805	7	Temp. Erosion and Sediment Control Measures	NOV 2021
907	7	Structural Wood Systems	NOV 2021
1001	8	Aggregates, General	NOV 2021
1004	8	Aggregates, Miscellaneous	NOV 2021
1601	8	Wood, Preservative Treatment, Fabrication	NOV 2021
1860	8	Geotextiles	NOV 2018

Ontario Provincial Standard Drawings

OPSD NO.	ABBREVIATED TITLE	<u>REVISION</u>
219.110	Light Duty Silt Fence	3
219.180	Straw Bale Flow Check Dam	3
219.260	Turbidity Curtain	3
219.261	Turbidity Curtain, Seam Detail	3

22. Item Specific Specifications Applicable to This Project

ITEM 1 MOBILIZATION & DEMOBILIZATION

SCOPE

This item is for the mobilization and demobilization to and from the work site.

CONSTRUCTION

The Contractor will mobilize the equipment and materials to the site to allow the completion of the project. At the completion of the project the Contractor will demobilize from the site removing all excess materials and repairing all disturbed areas.

MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum. A payment of 60% will be made for mobilization and 40% for demobilization.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

ITEM 2 ISOLATION, DEWATERING AND EROSION & SEDIMENT CONTROL

SCOPE

This item is for the isolation, dewatering and erosion & sediment control of the work zone, including installation, maintenance, removal of required measures and restoration of disturbed areas.

CONSTRUCTION

The Town of Blind River is currently in the process of obtaining all necessary environmental permits for the completion of the work. The Contractor shall abide by the conditions of the permits and associated in-water work window.

The entirety of the work zone is to be isolated using a turbidity curtain. The Redi-Rock Gravity Wall shall be installed in dry conditions and dewatering operations will be required. Method of dewatering is the Contractor's choice.

The Contractors shall install the turbidity curtain in such a manner to displace fish from the work zone, so fish removal is not required. If fish are discovered within the work zone during dewatering operations, the Contractor shall be responsible to capture and relocate the fish in accordance with applicable regulations.

The Engineer will also be present to review ESC, isolation and dewatering measures employed by the contractor. Any modifications at the request of the Engineer shall be completed by the Contractor at no additional cost. The Contractor shall prepare and submit a detailed Isolation & Dewatering Plan a minimum of one week in advance, for review by the Engineer. Dewatering shall be done in accordance with OPSS.MUNI 517.

The Contractor will be in charge of and responsible for all on-site work. The site Supervisor must hold a meeting with all equipment operators working at the site to make them all aware of the required measures to control sediment. Existing vegetation is to be protected to the maximum extent possible. To the maximum extent possible, no sediments shall enter the water during any aspect of the work. Any equipment working near the water must be free from any leaks of oil, grease or other contaminants. The equipment shall be cleaned of all contaminants prior to being brought on site.

Sediment control measures shall be monitored continuously during construction.

Upon completion of the installation works, the Contractor shall remove the isolation and dewatering measures and restore disturbed areas to preconstruction conditions or better.

MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

ITEM 3 REDI-ROCK GRAVITY WALL

SCOPE

This item is for the supply and installation of the REDI-ROCK GRAVITY WALL system.

CONSTRUCTION

The Contractor shall supply the specified REDI-ROCK RETAINING BLOCK (60" COMMON system, with Limestone Face) for the Redi-Rock Gravity Wall as detailed in the Contract Drawings. The Contractor shall be responsible for the transportation and storage of the Redi-Rock Gravity Wall.

The installation of the Redi-Rock Gravity Wall shall be according to the Manufacturer's recommendations.

The Redi-Rock Gravity Wall shall be installed on suitable native riverbank material. The first row (bottom block(s)) and eastern end block(s) of subsequent rows are to be set fully below original ground.

Granular A (or suitable salvaged sand) shall be placed a minimum of 300mm behind the Redi-Rock Gravity Wall and within all openings between the blocks, and other areas as per the Manufacturer's instruction. Sand shall have not stones larger than 20mm.

Geotextile equivalent to Terrafix 600R shall be installed between the sand and rock protection layers, extending a minimum of 300mm horizontally beneath the rock protection.

MEASUREMENT FOR PAYMENT

Measurement for payment shall be in square meters by installed face area of the Redi-Rock Gravity Wall, including buried blocks. This item also includes the supply, storage and installation of the Redi-Rock Gravity Wall blocks, excavation operations, supply and installation of granular materials or sand and the supply and placement of geotextile.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

ITEM 4 ROCK PROTECTION

SCOPE

This item is for the supply and placement of rock protection behind the Redi-Rock Gravity Wall both above and below the water level. It is anticipated that approximately 23m³ of Rock Protection will be required, however the contractor is to satisfy themselves of the required quantity.

CONSTRUCTION

Supply and placement of the Rock Protection behind the Redi-Rock Gravity Wall shall be according to OPSS.MUNI 511. Rock Protection shall be angular rock in accordance with OPSS.MUNI 1004. Rock Protection material shall be in accordance with Table 7 and 8.

Rock Protection shall be placed as specified in the Contract Drawings.

MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum. This item includes the supply and placement of rock for Rock Protection.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

ITEM 5 ARMOUR STONE

SCOPE

This item is for the supply and placement of armour stone overtop of the Rock Protection both above and below the water level. It is anticipated that approximately 41m² of Rock Protection will be required, however the contractor is to satisfy themselves of the required quantity.

CONSTRUCTION

Supply and placement of the Armour Stone overtop of the Rock Protection shall be according to OPSS.MUNI 511. Armour Stone shall be angular rock in accordance with OPSS.MUNI 1004.

Armour Stone sizing shall be 1.5 tonne to 3 tonne, with an approximate size of 0.65m^3 to 1.3m^3 in volume.

Armour Stone shall be placed as specified in the Contract Drawings.

The Armour Stone is to be placed individually over the rock protection and keyed into adjoining stones. End dumping and pushing of the Armour Stone over the edge shall not be permitted.

MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum. This item includes the supply and placement of rock for Armour Stone.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

ITEM 6 SPANNER PLATE

SCOPE

This item is for the fabrication and installation of the Spanner Plate, including all installation hardware.

CONSTRUCTION

The Contractor shall fabricate the Spanner Plate as per the requirements of the Contract Drawings.

The materials for the fabrication of the Spanner Plate shall be according to the following requirements:

- CSA G40.20/G40.21-04 – General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.

- ASTM International: A 325M-05 – Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Minimum Tensile Strength.

The Contractor shall install the Spanner Plate as per the requirements of the Contract Drawings.

MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum. This item includes fabrication, supply, installation, and all associated hardware for the Spanner Plate.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

ITEM 7 WOOD DECKING

SCOPE

This item is for the supply of all necessary materials and hardware for the construction of the wood decking system to be placed and anchored to the top of the Redi-Rock Gravity Wall.

CONSTRUCTION

The Contractor shall construct the wood decking system on top of the Redi-Rock Gravity Wall as specified in the Contract Drawings. All wood to be used in the construction of the Wood Decking is to be pressure treated and meet the requirements of OPSS.MUNI 1601.

The materials for the anchoring of the Wood Decking shall meet the requirements of the following specifications:

- CSA G40.20/G40.21-04 General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
- ASTM International: A 325M-05 Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Minimum Tensile Strength.
- All hardware shall be hot dipped galvanized or stainless steel.

MEASUREMENT FOR PAYMENT

Measurement for payment shall be in square meters of constructed wood deck. This item includes the supply and secure storage of the pressure treated lumber, construction of the wood deck, anchoring of the wood deck to the Redi Rock Gravity Wall and all associated hardware and fasteners.

BASIS OF PAYMENT

Payment at the contract price for the above quotation item shall be full compensation for all labour, equipment, and material to do the work.

QUOTATION AND ACCEPTANCE

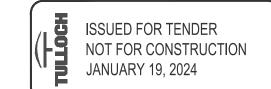
No.	Item	Estimated Quantity	Units	Unit Price	Item Amount
1	Mobilization & Demobilization Lump Sum				\$
2	Isolation, Dewatering and ESC		Lump Sur	n	\$
3	Redi-Rock Gravity Wall	21	m ²	\$	\$
4	Rock Protection Lump Sum				\$
5	Armour Stone Lump Sum				\$
6	Spanner Plate Lump Sum			\$	
7	Wood Decking	35	m²	\$	\$
8	Contingency	\$ 15,000.00			
	\$				
	\$				
	\$				

Definitions:

m – Linear Metres, m² – Square Metres, m³ - Cubic Metres

The undersigned herein offer to supply	•	• •	•
the Boom Camp Boat Launch Improved Quotation Price of:	ments, within the T	Town of Blind Rive	er at the stipulated Total
Quotation Price of.			
	(\$). (HST Included)
We accept all conditions of Quotation	and the Completic	on Date as set ou	t herein.
Offered By: Company Name:			
Signature:			
Date:			Corporate Seal
			(If applicable)
Accepted By:			
The Corporation of the Town of Blind F	River on this	day of Februa	ry, 2024.
Mayor			
CAO/Clerk			

TOWN OF BLIND RIVER



BOOM CAMP BOAT LAUNCH IMPROVEMENTS

BOOM CAMP ROAD

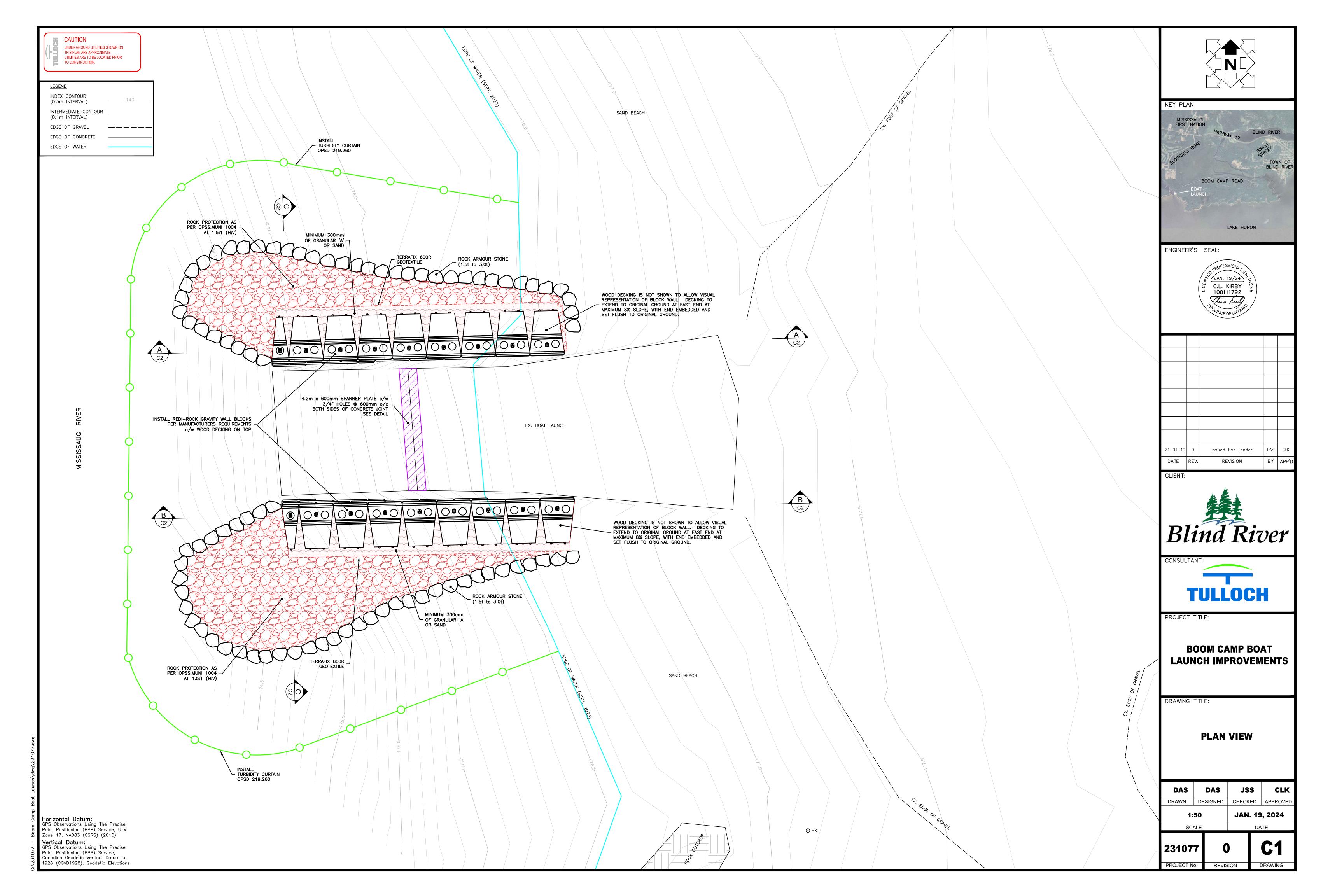


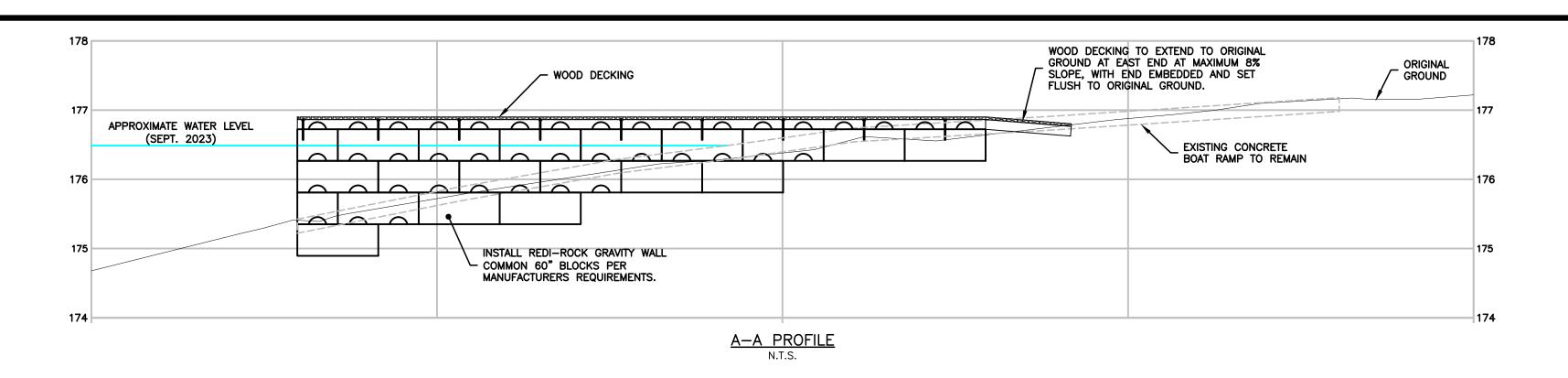
<u>key plan</u>

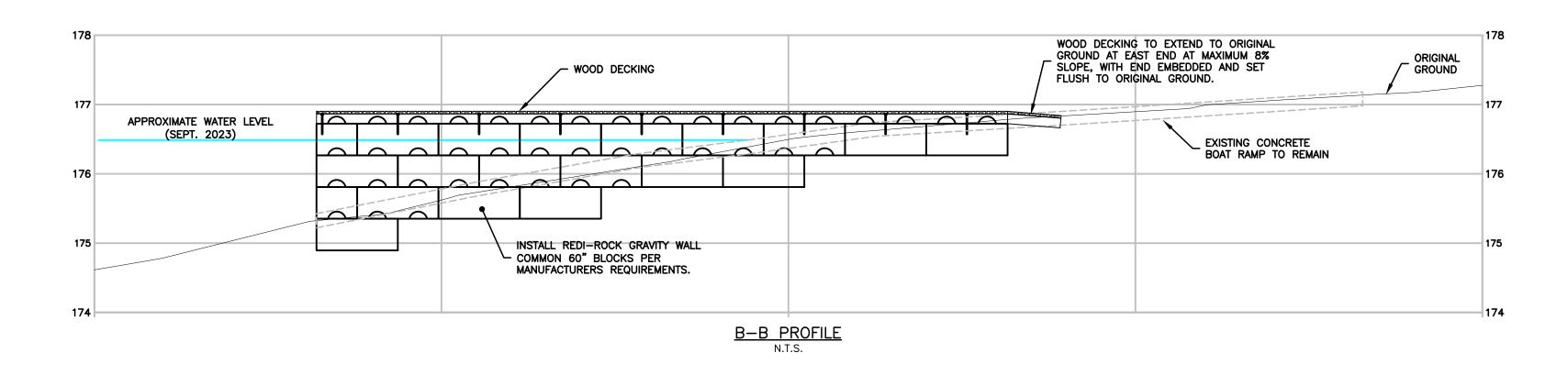
LIST OF DRAWINGS						
No. Rev. DRAWING DESCRIPTION						
C1	0	PLAN VIEW				
C2	0	TYPICAL SECTIONS, DETAILS & NOTES				

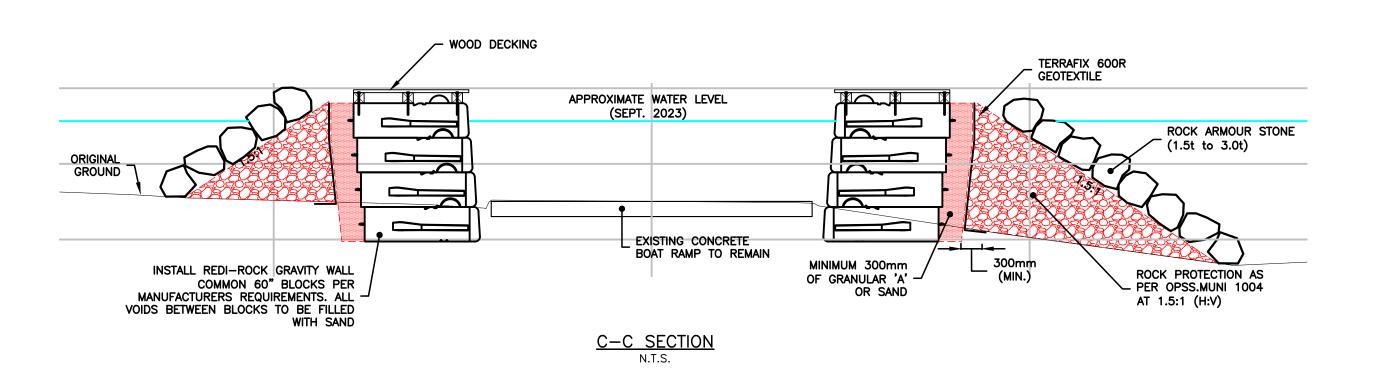


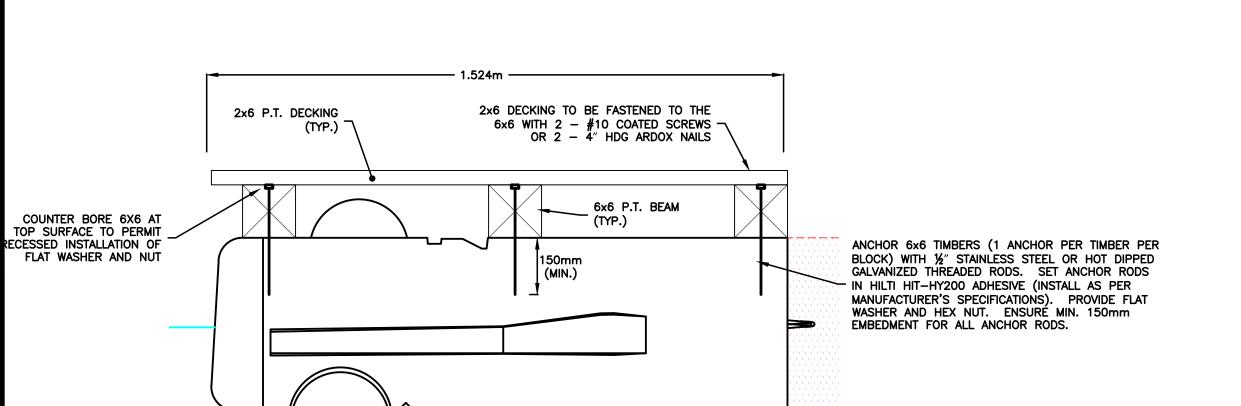




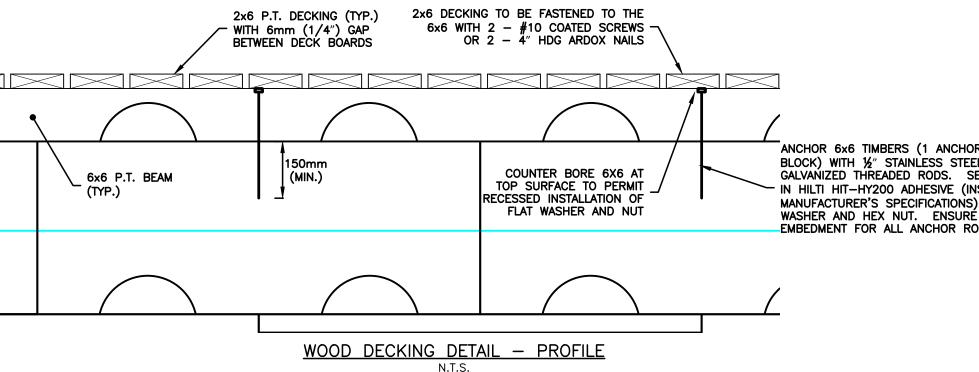








WOOD DECKING DETAIL - SECTION



GENERAL NOTES:

- 1. ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARD DRAWINGS TO APPLY UNLESS
- 2. ALL EROSION AND SEDIMENT CONTROLS SHALL FOLLOW AND BE IN ACCORDANCE WITH GENERAL BEST MANAGEMENT PRACTICES PRIOR TO UNDERTAKING WORKS.
- 3. NOTIFY ALL UTILITY DEPARTMENTS 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. UTILITY PERSONNEL TO BE ON SITE WHEN EXCAVATING ADJACENT TO UNDERGROUND UTILITIES.
- 4. SUPPORT UTILITIES IN ACCORDANCE WITH THE DIRECTIONS AND GUIDELINES OF THE IMPACTED UTILITY.
- 5. COMPLETE ALL WORKS IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT.
- 6. THE LOCATION OF UTILITIES SHOWN ON DRAWINGS IS APPROXIMATE AND MAY BE INCOMPLETE. CONFIRM EXACT LOCATION OF UTILITIES WITH MINISTRY, MUNICIPALITY OR UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR PROTECTING AGAINST DAMAGE. THE CONTRACTOR ASSUMES
- 7. PROVIDE NOTICE TO THE TOWN OF BLIND RIVER WHEN ACCESS WILL BE IMPACTED.
- 9. ALL INSTALLATIONS ARE TO BE COMPLETED TO THE SATISFACTION OF THE ENGINEER AND THE TOWN OF BLIND RIVER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 10. CONSTRUCTION SHALL ADHERE TO THE ASSOCIATE WORK WINDOWS FOR WORKS IN OR NEAR WATER BODIES AND WETLANDS. ALL PERMITS TO BE SUPPLIED BY THE TOWN OF BLIND RIVER.

EROSION & SEDIMENT CONTROL NOTES:

ALL LIABILITY FOR DAMAGE TO UTILITY AND ROAD WORKS.

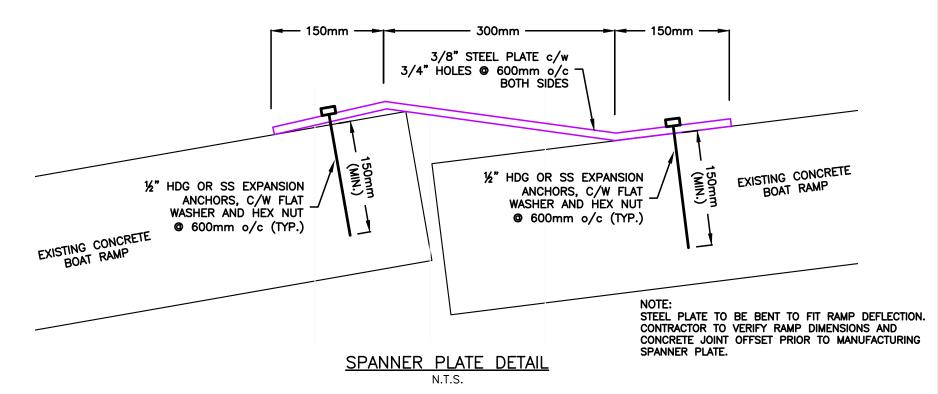
- 1. ALL REQUIRED SILTATION AND EROSION CONTROL MEASURES TO BE IN PLACE PRIOR TO CONSTRUCTION TO PREVENT EROSION AND THE MIGRATION OF SEDIMENT DURING CONSTRUCTION. ALL SILTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL GROUND COVER IS RE-ESTABLISHED TO THE ORIGINAL CONDITION OR BETTER AS DETERMINED BY THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND INSTALLING ALL REQUIRED EROSION & SEDIMENT CONTROL MEASURES BASED ON THEIR CONSTRUCTION ACTIVITIES. THE MEASURES LISTED ON THESE DRAWINGS ARE THE MINIMUM REQUIRED. HOWEVER ADDITIONAL MEASURES MAY BE NECESSARY.
- 3. ALL SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICATION PRECIPITATION EVENT AND MAINTAINED. REPAIRED OR REPLACED AS NECESSARY. THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE SHALL MAINTAIN A WEEKLY REPORT ON SEDIMENT CONTROL MEASURES INCLUDING ALL CORRECTIVE ACTION TAKEN DURING THE REPORTING PERIOD TO ENSURE CONTROL MEASURES ARE WORKING EFFECTIVELY. IF THE SEDIMENT AND EROSION CONTROL MEASURES ARE NOT FUNCTIONING PROPERLY, THE CONTRACTOR WILL SUSPEND CONSTRUCTION UNTIL THE ISSUES ARE ADDRESSED.
- 4. SILT FENCING TO BE INSTALLED AT THE BOTTOM OF ALL FILL SLOPES AND DOWN GRADIENT OF ANY STOCKPILED MATERIAL WHEN THERE IS THE POSSIBILITY OF SEDIMENT MIGRATING TO ADJACENT PROPERTIES.
- 5. WHEN WORK IS COMPLETED AND AREAS ARE STABILIZED AS DEEMED ACCEPTABLE BY THE ENGINEER, TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED FROM THE WORK SITE.
- 6. THE SITE SUPERVISOR WILL HOLD A MEETING OF ALL EQUIPMENT OPERATORS WORKING AT THE SITE TO MAKE THEM AWARE FOR
- MEASURES TO CONTROL SEDIMENT. 7. ANY EQUIPMENT WORKING NEAR THE WATER MUST BE FREE FROM ANY LEAKS OF OIL, GREASE OR OTHER CONTAMINANTS. THE
- EQUIPMENT SHALL BE CLEANED OF ALL CONTAMINATES PRIOR TO BEING BROUGHT TO SITE. 8. CONTRACTOR SHALL DEVELOP AND IMPLEMENT A SPILL RESPONSE PLAN AND HAVE AN EMERGENCY SPILL KIT ONSITE.

ISOLATION AND DEWATERING:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE DEWATERING SYSTEM(S) REQUIRED TO COMPLETE
- 2. THE REDI-ROCK GRAVITY WALL INSTALLATION SHALL BE COMPLETED IN THE DRY. ROCK PROTECTION AND ARMOUR STONE MAY BE PLACED IN THE WET, PROVIDED TURBIDITY CURTAINS ARE IN PLACE AND FUNCTIONAL. ROCK PROTECTION AND ARMOUR MATERIALS SHALL BE CLEAN AND FREE FROM FINES.
- 3. THE TURBIDITY CURTAIN SHALL BE INSTALLED IN A MANNER TO PROMOTE FISH DISPERSION AWAY FROM THE WORK AREA.
- 4. CAPTURE, RELOCATE AND MONITOR FOR ANY TRAPPED FISH IN THE ISOLATED WORK AREA.
- 5. INSTALL APPROPRIATELY SIZED PUMPS AND HOSES. PUMP INTAKES SHALL BE FITTED WITH FISH SCREENS. PUMPS TO BE OPERATED WITHOUT DRAWING IN SEDIMENT, CLEAR WATER INTAKE ONLY.
- 6. PUMPS SHALL DISCHARGE TO A SPLASH PAD/DIFFUSER OR EQUIVALENT, ENSURING THE DISCHARGE DOES NOT CAUSE EROSION.
- 7. ONCE WORK IS COMPLETED, THE PUMPS SHALL BE SHUT OFF AND THE AREA ALLOWED TO RECHARGE SLOWLY WITHOUT CAUSING

BOAT LAUNCH CONSTRUCTION NOTES:

- 1. COMPLETE ISOLATION AND DEWATERING BASED ON CONTRACTOR'S CHOICE OF WORK APPROACH AND PREFERRED METHODS.
- 2. EXCAVATE RIVERBANK MATERIAL TO FACILITATE REDI-ROCK GRAVITY WALL INSTALLATION. SANDY MATERIALS TO BE SALVAGED FOR REUSE AS BACKFILL BEHIND THE WALL OR IN OTHER AREAS ONSITE AS DIRECTED BY THE ENGINEER. NO MATERIALS SHALL BE REMOVED FROM SITE.
- 3. COMPLETE REDI-ROCK GRAVITY WALL COMMON 60" BLOCK WALL CONSTRUCTION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, COMPLETE WITH BOTTOM BLOCKS FULLY BURIED, OFFSETTING BLOCKS AND FILL BETWEEN BLOCKS.
- 4. INSTALL TERRAFIX 600R GEOTEXTILE BETWEEN WALL BACKFILL AND ROCK PROTECTION.
- 5. INSTALL ROCK PROTECTION IN ACCORDANCE WITH OPSS.MUNI 1005.
- 6. PLACE ARMOUR STONE OVER ROCK PROTECTION. ARMOUR STONE SHALL BE 1.5 TONNE TO 3 TONNE IN SIZE. ARMOUR STONE SHALL BE PLACED INDIVIDUALLY ON THE SLOPE BEGINNING AT THE BASE AND WORKING UP. SLIDING OF ARMOUR ALONG ROCK PROTECTION SLOPE WILL NOT BE PERMITTED.
- 7. INSTALL SPANNER PLATE. ALL HARDWARE TO BE STAINLESS STEEL.
- 8. 8. INSTALL PRESSURE TREATED WOOD DECKING. HARDWARE TO BE STAINLESS STEEL OR HOT DIPPED GALVANIZED.







ENGINEER'S SEAL:



24-01-19	0	Issued For Tender	DAS	CLK
DATE	REV.	REVISION	BY	APP'D

CLIENT:





PROJECT TITLE:

BOOM CAMP BOAT LAUNCH IMPROVEMENTS

DRAWING TITLE:

TYPICAL SECTIONS, **DETAILS & NOTES**

DAS	DAS DAS		S	CLK		
DRAWN	DRAWN DESIGNED		ΞD	APPROVED		
AS N	AS NOTED			JAN. 19, 2024		
SCA	SCALE			DATE		
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PROJECT No. REVISION DRAWING

ANCHOR 6x6 TIMBERS (1 ANCHOR PER TIMBER PER BLOCK) WITH 1/2" STAINLESS STEEL OR HOT DIPPED GALVANIZED THREADED RODS. SET ANCHOR RODS IN HILTI HIT-HY200 ADHESIVE (INSTALL AS PER MANUFACTURER'S SPECIFICATIONS). PROVIDE FLAT WASHER AND HEX NUT. ENSURÉ MIN. 150mm EMBEDMENT FOR ALL ANCHOR RODS.