

THE CORPORATION OF THE TOWNSHIP OF RAMARA
BY-LAW NUMBER 2020.16

BEING A BY-LAW REGARDING THE CONSTRUCTION AND
REPLACEMENT OF SHOREWALLS WITHIN THE DEVELOPMENT
KNOWN AS LAGOON CITY

WHEREAS the provisions of the Township of Mara Act, 1986, (hereinafter referred to as the "Act"), authorizes the enactment of a By-law requiring the construction and maintenance of shorewalls by all Owners of land abutting a waterway conveyed to the Corporation of the Township of Mara in accordance with the provisions of the Act;

AND WHEREAS the shorewalls at Lagoon City are defined as vertical engineered structures to retain soil of each property that abuts the canal;

AND WHEREAS the purpose of the shorewalls is to delineate the boundaries of the canals while protecting against the erosion and degradation that could adversely affect the canal and adjacent properties.

AND WHEREAS the shorewalls form an integral part of the character of Lagoon City.

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF RAMARA enacts as follows:

1. DEFINITIONS:

- 1.0 "Commission" means the Lagoon City Parks & Waterways Commission.
- 1.1 "Corporation" means the Township of Ramara.
- 1.2 "Deck" a horizontal platform located completely on land.
- 1.3 "Dock" a platform located above or on the water, used to moor boats, used to load or unload people/goods, generally only allowed at marina and yacht club.
- 1.4 "Patio" located behind the shorewall, usually made of stones or bricks.
- 1.5 "Restricted Area" is the 7.62 metres (25 feet) set back from the shorewall that is used to protect the tie rods and deadhead anchors.
- 1.6 "Prohibited Months" shall mean from the first day to the last day of November, December, January, February and March of any given year.

- 1.7 "Shorewall" means a building improvement on a lot or block on a registered plan of subdivision or registered reference plan abutting a waterway and constructed to replace the natural shore at the rear or side of the lot or block.
- 1.8 "Side Swales" constructed drainage channel required to convey runoff from lots and roadways.
- 1.9 "Waterway" means a lagoon, water channel, canal or passageway for boats including the shore and bed thereof and including any bank of land lying between the shore and the abutting boundary of any lot or block shown on a registered plan of subdivision or registered reference plan.

2. SCOPE:

- 2.1 That all Owners of land abutting land conveyed to the Corporation of the Township of Ramara and used, or to be used, for a waterway shall construct at their sole expense a shorewall to the specifications hereinafter set forth, the said shorewalls to be fully constructed, installed and completed within a period of two (2) years from the date upon which title is conveyed to the said owner, whether such conveyance has taken place prior or subsequent to the enactment of this By-law.
- 2.2 That all Owners of land abutting land conveyed to the Corporation of the Township of Ramara and used, or to be used, for a waterway shall maintain at all times and at their sole expense, the shorewall which is either presently existing or which is constructed in accordance with the provisions of the preceding clause. Such required maintenance or repair to the shorewall shall be in a manner satisfactory to the Lagoon City Parks and Waterways Commission, but the requirements of the said Commission shall at no time exceed the specifications set out herein.
- 2.3 That all construction or repair work shall conform to and be in accordance with the specifications set out in Sections 4 and the Schedules "A" and "B" attached hereto.
- 2.4 Notwithstanding Section 2.3 above and Schedule "B" attached hereto, alternate materials can be used in the construction and repair of a shorewall if approved by a professional engineer licensed in the Province of Ontario and certified to be capable of supporting the mandatory concrete coping and fascia as set out in Section 5.3 of this By-law.

3. NOTICE OF REQUIRED WORK:

- 3.1 Notice to an Owner of required repair or replacement of the shorewall will be as follows:

- (a) The Commission will provide at least thirty (30) days notice to the Owner, by registered mail at the address shown on the assessment rolls, outlining the nature of the work required to repair or replace the shorewall;
- (b) The Commission will provide the Owner the opportunity to make oral or written representation to the Commission as to the necessity of repair or replacement of the shorewall within thirty (30) days of the mailing of the notice;
- (c) The Commission will give judgment of their decision in writing to the Owner within thirty (30) days as to the necessity of the identified repair or replacement of the shorewall.
- (d) After affording the Owner an opportunity to make submissions and having released its decision, the decision of the Commission with respect to the necessity of any repair or replacement of the shorewall is final.

4. SITE AND GRADING:

4.1 Shorewall configurations shall be:

- 4.1.1 "straight wall", or
- 4.1.2 "angled recess", or
- 4.1.3 "lay by"

and as shown in Schedule "A", attached hereto.

4.2 The site shall be graded and sodded in the restricted areas shown in Schedule "A".

4.3 The side swales shown in Schedule "A" shall be maintained so as to be clear and functional.

5. CONSTRUCTION DESIGNS AND SPECIFICATIONS:

5.1 No construction or maintenance of the shorewalls, or site changes to the restricted areas or to the swales, shown in Schedule "A", shall be carried out without first obtaining the required permits issued by the Corporation of the Township of Ramara, Lake Simcoe Region Conservation Authority, Ministry of Natural Resources and Forestry, Department of Fisheries and Oceans and all other applicable regulatory agencies.

5.2 Shorewalls are engineered structures and it is therefore the responsibility of the property owner to retain an engineer to design and certify construction of any work conducted on the shorewall.

- 5.3 All designs and specifications shall be prepared to maintain the general exterior appearances shown in Schedule "B" attached. Concrete coping and concrete fascia are mandatory as set out in Schedule "B" as attached hereto.
- 5.4 If the maintenance or repair does not require the replacement of any pile, the tie rods and deadhead anchors being replaced shall be constructed to the specifications as shown in Schedule "B".
- 5.5(a) Decks and patios capable of being removed are permitted in the "restricted area", but shorewalls must have been repaired or replaced as per this By-law, and must be constructed in a manner that allows access for inspection of shorewalls.
- (b) If posts or piles are required for support purposes, permits shall be required (from the Township and Lake Simcoe Region Conservation Authority) as well as a deputation presented to the Lagoon City Parks & Waterways Commission, including a site plan showing tie rods and deadhead anchors, before work can be started.

6. ENFORCEMENT:

- 6.1 Every person who contravenes any of the provisions of this By-law or who causes or permits any such contravention is guilty of an offence and on conviction is liable to a fine of not more than \$5,000.00, exclusive of costs pursuant to the provisions of s. 61 of the *Provincial Offences Act*, R.S.O. 1990, c. P.33.
- 6.2 In the event that any Owner fails to construct or maintain the portion of shorewall for which that owner is responsible in a state of repair satisfactory to the Lagoon City Parks and Waterways Commission, the said Commission may exercise its powers and privileges set out in the Act to compel the said Owner to construct or repair the shorewall for which he or she is responsible, and, if necessary, in accordance with the provisions of the Act, to perform the said construction or repair and to collect the cost of so doing in accordance with the provisions of the Act and in accordance with Section 446 of the *Municipal Act*, 2003, as amended.
- 6.3 The provisions of this By-law shall not apply to an Owner excluded therefrom by the provisions of Section 7(2) of the Act.

7. GENERAL:

- 7.1 The specifications heretofore referred to are set out in Schedule's "A" and "B" attached hereto and form part of this By-law.

- 7.2 If an “angled recess” or “lay by” design shorewall is used in place of a “straight wall” design, the Owner must dedicate to the Township of Ramara an easement a minimum of ten (10’) feet in width along the full limit of the lot immediately adjacent to the shorewall.
- 7.3 The design of all shorewalls and all related work shall be completed and sealed by a Professional Engineer licensed in the Province of Ontario.
- 7.4 Unless otherwise specifically noted, all work shall be completed in accordance with the requirements of the *Ontario Building Code Act*, 1992, S.O. 1992, c.23, as amended.
- 7.5 Sheet piling shall be driven to refusal at bedrock unless a site specific geotechnical report has been completed. The geotechnical report shall be prepared and sealed by a Professional Engineer licensed in the Province of Ontario. The geotechnical report must specifically address the proposed founding level for the sheet piles.
- 7.6 In order to preserve a uniformity of appearance relating to final elevations, the elevation of the shorewall shall be set at and as provided for in Schedule “A” and “B” attached hereto.
- 7.7 New shorewalls shall be installed so as to maintain all swales and associated items related to the original site drainage characteristics of the property.
- 7.8 The replacement of an existing shorewall shall match the geometric layout of the existing shorewall.
- 7.9 No work from barges shall occur during the prohibited months without the consent of the Lagoon City Parks & Waterways Commission.

8. SEVERABILITY:

- 8.1 In the event any provision, or portion thereof, of this by-law (including all schedules) is found by a court of competent jurisdiction to be *ultra vires*, such provision or part thereof shall be deemed to be severed and the remaining portion of such provisions and all other provisions of this by-law (including all schedules) shall remain in full force and effect.

9. SCHEDULES:

- 9.1 The following Schedules are attached hereto and form part of this By-law:
- (a) Schedule “A” – Shoreline Walls Site Plan & Grading
 - (b) Schedule “B” – Shorewall Specifications

10. SHORT TITLE:

10.1 This By-law may be referred to as the "Shorewalls By-law".

11. REPEAL:

12.1 By-law **2017.25** is hereby repealed in its entirety.

12. EFFECTIVE DATE:

13.1 That this By-law will take effect from the date of passing by the Council of the Corporation of the Township of Ramara.

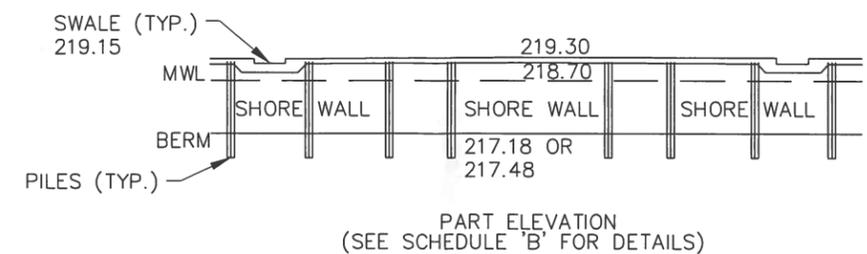
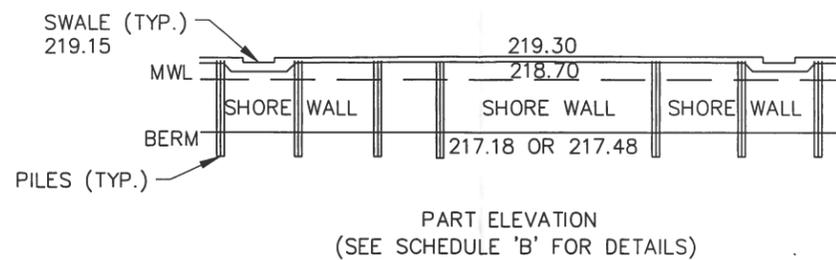
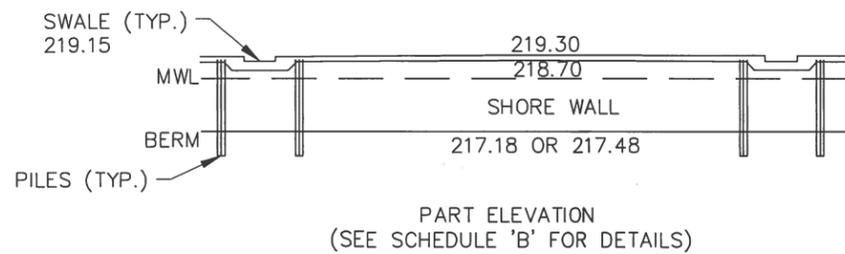
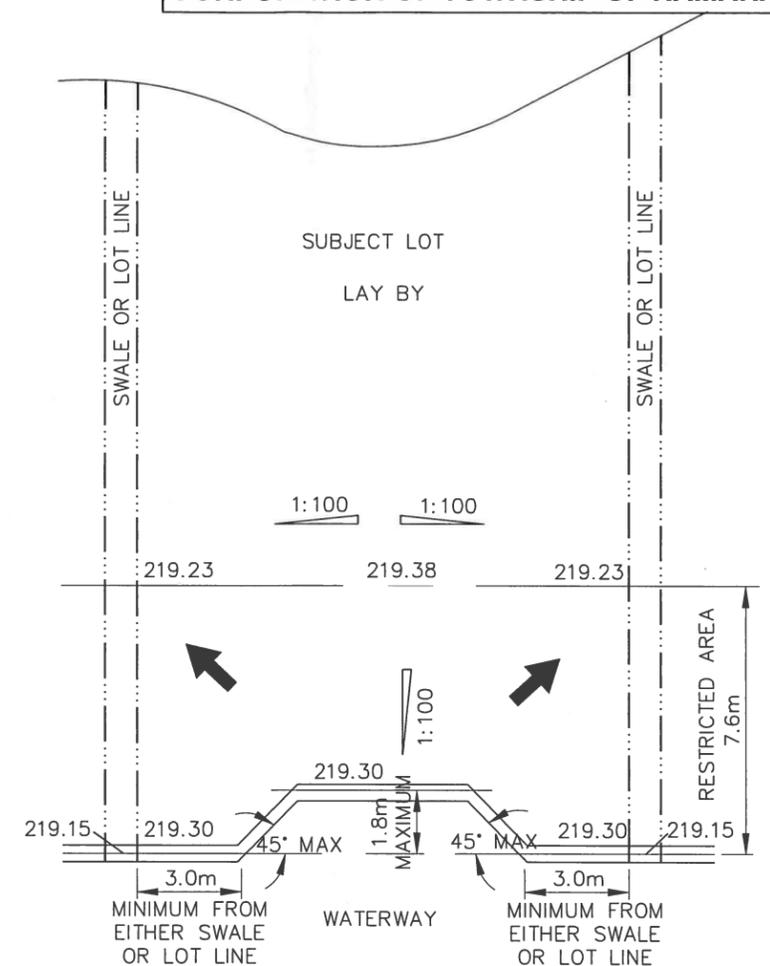
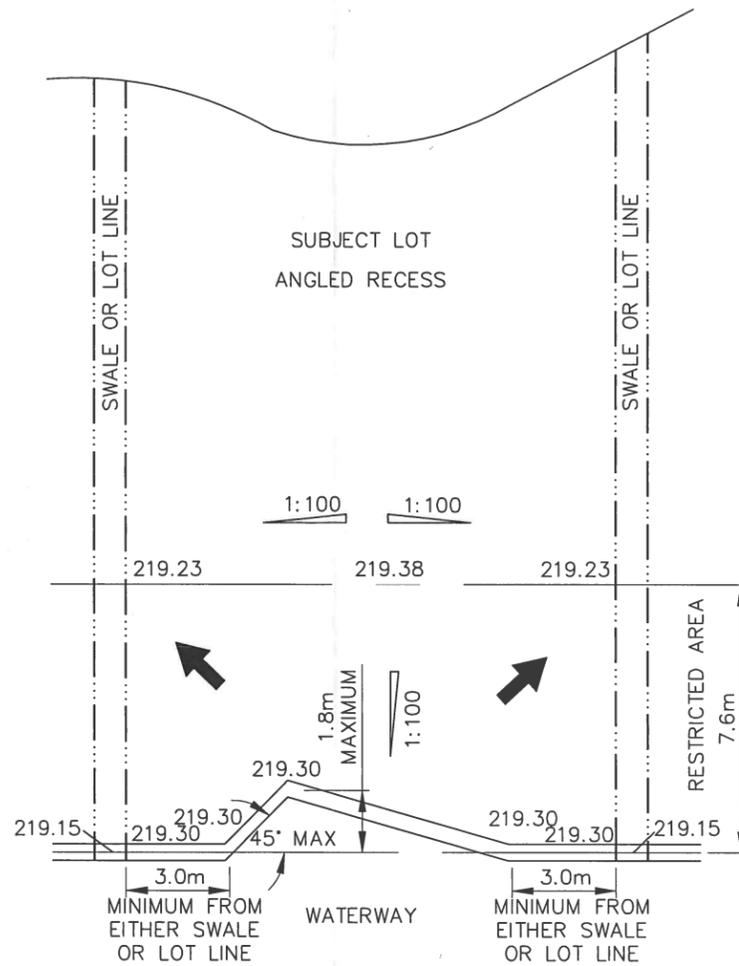
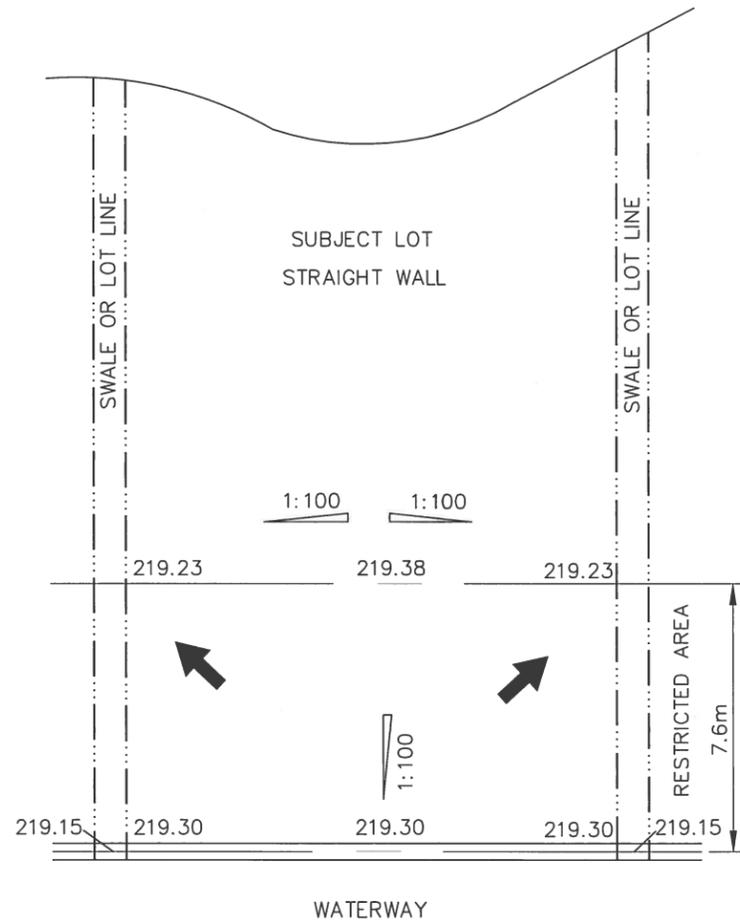
BYLAW READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 10TH DAY OF FEBRUARY 2020.



BASIL C. CLARKE, MAYOR



JENNIFER CONNOR, CLERK



NOTE: ELEVATION 218.70 - MEAN WATER LEVEL (ORIGINAL DESIGN PER INDUCON 4313-C-101)

➔ SURFACE RUNOFF DIRECTION



SCHEDULE 'A' BYLAW NO.
LAGOON CITY - SHORELINE WALLS
SITE PLAN & GRADING

DWG. No.
1 OF 1

SCALE: 1:200 | DRAWN: WL | DATE: OCT/19 | JOB NO. 316803-1

SHEET PILING NOTES

1. SHEET PILING SHALL BE MANUFACTURED USING STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF CSA G40.20/G40.21 OR ASTM A328M.
2. SHEET PILING TO CONSIST OF ROLLED, INTERLOCKING, STRUCTURAL STEEL SECTIONS WHICH ENABLE THE JOINING OF ADJACENT SECTIONS TO FORM A CONTINUOUS WALL.
3. STEEL SHEET PILES SHALL BE A Z-TYPE PROFILE.
4. WHERE STEEL SHEET PILES ARE TO BE SPLICED, WELDING SHALL BE ACCORDING TO CSA W59 AND SHALL BE DONE BY A QUALIFIED WELDER EMPLOYED BY A FIRM CERTIFIED ACCORDING TO CSA W47.1, DIVISION 1 OR 2. SPLICES IN MARINE STRUCTURES SHALL BE BELOW THE LOW WATER LEVEL.
5. THE SPECIFIED CUT-OFF ELEVATION SHALL BE WITHIN A TOLERANCE OF $\pm 25\text{mm}$.
6. THE SPECIFIED MAXIMUM DEVIATION FROM VERTICAL SHALL BE 1H:25V.
7. THE ENGINEERED DESIGN SHALL INCORPORATE JET FILTERS IN THE STEEL SHEET PILE WALLS AND A GEOTEXTILE WRAPPED DRAINAGE BACKFILL BEHIND THE WALL.

TIEBACK NOTES

1. TIEBACKS FOR THE SHEET PILING SHALL BE THREADED ROD CONFORMING TO THE REQUIREMENTS OF ASTM A193 B7 OR ASTM A307 GRADE B.
2. CORROSION PROTECTION SHALL BE ZINC PLATED OR HOT-DIP GALVANIZED.
3. MINIMUM DIAMETER FOR TIEBACKS SHALL BE 16mm ($\frac{5}{8}$ ").
4. MAXIMUM SPACING OF TIEBACKS SHALL BE 2.44m (8'-0").

DEADHEAD NOTES

1. CONCRETE DEADHEADS SHALL BE SIZED TO RESIST ALL DESIGN LOADS FROM THE TIEBACKS AND SHEET PILING.
2. MINIMUM DIMENSIONS FOR ALL CONCRETE DEADHEADS SHALL BE 1.2m x 0.6m x 0.6m.
3. ALL CONCRETE FOR THE DEADHEADS SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA A23.1, EXPOSURE CLASS F-1 WITH A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa @ 28 DAYS.

CONCRETE COPING, FASCIA, AND WALL PANEL NOTES

1. ALL CONCRETE FOR THE COPING, FASCIA AND WALL PANELS SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA A23.1, EXPOSURE CLASS C-1 WITH A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa @ 28 DAYS.
2. ALL STEEL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS CAN/CSA G30.18.
3. ALL EXPOSED CORNERS SHALL HAVE A 20mm x 20mm CHAMFER.
4. FINAL APPEARANCE OF ALL EXPOSED CONCRETE PANELS SHALL BE A NATURAL CONCRETE COLOUR WITH FLAT TROWELED FINISH.
5. GENERAL SIZE OF CONCRETE COPING SHALL BE 2.44m LONG x 0.45m WIDE x 0.15m THICK AND BE REINFORCED AS PER ENGINEERED DESIGN. MODIFY TO SUIT EXISTING SITE CONDITIONS AT CORNERS, TERMINATIONS AND JOINTS.
6. GENERAL SIZE OF CONCRETE FASCIA PANEL SHALL BE 2.44m LONG x 0.91m HIGH x 0.15m THICK AND BE REINFORCED AS PER ENGINEERED DESIGN. MODIFY TO ADAPT TO EXISTING SITE CONDITIONS AT CORNERS, TERMINATIONS AND JOINTS.
7. ALL CONCRETE ELEMENTS SHALL BE ADEQUATELY ANCHORED TO THE STEEL SHEET PILE WALLS, IN ACCORDANCE WITH THE ENGINEERED DESIGN.
8. WOOD BUMPER TO BE 64mm x 184mm AND SHALL BE TREATED WITH A WOOD PRESERVATIVE CONFORMING TO THE REQUIREMENTS OF CAN/CSA 080 SERIES 15. INSTALL AS PER TYPICAL BOAT SLIP BUMPER DETAIL ON DWG. No. 3 of 3.



**SCHEDULE 'B' BYLAW NO.
LAGOON CITY - SHORE WALLS**

DWG. No.

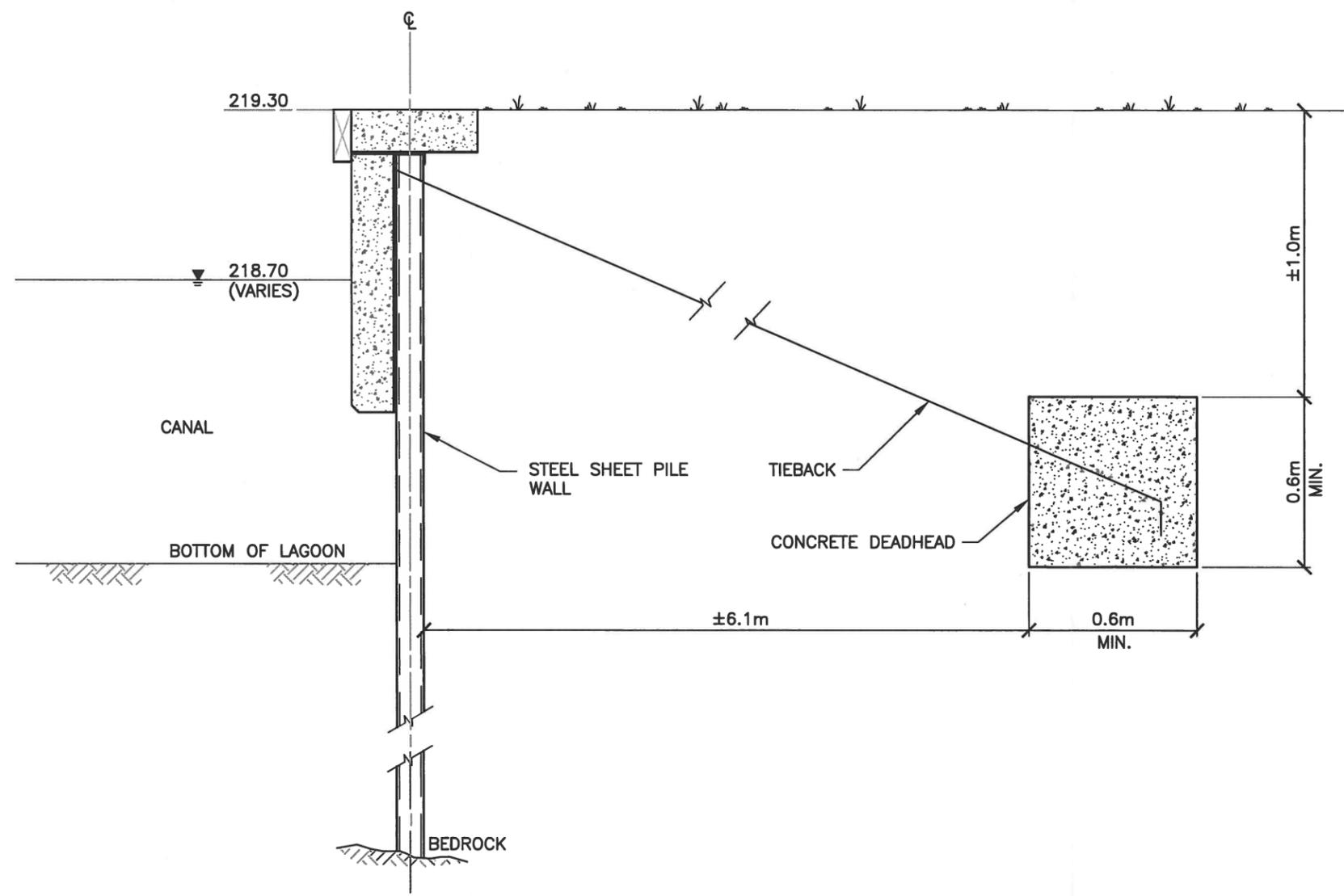
1 OF 3

SCALE: NTS

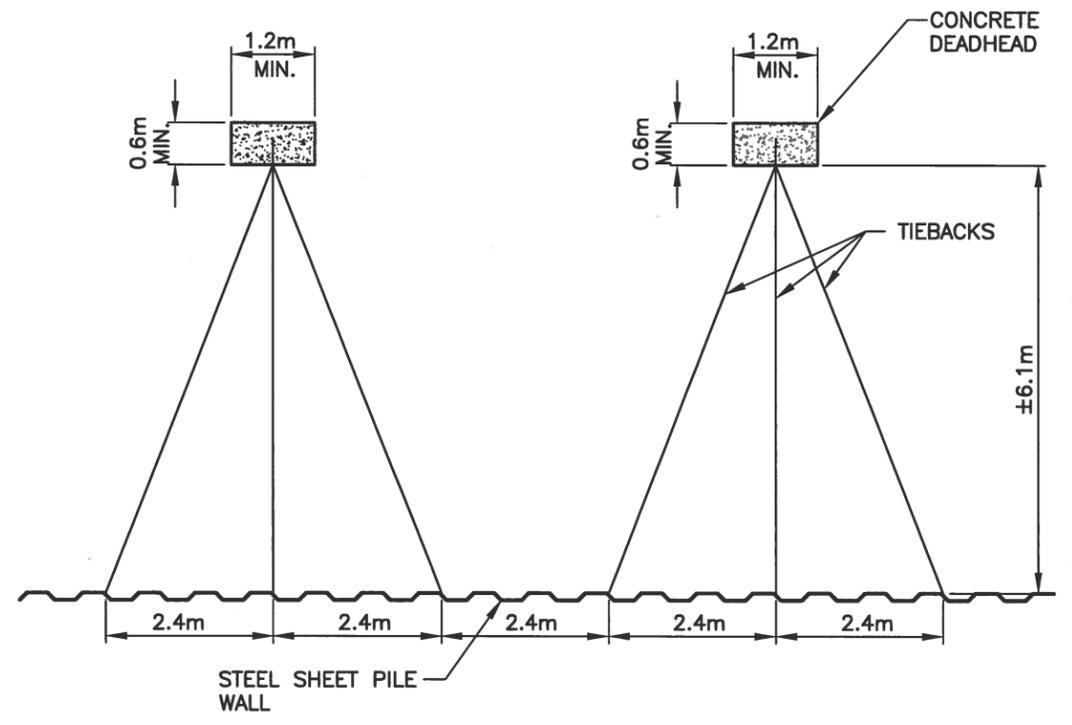
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DATE: NOV./19

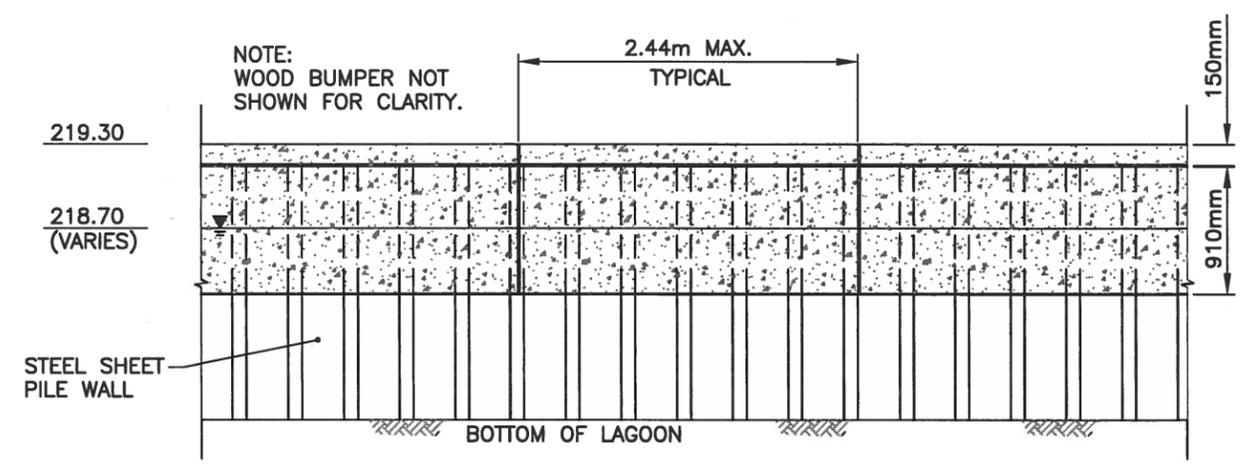
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TYPICAL SECTION THROUGH WALL
NTS

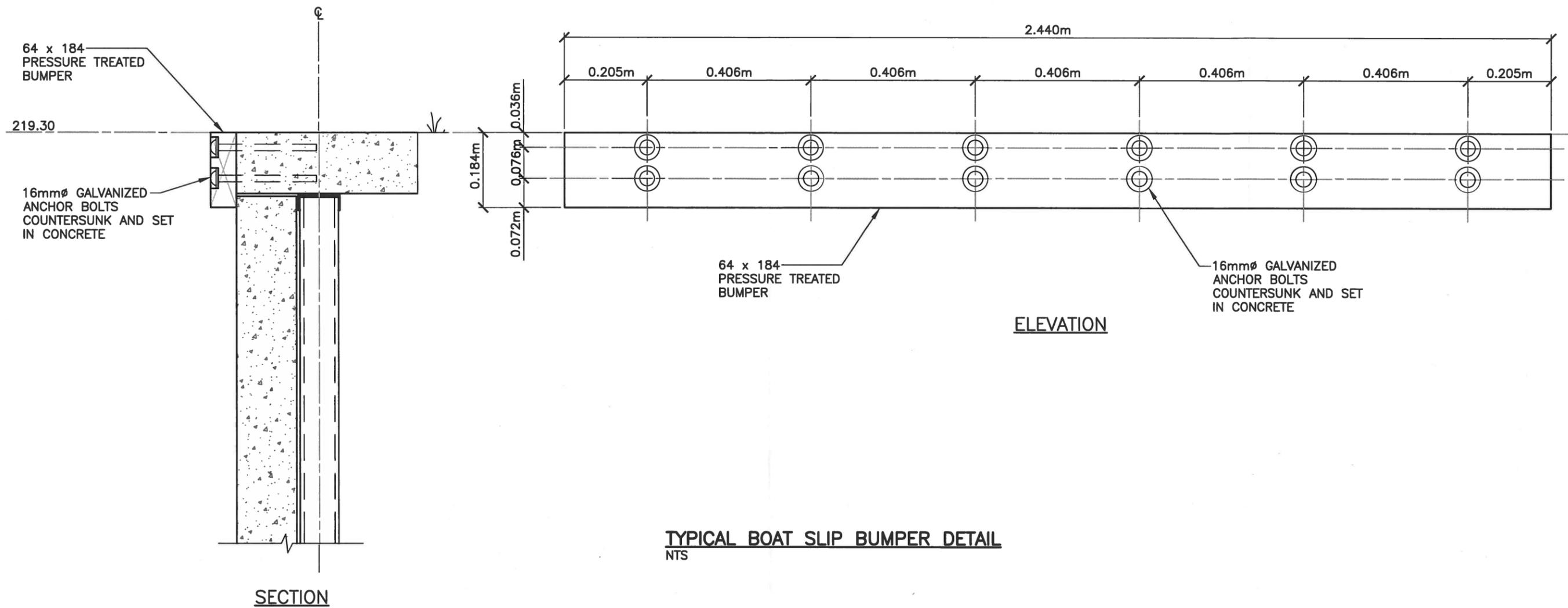


TYPICAL SPACING FOR TIE RODS
NTS



TYPICAL WALL ELEVATION
NTS

	SCHEDULE 'B' BYLAW NO. LAGOON CITY - SHORE WALLS		DWG. No. 2 OF 3
	SCALE: NTS	DRAWN: KF	DATE: NOV./19
			JOB NO. 316803-1



	SCHEDULE 'B' BYLAW NO. LAGOON CITY - SHORE WALLS		DWG. No. 3 OF 3
	SCALE: NTS	DRAWN: KF	DATE: NOV./19