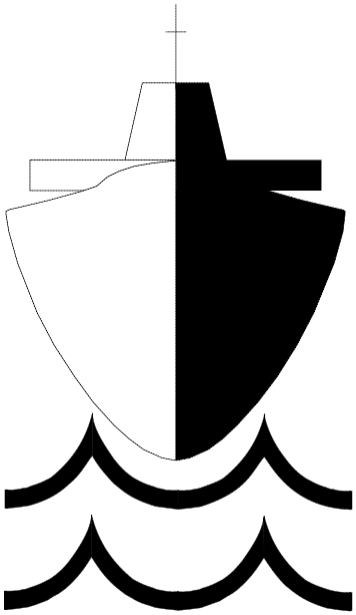
THE

SEAWAY HANDBOOK



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THE ST. LAWRENCE SEAWAY MANAGEMENT CORPORATION

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FOREWORD

This Seaway Handbook contains the joint St. Lawrence Seaway Management Corporation's Seaway Practices and Procedures established under Section 99 of the Canada Marine Act and the Great Lakes St. Lawrence Seaway Development Corporation's Seaway Regulations established pursuant to the Saint Lawrence Seaway Act of May 13, 1954, as amended. It also contains the St. Lawrence Seaway Schedule of Tolls, the St. Lawrence Seaway Schedule of Charges on Goods or Cargo, Landed, Shipped, Transhipped or Stored and other information pertinent to the use of the Seaway.

Insofar as they are applicable in the United States they may be cited as "Seaway Regulations" and in Canada they may be cited as "Seaway Practices and Procedures".

In addition to the **Seaway Practices and Procedures**, *the Canada Marine Act, the Canada Shipping Act (2001)* and Regulations made thereunder as well as the marine, navigation and shipping laws and regulations of the United States of America apply to ships in the Seaway.

The numbering system used in the Seaway Practices and Procedures differs from the one used in the Seaway Regulations (U.S.). The following are some terms used in the Seaway Handbook that differ from the Seaway Regulations (U.S.):

"ship" is used in Seaway Practices and Procedures and is defined in the Canada Marine Act while vessel is used in Seaway Regulations (U.S.).

"ship traffic controller" is used in the Seaway Practices and Procedures while vessel traffic controller" is used in the Seaway Regulations (U.S.).

"schedule of tolls" is used in the Seaway Practices and Procedures while "tariff of tolls" is used in the Seaway Regulations (U.S.).

"fees" is used in the Seaway Practices and Procedures while "toll" "tolls" and "Tolls and charges" are used throughout the Seaway Regulations (U.S.).

The difference in the terms and numbering does not affect the application of the Seaway Practices and Procedures.

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JOINT PRACTICES AND PROCEDURES RESPECTING THE TRANSIT OF SHIPS ON THE ST. LAWRENCE SEAWAY

(U.S. Rules 401.1 to 401.97)

1. Short Title

These Practices and Procedures may be cited as the **Seaway Practices and Procedures**.

2. Interpretation

In these Practices and Procedures,

- **«E-Business»** means web applications on The St. Lawrence Seaway Management Corporation web site which provides direct electronic transmission of data to complete and submit application forms and transit data;
- **«Act»** in Canada means the *Canada Marine Act*; in the United States means the Saint Lawrence Seaway Act; (Loi)
- **«Corporation»** means the Great Lakes St. Lawrence Seaway Development Corporation; *(Corporation)*
- **«fees»** is defined in the *Canada Marine Act* and includes "Toll(s)" or "tolls and charges" as used in the United States;
- **«flashpoint»** means the lowest temperature of a flammable liquid at which its vapour forms an ignitable mixture with air as determined by the closed-cup method; *(point d'éclair)*
- **«Hands Free Mooring»** (HFM) means a system that uses vacuum pads that are mounted on vertical rails inside the lock chamber wall to secure a ship during the lockage process;
- **«Manager»** means The St. Lawrence Seaway Management Corporation; *(gestionnaire*)
- **«navigation season»** means the annual period designated by the Manager and the Corporation, that is appropriate to weather and ice conditions or ship traffic demands, during which the Seaway is open for navigation; *(saison de navigation)*
- **«officer»** means a person employed by the Manager or the Corporation to direct some phase of operation or use of the Seaway; *(agent)*
- **«passing through»** means in transit through a lock or through the waters enclosed by the approach walls at either end of a lock chamber; *(éclusage)*
- **«pleasure craft»** means a ship, however propelled, that is used exclusively for pleasure and that does not carry passengers who have paid a fare for passage; (*embarcation de plaisance)*
- **«preclearance»** means the authorization given by the Manager or the Corporation or a ship to transit; *(congé préalable)*
- **«representative»** means the owner or charterer of a ship or an agent of either of them and includes any person who, in an application for preclearance of a ship, accepts responsibility for payment of the fees to be assessed against the ship in respect of transit and wharfage; *(représentant)*
- **«Schedule of Tolls»** means the same as "Tariff of Tolls" in the United States; *(tarif des droits)*
- **«Seaway»** means the deep waterway between the Port of Montreal and Lake Erie and includes all locks, canals and connecting and contiguous waters that are part of the deep waterway, and all other canals and works, wherever located, the management, administration and control of which have been entrusted to the Manager or the Corporation; *(voie maritime)*

- **«Seaway station»** means a radio station operated by the Manager or the Corporation; *(station de la voie maritime) (Refer to section 62 – Seaway Stations)*
- **«Ship»** means every description of ship, boat or craft designed, used or capable of being used solely or partly for marine navigation, whether self-propelled or not and without regard to the method of propulsion, and includes a sea-plane and a raft of logs or lumber; (*navire*)
- **«ship traffic controller»** means the officer who controls ships traffic from a Seaway station; (contrôleur du trafic maritime)
- **«Tariff of Tolls»** in the United States means the same as Schedule of Tolls in Canada; *(tarif des droits)*
- **«tanker»** means any ship specifically constructed for carrying bulk cargoes of liquid petroleum products, liquid chemicals, liquid edible oils and liquefied gases in tanks which form both an integral part and the total cargo carrying portion of that ship; *(navire-citerne)*
- **«towed»** means pushed or pulled through the water; *(remorqué)*
- **«transit»** means to use the Seaway, or a part of it, either upbound or downbound; *(transiter)*
- **«vessel»** is used in U.S. Seaway Regulations only and means any type of craft used as a means of transportation on water;
- **«vessel traffic controller»** is used in U.S. Seaway Regulations and has the same meaning as **Ship traffic controller**).

PART I - CONDITION OF SHIPS

3. Maximum Ship Dimensions

(1) Subject to subsection (5), no ship of more than 222.5 m in overall length or 23.2 m in extreme breadth shall transit.

(2) No ship shall transit if any part of the ship or anything on the ship extends more than 35.5 m above water level.

(3) No ship shall transit if any part of its bridges or anything on the ship protrudes beyond the hull.

(4) No ship's hull or superstructure when alongside a lock wall shall extend beyond the limits of the lock wall, as illustrated in Appendix I.

(5) A ship having a beam width in excess of 23.2 m but not more than 23.8 m and having dimensions that do not exceed the limits set out in the block diagram illustrated in Appendix I, or overall length in excess of 222.5 m but not more than 225.5 m shall, on application to the Manager or the Corporation, be considered for transit after review of the ship's drawings and, if accepted, shall transit in accordance with directions issued by the Manager and the Corporation.

(6) Ships beam greater than 23.20 m may be subject to transit restrictions and/or delays during periods of ice cover.

4. Minimum Length and Weight

No ship of less than 6 m in overall length or 900 kg in weight shall transit through Seaway Locks.

5. Required Equipment

No ship shall transit unless it is

(a) propelled by motor power that is adequate in the opinion of an officer; and

(b) marked and equipped in accordance with the requirements of sections 6 to 21.

6. Markings

(1) Ships of more than 20 m in overall length shall be correctly and distinctly marked and equipped with draught markings on both sides at the bow and stern.

(2) In addition to the markings required by subsection (1), ships of more than 110 m in overall length shall be marked on both sides with midship draught markings.

(3) Where a ship's bulbous bow extends forward beyond her stem head, a symbol of a bulbous bow shall be marked above the ship’s summer load line draught mark in addition

to a + symbol followed by a number indicating the total length in metres by which the bulbous bow projects beyond the stem.

7. Fenders

(1) Where any structural part of a ship protrudes so as to endanger Seaway installations, the ship shall be equipped with only horizontal permanent fenders

(a) that are made of steel, are of a thickness not exceeding 15 cm, with well tapered ends, and are located along the hull, close to the main deck level; and

(b) on special application, portable fenders, other than rope hawsers, may be allowed for a single transit if the portable fenders are

(i) made of a material that will float, and

(ii) securely fastened and suspended from the ship in a horizontal position by a steel cable or a fibre rope in such a way that they can be raised or lowered in a manner that does not damage Seaway installations.

(2) Tires shall not be used as fenders.

(3) On special application, ships of unusual design may be permitted to utilize permanent fenders not greater than 30 cm in thickness.

For details refer to Ship Transit and Equipment Requirements items 23 and 27.

8. Landing Booms

(1) Ships of more than 50 m in overall length and a freeboard of 2 m or more may be equipped with landing booms.

For details refer to Ship Transit and Equipment Requirements, section 20.

(2) For ships with landing booms:

(a) Ship must be equipped with an adequate landing boom on each side;

(b) Landing booms must be in compliance with applicable regulations;

(c) Ship's crews shall be adequately trained in the use of landing booms for the purpose of landing crew ashore.

(d) Ship must have onboard for inspection the following documents:

(i) A copy of the test certificates for each of the landing booms from either a classification society or a third party, dated within 5 years;

(ii) Documents to demonstrate appropriate training;

(iii) Documented tests and maintenance records of landing boom equipment.

(3) At the U.S. Locks, ships not equipped with or not using landing booms may be tied up at the approach walls based on Lock personnel availability.

(4) At the Canadian Locks, ships not equipped with or not using landing booms may be delayed and/or put to anchor until such time that the traffic pattern can accommodate their transit.

9. Radio Telephone and Navigation Equipment

(1) Self-propelled ships, other than pleasure craft of less than 20 m in overall length, shall be equipped with two VHF (very high frequency) radios.

(a) All communications shall be on the applicable VHF frequency. The use of personal electronic devices for communication between ships or with traffic control should be limited to necessity.

(b) Please note that communications into the Traffic Control Centre may be recorded for quality assurance and training purposes.

(2) The radio transmitters on a ship shall

(a) have sufficient power output to enable the ship to communicate with Seaway stations from a distance of 48 km; and

(b) be fitted to operate from the conning position in the wheelhouse and to communicate on channels 11, 12, 13, 14, 15, 16, 17, 66a, 75, 76 and 77.

(3) Gyro compass error greater than 2 degrees must be serviced prior to transiting the Seaway, and if noted during a Seaway transit, must be reported to the nearest Seaway station and serviced at the first opportunity.

For details of section 9. (2) (b) refer to section 60 through 64.

10. Mooring Lines

(1) Mooring lines shall

(a) be of a uniform thickness throughout their length;

(b) have a diameter not greater than 28mm for wire line and not greater than 64mm for approved synthetic lines

(c) be fitted with a hand spliced eye or Flemish type mechanical spliced eye not less than 2.4 m long for wire lines and 1.8 m long spliced eye for approved synthetic lines;

(d) have sufficient strength to check the ship;

(e) be arranged so that they may be led to either side of the ship as required.

(f) be certified and a test certificate for each mooring line containing information on breaking strength, material type, elongation and diameter shall be available onboard for inspection.

(2) Unless otherwise permitted by an officer, ships greater than 200 m shall only use wire mooring lines with a breaking strength that complies with the minimum specifications set out in the table to this section for securing a ship in lock chambers.

(3) Notwithstanding the above, nylon line is not permitted.

Hand held synthetic lines if permitted by the Manager or Corporation shall meet the criteria in section (1) and shall have a minimum length of not less than 65 m.

TABLE		
OVERALL LENGTH OF SHIPS	**LENGTH OF MOORING LINE**	**BREAKING SRENGTH**
40 m or more but not more than 60 m	110 m	10 MT
more than 60 m but not more than 90 m	110 m	15 MT
more than 90 m but not more than 120 m	110 m	20 MT
more than 120 m but not more than 180 m	110 m	28 MT
more than 180 m but not more than 200 m	110 m	31 MT
more than 200 m but not more than 225.5 m	110 m	35 MT
Elongation of synthetic lines shall not exceed 20%		

11. Fairleads

(1) Mooring lines shall

(a) be led at the ship's side through a type of fairlead or closed chock acceptable to the Manager and the Corporation;

(b) pass through not more than three inboard rollers that are fixed in place and equipped with horns to ensure that lines will not slip off when slackened and provided with free-running sheaves or rollers; and

(c) where the fairleads or closed chocks are mounted flush with the hull, be permanently fendered to prevent the lines from being pinched between the ship and a lock wall.

(d) When passing synthetic lines through a type of fairlead or closed chock acceptable to the Manager and the Corporation all sharp edges of the fairlead, closed chock and/or bulwark shall be rounded to protect the line from chafing or breakage.

(2) Wire lines shall only be led through approved roller type fairleads.

12. Minimum Requirements - Mooring Lines and Fairleads

(1) Unless otherwise permitted by the officer the minimum requirements in respect of mooring lines which shall be available for securing on either side of the ship, winches and the location of fairleads on ships are as follows:

(a) ships of 100 m or less in overall length shall have at least three mooring lines – wires or synthetic hawsers, two of which shall be independently power operated and one if synthetic, may be hand held;

(i) one line shall lead forward from the break of the bow and one line shall lead astern from the quarter and be independently power operated by winches, capstans or windlasses and lead through closed chocks or fairleads acceptable to the Manager and the Corporation; and

(ii) one synthetic hawser may be hand held or if wire line is used shall be powered. The line shall lead astern from the break of the bow through a closed chock to suitable bitts on deck for synthetic line or led from a capstan, winch drum or windlass to an approved fairlead for a wire line.

(b) ships of more than 100 m but not more than 150 m in overall length shall have three mooring lines – wires or synthetic hawsers, which shall be independently power operated by winches, capstans or windlasses. All lines shall be led through closed chocks or fairleads acceptable to the Manager and the Corporation.

(i) one shall lead forward and one shall lead astern from the break of the bow and one lead astern from the quarter.

(c) ships of more than 150 m but not more than 200 m in overall length shall have four mooring lines – wires or synthetic hawsers, which shall be independently power operated by winches.

(i) one mooring line shall lead forward and one mooring line shall lead astern from the break of the bow.

(ii) one mooring line shall lead forward and one mooring line shall lead astern from the quarter.

(iii) all lines shall be led through closed chocks or fairlead acceptable to the Manager and the Corporation.

(d) ships of more than 200 m in overall length shall have four mooring lines – wires, independently power operated by the main drums of adequate power operated winches as follows:

(i) one mooring line shall lead forward and one mooring line shall lead astern from the break of the bow.

(ii) (one mooring line shall lead forward and one mooring line shall lead astern from the quarter.

(iii) all lines shall be led through a type of fairlead acceptable to the Manager and the Corporation.

(e) every ship shall have a minimum of two spare mooring lines available and ready for immediate use.

(2) Unless otherwise permitted by the officer the following table sets out the requirements for the location of fairleads or closed chocks for ships of 100 m or more in overall length:

TABLE		
OVERALL LENGTH OF SHIPS	**FOR MOORING LINES NOS. 1 AND 2**	**FOR MOORING LINES NOS. 3 AND 4**
100 m or more but not more than 180 m	Shall be at a location on the ship side where the beam is at least 90 % of the full beam of the ship.	Shall be at a location on the ship side where the beam is at least 90 % of the full beam of the ship.
more than 180 m but not more than 225.5m	Between 20 m & 50 m from the stem	Between 20 m & 50 m from the stern

13. Hand Lines

Hand lines shall

(a) be made of material acceptable to the Manager and the Corporation, and

(b) be of uniform thickness and have a diameter of not less than 12 mm and not more than 18 mm and a minimum length of 30 m.

(c) not be weighted or have knotted ends.

For details refer to Ship Transit and Equipment Requirements, Appendix 4.

14. Anchors, Anchor Marking Buoys

(1) Every ship shall have their anchors cleared and have the anchor marking buoys free to deploy (weak link to hold buoy line on board) with the buoy lines firmly secured to each anchor and ready to be released prior to entering the Seaway.

(2) Every ship shall deploy the anchor marking buoy when dropping an anchor in Seaway waters (designated Seaway anchorages are exempt).

(3) Every ship shall be equipped with operational anchor(s) suitably rigged for immediate release, holding and retrieval. Every ship shall be responsible for locating and retrieving any anchor deployed by the ship and shall do so as timely manner so as to not delay transits of ships.

For details refer to Ship Transit and Equipment Requirements, Section 19.

15. Stern Anchors

Every ship of more than 125 m in overall length, the keel of which is laid after January 1, 1975, shall be equipped with a stern anchor.

Every integrated tug and barge or articulated tug and barge unit greater than 125 m in overall length which is constructed after January 1, 2003 shall be equipped with a stern anchor.

For details refer to Ship Transit and Equipment Requirements, section 17.

16. Propeller Direction Alarms

Every ship of 1600 gross registered tons or integrated tug and barge or articulated tug and barge unit of combined 1,600 gross registered tons or more shall be equipped with

(a) propeller direction and shaft r.p.m. indicators located in the wheelhouse and the engine room; and

(b) visible and audible wrong-way propeller direction alarms, with a time delay of not greater than 8 seconds, located in the wheelhouse and the engine room, unless the ship is fitted with a device which renders it impossible to operate engines against orders from the bridge telegraph.

17. Pitch Indicators and Alarms

Every ship of 1,600 gross registered tons or integrated tug and barge or articulated tug and barge unit of combined 1,600 gross registered tons or more equipped with a variable pitch propeller shall be equipped with

(a) a pitch indicator in the wheelhouse and the engine room; and

(b) visible and audible pitch alarms, with a time delay of not greater than 8 seconds, in the wheelhouse and engine room to indicate wrong way pitch.

18. Steering Lights

Every ship shall be equipped with:

(a) a steering light located on the centreline at or near the stem of the ship and clearly visible from the helm; or

(b) two steering lights located at equal distances either side of the centreline at the forepart of the ship and clearly visible from the bridge along a line parallel to the keel.

19. Disposal and Discharge Systems

(1) Every ship not equipped with containers for ordure shall be equipped with a sewage disposal system enabling compliance with the Vessel Pollution and Dangerous Chemicals regulations (Canada), the U.S. Clean Water Act and the U.S .River and Harbor Act, and amendments thereto.

(2) Garbage on a ship shall be

(a) destroyed by means of an incinerator or other garbage disposal device; or

(b) retained on board in covered, leak-proof containers, until such time as it can be disposed of in accordance with the provisions of the Vessel Pollution and Dangerous Chemicals regulations (Canada), the U.S. Clean Water Act and the U.S. River and Harbor Act, and amendments thereto.

(3) No substance shall be discharged or disposed of onto a lock wall or tie-up wall by any means, including overboard discharge pipes.

(4) Burning of shipboard garbage is prohibited between CIP2 & Cape Vincent and between CIP 15 & CIP 16.

20. Automatic Identification System

(1) Each of the following ships must use an Automatic Identification System (AIS) transponder to transit the Seaway:

(a) each commercial ship that requires pre-clearance in accordance with section 22 and has a 300 gross tonnage or greater, has a Length Over All (LOA) over 20 meters, or carries more than 50 passengers for hire; and

(b) each dredge, floating plant or towing ship over 8 meters in length; except only each lead unit of combined and multiple units (tugs and tows).

(2) Each ship listed in paragraph (1) of this section must meet the following requirements to transit the Seaway:

(a) International Maritime Organization (IMO) Resolution MSC.74(69), Annex 3, Recommendation on Performance Standards for a Universal Shipborne AIS, as amended;

(b) International Telecommunication Union, ITU-R Recommendation M.1371-5: 2014, Technical Characteristics For A Universal Shipborne AIS Using Time Division Multiple Access In The VHF Maritime Mobile Band, as amended;

(c) International Electrotechnical Commission, IEC 61993-2 Ed.3, Maritime Navigation and Radio Communication Equipment and Systems –AIS – Part 2: Class A Shipborne Equipment of the Universal AIS – Operational and Performance Requirements, Methods of Test and Required Test Results, as amended;

(d) International Maritime Organization (IMO) Guidelines for Installation of Shipborne Automatic Identification System (AIS), NAV 48/18, 6 January 2003, as amended, and, for ocean ships only, with a pilot plug, as specified in Section 3.2 of those Guidelines, installed close to the primary conning position in the navigation bridge and a power source accessible for the pilot's laptop computer; and

(e) The Minimum Keyboard Display (MKD) shall be located as close to the primary conning position and be visible;

(f) Computation of AIS position reports using a Satellite Based Augmentation System (SBAS); or

(g) The use of a temporary unit meeting the requirements of subparagraphs (2) (a) through (f) of this section is permissible; or

(h) For each ship with LOA less than 30 meters, the use of portable AIS compatible with the requirements of subparagraphs (2)(a) through (c) and subparagraphs (e) and (f) of this section is permissible.

21. Requirements for U.S. Waters of the St. Lawrence Seaway

In addition to the requirements set forth elsewhere in these Practices and Procedures, ships transiting the U.S. waters of the St. Lawrence Seaway are subject to the requirements set out in Schedule 1.

PART II - PRECLEARANCE AND SECURITY FOR FEES

22. Preclearance of Ships

(1) No ship, other than a pleasure craft of 300 gross registered tonnage or less, shall transit until an application for preclearance has been made, in accordance with section 24 to the Manager by the ship's representative and the application has been approved by the Manager and the Corporation pursuant to section 25.

(2) No ship shall transit while its preclearance is suspended or has terminated by reason of
   (a) the expiration of the representative's guarantee of fee payment,

   (b) a change of representative of the ship,

   (c) a material alteration in the physical characteristics of the ship, until another application for preclearance has been made and approved, or

   (d) past due invoices by the representative as set out in subsection 75(1).

(3) Unless otherwise permitted by an officer a non-commercial ship of 300 gross registered tonnage or less cannot apply for pre-clearance status and must transit as a pleasure craft.

23. Liability Insurance

(1) It is a condition of approval of an application for preclearance that the ship is covered by liability insurance equal to or exceeding $100 per gross registered ton.

(2) No ship shall transit while its liability insurance is not in full force and effect.

24. Application for Preclearance

(1) The representative of a ship may apply for preclearance by completing and submitting the e-business preclearance form on the St. Lawrence Seaway website (www.greatlakes-seaway.com), giving particulars of the ownership, liability insurance and physical characteristics of the ship and guaranteeing payment of the fees that may be incurred by the ship.

   Preclearance application must be submitted via the e-business site to the St. Lawrence Seaway at least 24 hours prior to ship arrival. They will be reviewed and approved between 08:00 – 16:00 hours Monday through Friday excluding holidays.

(2) For representatives benefiting from the exemption of security of tolls as set out in subsection 26(3) and 26(4), a continuous preclearance status may be assigned to all ships under their responsibility. Validation of the continuous preclearance status will be required every 5 years.

(3) For representatives with a valid security for fees and a good payment history as set out in subsection 26(3) and 26(4), a continuous preclearance status may be assigned to all ships under their responsibility. Validation of the continuous preclearance status will be required every year.

(4) In the event that a ship under the representative's responsibility is modified or upgraded, an application for preclearance will be required to update the ship's information and reset the ship's preclearance status.

25. Approval of Preclearance

Where the Manager and the Corporation approve an application for preclearance, it shall

(a) give the approval; and

(b) assign a number to the approval.

26. Security for fees

(1) Before transit by a ship to which the requirement of preclearance applies, security for the payment of fees in accordance with the St. Lawrence Seaway Schedule of Tolls as well as security for any other charges, shall be provided by the representative by means of

(a) a deposit of money with the Manager;

(b) a letter of guarantee to the Manager given by a financial institution approved by the Manager; or

(c) a letter of guarantee given to the Manager by an acceptable Bonding Company. Bonding companies may be accepted if they:

(i) appear on the list of acceptable bonding companies as issued by the Treasury Board of Canada; and

(ii) meet financial soundness requirements as may be defined by the Manager (or the Corporation) at the time of the request.

(2) The security for the fees of a ship shall be sufficient to cover the fees as established in the "St. Lawrence Seaway Schedule of Tolls" for the gross registered tonnage of a ship, cargo carried, lockage tolls as well as security for any other charges, as estimated by the manager.

(3) Where a number of ships:

(a) for each of which a preclearance has been given;

(b) are owned or controlled by the same individual or company; and

(c) have the same representative,

the security for the fees may not be required if the individual, company or representative has paid every fee invoice received in the preceding five years within the period set out in subsection 75(1).

(4) Notwithstanding subsection (3) of this section, where a number of ships, for each of which a preclearance has been given, are owned or controlled by the same individual or company and have the same representative, the security for the fees may be reduced or eliminated provided the representative has paid every fees invoice received in the preceding five years within the period set out in subsection 75(1). Upon request from the

Manager, the representative must provide the Manager with a financial statement that meets the requirements established by the Manager.

(5) Where, in the opinion of the Manager, the security provided by the representative is insufficient to secure the fees incurred or likely to be incurred by a ship, the Manager may suspend the preclearance of the ship.

27. Compliance with Instructions

Every ship shall comply promptly with transit instructions given by the traffic controller or any other officer.

28. Speed Limits

(1) The maximum speed over the bottom for a ship of more than 12 m in overall length shall be regulated so as not to adversely affect other ships or shore property, and in no event shall such a ship proceeding in any area between a place set out in column I of an item of Schedule II and a place set out in column II of that item exceed the speed set out in column III or column IV of that item, whichever speed is designated by the Manager and the Corporation in a Seaway Notice from time to time as being appropriate to existing water levels.

(2) Where the Manager or the Corporation designates any speed less than the maximum speeds set out in Schedule II, that speed shall be transmitted as transit instructions referred to in section 27.

(3) Every ship under way shall proceed at a reasonable speed so as not to cause undue delay to other ships.

(4) Every ship passing a moored ship or equipment working in a canal shall proceed at a speed that will not endanger the moored ship, the moored equipment or the occupants of either.

(5) Notwithstanding the above speed limits, every ship approaching a free standing lift bridge shall proceed at a speed so that it will not pass the Limit of Approach sign should the raising of the bridge be delayed.

29. Maximum Draught

(1) Notwithstanding any provision herein, the loading of cargo, draught and speed of a ship in transit shall be controlled by the master, who shall take into account the ship's individual characteristics and its tendency to list or squat, so as to avoid striking bottom. (The main channels between the Port of Montreal and Lake Erie have a controlling depth of 8.23 m.)

For details refer to Ship Transit and Equipment Requirements, Section 18.

The draught of a ship shall meet minimum draught requirement as defined at inspection on the Enhanced Ship Inspection form and not, in any case, exceed 79.2 dm or the maximum permissible draught designated in a Seaway Notice by the Manager and the Corporation for the part of the Seaway in which a ship is passing.

(2) Any ship will be permitted to load at an increased draught of not more than 7 cm above the maximum permissible draught in effect (also known as DIS draught) as prescribed under 29 (2) if it is equipped with a Draught Information System (DIS) and meets the following:

(a) An operational Draught Information System (DIS) approved by a member of the International Association of Classification Societies (IACS) as compliant with the

Implementation Specifications found at www.greatlakes-seaway.com and having onboard;

(i) An operational AIS with accuracy approved by the Seaway; and

(ii) Up-to-date electronic charts; and

(iii) Up-to-date charts containing high resolution bathymetric data; and

(iv) Ships must be equipped with a bow thruster and bow thruster must be operational.

(b) The DIS Tool Display shall be located as close to the primary conning position and be visible and legible.

(i) Verification document of the DIS must be kept on board the ship at all times and made available for inspection;

(ii) DIS license to use the software must be valid;

(iii) Software version of DIS matches that in the IACS verification letter, or higher;

(iv) A company letter attesting to officer training on use of the DIS must be kept on board and made available for inspection;

(v) When transiting Seaway waters with the DIS, a trained officer on the use of the DIS must be on the bridge;

(c) Any ship not yet approved, but wishing to use DIS in the Seaway must notify the Manager or the Corporation at least 96 hours in advance so that arrangements can be made for appropriate testing for approval to use the DIS to transit the Seaway;

(d) A ship already approved to use DIS to transit the Seaway and intending to use it must email a completed DIS Confirmation Checklist to slsmcmarineservices@seaway.ca once per navigation season, at least 96 hours prior to its initial transit of the navigation season. The confirmation checklist can be found at www.greatlakes-seaway.com ;

(e) If for any reason the DIS, AIS, or bow thruster becomes inoperable, malfunctions or is not used while the ship is transiting at a draught greater than the maximum permissible draught prescribed under 29 (2) in effect at the time, the ship must notify the Manager or the Corporation immediately.

30. Ballast Water and Trim

(1) Every ship shall be adequately

(a) ballasted,

(b) trimmed, and

(c) no ship, other than under exceptional circumstances and with special permission, shall be accepted for transit whose trim by the stern exceeds 45.7 dm.

(d) any ship that is not adequately ballasted and trimmed in the opinion of an officer may be refused transit or may be delayed.

(e) As a condition of transit of the Seaway after having operated outside the exclusive economic zone (EEZ) every ship that carries only residual amounts of ballast water and/or sediment that were taken onboard the ship outside the EEZ shall:

(i) Conduct a saltwater flushing of their ballast water tanks that contain the residual amounts of ballast water and/or sediment in an area 200 nautical miles from any shore before entering waters of the Seaway. Saltwater flushing is defined as the addition of mid-ocean water to ballast water tanks: the mixing of the flush water with residual water and sediment through the motion of the ship; and the discharge of the mixed water, such that the resultant residual water remaining in the tank has as high salinity as possible, and is at least 30 parts per thousand (ppt).

The ship shall take on as much mid-ocean water into each tank as is safe (for the ship and crew) in order to conduct saltwater flushing. And adequate flushing may require more than one fill-mix-empty sequence, particularly if only small amounts of water can be safely taken onboard at one time. The master of the ship is responsible for ensuring the safety of the ship, crew and passengers.

Ships reporting only residual ballast water onboard shall take particular care to conduct saltwater flushing on the transit to the Great Lakes so as to eliminate fresh or brackish water residuals in ballast tanks; and

(ii) Maintain the ability to measure salinity levels in each tank onboard the ship so that final salinities of at least 30 ppt can be ensured.

(f) Every tank that is found not in compliance with 30(e) shall retain any ballast water until it exits the Seaway.

(g) These requirements do not apply to ships of the armed forces, as defined in the Federal Water Pollution Control Act, or that are owned or operated by a state and used in government non-commercial service.

(2) To obtain clearance to transit the Seaway:

(a) every ship entering the Seaway after operating beyond the exclusive economic zone must agree to comply with the “Code of Best Practices for Ballast Water Management” of the Shipping Federation of Canada dated September 28, 2000, while operating anywhere within the Great Lakes and the Seaway; and

(b) every other ship entering the Seaway that operated within the Great Lakes and the Seaway must agree to comply with the “Voluntary Management Practices to Reduce the Transfer of Aquatic Nuisance Species Within the Great Lakes by U.S. and Canadian Domestic Shipping” of the Lake Carriers Association and Canadian

Shipowners Association dated January 26, 2001, while operating anywhere within the Great Lakes and the Seaway.

(c) For copies of the "Code of Best Practices for Ballast Water Management" and of the "Voluntary Management Practices to Reduce the Transfer Of Aquatic Nuisance Species within the Great Lakes by U.S. and Domestic Shipping" refer to the St. Lawrence Seaway website at www.greatlakes-seaway.com

For details refer to Ship Transit and Equipment Requirements item 30 "Ballast Water Tank Information"

31. Meeting and Passing

(1) The Collision Regulations and the United States Inland Rules apply in respect of the meeting and passing of ships.

(2) No ship shall meet another ship within the area between the caution signs at bridges or within any area that is designated as a no meeting area by the Manager or the Corporation.

(3) Except as instructed by the traffic controller, no ship shall overtake and pass or attempt to overtake and pass another ship

(a) in any canal;

(b) within 600 m of a canal or lock entrance; or

(c) after the order of passing through has been established by the ship traffic controller.

32. Cargo Booms - Deck Cargo

(1) Every ship shall have cargo booms secured in a manner that affords maximum visibility from the wheelhouse.

(2) Cargo or containers carried, forward or aft, on deck shall be stowed in a manner that

(a) affords an unrestricted view from the wheelhouse for the purpose of navigation; and

(b) does not interfere with mooring equipment.

(3) Seaway Traffic Control Centre shall be notified of the height of deck cargo prior to transiting the Seaway or when departing from a Port or Wharf within the Seaway.

33. Special Instructions

No ship of unusual design, ship or part of a ship under tow or ship whose dimensions exceed the maximum ship dimensions prescribed in section 3 shall transit the Seaway except in accordance with special instructions of the Manager or the Corporation given on the application of the representative of the ship.

34. Ships in Tow

(1) No ship that is not self-propelled (including but not limited to tug/tows and/or deadship/tows) shall be underway in any Seaway waters unless it is securely tied to an adequate tug or tugs, in accordance with special instructions given by the Manager or the Corporation pursuant to section 33 and must be equipped with an operational anchor. Refer to section 49.

(2) Every ship in tow has to be inspected prior to every transit unless it has a valid Seaway Inspection Certificate. The owner/master shall give a 24 hour notice of arrival when an inspection is required. For details refer to section 79 2 (d).

(3) Every ship in tow must be adequately crewed for transit in the Seaway.

35. Navigation Underway

Every ship transiting between calling-in point 2 and Tibbetts Point and between calling-in points 15 and 16 shall

(a) man the propulsion machinery of the ship, including the main engine control station;

(b) operate the propulsion machinery so that it can respond immediately through its full operating range;

(i) Ships equipped with an Engine Power Limitation system (EPL) or Shaft Power Limitation System (ShaPoLi) shall override the EPL or ShaPoLi while transiting the Seaway.

(ii) For ships equipped with the ability to shift upward the main engine limitation from the engine control station (ex. increase limitation button), all members of the bridge team must be aware of this functionality and be capable of activating it on request or if needed. The bridge team shall also ensure that the pilot on board is advised of the system's existence and function.

(c) man the wheelhouse of the ship at all times by either the master or certified deck officer, and a helmsman, and;

(d) have sufficient well rested crewmembers available for mooring operations and other essential duties.

36. Order of Passing Through

Ships shall advance to a lock in the order instructed by the traffic controller.

37. Mooring at Tie-Up Walls

(1) Upon arrival at a lock, a ship awaiting instructions to advance shall moor at the tie-up wall, close up to the designated limit of approach sign or to the ship preceding it, whichever is specified by the traffic controller or an officer.

(2) Crew members being put ashore on landing booms and handling mooring lines on tie-up walls shall wear approved personal floatation devices.

(3) Should the situation arise where a tie up at an approach wall is provided by Seaway personnel at the Canadian Locks, synthetic mooring lines should be used.

38. Limit of Approach to a Lock

A ship approaching a lock shall comply with directions indicated by the signal light system associated with the lock and in no case shall its stem pass the designated limit of approach sign while a red light or no light is displayed.

39. Preparing Mooring Lines for Passing Through

Before a ship enters a lock,

(a) winches shall be capable of paying out and heaving in at a minimum speed of 46 m per minute; and

(b) the eye of each mooring line shall be passed outward through the fairleads at the side.

39.1 Raising Fenders

Every ship equipped with fenders that are not permanently attached shall raise its fenders when passing a lock gate or HFM equipment.

40. Entering, Exiting or Position in Lock

(1) Unless directed by the Manager and the Corporation, no ship shall proceed into a lock in such a manner that the stem passes the stop symbol on the lock wall nearest the closed gates.

(2) On being cast off in a lock, no ship shall be allowed to fall back in such a manner that the stern passes the stop symbol on the lock wall nearest the closed gates.

(3) Every ship proceeding into a lock shall be positioned and moored as directed by the officer in charge of the lock.

(4) Vessel Self Spotting (VSS) displays at the Canadian Locks are meant to assist ships to spot position of the ship's stem in the lock. The VSS display does not relieve the Master of the responsibility of ensuring that the ship’s stem does not pass the STOP symbol marked on the Lock wall as required Section 40(1) by using its own spotting method such as visual spot by ship's crew.

(5) No ship shall use thrusters when passing a lock gate or a Hands Free Mooring (HFM) unit.

41. Tandem Lockage

Where two or more ships are being locked together, ships astern of the leading ship shall

(a) come to a full stop a sufficient distance from the preceding ship to avoid a collision; and

(b) be moved into mooring position as directed by the officer in charge of the lock.

42. Passing Hand Lines

(1) At locks, hand lines shall be secured to the mooring lines and passed as follows:

(a) a downbound ship shall use its own hand lines, secured to the eye at the end of the mooring lines by means of a bowline, which hand lines shall be passed to the linehandlers at the lock

(i) for the #4 mooring wire, the hand line shall be passed to the linehandlers at the lock as soon as the ship's aft fairleads pass the open gates

(ii) for the #2 mooring wire, the hand line shall be passed to the linehandlers at the lock as soon as the forward fairleads pass the last HFM unit.

(b) hand lines shall be passed to upbound ships by the linehandlers as soon as the ship passes the last HFM unit, and secured, by means of a clove hitch, to the mooring lines 60 cm behind the splice of the eye;

(c) at Iroquois Lock and Lock 8, Welland Canal, both upbound and downbound ships shall use their own hand lines as provided in paragraph (a); and

(d) upbound ships of overall length in excess of 218 m in Locks 4 and 5, Welland Canal, shall secure the hand line to the eye of the No.1 mooring wire by means of a bowline.

(2) Mooring lines shall not be passed over the side of a ship in a manner dangerous to a lock crew.

43. Mooring Table

Unless otherwise directed by an officer, ships passing through the locks shall moor at the side of the tie-up wall or lock as shown in the table to this section.

MONTREAL TO IROQUOIS								
	South Shore		Beauharnois			Wiley-Dondero		Iroquois
	St. Lambert	*Côte Ste.Catherine*	*Lower*	*Pool*	*Upper*	*Snell*	*Eisenhower*	
Locks								
Upbound	P	P	S		S	S	S	P
Downbound	S	S	P		P	P	P	S
Tie-up Walls								
Upbound	S	S	P	P		S	S	S
Downbound	P	P		S	S	P	P	P

WELLAND CANAL									
	1	*2*	*3*	*4*	*5*	*6*	*7*	*Guard Gate Cut*	*8*
Locks									
Upbound	S	S	P	P	P	P	P		S
Downbound	P	P	S	P	P	P	S		P
Tie-up Walls									
Upbound	S	S	S	S			S	S	PorS
Downbound	P	P	P			S	S	P	PorS

NOTE: S = Starboard; P= Port

44. Mooring in Locks

(1) The primary means of securing ships in the locks is by way of the Hands-Free Mooring (HFM) system. Ships being moored by HFM must have a minimum of one well rested crew member on deck during the lockage to assist the Bridge team.

(2) Single tugs, tug/barge combinations, and small ships (less than 160m in overall length) that are not eligible to use HFM are to be processed without mooring lines at the Canadian Locks with the exception of upbound lockages at Locks 4, 5 and 6 in the Welland Canal.

(3) Ships being moored by “Hands Free Mooring” system (HFM) or passing through a lock without the use of mooring lines shall have a minimum of one (1) well rested crew member on deck during the lockage to assist the Bridge team.

(4) Ships requiring the use of mooring lines shall be processed as follows:

(a) Mooring lines shall only be placed on mooring posts as directed by the officer in charge of the mooring operation.

(b) No winch from which a mooring line runs shall be operated until the officer in charge of a mooring operation has signalled that the line has been placed on a mooring post.

(c) Once the mooring lines are on the mooring posts, lines shall be kept slack until the "all clear" signal is given by the lock personnel. When casting off signal is received mooring lines shall be kept slack until the "all clear" signal is given by the lock personnel.

45. Emergency Procedure

When the speed of a ship entering a lock chamber has to be checked the master shall take all necessary precautions to stop the ship in order to avoid contact with lock structures. At no time shall the ship deploy its anchors to stop the ship when entering a lock chamber.

46. Attending Lines

(1) Lines of a ship shall be under visual control and attended by members of its crew during the time the ship is passing through a lock.

(2) While a ship is within a lock chamber and lines are hand held for tension control, each line shall be attended by at least one member of the ship's crew.

(3) Mooring lines on deck must be individually attended unless the ship is equipped with side control and visual contact must be maintained for signal from lock employees taking or letting go mooring lines.

47. Leaving a Lock

(1) Mooring lines shall only be cast off as directed by the officer in charge of a mooring operation.

(2) No ship shall proceed out of a lock until the exit gates, ship arresters and the bridge, if any, are in a fully open position and the lock operator gives the "all clear" instruction.

(3) When "Hands Free Mooring" system (HFM) is used no ship shall use its engine(s) until the lock operator provides the "all clear" instruction.

48. Turning Basins

No ship shall be turned about in any canal, except

(a) with permission from the traffic controller; and

(b) at the locations set out in the table to this section.

TURNING BASINS	
South Shore Canal:	
a)Turning Basin No. 1	- Opposite Brossard
b)Turning Basin No. 2	- Immediately below Côte St. Catherine Lock
Welland Canal:	
a)Turning Basin No. 1	Between Lock 7 and the Guard Gate Cut for ships up to 180 m in overall length
b)Turning Basin No. 2	Immediately south of Port Robinson (mile 13)
c)Turning Basin No. 3	North of Lock No. 8 for ships up to 140 m in overall length
d)For ships up to 80 m in overall length	
(i) North end of Wharf No. 1	
(ii)Tie-up wall above Lock 1,	
(iii)Tie-up wall below Lock 2,	
(iv)Wharf No. 9,	
(v)Between the southerly extremities of Wharves 18-2 and 18-3	

49. Dropping Anchor or Tying to Canal Bank

Except in an emergency, no ship shall drop anchor in any canal or tie-up to any canal bank unless authorized to do so by the traffic controller.

If the anchor is dropped, the master of the ship shall immediately report it to the nearest Seaway station.

Every anchor shall be suitability rigged for immediate release, holding and efficient retrieval.

50. Anchorage Areas

Except in an emergency, or unless authorized to do so by the traffic controller, no ship shall drop anchor in any part of the Seaway except in the following designated anchorage areas:

(a) Point Fortier (Lake St. Louis)
(b) Melocheville (Beauharnois Canal)

(c) St. Zotique, Dickerson Island and Stonehouse Point (Lake St. Francis)
(d) Wilson Hill Island and Morrisburg (Lake St. Lawrence)
(e) Prescott, Union Park and Carlton Island (St. Lawrence River)
(f) Off Tibbetts Point (Lake Ontario)
(g) Off Port Weller (Lake Ontario)
(h) Off Port Colborne (Lake Erie)

51. Signalling Approach to a Bridge

(1) Unless a ship's approach has been recognized by a flashing signal, the master shall signal the ship's presence to the bridge operator by VHF radio when it comes abreast of any of the bridge whistle signs.

(2) The signs referred to in subsection (1) are placed at distances varying between 550 m and 2990 m upstream and downstream from moveable bridges at sites other than lock sites.

52. Limit of Approach to a Bridge

(1) No ship shall pass the limit of approach sign at any moveable bridge until the bridge is in a fully open position and the signal light shows green.

(2) No ship shall pass the limit of approach sign at the twin railway bridges on the South Shore Canal at Kahnawake, until both bridges are in a fully open position and both signal lights show green.

53. Obstructing Navigation

No ship shall be operated, drop anchor or be fastened or moored in a manner that obstructs or hinders navigation.

54. Interference with Navigation Aids

(1) Aids to navigation shall not be interfered with or used as moorings.

(2) No person shall, unless authorized by the Manager or the Corporation, set out buoys or navigation markers on the Seaway.

55. Searchlights

No searchlight shall be used in such a manner that its beam interferes with the operators at a Seaway structure or on any ship.

56. Damaging or Defacing Seaway Property

The master of every ship shall

(a) navigate so as to avoid damage to Seaway property; and

(b) prevent defacement of Seaway property by any member of the ship's crew.

57. Disembarking or Boarding

(1) Except as authorized by an officer, no person, other than a member of the crew of a ship passing through, shall disembark or board any ship while the ship is passing through.

(2) No member of the crew of a ship passing through shall disembark or board except for the purpose of carrying out essential duties as directed by the Master.

(3) Persons disembarking or boarding shall be assisted by a member of the ship's crew under safe conditions.

(4) Persons intending on disembarking or boarding a ship shall only do so after they have confirmed with the Captain that the ship is fully secured in the lock with Hands-Free Mooring or with mooring lines.

58. Pleasure Craft Scheduling

(1) At the U.S. Locks, the transit of pleasure craft shall be scheduled by the traffic controller or the officer in charge of a lock and may be delayed so as to avoid interference with other ships; and

(2) Every pleasure craft seeking to transit Canadian Locks shall first make a reservation on the Seaway website according to the available schedule.

59. Pollution

(1) No ship shall

(a) emit sparks or excessive smoke; or

(b) blow boiler tubes.

(2) No ship shall discharge into Seaway waters any substance not in conformity with applicable United States Federal Regulations and Canadian Regulations with the exception of the waters of the Welland Canal where two specific zones are established in which no substance shall be discharged, namely,

(a) from lock 7 (Thorold) to mile 17 (Welland); and

(b) from lock 8 (Port Colborne) to the outer Port Colborne Piers (Lake Erie).

(3) A record shall be kept by the ship of each location within the Seaway or adjacent waters where bilge water has been discharged.

(4) Except as authorized by the Manager or the Corporation, no ship shall discharge garbage, ashes, ordure, litter or other materials.

(5) Except as authorized by the Manager or the Corporation, no over the side painting shall be allowed in the Seaway.

PART IV - RADIO COMMUNICATIONS

60. Listening Watch and Notice of Arrival

(1) Ships shall be on radio listening watch on the applicable assigned frequency while within a Seaway traffic control sector as shown on the General Seaway Plan and shall give notice of arrival in the manner prescribed in section 64 upon reaching any designated calling in point.

(2) Notice of arrival shall be deemed to have been given when it is acknowledged by a Seaway station.

61. Assigned Frequencies

The Seaway stations operate on the following assigned VHF frequencies:

(a) 156.8 MHz (channel 16)	Distress and calling;
(b) 156.7 MHz (channel 14)	Working (Canadian stations in Sector 1 and the Welland Canal);
(c) 156.65 MHz (channel 13)	Working (U.S. station in Lake Ontario);
(d) 156.6 MHz (channel 12)	Working (U.S. station in Lake Ontario);
(e) 156.6 MHz (channel 12)	Working (U.S. stations in Sector 2 of the River);
(f) 156.55 MHz (channel 11)	Working (Canadian stations in Sector 3, Lake Ontario & Lake Erie).

62. Seaway Stations

The Seaway stations are located as follows:

VDX20 (Seaway Beauharnois)	Upper Beauharnois Lock	Traffic Control Sector No.1
KEF (Seaway Eisenhower)	Eisenhower Lock	Traffic Control Sector No.2
VDX21 (Seaway Iroquois)	Iroquois Lock	Traffic Control Sector No.3
WAG (Seaway Clayton)	Clayton, N.Y.	Traffic Control Sector No.4
WAG (Seaway Sodus)	Sodus, N.Y.	Traffic Control Sector No.4
VDX72 (Seaway Newcastle)	Port Hope, Ontario	Traffic Control Sector No.5
VDX70 (Seaway Newcastle)	Port Weller, Ontario	Traffic Control Sector No.5
VDX22 (Seaway Welland)	St. Catharines, Ontario	Traffic Control Sector No.6
VDX68 (Seaway Long Point)	Port Colborne, Ontario	Traffic Control Sector No.7

63. Radio Procedures

Every ship shall use the channels of communication in each control sector as listed in the table to this section.

CHANNELS OF COMMUNICATION					
STATION	**CONTROL SECTOR NUMBER**	**SECTOR LIMITS**	**CALL IN**	**WORK**	**LISTENING WATCH**
Seaway Beauharnois	1	C.I.P. No. 2 to C.I.P. No. 6-7	Ch. 14	Ch. 14	Ch. 14
Seaway Eisenhower	2	C.I.P. No. 6-7 to C.I.P. No. 10-11	Ch. 12	Ch. 12	Ch. 12
Seaway Iroquois	3	C.I.P. No. 10-11 to Crossover Island	Ch. 11	Ch. 11	Ch. 11
Seaway Clayton	4	Crossover Island to Cape Vincent	Ch. 13	Ch. 13	Ch. 13
Seaway Sodus	4	Cape Vincent to Mid Lake Ontario	Ch. 12	Ch. 12	Ch. 16
Seaway Newcastle	5	Mid Lake Ontario to C.I.P. No. 15	Ch. 11	Ch. 11	Ch. 16
Seaway Welland	6	C.I.P. No. 15 to C.I.P. No. 16	Ch. 14	Ch. 14	Ch. 14
Seaway Long Point	7	C.I.P. No. 16 to Long Point	Ch. 11	Ch. 11	Ch. 16

64. Calling In

(1) Every ship, intending to transit or in transit, shall report on the assigned frequency to the designated Seaway station when opposite any calling in point or checkpoint (indicated on the General Seaway Plan) and, when reporting, shall give the information indicated in Schedule III.

(2) Changes in information provided under subsection (1), including up-dated ETAs that vary from the ETAs provided under the subsection by 30 minutes or more, shall be reported to the appropriate Seaway station.

(3) A downbound ship in St. Lambert Lock shall switch to channel 10 (156.5 MHz) for a traffic report from Quebec Ship Traffic Management Centre.

(4) After obtaining the situation report referred to in subsection (3), the downbound ship shall return to guarding channel 14 (156.7 MHz) and remain on that channel until it is clear of St. Lambert Lock chamber.

(5) When the downbound ship has cleared the downstream end of the lower approach wall of St. Lambert Lock, the master of the ship shall call "Seaway Beauharnois" and request permission to switch to channel 10 (156.5 MHz).

(6) Seaway Beauharnois shall grant the permission requested pursuant to subsection (5) and advise the downbound ship of any upbound traffic that may be cleared for Seaway entry but not yet at C.I.P. 2.

(7) In the event of an expected meeting of ships between the downstream end of the lower approach wall and C.I.P. 2, the downbound ship shall remain on channel 14 (156.7 MHz) until the meeting has been completed.

(8) After the meeting, the downbound ship shall call ``Seaway Beauharnois'' before switching to channel 10 (156.5 MHz).

65. Communication - Ports, Docks and Anchorages

(1) Every ship entering or leaving a lake port shall report to the appropriate Seaway station at the following check points:

(a) for the lake ports of Toronto and Hamilton, 1 nautical mile outside of the harbour limits; and

(b) for other lake ports, when crossing the harbour entrance.

(2) Every ship arriving at a port, dock or anchorage shall report to the appropriate Seaway station, giving an estimated time of departure if possible

(3) At least four hours prior to departure from a port, dock or anchorage, every ship shall report to the appropriate Seaway station its destination and its expected time of arrival at the next check point.

(4) Every ship intending to conduct a dive operation and/or Remotely Operated Vehicle (ROV) inspection at a dock, wharf or approach wall shall provide a 24-hour minimum notice of diving operations to the appropriate Seaway Traffic control Centre.

PART V - DANGEROUS CARGO

66. Applicable Laws

(1) Ships carrying a cargo or part cargo of fuel oil, gasoline, crude oil or other flammable goods in bulk, including empty tankers which are not gas free, and ships carrying dangerous substances whether break-bulk or containerized to which regulations made under the Canada Shipping Act (2001) or under the Transportation of Dangerous Goods Act or to which the Dangerous Cargo Act or the Hazardous Materials Transportation Act of the United States or regulations issued pursuant thereto apply, shall be deemed to carry dangerous substances and shall not transit unless all requirements of the said Statutes and regulations and of these Practices and Procedures have been fulfilled.

(2) Every ship carrying dangerous cargo, as described in this Part, and all tankers carrying liquid cargo in bulk shall file with the Manager and the Corporation a copy of the current load plan described in subsection 72(5).

67. Carrying Explosives

A ship carrying explosives, either Government or commercial, as defined in the Dangerous Cargo Act of the United States and in the International Maritime Dangerous Goods Code, Class 1, Divisions 1.1 to 1.5 inclusive, shall be deemed for the purpose of these Practices and Procedures to be an explosive ship.

68. Explosives Permission Letter

(1) A Seaway Explosives Permission Letter is required for an explosive ship in the following cases:

(a) for all ships carrying any quantity of explosives with a mass explosive risk, up to a maximum of 2 tonnes (IMO Class 1, Division 1.1 and 1.5);

(b) for all ships carrying more than 10 tonnes and up to a maximum of 50 tonnes of explosives that do not explode en masse (IMO Class 1, Division 1.2);

(c) for all ships carrying more than 100 tonnes and up to a maximum of 500 tonnes of explosives having a fire hazard without explosive effect (IM0 Class 1, Division 1.3); and

(d) for all ships carrying more than 100 tonnes and up to a maximum of 500 tonnes of safety explosives and shop goods (IMO Class 1, Divisions 1.4).

(2) When an explosive ship is carrying quantities of explosives above the maximum mentioned in subsection (1), no Seaway Explosives Permission Letter shall be granted and the ship shall not transit.

(3) A written application for a Seaway Explosives Permission Letter certifying that the cargo is packed, marked and stowed in accordance with the Transportation of Dangerous Goods Regulations (Canada), the United States regulations under the Dangerous Cargo Act and the International Maritime Dangerous Goods Code may be made to The St. Lawrence Seaway Management Corporation, 202 Pitt Street, Cornwall, Ontario, K6J 3P7, or to the

Great Lakes St. Lawrence Seaway Development Corporation, P.O. Box 520, Massena, New York, U.S.A., 13662.

(4) A signed copy of a Seaway Explosives Permission Letter and a true copy of any certificate as to the loading of dangerous cargo shall be kept on board every explosive ship in transit and shall be made available to any officer requiring production of such copies.

69. Hazardous Cargo Ships

For the purpose of these Practices and Procedures, a ship shall be deemed to be a hazardous cargo ship in the following cases:

(a) a tanker carrying fuel oil, gasoil

(b) ne, crude oil or other flammable liquids in bulk, having a flashpoint below 61°C, including a tanker that is not gas free where its previous cargo had a flashpoint below 61°C;

(c) a tanker carrying compressed liquefied gases, bulk acids or liquefied chemicals;

(d) a dry cargo ship carrying the following dangerous substances, whether in bulk, break-bulk or containerized, that are

(i) in excess of 50 tonnes of gases, compressed, liquefied or dissolved under pressure (IMO Class 2),

(ii) in excess of 50 tonnes of flammable liquids having a flashpoint below 61°C (IMO Class 3),

(iii) in excess of 50 tonnes of flammable solids, spontaneously combustible material or substances emitting combustible gases when wet (IMO Class 4),

(iv) in excess of 50 tonnes of oxidizing substances or organic peroxides (IMO Class 5),

(v) any quantity of poisonous (toxic) substances and infectious substances (IMO Class 6),

(vi) any quantity of radioactive substances (IMO Class 7),

(vii) in excess of 50 tonnes of corrosive substances (IMO Class 8),

(viii) any quantity of metal turnings, borings, cuttings, or shavings, in bulk having a temperature on loading or in transit in excess of 65.5°C.

(ix) any quantity of grain that is under fumigation, where the chemical being used is hazardous to human life, and

(x) any quantity of direct reduced iron (DRI).

70. Fendering - Explosive and Hazardous Cargo Ships

All explosive ships requiring a Seaway Explosives Permission Letter in accordance with Section 68 and all tankers carrying cargo with a flashpoint of up to 61°C, except those carrying such cargo in centre tanks with gas free wing tanks, shall be equipped with a sufficient number of non-metallic fenders on each side to prevent any metallic part of the ship from touching the side of a dock or lock wall.

71. Signals - Explosive and Hazardous Cargo Ships

An explosive ship or hazardous cargo ship shall display at the masthead or at an equivalent conspicuous position a "B" flag.

72. Reporting - Explosive and Hazardous Cargo Ships

(1) Every explosive ship or hazardous cargo ship shall, when reporting information related to cargo as required by subsection 64(1), report the nature and tonnage of its explosive or hazardous cargo and the flashpoint of that cargo where applicable. Every ship carrying grain which is under fumigation shall declare to the nearest traffic control centre the nature of the fumigant, its properties and cargo holds affected.

(2) Every explosive ship requiring a Seaway Explosives Permission Letter shall, when reporting in, give the number of its Seaway Explosives Permission Letter.

(3) Every hazardous cargo ship carrying metal turnings, shavings, cuttings or borings in bulk shall, when reporting information related to cargo as required by subsection 64(1), give the high temperature reading of each compartment at that time, together with the high temperature reading in each compartment taken on completion of loading.

(4) Every ship carrying radioactive substances shall, when reporting in, give the number and date of issue of any required certificate issued by the Canadian Nuclear Safety Commission (CNSC) and/or the US Nuclear Regulatory Commission (USNRC) authorizing such shipment.

(5) Every ship carrying dangerous cargo, as described in section 66, and all tankers carrying liquid cargo in bulk, and all ships carrying grain under fumigation shall, prior to transiting any part of the Seaway, file with the Manager a copy of the current load plan that includes the following information:

(a) the name of the cargo, its IMO class and UN number as set out in the International Maritime Dangerous Goods Code, if applicable, or, if the cargo is not classed by the IMO and does not have a UN number, the words "NOT CLASSED";

(b) the approximate total weight in metric tonnes or total volume in cubic metres and the stowage location of each commodity;

(c) the approximate weight in metric tonnes or the approximate volume in cubic metres in each hold or tank;

(d) the flashpoint of the cargo, if applicable; and

(e) the estimated date of entry into the Seaway and the date and time that the load plan was last issued or amended;

(f) tankers in ballast shall report the previous cargo of each cargo hold on a plan as above.

(6) For tankers, the information required under this section shall be detailed on a plan showing the general layout of the tanks, and a midships cross-section showing the double bottom tanks and ballast side tanks. For details refer to Ship Transit and Equipment Requirements.

(7) If a Safety Data Sheet (SDS) on a hazardous cargo that a ship is carrying is not available in a Seaway Traffic Control Centre, the ship shall provide information enabling the preparation of an SDS.

(8) Every ship shall submit its load plan to the nearest Seaway Traffic Control Centre from which it will be distributed to all other Seaway Traffic Control Centres. Any changes in stowage, including loading and discharging during a transit, the ship shall submit an updated plan before departing from any port between St. Lambert and Long Point.

(9) Failure to comply with these requirements may result in unnecessary delays or transit refusal.

73. Cleaning Tanks - Hazardous Cargo Ships

(1) Cleaning and gas-freeing of tanks shall not take place

(a) in a canal or a lock;

(b) in an area that is not clear of other ships or structures; and

(c) before gas-freeing and tank cleaning has been reported to the nearest Seaway station.

73.1 Acceptance of Hot Work

Before any hot work, defined as any work that uses flame or that can produce a source of ignition, cutting or welding, is carried out by any ship on any designated St. Lawrence Seaway Management Corporation (SLSMC) approach walls, Cote St. Catherine wharf or wharves in the Welland Canal, a written request must be sent to the SLSMC, preferably 24 hours prior to the ship's arrival on SLSMC Approach walls or wharves. The hot work shall not commence until the hot work request is accepted and acknowledged by SLSMC Traffic Control Centre.

(a) The SLSMC Traffic Control centre will accept the request to perform hot work under the following conditions:

(i) Copy of ship's "Hot Work Permit" provided to SLSMC before welding commences;

- In the Welland canal send to: nrerie@seaway.ca & nrshipinspectors@seaway.ca
- In the MLO Section send to: cdo@seaway.ca & inspecteursvm@seaway.ca

(ii) Name of company performing the hot work;

(iii) Effective fire watch is maintained;
(iv) Welding operations shall temporarily cease during ship meets and lockages;
(v) Welding operations shall cease at the direction of a Traffic Controller; and
(vi) All sparks and/or flames to be contained on the ship.

73.2 Special Requirements for Tankers Performing Hot Work

(1) Prior to arriving at any SLSMC designated Approach wall or wharf a tanker must be gas free or have tanks inerted. The gas-free certificate must be sent to the SLSMC Traffic Control Centre in order to obtain clearance for the ship to commence Hot Work.

PART VI - FEES ASSESSMENT AND PAYMENT

74. Transit Declaration

(1) A Seaway e-business Transit Declaration (Cargo) shall be completed and submitted to the Manager by the representative of a ship, for each ship that has an approved preclearance except non cargo ships, within fourteen (14) days after the ship enters the Seaway on any upbound or downbound transit.

(2) The e-business Transit Declaration must be filled directly on the St. Lawrence Seaway website at www.greatlakes-seaway.com and submitted from e-business.

(3) The use of the Harmonized System (HS Codes) and the UN Location Codes on the e-business Transit Declaration is mandatory to identify cargo and ports respectively.

(4) The loaded or manifest weight of cargo shall be shown on the Seaway e-business Transit Declaration, except in the case of petroleum products where gallonage meters are not available at the point of loading, in which case offloaded weights may be shown on the e-business Transit Declaration.

(5) Where a ship carried cargo to or from an overseas port, an electronic copy of the cargo manifest, duly certified, shall be submitted with the Seaway e-business Transit Declaration.

(6) A Weigh-Scale Certificate or similar document issued in the place of a cargo manifest or a bill of lading may be accepted in lieu thereof.

(7) Where a submitted Seaway e-business Transit Declaration is found to be inaccurate concerning the destination, cargo, the representative shall immediately forward to the Manager, revision of the submitted Declaration.

(8) Submitted Seaway e-business Transit Declarations shall be used in assessing fees in accordance with the St. Lawrence Seaway Schedule of Tolls, and fees invoice shall be forwarded to the representative or its designated agent.

(9) Where government aid cargo is declared, appropriate Canadian or U.S. customs form or a stamped and signed certification letter from Canada or U.S. Customs must accompany the e-business Transit Declaration or notification must be made to the Manager.

75. Payment of Fees

(1) Every fee invoice shall be paid in Canadian funds, within 45 days after the ship enters the Seaway, and any adjustment of the amount payable shall be provided for in a subsequent invoice.

(2) Fees, established by agreement between Canada and the United States, and known as the St. Lawrence Seaway Schedule of Tolls, shall be paid by pleasure crafts for the transits of each Canadian lock using the pleasure craft reservation system available on the Seaway web site. At U.S. locks, the fee is paid in U.S. funds or the pre-established equivalent in Canadian funds or through payment via Pay.gov on the Seaway web site.

(3) Fees for Seaway arranged security guard in compliance with Transport Canada Security regulations shall be paid in Canadian funds within 30 days of billing.

(4) Ship representatives with past due invoices, unpaid after 45 days,
may be subject to the suspension of preclearance for each ship of which a preclearance has been given and/or the immediate removal of the waived security for the fees set in subsections 26(3) and 26(4).

76. In-Transit Cargo

Cargo that is carried both upbound and downbound in the course of the same voyage shall be reported with the Seaway e-business Transit Declaration, but is deemed to be ballast and not subject to fee assessment.

77. (reserved)

PART VII - INFORMATION AND REPORTS

78. Required Information

(1) Documentary evidence, comprising inspection certificates, load line certificates, crew lists, dangerous cargo manifest and the cargo stowage plan, shall be carried on board and shall be made available to any officer requiring production of such evidence.

(2) Documentary evidence, comprising evidence of cargo declared, cargo manifest, dangerous cargo manifest and bills of lading, shall be kept by the agent, owner or operator for a period of five years, or until an audit has been performed by the Manager or Corporation, whichever occurs first, and such documents shall be made available to an officer requiring production of such evidence.

(3) When a Declaration of Security (DoS) is required between a ship and the St. Lawrence Seaway, it shall be completed prior to entry into the first lock and will remain in effect until the ship exits the St. Lawrence Seaway at the St. Lambert Lock or the Welland Canal at Port Colborne.

Copy of Declaration of Security can be found at
https://greatlakes-seaway.com/en/commercial-shipping/seaway-security/

79. Advance Notice of Arrival, Ships Requiring Inspection

(1) USCG Advance Notice of Arrival – All foreign flagged ships of 300 GRT or above intending to transit the Seaway shall submit one completed United States Coast Guard (USCG) Electronic Notice of Arrival (ENOA) prior to entering at call in point 2 (CIP 2) as follows:

If your voyage time to CIP 2 is 96 hours or more, you must submit an ENOA **96 hours** before entering the Seaway at CIP 2.

If your voyage time to CIP 2 is less than 96 hours, you must submit an ENOA before departure, but at least 24 hours before entering the Seaway at CIP 2.

If there are changes to the ENOA, submit them as soon as practicable but at least 12 hours before entering the Seaway at CIP 2.

The NOA must be provided electronically following the USCG National Ship Movement Center's (NVMC) procedures (http://www.nvmc.uscg.gov).

To complete the ENOA correctly for Seaway entry, select the following:

- "CIP 2" as the Arrival Port,
- "Foreign to Saint Lawrence Seaway" as the Voyage Type, and
- "Saint Lawrence Seaway Transit" as the Arrival State, City and Receiving Facility.

(2) Ship Inspection program:

(a) Foreign flagged ships are subject to an Enhanced Ship Inspections (ESI) – physical ship inspection once every two navigation seasons. Agents must provide the Seaway Ship Inspectors via email a notice of inspection (ESI or self-inspection) at least 120 hours prior to the ship's arrival at CIP 2. An additional 24

hours' notice for an ESI (physical inspection) prior to ship arriving at CIP 2 is also required. (email: inspecteursvm@seaway.ca and to vtc@dot.gov)

(b) Foreign flagged ships may be permitted a Self-Inspection in the interim season subject to satisfactory performance. As such, they must complete and submit the "Seaway Ship Inspection Report" electronically to inspecteursvm@seaway.ca and to vtc@dot.gov at least 120 hours prior to transiting the Seaway.

(c) The ESI or self-inspection is required on the first transit of the navigation season

(3) Inland domestic ships which are approved by the Seaway for the "Self-Inspection Program" and are ISM certified and have a company quality management system, must submit the "Seaway Ship Inspection Report", every 2 navigation seasons and not later than 30 days after "fit out". A "Seaway Ship Inspection Report" must be submitted electronically to nrshipinspectors@seaway.ca.

(a) Inland domestic ships not participating in the "Self-Inspection Program" are subject to a Seaway inspection every 2 navigation seasons.

(4) Tug/barge combinations not on the "Seaway Approved Tow" list are subject to Seaway inspection prior to every transit of the Seaway unless provided with a valid Inspection Report for a round trip transit.

(5) A tall ship, passenger ship, or ship of an unusual design is subject to Seaway yearly ESI.

(6) The ESI or self-inspection is required on the first transit of the navigation season

80. Reporting Dangerous Cargo

(1) The master of any explosive ship or hazardous cargo ship shall report to a Seaway station, as set out in Schedule III, the nature, quantity and IMO classification of the dangerous cargo and where it is stowed on the ship.

(2) The master of any ship, that takes on explosive or hazardous cargo while in the Seaway, shall report to the nearest Seaway station at least four hours prior to commencing transit from a port, dock or wharf, the nature, quantity and IMO classification of the dangerous cargo and where it is stowed on the ship.

(3) Ships carrying "Certain Dangerous Cargo" (CDC) as defined in the Transport Canada "Marine Transportation Security Regulations" (MTSR's) and the United States Coast Guard "Marine Transportation Security Act" shall report the "Certain Dangerous Cargo" to the nearest Seaway station prior to a Seaway transit.

81. Reporting an Accident or Dangerous Occurrence

(1) Where a ship on the Seaway is involved in an accident or a dangerous occurrence, the master of the ship shall report the accident or occurrence, pursuant to the requirements of the Transportation Safety Board Regulations, to the nearest Seaway station and Transport Canada Marine Safety and Security or U.S. Coast Guard office as soon as possible and prior to departing the Seaway system.

(2) Where a ship approaching the Seaway with intent to transit has been involved in an accident in the course of its last voyage that might affect its ability to transit safely and expeditiously, the master of the ship shall report the accident to the nearest Seaway station before entering the Seaway.

82. Reporting Mast Height

A ship, any part of which extends more than 33.5 m above water level, shall not transit any part of the Seaway until precise information concerning the height of the ship has been furnished to the nearest Seaway station.

83. Reporting Position at Anchor, Wharf, etc.

A ship anchoring in a designated anchorage area, or elsewhere, and a ship mooring at a wharf or dock, tying-up to a canal bank or being held on a canal bank in any manner shall immediately report its position to the traffic controller and it shall not resume its voyage without the traffic controller's permission.

84. Reporting of Impairment or Other Hazard by Ships Transiting within the Seaway

While transiting the Seaway, the master of a ship shall immediately report to the nearest Seaway station:

(a) any condition of the ship that might impair its ability to transit safely and expeditiously;

(b) any hazardous condition of the ship;

(c) any malfunction on the ship of equipment required by sections 5 to 21 and subsections (5) to (10) of Schedule I;

(d) any modification or malfunction on the ship of equipment and machinery that is noted as operational in the current “Enhanced Ship Inspection” or “Self Inspection” of the ship;

(e) any difficulty on the part of the ship in controlling its tow or tows;

(f) any hazard, dangerous situation or malfunctioning aid to navigation which has not been published in a notice to mariners;

(g) any loss of anchor with particulars of the precise location of the loss; and

(h) any location where visibility is less than one nautical mile.

85. Reporting of Impairment or Other Hazard by Ships Intending to Transit the Seaway

The master of any ship which intends to transit the Seaway shall report to the nearest Seaway station, prior to entering the Seaway, any of the conditions set out in paragraphs 84 (a) to (d).

PART VIII - DETENTION AND SALE IN U.S. WATERS

(The *Canada Marine Act* applies in Canadian waters)

86. Security for Damages or Injury

An officer may detain a ship that causes

(a) damage to property of the Corporation;

(b) damage to goods or cargo stored on property of the Corporation; or

(c) injury to employees of the Corporation;

until security satisfactory to the Corporation has been provided.

87. Detention for Fee Arrears or Violations

(1) An officer may detain a ship where

(a) the fees levied against the ship have not been paid; or

(b) a violation of these Practices and Procedures or U.S Seaway Regulations has taken place in respect of the ship.

(2) A ship detained pursuant to paragraph (1) (a) shall be released when the unpaid fees are paid.

(3) A ship detained pursuant to paragraph (1) (b) may be released when a sum of money in an amount, determined by the Corporation to be the maximum fine or civil penalty that may be imposed for the violation in respect of which the ship has been detained, is deposited with the Corporation as security for the payment of any fine or civil penalty that may be imposed.

(4) Where a sum of money has been deposited pursuant to subsection (3), the Corporation may

(a) return the deposit;

(b) hold the deposit in trust as security for the payment of any fine that may be imposed; or

(c) retain the deposit if the depositor agrees to retention by the Corporation of the sum deposited.

(5) Although the depositor may have agreed to retention by the Corporation of an amount deposited under subsection (3), he may bring an action for the recovery of the amount deposited on the ground that there has been no violation of these Practices and Procedures or U.S. Seaway Regulations.

88. Power of Sale for Fee Arrears

Where a ship has been detained pursuant to subsection 87(1) and payment of the fees or the fine imposed has not been made within a reasonable time after

(a) the time of the detention, in the case of arrears of fees, or

(b) the imposition of the fine or penalty, in the case of a violation,

The Corporation may direct that the ship or its cargo or any part thereof be seized and sold subject to and in accordance with an order of a court of competent jurisdiction.

PART IX - GENERAL

89. Transit Refused

An officer may refuse to allow a ship to transit when

(a) the ship is not equipped in accordance with sections 5 to 21 and subsections (5) to (10) of Schedule I when transiting the Canadian waters of the Seaway;

(b) the ship, its cargo, equipment or machinery are in a condition that will prevent safe or expeditious transit by that ship; or

(c) the ship is manned with a crew that is considered to be incompetent or inadequate.

(d) the ship is not in compliance with Transport Canada Marine Safety and Security, flag state and/or classification society regulations.

90. Boarding for Inspection

(1) For the purpose of enforcing these Practices and Procedures, in both Canadian and U.S. waters, an officer may board any ship and

(a) examine the ship, its equipment and cargo; and

(b) determine that the ship is adequately manned.

(2) In addition to subsection 90(1) (a) and 90(1) (b) in Canadian waters, a Manager's officer may also

(a) require any person appearing to be in charge of the ship to produce for inspection, or for the purpose of making copies or extracts, any log book, document or paper;

(b) in carrying out an inspection, a Manager's officer may

(i) use or cause to be used any computer system or data processing system on the ship to examine any data contained in, or available to, the system;

(ii) reproduce any record, or cause it to be reproduced from the data, in the form of a print-out or other intelligible output and remove the print-out or other output for examination or copying; and

(iii) use or cause to be used any copying equipment on the ship to make copies of any books, records, electronic data or other documents.

(c) In Canadian waters, the owner or person who is in possession or Control of a ship that is inspected, and every person who is found on the ship, shall

(i) give the officer all reasonable assistance to enable the officer to carry out the inspection and exercise any power conferred by the Canada Marine Act; and

(ii) provide the officer with any information relevant to the administration of these practices and procedures that the officer may reasonable require.

(3) Ships shall provide a safe and approved means of boarding. Pigeon holes are not accepted as a means of boarding and an alternate safe means of access shall be provided.

91. Removal of Obstructions

The Manager or the Corporation may, at the owner's expense, move any ship, cargo or thing that obstructs or hinders transit on any part of the Seaway.

92. Wintering and Laying-Up

No ship shall winter within the Seaway or lay-up within the Seaway during the navigation season except with the written permission of the Manager or the Corporation and subject to the conditions and charges that may be imposed.

93. Access to Seaway Property

(1) Except as authorized by an officer, no person shall load or unload goods on property of the Manager or the Corporation.

(2) Except as authorized by an officer or by the Seaway Property Regulations or its successors no person shall enter upon any land or structure of the Manager or the Corporation or in any Seaway canal or lock area.

94. Keeping Copies of Documents

(1) A paper copy of the ship's valid Ship Inspection Report shall be kept on board every ship in transit. It must be easily accessible in the wheelhouse.

(2) A paper or electronic copy of these Practices and Procedures, and the Seaway Notices for the current navigation year shall be kept on board every ship in transit. They must be easily accessible in the wheelhouse.

(3) Onboard every ship transiting the Seaway a duplicate set of the Ship’s Fire Control Plans shall be permanently stored in a prominently marked weather-tight enclosure outside the deckhouse for the assistance of shore side fire-fighting personnel.

95. Compliance with Practices and Procedures

The master or owner of a ship shall ensure that all requirements of these Practices and Procedures and Seaway Notices applicable to that ship are complied with.

PART X - NAVIGATION CLOSING PROCEDURES

96. Interpretation

In this Part,

«clearance date» means the date designated in each year by the Manager and the Corporation as the date by which ships must report at the applicable calling in point referred to in subsection 97(3) for final transit of the Montreal-Lake Ontario Section of the Seaway; *(date-limite)*

«closing date» means the date designated in each year by the Manager and the Corporation as the date on which the Seaway is closed to ships at the end of the navigation season; *(date de fermeture)*

«closing period» means the period that commences on the date designated in each year by the Manager and the Corporation as the date on which the closing procedures in section 97 apply and that ends on the closing date; *(période de fermeture)*

«Montreal-Lake Ontario Section of the Seaway» means the portion of the Seaway between the Port of Montreal and mid-Lake Ontario; *(section Montréal-lac Ontario de la voie maritime)*

«wintering ship» means a ship that enters the Seaway upbound after a date designated each year by the Manager and the Corporation and transits above Iroquois Lock. *(navire hivernant)*

97. Closing Procedures and Ice Navigation

(1) No wintering ship shall return downbound through the Montreal-Lake Ontario Section of the Seaway in the same navigation season in which it entered the Seaway unless the transit is authorized by the Manager and the Corporation.

(2) No ship shall transit the Montreal-Lake Ontario Section of the Seaway during the closing period in a navigation season unless

(a) it reports at the applicable calling in point referred to in subsection (3) on or before the clearance date in that navigation season; or

(b) it reports at the applicable calling in point referred to in subsection (3) within a period of 96 hours after the clearance date in that navigation season, it complies with the provisions of the agreement between Canada and the United States known as the St. Lawrence Seaway Schedule of Tolls and the transit is authorized by the Manager and the Corporation.

(3) For the purposes of subsection (2), the calling in point is,

(a) in the case of an upbound ship, Cap St. Michel; and
(b) in the case of a downbound ship, Cape Vincent.

(4) No ship shall transit the Montreal/Lake Ontario Section of the Seaway after the period of 96 hours referred to in paragraph (2)(b) unless the transit is authorized by the Manager and the Corporation.

(5) Every ship that, during a closing period, enters the Montreal/Lake Ontario Section of the Seaway, upbound or downbound, or departs upbound from any port, dock, wharf or anchorage in that Section shall,

(a) at the time of such entry or departure, report to the nearest station the furthermost destination of the ship's voyage and any intermediate destinations within that Section; and

(b) at the time of any change in those destinations, report such changes to the nearest Seaway station.

(6) Where ice conditions restrict navigation,

(a) no upbound ship that has a power to length ratio of less than 24:1(kW/metre) and a forward draft of less than 50 dm, and

(b) no downbound ship that has a power to length ratio of less than 15:1 (kW/metre) and a forward draft of less than 25 dm

(c) shall transit between the St. Lambert Lock and the Iroquois Lock of the Montreal/Lake Ontario Section of the Seaway and CIP 15 and CIP 16 of the Welland Canal.

SCHEDULE I - SHIPS TRANSITING U.S. WATERS

(Sections 21, 84 and 89)

No ship of 1600 gross tons or more shall transit the U.S. Waters of the St. Lawrence Seaway unless it is equipped with the following manoeuvring data and equipment:

(1) Charts of the Seaway that are currently corrected and of large enough scale and sufficient detail to enable safe navigation. These may be published by a foreign government if the charts contain similar information to those published by the U.S. Government.

(2) U.S. Coast Guard Light List, currently corrected.

(3) U.S. Coast Pilot, current edition.

(4) Current Seaway Notices Affecting Navigation.

(5) The following manoeuvring data prominently displayed on a fact sheet in the wheelhouse:

(a) for full and half speed, a turning circle diagram to port and starboard that shows the time and distance of advance and transfer required to alter the course 90 degrees with maximum rudder angle and constant power settings;

(b) the time and distance to stop the ship from full and half speed while maintaining approximately the initial heading with maximum application of rudder;

(c) for each ship with a fixed propeller, a table of shaft revolutions per minute, for a representative range of speeds, and a notice showing any critical range of revolutions at which the engine designers recommend that the engine not be operated on a continuous basis;

(d) for each ship that is fitted with a controllable pitch propeller, a table of control settings for a representative range of speeds;

(e) for each ship that is fitted with an auxiliary device to assist in manoeuvring, such as a bow thruster, a table of ship speeds at which the auxiliary device is effective in manoeuvring the ship;

(f) the manoeuvring information for the normal load and normal ballast condition for

(i) calm weather - wind 10 knots or less, calm sea;

(ii) no current;

(iii) deep water conditions water depth twice the ship's draft or greater; and

(iv) clean hull;

(g) at the bottom of the fact sheet, the following statement:

WARNING

"The response of the (name of the ship) may be different from the above if any of the following conditions, on which the manoeuvring is based, are varied:

(a) calm weather wind 10 knots or less, calm sea;
(b) no current;
(c) deep water conditions water depth twice the ship's draft or greater;
(d) clean hull;
(e) intermediate drafts or unusual trim."

(6) Illuminated magnetic compass at the main steering station with compass deviation table, graph or record.

(7) Gyro-compass with illuminated gyro-repeater at the main steering station.

(8) Marine radar system for surface navigation. Additionally, ships of 10,000 gross tons or more must have a second main radar system that operates independently of the first.

(9) Efficient echo sounding device.

(10) Illuminated rudder angle indicator or repeaters that are
(a) located in the wheelhouse; and

(b) arranged so that they can easily be read from any position on the bridge.

(11) Illuminated indicator showing the operating mode of that device when ship is equipped with auxiliary manoeuvring devices.

SCHEDULE II - TABLE OF SPEEDS [1]

(Section 28)

Column I – from	Column II – To	Maximum Speed over the Bottom (knots)	
		COLUMN III	COLUMN IV
1.Upper Entrance South Shore Canal Buoy A1	Lake St. Louis Buoy A13	10.5	10.5
2.Lake St. Louis Buoy A13	Lower Entrance Lower Beauharnois Lock	12 (upb) 14 (dnb)	11 (upb) 13 (dnb)
3. Upper Beauharnois Lock	Lake St. Francis Buoy D1	9 (upb) 10.5 (dnb)	9 (upb) 10.5 (dnb)
4.Lake St. Francis Buoy D1	Lake St. Francis Buoy D49	12(upd) 13.5(dnb)	12 13.5 (dnb)
5.Lake St. Francis Buoy D49	Snell Lock	8.5 (upb) 10.5 (dnb)	8 (upb) 10.5 (dnb)
6.Eisenhower Lock	Iroquois Lock	11.5	10.5
7.Iroquois Lock	McNair Island Light Buoy 137A	13	10.5
8.McNair Island Light Buoy 137A	Deer Island Lt. 186	11.5	10.5
9.Deer Island Lt. 186	Bartlett Point Lt. 227	8.5 (upb) 10.5 (dnb)	8 (upb) 10.5 (dnb)
10.Bartlett Point Lt. 227	Tibbetts Point Traffic Lighted Buoy Mo (A)	13	10.5
11.Junction of Canadian Middle Channel and Main Channel abreast of Ironsides Island	Open waters between Wolfe and Howe Islands through the Canadian Middle Channel	9.5	9.5
12.Port Robinson	Ramey's Bend through the Welland By-Pass	8	8
13.All other canals		6	6

[1] *Maximum speeds at which a ship may travel in the identified area in both normal and high water conditions are set out in this schedule. The Manager and the Corporation will, from time to time, designate the set of speed limits that is in effect.*

SCHEDULE III - CALLING IN TABLE

C.I.P. and Check Point	Station to Call	Message Content
UPBOUND SHIPS:		
1. C.I.P. Entering Sector 1 (order of passing through established)		
(a) Ships transiting from the Lower St. Lawrence River	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location 3. Destination 4. Drafts, fore and aft 5. Cargo 6. Manifested dangerous cargo - nature and quantity - IMO classification - location where dangerous cargo is stowed 7. Pilot requirement - Lake Ontario 8. Confirm pilot requirement - Upper Beauharnois Lock (inland ships only)
(b) Ships in Montreal Harbour, dock, berth or anchorage (i)Before getting underway	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location 3. Destination 4. Drafts, fore and aft 5. Cargo 6. Manifested dangerous cargo - nature and quantity - IMO classification - location where dangerous cargo is stowed 7. Pilot requirement - Lake Ontario 8. Confirm pilot requirement - Upper Beauharnois Lock (inland ships only)
(ii) C.I.P. 2 - Entering Sector 1 (order of passing through established)	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location

C.I.P. and Check Point	Station to Call	Message Content
UPBOUND SHIPS:		
2. C.I.P. 3 - (order of passing through established)	Seaway Beauharnois Ch. l4	1. Name of Ship 2. Location
3. Exiting Upper Beauharnois Lock	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location 3. ETA C.I.P. 7 4. Confirm pilot requirement - Snell Lock (inland ships only)
4. C.I.P. 7 - Leaving Sector 1	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location
5. C.I.P. 7 - Entering Sector 2	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location 3. ETA Snell Lock
6. C.I.P. 8 - (order of passing through established)	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location
7. C.I.P. 8A	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location
8. Exiting Eisenhower Lock	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location 3. ETA C.I.P. II 4. Confirm pilot requirement - Lake Ontario 5. All ports of call
9. C.I.P. 11 - Leaving Sector 2	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location
10. C.I.P. 11 - Entering Sector 3	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location
11. C.I.P. 12 - (order of passing through established)	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location

C.I.P. and Check Point	Station to Call	Message Content
UPBOUND SHIPS:		
12. Exiting Iroquois Lock	Seaway Iroquois Ch.11	1. Name of Ship 2. Location 3. ETA Crossover Island
13. Crossover Island - Leaving Sector 3	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location
14. Crossover Island - Entering Sector 4	Seaway Clayton Ch. 13	1. Name of Ship 2. Location 3. ETA Cape Vincent or River Port 4. Confirm pilot requirement - Lake Ontario
15. Wolfe Is. Cut (Beauvais Point) -Ships leaving main channel	Seaway Clayton Ch. 13	1. Name of Ship 2. Location 3. ETA Kingston
16. Cape Vincent	Seaway Clayton Ch. 13	1. Name of Ship 2. Location 3. ETA Sodus Point 4. ETA Port Weller (CIP 15) or Lake Ontario Port 5. Pilot requirement - Port Weller
17. Sodus Pt.	Seaway Sodus Ch. 12	1. Name of Ship 2. Location 3. ETA mid-Lake Ontario 4. ETA Newcastle
18. Mid-Lake Ontario - Leaving Sector 4	Seaway Sodus Ch. 12	1. Name of Ship 2. Location
19. Mid-Lake Ontario - Entering Sector 5	Seaway Newcastle Ch. 11	1. Name of Ship 2. Location 3. Pilot requirement - Lake Erie
20. Newcastle	Seaway Newcastle Ch. 11	1. Name of Ship 2. Location 3. Updated ETA Port Weller (CIP 15) or Lake Ontario Port 4. Confirm pilot requirement Port Weller

C.I.P. and Check Point	Station to Call	Message Content
UPBOUND SHIPS:		
21. C.I.P. 15 - (order of passing through established)	Seaway Welland Ch. 14	1. Name of Ship 2. Location
22. Port Colborne Piers	Seaway Welland Ch. 14	1. Name of Ship 2. Location 3. ETA Long Point
23. C.I.P. 16	Seaway Long Point Ch. 11	1. Name of Ship 2. Location
24. Long Point - Leaving Sector 7	Seaway Long Point Ch. 11	1. Name of Ship 2. Location
25. (Revoked)		
26. (Revoked)		
27. (Revoked)		
28. (Revoked)		

C.I.P. and Check Point	Station to Call	Message Content
DOWNBOUND SHIPS:		
29. Long Point - Entering Sector 7	Seaway Long Point Ch. 11	1. Name of Ship 2. Location 3. ETA C.I.P. 16 or Port 4. Dangerous cargo, as indicated on the manifest including (a) nature and quantity (b) IMO classification (c) location where dangerous cargo is stowed and, if proceeding to Welland Canal 5. Destination 6. Drafts, fore and aft 7. Cargo 8. Pilot requirement - Lake Ontario
30. C.I.P. 16 - (order of passing through established)	Seaway Welland Ch. 14	1. Name of Ship 2. Location

C.I.P. and Check Point	Station to Call	Message Content
DOWNBOUND SHIPS:		
31. Exiting Lock No. 1 - Welland Canal	Seaway Welland Ch. 14	1. Name of Ship 2. Location 3. ETA Newcastle 4. ETA Cape Vincent or Lake Ontario Port 5. Pilot requirement - Cape Vincent
32. C.I.P. 15	Seaway Newcastle Ch. 11	1. Name of Ship 2. Location
33. Newcastle	Seaway Newcastle Ch. 11	1. Name of Ship 2. Location 3. ETA Mid-Lake Ontario 4. ETA Sodus Point
34. Mid-Lake Ontario - Leaving Sector 5	Seaway Newcastle Ch. 11	1. Name of Ship 2. Location
35. Mid-Lake Ontario - Entering Sector 4	Seaway Sodus Ch. 12	1. Name of Ship 2. Location
36. Sodus Point	Seaway Sodus Ch. 12	1. Name of Ship 2. Location 3. Updated ETA Cape Vincent or Lake Ontario Port 4. Confirm river pilot requirement - Cape Vincent 5. Pilot requirement - Snell Lock and/or Upper Beauharnois Lock (inland ships only)
37. Cape Vincent	Seaway Clayton Ch. 13	1. Name of Ship 2. Location 3. ETA Crossover Island or river port
38. Wolfe Is. Cut (Quebec Head) - Ships Entering Main Channel	Seaway Clayton Ch. 13	1. Name of Ship 2. Location 3. ETA Crossover Island or river port
39. Crossover Island - Leaving Sector 4	Seaway Clayton Ch. 13	1. Name of Ship 2. Location

C.I.P. and Check Point	Station to Call	Message Content
DOWNBOUND SHIPS:		
40. Crossover Island - Entering Sector 3	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location
41. C.I.P. 14	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location
42. C.I.P. 13 - (order of passing through established)	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location
43. Exiting Iroquois Lock	Seaway Iroquois Ch. 11	1. Name of Ship 2. Location 3. ETA C.I.P. 10 4. Harbor or river pilot requirement St. Lambert 5. Confirm pilot requirement - Snell Lock (inland ships only)
44. C.I.P. 10 - Leaving Sector 3	Seaway Iroquois Ch.11	1. Name of Ship 2. Location
45. C.I.P. 10 - Entering Sector 2	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location
46. C.I.P. 9 - (order of passing through established)	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location 3. ETA Snell Lock
47. Exiting Snell Lock	Seaway Eisenhower Ch. 12	1. Name of Ship 2. Location 3. ETA C.I.P. 6
Revoked		
49. C.I.P. 6 - Leaving Sector 2	Seaway Eisenhower Ch. 12	1. Name of ship 2. Location
50. C.I.P. 6 - Entering Sector 1	Seaway Beauharnois Ch. 14	1. Name of ship 2. Location
51. C.I.P. 5 - (order of passing through established)	Seaway Beauharnois Ch. 14	1. Name of ship 2. Location

C.I.P. and Check Point	**Station to Call**	**Message Content**
DOWNBOUND SHIPS:		
52. Exiting Lower Beauharnois Lock	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location 3. Confirm harbour or river pilot requirement - St. Lambert 4. Montreal Harbour Berth No. (if applicable)
53. St. Nicholas Island	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location
54. St. Lambert Lock to C.I.P. 2 - Leaving Sector 1	Seaway Beauharnois Ch. 14	1. Name of Ship 2. Location

UPBOUND AND DOWNBOUND SHIPS

55. Ships departing from ports between mid-Lake Ontario and Long Point, (except ships departing westbound from a Lake Erie port and not transiting in the Welland Canal)	Appropriate Seaway station for sector	1. Name of Ship 2. Location 3. Dangerous cargo, as indicated on the manifest, including a) nature and quantity b) IMO classification c) location where dangerous cargo is stowed and, if proceeding to Welland Canal 4. Destination 5. Drafts, fore and aft 6. Cargo 7. Pilot requirement - Lake Erie if upbound or Lake Ontario if downbound

APPENDIX I - SHIP DIMENSIONS

Structures are located at a number of Seaway locks which, when fully raised, overhang the lock wall at a given point, thereby limiting:

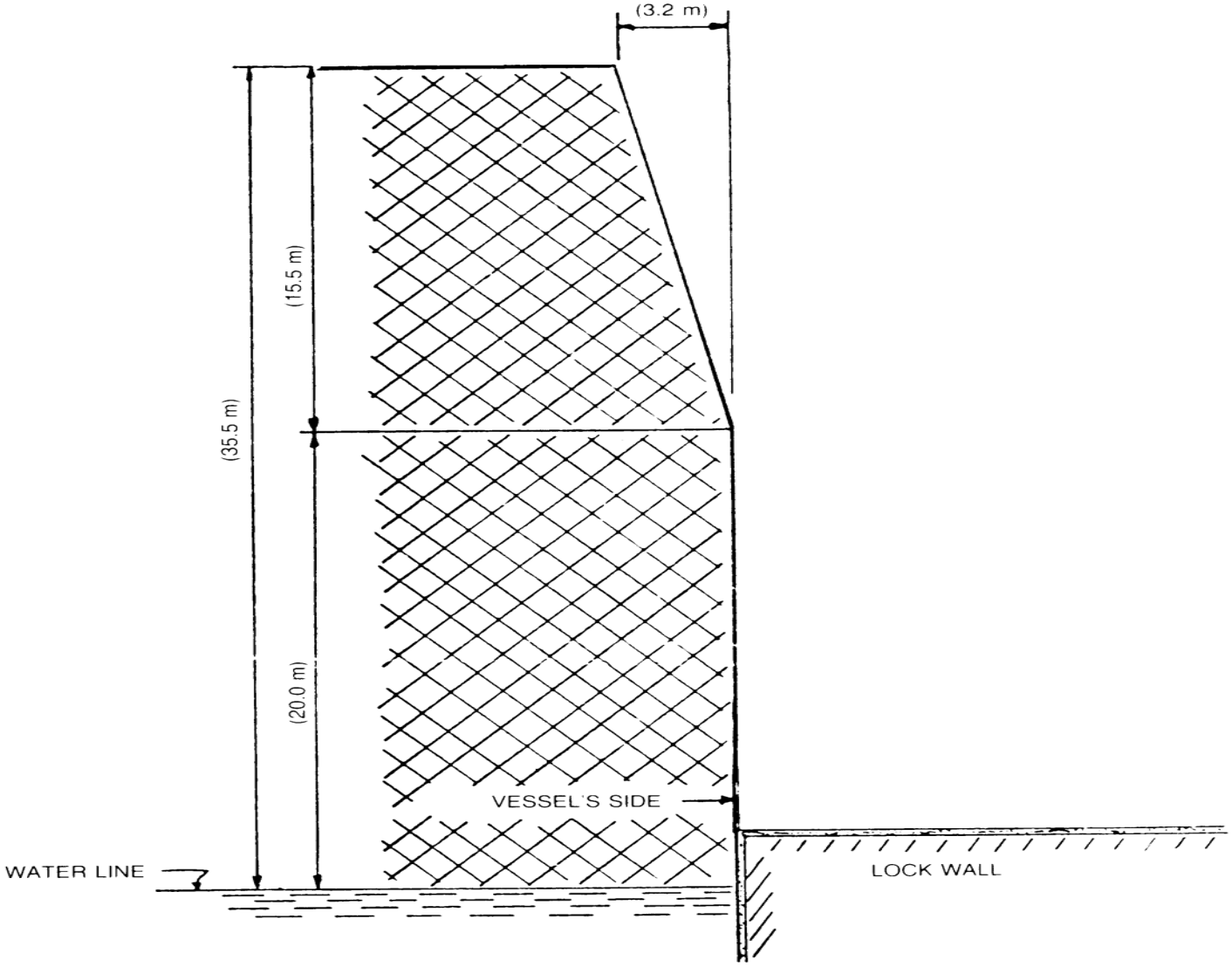
(a) the height of a ship above the water line measured at the ship's side; and

(b) the height of other structures that are located near the sides of the ship, such as derricks, crosstrees, antennas, etc.

The following block diagram shows the limits beyond which a ship's hull or superstructure cannot extend *when the ship is alongside the lock wall*. For details, refer to Ship Transit and Equipment Requirements.

The limits in the block diagram are based on ships with a maximum allowable beam of 23.2 m. For ships that have a beam width less than this and that have dimensions exceeding the limits of the block diagram (**measured with the ship alongside the lock wall**), a special permission to transit must be obtained. (Accurate measurements may be required before such permission is granted.)

Caution: Masters must take into account the ballast draft of the ship when verifying the maximum permissible dimensions. Bridge wings, antennas, masts and, in some cases, the Samson posts or store cranes could be outside the limits of the block diagram as indicated in Appendix 1 of the Seaway Handbook and could override the lock wall. Masters and pilots must take this into consideration and exercise extreme caution when entering or exiting locks to ensure that the ship does not contact any of the structures on the lock.



VESSEL DIMENSIONS

Block Diagram

N.B. Not to scale

2026
St. Lawrence Seaway Schedule of Tolls

1. Interpretation

The definitions in this section apply in this Schedule.

Bulk cargo *(Cargaison en vrac)*

Cargo consisting of goods, loose or in mass, that generally must be shovelled, pumped, blown or scooped in the handling and includes:

a) cement, loose or in sacks;
b) coke and petroleum coke, loose or in sacks;
c) domestic cargo;
d) liquids carried in ships' tanks;
e) ores and minerals (crude, screened, sized or concentrated, but not otherwise processed), loose or in sacks, including alumina, bauxite, gravel, phosphate rock, sand, stone and sulphur;
f) pig iron and scrap metals;
g) lumber, pulpwood, poles and logs, loose or bundled;
h) raw sugar and flour, loose or in sacks;
i) woodpulp, loose or in bales; and
j) material for recycling, scrap material, refuse and waste.

Cargo *(Cargaison)*

All goods aboard a ship whether carried as revenue or non-revenue freight or carried for the ship owner, but does not include:

a) empty containers or the tare weight of loaded containers;
b) ships' fuel, ballast or stores;
c) personal effects of crew or passengers; or
d) in-transit cargo that is carried both upbound and downbound in the course of the same voyage.

Carrier *(Transporteur)*

Any company, or its representative, engaged in physically moving a cargo between an origin and a destination.

Commodity *(Produit)*

Cargo that has been defined as a commodity in the Manager’s commodity codes.

Closing date *(Date de fermeture)*

In respect of a year, the first date in such year after the opening date on which both the Montreal-Lake Ontario and the Welland Canal portions of the Seaway are closed for vessel traffic.

Containerized cargo (*Cargaison conteneurisée*)

Cargo shipping in a container. Containers are used to transport freight in multiple modes: ship, rail and truck. There are many configurations: dry, insulated or thermal, refrigerated or reefer, flat racks and platforms, open top and tank. Typical dimensions: 8 feet in width, 8 feet 6 inches or 9 feet 6 inches in height and 20 feet or 40 feet in length. Less common lengths include, for example, 24, 28, 44, 45, 46, 48, 53, and 56 feet.

Corporation (*Corporation*)

The Great Lakes St. Lawrence Seaway Development Corporation (GLS).

Domestic Cargo (*Cargaison domestique*)

Shipment of cargo which originates at one Canadian point and terminates at another Canadian point, or originates at one United States of America (USA) point and terminates at another USA point, or originates at one Canadian or USA point in the Great Lakes/St. Lawrence Seaway System and terminates at another Canadian or USA point in the Great Lakes/St. Lawrence Seaway System, but does not include import or export cargo designated at the point of origin for transshipment by water at a point in Canada or in the USA.

Gateway Incentive (*Incitatif de portail*)

Percentage reduction for one year, as part of an incentive program, negotiated and offered on applicable cargo tolls for shipments of a specific commodity diverted to the Seaway from a competing gateway.

General Cargo (*Cargaison générale*)

Goods other than bulk cargo, grain, government aid cargo, steel slabs and coal.

Government Aid Cargo (*Cargaison d'aide gouvernementale*)

a) processed food products that are donated by, or the purchase of which has been financed on concessional terms by the federal government of the USA or Canada for the purposes of nutrition, economic development, emergency or disaster relief programs; and
b) food cargo that is
    (i) owned or financed by a non-profit organization or cooperative,
    (ii) intended for use in humanitarian or development assistance overseas, and
    (iii) stamped or otherwise shown to have been declared as such to the customs service of the USA or Canada.

Grain (*Céréale*)

Barley, corn, oats, flaxseed, rapeseed, soybeans, field crop seeds, buckwheat, dried beans, dried peas, rye, wheat, grain screenings or meal from those grains.

Great Lakes/St. Lawrence Seaway System
(*Système Grands Lacs/Voie maritime du Saint-Laurent*)

All ports in the Great Lakes and the St. Lawrence River.

Incremental Volume (*Volume additionnel*)

The portion of tonnage shipped through the Seaway by a specific shipper/receiver in a given season, above the pre-approved maximum tonnage realized by that specific shipper/receiver over the previous five (5) navigation seasons.

Liner Service (*Service de lignes régulières*)

One or more ships operated by a single operator on a fixed route between designated ports, providing regularly scheduled service for consignments of multiple commodities.

Manager (*Gestionnaire*)

The St. Lawrence Seaway Management Corporation (SLSMC).

Maximum Volume (*Volume maximum*)

The highest total annual tonnage of a specific commodity that a shipper/receiver has shipped through the Seaway over the previous five (5) years.

Metric Tonne (*Tonne métrique*)

1,000 kg (2,204.62 pounds).

Navigation Season *(Saison de navigation)*

The period commencing on an opening date and ending on the next closing date.

New Business *(Nouvelles affaires)*

a) containerized cargo moved by ship in the Seaway at any time in a navigation season;
b) a commodity/origin/destination combination in which the commodity moved by ship in the Seaway at any time in a navigation season:
    (i) originating at a point inside Canada or the USA or at a country outside Canada or the USA, provided that such commodity has not originated from such point or country, as the case may be, at any time in any of the five (5) consecutive navigation seasons immediately preceding the then current navigation season;
    (ii) destined to a point inside Canada or the USA or a country outside Canada or the USA, provided that such commodity has not been destined to such point or country, as the case may be, at any time in any of the five (5) consecutive navigation seasons immediately preceding the then current navigation season;
    (iii) originating at a point inside Canada or the USA or a country outside Canada or the USA and destined to a point inside Canada or the USA or a country outside

Canada or the USA, provided that such commodity was previously moved by any mode of transportation other than by ship at all times in the five (5) consecutive navigation seasons immediately preceding the then current navigation season; or

(iv) that has not moved through either section of the Seaway in any of the five (5) consecutive navigation seasons immediately preceding the then current navigation season, in a volume exceeding 10,000 metric tonnes.

Opening Date *(Date d'ouverture)*

In respect of any year, the earliest date in such year on which either the Montreal-Lake Ontario portion or the Welland Canal portion of the Seaway is opened for vessel traffic, provided however that if such date is prior to April 1 the opening date in such year shall be deemed to be the 1st day of April in such year.

Passenger (*Passager*)

A person being transported through the Seaway who has paid a fare for passage.

Pleasure Craft (*Embarcation de plaisance*)

A ship, however propelled, that is used exclusively for pleasure and does not carry passengers.

Seaway (*Voie maritime*)

Has the meaning ascribed to it under the Canada Marine Act.

Section of the Seaway *(Section de la Voie maritime)*

Either the Montreal-Lake Ontario portion of the Seaway or the Welland Canal portion of the Seaway.

Semi-liner Service *(Service de lignes semi-régulier)*

Reduced or limited liner service, offering fewer regularly scheduled voyages and/or fewer designated ports of calls.

Service Incentive *(Incitatif de service)*

A percentage reduction, as part of an incentive program, offered on applicable cargo tolls in respect of New Business shipments made by way of any newly established regular service out of the Great Lakes.

Ship (*Navire*)

Every type of craft used as a means of transportation on water, except a ship owned or employed by the Manager or the Corporation.

Shipper/receiver (*Expéditeur/destinataire*)

Any company who owns or buys the cargo that is being shipped through the Seaway.

Toll Reduction (*Réduction de péage*)
The negotiated percentage of refund on applicable cargo tolls under the Gateway Incentive program.

Volume Commitment (*Volume engagé*)
The negotiated annual cargo tonnage, with a minimum of 75,000 metric tonnes per year, a shipper/receiver must reach for the negotiated toll reduction under the Gateway Incentive to become applicable.

Volume Rebate (*Rabais de volume*)
A percentage reduction, as part of an incentive program, offered on applicable cargo tolls for shipments of a specific commodity above and beyond a pre-approved historical maximum volume.

2. Tolls

a) Every ship entering, passing through or leaving the Seaway shall pay a toll that is the sum of each applicable charge in Appendix 1. Each charge is calculated based on the description set out in column I and the rate set out in column II and/or III.
b) The toll is assessed against the ship and its cargo for a complete or partial transit of the Seaway and covers a single trip in one direction.
c) The toll is due from the representative of the ship within 45 days after the day on which the ship enters the first lock of a transit of the Seaway.
d) Except as set out in 2.e), the Volume Rebate incentive cannot be combined (i.e. applied to the same cargo movement) with either of the New Business Incentive or the Service Incentive programs.
e) Except for cargoes that qualify for the New Business Incentive, any cargo being shipped by a liner or semi-liner service approved under the Service Incentive program shall be eligible for the Volume Rebate incentive.

2.1 Description and Weight of Cargo

a) For the purposes of calculating applicable tolls,
   (i) a cord of pulpwood is taken to weigh 1,450kg (3,196.70 pounds); and
   (ii) the cargo tonnage shall be rounded to the nearest 1,000kg (2,204.62 pounds).

2.2 Toll Incentives

2.2.1 New Business Incentive Program

a) To be eligible for the rebate applicable under the New Business Incentive program, a carrier must submit an application to the Manager for the proposed commodity/origin/destination combination to be approved and accepted under the rules of the New Business Incentive program promulgated and administered from time to time by the Manager.

b) Containerized cargo, whatever the origin or destination, moved by ship in the Seaway at any time in the current navigation season qualifies as New Business.
c) A commodity/origin/destination combination that qualifies as New Business on or before the 30th day of September in any navigation season continues to qualify as New Business in the two (2) consecutive navigation seasons immediately following the then current navigation season; and
d) A commodity/origin/destination combination that qualifies as New Business after the 30th day of September in any navigation season continues to qualify as New Business in the three (3) consecutive navigation seasons immediately following the then current navigation season.

2.2.2 Volume Rebate Incentive Program

a) To be eligible for the Volume Rebate Incentive program:
   (i) a shipper/receiver in the Great Lakes/St. Lawrence Seaway System must submit to the Manager for approval, before June 30th of every season, the commodity, as defined under the Manager's commodity classification, for which a Volume Rebate is sought, the origin or destination of the commodity, and a proof of the maximum volume of the commodity the shipper/receiver has shipped over the last five (5) years from that origin or to that destination.
   (ii) The shipper/receiver must already move the commodity, as defined under the Manager's commodity classification, through the Seaway at a minimum of 100,000 tonnes per season for the past five (5) navigation seasons.
b) Once approved by the Manager, the maximum volume will become the basis on which to calculate the incremental volume.
c) The Volume Rebate Incentive program is not accessible at the end of the navigation season without a pre-approved maximum volume within the set deadline.
d) The same cargo volume can only be used by one shipper/receiver.
e) For the Volume Rebate to be applicable, the total volume of the commodity shipped through the Seaway must also increase during the navigation season.

2.2.3 Service Incentive Program

a) To be eligible for the Service Incentive program, cargoes must qualify as New Business under the New Business Incentive program, and be shipped by a service meeting all of the following requirements ("Qualifying Service"):
   (i) a liner or semi-liner service between the same ports;

(ii) the service must call on multiple origin ports, or multiple destination ports;

(iii) the service must not be limited to the movement of one specific commodity;

(iv) the service must service markets outside of the Great Lakes; and

(v) the service must not replace or displace any of the carrier's existing services. The Manager reserves the right to require proof of the ultimate origin and destination of cargoes in order to ensure there is no diversion of existing cargoes.

b) The Service Incentive applies only to New Business applications approved after the commencement date of the Qualifying Service. New Business applications approved prior to the date of commencement of the Qualifying Service will be ineligible for the Service Incentive program.

c) The Service Incentive applies only to cargoes exported from the Great Lakes, and is not applicable to import cargoes.

d) The carrier will provide the Manager with written notice of its intention to apply for the Service Incentive at least thirty (30) days prior to implementation of the Qualifying Service.

e) The carrier will advise the Manager of the proposed interval (weekly, monthly, etc.) of the Qualifying Service, and the number of calls scheduled for the Navigation Season. Additional calls to the system may be added during the season.

f) The carrier will advise the Manager of port rotation, outlining core ports of calls when providing notification of schedule rotation. Additional ports may be added at any time provided the core schedule ports are called.

g) The carrier will advertise the Qualifying Service on its own website, available port websites, and with Manager's assistance, on the HWY H_2O website.

h) The carrier must meet 75% schedule adherence with a minimum of four (4) Great Lakes calls during the navigation season.

i) The carrier will provide the Manager with a request for the Service Incentive refund, together with copies of any documents required to support the request, within sixty (60) days of the close of the navigation season. Requests for refunds should be submitted to the Manager who will be responsible for reviewing and approving Service Incentive requests.

j) Service Incentive of 20% of tolls paid in respect of cargo shipped by Qualifying Service will be refunded by the Manager after the close of the navigation season, once the Manager has confirmed that the carrier has met the schedule adherence requirement.

2.2.4 Gateway Incentive Program

a) To be eligible for the Gateway Incentive, cargoes must presently be moving between a specific origin and destination via other competing gateways.

b) To be eligible for the refund applicable under the Gateway Incentive program, a shipper/receiver, or its representative, must:

   (i) submit an application to the Manager for the proposed movement (cargo/origin/destination) to be approved under the rules of the Gateway Incentive program;

   (ii) supply to the Manager the information proving that the proposed movement is currently done via a competing gateway;

   (iii) negotiate with the Manager the terms of the proposal, that is an applicable toll reduction and a volume commitment.

c) The shipper/receiver, or its representative, will qualify annually for the negotiated toll reduction upon completion of the annual volume commitment.

d) The Gateway Incentive applies only to movements of qualified cargoes done after the commencement date of the qualified Gateway Incentive. Movements done prior to the date of commencement of the Gateway Incentive will be ineligible for the rebate.

e) The shipper/receiver, or its representative, will provide the Manager with a request for the Gateway Incentive refund, together with copies of any documents required to support the request, within sixty (60) days of the close of the navigation season. Requests for refunds should be submitted to the Manager who will be responsible for reviewing all documents and data and recommending the refund under the Gateway Incentive.

f) The negotiated Gateway Incentive percentage of tolls reduction paid in respect of qualifying cargo shipped will be refunded by the Manager after the close of the navigation season, once the Manager has confirmed through the review of submitted support documents that the shipper/receiver has met the volume commitment. The Manager reserves the right to require the ultimate origin and destination of cargoes to validate the commitment.

g) The Manager reserves the right to immediately terminate any Gateway Incentive agreement.

3. Post-Clearance Date Operational Surcharges

a) Subject to 3.b), a ship that reports for its final transit of the Seaway from a place set out in column I of Appendix 2 within the period after the clearance date established by the Manager and the Corporation set out in column III shall pay operational surcharges in the amount set out in column IV, prorated on a per-lock basis.
b) If surcharges are postponed for operational or climatic reasons, a ship that reports for its final transit of the Seaway from a place set out in column I of Appendix 3 within the postponement periods set out in column II and within the period after the clearance date established by the Manager and the Corporation set out in column III shall pay operational surcharges in the amount set out in column IV prorated on a per-lock basis.
c) A ship that is authorized to transit the Seaway after the period of 96 hours after the clearance date established by the Manager and the Corporation shall pay, in addition to the operational surcharge, an amount equal to the incremental expenses incurred by the Manager to keep the Seaway open for the transit of the ship.

4. Coming into force

This Schedule and the fees set forth herein come into force from the date on which this Schedule is filed with the Canadian Transportation Agency.

APPENDIX 1

2026 Seaway Schedule of Tolls

(Prices are in $CAD per metric tonne unless otherwise specified - Taxes may apply)

Column I	*Column II*	*Column III*
GRT Charge[1]	**MLO**	**Welland**
Loaded or Ballast Ships (Excluding passenger ships)	$ 0.1344	$ 0.2150
Passenger Ships	$ 0.4032	$ 0.6450
Cargo Tolls	**MLO**	**Welland**
Bulk Cargo	$ 1.3933	$ 0.9510
Grain	$ 0.8560	$ 0.9510
Coal	$ 0.8560	$ 0.9510
General Cargo	$ 3.3572	$ 1.5220
Domestic General Cargo	$ 1.3933	$ 0.9510
Steel Slab	$ 3.0384	$ 1.0896
Containerized Cargo	$ 1.3933	$ 0.9510
Government Aid	n/a	n/a
Lockage Charge (per GRT[1])	**MLO**	**Welland**
Loaded or Ballast Cargo or Passenger Ships	n/a	$ 0.3582
Maximum per ship	n/a	*$ 5,011.00*
Partial Transits	**MLO**	**Welland**
Applicable GRT, Cargo and Lockage charges prorated per lock transited	20%	13%
Minimum Charge	**MLO**	**Welland**
Per ship per lock transited for full or partial transit of the Seaway	$ 34.78	$ 34.78
Incentive Programs[2]	**MLO**	**Welland**
New Business Incentive	20%	20%
Volume Rebate Incentive	10%	10%
Service Incentive	20%	20%
Pleasure Crafts	**MLO**	**Welland**
Canadian locks: per pleasure craft[3], per lock	$ 25.00	$ 25.00
US locks: per pleasure craft, per lock *(CAD or USD)*	$ 30.00	$ 30.00

[1] *Gross registered tonnage calculated according to prescribed rules for measurement under the International Convention on Tonnage Measurement of Ships, 1969, as amended from time to time; or under the US GRT for ships prescribed prior to 2002*

[2] *Incentive Programs are subject to pre-approval, see Incentive Program page for details*

[3] *Includes a $5.00 discount per lock with use of online reservation and payment system*

APPENDIX 2

Operational Surcharges - No Postponement

Column I	*Column II*	*Column III*	*Column IV*
Location	Postponement	Period after Clearance Date	MLO[4]
Cape Vincent (Downbound) or Cap Saint-Michel (Upbound)	n/a	Under 24 hours	$ 20,000
		Under 48 hours	$ 40,000
		Under 72 hours	$ 60,000
		Under 96 hours	$ 80,000
Port, dock or wharf within St. Lambert - Iroquois lock segment	n/a	Under 24 hours	n/a
		Under 48 hours	$ 20,000
		Under 72 hours	$ 40,000
		Under 96 hours	$ 60,000

[4] *Prorated per lock transited*

APPENDIX 3

Operational Surcharges - After Postponements

Column I	*Column II*	*Column III*	*Column IV*
Location	Postponement	Period after Clearance Date	MLO[5]
Cape Vincent (Downbound) or Cap Saint-Michel (Upbound)	24h	Under 36 hours	$ 20,000
		Under 48 hours	$ 40,000
		Under 72 hours	$ 60,000
		Under 96 hours	$ 80,000
	48h	Under 56 hours	$ 20,000
		Under 64 hours	$ 40,000
		Under 72 hours	$ 60,000
		Under 96 hours	$ 80,000
	72h	Under 78 hours	$ 20,000
		Under 84 hours	$ 40,000
		Under 90 hours	$ 60,000
		Under 96 hours	$ 80,000
Port, dock or wharf within St. Lambert - Iroquois lock segment	24h	Under 48 hours	n/a
		Under 60 hours	$ 20,000
		Under 72 hours	$ 40,000
		Under 96 hours	$ 60,000
	48h	Under 72 hours	n/a
		Under 80 hours	$ 20,000
		Under 88 hours	$ 40,000
		Under 96 hours	$ 60,000
	72h		n/a

[5] *Prorated per lock transited*

2026
St. Lawrence Seaway Schedule of Wharfage & Storage Charges

1. Interpretation

The definitions in this section apply in this Schedule.

Bulk Cargo *(Cargaison en vrac)*

Cargo consisting of goods, loose or in mass, that generally must be shovelled, pumped, blown or scooped in the handling and includes:

a) Barley, corn, oats, flaxseed, rapeseed, soybeans, field crop seeds, buckwheat, dried beans, dried peas, rye, wheat, grain screenings or meal from those grains.
b) cement, loose or in sacks;
c) coke and petroleum coke, loose or in sacks;
d) domestic cargo;
e) liquids carried in ships' tanks;
f) ores and minerals (crude, screened, sized or concentrated, but not otherwise processed), loose or in sacks, including alumina, bauxite, gravel, phosphate rock, sand, stone and sulphur;
g) pig iron and scrap metals;
h) lumber, pulpwood, poles and logs, loose or bundled;
i) raw sugar and flour, loose or in sacks;
j) woodpulp, loose or in bales; and
k) material for recycling, scrap material, refuse and waste.

Canal *(Canal)*

Any constructed part of the St. Lawrence Seaway and includes any canals and lands that are under the administration and control of the Manager.

Containerized Cargo *(Cargaison conteneurisée)*

Cargo shipping in a container. Containers are used to transport freight in multiple modes: ship, rail and truck. There are many configurations: dry, insulated or thermal, refrigerated or reefer, flat racks and platforms, open top and tank. Typical dimensions: 8 feet in width, 8 feet 6 inches or 9 feet 6 inches in height and 20 feet or 40 feet in length. Less common lengths include, for example, 24, 28, 44, 45, 46, 48, 53, and 56 feet.

Domestic Cargo (*Cargaison domestique*)

Shipment of cargo which originates at one Canadian point and terminates at another Canadian point, or originates at one United States of America (USA) point and terminates at another USA point, or originates at one Canadian or USA point in the Great Lakes/St. Lawrence Seaway System and terminates at another Canadian or USA point in the Great Lakes/St. Lawrence Seaway System, but does not include import or export cargo designated at the point of origin for transshipment by water at a point in Canada or in the USA.

General Cargo (*Cargaison générale*)
Goods other than bulk cargo.

Laying-Up Charge (*Droit de Séjour*)
Toll charged on a ship in respect of the continuous period of time that the ship is occupying, in a canal, without link to loading or unloading activities, an area that has been set aside by the Manager for that purpose.

Manager (*Gestionnaire*)
The St. Lawrence Seaway Management Corporation.

Owner (*Propriétaire*)
(a) In respect of goods, the consignor and consignee of the goods; and
(b) In respect of a ship, every person who is a representative as defined in section 2 of the Seaway Regulations.

Passenger (*Passager*)
A person being transported through the Seaway who has paid a fare for passage.

Passenger Ship Wharfage *(Droit d'accostage de navire de passagers)*
Toll charged on a passenger ship in respect of the period of time that the ship is occupying, in a canal, an area that has been set aside by the Manager for that purpose.

Passenger Wharfage *(Droit de passager)*
Toll charged per passenger embarking or disembarking in an area that has been set aside in a canal by the Manager for that purpose.

Side Wharfage *(Droit d'accostage)*
Toll charged on a ship, excluding a passenger ship, in respect of the period of time that the ship is loading, unloading or laying in wait in a canal.

Storage Charge *(Droit d'emmagasinage)*
Toll charged on goods in respect of the period of time that the goods are stored at a canal.

Metric Tonne (*Tonne métrique*)
1,000 kg (2,204.62 pounds).

Top Wharfage *(Droit de terre-plein)*
Toll charged on goods that are unloaded from or loaded onto a ship or other means of transportation, or transshipped between ships in a canal.

Winter Berthing *(Droit de séjour d'hiver)*
Toll charged on a ship in respect of the entire period between the closing of a season and the opening of the following season that the ship is occupying or has reserved, in a canal, an area that has been set aside by the Manager for that purpose.

2. Tolls

a) Tolls are calculated based on the description set out in Column I of Appendix 1 and the rate set out in Column II.

b) Where the Manager has leased any area at a canal, the Manager may exempt persons from the payment of top wharfage in respect of goods loaded or unloaded at that area.

c) If a ship can no longer be safely operated due to technical difficulties or because it has been implicated in an accident, the Manager can exempt that ship, or any other ship involved in salvage operations, from any tolls applicable under this tariff that could have arisen because of the ship difficulties.

d) The tolls prescribed by this Schedule are due:

   (i) jointly from the owner of the goods and the owner of the ship, or their representatives, from which the goods are transshipped, in the case of tolls prescribed in respect of goods where the goods are transshipped from one ship to another ship at a canal;

   (ii) jointly from the owner of the goods and the owner of the ship, or their representatives, on which the goods are shipped in the case of tolls prescribed in respect of goods where the goods are loaded to or from a ship at a canal other than by transshipment between ships;

   (iii) from the owner of the goods, or its representative, in the case of tolls prescribed for the storage of goods; and

   (iv) from the owner of the ship, or its representative, in the case of tolls prescribed in respect of a ship;

   and such tolls are due as soon as they are incurred and shall be paid to the Manager.

e) Top wharfage at a canal is payable only once in respect of goods other than goods that are:

   (i) reshipped at a canal after having been removed therefrom; or

   (ii) reshipped at a canal after being altered in form or composition.

f) Top wharfage at a canal is payable according to the certified loaded or manifest weight of cargo. A duly certified document (a weight-scale Certificate, a Bill of Lading or similar document) shall be forwarded to the Manager attached to the submitted Top Wharfage Declaration within five (5) days after the ship's departure.

g) Winter berthage at a canal is payable for the entire period upon reservation of an area and is not cancellable or refundable after December 15th.

APPENDIX 1

2026 Seaway Schedule of Wharfage & Storage Charges

(Prices are in $CAD per metric tonne unless otherwise specified - Taxes may apply)

	Column I	*Column II*
Top Wharfage	**Tolls**	**Unit**
Bulk Cargo	$ 0.5040	per tonne
Domestic General Cargo	$ 0.5040	per tonne or cubic meter[1]
General Cargo	$ 1.1520	per tonne or cubic meter[1]
Containerized Cargo	$ 0.5040	per tonne
Side Wharfage	**Tolls**	**Unit**
First 6 hours or part thereof	$ 0.0325	per GRT
Minimum	*$ 65.89*	
Each subsequent period of 6 hours or part thereof	$ 0.0325	per GRT
Minimum	*$ 19.77*	*per period*
Laying-Up Charge	**Tolls**	**Unit**
First 24 hours	no charge	
Each subsequent period of 10 days or part thereof	$ 0.1508	per GRT
Minimum	*$ 65.89*	
Storage Charges	**Tolls**	**Unit**
First 24 hours	no charge	
Each subsequent period of 7 days or part thereof	$ 0.6769	per square meter
Minimum	*$ 65.89*	*per period*
Passenger Ship Wharfage	**Tolls**	**Unit**
First 6 hours or part thereof	$ 0.0974	per GRT
Minimum	*$ 197.66*	
Each subsequent period of 6 hours or part thereof	$ 0.0974	per GRT
Minimum	*$ 59.31*	*per period*
Passenger Wharfage	**Tolls**	**Unit**
	$ 9.17	per passenger
Winter Berthing	**Tolls**	**Unit**
	$ 0.4346	per linear meter per day

[1] Per tonne or cubic meter (m^3), whichever is greater; when calculated on a measurement basis, fees shall never exceed two and a half (2.5) times what they would have been on a weight basis.

Conversion

For the purposes of the St. Lawrence Seaway Wharfage and Storage Charge Tariff, the quantity set out in column II of an item of Schedule I in respect of the goods set out in column I of that item is deemed to weigh the number of kilograms set out in column III of that item.

SCHEDULE I - CONVERSION TABLE
(s.6)

COLUMN I GOODS	COLUMN II QUANTITY	COLUMN III WEIGHT (KG)
1. Lumber, logs, poles and ties	m^3 (SOFTWOOD) m^3 (HARDWOOD)	400 600
2. Crude oil	KL	830
3. Crushed stone	m^3	1,500
4. Fuel oil	 KL KL	 830 950
5. Gasoline	KL	750
6. Pulpwood	m^3	400
7. Refined oil	KL	810
8. Sand and gravel	m^3	1,720

SCHEDULE II - CONVERSION TABLE
BRITISH - U.S. - INTERNATIONAL AND METRIC UNITS

British - U.S. - International Units			Metric Units (SI)
LENGTH			
1	nautical mile (U.S.-Int.)	= 1.852	km
0.53996	nautical mile (U.S.-Int.)	= 1	km
1	nautical mile (Br)	= 1.853 184	km
0.539612	nautical mile (Br)	= 1	km
1	mile	= 1.609 344	km
0.621371	mile	= 1	km
1	inch	= 2.540	cm
0.39370	inch	= 1	cm
1	foot	= 0.304 8	m
3.2808	feet	= 1	m
MASS			
1	ton (long)	= 1016.046 908 8	kg
0.9842065	ton (long)	= 1000.0	kg
1	ton (short)	= 907.184 74	kg
1.10231	tons (short)	= 1000.0	kg
1	pound	= 0.453 592 37	kg
2.20462262	pounds	= 1	kg
CAPACITY			
1	gallon (Br)	= 4.546 092	dm^3
0.219969	gallon (Br)	= 1	dm^3
1	gallon (U.S.)	= 3.785 412	dm^3
0.264172	gallon (U.S.)	= 1	dm^3

Note: Relevant units used with the S1
a) 1 tonne (t) or 1 metric ton = 1000 kg
b) 1 litre = 1 dm^3

INFORMATION ON SHIP TRANSIT AND EQUIPMENT REQUIREMENTS

TABLE OF CONTENTS

INTRODUCTION

This section of the Seaway Handbook has been prepared to provide shipmasters and pilots with general transit and required equipment information for the St. Lawrence Seaway and is intended to complement the Practices and Procedures. The information herein contained does not supersede the Seaway Practices and Procedures.

The capacity of the Seaway system is limited principally by the locks and, in order to achieve maximum utilization of the facilities, a number of procedures, methods and special aids have been introduced.

Many of the subjects described in this section are designed to minimize the idle time at locks and to thus achieve the prime aim of minimizing round trip transit times for ships.

To achieve complete success in realizing our mutual goal, the full cooperation of masters, pilots and Seaway operations personnel is essential and is hereby requested.

If any additional information is required, you are asked to direct your inquiries to:

Marine Services
THE ST. LAWRENCE SEAWAY MANAGEMENT CORPORATION
202 Pitt Street
Cornwall, Ontario Canada
K6J 3P7
Tel.: (613) 932-5170

OR

Director, Office Lock Operations
GREAT LAKES ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Post Office Box 520
Massena, New York 13662 - 0520
U.S.A.
Tel.: (315) 764-3293

GENERAL TRANSIT INFORMATION

1. Traffic Control

The purpose of Seaway Traffic Control is principally to provide the safe and efficient scheduling of ships. Associated with this is the information service in connection with Search and Rescue, pilot scheduling and ship information to the shipping entities and the public.

Ship traffic in the Seaway is controlled from three main centres: one located in St. Lambert, Quebec, one in Massena, New York, and the other in St. Catharines, Ontario. The St. Lambert centre operates through two radio stations: Seaway Beauharnois and Seaway Iroquois. The Massena centre operates through three radio stations: Seaway Eisenhower (KEF), Seaway Clayton (WAG) and Seaway Sodus, while the St. Catharines centre operates through three stations: Seaway Welland, Seaway Newcastle and Seaway Long Point.

In each control centre the traffic controllers have a number of aids available to assist them in their work. Some of these aids are: computerization, closed circuit television, display boards and an extensive communications network.

2. Pilotage Requirements

Masters or agents of ships in ports or at docks wishing to order a pilot should do so directly via Landline communication with the nearest pilotage dispatch office.

Procedures regarding the reporting of pilotage requirements when in transit are described in the Seaway Regulations.

3. Lock Communications

Within the Montreal to Lake Ontario lock areas, mooring instructions between the lock operator and the ship is carried out via VHF radio using the following channels:

Lock No. 1 - St. Lambert	Channel 17
Lock No. 2 - Côte Ste. Catherine	Channel 13
Lock No. 3 - Beauharnois	Channel 17
Lock No. 4 - Beauharnois	Channel 13
Lock No. 5 - Snell	Channel 17
Lock No. 6 - Eisenhower	Channel 13
Lock No. 7 - Iroquois	Channel 17

Note: At Canadian Locks, ships are advised to set their VHF radio to low power when using channel 13 or 17.

Within the Welland Canal lock areas, mooring instructions between the lock operator and the ship is carried out via VHF radio using the following channels:

Lock No. 1	Channel 75
Lock No. 2	Channel 76
Lock No. 3	Channel 77
Lock No. 4, 5 & 6 West	Channel 15
Lock No. 4, 5, & 6 East	Channel 17
Lock No. 7	Channel 66A
Lock No. 8	Channel 77

Ships must also continue to monitor channel 14.

Ships must provide verbal acknowledgement of all mooring instructions via VHF radio.

The above system of communications is used solely for mooring instructions or in an emergency. All other radio communications must be directed to the appropriate Traffic Control Centres.

4. Bridges (Canadian Sectors)

V.H.F. transceivers fitted with Channel 14 have been installed at the following bridges: Kahnawake, St. Louis and Valleyfield in Sector 1 and Bridges 1, 3A, 4, 5, 11 and 21 on the Welland Canal. The use of these is limited to periods of reduced visibility and emergencies only. The radio call sign is the applicable bridge name or number, i.e.

``VALLEYFIELD BRIDGE, THIS IS SHIP ... or ``BRIDGE 11, THIS IS ..."

To further assist traffic and enhance safety during periods of reduced visibility, radar has been fitted at the following bridges: St. Louis, Valleyfield, in Sector 1, and Bridges 4, 11 and 21 on the Welland Canal. At the Valleyfield and St. Louis Bridges, vertical markers are installed on the centre line of the mobile spans. At night, the markers are floodlit.

Bascule Bridges: Ships with high raking counters, superstructures and/or flared bows which could overhang the top of lock walls when the ship is not parallel to the wall must exercise extreme care in navigating past bascule bridges. Bascule bridges impose restrictions on ship dimensions and, in this regard, specific reference is made to Seaway Regulation No. 3 and Appendix I.

At bridges 7A, 7B, St. Louis and Valleyfield in sector 1 and bridges 4,5,11 and 21 in the Welland Canal, when a ship has cleared the draw of the bridge, the bridge operator will communicate with the ship by VHF radio prior to initiating the closing/lowering of the bridge. The master/pilot of the ship is not required to call back unless a problem situation warrants it.

In case of a malfunction of the bridge or a power failure, a ship must not pass the limit of approach sign.

5. Bridges - Signal Light System

A system of navigation light signals and signs is in effect at all free-standing lift bridges in both the Montreal/Lake Ontario section and the Welland Canal.

The system includes:

(a) A red and green bridge navigation light display on the moveable bridge span
    (i) In the Welland Canal only, there is an additional yellow navigation light beside the red and green navigation lights.

(b) A limit of approach sign (L/A) - (red background, white letters, diamond shape)

(c) A caution sign equipped with amber lights - (yellow-black checkerboard, triangular shape)

(d) A whistle sign (yellow background - black lettering square shape).

The operation of the system is as follows:

(1) When the ship's stem arrives at the **WHISTLE** sign, the **AMBER** lights on the **CAUTION** sign start to flash. This acknowledges that the bridge operator has seen the ship and will commence the bridge operation. The master shall signal the bridge if he does not receive a **FLASHING AMBER** light at this time.

NOTE: *At this time, the **RED BRIDGE NAVIGATION** light will be displayed on the bridge span.*

(2) After the bridge operator acknowledges the presence of the ship at the WHISTLE sign, he will commence the bridge raising operation.

NOTE: In the Welland Canal, a **YELLOW BRIDGE NAVIGATION** light will begin flashing when the process to raise the bridge has been initiated and the vehicle traffic lights are set to red. The **RED BRIDGE NAVIGATION** lights will remain on as usual.

When the bridge starts to rise, the **RED BRIDGE NAVIGATION** lights will commence flashing.

NOTE: *In the Welland Canal, the **YELLOW BRIDGE NAVIGATION** lights will turn off when the **RED BRIDGE NAVIGATION** lights start flashing.*

(3) When the ship's stem is abeam of the **CAUTION** sign and the **GREEN BRIDGE NAVIGATION** lights are displayed, the ship is allowed to proceed through the bridge draw. If, however, the **GREEN BRIDGE NAVIGATION** lights are not displayed at the time the stem of the ship is abeam of the **CAUTION** sign, the Master should take any action necessary to ensure that the ship does not pass the **L/A** sign before the bridge span is fully raised and the **GREEN BRIDGE NAVIGATION l**ights are displayed.

NOTE: *Under normal conditions the bridge span should be fully raised by the time the ship reaches the* ***CAUTION*** *sign.*

6. Ship Location Information

(1) MONTREAL/LAKE ONTARIO SECTION: The Regional Information Centre, Montreal, is responsible for providing to the public and shipping interests information relative to ship movements within the Montreal/Lake Ontario section. The telephone number is (450) 672-4115.

(2) WELLAND CANAL AREA: For information regarding the position of ships in and around the Welland Canal, the telephone number is (905) 688-6462.

(3) ST. LAWRENCE SEAWAY: Information on ship location is also available on the Seaway Web site at www.greatlakes-seaway.com, under navigation.

7. Marine Weather Broadcasting and Data Collection

(1) During the navigation season, general marine weather broadcasts will be routinely issued by the Canadian Coast Guard.

(2) Ship Weather Data Stations:
Ships encountering adverse weather or sailing conditions are urged to notify the appropriate Seaway Control Centre giving pertinent information. This information will in turn be broadcast to other ships and relayed to the meteorological branch offices concerned.

8. Use of VHF Radio

The use of Seaway working frequencies as outlined in the Seaway Regulations is restricted to ship-to-shore (Ship Traffic Management) communications. Ship-to-ship communications must be carried out on the designated VHF channels. Strict adherence to these regulations is required.

9. Fog

The incidence of fog is most prevalent in the American Narrows, CIP 9 *(Richards Point)* to Light 41, west end of mooring cells above Eisenhower Lock, St. Regis Island to Grasse River below Snell Lock, in the vicinity of the Valleyfield Bridge and in the upper reach of the Welland Canal.

In the American Narrows, navigation will be suspended when the visibility is 1/2 mile or less. High intensity strobe lights have been installed at the lower wall of Snell Lock and the upper wall at Eisenhower lock to assist ship masters in locating the wall in times of poor visibility.

In Canadian waters, navigation will be suspended by the Traffic Control Centre when visibility becomes insufficient to permit safe navigation. In general, navigation will be suspended when visibility falls to less than a ¼ M, except in the Beauharnois Canal where two-way navigation will be permitted until visibility falls to 3/4 M, at which point navigation will be suspended. Ships downbound under conditions of reduced visibility must have a competent crew member in attendance at the stern anchor when approaching bridges.

In some locations, under certain conditions, one-way navigation will be permitted when visibility is between ¼ M and ½ M. In these cases, ships will be asked to proceed by invitation only.

When fog is forecast, ships may be assembled in anchorages or on approach walls or wharves to permit localized operation during the period when navigation is suspended elsewhere.

A strobe light is located on the approach wall above the upper Beauharnois Lock and above Iroquois Lock.

10. Wind

When high winds prevail, or are forecasted, ships are permitted to transit in accordance with established wind scales which take into account wind velocity and direction, ship draft and exposed "sail area" and operating bow thrusters. The scales serve as guidelines in scheduling ship traffic at Seaway structures under adverse wind conditions.

NOTE: *(1) When a ship becomes windbound in a Traffic Sector, it is essential that it be moored or anchored in a location which does not prevent the safe manoeuvring of other ships that are able and allowed to transit.*

(2) Under conditions of wind or low visibility ships are not normally kept in lock chambers.

11. Hogging

During hot summer weather, the heat radiated by the sun causes expansion of the exposed deck area, while the lower plates which are submerged remain comparatively cool. The expansion of the upper deck results in a bending effect commonly known as "hogging". This "hogging", particularly in the case of ships with a large expanse of open deck, may increase the "fore and aft" draft by as much as 13 cm and create an overdraft condition.

Masters, aware of this possibility, usually take the precaution of running water over the deck during daytime periods of extreme heat.

It is recommended that masters of ships with a large expanse of open deck take the precaution mentioned above to prevent deck expansion and avoid delays while adjusting drafts.

12. Approach Walls (Fendering)

Approach walls are situated above and below all locks to assist ships entering the locks and also for securing while awaiting their turn for the lock. Rubber fendering is provided at various locations to facilitate ship entry.

In the Welland Canal, pneumatic fender units are located at the east and west wall transition points immediately below Lock 7 to facilitate ship entries and exits at this lock.

13. Ships with Bulbous Bows

Certain lock approach walls are supported by timber or concrete piles. It has been found that extensive damage is occurring to this timber piling. It is reported that ships with bulbous bows may be causing this damage when the angle of approach to the wall is too great. Mariners are therefore requested to keep the angle of approach as small as possible, consistent with the safety of the ship, and to advise the nearest Seaway radio station immediately if they suspect the bulbous bow may have contacted the pilings of an approach wall.

14. Meeting Areas

Due to restricted channel width in the Welland Canal from former Bridge 10 Piers to Mile 11.3 (overhead power line crossing), only ships with a combined beam of less than 30 m will be initially dispatched to meet in this area. Exceptions may arise when, for example, a downbound ship finds herself close to Mile 11.3 while an upbound ship, because of slow transit, is just through the draw of Bridge 11. Another exception may be made when the Masters of both upbound and downbound ships request that they be permitted to meet.

Guard Gate Cut (Buoys WC31 to WC33)

Due to restricted channel width this area is a no meeting area.

Port Colborne Harbour

When ships are dispatched to meet in Port Colborne Harbour, each ship will be notified of the name, dimensions and load condition of the opposing ship.

15. Ships Operating in Restricted Channels

When using restricted channels ships are subjected to certain conditions which are normally not found when transiting wide rivers, lakes or other water expanses. Of importance are the following conditions and Masters should take these into account when sailing in restricted channels:

(a) **BANK SUCTION** - A ship sailing in the proximity of one of the banks of a channel will experience bank suction forces, which are caused by the asymmetrical flow of water around the ship. The closer a ship nears a bank the larger the bank suction forces become. It is therefore important that ships do not get too close to any of the banks.

(b) **SHIP MEETING -** Hydrodynamic interaction will take place between two ships meeting or passing each other, either going in the same direction or in opposite directions. The interaction forces and moments on the ships will cause course deviation and yaw to occur. It is important that ships maintain adequate separation when passing or meeting. At present there is insufficient information to determine a "safe" separation distance based on ship size, speed, rudder activity, etc. However, for ships meeting, it is considered that a separation of half the combined beam width of the ships should provide a safe minimum distance. For ships overtaking, the Ministry of Transport recommends a separation of not less than one to two beam widths of the larger ship.

(c) **SQUAT -** A ship moving through the water will generate pressure forces that will bring a reduction in the water level and cause the ship to sink bodily in the water and change its trim. Generally, depending on initial trim, full-bodied ships trim down by the bow and slender ships down by the stern.

Squat increases proportionally with the length of the ship and with the square of the forward speed.

In general, the speed limits, which have been established in Seaway waters, take into account squat conditions. Apart from other considerations, it is therefore important that ships operate within the established speed limits.

16. Walk-through Procedures (Lock 8 - Welland Canal)

When water conditions permit, a walk-through procedure may be used at Lock 8 – Welland Canal.

With this procedure, a ship passing through the lock will not be required to secure in the lock but will proceed under her own power at a speed consistent with safety.

The ship must have personnel ready at mooring stations with mooring lines ready for deployment in the event they are required,.

17. Stern Anchor

Ships required by Seaway Regulation No. 15 to be equipped with a stern anchor must ensure it is properly rigged and available for use throughout the Seaway transit.

Every ship of more than 125 metres (410 feet) overall length whose keel is laid after January 1, 1975 shall be equipped with a fully operational stern anchor suitably rigged for immediate release, holding and retrieving.

The stern anchor shall be arranged to the satisfaction of the ship's Classification Society or National Authority. The anchor shall have a weight of not less than 50% of the Classification Society's or National Authority's rules for the ship's bower anchor and the length of cable to suit the anchor shall not be less than 110 metres (60 fathoms).

Wire cable may be used but it shall be of the same tensile strength as the chain cable required for the anchor, and the first fathom attached to the anchor shackle shall be chain cable. The wire cable shall be attached to a windlass. However, the anchor may be attached to a power-operated winch drum, provided it has the same strength as that required of an anchor windlass and can perform the same function as an anchor windlass.

The anchor windlass or power-operated winch drum must be capable of retrieving the anchor at a mean speed of 9 metre per minute and be capable of retrieving the anchor with 80 metre of chain cable or wire cable.

If the ship's spare bower anchor is the be used as a stern anchor, then the chain cable should have a minimum strength of not less than 60% of that required for the bower anchor.

18. Water Level Information

(1) Water level information is available on the Seaway website (www.greatlakes-seaway.ca) under "Commercial Shipping"

(2) Current water levels are also broadcast via AIS for various water level stations throughout the Seaway.

(3) Tele-announcers are also installed at various locations. Water level information can be obtained from these locations by dialling:

Summerstown	1-613-931-2089 *(English or French)*
Morrisburg	1-613-543-3361 *(English or French)*
Iroquois Lock - Upper End	1-613-652-4426 *(English or French)*
Brockville	1-613-345-0095 *(English or French)*
Kingston	1-613-544-9264 *(English or French)*
Port Weller	1-905-646-9568 *(English or French)*
Port Colborne	1-905-835-2501 *(English or French)*

The telephone will ring briefly and an announcement will be heard. Levels provided are in reference to chart datum.

(4) The following chart provides the chart datum for the various water level gauges along the Seaway:

MLO Section of the Seaway

Station ID	Station Name	Chart Datum at Water Level Station (IGLD85)
SLBL	ST. LAMBERT LOCK LOWER WALL	5.35
SLBU	ST. LAMBERT LOCK UPPER WALL	10.66
W-LAP	LAPRAIRIE	10.66
CSCL	COTE STE. CATHERINE LOCK LOWER WALL	10.66
CSC	COTE STE. CATHERINE LOCK UPPER WALL	20.29
W-SSC	WATER LEVEL SOUTH SHORE CANAL ENTRANCE	20.29
BO3L	LOCK 3 BEAUHARNOIS LOWER WALL	20.50
W-BOH	BOH POOL LEVEL	33.05
BO4U	LOCK 4 BEAUHARNOIS UPPER WALL	44.66
W-SLU	WATER LEVEL ST. LOUIS BRIDGE	45.18
W-VAL	VALLEYFIELD LEVEL	45.67
CTL	CÔTEAU LANDING	46.01
SMT	SUMMERSTOWN	46.24
COW	CORNWALL ON	46.40
SNLL	SNELL LOCK LOWER WALL	46.60
W-SNLU	UPPER SNELL LEVEL	60.45
IKEL	EISENHOWER LOCK LOWER WALL	60.45
IKEU	EISENHOWER LOCK UPPER WALL	72.50
W-LGS	LONG SAULT LEVEL	72.50
W-MOR	MORRISBURG ON - MUNICIPAL DOCK	72.86
W-WAD	WADDINGTON LEVEL	72.86
IROL	IROQUOIS LOCK LOWER WALL	73.18
IROU	IROQUOIS LOCK UPPER WALL	73.24
CAR	CARDINAL ON	73.50
OGD	OGDENSBURG N.Y.	73.88
KGN	KINGSTON	74.20

Welland Canal

Station ID	Station Name	Chart Datum at Water Level Station (IGLD85)
W-PWH	Port Weller Harbour - Welland Canal	74.20
L1N	Lock 1 Lower Wall	74.17
L1S	Lock 1 Upper Wall	87.74
RCH1	Reach 1 (20-minute min of L2N)	87.74
L2N	Lock 2 Lower Wall	87.74
L2S	Lock 2 Upper Wall	101.91
RCH2	Reach 2 (40-minute min of L3N)	101.91
L3N	Lock 3 Lower Wall	101.91
L3S	Lock 3 Upper Wall	116.08
RCH3	Reach 3 (20-minute minimum of W-B05)	116.08
RCH6	Reach 6 (20-minute min of L7NE)	158.36
L7NE	Lock 7 Lower East Wall	158.36
L7SE	Lock 7 Upper East Wall	173.33
LLVL	Long Level (60-minute min of L8NE)	173.33
L8NE	Lock 8 Lower East Wall	173.33
L8SE	Lock 8 Upper East Wall	173.50
W-PCH	Port Colborne Harbour, (60-minute min of L8SE)	173.50

Example of calculation for water elevation, based on tele-announcer reading:

EXAMPLE

(Reading from tele-announcer) 0.74 m
(Datum for Summerstown) +46.24 m
Water Level (IGLD85) = 46.98 m

OR

(46.98 x 3.2808) = 154.13 feet IGLD85

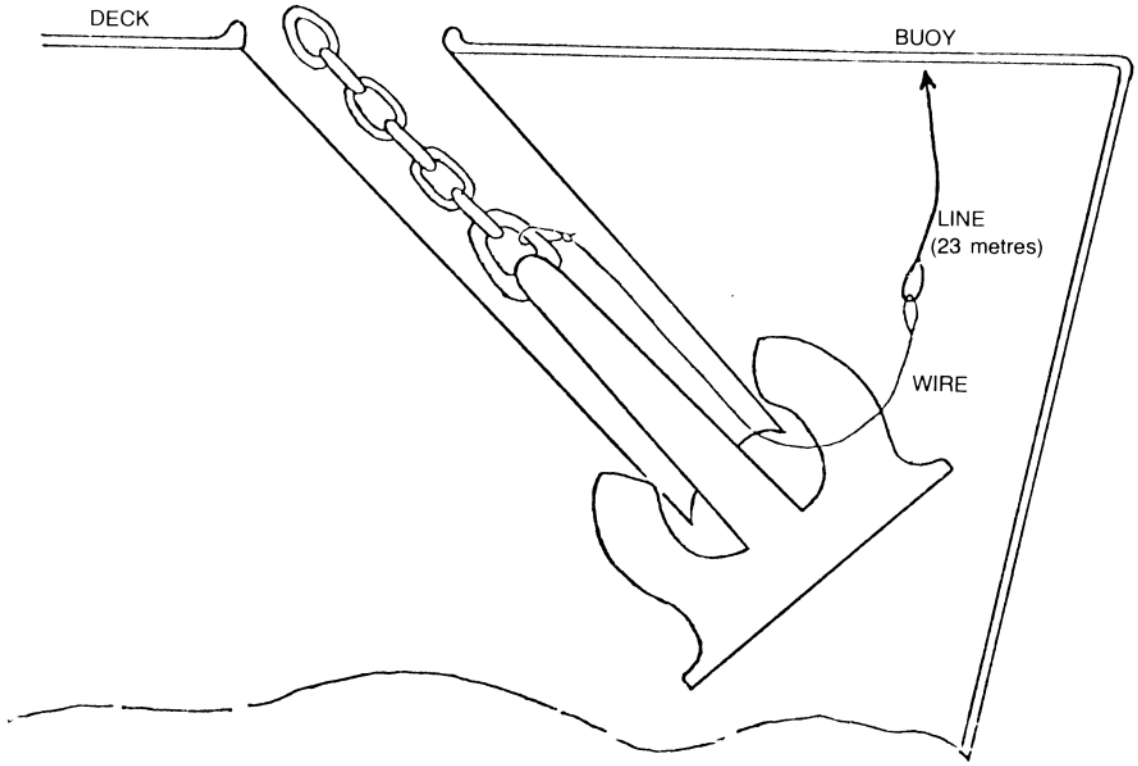
19. Anchor Marking Buoys

Seaway *Regulation 14* requires the installation of a highly visible anchor marking buoy on each anchor. Anchor buoys are to be attached and ready to deploy without any manual intervention. A soft line of at least 23 meters length shall connect the steel wire rope with the anchor marking buoy

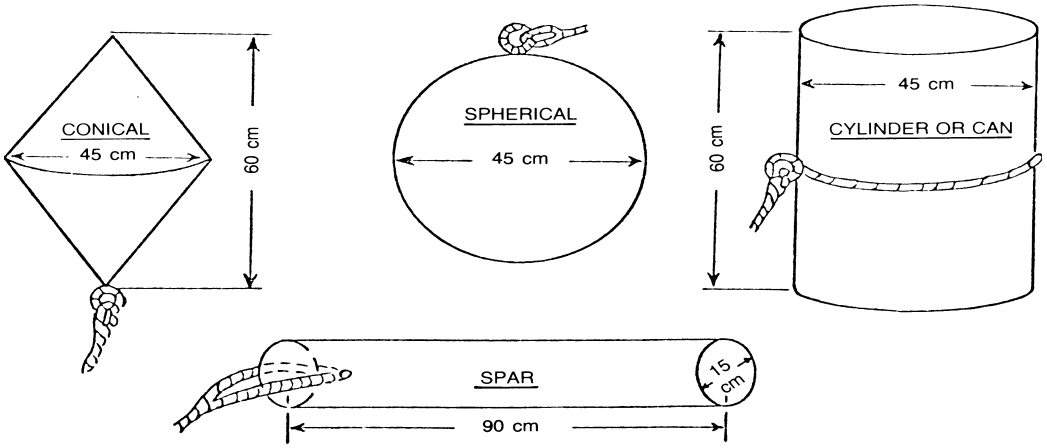
Example

To hold the line in place near the ship's railing or bulwark is permitted. The steel wire rope shall be used for the section of the assembly within the hawse pipe, looped through the anchor chain and connected to itself with a shackle.

ANCHOR BUOY RIGGING



TYPICAL ANCHOR BUOYS



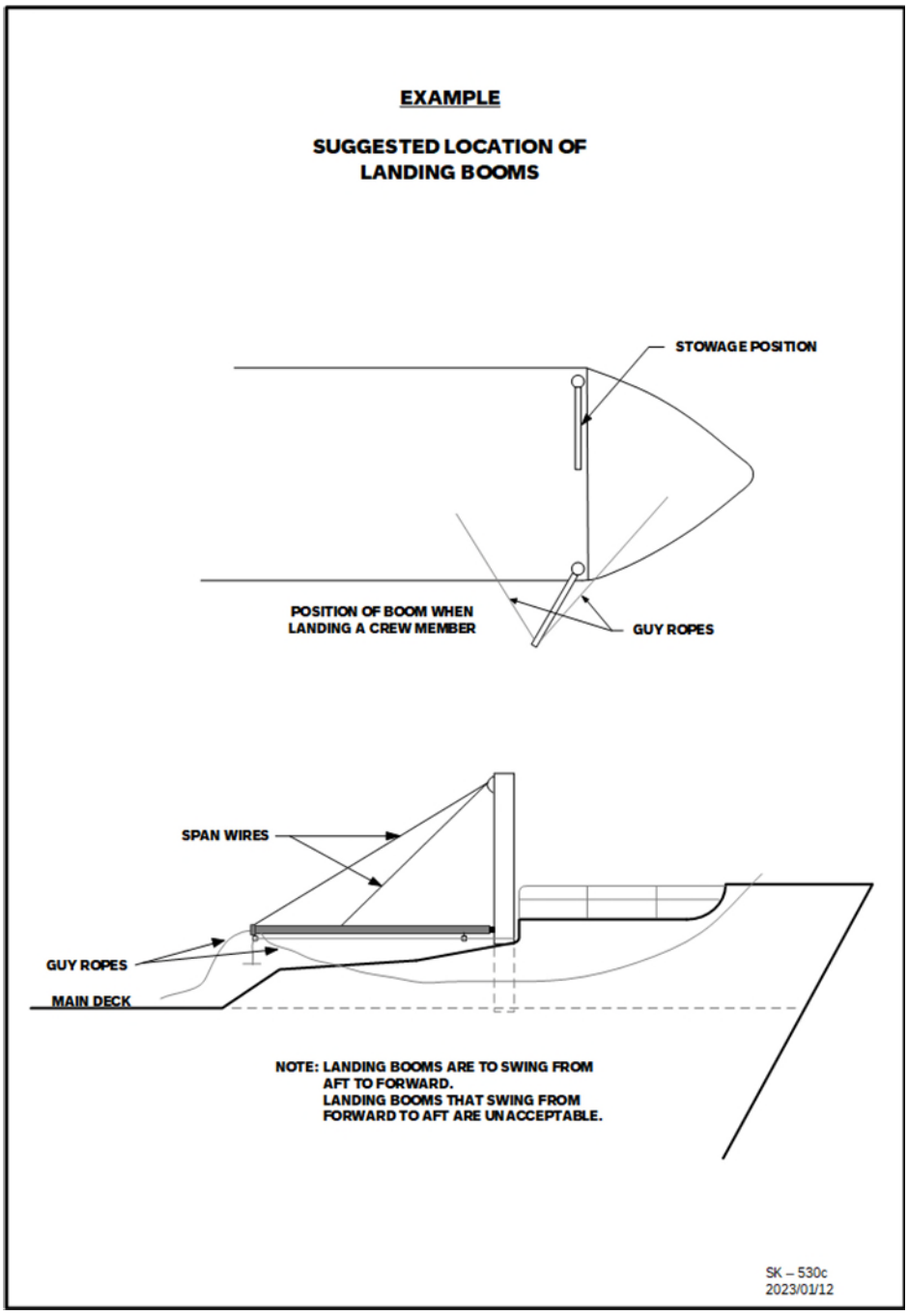
20. Typical Landing Boom

Seaway Regulation 8 refers to ships of more than 50 m in overall length equipped with at least one landing boom on each side. It is recommended that a minimum Safe Working Load (SWL) of 227 kilograms be used for the landing booms.

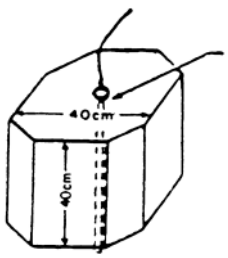
Rigging of Landing Boom

It is important that the landing booms be maintained in good working condition at all times. It is suggested that prior to the first transit of each season, and at regular intervals the landing boom and associated equipment be cleaned and greased. Equipment should be checked for wear, tightened and adequately “moussed”, spans, guys and landing ropes checked for deterioration and broken strands. Any doubtful items of equipment should be renewed immediately.

Landing booms must be capable of swinging outboard on their own from aft to forward. To facilitate this, the kingposts are usually canted outboard one to two degrees. An opening in the deck railing or bulwark is required if other suitable arrangements such as “Bulwark Ladders” (article 22) are not available for when the crew members have to swing outboard from the deck.



On completion of any new installation or the completion of each overhaul, the boom should be test swung with an adequate static load to ensure the integrity of all working parts. It is recommended that a timber safety block, with sufficient length of line for it to be lowered to the waterline at light draft, be stowed in close proximity to each boom, ready for immediate use.



Safety Block

21. Embarking or Disembarking in Lock Chambers

It is important that safe working practices are followed for embarking or disembarking in Seaway locks. This should only be carried out when the ship is right alongside the lock wall, and crew member confirms with Captain that the ship is fully secured in the lock with Hands-Free mooring or with mooring lines . Crew members must not board or land from the ship between the two forward or the two after lines. Furthermore, they should not step over the mooring lines.

If there is a difference in height between the deck of the ship and the lock wall, a ladder should be used and a crew member should assist the person boarding or disembarking. At no time should one attempt to disembark by jumping from the ship.

22. Bulwark Ladders

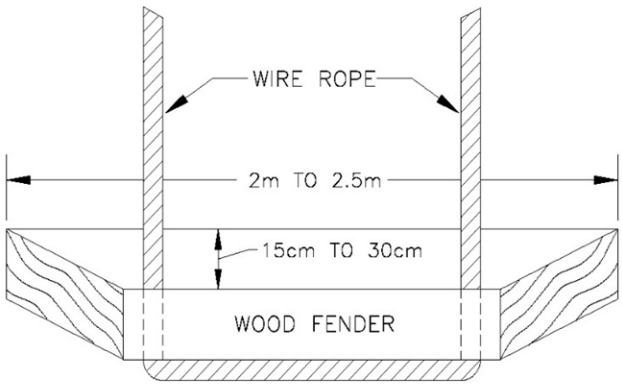
For the safety of persons using bulwark ladders to board or disembark from a ship, Masters must assure that such ladders are secure. Hand-hold stanchions which do not form part of the ladder must be secured rigidly to the bulwark or the ship's rail. In cases where the stanchions and/or hand rails do form part of the ladder, the ladder itself must be secured firmly to the ship's structure.

23. Use of Portable Fenders

Masters should note that the successful use of portable fenders depends on their careful handling.

EXAMPLE

GUIDELINES FOR
PORTABLE WOODEN FENDERS



SK – 496c
2005/01/24

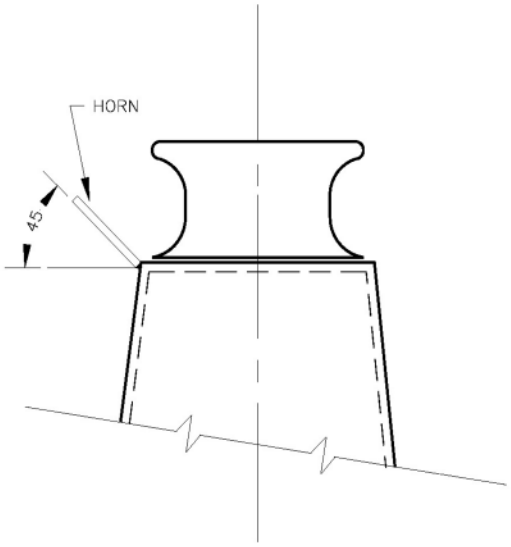
24. Navigational Aid Deficiencies

Navigational aid deficiencies in the Canadian and U.S. waters of the Seaway shall be reported to the Seaway Traffic Control Centres for transmission to the appropriate Coast Guard Traffic Centre.

25. Typical Pedestal

EXAMPLE

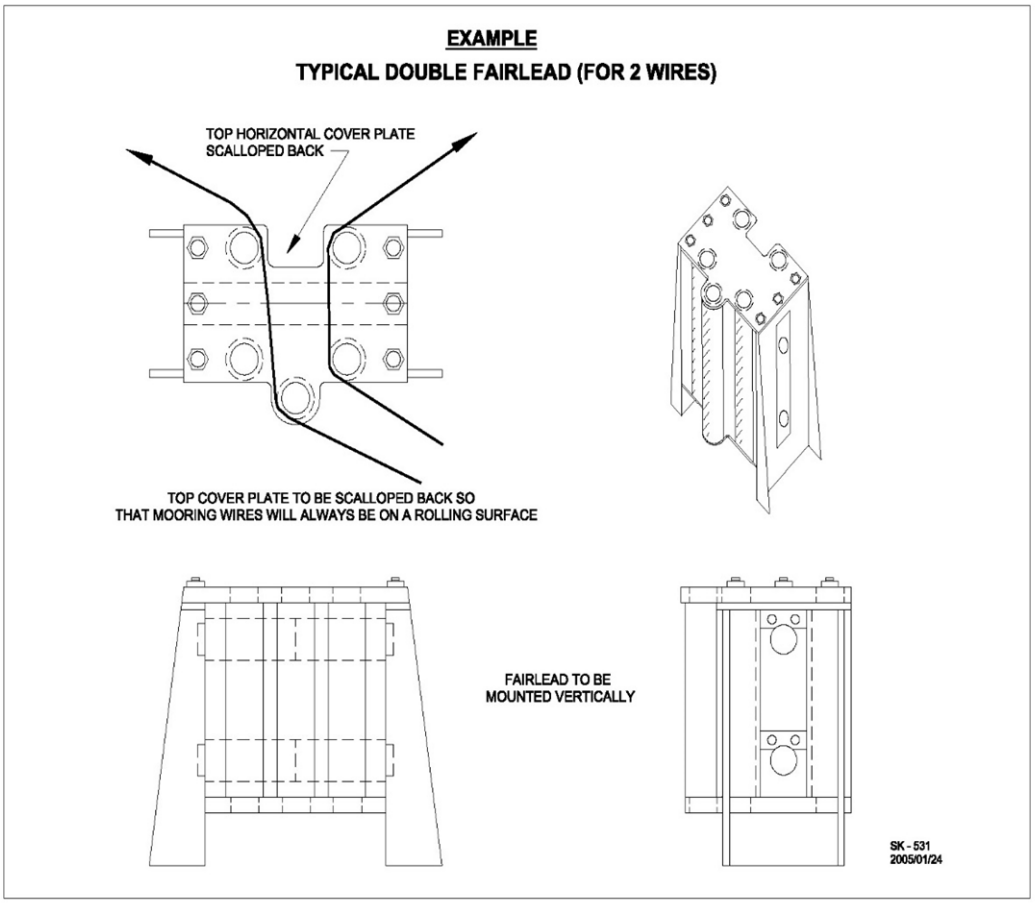
TYPICAL PEDESTAL



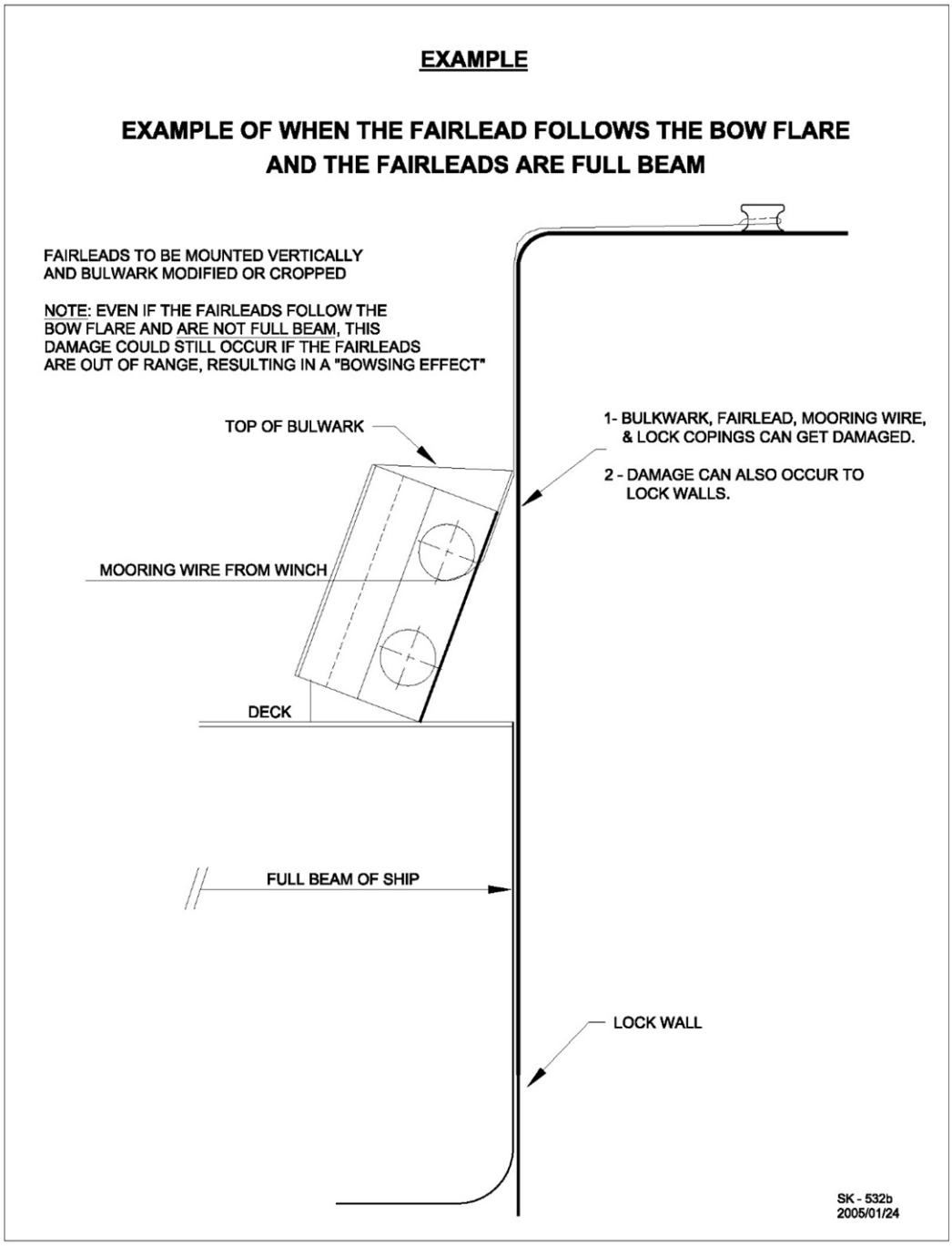
EXAMPLE OF A TYPICAL PEDESTAL ROLLER
FITTED WITH A HORN SO THAT THE MOORING
WIRE WILL NOT SLIP OFF WHEN THE LINE IS SLACK

SK – 530d
2005/01/24

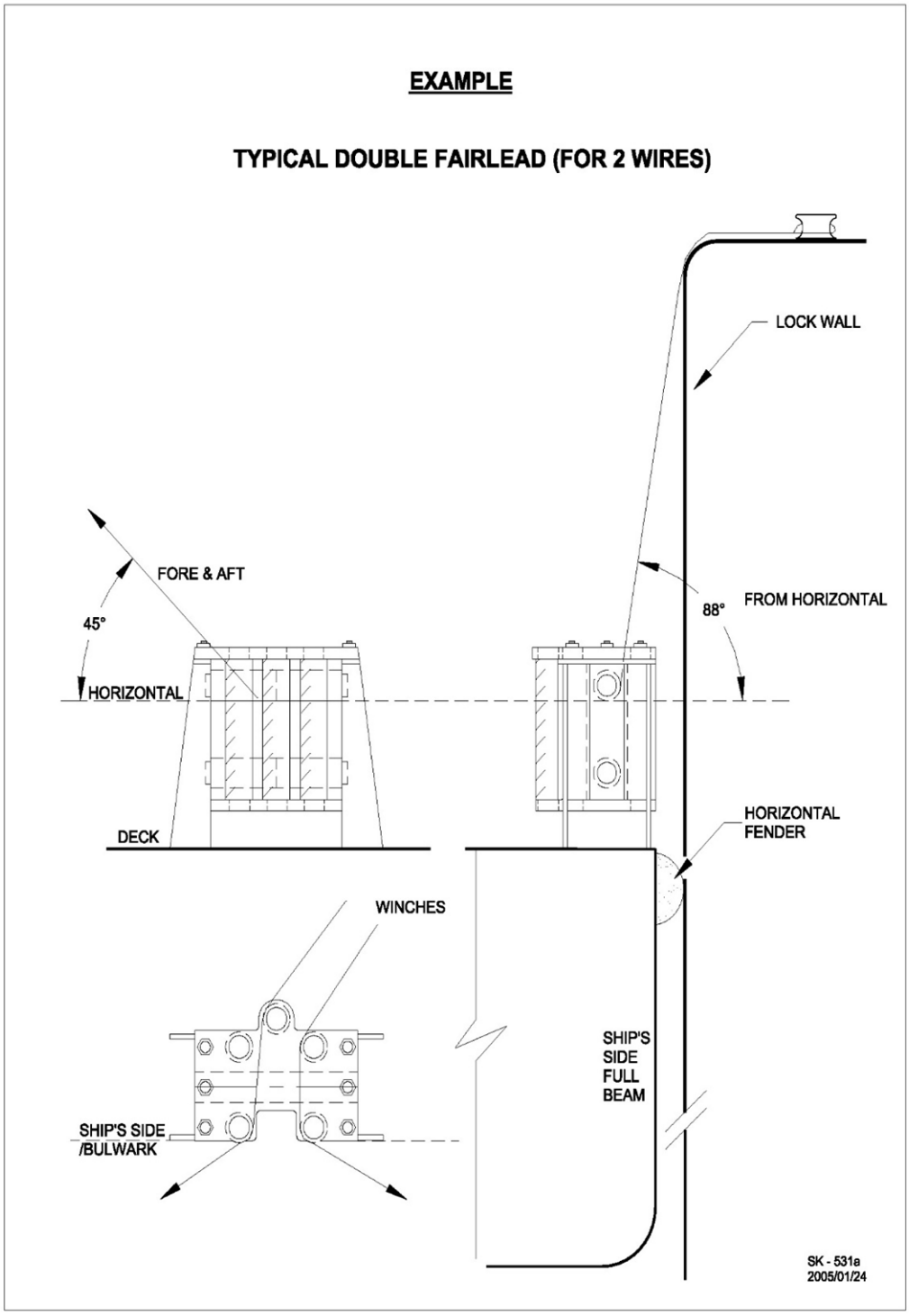
(a) Typical Double Fairlead (for 2 wires)



(b) Example of When the Fairlead Follows the Bow Flare and the Fairleads are Full Beam



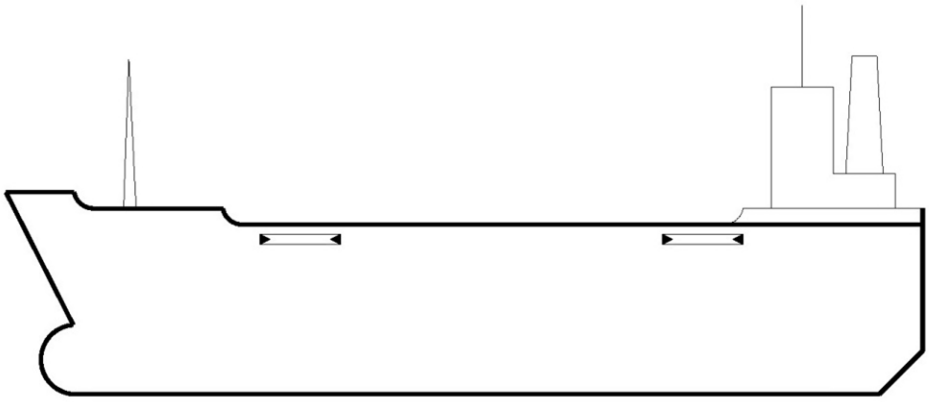
(c) Typical Double Fairlead (for 2 wires)



(a) General Arrangement for Fender Locations

EXAMPLE

GENERAL ARRANGEMENT FOR FENDER LOCATIONS



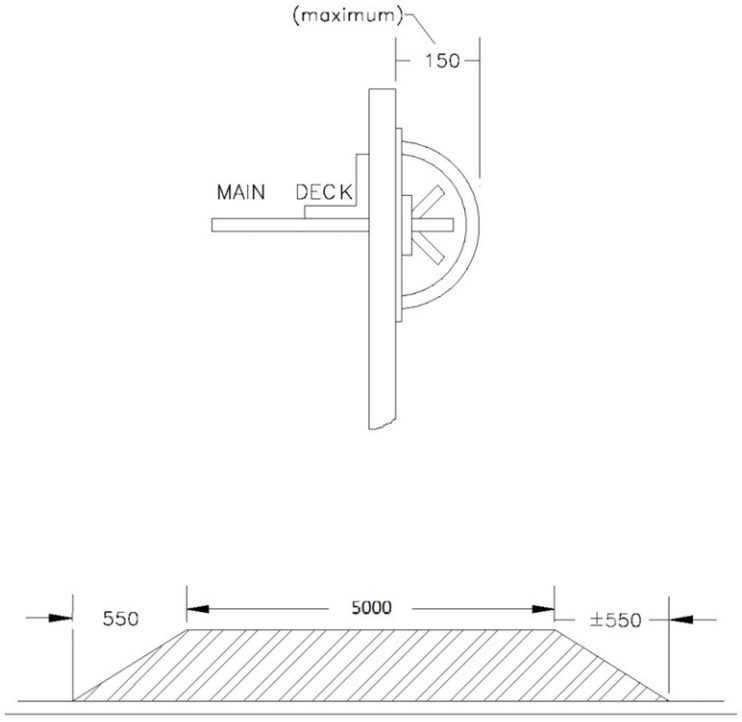
- AT ENDS OF PARALLEL BODY PORT AND STARBOARD
- AS CLOSE TO MAIN DECK AS PRACTICAL
- WELL TAPERED ENDS OF 550mm IN ORDER TO PROVIDE 4:1 SLOPE (76°)
- 5 METRES IN LENGTH
- NOT GREATER THAN 150mm RADIUS SPLIT PIPE CONSTRUCTION INTERNALLY REINFORCED

SK – 530
2020 / 02 / 04

(b) Guidelines for Fitting Permanent Steel Fenders

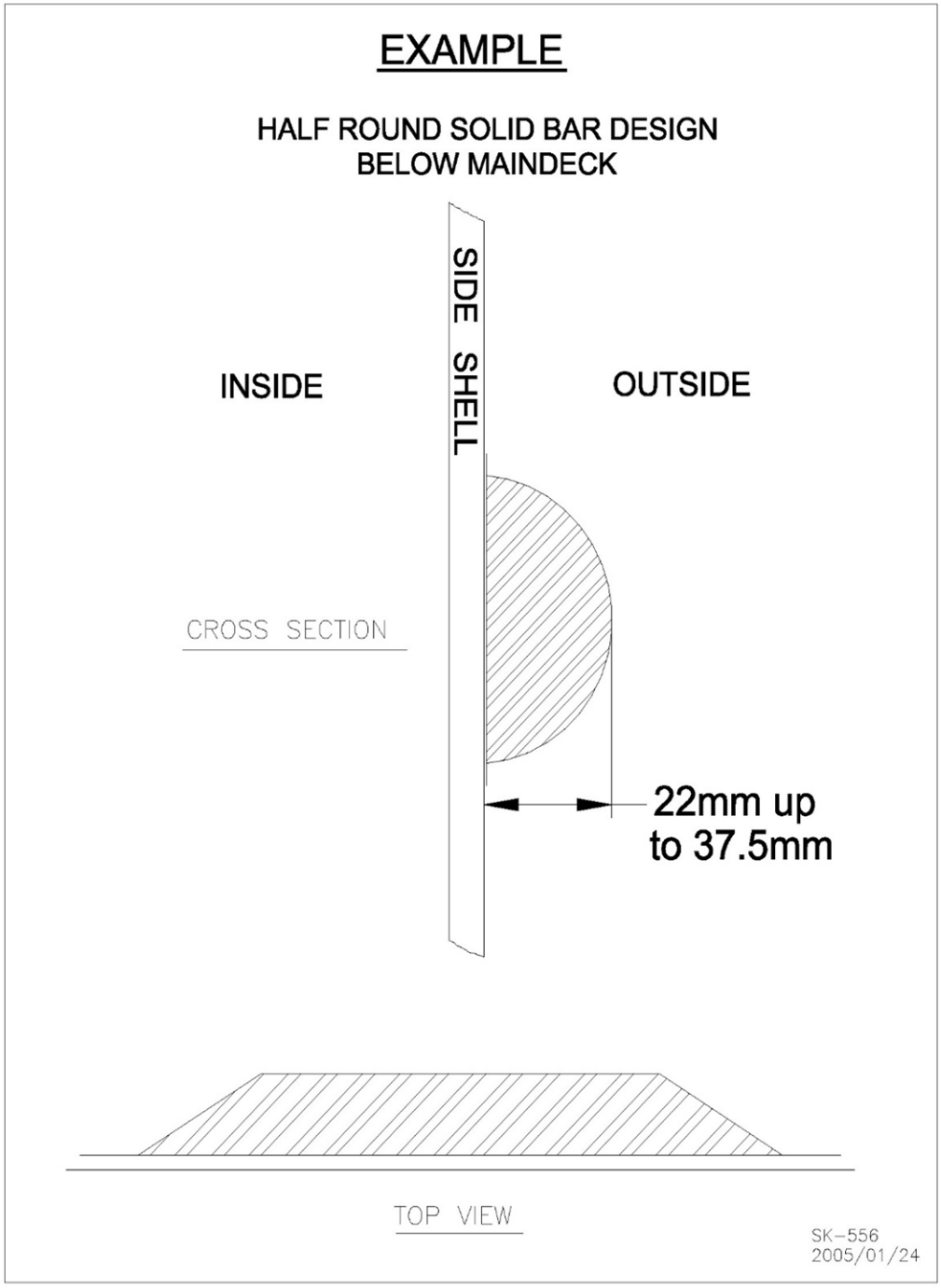
EXAMPLE

GUIDELINES FOR FITTING
PERMANENT STEEL FENDERS

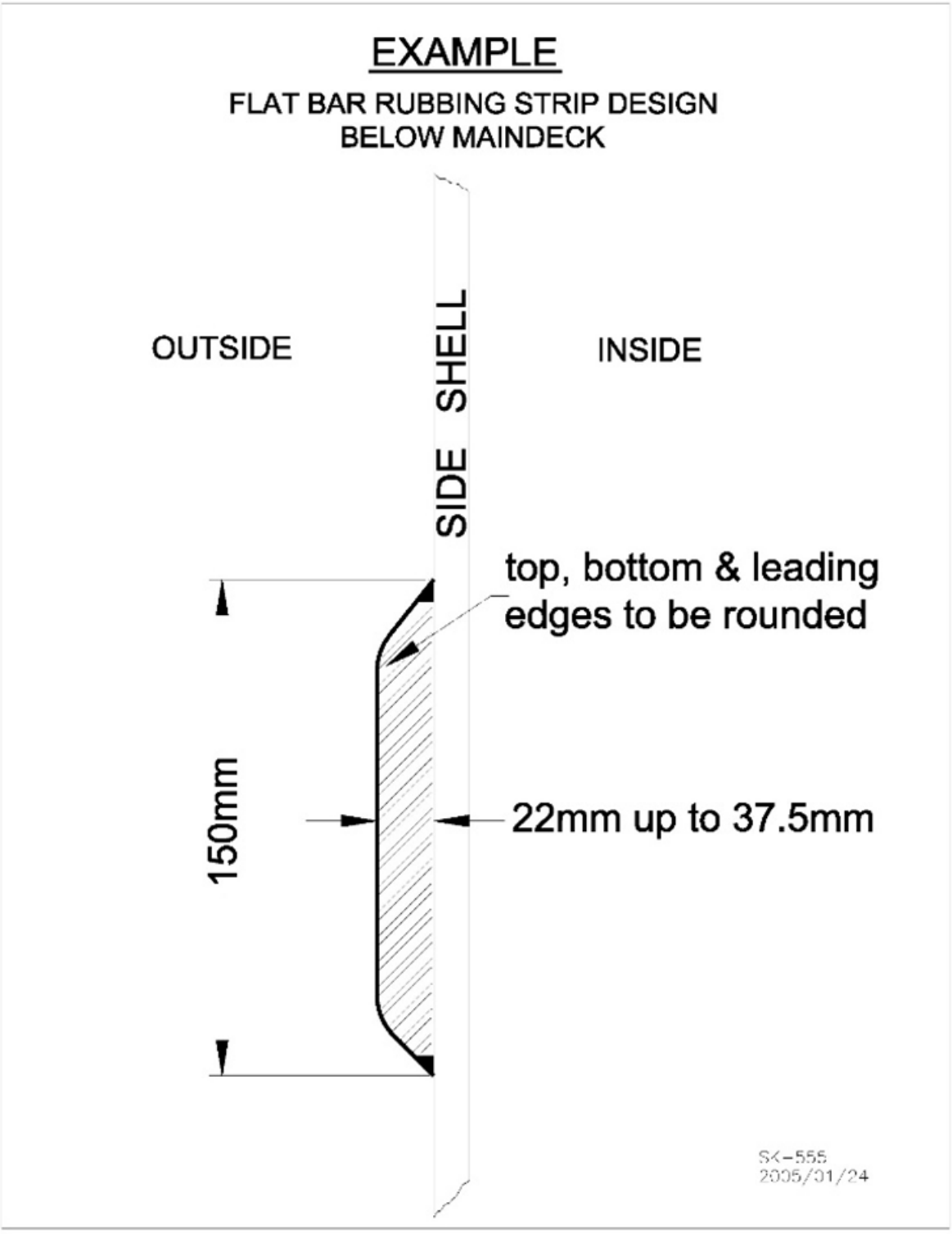


SK – 496
2020 / 02 / 04

(c) Half Round Solid Bar Design Below Main Deck



(d) Flat Bar Rubbing Strip Design Below Main Deck



28. Cargo Load Plan Example- Please Adapt to Suit Your Own Ship

Owner's / Agent's Name: **Phone No:**
Address:

Seaway Practices & Procedures no 72 – Reporting Dangerous Cargo

❒ St. Lambert, Qué.: Email: cdo@seaway.ca
❒ Massena, N.Y.: Email: vtc@dot.gov
❒ St. Catharines, Ont.: Email: nrerie@seaway.ca

CARGO LOAD PLAN

Ship's Name: **Date:** **Time:**

Cell: **Voyage No:**

Port of Origin: **Next port:**

Draft Fwd. / Aft: Fwd:_____ **Aft_____**

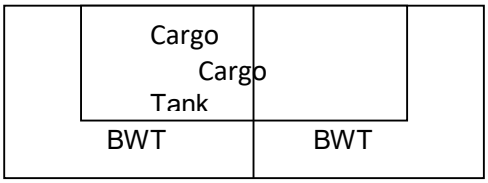
ETA – St. Lawrence Seaway System
Please indicate only one arrival location
St. Lambert / Cape Vincent / Port Weller / Port Colborne **Date:**
Time:

Loaded ❒

Ballast ❒

Gas free ❒Yes ❒No

Transverse Midship Section



General Layout

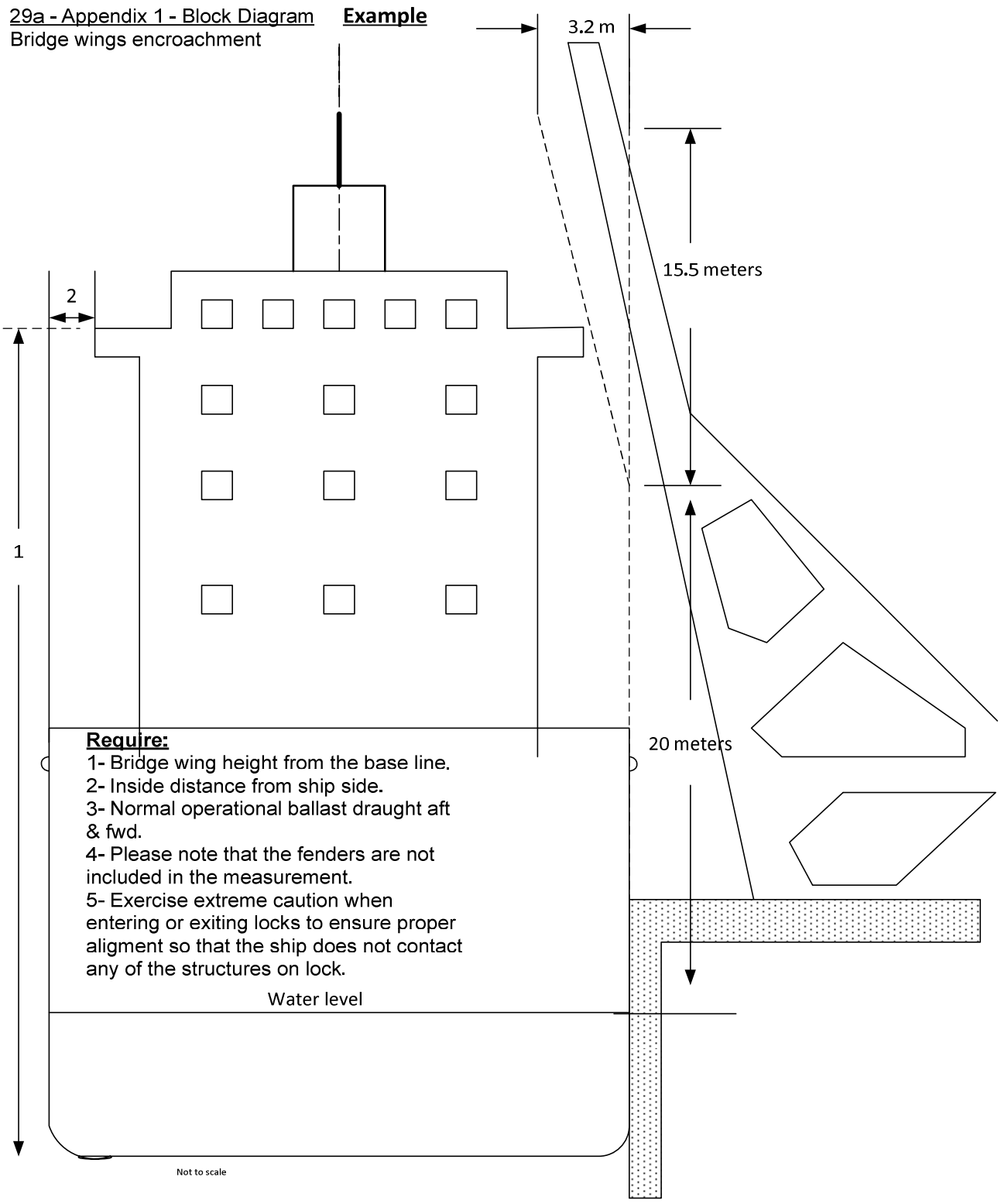
BWT 6 P	BWT 5 P	BWT 4 P	BWT 3 P	BWT 2 P	BWT 1 P
COT 6 P	COT 5 P	COT 4 P	COT 3 P	COT 2 P	COT 1 P
COT 6 S	COT 5 S	COT 4 S	COT 3 S	COT 2 S	COT 1 S
BWT 6 S	BWT 5 S	BWT 4 S	BWT 3 S	BWT 2 S	BWT 1 S

Cargo *Previous Cargo if in Ballast*	**Location – COT**	**Quantity**		**IMO Class**	**UN No:**	**CDC Yes/No**	**Flash Pt.**
		Cu. m	**m / t**				
	- P & S						
	Total						

Master:_____ Date:_____

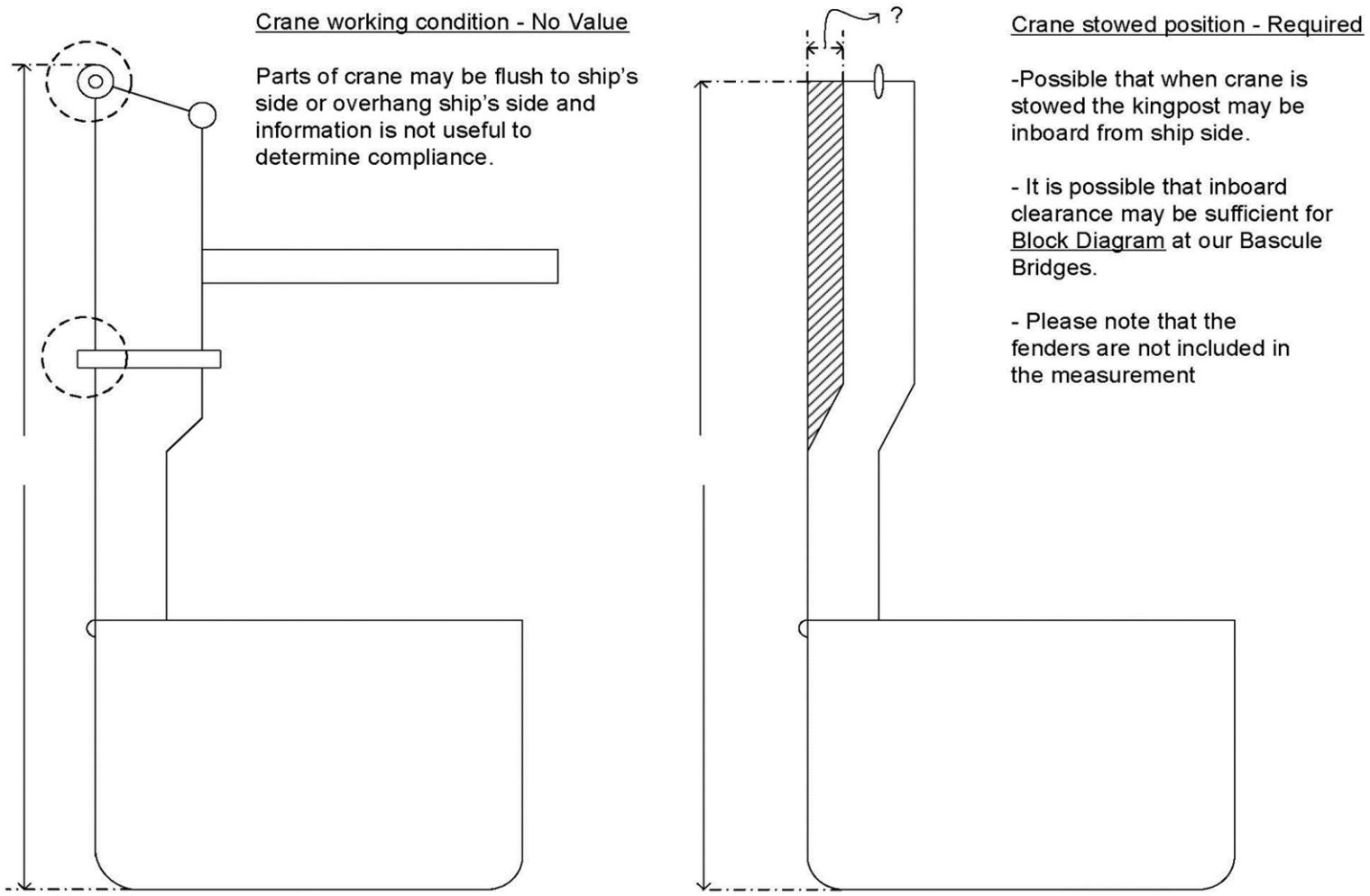
29. Block Diagrams

(a) Block Diagram – Bridge Wings Encroachment



(b) Block Diagram – Crane Position

29b - Appendix 1 - Block Diagram - Crane working position versus crane in stowed position Example

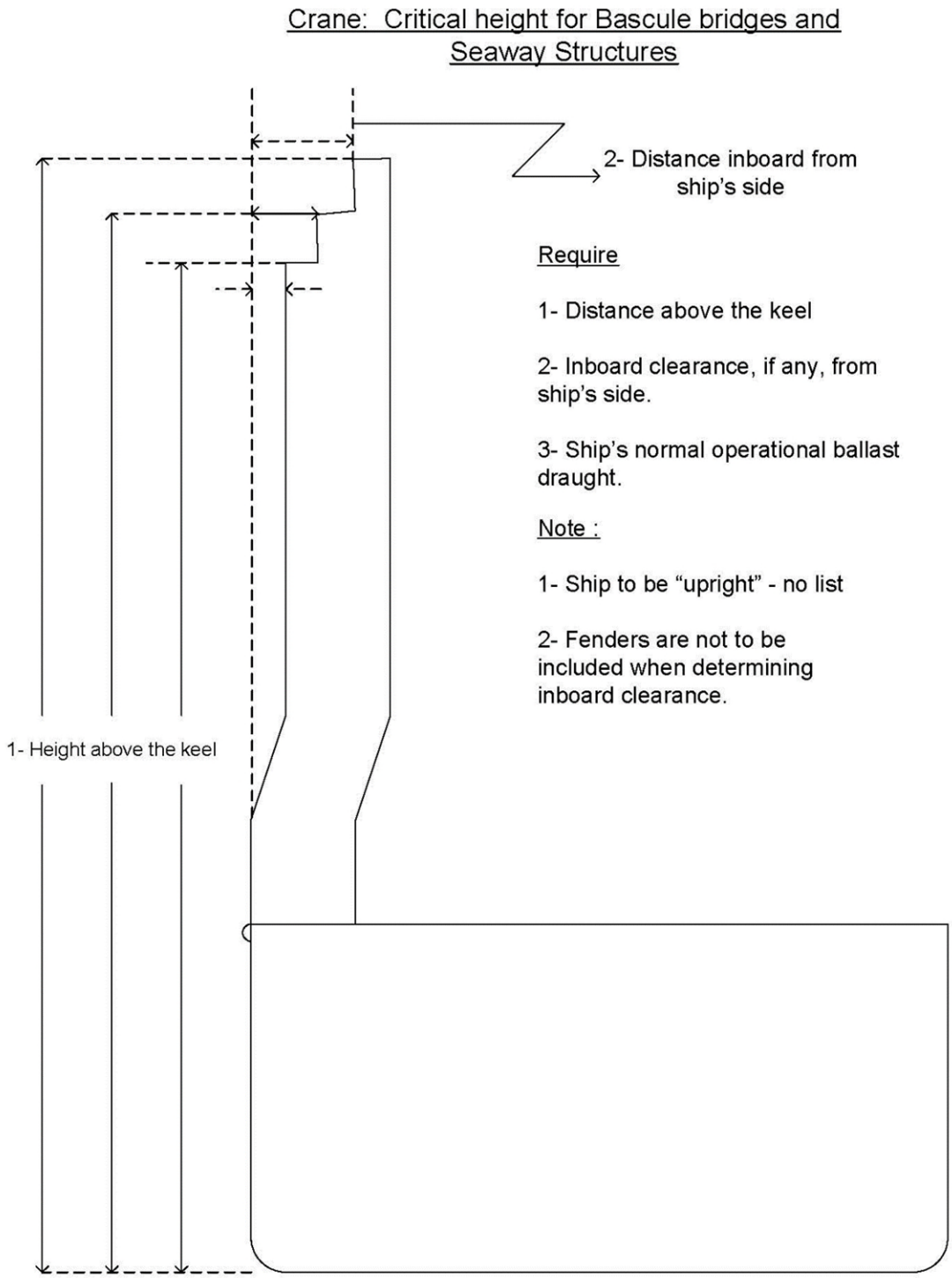


Refer to appendix 1 - Block Diagram in Seaway Handbook

marinoff/plan review/ dessin/dessin an/ crane stowed

c) Minimum Required Crane Measurements

29c - Minimum Required - Crane Measurements - Example



30. Ballast Water Tank Information

Reporting:

All ships entering the St. Lawrence Seaway/Great Lakes System shall comply with Seaway Ballast Water Regulations by following submission requirements of Transport Canada and U.S. Coast Guard by submission of the joint "St. Lawrence Seaway Ballast Water Reporting Form" contained in Transport Canada's (TP13617E).
http://www.tc.gc.ca/eng/marinesafety/tp-tp13617-menu-2138.htm

Reporting Timelines:

Transport Canada requires submission of the ballast water information 96 hours before entry into the territorial sea of Canada at the following, by email to: atlanticballastwater@tc.gc.ca or, by facsimile: (902) 426-6657. Contact Number: (902) 426-4956.

U.S. Coast Guard requires submission of the ballast water information 24 hours before the ship arrives in Montreal, Quebec at the following, by facsimile: (315) 769-5032. Contact Number: (315) 769-5483.

Inspections:

All ships bound for a port within the St. Lawrence Seaway/Great Lakes System (System) (that originate outside the Canadian EEZ) will be subject to ballast tank inspection. On the ships initial transit into the System, the ballast tank inspection will be conducted on the ship's first stop in a lower St. Lawrence River Port by Transport Canada, or during the ship's Enhanced Seaway Inspection, by the Seaway, Transport Canada prior to entering the System.

Ballast tank inspections on subsequent transits of the System will be conducted at the first opportunity prior to entering the System or while in- transit or at rest within the Seaway System.

Masters shall ensure that at least one crew member is available to accompany inspection personnel so as not to result in undue delays.

Compliance:

Ships unable to conduct a saltwater flushing of their ballast tanks will follow the reporting procedures of Transport Canada and the U.S. Coast Guard. The Seaway Corporations will enforce "Conditions of Entry" in compliance with Transport Canada's Ballast Water Control and Management Regulations.

Ships found with non-compliant ballast tanks will be issued a retention Letter by the appropriate agency(s) and will be subject to verification upon its outbound transit of the System.

NAVIGATION SIGNAL LIGHT SYSTEM – (Canadian Locks)

1. General

A signal light system is provided at the approaches to all Canadian locks to inform the ship master of the situation in the lock as he approaches it. The system consists of a navigation signal light panel preceded by up to three limit of approach (L/A) signs located along the approach wall at each end of the lock, as shown in *Figure 1*.

The operating sequence is uniform throughout the system and is detailed in the following paragraphs. However, the number of L/A' s and the distances between them are subject to variations due to differences in the configuration of lock approaches.

In the Welland Canal, an L/A sign with signal lights similar to those at the locks is installed above and below the Guard Gate cut. These lights are operated from the Control Centre.

FIGURE 1

2. L/A Signs

The L/A signs are intended as an aid to the ship master in approaching a lock as promptly as possible. Their operation is as follows:

(a) ***Limit of Approach No. 3***

The L/A signs are equipped with red navigation lights only, and are used:

(i) as a distance marker only by a ship making a passing entry manoeuvre;

(ii) as a mooring L/A for modified passing entry manoeuvre.

(b) Limit of Approach No. 2

The L/A signs are equipped with red navigation lights only, and are used:

(i) by a ship waiting for the first stage of a dump or fill during a turnback lockage at locks where turbulence above or below the gates exists - see "Turnback Lockages - General".

(ii) as a distance marker only by two ships executing a passing entry manoeuvre; (See Ship Manoeuvres)

(iii) by a moored ship waiting for an outbound to pass, when a passing entry is not possible.

(c) Limit of Approach No. 1

The L/A signs are equipped with red and green navigation lights, and are used:

(i) as a distance marker by a ship for which the lock is being turned back (final stage of dump or fill);

(ii) as a mooring position at certain locks when the lock is being turned back in favour of the ship. (See Turnback Lockages).

(iii) i)to indicate that the last piece of equipment at that end of the lock has started to open (lock gates, bridge or ship arrester as applicable) when the L/A 1 red lights start to flash.

The **RED LIGHTS** on the limit of approach (L/A) signs have two characteristics: Fixed or Flashing.

Under no circumstances should a ship pass an L/A sign displaying a RED SIGNAL.

In addition, a flashing L/A sign indicates that the lock is being readied and the ship should:

(i) continue to approach, with caution, as it will be able to pass this L/A soon;

OR

(ii) be prepared to cast off and move ahead to the next L/A sign displaying the navigation signal.

N.B. The flashing signal is used when an "opposing" ship is departing from a lock, and also to indicate a lock is turning back for you.

N.B. In the pool between the Upper and Lower Beauharnois Locks, an L/A and a light standard bearing twin red and green navigation lights only are located at each end of the pool to warn the ship master of the lock condition. The signal lights on the standard operate as follows:

(i) Fixed Red - *"Do not pass this L/A"*

(ii) Flashing Red - *"Gates will open shortly"*

(iii) Green - *"Lock is ready for you"*

3. Lock Signal Light Panels

Lock signal light panels are prominently displayed at the end of each lock to assist ship masters in timing their ship movements for an optimum speed of entry. However, because of inherent limitations, no signal panels have been installed on the ends facing the pool between the Upper and Lower Beauharnois Locks and between the flight locks (Locks 4, 5 and 6) on the Welland Canal.

The purpose of the lock signal light panel is to indicate to an approaching ship the state of readiness of the lock. The mode of operation of the lights indicates the dumping or filling of the lock, whether one or more ship(s) is in the lock and whether the approaching ship will be handled next or held at the wall while the lock is turned back against it.

4. Operation of Signal Light Panels

(a) Red Lights

The **RED LIGHTS** operate in conjunction with the associated limit of approach light system and have identical characteristics, namely:

i) ***Fixed Red*** - "lock is occupied, do not pass illuminated L/A"

ii) ***Red Flashing Together*** - "lock is occupied by one ship, do not pass illuminated L/A, but stand by to move into lock when outbound ship has passed you"

OR

"lock is turning back for you, do not pass illuminated L/A but stand by to move into lock"

iii) ***Red Flashing Alternately*** - "lock is occupied by more than one ship, do not pass illuminated L/ A but stand by to move into lock when outbound ships have passed you"

NOTE: *L/A 1 will start to flash only after the last piece of equipment at that end of the lock starts to open (bridge, gates or ship arrester).*

(b) Amber Lights

In the Montreal/Lake Ontario section and the Welland Canal, each illuminated AMBER LIGHT indicates five (5) minutes of time while each flashing amber light indicates two and a half (2 ½) minutes of time.

Upbound ships will observe that, during the dump of a lock, the amber lights on the lower end navigation signal light panel operate as follows:

- Two steady amber lights are shown ten (10) minutes before the lock end is fully opened.
- One steady and one flashing amber light are shown seven and a half (7 ½) minutes before the lock is fully opened.
- One steady amber light shows five (5) minutes before the lock is fully opened.
- One flashing amber light shows two and a half (2 ½) minutes before the lock is fully opened.
- When the two amber lights are extinguished, the lock is fully opened and the ship can enter as soon as the green light is exhibited.

Downbound ships will observe that:

- During the fill of a lock, the amber lights on the upper end navigation signal light panel operate in the same manner as for the upbound ships.
- By counting the illuminated amber lights, it is therefore possible to determine the time until the lock is fully open in minutes.

At Locks 1 to 7 inclusive, in the Welland Canal, the light timing sequence makes use of only two amber lights as follows:

- Two steady amber lights are shown ten (10) minutes before the lock end is fully opened.
- One steady and one flashing amber light are shown seven and a half (7 ½) minutes before the lock is fully opened.
- One steady amber light only shows five (5) minutes before the lock is fully opened.

- A single flashing amber light shows two and a half (2 ½) minutes before the lock is fully opened.

- When the two amber lights are extinguished, the lock is fully opened and the ship can enter as soon as the green light is exhibited

(c) Green Lights

GREEN navigation lights work in conjunction with the green lights on L/A I and their only characteristic is:

Fixed green - "lock is ready for you - enter as promptly as possible".

SHIP MANOEUVRES –CANADIAN LOCKS

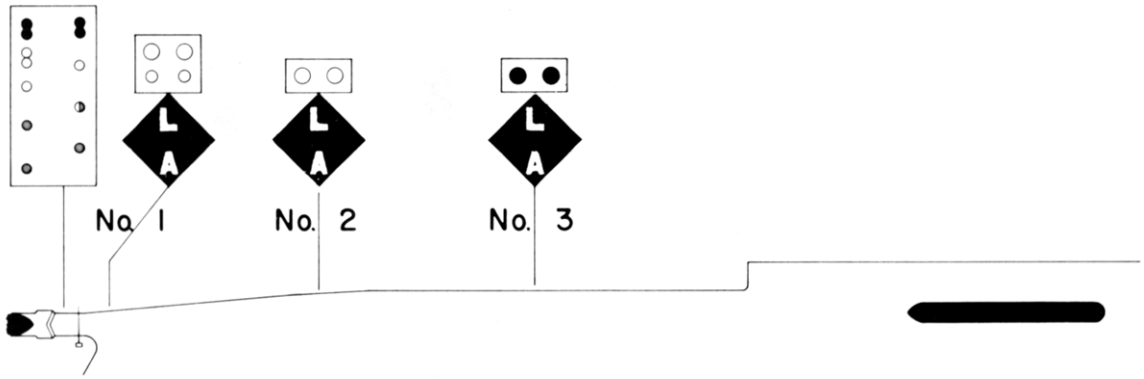
1. General

Two prime factors in providing efficient ship transits are the reduction of "dead time" at a lock, which is that period between the exit of one ship from a lock and the entry of another, and the elimination of the need to tie up at the approach walls. With the increase in traffic, new Control Centre facilities and procedures, and additional aids to navigation, it is desired to make much greater use of the ``passing entry" procedures as described hereunder, when two ships meet immediately outside a lock and when weather conditions permit.

2. Passing Entry

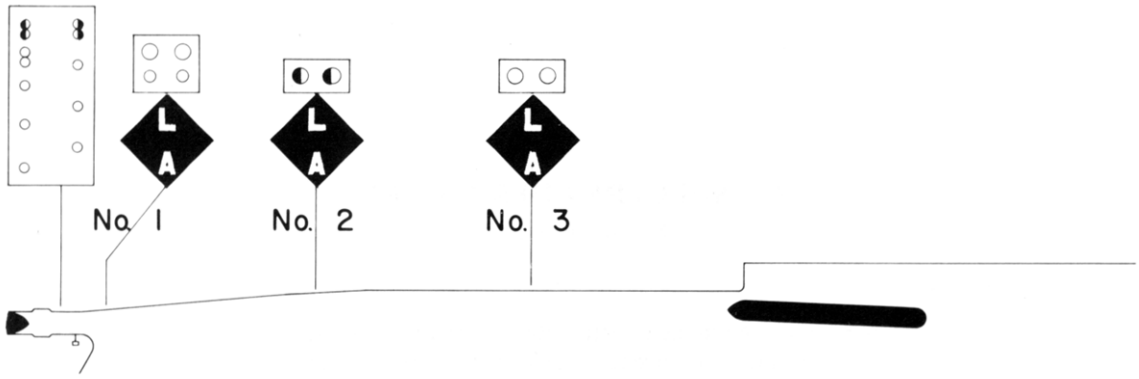
Ideally, to execute the "passing entry" the ship approaching the lock should be 450 m to 915 m from the end of the approach wall when the lock starts to dump or fill. This distance allows for variations in ship speed. At this point, the navigation lights and L/A 3 are fixed red. The amber lights come on with the start of the dump or fill *(Figure 3)*.

FIGURE 3



When the lock gates open, the navigation lights on L/A 3 begin to flash. As the ship in the lock casts off, L/A 3 is extinguished and L/A 2 starts to flash. At this time, the inbound ship should be at the end of the approach wall *(Figure 4)*.

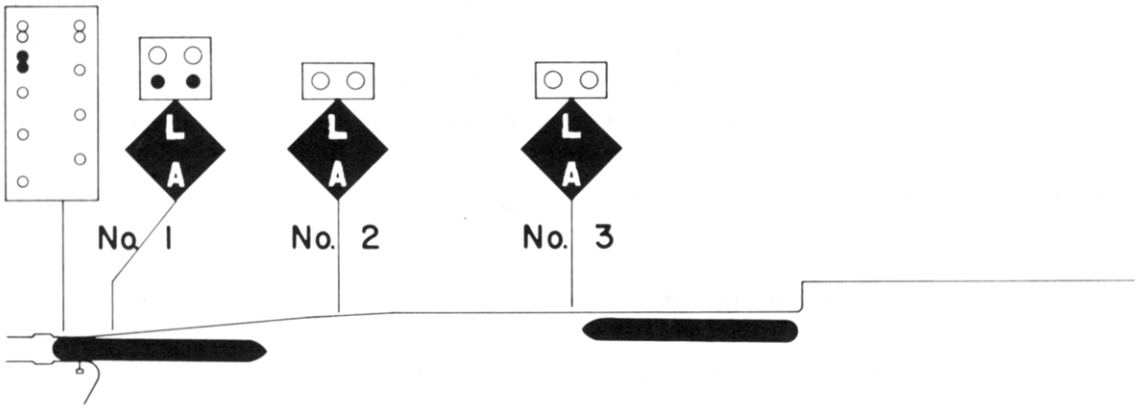
FIGURE 4



As the stern of the last outbound ship clears the lock, L/A 2 is extinguished and the green lights are shown on the navigation panel and L/A 1. The bow of the inbound ship should be at L/A 3 at this time *(Figure 5)*.

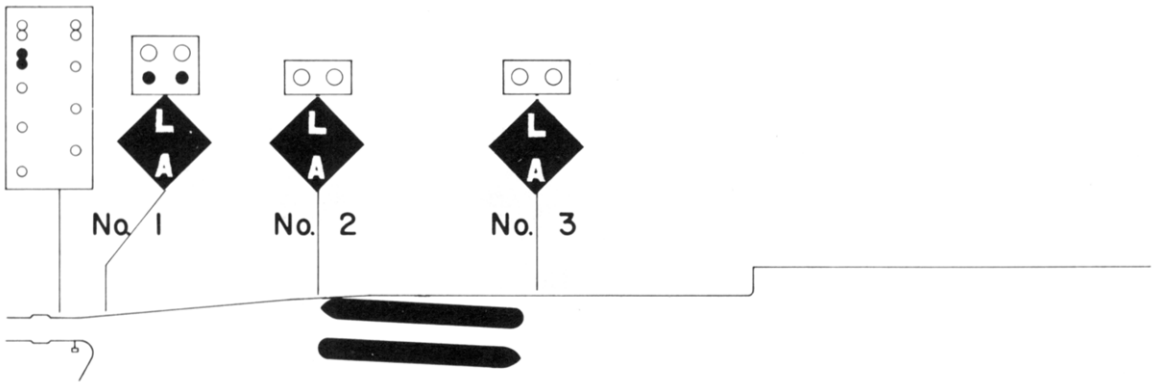
(See variation below, when a road bridge is involved)

FIGURE 5



As the ships continue to approach each other, the ideal meeting point is when the bow of the inbound and the stern of the outbound are abeam of L/A 2 *(Figure 6)*.

FIGURE 6



Experience, confirmed by theoretical calculation, proves that the inbound ship moving along a wall faces much less suction from the outbound than it does if moored at the wall.

When the ships have passed each other, the inbound ship continues into the lock as smartly as is prudent and possible.

3. Modified Passing Entry

In cases where a ship is obviously going to reach a wall well in advance of the outbound ship leaving the lock, the inbound ship will moor at L/A 3.

When the lockage in progress has completed its dump or fill and the end of the lock is completely open, the red navigation lights and the L/A 3 begin flashing and the inbound ship prepares to cast off, the outbound ship at this time will be casting off and moving out of the lock.

Immediately upon completion of the outbound ship casting off (i.e. the last ship in the case of a tandem lockage) the L/A 3 flashing lights will be extinguished and the L/A 2 flashing lights will come on.

The inbound ship should then commence entry to ensure that its bow is abeam of L/A 2 at the time the stern of the outbound ship is abeam this same L/A.

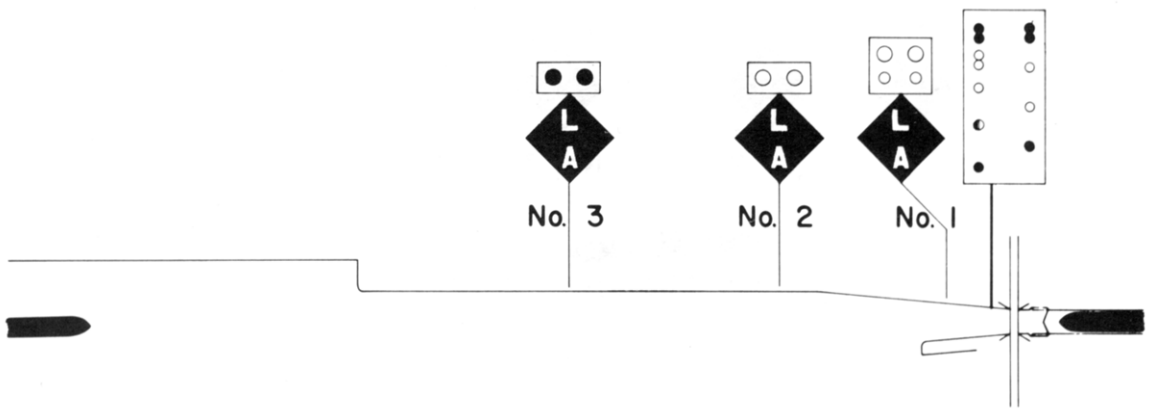
NOTE: The green lights on L/A 1 and the lock navigation lights will be activated when the stern of the last outbound ship has cleared the lock chamber.

4. Passing Entry Where a Road Bridge Crosses Over One End of a Lock

When the bridge remains up between exit and entry of ships, the sequence will be as described above for the Passing Entry. However, when it becomes necessary to lower the bridge between the times of exit and entry, the sequence is modified as follows:

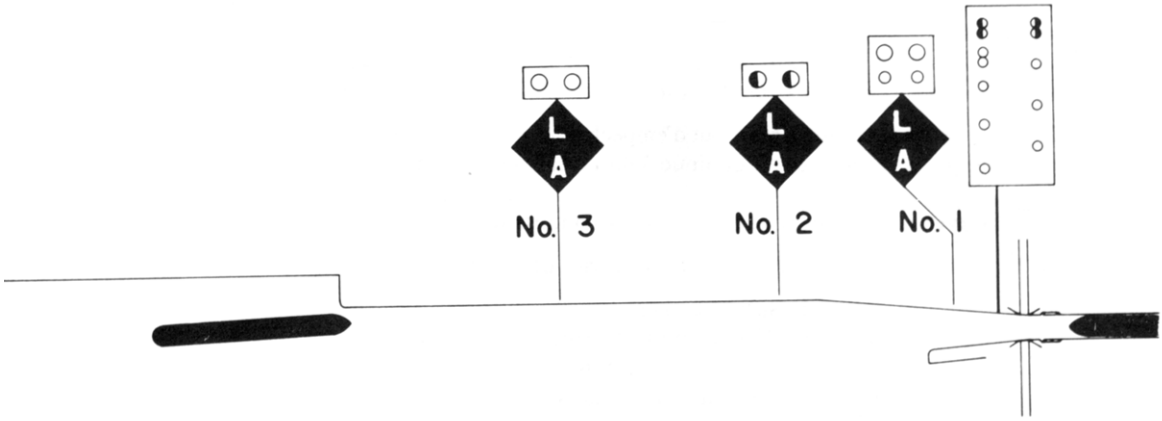
As the lock fills or dumps, the outer L/A and navigation lights are fixed red with the time remaining indicated by the amber lights. The approaching ship is then at some distance from the L/A 3 as shown in Figure 7.

FIGURE 7



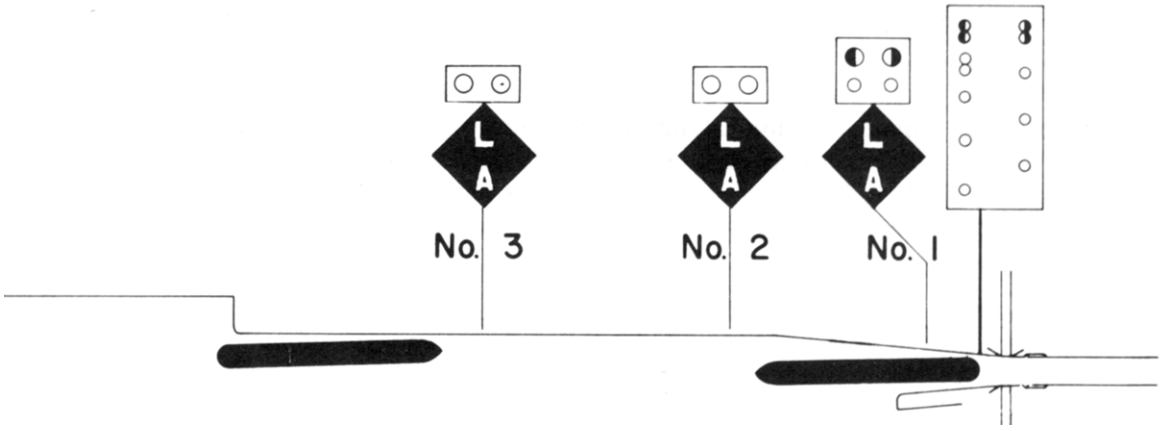
When the lock gates open, the navigation lights and L/A 3 begin to flash. As the ship in the lock casts off, L/A 3 is extinguished and L/A 2 starts to flash, which indicates that the inbound ship shall prepare to proceed to L/A 1, or stand by to cast off and move along the wall *(Figure 8)*.

FIGURE 8



As the bridge is lowering behind the outbound ship. L/A 2 is extinguished, L/A 1 commences flashing red and goes to steady red once the bridge is fully lowered, indicating that the ship may approach but not pass this point *(Figure 9)*.

FIGURE 9



TURNBACK LOCKAGE – CANADIAN LOCKS

1. General

In the execution of turnback lockages where water turbulence is a problem in the vicinity of lock gates, provisions have been made for the automatic transfer of flashing red lights from L/A 2 to steady red lights on L/A 1 as follows:

Eastern Section:	Upper end	-	3 minutes before upper end opens
	Lower end	-	6 minutes before lower end opens
Western Section:	Lower end	-	5 minutes before lower end opens

This automatic transfer serves to prevent a ship approaching too close to the lock gates until the turbulence has subsided to an acceptable level.

2. Turnback for Upbound Ships

The above features have been provided for upbound ships at the following locations:

a) St. Lambert Lock
b) Côte Ste. Catherine Lock
c) Lower Beauharnois Lock
d) Lock 1 - Welland Canal
e) Lock 2 - Welland Canal
f) Lock 3 - Welland Canal
g) Lock 4 - Welland Canal

NOTE: *1) At Lock 4, the automatic transfer takes place nine (9) minutes before gates open.*

2) At St. Lambert Lock, the automatic transfer takes place four (4) minutes before gates open.

At these locations, masters may observe the following prior to a turnback:

(a) Red flashing navigation lights - "will turn back for you"

(b) Red fixed on L/A 2 - "dump not started, do not pass this L/A"

(c) Six (6) minutes (Eastern Section) or five (5) minutes (Welland Canal) before gates are fully opened, the following is observed: red navigation lights continue flashing, amber lights are operating and steady red signals on L/A 1 are displayed. L/A 1 will start to flash when the last piece of equipment at that end of the lock starts to open (lock gates, bridge or ship arrester as applicable).

(d) When lock is fully opened:
- the navigation lights and L/A I show fixed green.
- "the lock is ready for you, enter as promptly as possible".

3. Turnback for Downbound Ships

The automatic transfer of red flashing lights (3 minutes before gates open) from L/A 2 to L/A 1 has been provided at the following locations:

a) St. Lambert Lock
b) Côte Ste. Catherine Lock
c) Upper Beauharnois Lock

The display of lights to waiting ships is the same as that described in the preceding paragraph for upbound ships except for the difference in timing.

At all other locations when the lock is being turned back to receive the inbound ship, the following is observed:

a) Lock navigation signal lights and the signals on L/A 1 display flashing red and, during the dump or fill, the amber lights are operating.

b) Since the ship is already at the nearest L/A to the lock, and turbulence does not cause any problem, no move is necessary until the lock is fully open, at which time the navigation and L/A signal lights show fixed green.

MOORING SHIPS – CANADIAN LOCKS

1. Safety Precautions

To prevent accidents on lock walls, especially those that could be caused by breaking mooring wires, Seaway linesmen have been trained in the safe handling of mooring wires and in the proper hand signals to be used when working with ship crews.

At all Canadian locks the standard hand signals as shown hereunder will be used during the ship mooring operation.

STOP

EMERGENCY STOP

SLACK

Safety Rules:

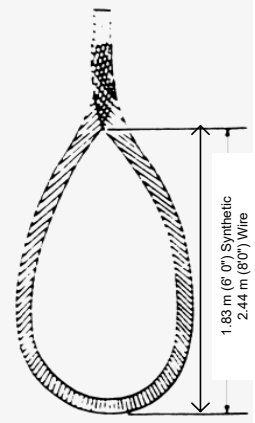
1. Always slack mooring wires as required.
2. Avoid giving too much slack.

HEAVE

Safety Rules:

1. Never heave on a mooring wire until the lock crew member gives the hand signal.
2. For their own safety, the lock crew members will always get well clear of mooring wire before giving signal to heave.
3. Always use slow speed to heave up wire when slack.

2. Mooring Lines



The length of the eye of a wire mooring line must be 2.44 metres and for a synthetic line 1.83 metres measured from the splice to the extreme end of the eye (see drawing).

NOTE: The table of breaking strength of mooring lines as given in Seaway Practices and Procedures no. 10 is expressed in metric tonnes. For comparison 9.8 KN is equal to one metric tonne (2204.6 lbs).

3. Ship Mooring Locations

The ship mooring locations at Canadian locks in the Seaway system have been standardized as much as possible.

The following table shows the targeted position of the ship's stem in the lock for each ship length category.

Ship Length		***Ship Mooring Position (Stem at Lock Wall Marker)***
211.00 m - 222.5 m	(692' - 730')	"stop" marker
202.00 m - 210.99 m	(663' - 692')	5 m marker
185.00 m - 201.99 m	(607' - 663')	10 m marker
145.00 m - 184.99 m	(476' - 607')	25 m marker
105.00 m - 144.99 m	(344' - 476')	50 m marker
less than 105.00 m	(less than 344')	75 m marker

Mooring positions are the same for upbound and downbound lockages.

Exceptions:

The table does not apply
(1) at Lock 8, Welland Canal
(2) where Final Mooring Position (FMP) adjusted to accommodate Hands Free Mooring (HFM) pad attachment
(3) multiple lockages at all locks
(4) ships with OAL greater than 222.5 (730')
(5) Where ships are permitted to float free in the lock

For these exceptions ships will be moored as directed by the lock operator.

Where equipped at the Canadian locks, a Vessel Self Spotting System (VSS) will display to a qualified ship its distance to go before reaching the ship's designated Final Mooring Position (FMP). VSS will display 0 when the bow of the ship is at its designated FMP, regardless of where that is in the lock.

AMERICAN LOCKS

1. Navigation Signal Light System

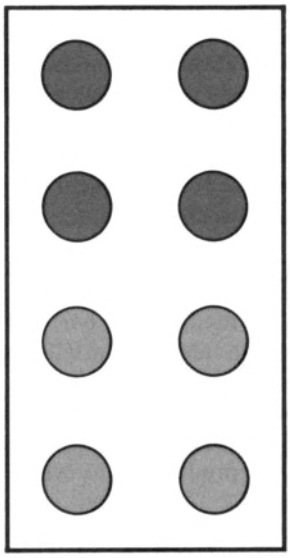
Lock Traffic Lights:

The upstream lock traffic light panels at both the Snell and Eisenhower Locks are located on forty-foot towers on the guide wall near the upstream control buildings.

The downstream lock traffic light panels at both locks are located on the face of the concrete wall immediately below the downstream control buildings. These lights operate as follows: *(Figure 10)*

SOLID RED	-	Stop; lock not ready for ship.
FLASHING RED	-	Lock is being prepared for ship.
GREEN	-	When lock is clear, proceed. Lock is ready for entry.

FIGURE 10



2. Tie-up Walls

a) ***Length of Lock Walls***

Eisenhower Lock:

Upstream Wall - Heading 268° - 088° true
L/A 1 to end of wall .....358 m
L/A 2 to end of wall .....319 m

Downstream Wall - Heading 253° - 073° true
L/A 1 to end of wall .....250 m
L/A 2 to end of wall .....211 m

Snell Lock:

Upstream Wall - Heading 269°- 089° true
L/A 1 to end of wall .....246 m
L/A 2 to end of wall .....208 m

Downstream Wall - Heading 251° - 071° true
L/A 1 to end of wall .....461 m
L/A 2 to end of wall .....422 m

b) ***Berthing Stations***

There are two (2) berthing stations located on the upper and lower tie up walls at each American lock. These are the limits of approach and there are signs labeled "Limit of Approach No. 1" (L/A-1) and "Limit of Approach No. 2" (L/A-2) on each wall. Ships with a beam of 18.3 m or less shall tie up at L/A-1 and ships with beams between 18.3 m and 23.8 m shall tie up at L/A-2.

c) ***Lock Gate Assembly Area***

A lock gate assembly area is located at the end of the downstream guide wall at Eisenhower Lock. This facility enables the emergency assembly and later installation of spare downstream gate leaves at Eisenhower Lock in the event that the installed lock gate leaves are severely damaged. Components of the new facility include a slip, bulkhead wall, two (2) assembly towers and pads and a steel sheet pile cell at the end of the existing downstream guide wall. Ship masters and pilots are advised to approach the downstream guide wall with caution to avoid entering the slip area.

APPENDIX 1 - SEAWAY MILEAGES TO PRINCIPAL LOCATIONS

Appendix I indicates distances from the origin of the Seaway to Long Point, on Lake Erie, broken down as follows:

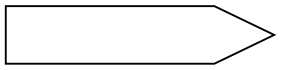
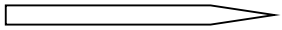
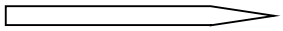
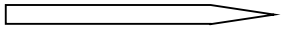
- Montreal/Lake Ontario Section *(Origin of Seaway to Cape Vincent)*
- Lake Ontario *(Cape Vincent to Breakwater, Port Weller)*
- Welland Canal *(Breakwater, Port Weller, to Long Point).*

Distances are expressed in nautical miles

MONTREAL/LAKE ONTARIO SECTION

MILE (nautical)	LOCATION
0.0	Origin of Seaway - across from Laurier Pier, Montreal Harbour
0.8	CIP 2
2.8	St. Lambert Lock
10.3	Côte Ste. Catherine Lock
14.6	Kahnawake Bridge
27.5	Lower Beauharnois Lock
28.4	Upper Beauharnois Lock
33.8	St. Louis Bridge
38.8	Valleyfield Bridge
72.4	Snell Lock
75.6	Eisenhower Lock
97.9	Iroquois Lock
161.2	Cape Vincent

LAKE ONTARIO

		MILEAGE *(Nautical Miles)* Upbound	Downbound
Cape Vincent Sodus Point		41.1	43.0
Mid-Lake Ontario		27.7	28.7
Newcastle		33.6	32.9
Breakwater, Port Weller		37.5	35.8
TOTAL		**139.9**	**140.4**

WELLAND CANAL

MILE (nautical)	LOCATION
0.0	Breakwater at Port Weller
1.7	Lock 1
3.2	Lock 2
4.9	Bridge 4
5.5	Lock 3
6.8	Locks 4, 5, 6
7.5	Lock 7
8.3	Guard Gate Cut
9.2	Former Bridge 10 Piers
10.4	Bridge 11
21.2	Lock 8
21.9	Bridge 21
23.5	Breakwater at Port Colborne
26.1	CIP 16

Distance between CIP 16 and Long Point - Upbound 38.2
- Downbound 39.1

APPENDIX 2 - TABLE OF TRUE ORIENTATION - Canal Locks

The table indicates true bearings of locks in the St. Lawrence Seaway for ships proceeding upbound.

MONTREAL/LAKE ONTARIO		WELLAND	
St. Lambert Lock	167°46'30"	Lock 1	164°23'00"
Côte Ste. Catherine Lock	270°02'00"	Lock 2	156°26'00"
Upper and Lower Beauharnois Locks	203°44'22"	Lock 3	174°25'30"
Snell Lock	260°18'55"	Locks 4,5 & 6	183°10'30"
Eisenhower Lock	260°18'55"	Lock 7	190°08'46"
Iroquois Lock	205°49'00"	Lock 8	189°50'32"

APPENDIX 3 - Free Drawing Review Service

The St. Lawrence Seaway Management Corporation will review at no cost ship's plans of new buildings, as well as those of ships arranging a first voyage.

Plans should include the following documents:

- General Arrangement
- Lines Plans
- Forward and aft mooring arrangement
- Anchor arrangement
- Fender arrangement
- Cross Section - in way of Superstructures / Cranes
- Normal operating ballast draughts

Electronic plans/drawings to scale can be sent to slsmcmarineservices@seaway.ca.

Alternatively, ships plan packages should indicate **"no commercial value"** and can be sent to:

Marine Services
The St. Lawrence Seaway Management Corporation
202 Pitt Street
Cornwall, Ontario
K6J 3P7

Reference: Practices & Procedure, Regulation 13

No. required: 4
Thickness: Uniform 12-18mm diameter
Length: 30 meters each
End: Back splice or taped
Eye splices & weights are not permitted.

Securing Hand Lines to Mooring Lines/Wire Ropes

(1) Upbound Vessels

When transiting upbound into the St. Lawrence River and Great Lakes, and whenever the ship is lower than the personnel at the lock, hand lines will be passed by the lock personnel (see note below regarding Iroquois Lock in the MLO Section and Lock #8 in the Welland Canal).

Once received, hand lines are to be secured to the ship's mooring lines by means of a CLOVE HITCH knot, approximately 60 cm behind the eye splice (see Illustration A).

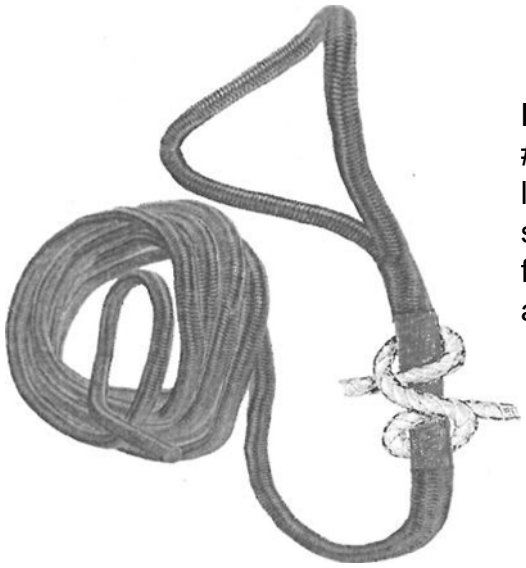
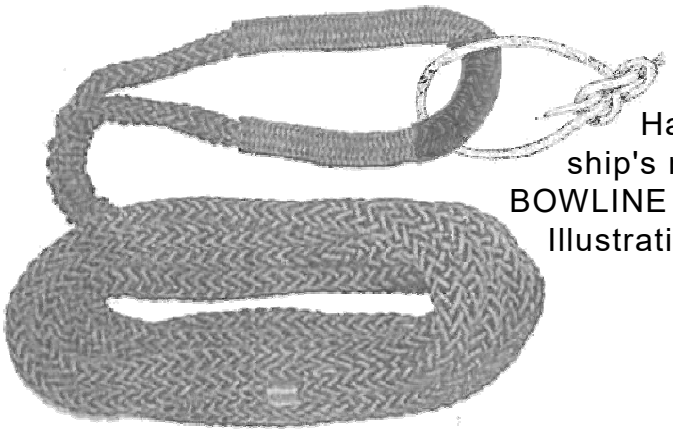


Illustration A: Clove Hitch behind eye splice.

Note: At Iroquois Lock and Welland Canal Lock #8, since the amount the vessel will be raised or lowered is minimal, vessels will arrive higher than shoreside personnel. For this reason, ships will follow instructions within step 2 below for passing and securing hand lines.

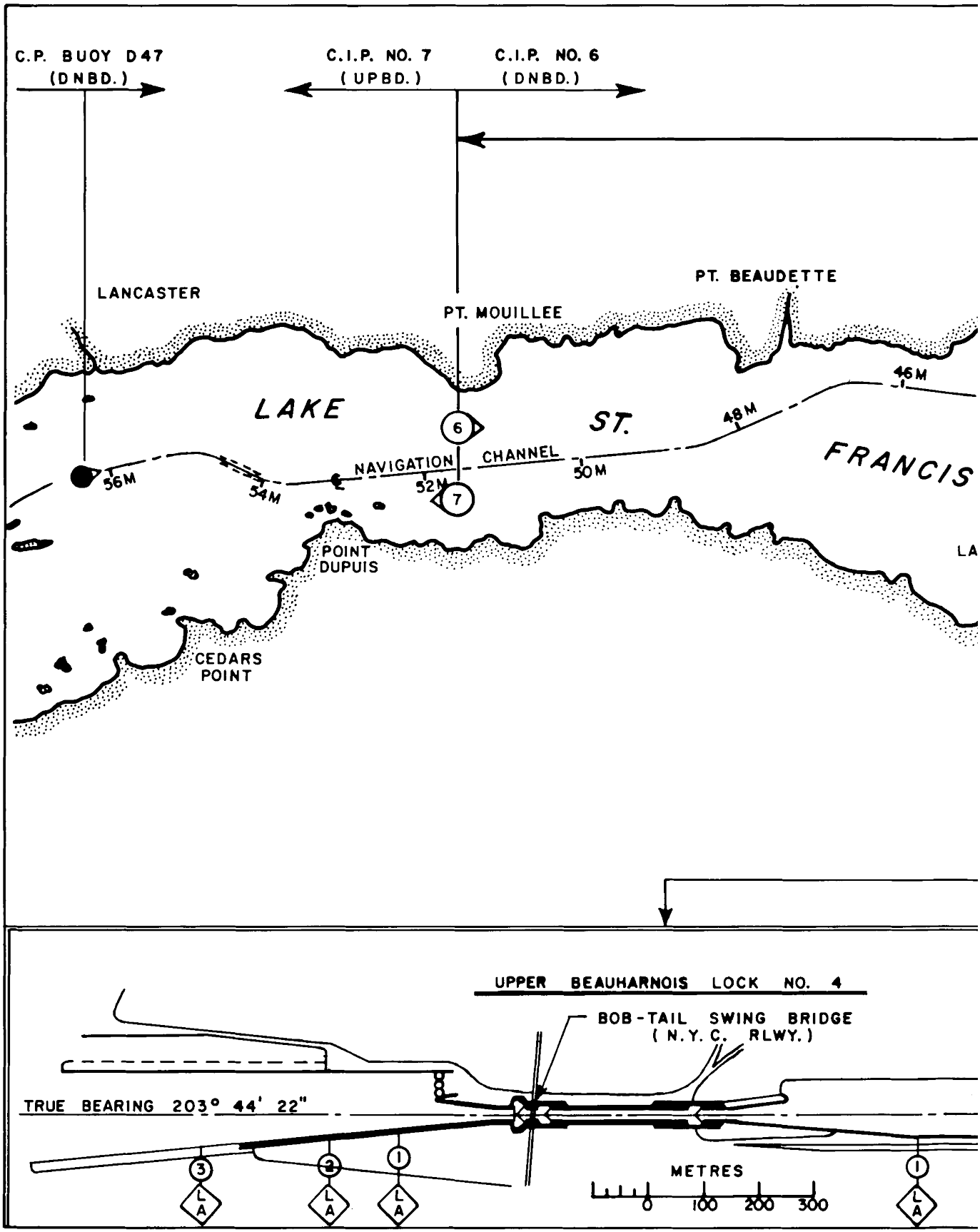
(2) Downbound Vessels

When transiting downbound out of the Great Lakes and St. Lawrence River, and whenever the ship is higher than personnel at the lock, hand lines will be passed by the ship's crew to lock personnel using the ship's hand lines.



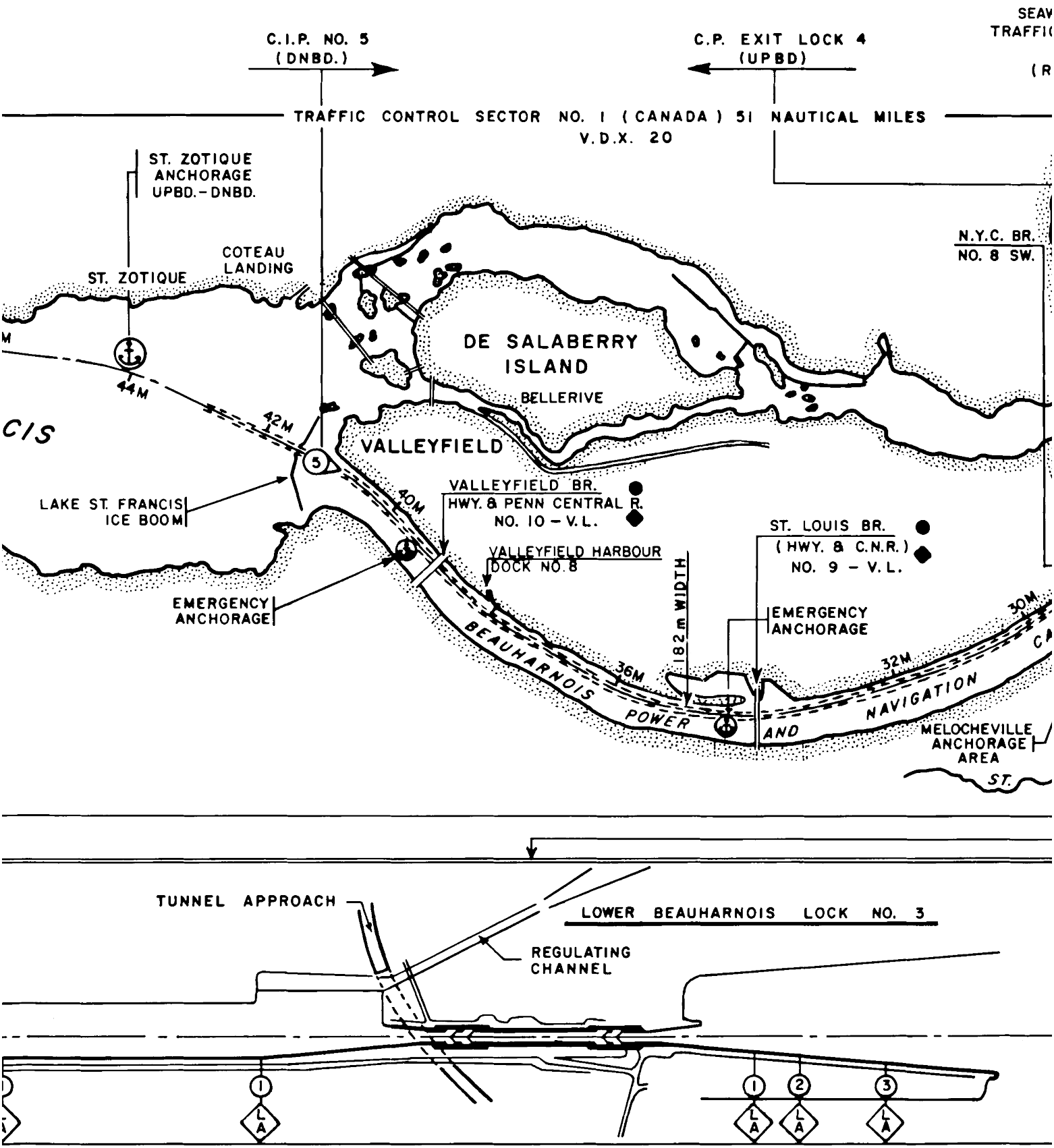
Hand lines are to be secured to the ship's mooring lines by means of a BOWLINE knot, within the eye splice (see Illustration B at left).

Illustration B: Bowline within the eye splice.



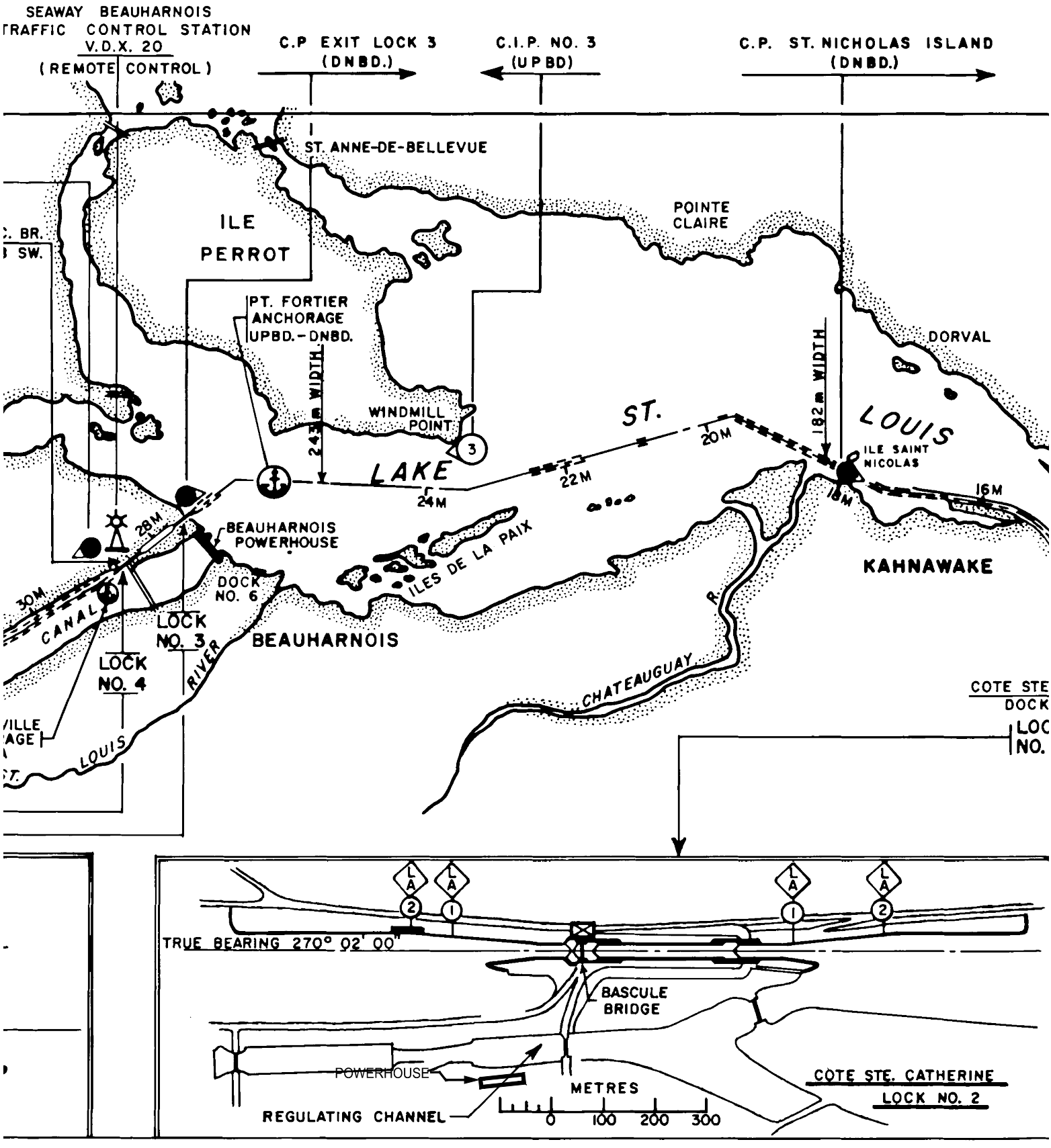
1- Montreal to Lake Ontario Traffic Control Sector No. 1

Not to be used for navigation Sheet 1 of 5



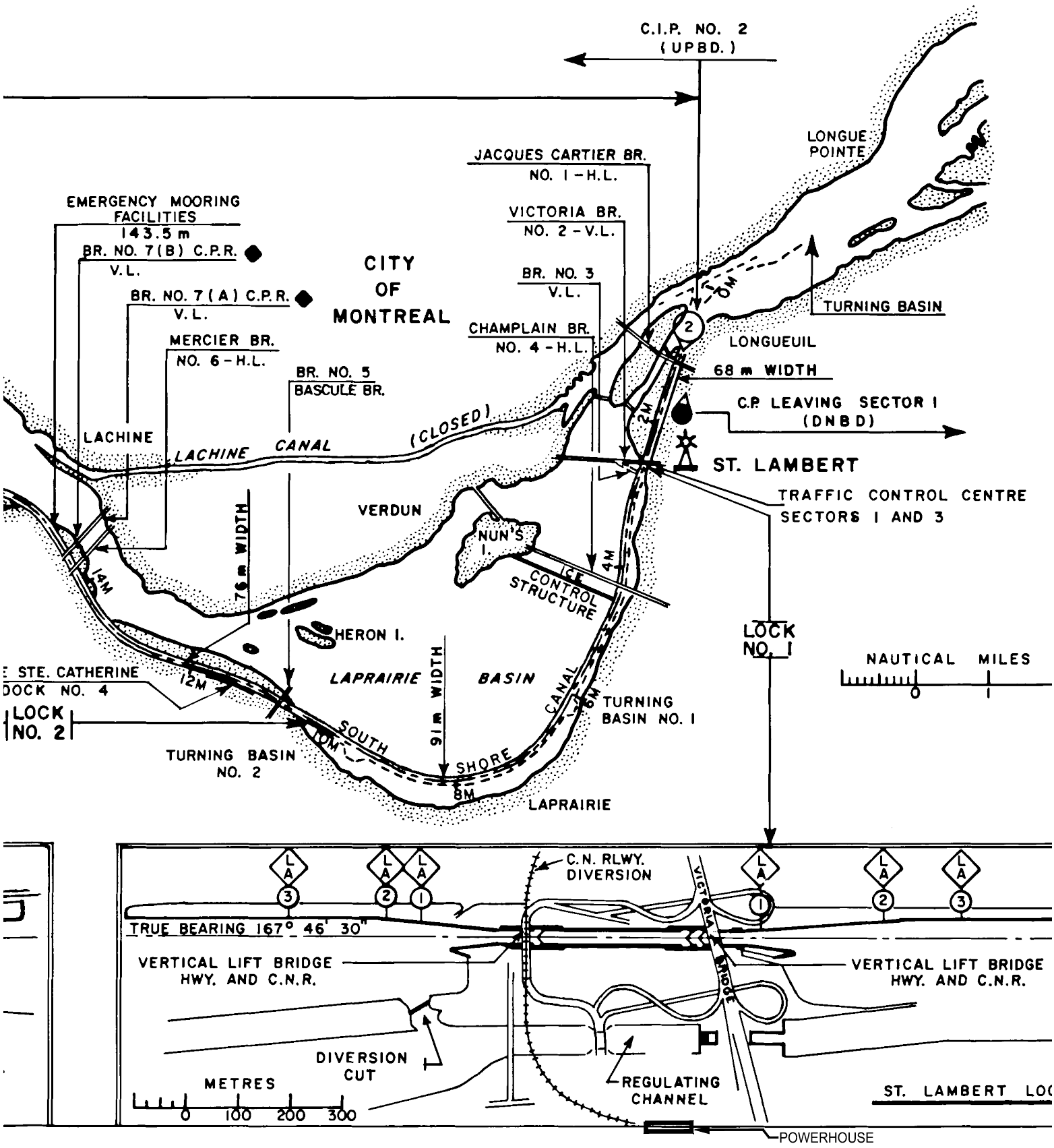
1- Montreal to Lake Ontario Traffic Control Sector No. 1

Not to be used for navigation Sheet 2 of 5



1- Montreal to Lake Ontario Traffic Control Sector No. 1

Not to be used for navigation Sheet 3 of 5



1- Montreal to Lake Ontario Traffic Control Sector No. 1

Not to be used for navigation Sheet 4 of 5

LOCK DATA

LOCKS	NORMAL LIFT m.	USABLE LENGTH m.	WIDTH OF CHAMBER m.	LENGTH-L/A 2 TO END OF WALL	
				UPPER ENT. m.	LOWER ENT. m.
IROQUOIS	0.1-2	222.50	24.38	670.5	236.0
EISENHOWER	12-13	222.50	24.38	329.5	210.0
SNELL	14-15	222.50	24.38	211.5	449.5
UPPER BEAUHARNOIS	11-12	222.50	24.38	575.5	503.0
LOWER BEAUHARNOIS	12-13	222.50	24.38	503.0	379.0
COTE STE. CATHERINE	10-11	222.50	24.38	318.0	319.0
ST. LAMBERT	4-6	222.50	24.38	458.0	653.5

NOTE - MINIMUM DEPTHS ON LOCK SILLS ---- 9.14 m.
CONTROLLING CHANNEL DEPTHS -------- 8.23 m.
MILEAGES ALONG ℄ OF SAILING COURSE SHOWN THUS 54
ZERO MILEAGE TAKEN AT INTERSECTION OF SEAWAY CHANNEL ℄ AND SHIP CHANNEL IN THE PORT DE MONTREAL
SEAWAY AIS INFORMATION EXCHANGED BETWEEN VESSELS AND TRAFFIC CONTROL
ALL LOCKS ARE EQUIPPED WITH SURVEILLANCE T.V.

LEGEND

H.L. HIGH LEVEL
V.L. VERTICAL LIFT
SW. SWING

BRIDGES EQUIPPED WITH:
- RADAR
- V.H.F. RADIO

LIMIT OF APPROACH SIGN

TRAFFIC CONTROL STATION

C.I.P. CALLING IN POINT

C.P CHECK POINT

ANCHORAGE AREA

INDICATES WHICH SIDE THE BASCULE BRIDGE IS LOCATED WHEN IN THE RAISED POSITION

NTRE

MILES
1 2

REFER TO CANADIAN HYDROGRAPHIC SERVICE CHARTS NO. 1310, 1409, 1410, 1411, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439.

SHEET 1 OF 4

BRIDGE
C.N.R.

RT LOCK NO. 1

DRAWN - D.S.

The St. Lawrence Seaway Management Corporation
Corporation de Gestion de la Voie Maritime du Saint-Laurent

GENERAL PLAN OF THE ST. LAWRENCE SEAWAY MONTREAL TO LAKE ONTARIO TRAFFIC CONTROL SECTOR NO. 1

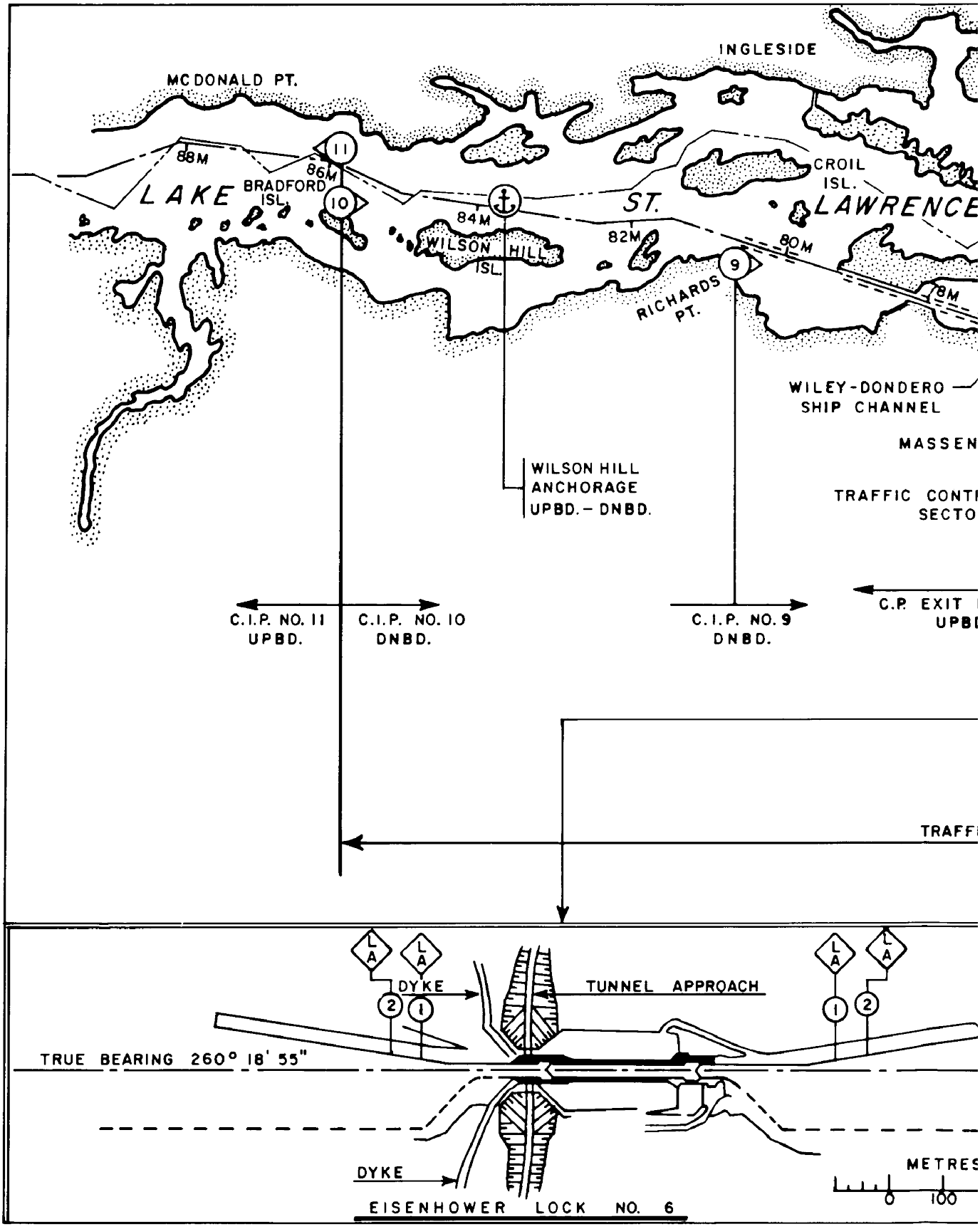
Scale

Drawing No. 115070

Revision Date 2007/01/27
Revised by J. M.

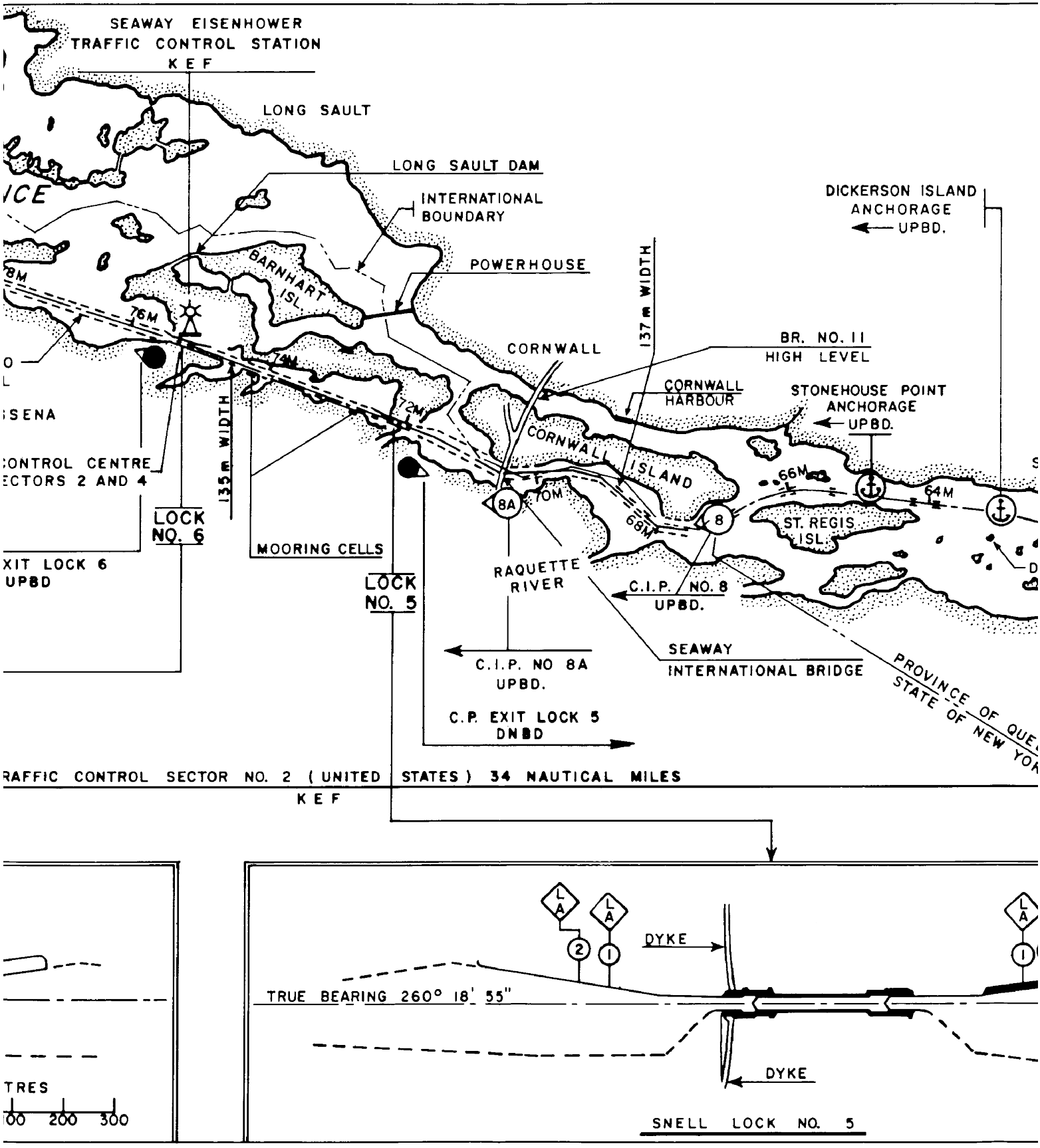
1- Montreal to Lake Ontario Traffic Control Sector No. 1

Not to be used for navigation Sheet 5 of 5



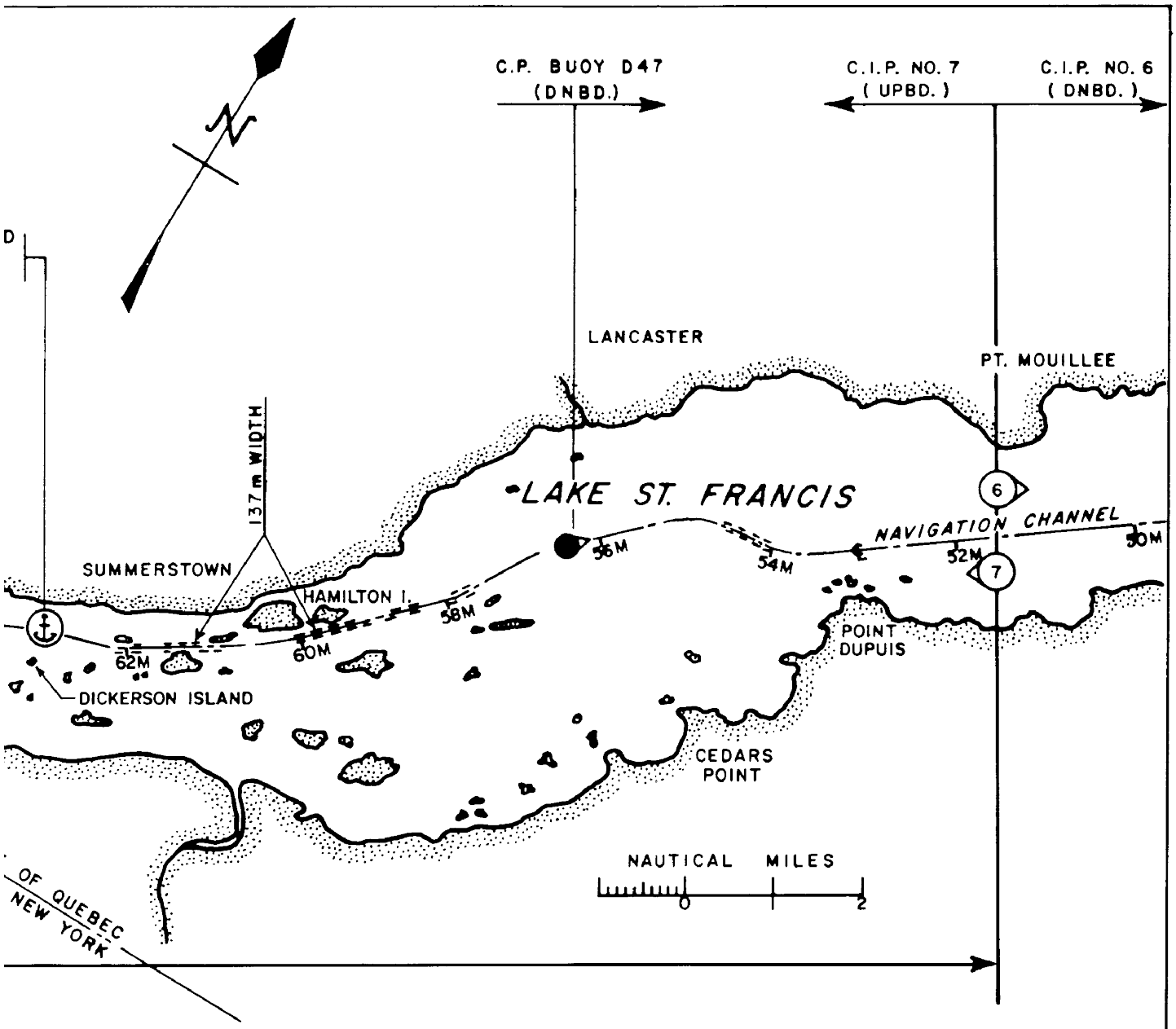
2- Montreal to Lake Ontario Traffic Control Sector No. 2

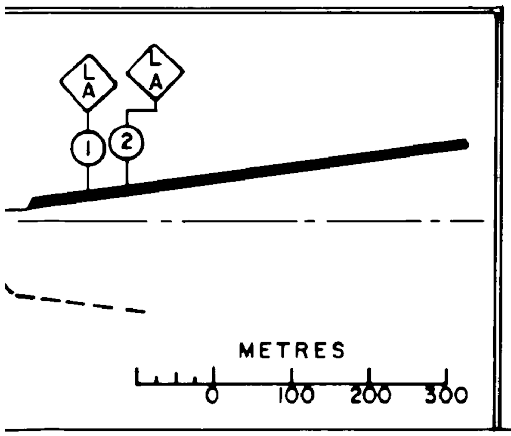
Not to be used for navigation Sheet 1 of 3



2- Montreal to Lake Ontario Traffic Control Sector No. 2

Not to be used for navigation Sheet 2 of 3





DRAWN D S

The St. Lawrence Seaway Management Corporation

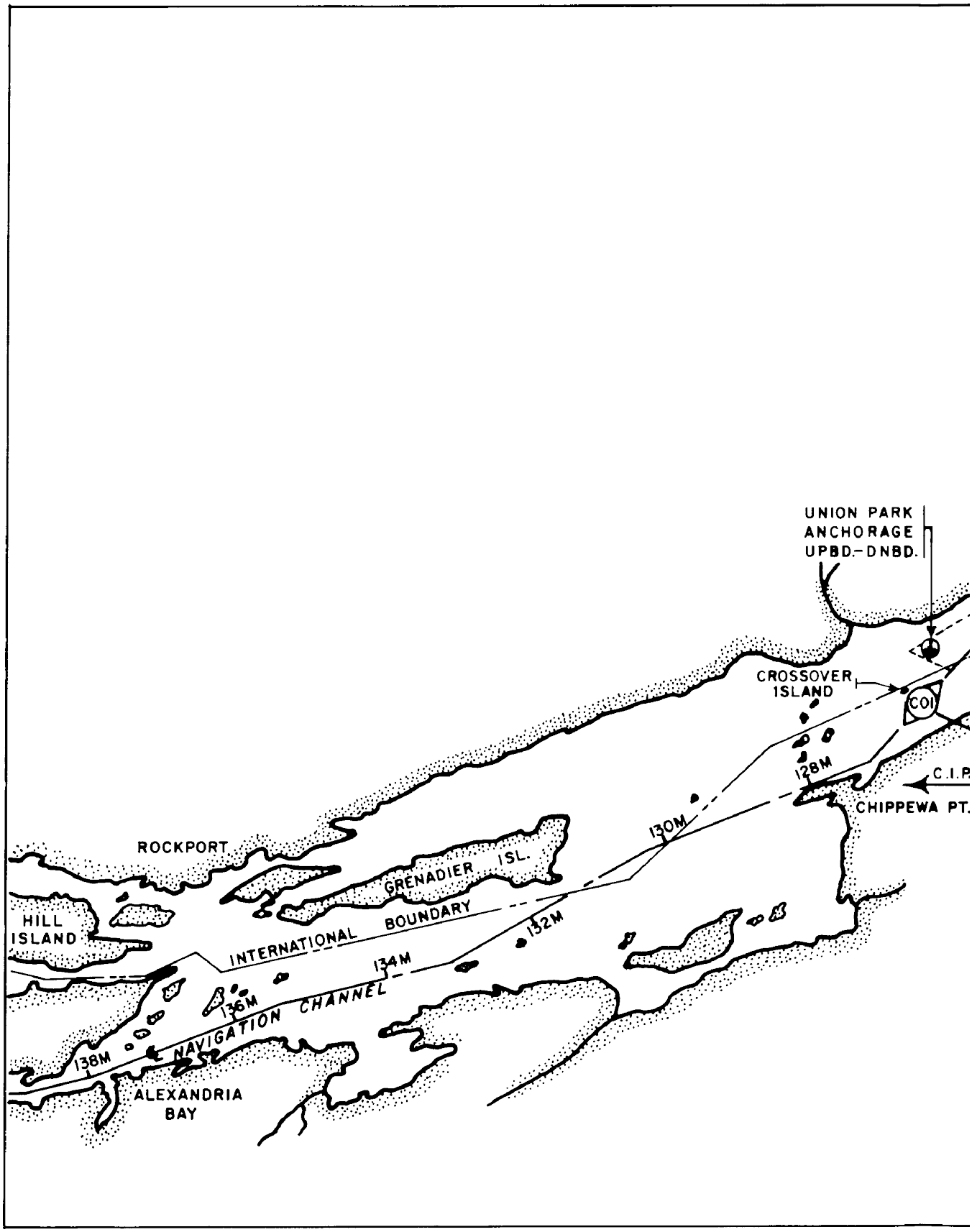
Corporation de Gestion de la Voie Maritime du Saint-Laurent

GENERAL PLAN
OF THE ST. LAWRENCE SEAWAY
MONTREAL TO LAKE ONTARIO
TRAFFIC CONTROL SECTOR NO. 2

Date de révision 2008/01/21	Drawing No.
Révisé par J. M.	115070
Scale	

2- Montreal to Lake Ontario Traffic Control Sector No. 2

Not to be used for navigation Sheet 3 of 3



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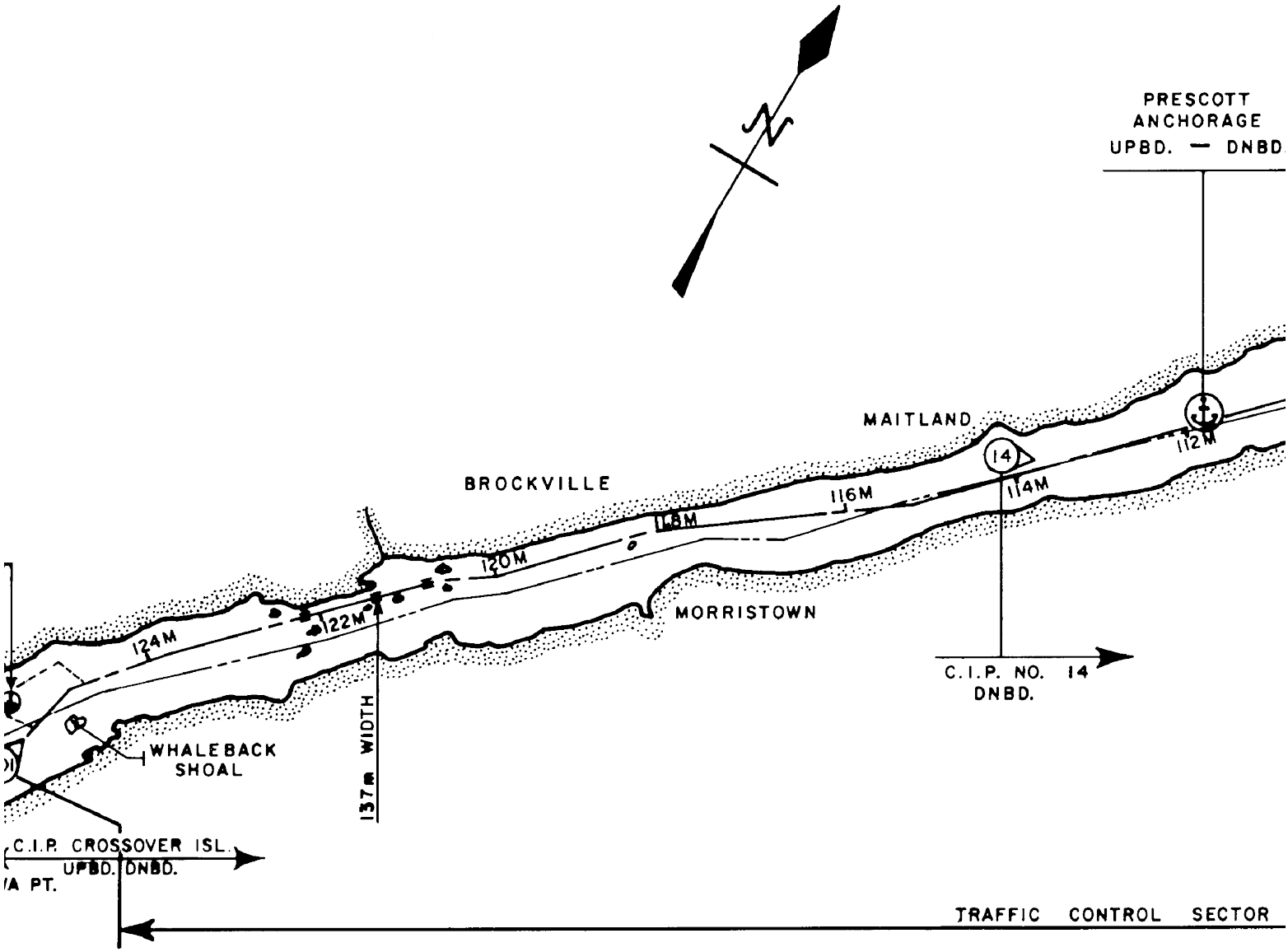
Not to be used for navigation Sheet 1 of 4



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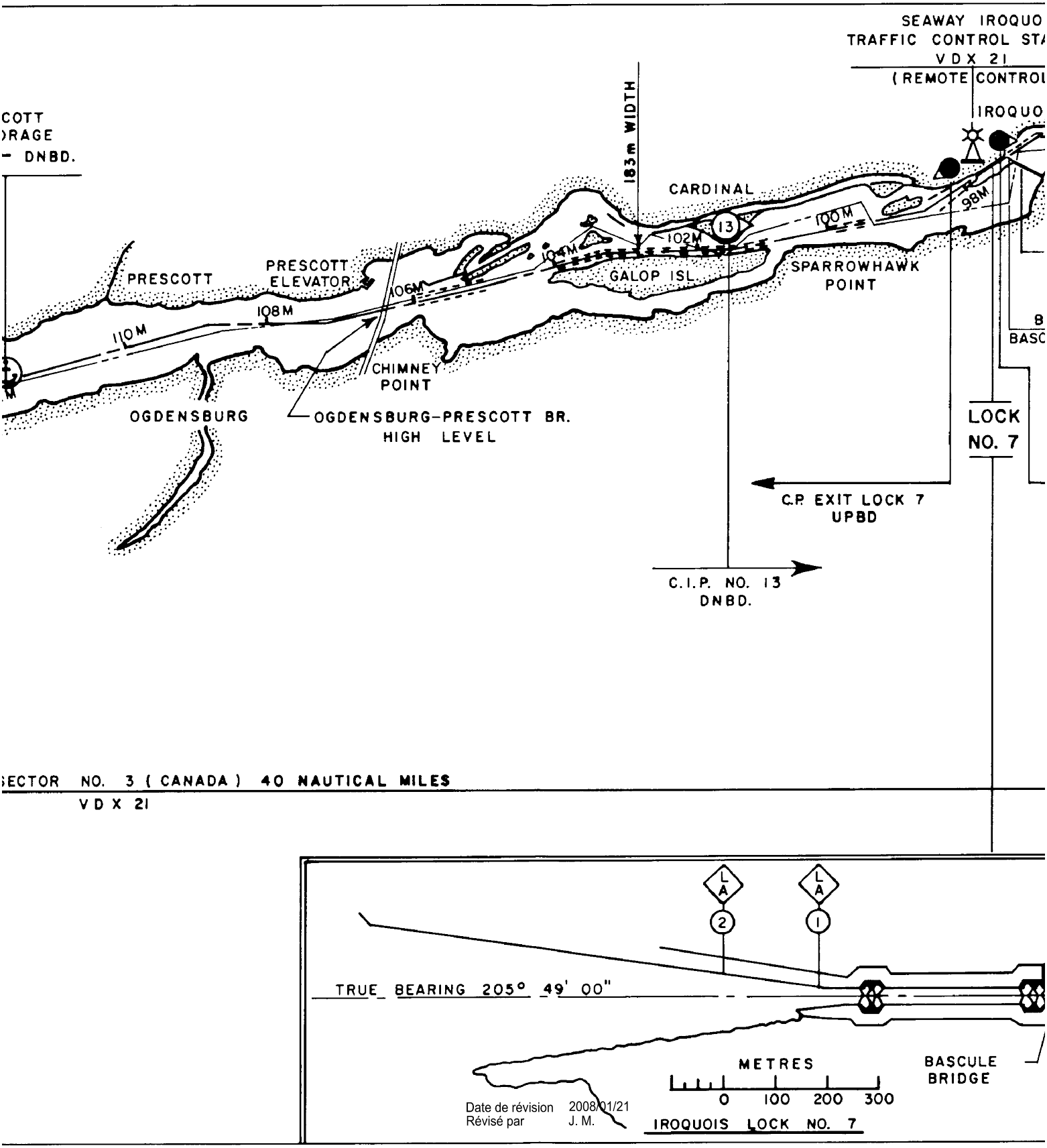
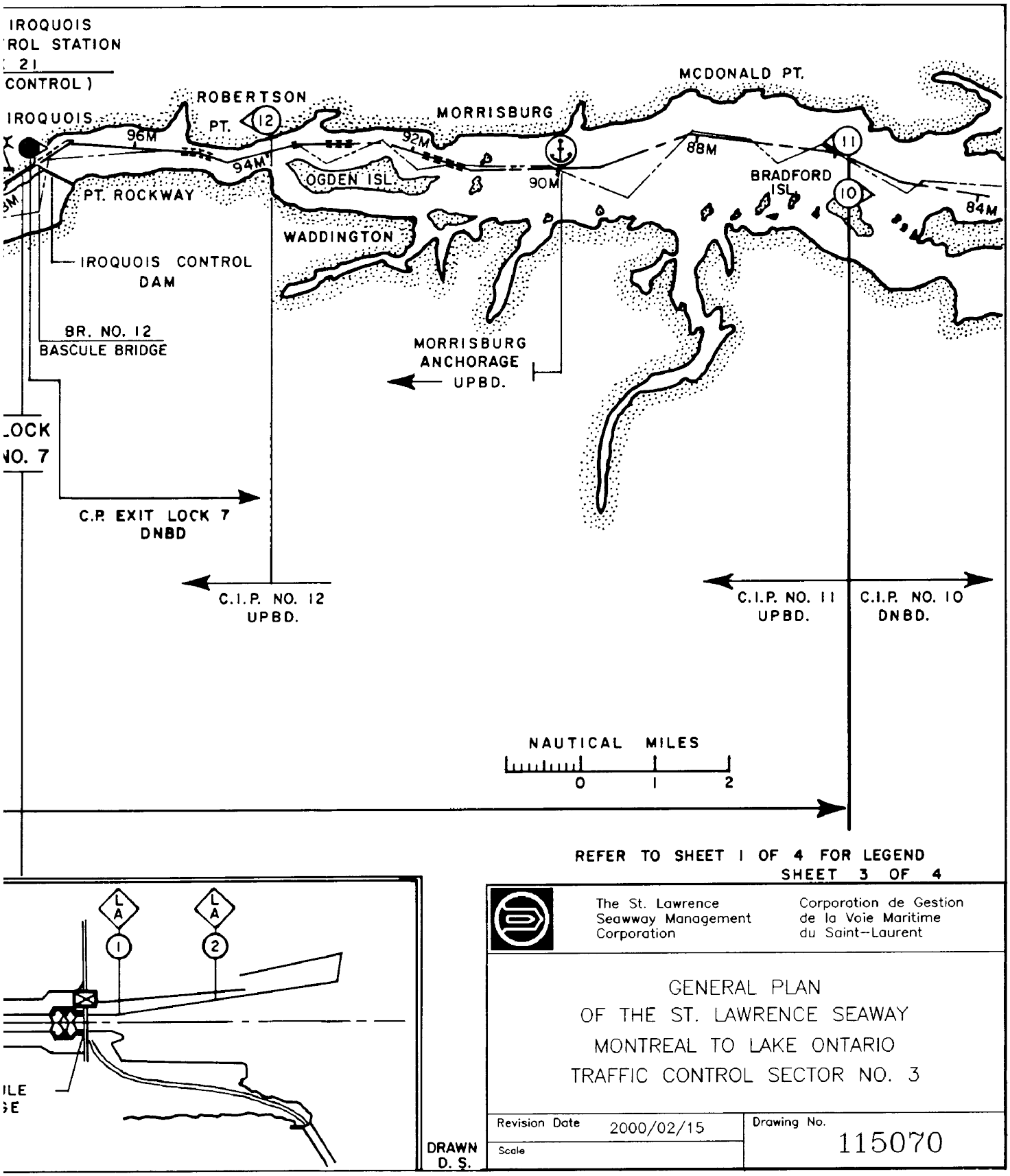


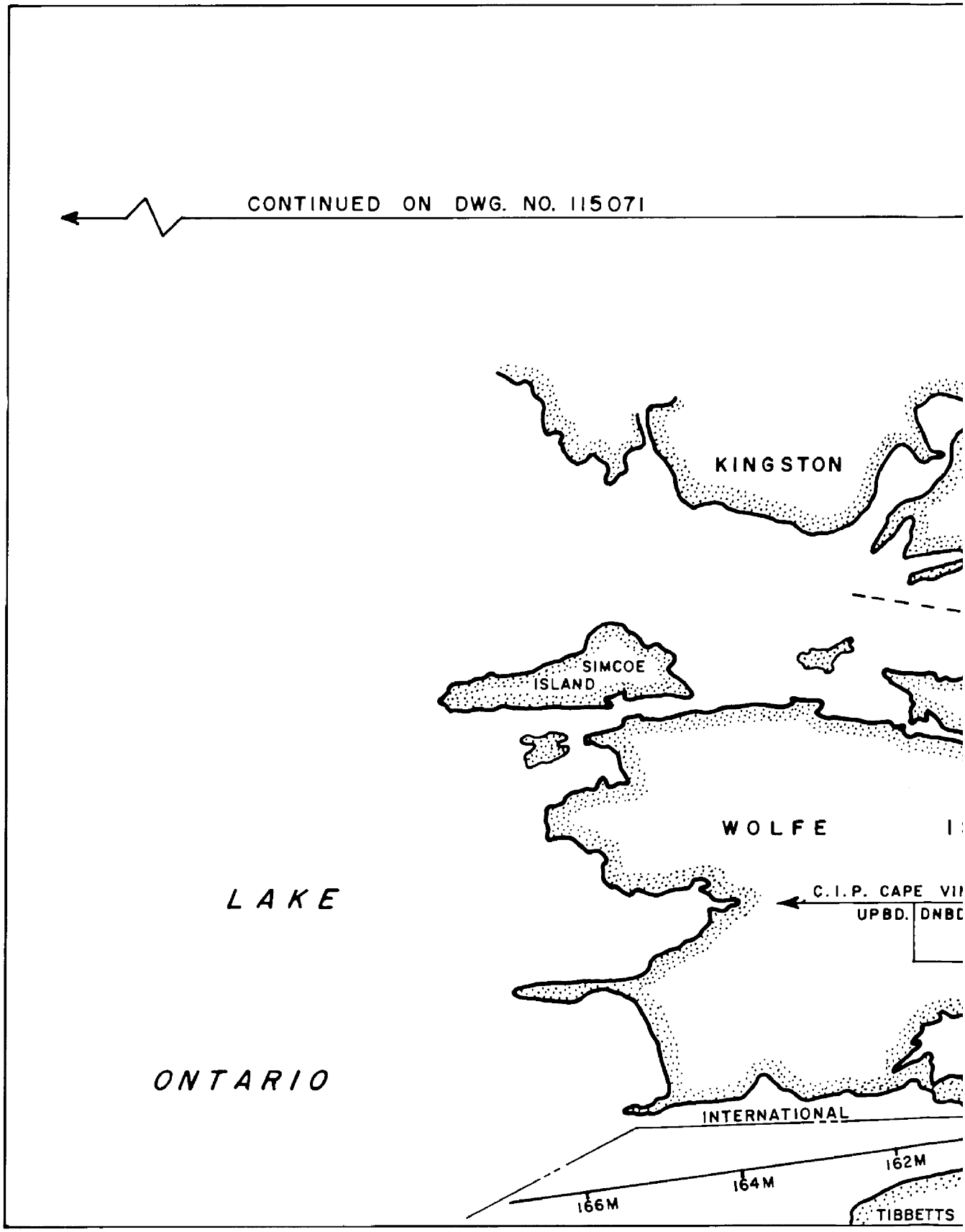
3- Montreal to Lake Ontario Traffic Control Sector No. 3

Not to be used for navigation Sheet 3 of 4



3- Montreal to Lake Ontario Traffic Control Sector No. 3

Not to be used for navigation Sheet 4 of 4



4- Montreal to Lake Ontario Traffic Control Sector No. 4

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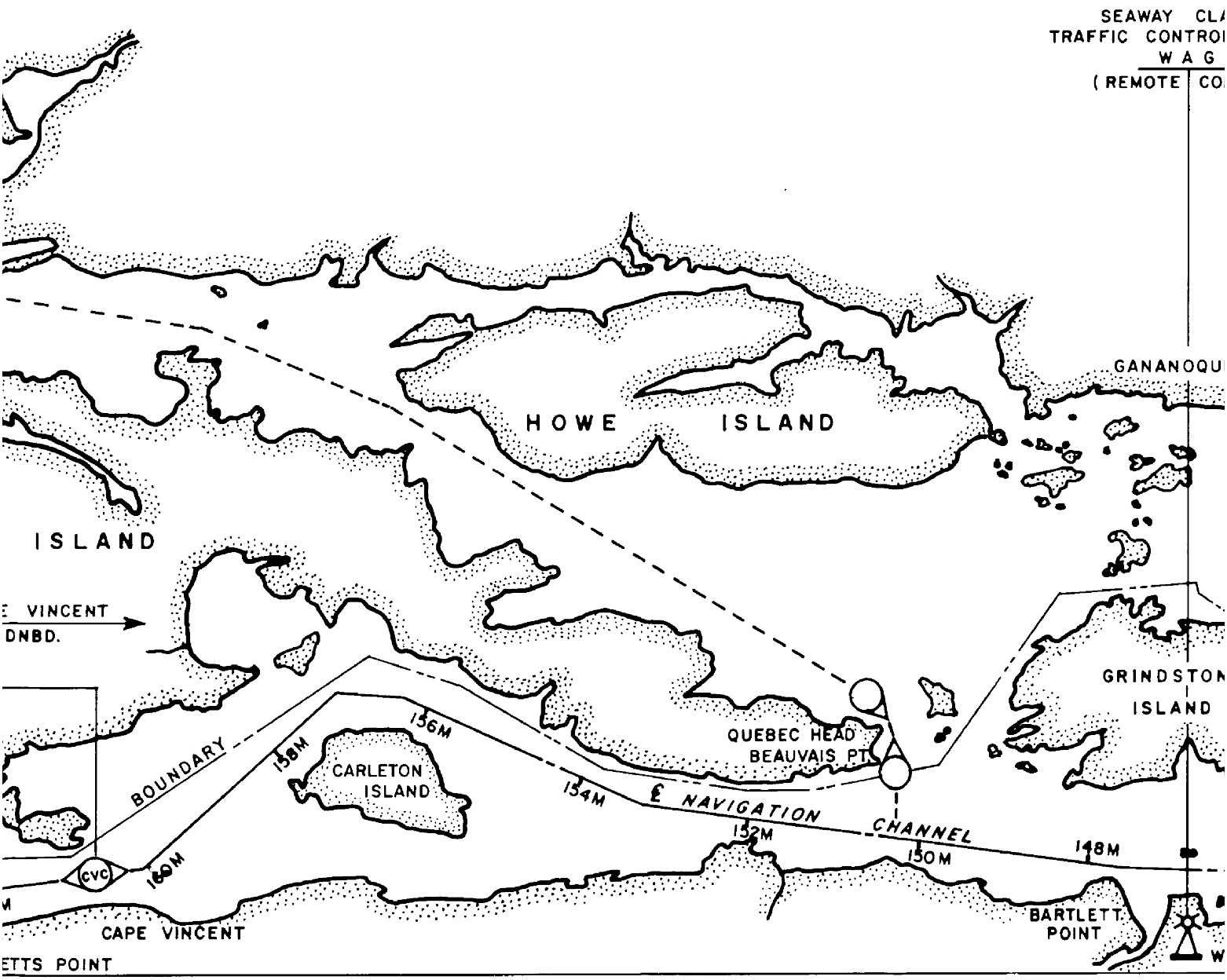
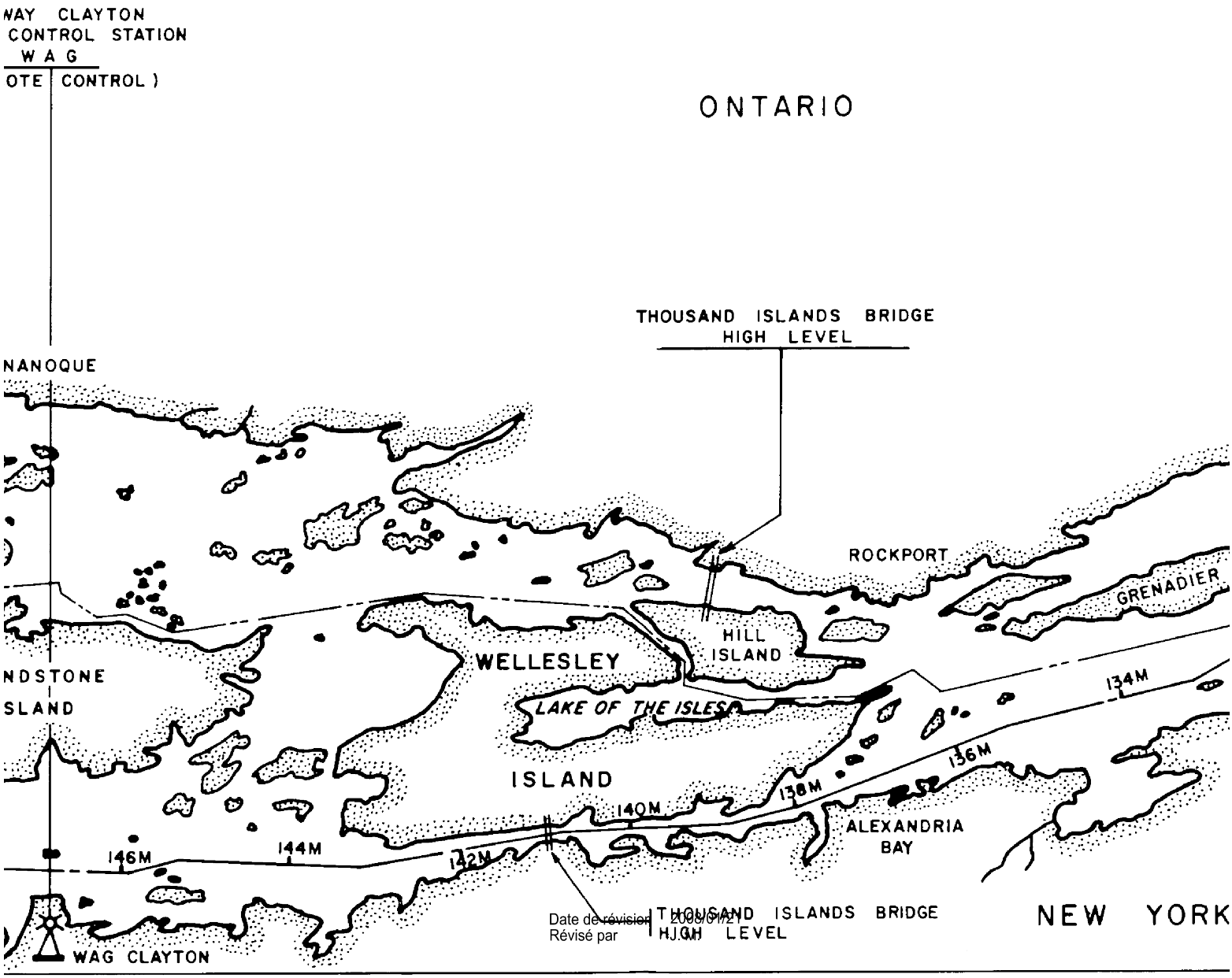


4- Montreal to Lake Ontario Traffic Control Sector No. 4

Not to be used for navigation Sheet 2 of 4

FIC CONTROL SECTOR NO. 4 (UNITED STATES) 103.6 **NAUTICAL MILES** (UPBOUND)
WAG 106.5 NAUTICAL MILES (DOWNBOUND)



4- Montreal to Lake Ontario Traffic Control Sector No. 4

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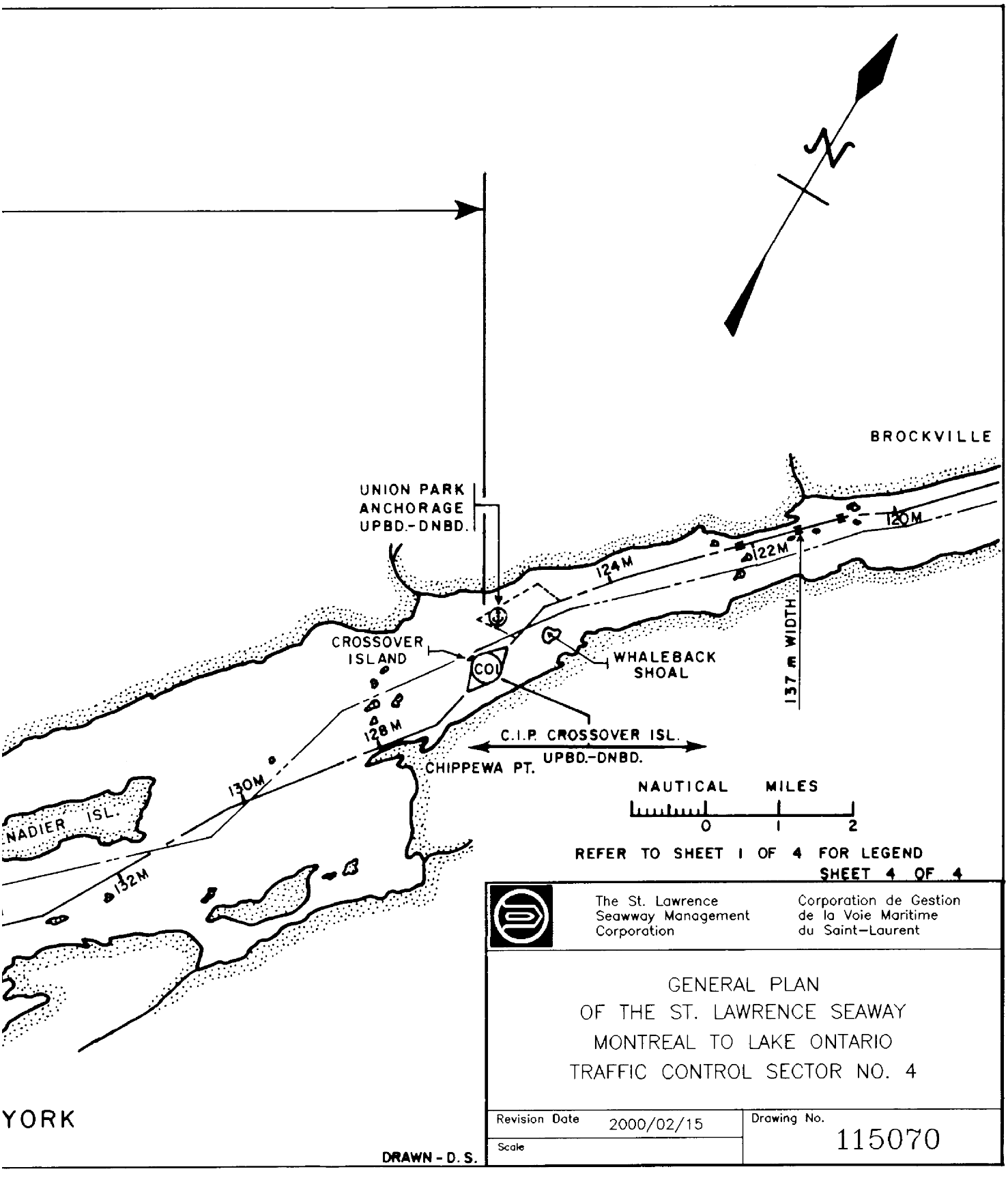

4- Montreal to Lake Ontario Traffic Control Sector No. 4

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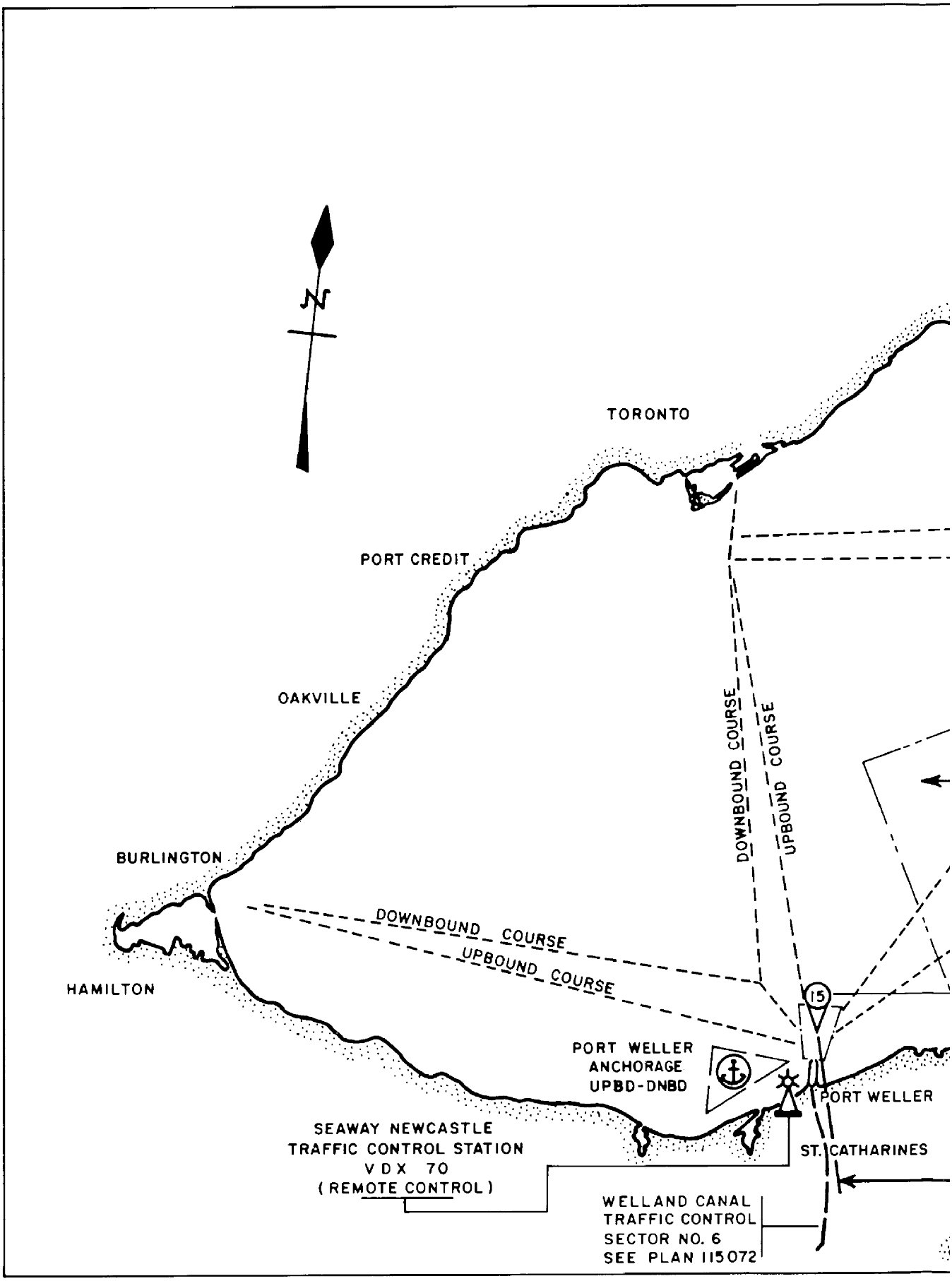
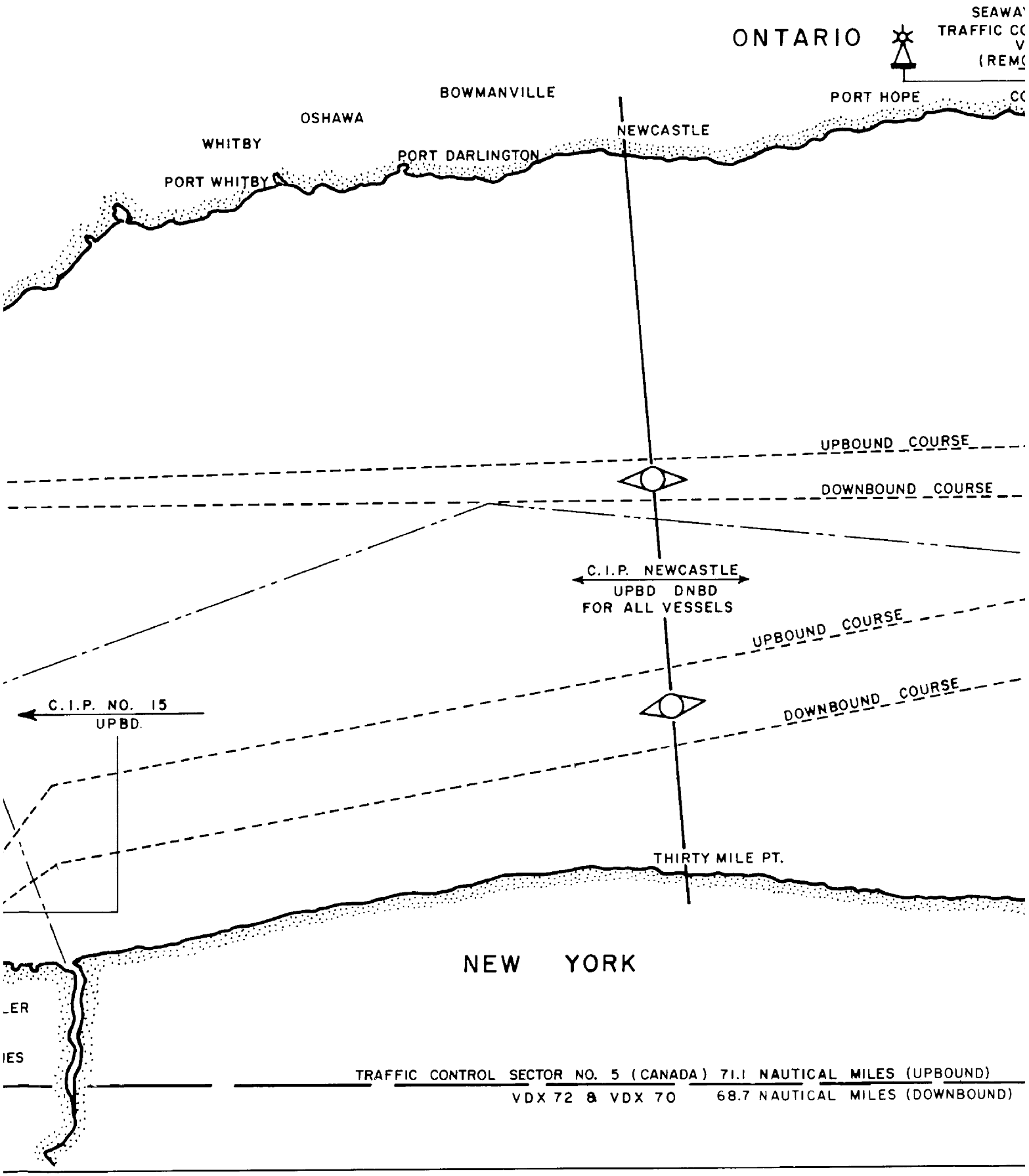


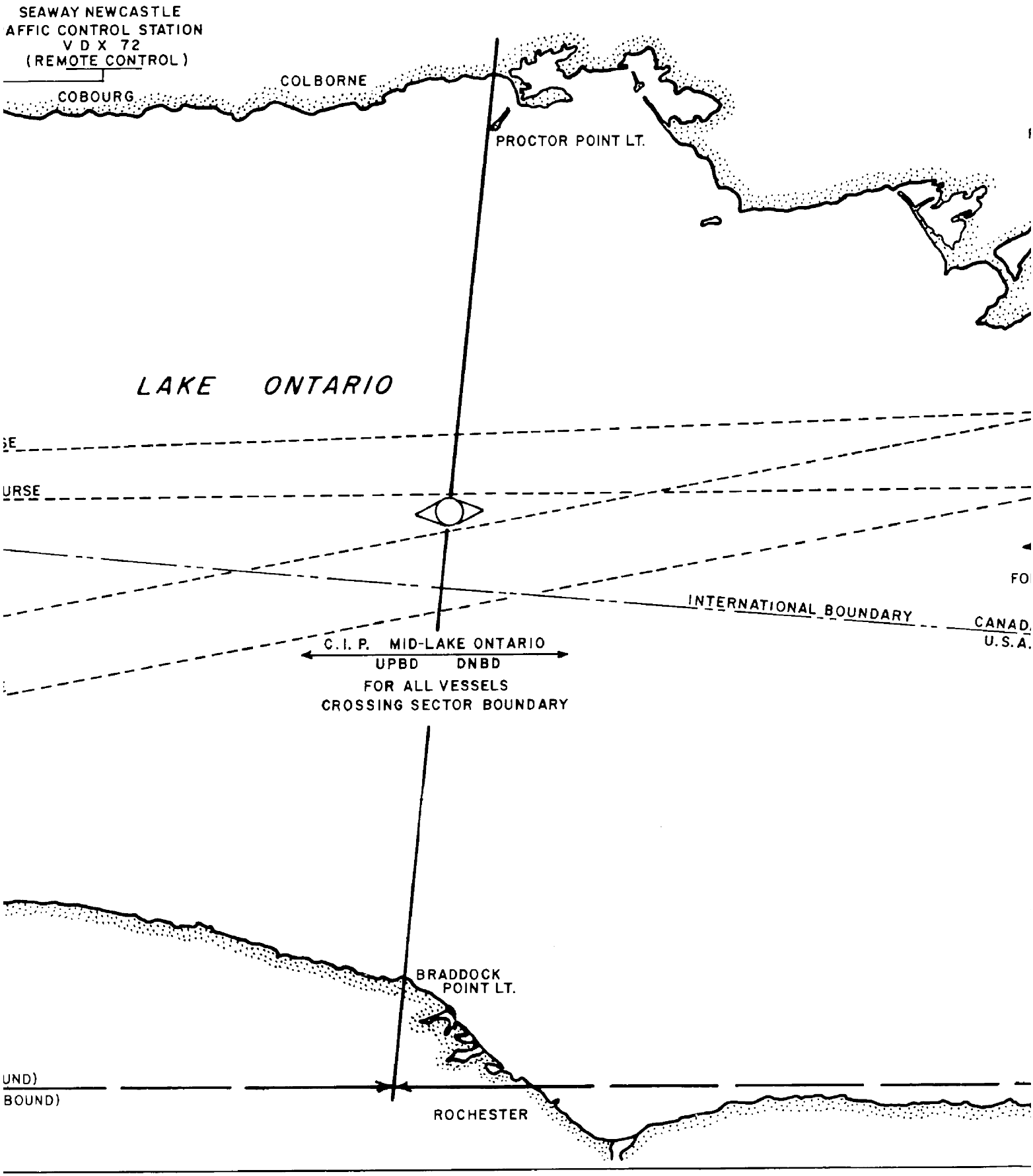
5- Montreal to Lake Ontario Traffic Control Sector No. 4-5

Not to be used for navigation Sheet 1 of 5



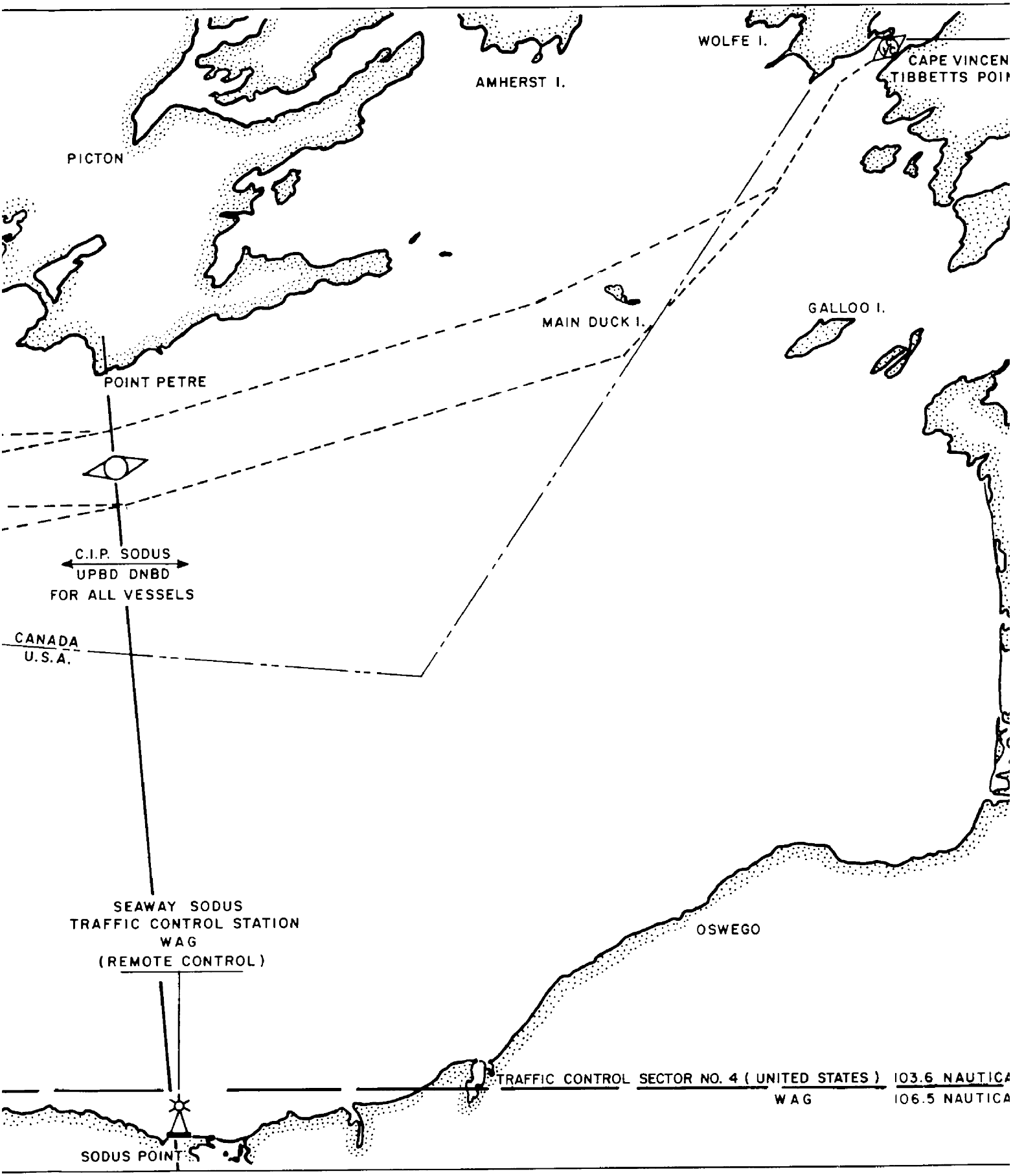
5- Montreal to Lake Ontario Traffic Control Sector No. 4-5

Not to be used for navigation Sheet 2 of 5



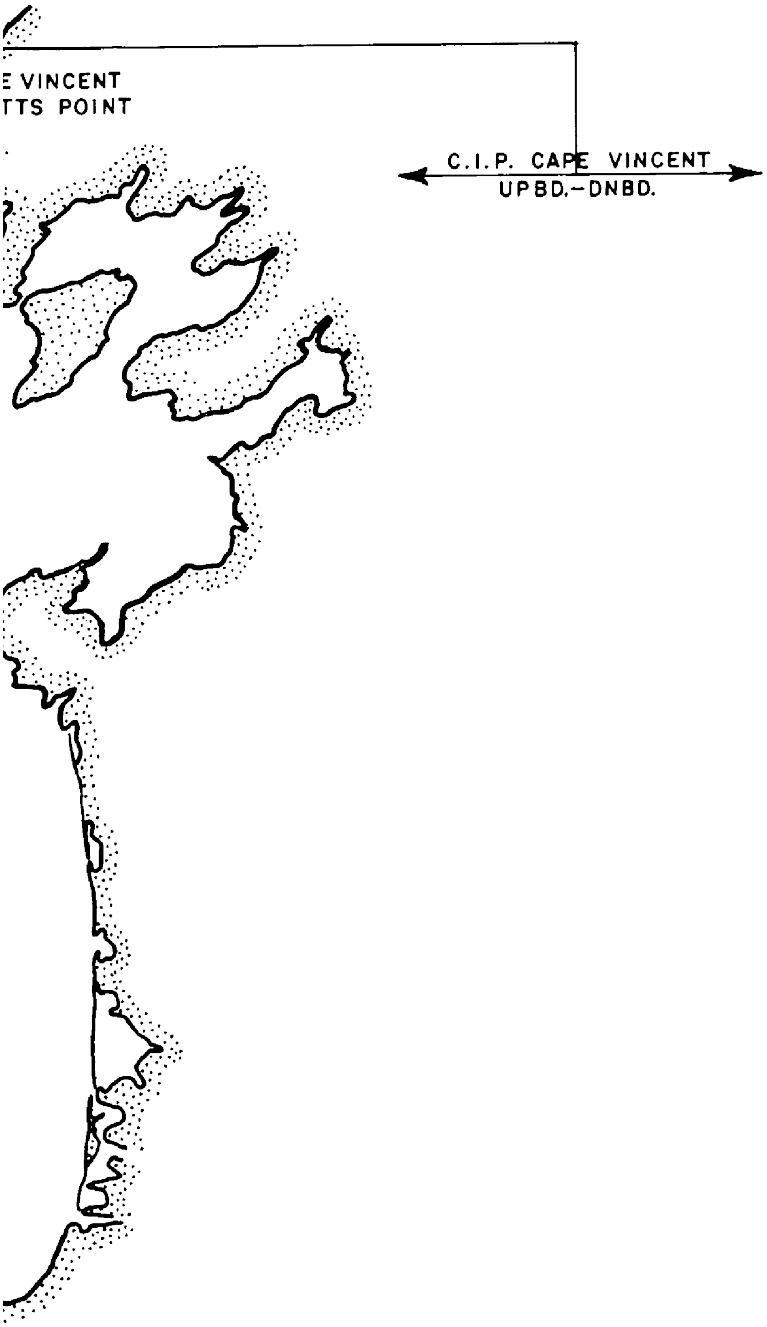
5- Montreal to Lake Ontario Traffic Control Sector No. 4-5

Not to be used for navigation Sheet 3 of 5



5- Montreal to Lake Ontario Traffic Control Sector No. 4-5

Not to be used for navigation Sheet 4 of 5



LEGEND

TRAFFIC CONTROL STATION

C.I.P. CALLING-IN POINT

ANCHORAGE AREA

REFER TO CANADIAN HYDROGRAPHIC SERVICE CHART NO. 2000

CONTINUED ON DWG. 115 070
SHEET 4

NAUTICAL MILES (UPBOUND)
NAUTICAL MILES (DOWNBOUND)

DRAWN-DS

The St. Lawrence Seaway Management Corporation

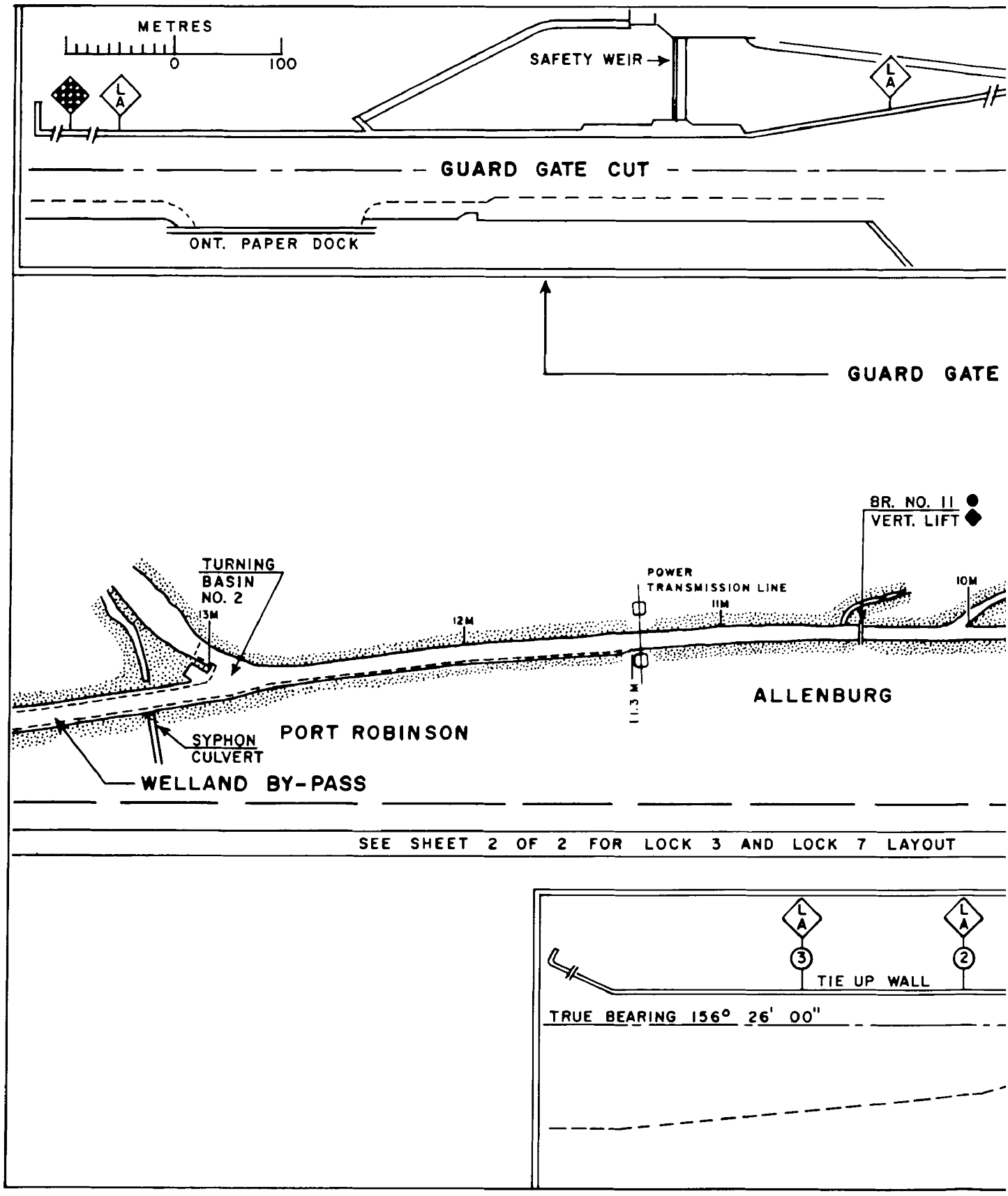
Corporation de Gestion de la Voie Maritime du Saint-Laurent

GENERAL PLAN OF THE ST. LAWRENCE SEAWAY LAKE ONTARIO SECTION TRAFFIC CONTROL SECTOR NO. 4, 5

Revision Date	2000/02/15	Drawing No.	115071
Scale	1 : 400,000		

5- Montreal to Lake Ontario Traffic Control Sector No. 4-5

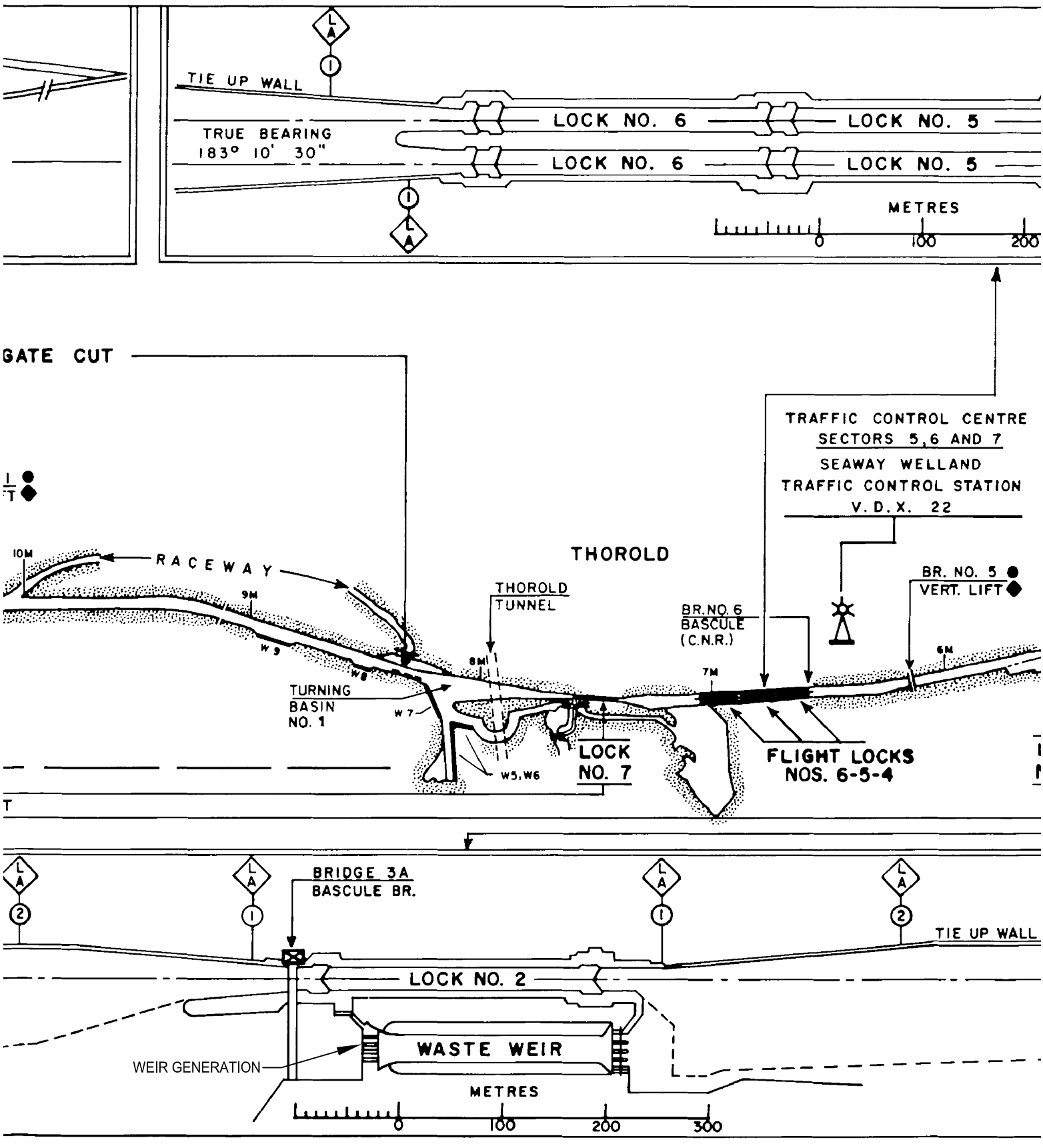
Not to be used for navigation Sheet 5 of 5



6- Welland Canal Section - Traffic Control Sector No. 6-1

Not to be used for navigation Sheet 1of 5

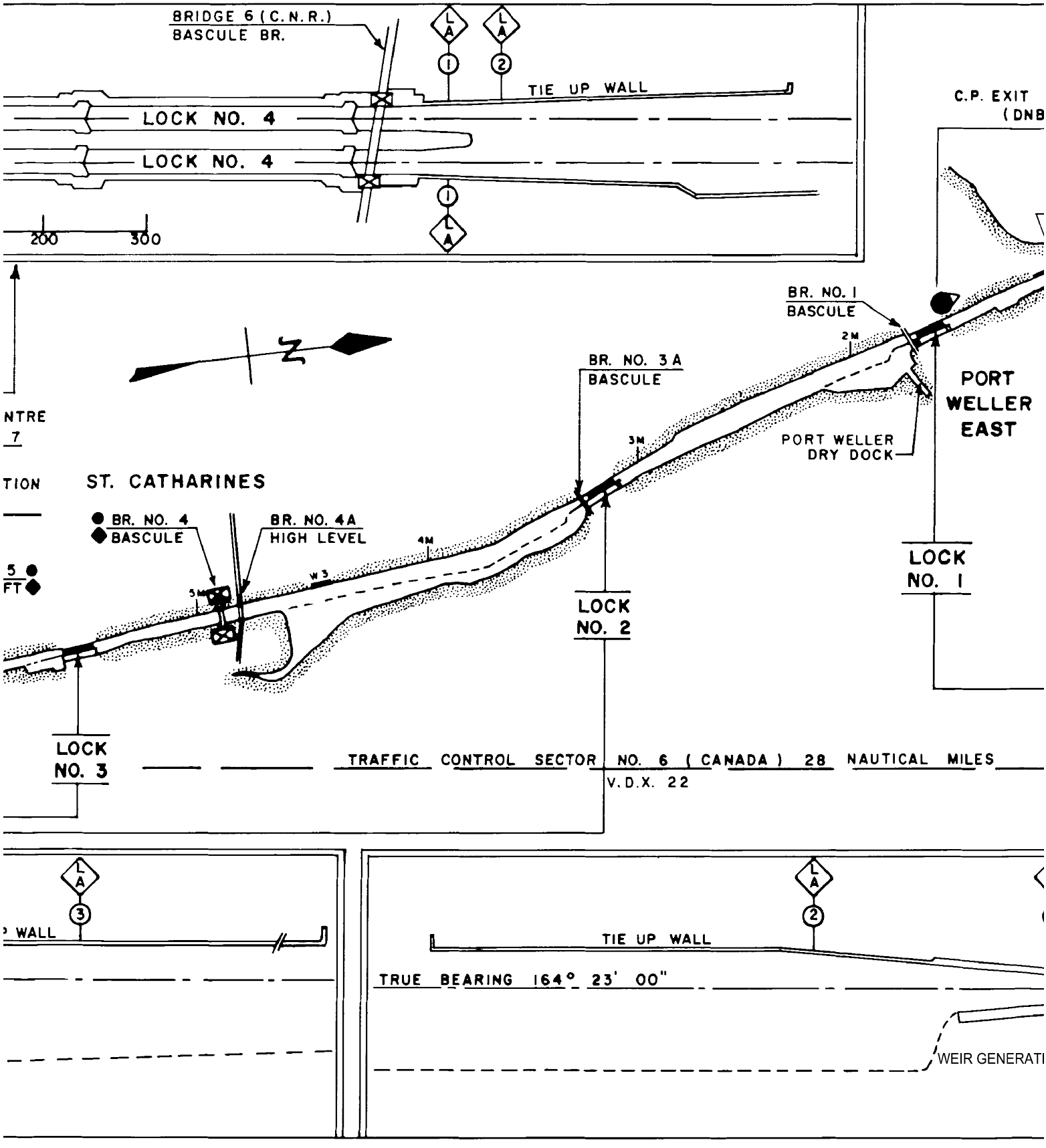
SEE SHEET 2 OF 2 FOR



6- Welland Canal Section - Traffic Control Sector No. 6-1

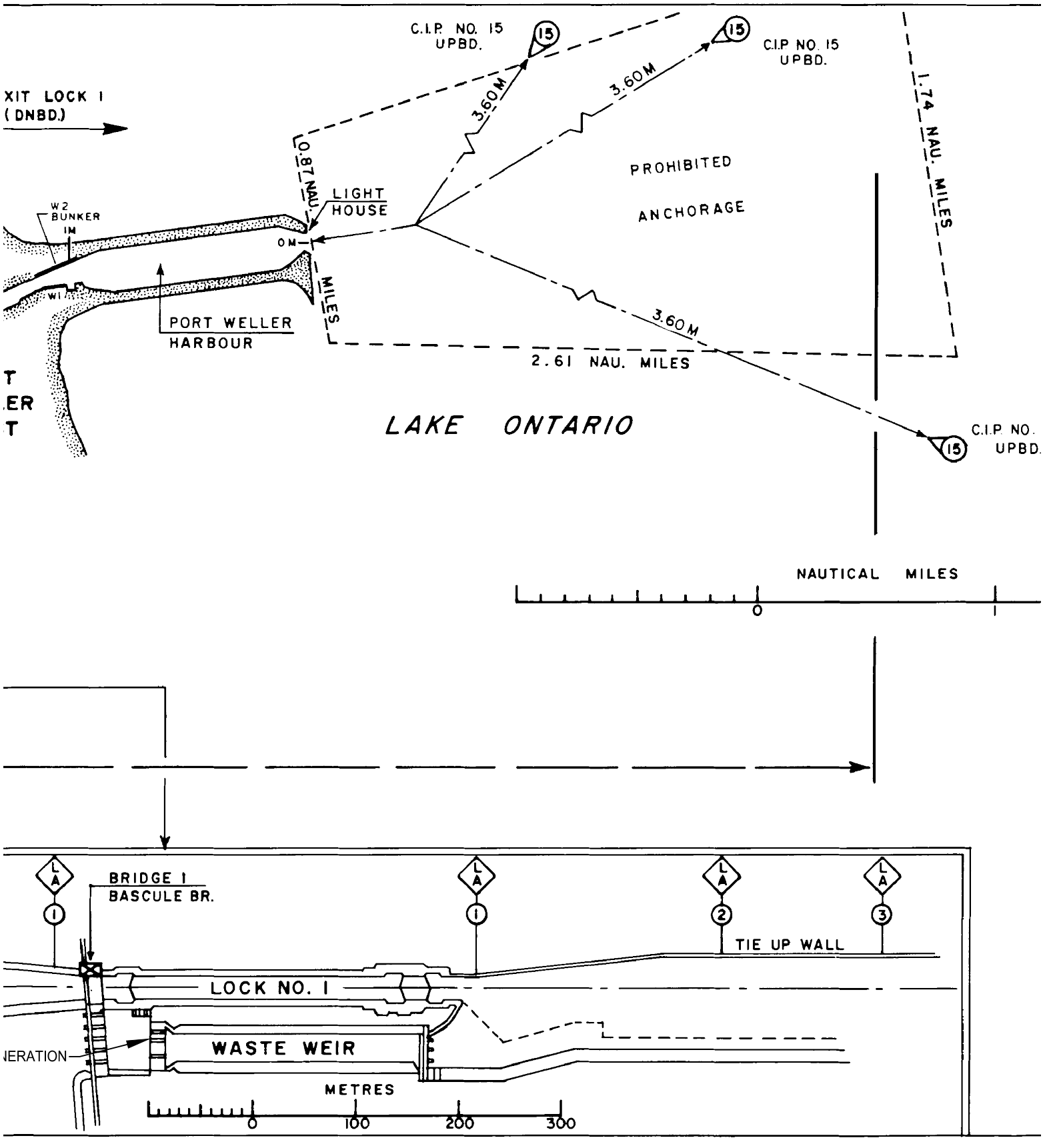
Not to be used for navigation Sheet 2 of 5

2 FOR LOCK 3 AND LOCK 7 LAYOUT



6- Welland Canal Section - Traffic Control Sector No. 6-1

Not to be used for navigation Sheet 3 of 5



6- Welland Canal Section - Traffic Control Sector No. 6-1

Not to be used for navigation Sheet 4 of 5

LOCK DATA

LOCKS	NORMAL LIFT m.	USABLE LENGTH m.	WIDTH OF CHAMBER m.	LENGTH-L/A 2 TO END OF WALL	
				UPPER ENT. m.	LOWER ENT. m.
LOCK 1	14	222.50	24.38	370	840
LOCK 2	14	222.50	24.38	510	459
LOCK 3	14	222.50	24.38	403	441
LOCK 4	15	222.50	24.38		291
LOCK 5	15	222.50	24.38		
LOCK 6	13	222.50	24.38		
LOCK 7	14	222.50	24.38	604	305
LOCK 8	0.5–3.5	350.0	24.38	E 469 W 380	E 240 W 345

NOTE – MINIMUM DEPTHS ON LOCK GATE SILLS – – – 9.14 m.
CONTROLLING CHANNEL DEPTHS – – – – – – – 8.23 m.
SEAWAY AIS INFORMATION EXCHANGED BETWEEN VESSELS AND TRAFFIC CONTROL
ALL LOCKS ARE EQUIPPED WITH SURVEILLANCE T. V.

C.I.P NO. 15
UPBD.

1 2

LEGEND

BRIDGES EQUIPPED WITH:
RADAR
V.H.F. RADIO

LIMIT OF APPROACH SIGN

TRAFFIC CONTROL CENTRE

C.I.P. CALLING-IN POINT

C.P. CHECK POINT

W3 WHARF NO. 3

ANCHORAGE AREA

INDICATES WHICH SIDE THE BASCULE BRIDGE IS LOCATED WHEN IN THE RAISED POSITION

REFER TO CANADIAN HYDROGRAPHIC SERVICE CHART NO. 2042

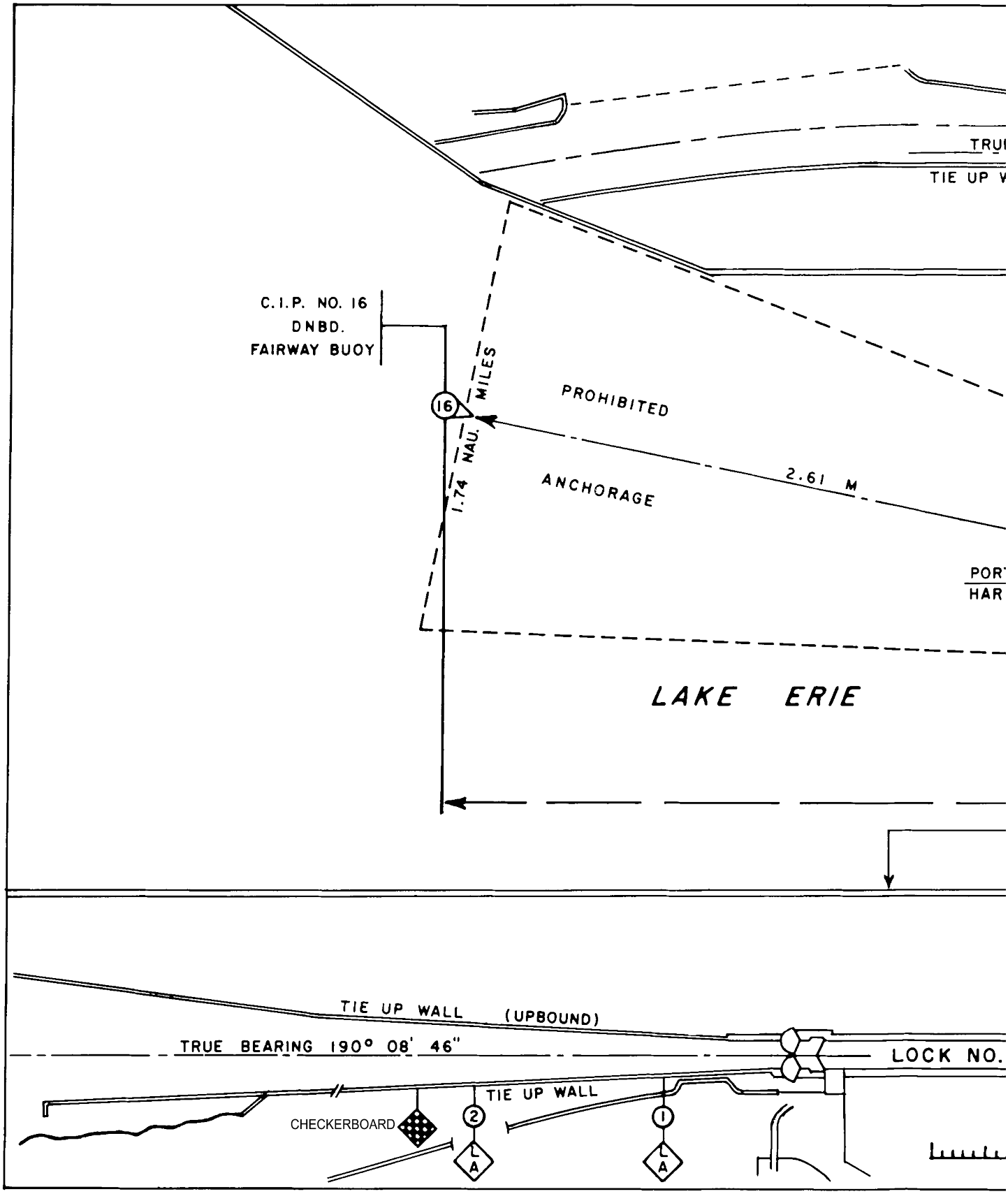
SHEET 1 OF 2

The St. Lawrence Seaway Management Corporation
Corporation de Gestion de la Voie Maritime du Saint-Laurent

GENERAL PLAN
OF THE ST. LAWRENCE SEAWAY
WELLAND CANAL SECTION
TRAFFIC CONTROL SECTOR NO. 6

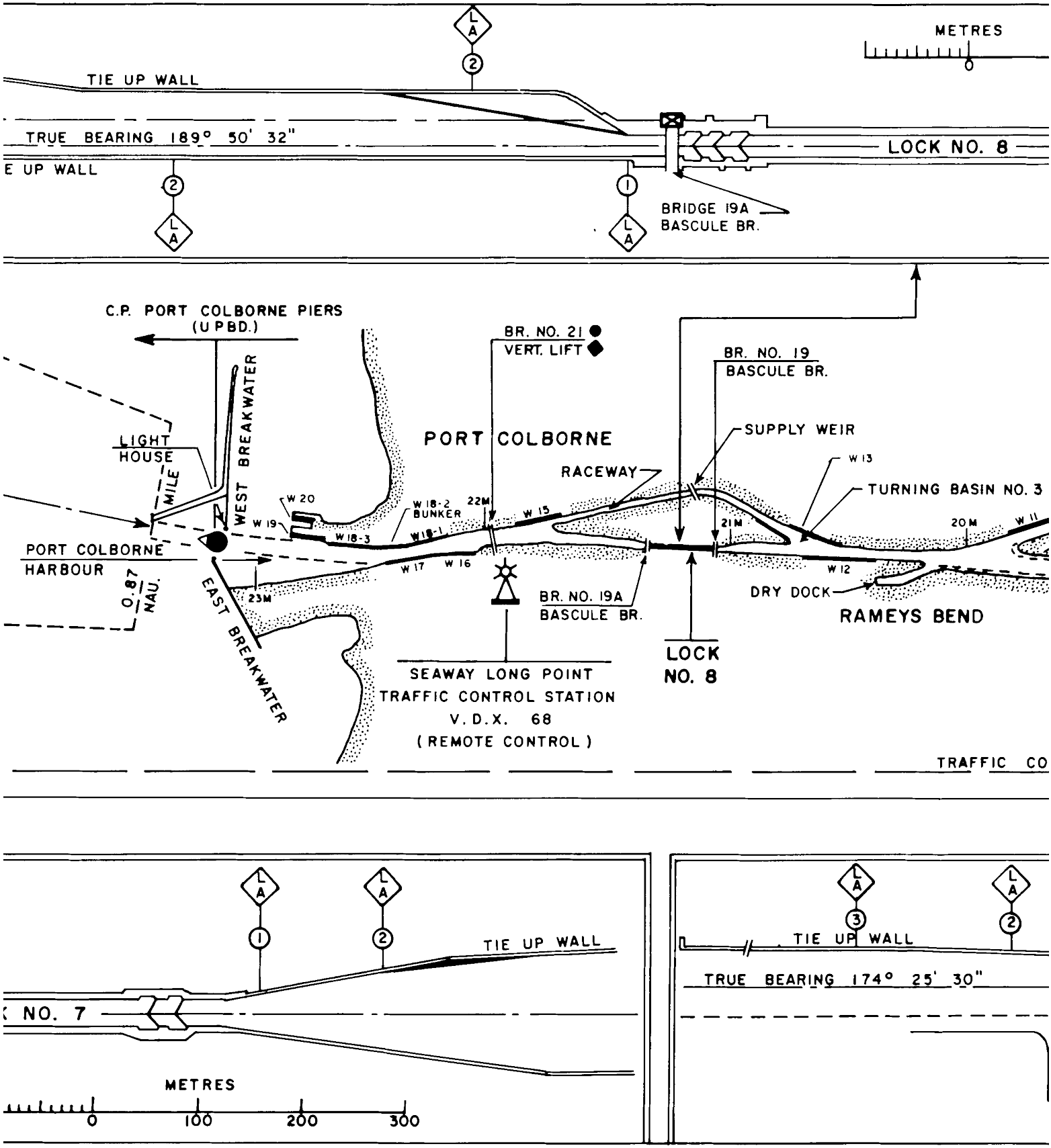
Revision Date	2010/01/25	Drawing No.
Revised by	J. M.	115072
Scale		

DRAWN – D. S.



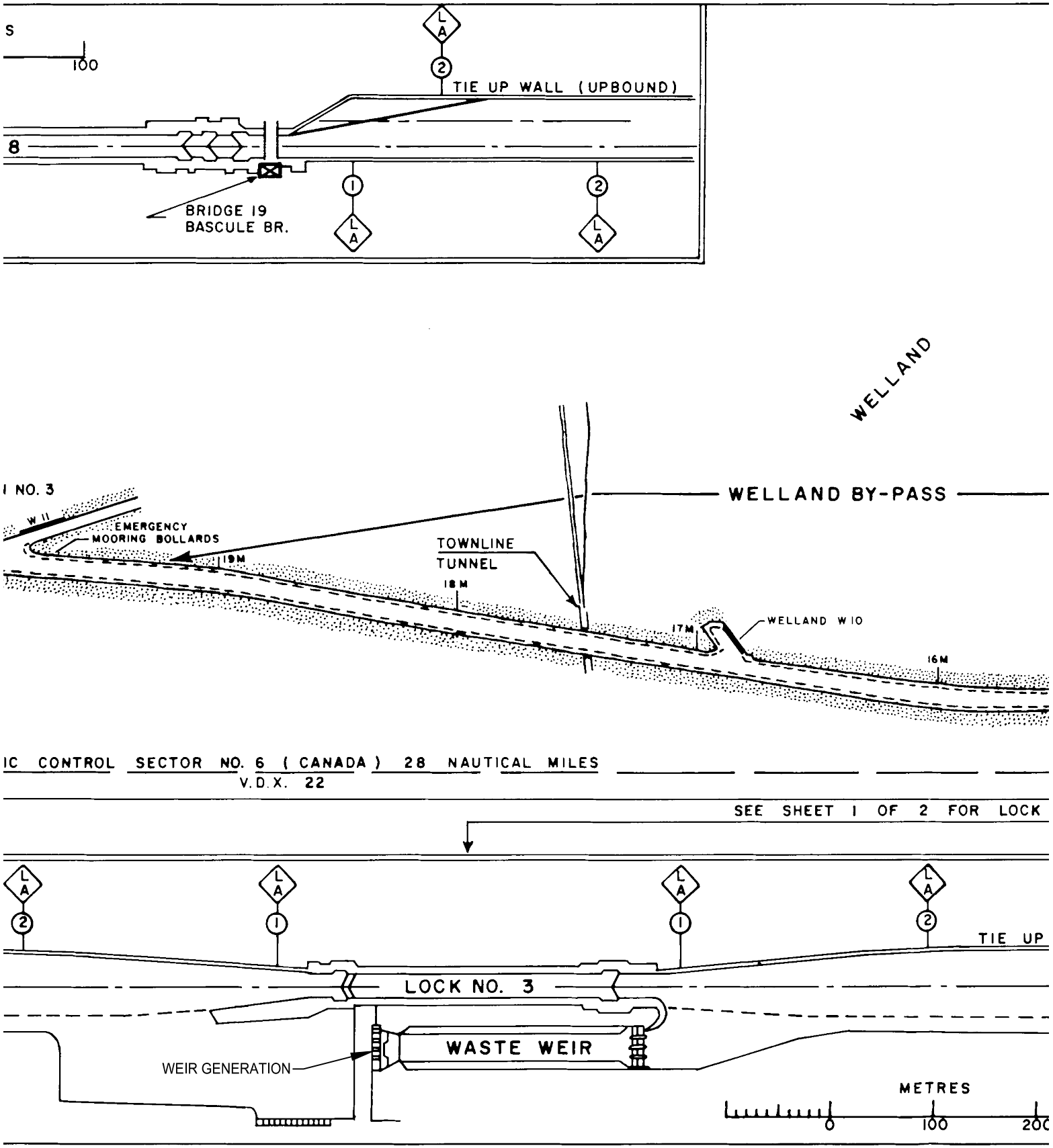
7- Welland Canal Section - Traffic Control Sector No. 6-2

Not to be used for navigation Sheet 1 of 4



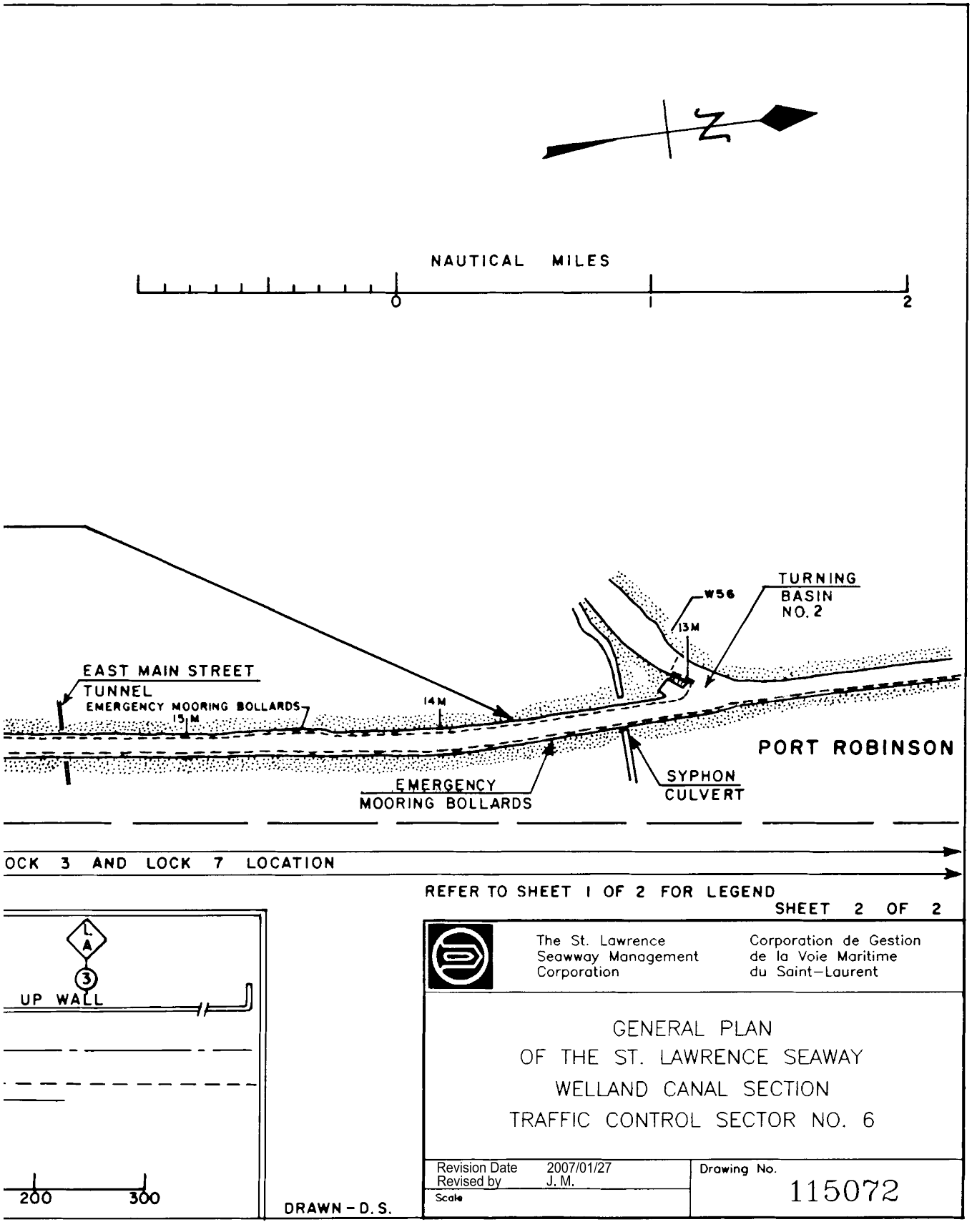
7- Welland Canal Section - Traffic Control Sector No. 6-2

Not to be used for navigation Sheet 2 of 4



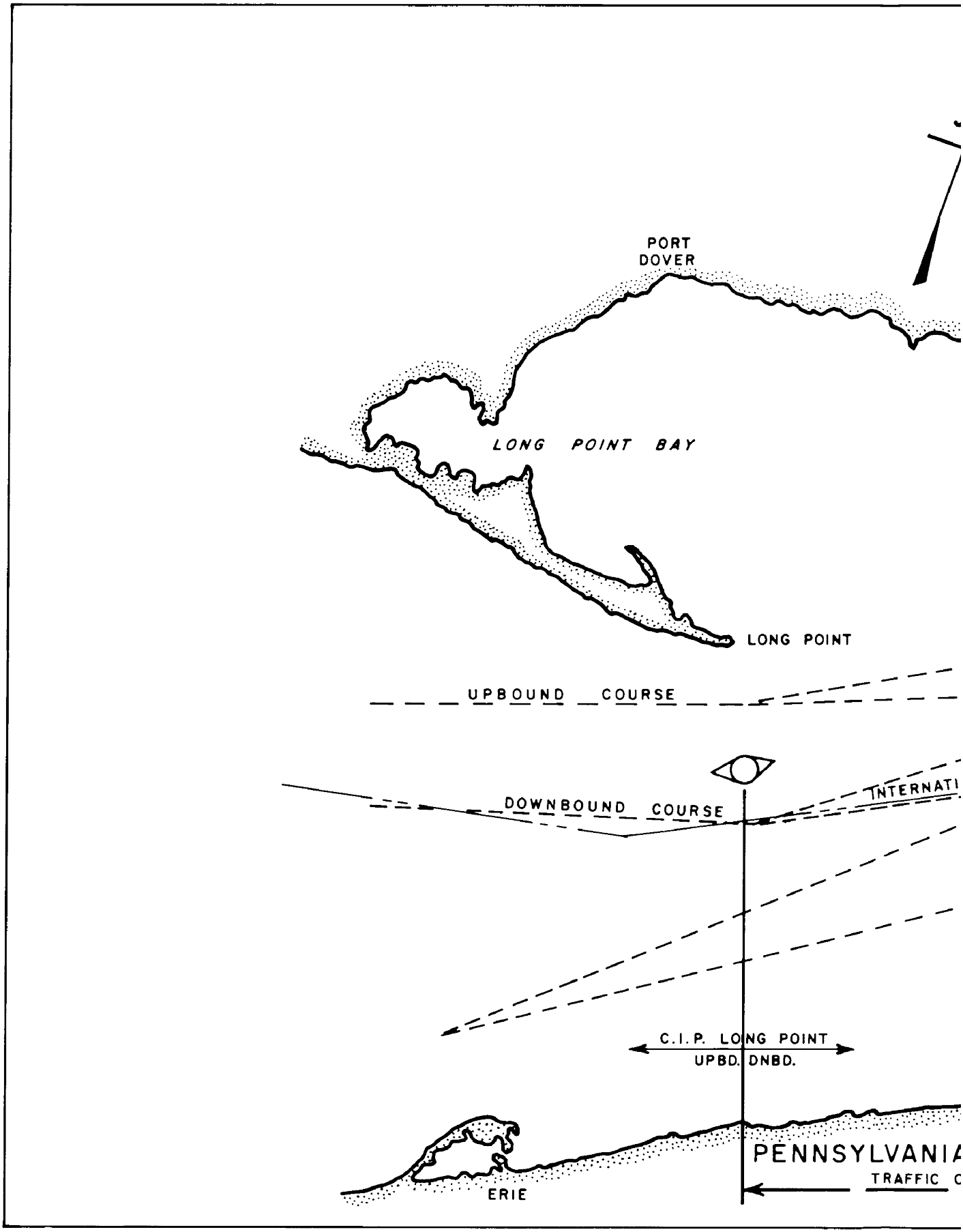
7- Welland Canal Section - Traffic Control Sector No. 6-2

Not to be used for navigation Sheet 3 of 4



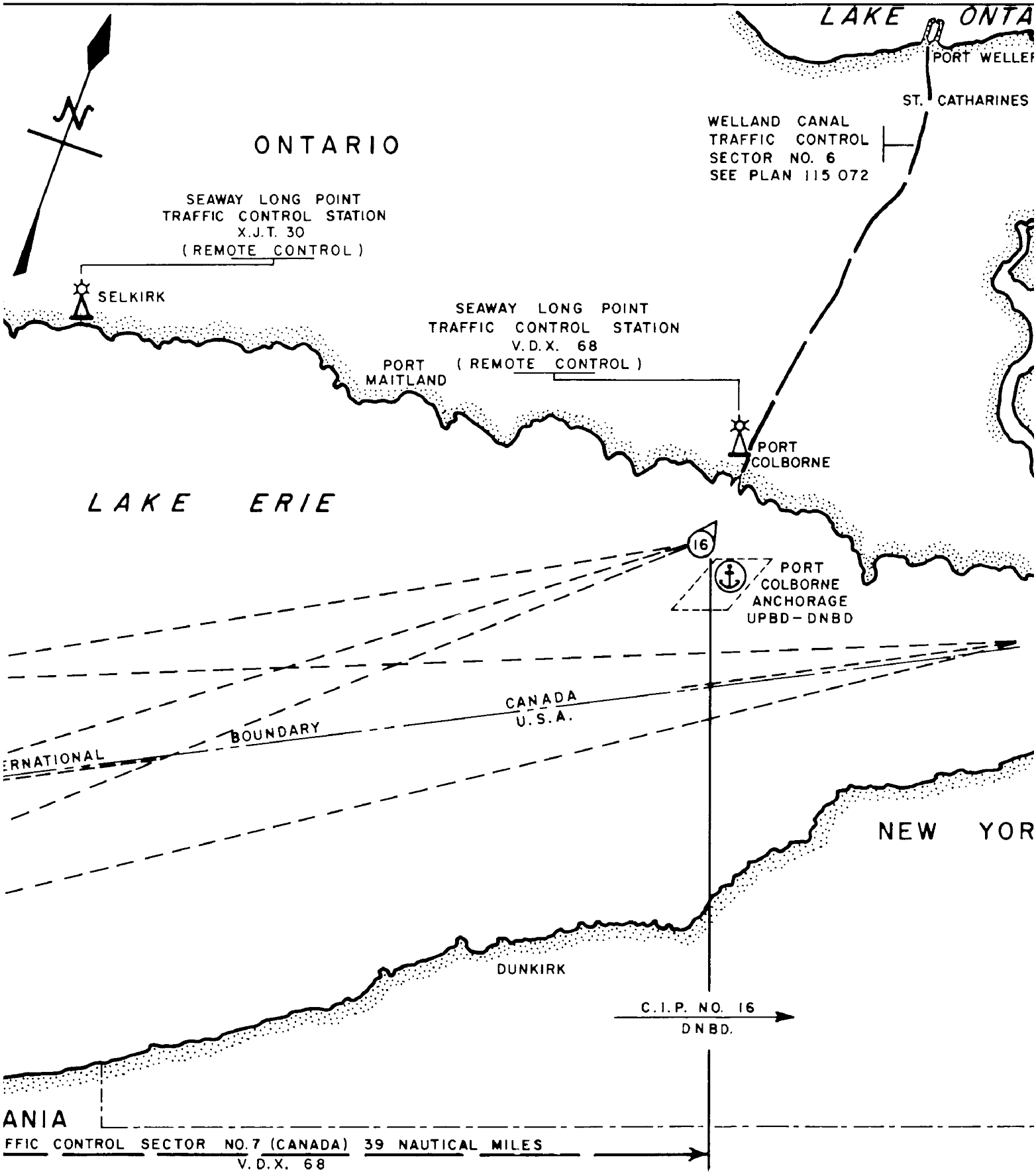
7- Welland Canal Section - Traffic Control Sector No. 6-2

Not to be used for navigation Sheet 4 of 4



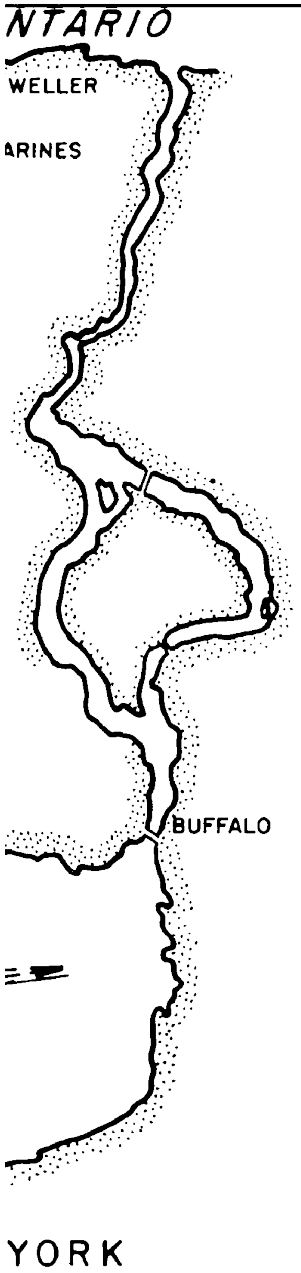
8- Lake Erie Section - Traffic Control Sector No. 7

Not to be used for navigation Sheet 1 of 3



8- Lake Erie Section - Traffic Control Sector No. 7

Not to be used for navigation Sheet 2 of 3



LEGEND

TRAFFIC CONTROL STATION

C.I.P. CALLING-IN POINT

ANCHORAGE AREA

REFER TO CANADIAN HYDROGRAPHIC SERVICE CHART NO. 2100

The St. Lawrence Seaway Management Corporation

Corporation de Gestion de la Voie Maritime du Saint-Laurent

GENERAL PLAN OF THE ST. LAWRENCE SEAWAY LAKE ERIE SECTION TRAFFIC CONTROL SECTOR NO. 7

Revision Date	2000/02/15	Drawing No.	115073
Scale	1 : 400,000		

DRAWN DS

8- Lake Erie Section - Traffic Control Sector No. 7

Not to be used for navigation Sheet 3 of 3