



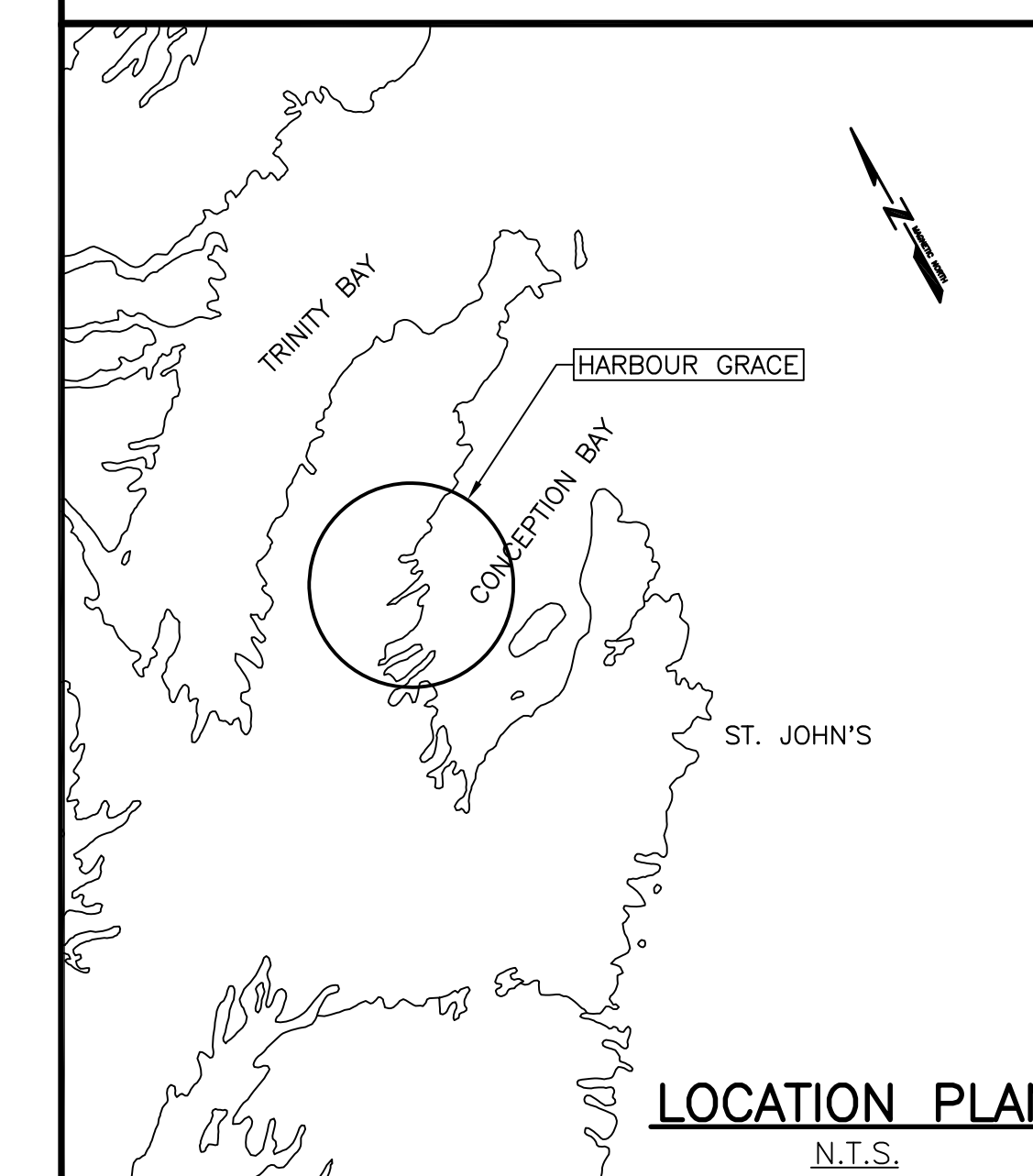
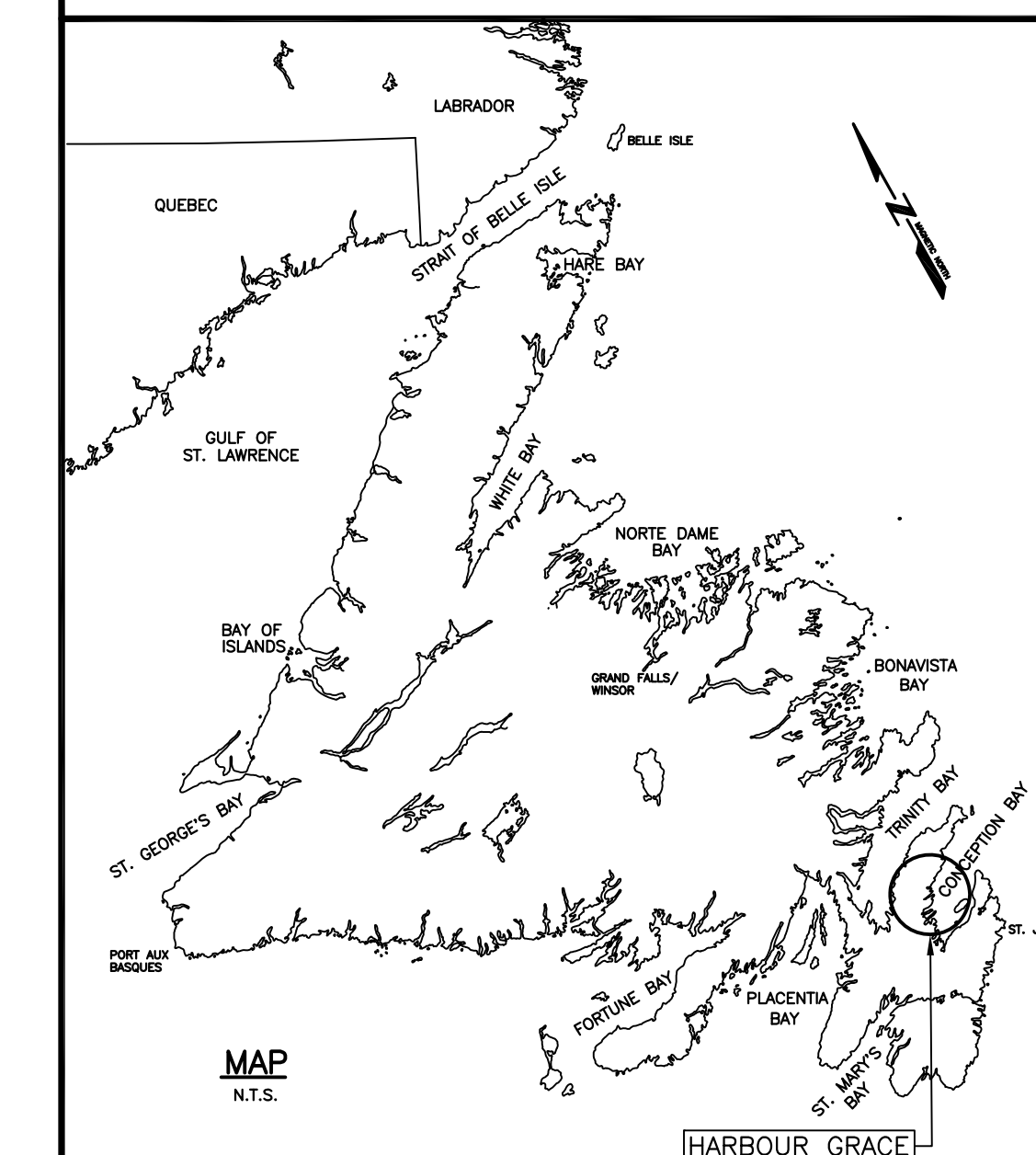
FISHERIES AND OCEANS
CANADA

SMALL CRAFT HARBOURS



SHORELINE PROTECTION
HARBOUR GRACE
NEWFOUNDLAND AND LABRADOR

PROJECT No. 723246
ISSUED FOR TENDER



LIST OF DRAWINGS:

C1 OF 3	EXISTING SITE PLAN
C2 OF 3	NEW SITE PLAN
C3 OF 3	SECTIONS

SMALL CRAFT HARBOURS



NOTES:
 1. ALL ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
 This Permit Allows
 APN ENGINEERING INC.
 To practice Professional Engineering in Newfoundland and Labrador. P.E.C. 1110
 Permit No. as issued by APBNL E0282 which is valid for the year 2020.

REGISTERED PROFESSIONAL ENGINEER
 NEIL C. HUNT
 6/24/20
 NEWFOUNDLAND & LABRADOR

C	ISSUED FOR TENDER	6/24/20
B	RE-ISSUED FOR REVIEW	3/9/20
A	ISSUED FOR REVIEW	2/25/20

SHORELINE PROTECTION
 HARBOUR GRACE, NL

EXISTING SITE PLAN

designed N.H.	concu
date JUNE 24, 2020	
drawn P.H.	dessine
date JUNE 24, 2020	
approved	approuvé
Tender Paul Curran	Submission
DFO Project Manager	
project number 723246	no. du projet
drawing no. C1	no. du dessin

NOTES

SURVEY PARTY CHIEF RICHARD HEALEY
 SURVEY VESSEL ALUMINUM BOAT
 SURVEY DATE(S) BETWEEN SEPTEMBER 03,2010 TO MARCH 16,2020
 SOUNDER TYPE: SINGLE TRANSDUCER
 SOUNDER SETTING: MIN/INST VEL OF SOUND 1446 m/s
 DEPTH GATE USED: N/A FREQ. OF TRANS. 210 kHz
 POSITIONING SYSTEM USED: TRIMBLE R7 GNSS
 LAND SURVEY POSITION BY: TRIMBLE R7 GNSS
 DATA TAPE/DISC(S) USED:
 CAD DRAWING FILE(S):
 TIDAL REDUCTION SCHEME:

OFFICE PROCESSOR EDDIE BEARNS
 DATE OF PROCESSING MARCH 2020

MODE OF PLOTTING LEAST OF MINIMUM DEPTHS
 MATRIX CELL WIDTH X LENGTH
 REDUCTION OF MATRIX CELLS

CONTROL POINTS:

PL. NAME	EASTING	NORTHING	CD ELEV	DESCRIPTION
81G2018	333998.480	5248570.478		PROVINCIAL BRASS PLAQUE SET IN ROCK
81G2017	334142.477	5284706.218		PROV. GOVT. BRASS PLAQUE SET IN CONC.
PWC 2001	332100.080	5282581.425	+2.27 m	NAIL IN WOODEN DECK
CHS 1-1983			+3.086 m	CHS BRASS PLAQUE IN CONCRETE FLOOR
CHS 2-1983			+5.279 m	CHS BRASS PLAQUE IN CONCRETE WALL
BM 92F347			+2.853 m	GEODETIC BRASS PLAQUE IN CONCRETE BASE
PWC 1-2006	331850.375	5282379.465	+2.73 m	BOLT SET IN CONCRETE DECK

ALL SOUNDINGS & ELEVATIONS IN METRES.

ALL SOUNDINGS & ELEVATIONS REFERRED TO GEODETIC BM 92F347 ELEV. +2.853 m (BRASS PLAQUE SET IN CONCRETE BASE OF WARNING LIGHT). PWC USE 0.70 m AS THE DIFFERENCE BETWEEN CHS & GEODETIC DATUMS & LEVELLED TO ALL CHS BM'S IN THE AREA.

SOUNDINGS TAKEN USING A NAVI SOUND 210 ECHO SOUNDER AND POSITIONED BY TRIMBLE R7 GNSS POSITIONING EQUIPMENT BETWEEN SEPTEMBER 3,2017 & MARCH 16,2020 BY PWSC SURVEY CREW.

COORDINATES FOR HORIZONTAL CONTROL ARE GIVEN ON THE U.T.M. MAPPING PLANE, ZONE 22, USING THE NORTH AMERICAN DATUM OF 1983(NAD83).

SPEED OF SOUND WAS OBTAINED FROM A "BAR CHECK"

SOUNDINGS WERE REDUCED USING HYPACK VER. 2013"A".

ALL FIELD NOTES ARE IN HARBOUR GRACE BOOK # 260.

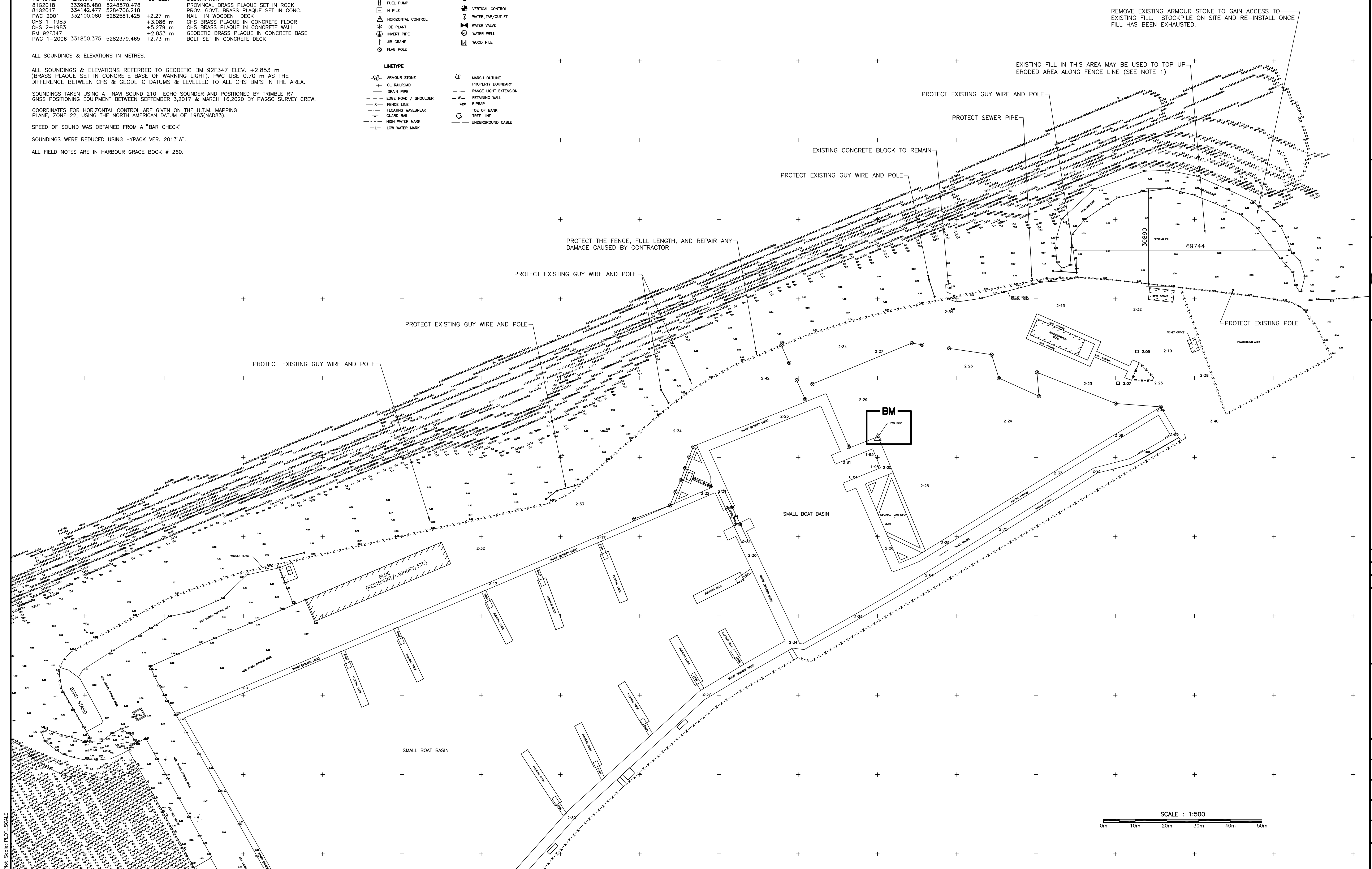
LEGEND

- SYMBOLS**
- ⊗ ANCHORAGE
 - ⊕ ANCHOR BLOCK
 - BOLLARD
 - ⊕ BOREHOLE
 - ⊕ BOUNDARY MARKER
 - ⊕ CARD POSITION BUOY
 - ⊕ CATCH BASIN
 - ⊕ CULVERT
 - ⊕ DERBICK
 - ⊕ DISPOSAL
 - ⊕ DREDGE CONTROL
 - ⊕ ELECTRICAL OUTLET
 - ⊕ FIRE HYDRANT
 - ⊕ FIRST AID
 - ⊕ FISH HANDLING EQUIP.
 - ⊕ FOG HORN
 - ⊕ FUEL PUMP
 - ⊕ H PILE
 - ⊕ HORIZONTAL CONTROL
 - ⊕ ICE PLANT
 - ⊕ INVERT PIPE
 - ⊕ JOB CRANE
 - ⊕ FLAG POLE
 - ⊕ LADDER
 - ⊕ LIFE RING
 - ⊕ LIGHT STANDARD
 - ⊕ MANHOLE
 - ⊕ MARSH
 - ⊕ MAST/TOWER
 - ⊕ NAVIGATION LIGHT
 - ⊕ OBSERVED BUOY
 - ⊕ OBSERVED SPAR BUOY
 - ⊕ PIPE PILE
 - ⊕ RANGE LIGHT
 - ⊕ SAFETY POST
 - ⊕ SEWER OUTFLOW PIPE
 - ⊕ SIGN
 - ⊕ TELEPHONE
 - ⊕ TELEPHONE POLE
 - ⊕ TIDE GAUGE/STAFF
 - ⊕ TREE
 - ⊕ UTILITY POLE
 - ⊕ VERTICAL CONTROL
 - ⊕ WATER TAP/OUTLET
 - ⊕ WATER WELL
 - ⊕ WOOD PILE

- LINE TYPE**
- ⊕ ARMOUR STONE
 - ⊕ CL RAILROAD
 - ⊕ DRAIN PIPE
 - ⊕ EDGE ROAD / SHOULDER
 - ⊕ FENCE LINE
 - ⊕ FLOATING WAVEBREAK
 - ⊕ GUARD RAIL
 - ⊕ HIGH WATER MARK
 - ⊕ LOW WATER MARK
 - ⊕ MARSH OUTLINE
 - ⊕ PROPERTY BOUNDARY
 - ⊕ RANGE LIGHT EXTENSION
 - ⊕ RETAINING WALL
 - ⊕ RIPRAP
 - ⊕ TOE OF BANK
 - ⊕ TREE LINE
 - ⊕ UNDERGROUND CABLE

NOTES:

- REMOVE EXISTING ARMOUR STONE TO EXPOSE FILL IN THIS AREA. EXISTING FILL MATERIAL IN THIS AREA MAY BE RE-USED TO: (i) INFILL THE ERODED AREA ALONG THE FENCE LINE AS SHOWN ON SHEET C3; AND (ii) WIDEN THE SHORELINE AS SHOWN ON SHEET C2. AT PROJECT COMPLETION ANY REMAINING FILL IN THIS AREA IS TO BE PROTECTED AGAIN USING THE EXISTING ARMOUR STONE.
- THERE ARE 2 SEWER PIPES (NOT SHOWN ON THIS DRAWING) THAT HAVE TO BE EXTENDED AS PART OF THIS CONTRACT. LOCATE PIPES IN THE FIELD AND EXTEND AS PER DETAIL ON SHEET C2.



PWC 1-2006

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SHORELINE PROTECTION
 HARBOUR GRACE, NL

NEW SITE PLAN

designed N.H. concu
 date JUNE 24, 2020
 drawn P.H. dessine
 date JUNE 24, 2020
 approved
 Tender Paul Curran Soumission
 DFO Project Manager
 project number 723246
 drawing no. C2

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 CAD DRAWING FILE(S):

OFFICE PROCESSOR EDDIE BEARNS
 DATE OF PROCESSING MARCH 2020

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 MATRIX CELL WIDTH X LENGTH
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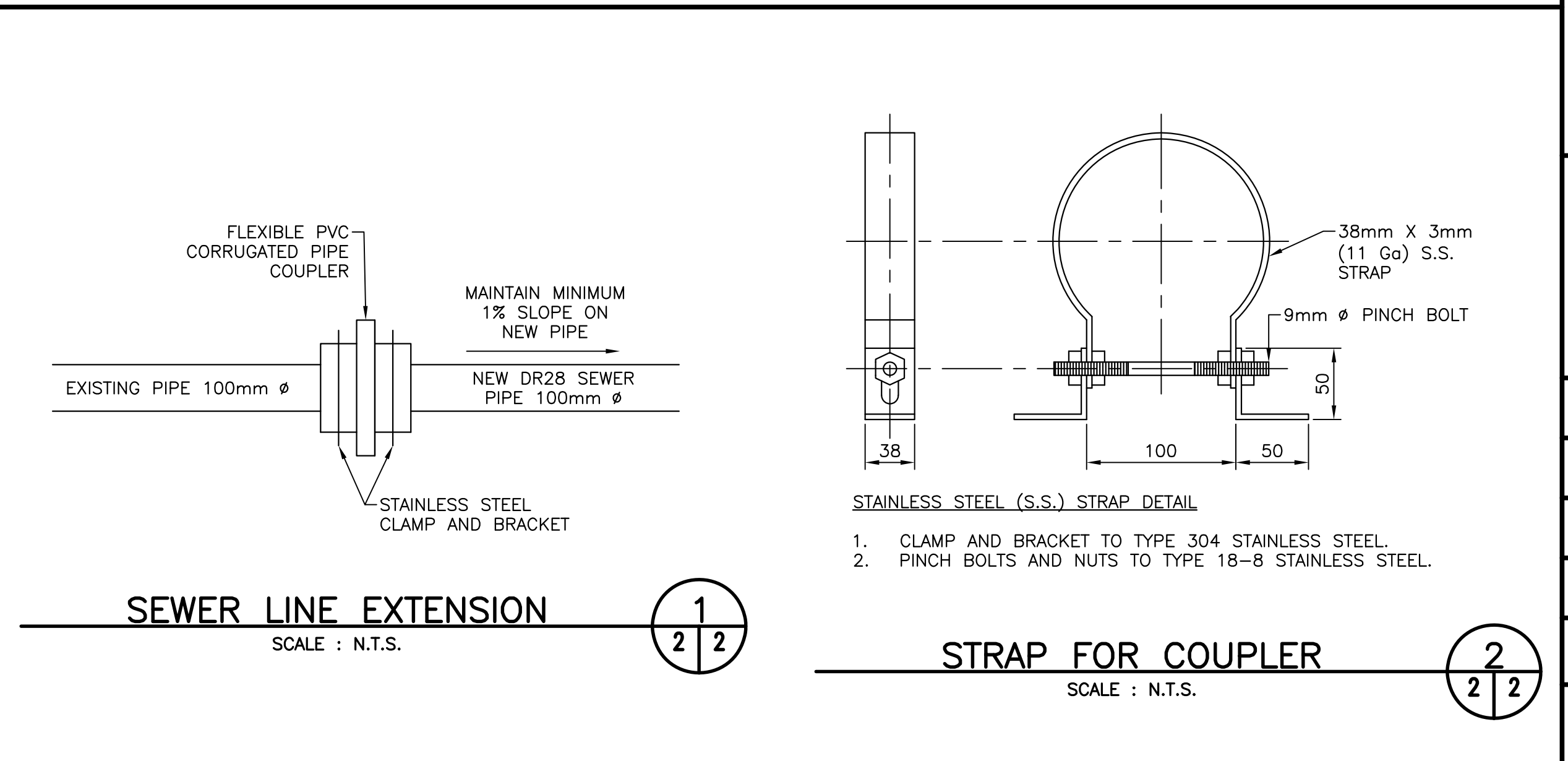
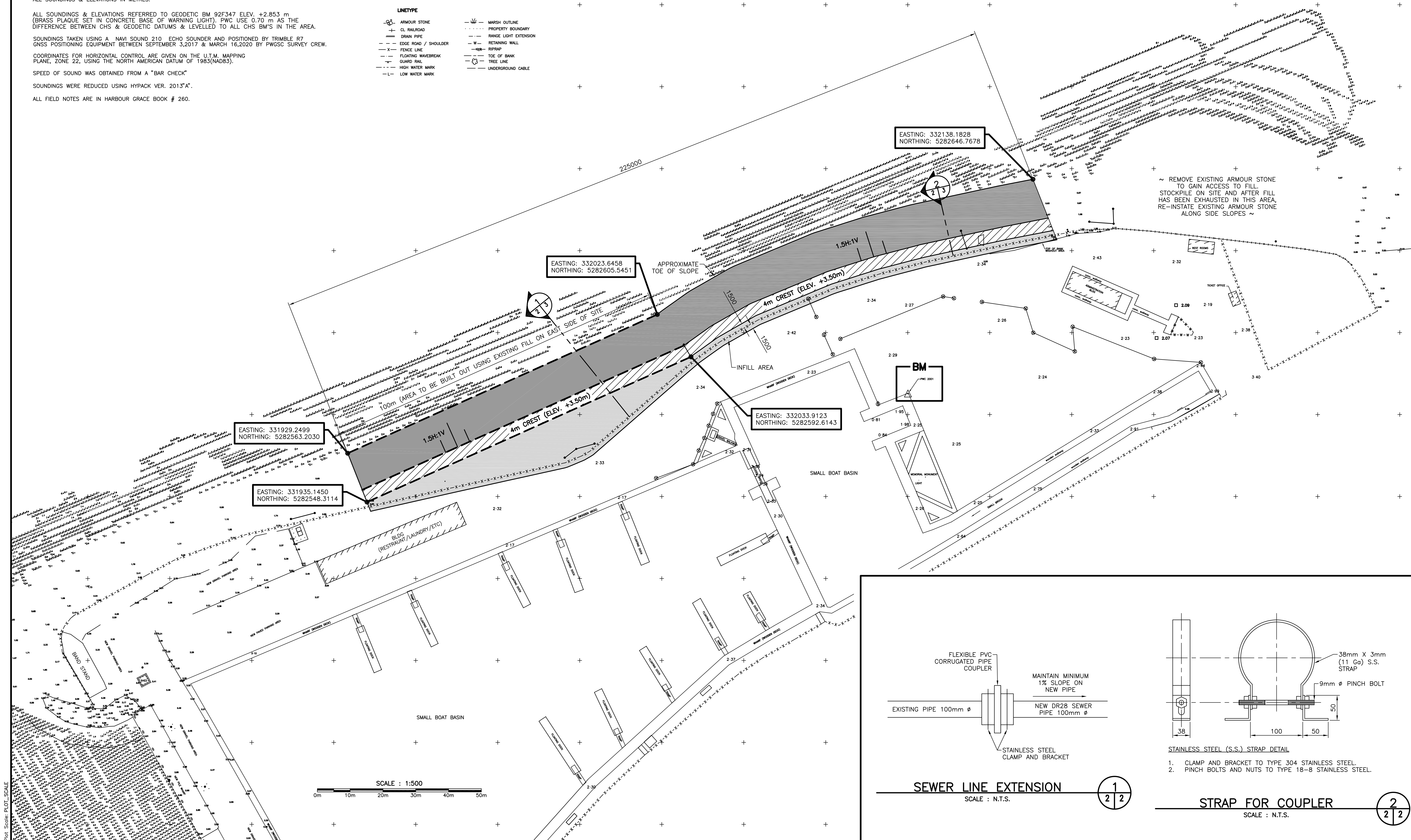
ALL FIELD NOTES ARE IN HARBOUR GRACE BOOK # 260.

LEGEND

- SYMBOLS**
- ANCHORAGE
 - ANCHOR BLOCK
 - BOLLARD
 - BORERHOLE
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 - CARD POSITION BUOY
 - CATCH BASIN
 - CLEAT
 - CULVERT
 - DERBICK
 - DISPOSAL
 - DREDGE CONTROL
 - ELECTRICAL OUTLET
 - FIRE HYDRANT
 - FIRST AID
 - FISH HANDLING EQUIP.
 - FOG HORN
 - FUEL PUMP
 - H PILE
 - H PILE
 - HORIZONTAL CONTROL
 - ICE PLANT
 - INVERT PIPE
 - JIB CRANE
 - FLAG POLE
- LEGEND:**
- EXISTING FILL GATHERED FROM EAST SIDE OF SITE
 - CREST WIDTH
 - ARMOUR STONE SIDE SLOPE
- LINE TYPE**
- ARMOUR STONE
 - CL RAILROAD
 - DRAIN PIPE
 - EDGE ROAD / SHOULDER
 - FENCE LINE
 - FLOATING WAVEBREAK
 - GUARD RAIL
 - HIGH WATER MARK
 - LOW WATER MARK
 - MARSH OUTLINE
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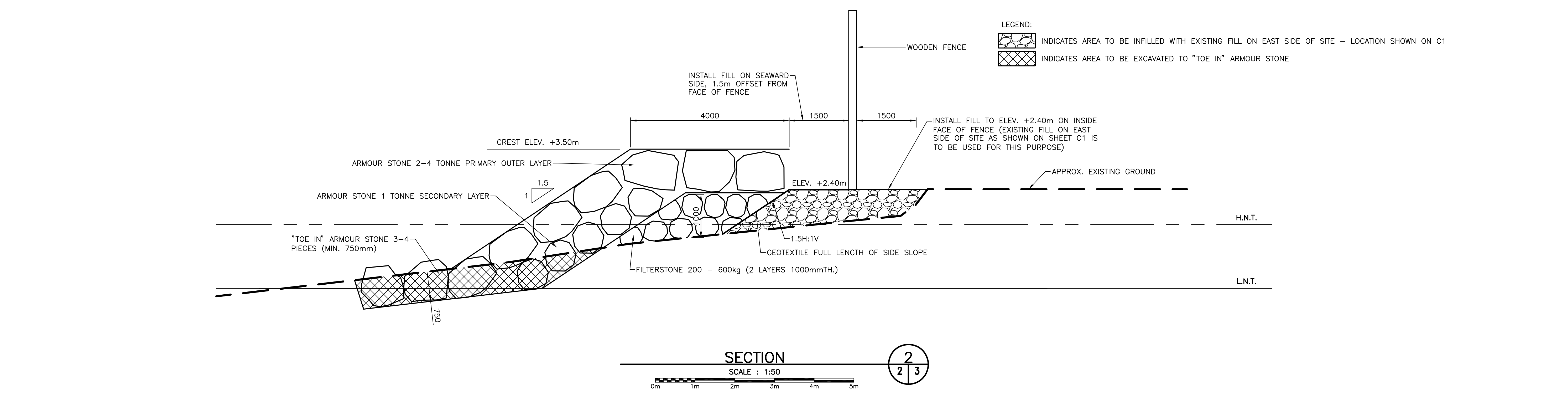
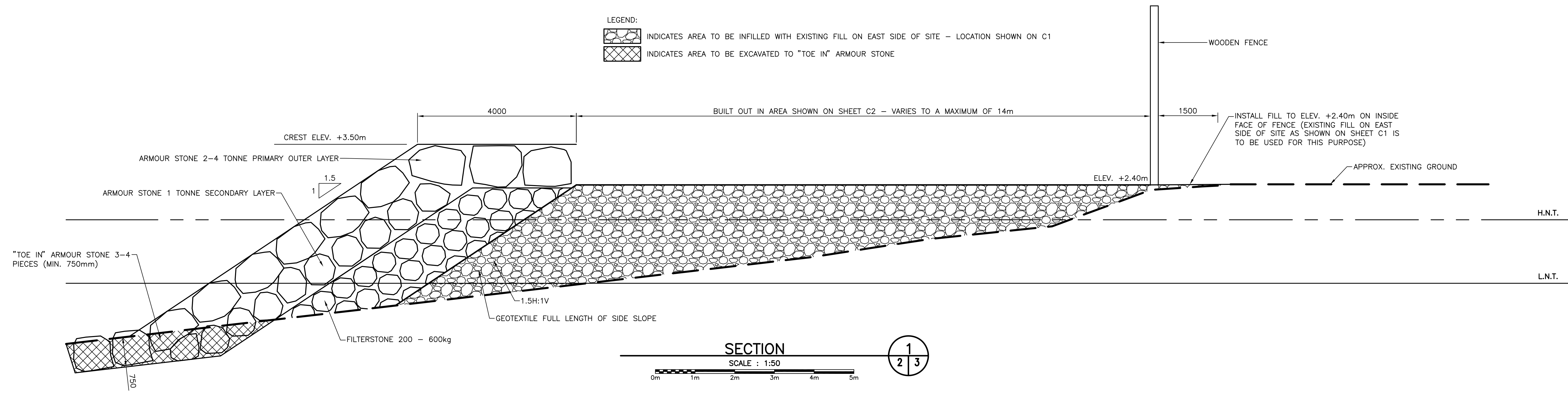
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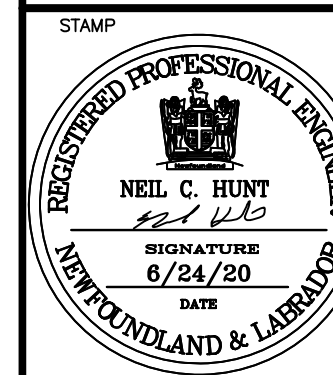




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project SHORELINE PROTECTION
 HARBOUR GRACE, NL

drawing dessein
 SECTIONS

designed N.H. concu
 date JUNE 24, 2020
 drawn P.H. dessine
 date JUNE 24, 2020
 approved approve

Tender Paul Curran Submission
 DFO Project Manager
 project number 723246 no. du projet
 drawing no. C3 no. du dessein