

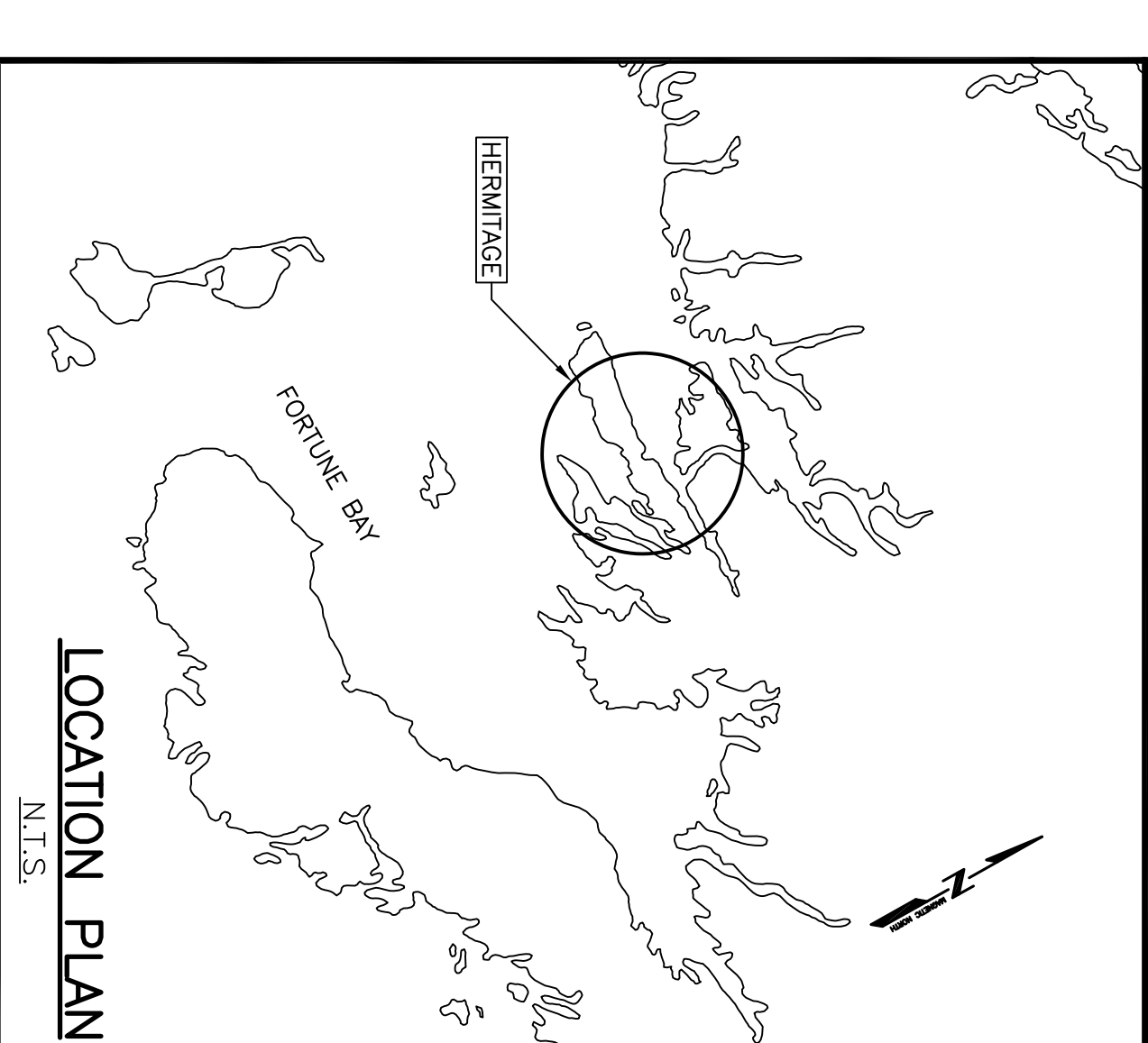
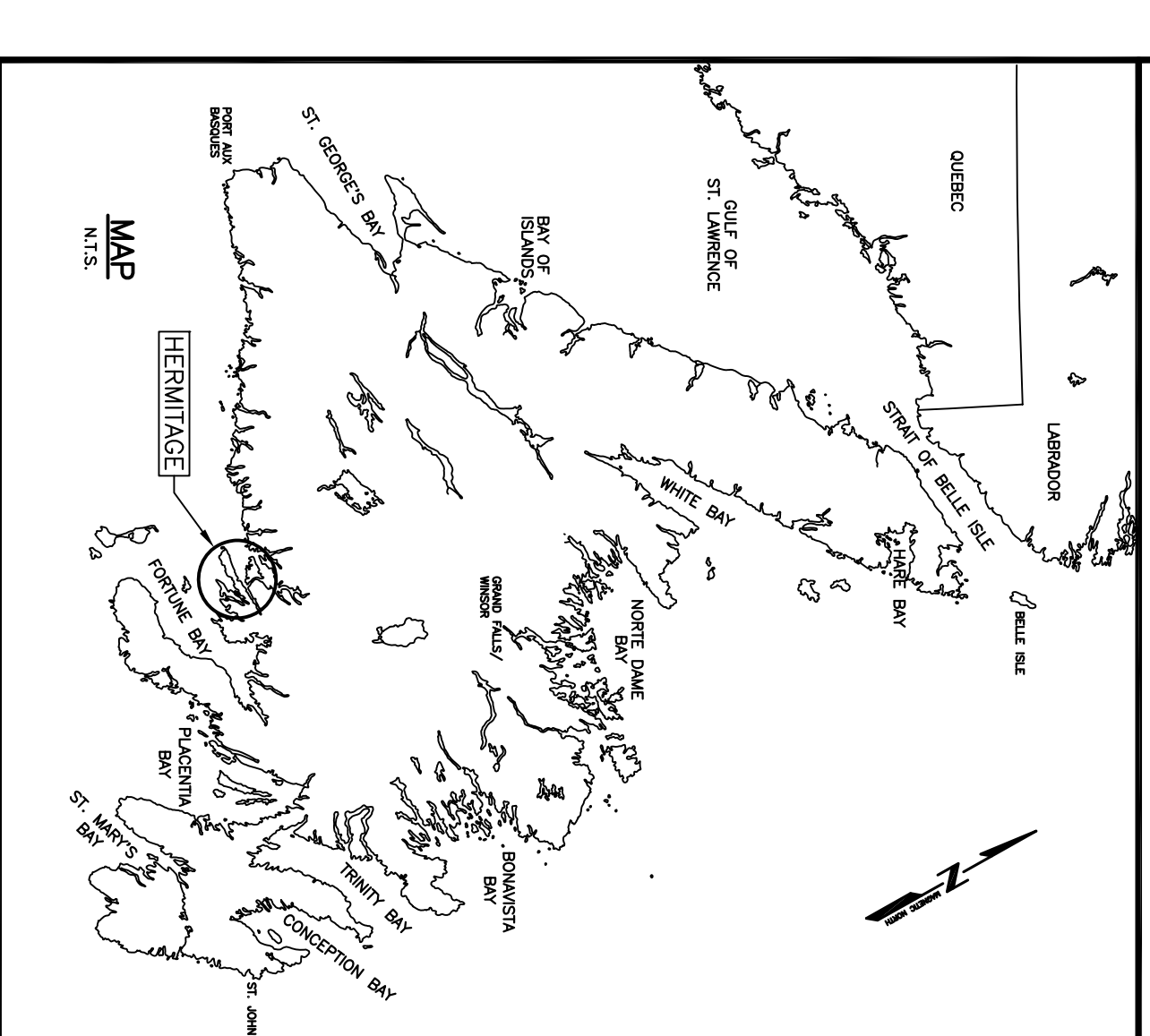
FISHERIES AND OCEANS
CANADA

SMALL CRAFT HARBOURS



WHARF REPAIRS
HERMITAGE
NEWFOUNDLAND AND LABRADOR

PROJECT No. C2-00480
ISSUED FOR TENDER



LIST OF DRAWINGS:

- | | |
|---------|------------------------------------|
| C1 OF 6 | AREA OF WORK |
| C2 OF 6 | PILES TO BE REPAIRED – WORK AREA A |
| C3 OF 6 | NEW ELEVATIONS – WORK AREA A |
| C4 OF 6 | SECTION AND DETAILS – WORK AREA A |
| C5 OF 6 | SECTION AND DETAILS – WORK AREA B |
| C6 OF 6 | DETAILS – WORK AREA B |



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

PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
APN ENGINEERING INC.

Registered Professional Engineer
No. 1115
Permit No. 10 issued by AHSOC, 2022
which is valid for the year 2022

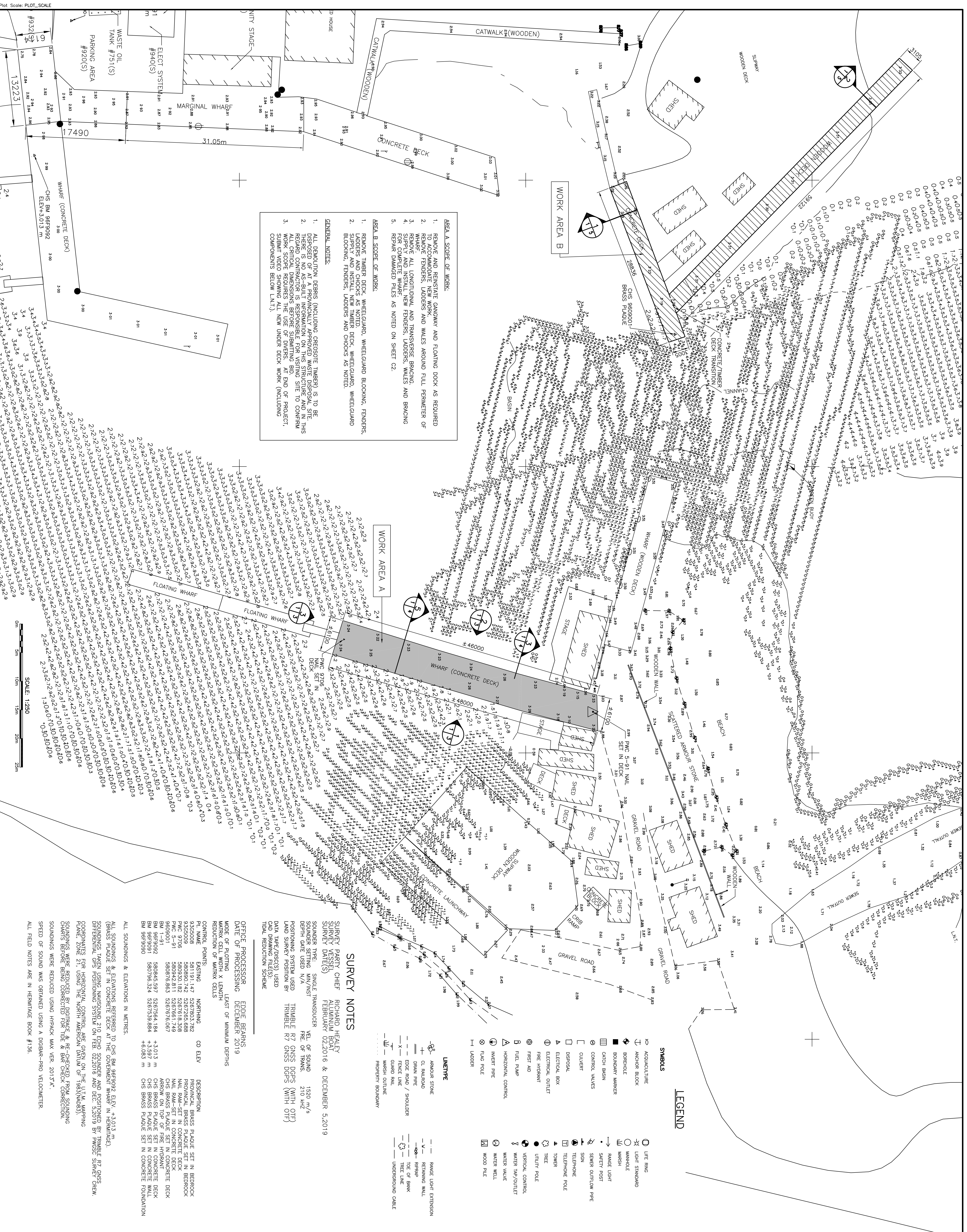
REGISTERED PROFESSIONAL ENGINEER
NILLI C. BIRD
NO. 1115
APN ENGINEERING INC.

no.	description	date	status
1	ISSUED FOR TENDER	5/13/22	
2	ISSUED FOR REVIEW	5/11/22	

PROJECT: WHARF REPAIRS
HERMITAGE, NL

no.	description	date	status
1	DESIGNED	MAY 13, 2022	
2	DATE	MAY 13, 2022	
3	DATE	MAY 13, 2022	

PROJECT: WHARF REPAIRS
HERMITAGE, NL



AREA A SCOPE OF WORK:

- REMOVE AND REINSTATE GANGWAY AND FLOATING DOCK AS REQUIRED TO ACCOMMODATE NEW WORK
- REMOVE FENDERS, LADDERS AND WALES AROUND FULL PERIMETER OF WHARF
- REMOVE ALL LONGITUDINAL AND TRANSVERSE BRACING, SUPPLIES AND INSTALL NEW FENDERS, LADDERS, WALES AND BRACING
- REPAIR DAMAGED PILES AS NOTED ON SHEET C2.

AREA B SCOPE OF WORK:

- REMOVE TIMBER DECK, WHEELGUARD, WHEELGUARD BLOCKING, FENDERS, SUPPLIES AND INSTALL NEW TIMBER DECK, WHEELGUARD, WHEELGUARD BLOCKING, FENDERS, LADDERS AND CHOCKS AS NOTED.

GENERAL NOTES:

- ALL DEMOLITION DEBRIS (INCLUDING CRESOTE TREATED TIMBER) IS TO BE DISPOSED OF AT A PROBABLY APPROVED WASTE DISPOSAL SITE
- THESE ARE NOT AS-BUILT INFORMATION ON THIS STRUCTURE AND IN THIS CASE, ALL DIMENSIONS ARE TO BE TAKEN FROM THE SITE TO CONFORM WITH ALL CRITICAL DIMENSIONS BEFORE SUBMITTING BID
- WORK SCOPE REQUIRES THE USE OF DIVERS. AT END OF PROJECT, SUBMIT VIDEO SHOWING ALL NEW UNDER DECK WORK (INCLUDING COMPONENTS BELOW LNT).

SURVEY NOTES

SURVEY PARTY CHIEF: RICHARD HEALEY
SURVEY VESSEL: ALUMINUM BOAT
SURVEY DATE(S): FEBRUARY 02, 2016 & DECEMBER 5, 2019

SOUNDER TYPE: SINGLE TRANSDUCER
SOUNDER SETTING: N/A
DEPTH GATE USED: N/A
POSITIONING SYSTEM USED: TRIMBLE R7 GNSS DGPS (WITH OIF)
LAND SURVEY POSITION BY: TRIMBLE R7 GNSS DGPS (WITH OIF)
DATA TYPE/DISCS USED: CAD DRAWING FILES
CAD REDUCTION SCHEME: TOTAL REDUCTION SCHEME

VELOCITY OF SOUND: 1520 m/s
FREQUENCY OF TRANS: 210 kHz

OFFICE PROCESSOR

DATE OF PROCESSING: DECEMBER 2019
MODE OF PLOTTING: X LENGTH
REDUCTION OF MATRIX CELLS

CONTROL POINTS:

POINT NAME	EASTING	NORTHING	CD ELEV	DESCRIPTION
9355008	581191.147	5257803.782		BRASS PLAGUE SET IN BEDROCK
9355009	580890.742	5257856.688		PRONOUNCED BRASS PLAGUE SET IN BEDROCK
9355010	580930.182	5257851.308		NAIL RAIL SET IN CONCRETE DECK
9355011	580942.811	5257851.749		CHL BRASS SET IN CONCRETE DECK
9355012	580949.883	5257851.087		ARROW ON TOP OF FIRE HYDRANT
9355013	580845.597	5257854.184	+3.013 m	CHS BRASS PLAGUE SET IN CONCRETE DECK
9355014	580796.324	5257853.884	+3.997 m	CHS BRASS PLAGUE SET IN CONCRETE DECK
9355015	580796.324	5257853.884	+6.059 m	CHS BRASS PLAGUE SET IN CONCRETE FOUNDATION

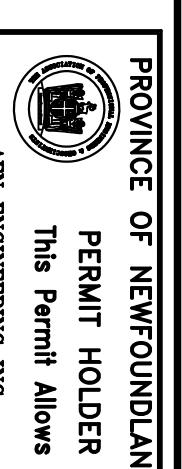
ALL SOUNDINGS & ELEVATIONS IN METRES.

ALL SOUNDINGS & ELEVATIONS REFERRED TO CHS BM 969902 ELEV. 4.3013 m (BRASS PLAGUE SET IN CONCRETE DECK AT THE GOVERNMENT WHARF IN HERMITAGE).
SOUNDINGS TAKEN USING NAVSOUND 210 ECHO SOUNDER AND POSITONED BY TRIMBLE R7 GNSS DIFFERENTIAL GPS POSITIONING SYSTEM ON FEB. 02, 2016 AND DEC. 5, 2019 BY PROSC SURVEY CREW.
COORDINATES FOR HORIZONTAL CONTROL ARE GIVEN ON THE UTM MAPPING PLANE. ZONE 21 USING THE NORTH AMERICAN DATUM OF 1983 (NAD83).
SOUNDINGS WERE REDUCED BY DIFFERENCE & BE-CHECKED FROM SOUNDING CHARTS BEFORE BEING CORRECTED FOR TIDE & BAR CHECK CORRECTION.
SOUNDINGS WERE REDUCED USING HYPACK MAX VER. 2013.1.*.
SPEED OF SOUND WAS OBTAINED USING A DOBIER-FRO VELOCIMETER.
ALL FIELD NOTES ARE IN HERMITAGE BOOK #136.

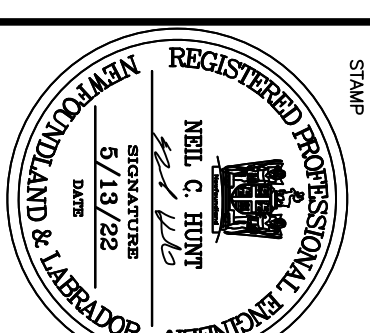


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PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
This Permit Allows
APN ENGINEERING INC.



By practice Professional Engineer
Neil C. Riber
Permit No. as issued by APN, 2022
which is valid for the year 2022



B	ISSUED FOR TENDER	5/13/22
A	ISSUED FOR REVIEW	5/11/22
revision	date	date
project	project	project

WHARF REPAIRS
HERMITAGE, NL

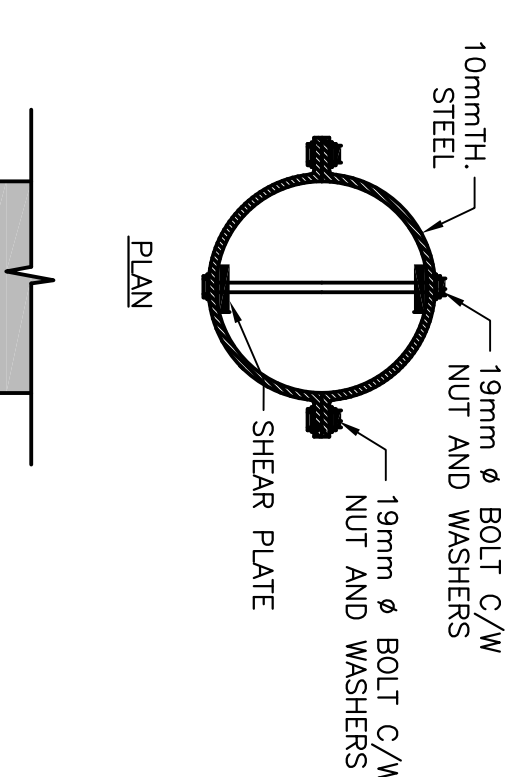
PILES TO BE
REPAIRED -
WORK AREA A

designed N.H.	checked
date MAY 13, 2022	date
drawn P.H.	drawn
date MAY 13, 2022	date
approved	approved

no. of sheets
C2-00480
no. of project
C2-00480

drawing no.
C2 OF 6

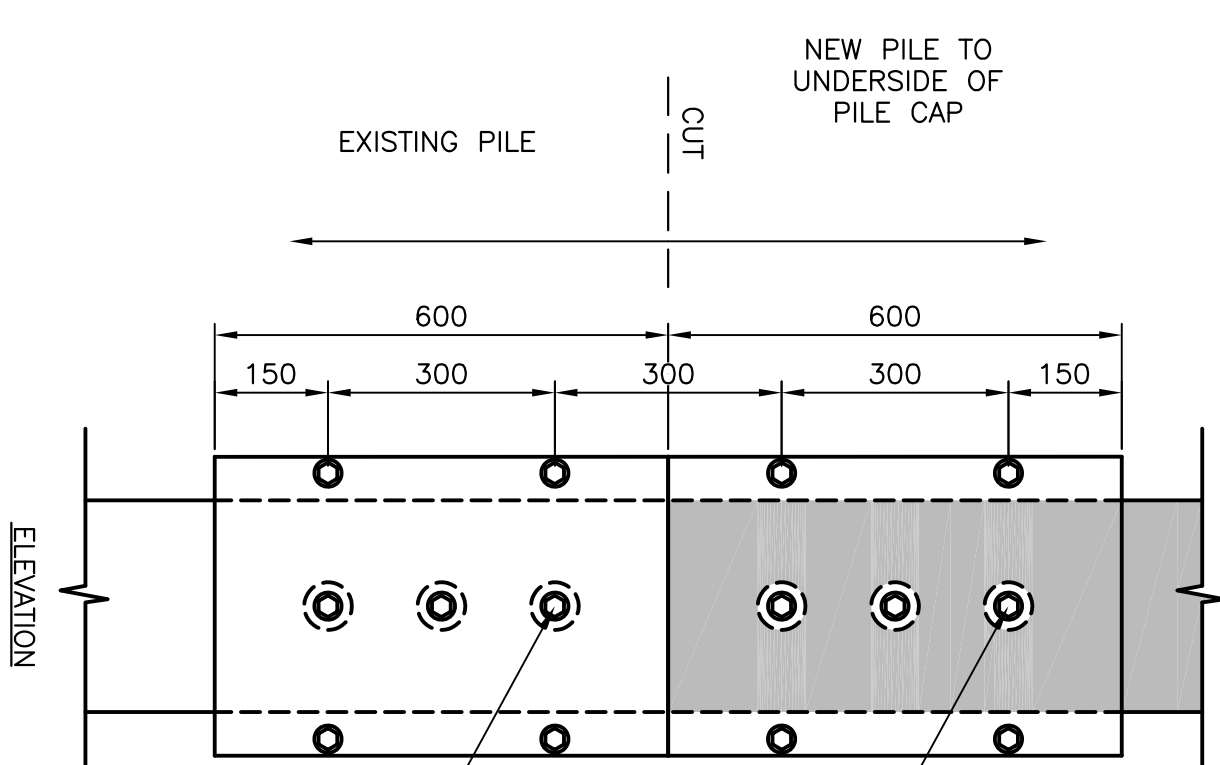
- NOTES:
1. ALL STEEL TO BE GALVANIZED.
 2. IN AREAS WHERE TIMBER PILE DIAMETER IS LESS THAN DIAMETER OF PILE SLEEVE, SUPPLY AND INSTALL TREATED TIMBER SHIMS BETWEEN TIMBER PILE AND SLEEVE TO BE FULL CONTACT TO THE PILE AROUND ITS PERIMETER WILL BE CONSIDERED AS ACCEPTABLY INSTALLED IN THE WORK.
 3. CONTRACTOR TO VERIFY THE REQUIRED PILE SLEEVE SIZE BEFORE FABRICATING/ORDERING, TO ENSURE THERE IS NO POTENTIAL PROBLEMS WITH INSTALLATION DUE TO LARGER THAN NORMAL PILE SIZES, POTENTIAL DEFLECTION, ETC.



LEGEND:
SHADING INDICATES NEW
LENGTH OF PILE

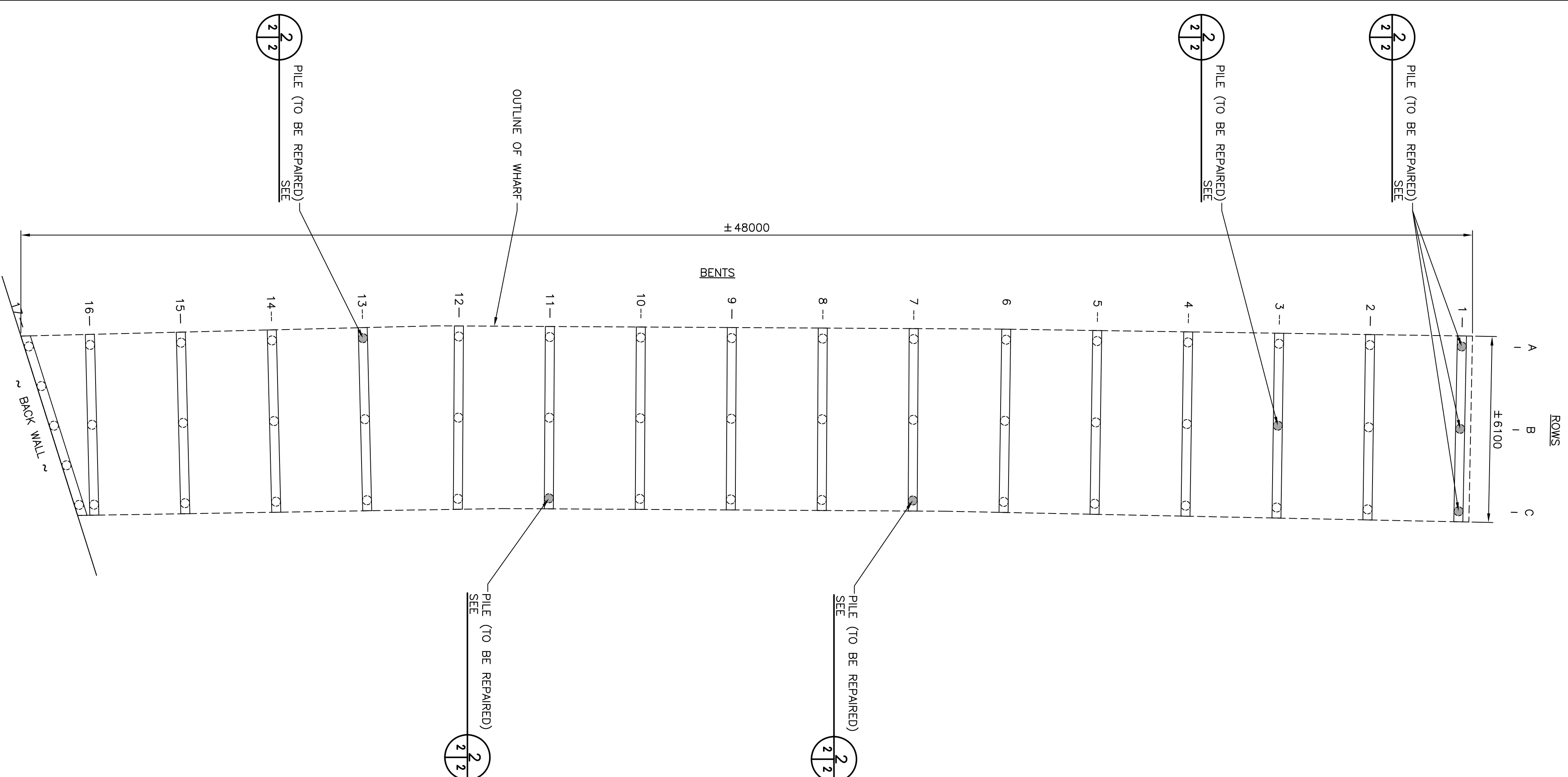
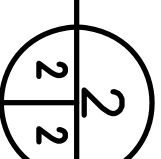
- PROCEDURE FOR PILE REPAIR:
1. CUT EXISTING PILE SQUARE WHERE DAMAGE HAS BEEN NOTED IN UNDERWATER DIVING REPORT. PILING UNDERWATER DIVING SHOULD BE CONSIDERED AS ACCEPTABLY INSTALLED IN THE WORK. ALL CUT PILES WILL BE BELOW LWT AND WILL REQUIRE THE USE OF DIVERS.
 2. PLACE NEW LENGTH OF PILE ON TOP OF CUT PILE, EXTENDED UP TO UNDERSIDE OF PILE CAP.
 3. INSTALL PILE SLEEVE AS SHOWN.

2 - 19mm diameter MACHINE BOLTS THROUGH EXISTING PILE (ADDITIONAL HOLE SHOWN IS TO BE REPAIRED WHERE PILE IS ATTACHED TO SHEAR CLASHES WITH BRACING BOLTS)



TIMBER PILE REPAIR

SCALE : 1:10
0mm 100 200 300 400 500 600 700 800 900 1000mm

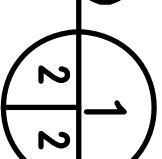


LEGEND:
SHADING INDICATES PILES TO BE REPAIRED

PILE LAYOUT SHOWING PILES TO BE REPAIRED

SCALE : 1:100

0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

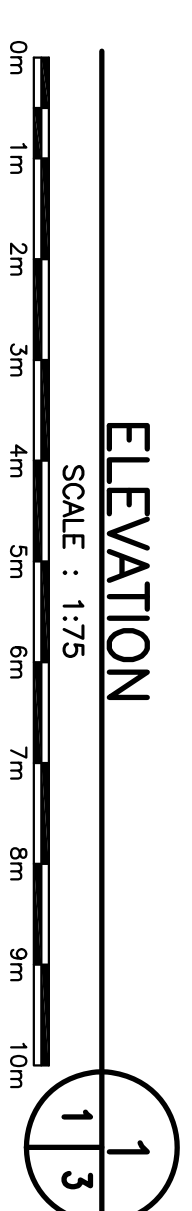
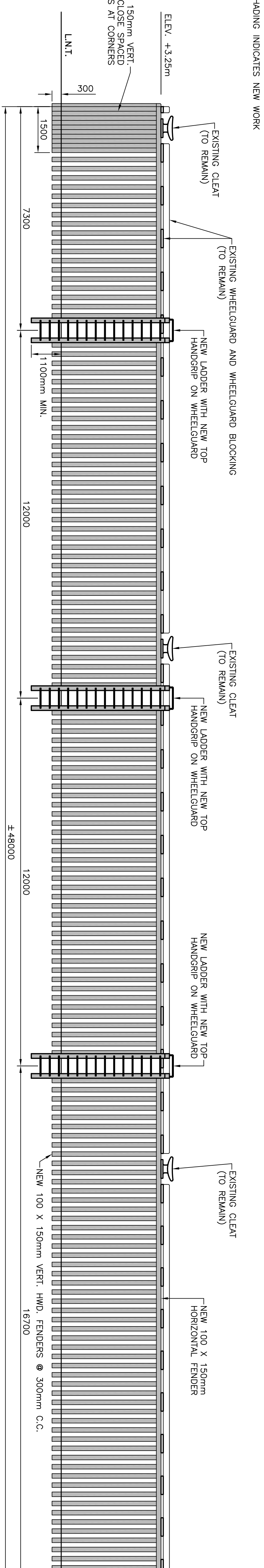


SMALL CRAFT HARBOURS



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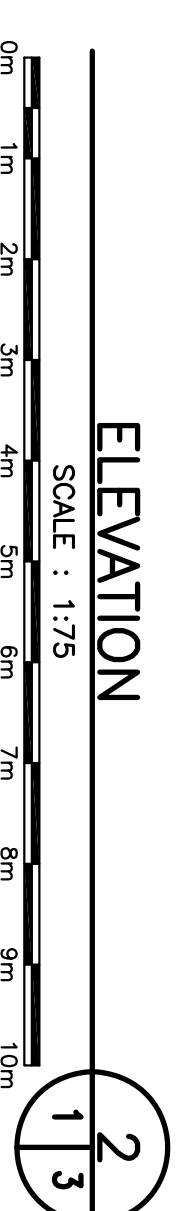
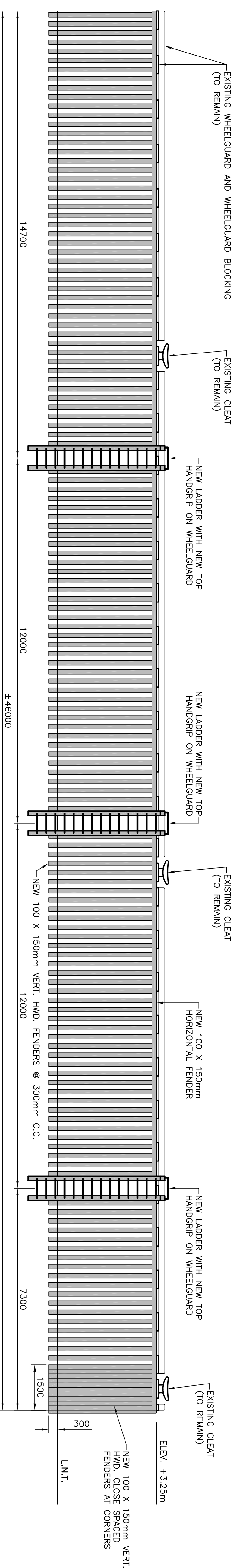
- NOTE:
- REMOVE EXISTING TOP HANDGRIP AT EXISTING LADDER LOCATIONS AS NEW LADDER LOCATIONS ARE SLIGHTLY DIFFERENT FROM EXISTING.
 - EXISTING PILES AND NEW WALES NOT SHOWN IN ELEVATION VIEWS.
- LEGEND:
 [SHADING] SHADING INDICATES NEW WORK



ELEVATION

SCALE : 1:75

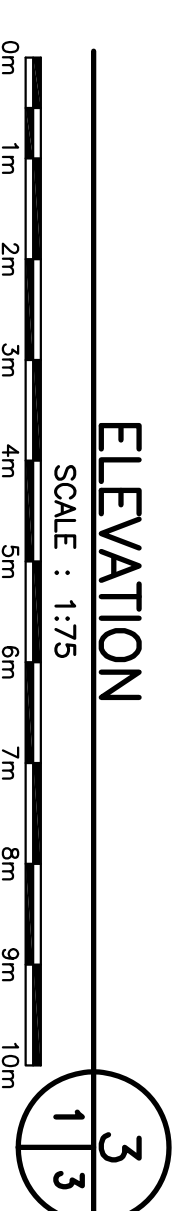
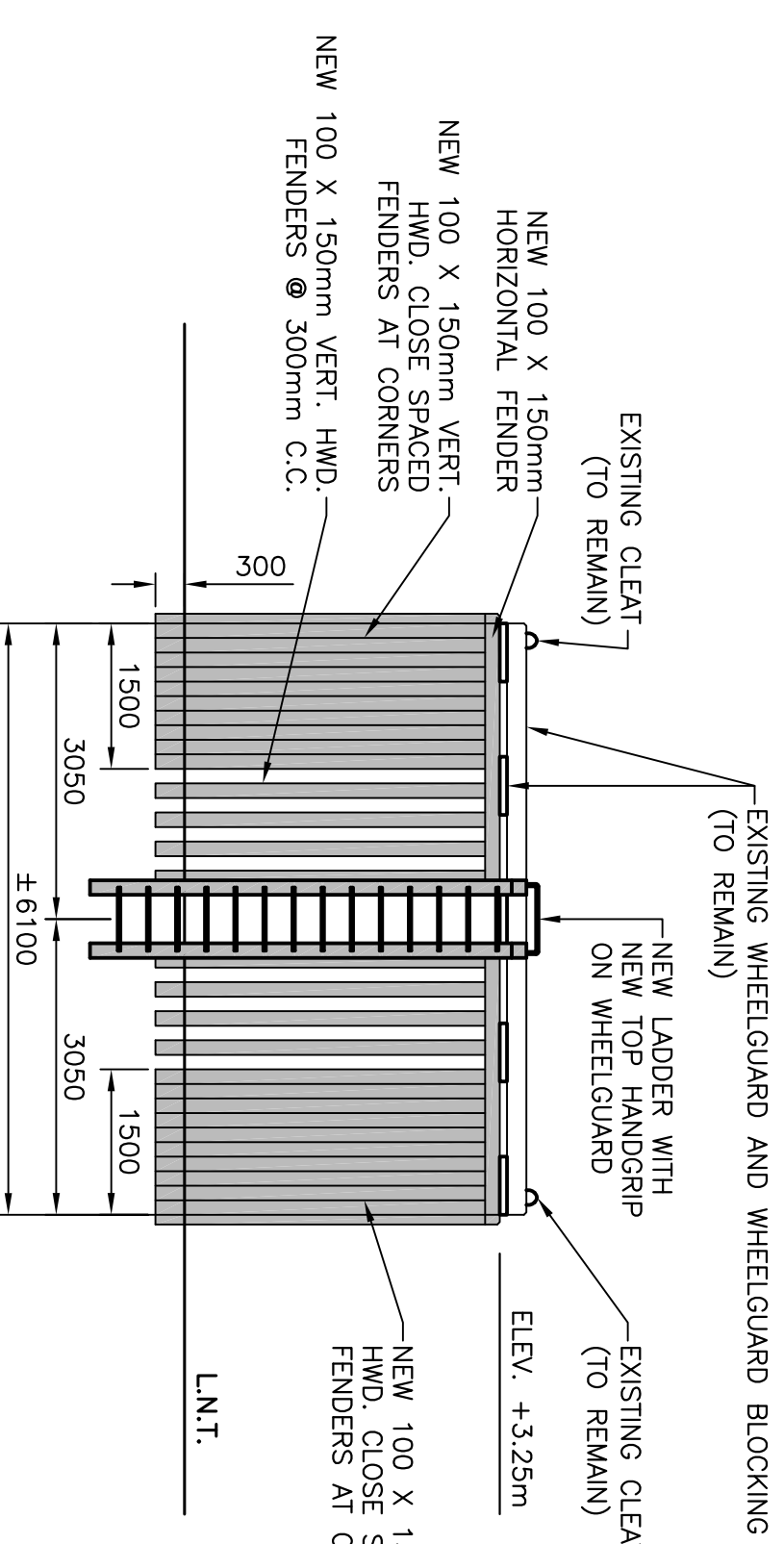
- NOTE:
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 - EXISTING PILES AND NEW WALES NOT SHOWN IN ELEVATION VIEWS.
- LEGEND:
 [SHADING] SHADING INDICATES NEW WORK



ELEVATION

SCALE : 1:75

- NOTE:
- REMOVE EXISTING TOP HANDGRIP AT EXISTING LADDER LOCATIONS AS NEW LADDER LOCATIONS ARE SLIGHTLY DIFFERENT FROM EXISTING.
 - EXISTING PILES AND NEW WALES NOT SHOWN IN ELEVATION VIEWS.
- LEGEND:
 [SHADING] SHADING INDICATES NEW WORK



ELEVATION

SCALE : 1:75

PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
 This Permit Allows
 APN ENGINEERING INC.

Registered Professional Engineer
 Permit No. as issued by APNOL 20282
 which is valid for the year 2022

Stamp: APN ENGINEERING INC. 2022

no.	description	date
B	ISSUED FOR TENDER	5/11/22
A	ISSUED FOR REVIEW	5/11/22

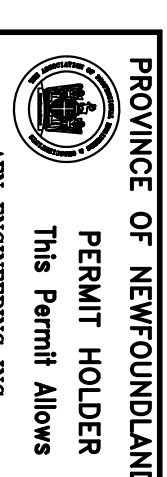
Project: WHARF REPAIRS HERMITAGE, NL

drawing no. C3 OF 6

designed N.H.	scale
date MAY 13, 2022	
drawn P.H.	designed
date MAY 13, 2022	approved
approved	
Project Manager Paul Cassar	no. of sheets
Project number C2-00480	
drawing no. C3 OF 6	



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 PERMIT HOLDER
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 APN ENGINEERING INC.

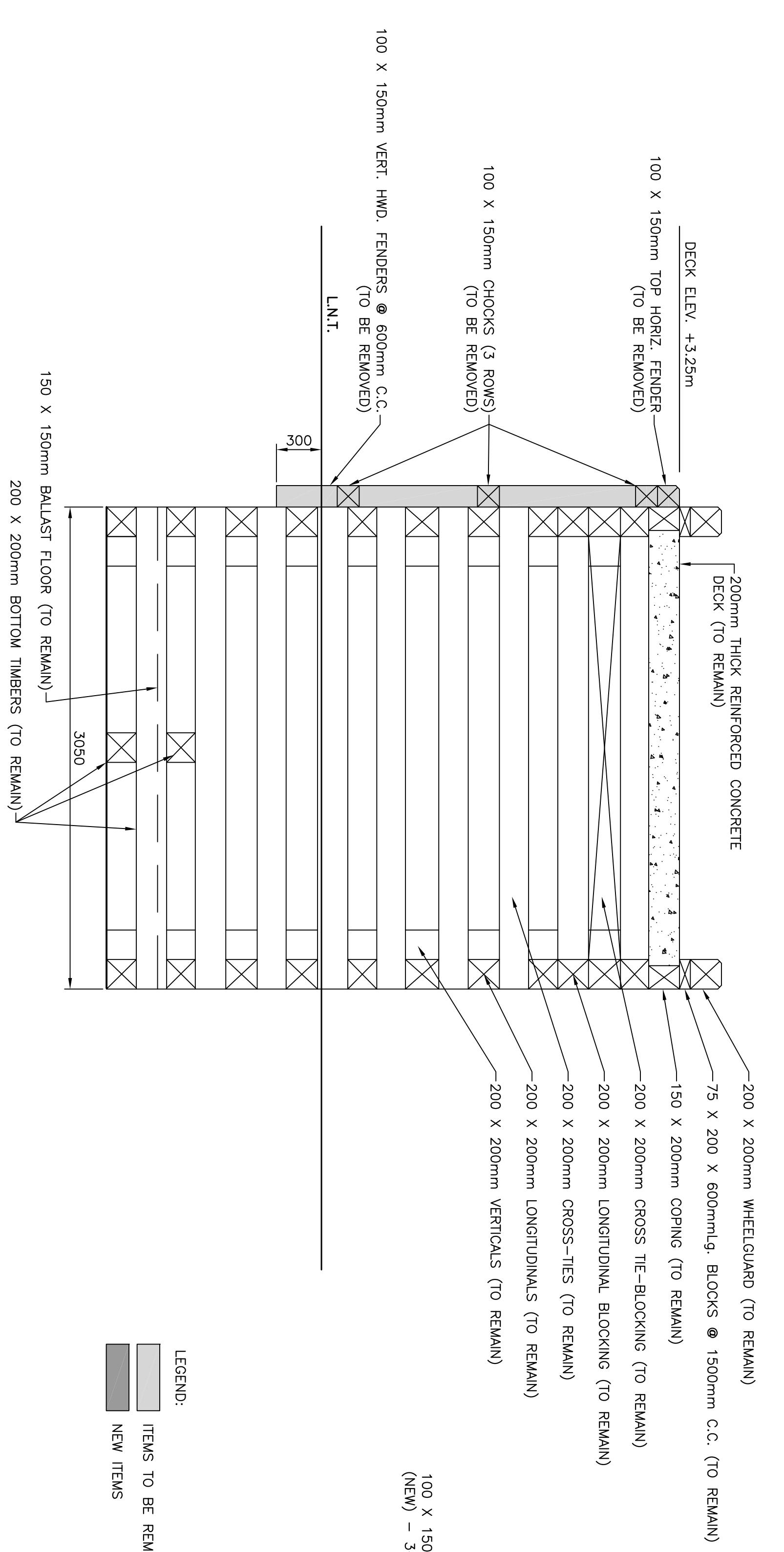
By the duly Licensed Professional Engineer
 Neil C. Birt
 License No. 11115
 which is valid for the year 2022

ISSUED FOR TENDER	5/11/22
ISSUED FOR REVIEW	5/11/22
revisions	date
project	project

WHARF REPAIRS
 HERMITAGE, NL

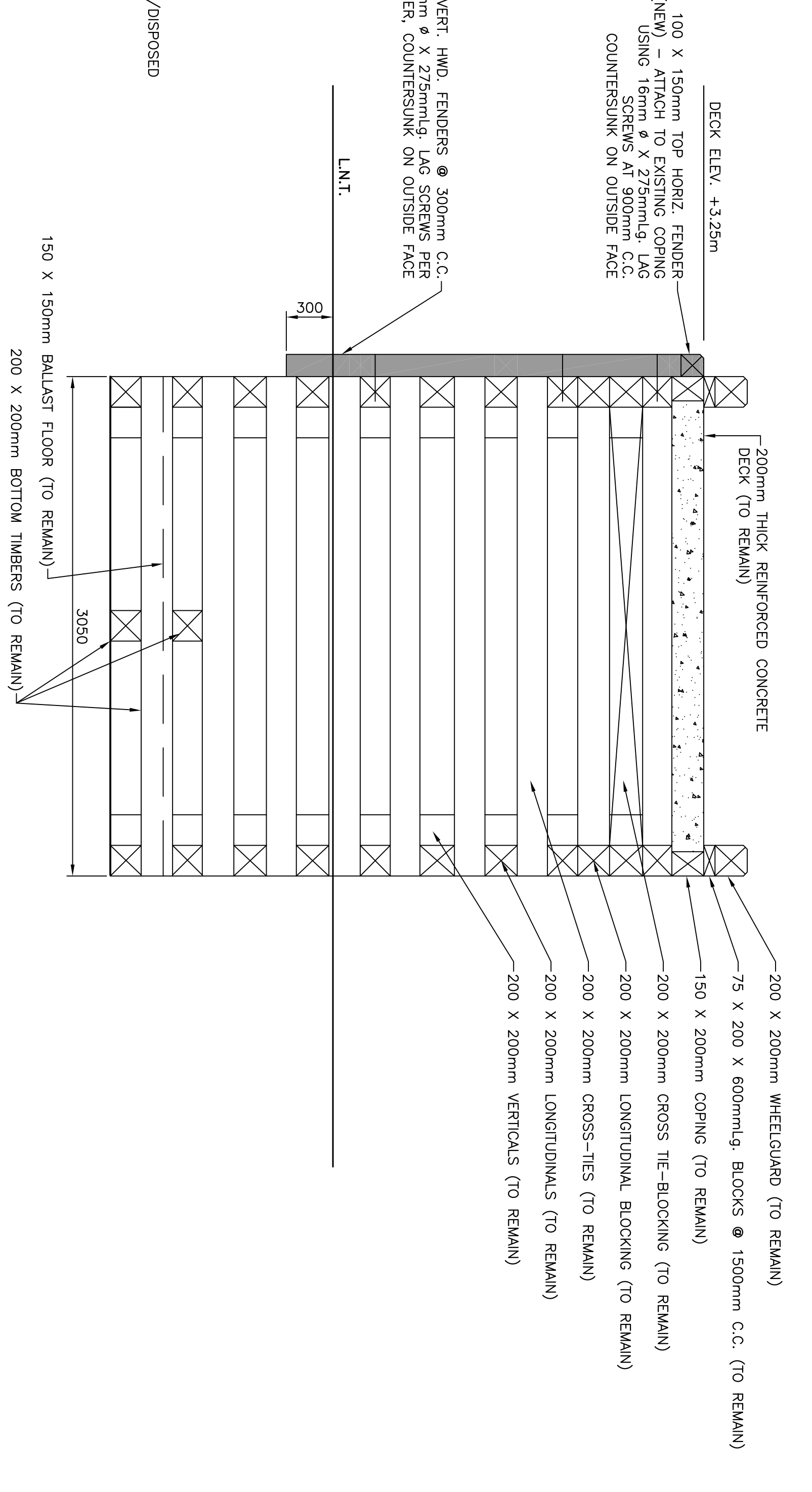
SECTIONS AND
 DETAILS - WORK
 AREA B

designed N.H.	scale
date MAY 13, 2022	
drawn P.H.	drawn
date MAY 13, 2022	approved
approved	
under Paul Davack	Sponsor
DPO Project Manager	no. of project
Project number C2-00480	no. of sheets
drawing no. CS OF 6	

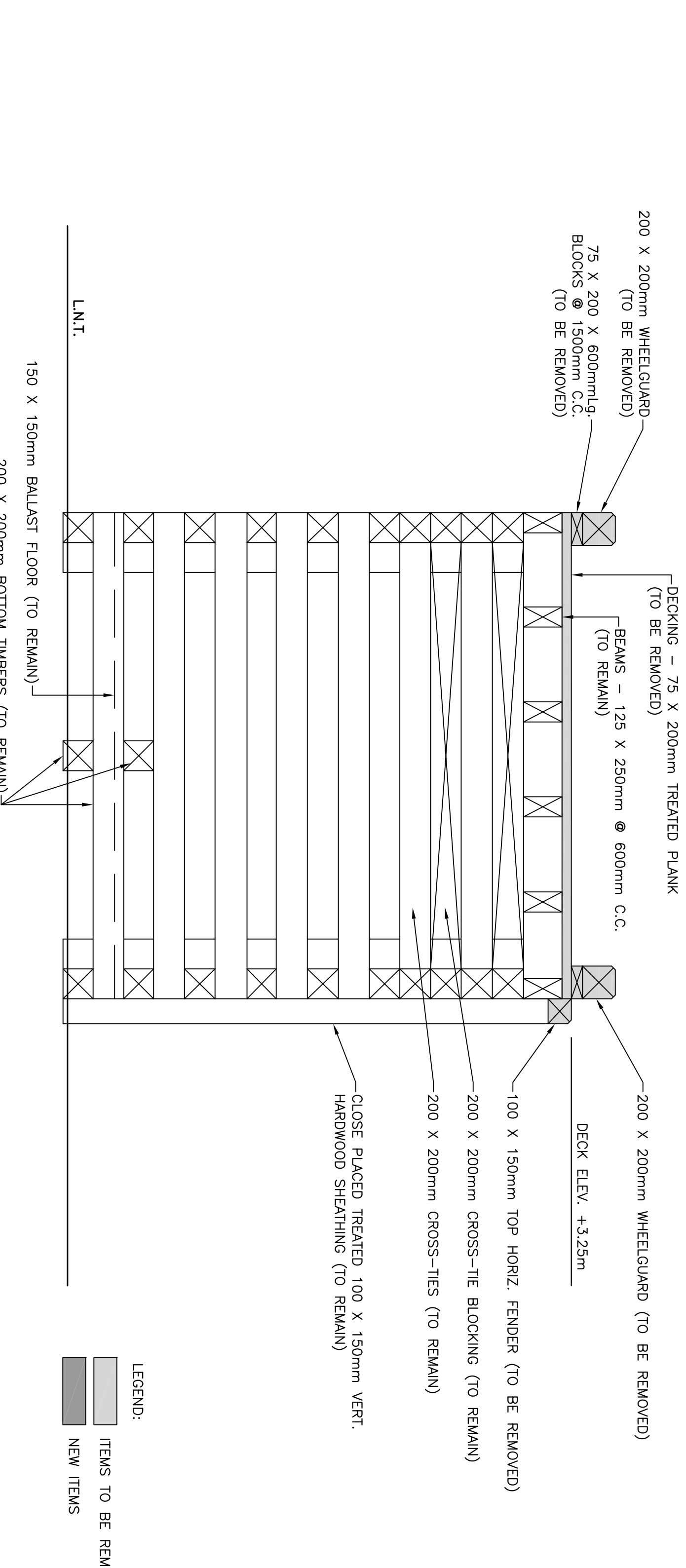


DEMOLITION

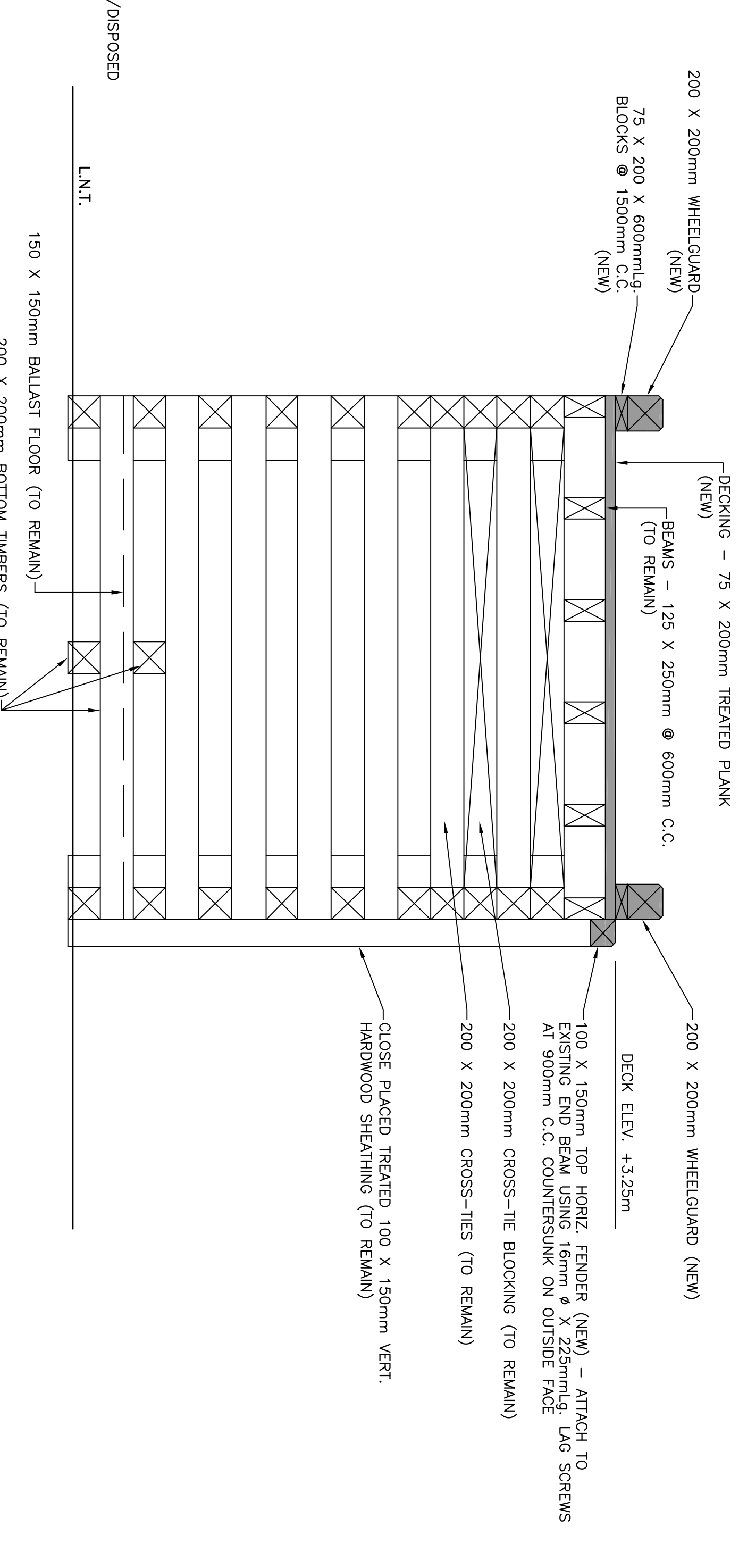
DEMOLITION AND NEW SECTION 1
 SCALE : N.T.S.



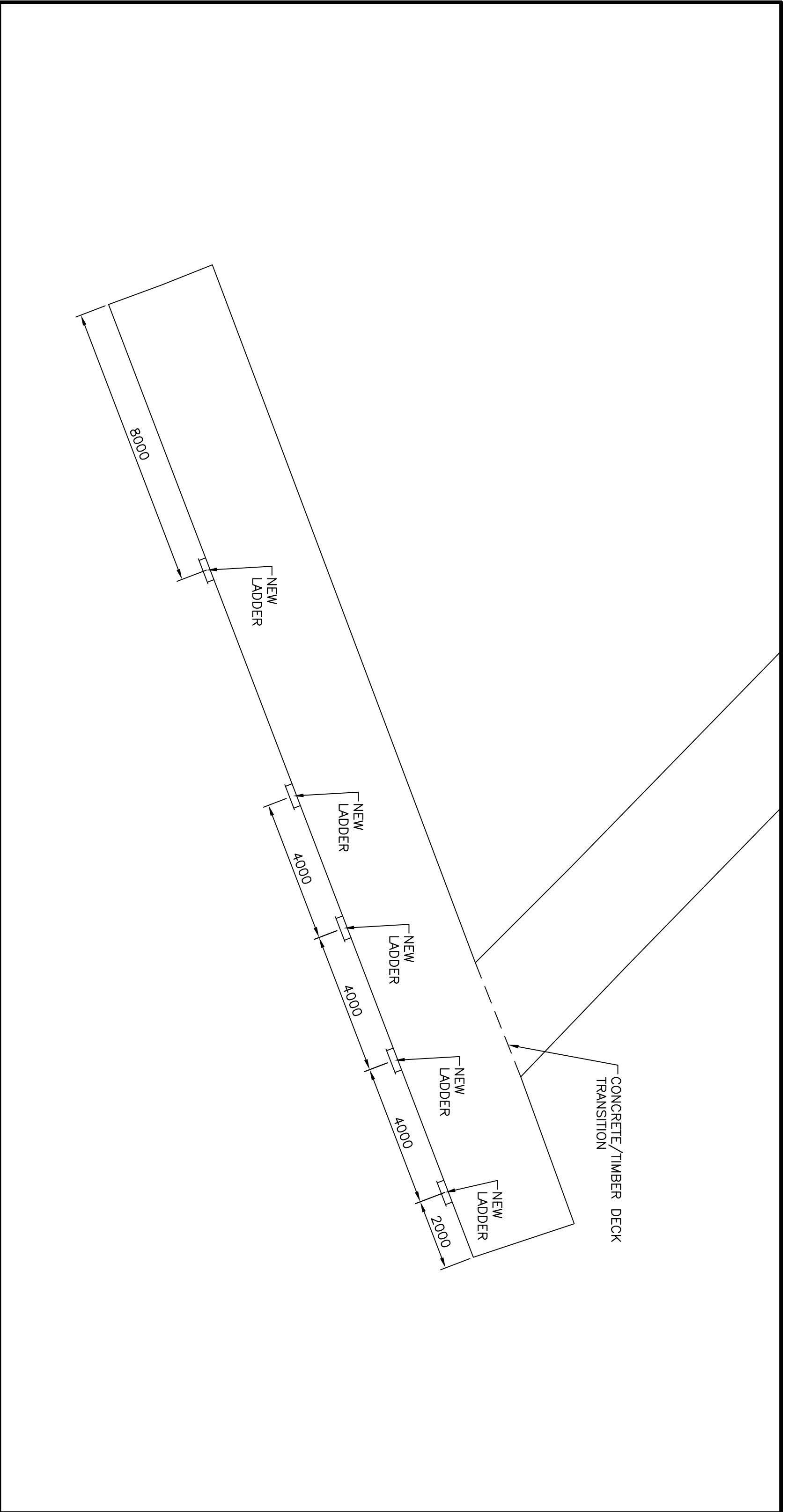
NEW



DEMOLITION

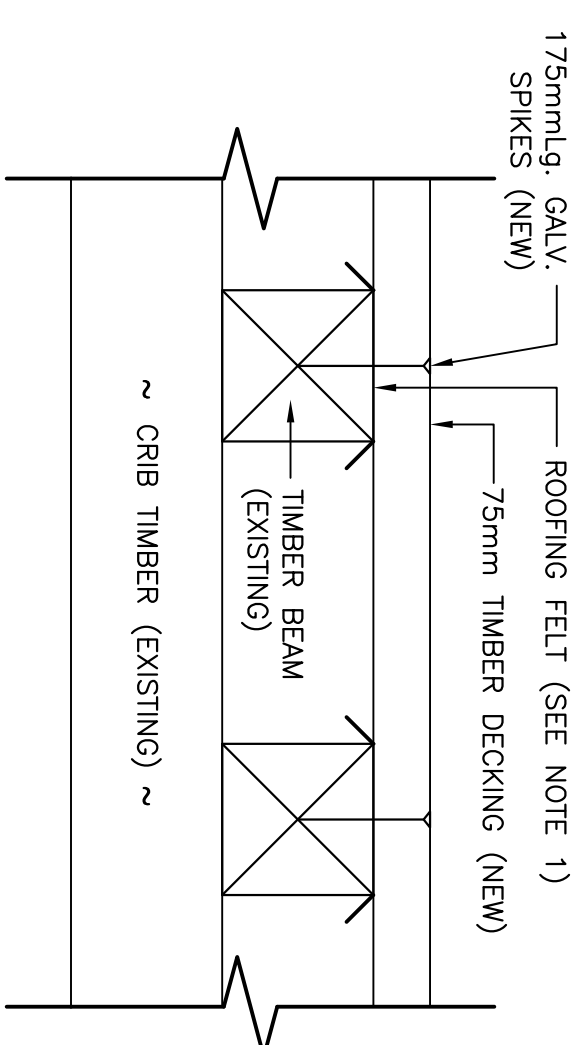
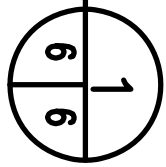


NEW



KEY PLAN FOR NEW LADDERS ON BREAKWATER WHARF

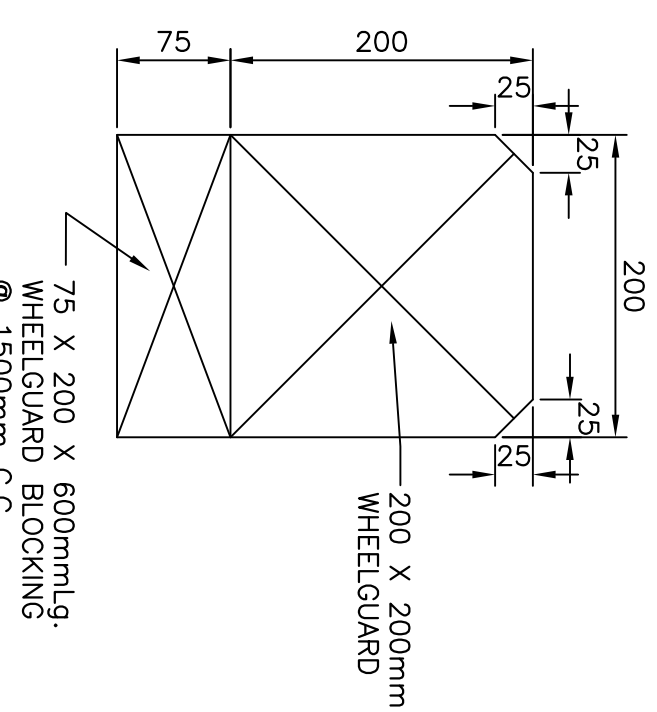
SCALE : 1:100
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m



- NOTE:
- ROOFING FELT TO BE PLACED ALONG TOP OF EXISTING BEAMS. FULL LENGTH FOR WIDTH OF BEAMS AND EXTENDING MIN. 50mm OUT OVER EACH EDGE. FELT TO BE SECURED TO THE TOP OF TIMBER WITH ROOFING CEMENT FOR FULL LENGTH.

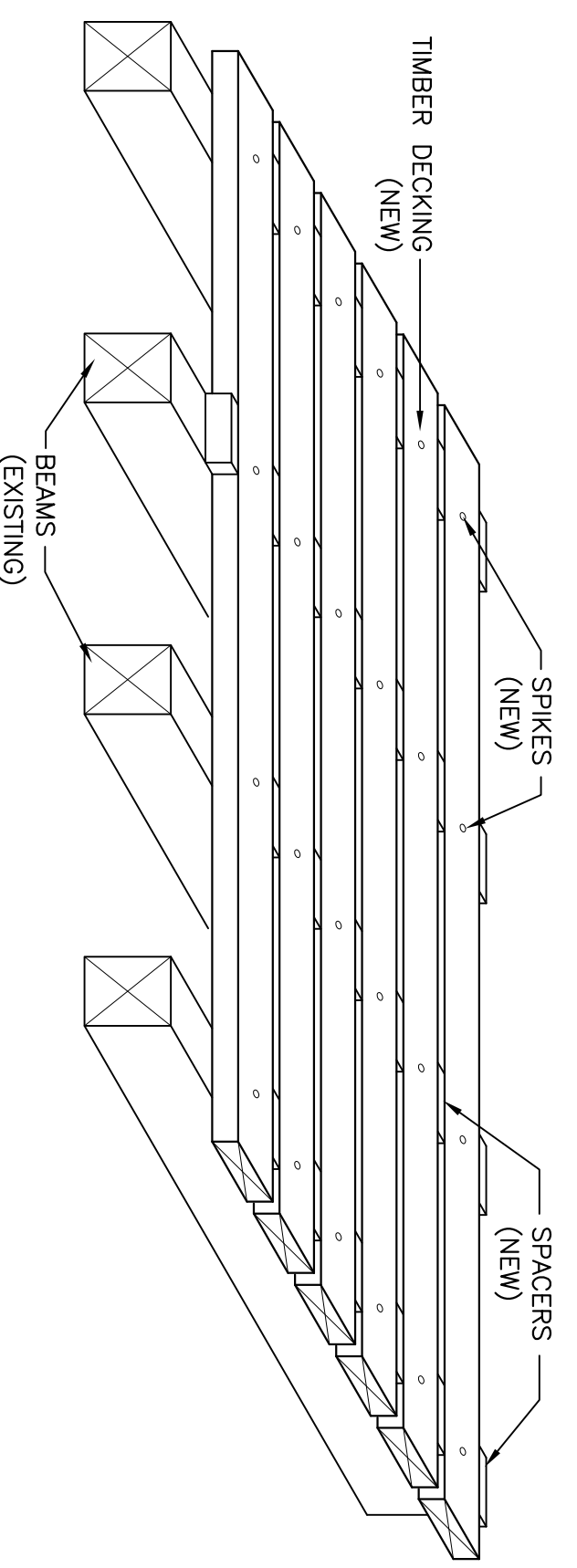
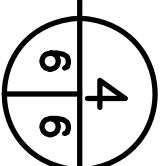
DECK DETAIL

SCALE : 1:10
0m 100 200 300 400 500 600 700 800 900 1000mm



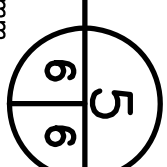
WHEELGUARD DETAIL

SCALE : 1:5
0m 100mm 200mm 300mm 400mm 500mm

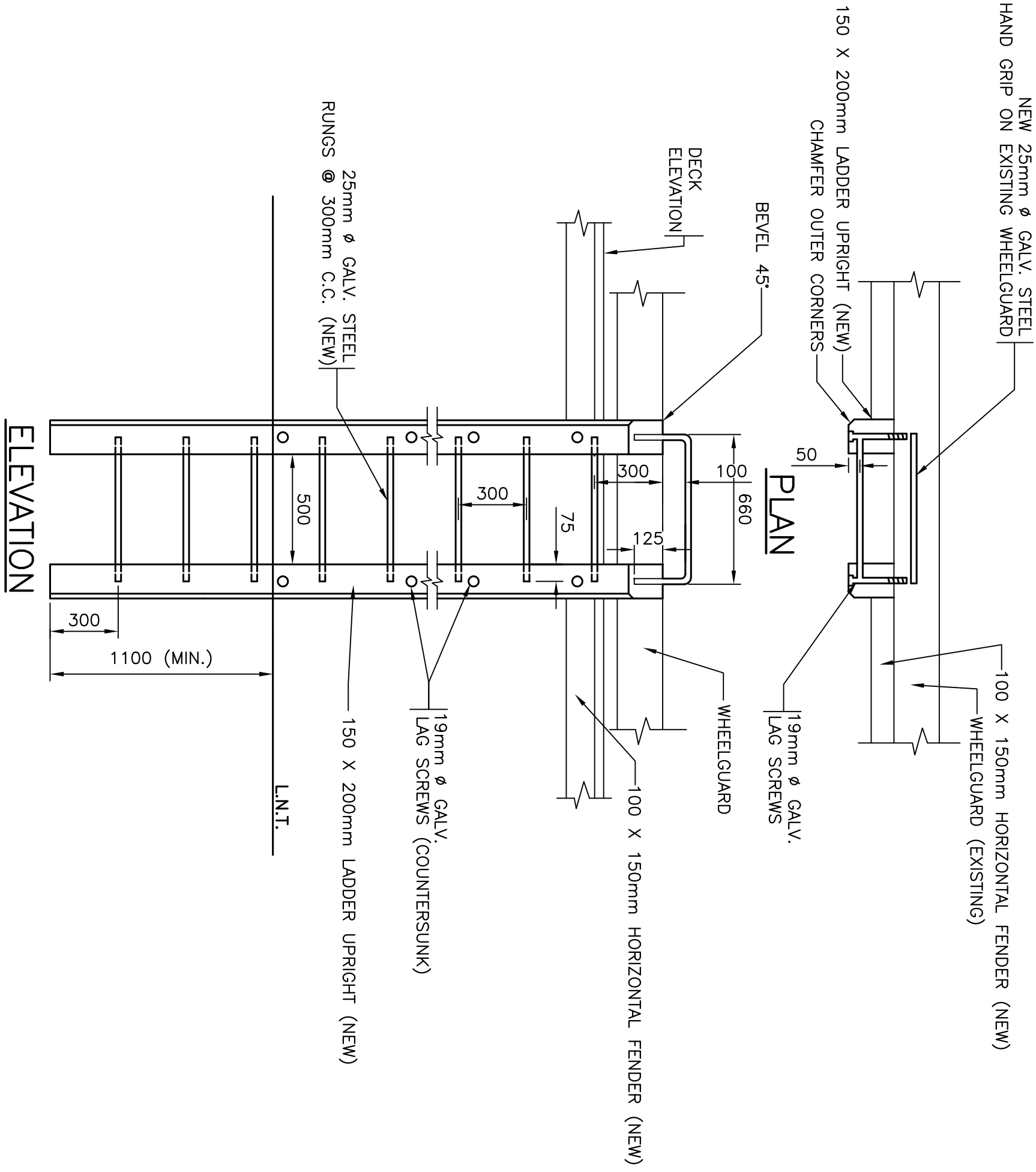


TIMBER DECK NAILING DETAIL

SCALE : 1:20
0m 500mm 1000mm 1500mm 2000mm 2500mm

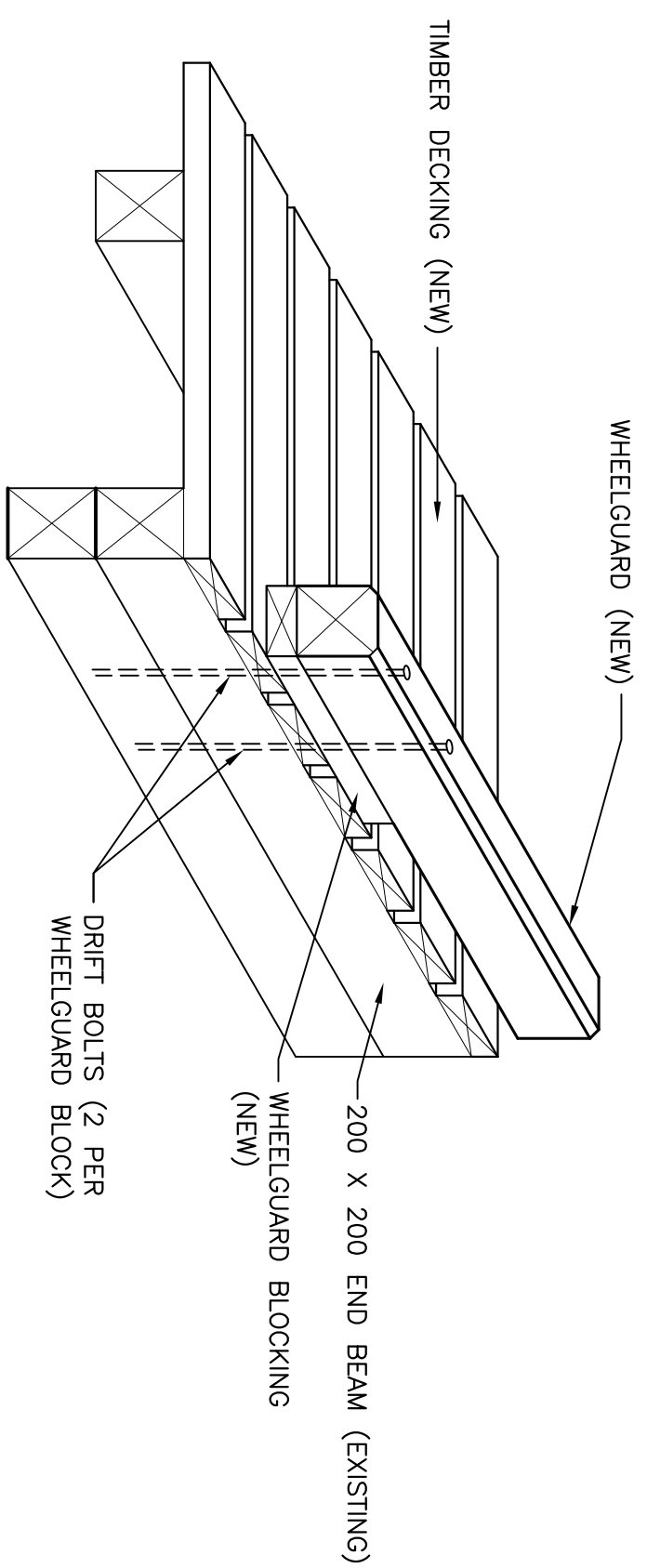
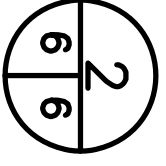


- NOTE:
- DECKING TO BE IN ONE COMPLETE LENGTH FOR ENTIRE WIDTH OF CRIB. ONE (1) SINGLE NAIL IN CENTER BEAMS, TWO (2) DOUBLE NAILS AT EXTERIOR BEAMS.



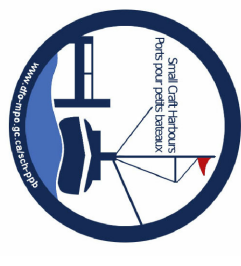
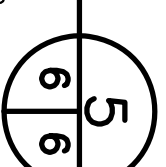
LADDER DETAIL

SCALE : 1:20
0m 500mm 1000mm 1500mm 2000mm 2500mm



WHEELGUARD ON TIMBER DECK

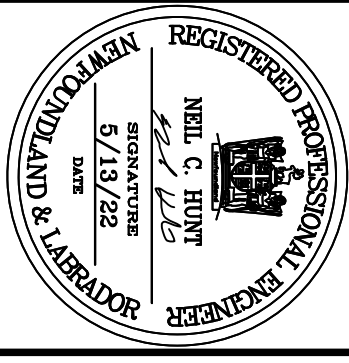
SCALE : 1:20
0m 500mm 1000mm 1500mm 2000mm 2500mm



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Registered Professional Engineer
NIELL C. MITCHELL
Professional Registration No. 11115
Permit No. as issued by APNOL, 2022E2
which is valid for the year 2022



WHARF REPAIRS
HERMITAGE, NL

DETAILS - WORK
AREA B

designed N.H.	scale
date MAY 13, 2022	
drawn P.H.	designed
date MAY 13, 2022	approved
Tender <i>Paul Cassar</i> Sponsor DFO Project Manager Project number C2-00480 no. du projet drawing no. C6 OF 6 no. du dessin	