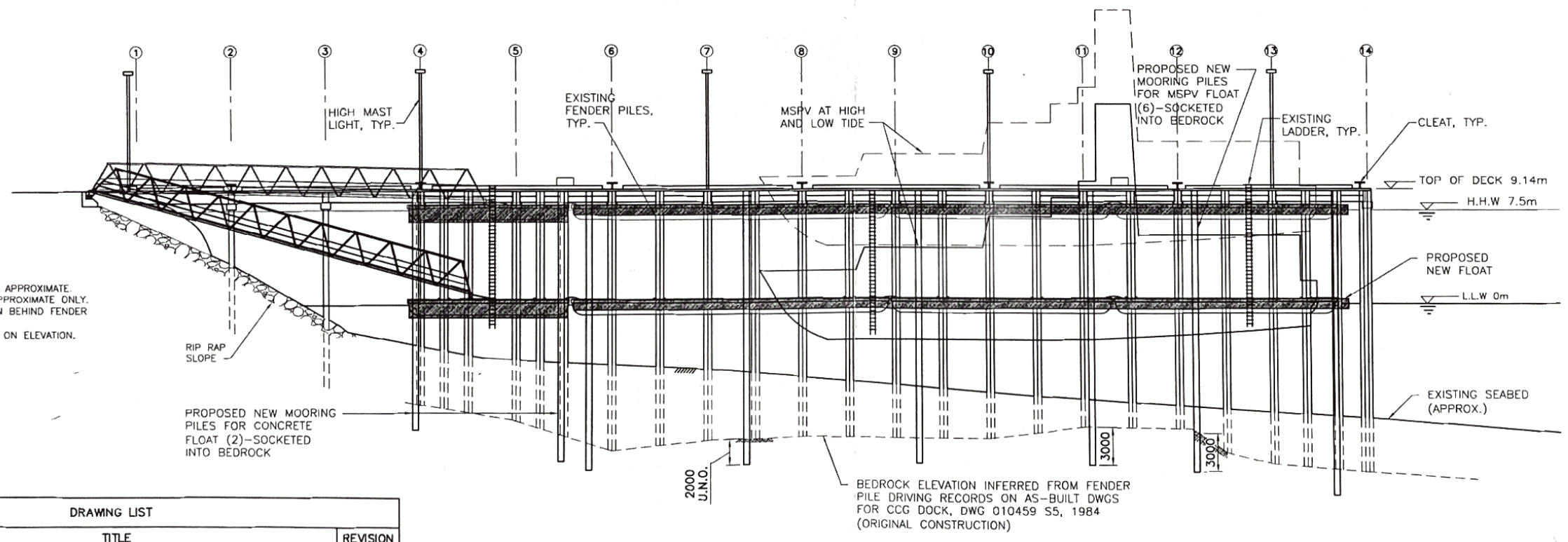


PROPOSED NEW HEAVY DUTY
TIMBER FLOAT 3.66m x 60m
TO REPLACE EXISTING FLOATS
#4, #5, & #6 (FOR MSPV
MOORAGE).

PLAN
1:400



- NOTES:**
1. SHORELINE AND SEABED APPROXIMATE.
 2. SHAPE OF VESSEL IS APPROXIMATE ONLY.
 3. DOCK PILES NOT SHOWN BEHIND FENDER PILES ON ELEVATION.
 4. FLOAT #10 NOT SHOWN ON ELEVATION.

ELEVATION
1:400

NOTE:
- IF OVERBURDEN ≥ 4m, SOCKET DEPTH = 2m
- IF OVERBURDEN < 4m, SOCKET DEPTH = 3m



DRAWING LIST		
DWG. #	TITLE	REVISION
E968-01	NEW FLOATS - GENERAL ARRANGEMENT	A
E968-02	NEW FLOATS - PLANS: NEW VS. EXISTING	A
E968-03	NEW FLOAT FOR MSPV - SECTION A, NOTES	A
E968-04	NEW FLOATS #2 AND #10 - SECTION B	A
E968-05	NEW FLOATS - PLAN DETAILS	A
E968-06	NEW FLOAT FOR MSPV - FLOAT AND PILE WELL DETAILS	A
E968-07	NEW FLOAT FOR MSPV - CLEAT REINFORCEMENT DETAILS, SHEET 1	A
E968-08	NEW FLOAT FOR MSPV - CLEAT REINFORCEMENT DETAILS, SHEET 2	A
E968-09	NEW CONCRETE FLOAT (FLOAT #2) - PLANS	A
E968-10	NEW CONCRETE FLOAT (FLOAT #2) - REINFORCING DETAILS	A

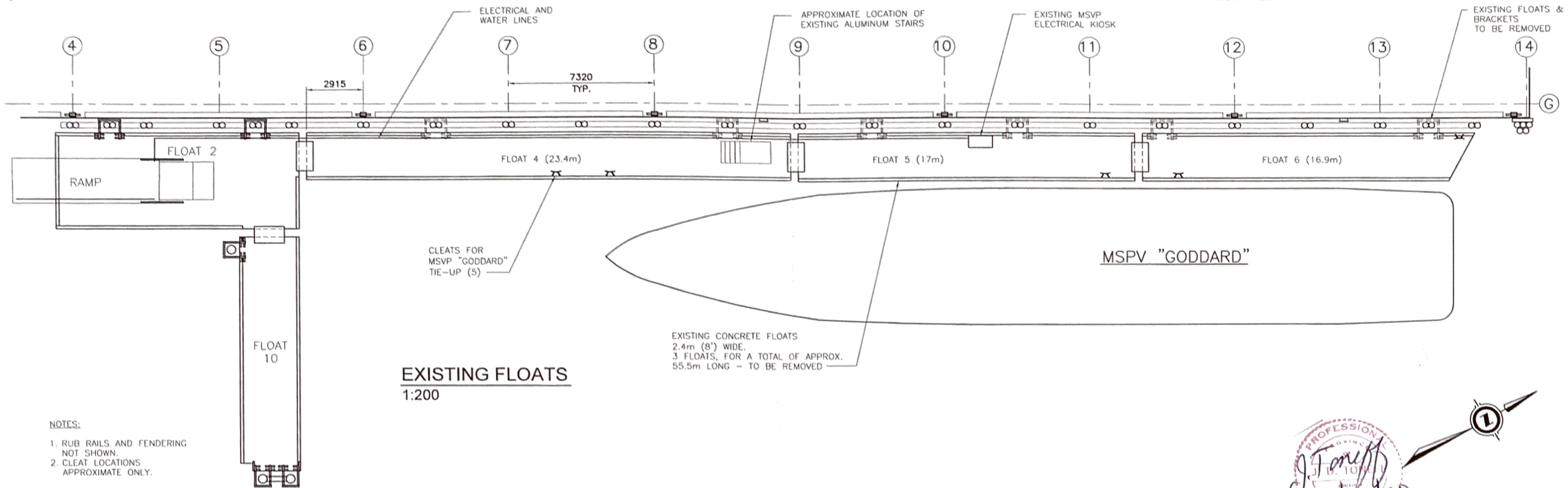
**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

Revisions	DATE
A	ISSUED FOR TENDER
	FEB. 2020

**COAST ISLE
ENGINEERING
LTD.**

TITLE: NEW FLOATS - GENERAL ARRANGEMENT
Client: DFO - REAL PROPERTY
Scale: 1:400
Drwn: LB/cw **Chkd:** jr **Dwg:** E968-01
Date: JAN. 2019

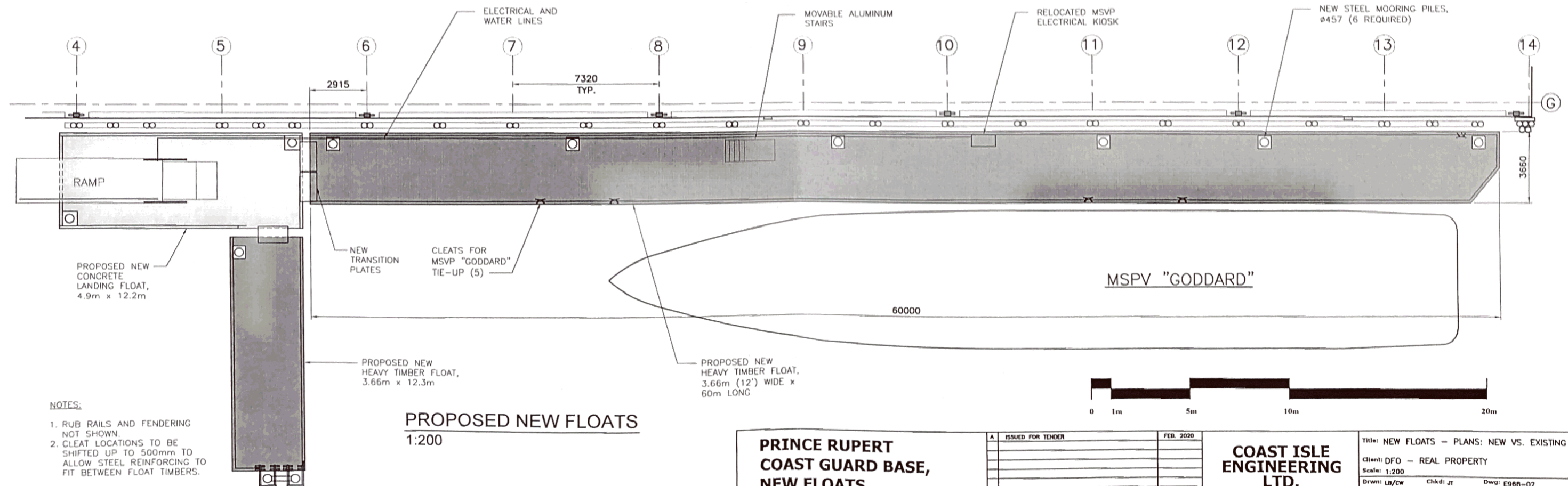
Revised: March 25, 2020, 5:31:08 PM



EXISTING FLOATS
1:200

NOTES:

1. RUB RAILS AND FENDERING NOT SHOWN.
2. CLEAT LOCATIONS APPROXIMATE ONLY.

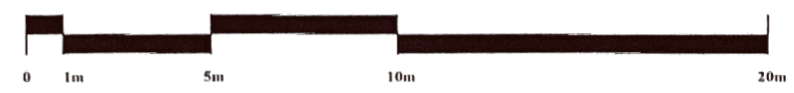


PROPOSED NEW FLOATS
1:200

NOTES:

1. RUB RAILS AND FENDERING NOT SHOWN.
2. CLEAT LOCATIONS TO BE SHIFTED UP TO 500mm TO ALLOW STEEL REINFORCING TO FIT BETWEEN FLOAT TIMBERS.

PROFESSIONAL ENGINEER
J. Foreff
 17/03/20



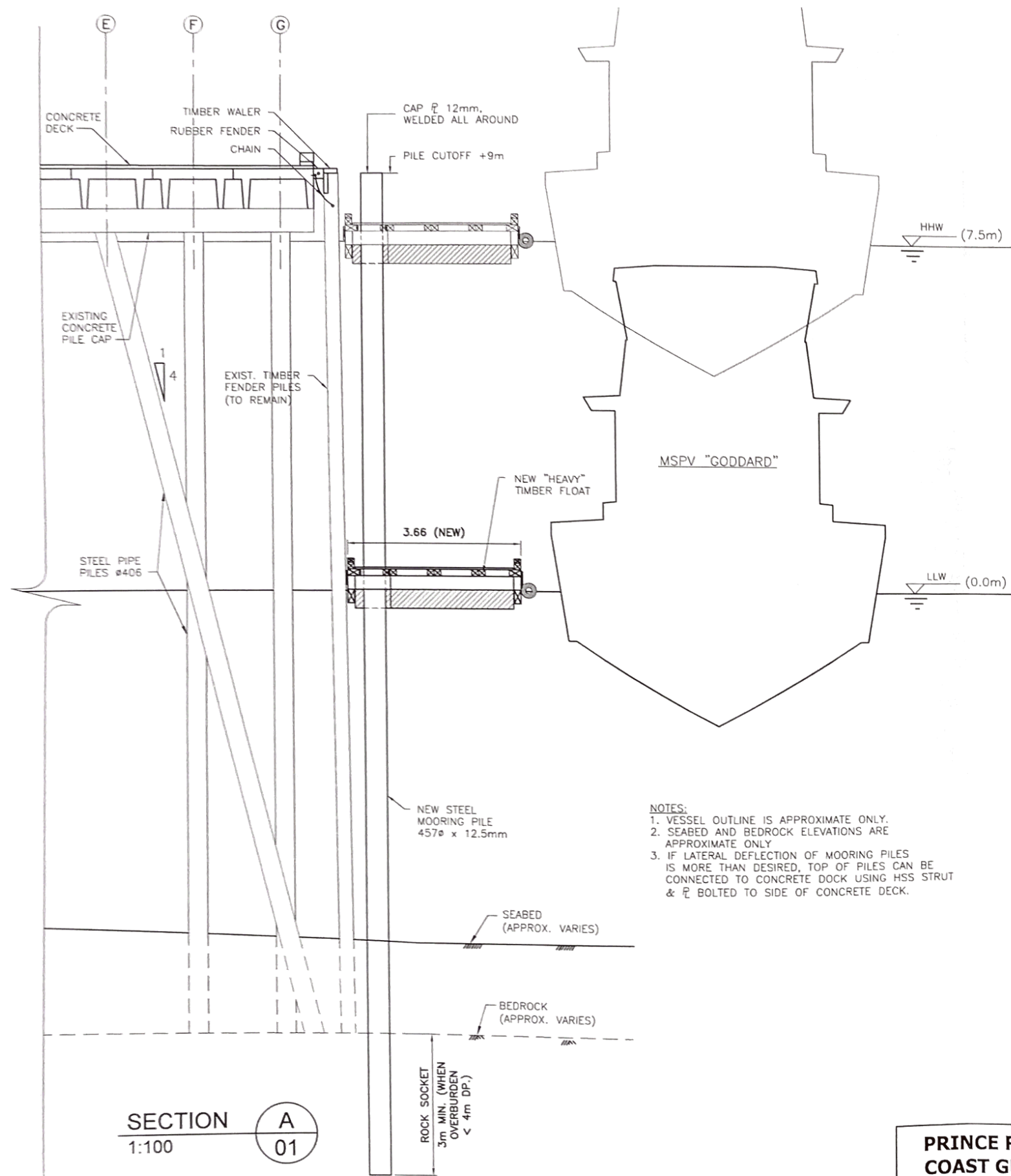
**PRINCE RUPERT
 COAST GUARD BASE,
 NEW FLOATS**

A	ISSUED FOR TENDER	FEB. 2020
Revisions		

**COAST ISLE
 ENGINEERING
 LTD.**

Title: NEW FLOATS - PLANS: NEW VS. EXISTING
 Client: DFO - REAL PROPERTY
 Scale: 1:200
 Drawn: LB/cw Chkd: JR Dwg: E968-02
 Date: JAN. 2019

REVISED 17. 2020 1:45:13 PM



NOTES

- GENERAL:**
- All dimensions are in mm, unless noted otherwise. Elevations are in metres, to tide and chart datum (0 = LLW).
 - See specifications for material and fabrication requirements.
- DESIGN CRITERIA:**
- Maximum uniform live load on ramp and floats to be 1.4 kPa (30 psf).
 - Maximum ATV/utility vehicle load on ramp, and concrete float is 17.8 kN (4,000 lb). Vehicle capacity of heavy timber floats will be lower; allowable vehicle load on timber floats to be confirmed.
 - Lateral design load on floats & mooring piles (wind + wave) to be min 2 kN/m (137 lb/ft).
- TIMBER FLOAT FOR MSPV MOORAGE:**
- New heavy timber floats are to be supplied by the contractor. Timber layout dimensions are taken from DFO drawings FM12-HV, "3.657m Wide Heavy Float Module Assembly", 2005 and 2011 revisions (see Reference Drawings). Confirm all dimensions before construction. New floats may require more than the usual amount of floatation in these heavy duty floats because of the additional steel reinforcement. Confirm weight of permanent items to be installed on the floats before fabrication, including steel reinforcement at cleat locations and adjust floatation as necessary.
 - Float freeboard to be approximately 450 mm before installation of any items on deck (but allowing for steel reinforcement in float structure).
 - See specifications for float material and assembly requirements.
 - Confirm location for mooring piles (6) and cleats (5) with float fabricator before fabrication.
 - Cleats for MSPV are to be located to suit requirements of Canada Coast Guard vessel, the Goddard. Exact location of cleats may be adjusted by +/- 500 mm to suit float structure and allow installation of steel framing/reinforcement without interference with existing bolts in float. These locations must be confirmed and approved by CCG personnel before fabrication.
 - Run electrical cables under deck near centre of floats as far as possible.
 - Additional holes will have to be drilled for steel reinforcement around cleats and for pile well timbers. All holes to be drilled before treatment of timber. If any holes must be drilled on site after treatment, they must be approved by Departmental Representative and are to be

- treated with minimum two coats of preservative while dry and bolt to be dipped in preservative before installation.
- CONCRETE FLOAT FOR RAMP SUPPORT:**
- See specifications for concrete and fabrication requirements.
 - Weight of existing steel ramp (2.13 m wide x 30.7 m long), calculated to be approximately 11,000 kg (to be confirmed by test lift before construction).
 - Freeboard of new float (with ramp dead load on the float) to be not less than 450 mm.
- STEEL MOORING PILES:**
- See specifications for material, fabrication and coating requirements, as well as piledriving requirements.
 - New steel mooring piles for MSPV Float are to be located to suit float structure. The pile spacing decreases towards the north end of the float to account for greater water depth. Exact locations of mooring piles are to be reviewed with float fabricator before fabrication.
 - All new piles to be painted for corrosion protection (specs for coating to be confirmed by DFO) and to have hanging anodes installed with anode below low water and cable attachment to pile between mid tide and high water.
 - Survey to confirm location of existing mooring piles for Float #10 (3). Provide 2 brackets to attach 2 mooring piles at east end of float.

- NOTES:**
- VESSEL OUTLINE IS APPROXIMATE ONLY.
 - SEABED AND BEDROCK ELEVATIONS ARE APPROXIMATE ONLY
 - IF LATERAL DEFLECTION OF MOORING PILES IS MORE THAN DESIRED, TOP OF PILES CAN BE CONNECTED TO CONCRETE DOCK USING HSS STRUT & ϕ BOLTED TO SIDE OF CONCRETE DECK.



SECTION A
1:100 01

**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

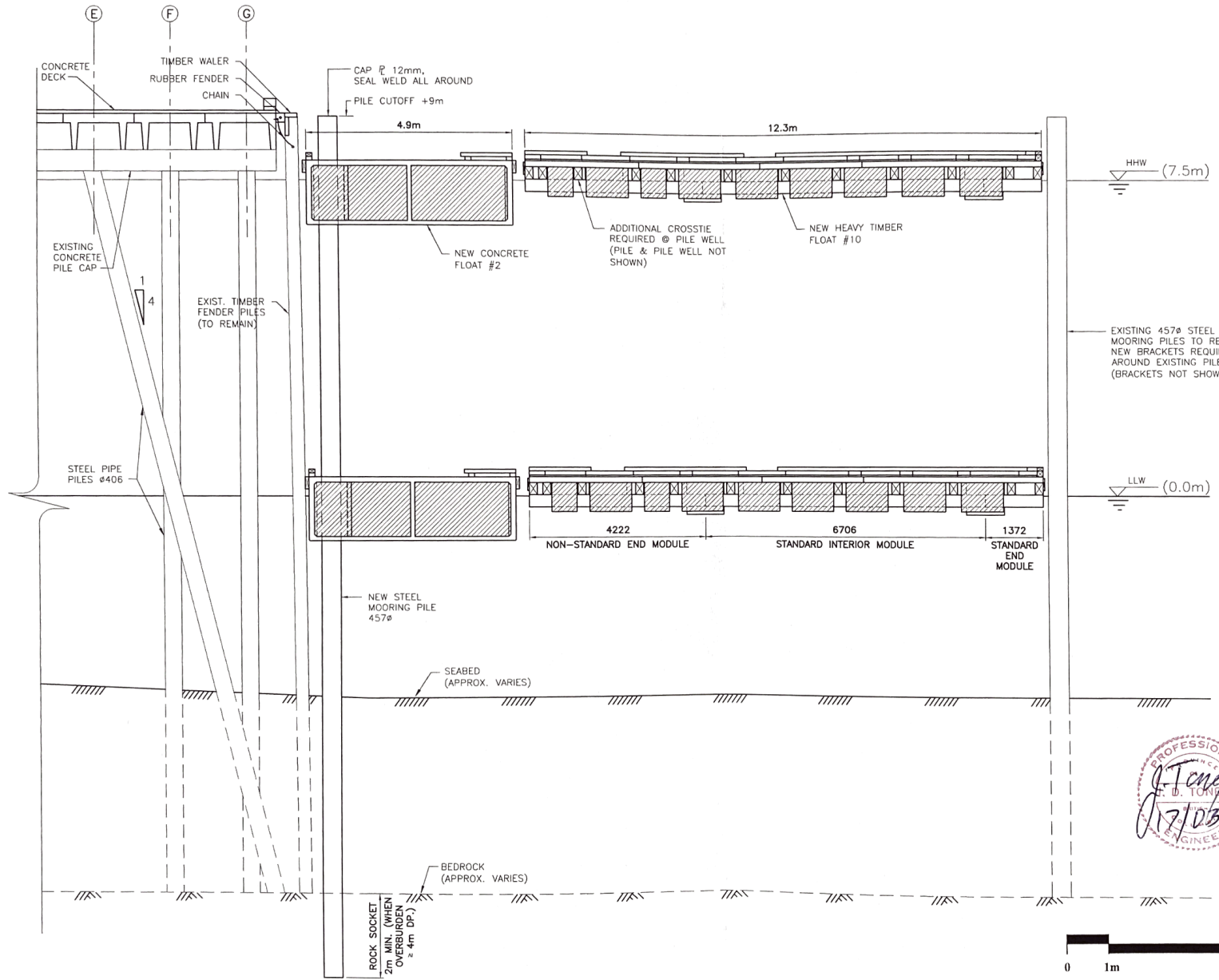


Revisions	DATE	BY	REASON
A	FEB. 2020		ISSUED FOR TENDER

**COAST ISLE
ENGINEERING
LTD.**

Title: NEW FLOAT FOR MSPV - SECTION A, NOTES
Client: DFO - REAL PROPERTY
Scale: 1:100
Drawn: LB Chkd: JT Dwg: E968-03
Date: JAN. 2019

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HHW (7.5m)

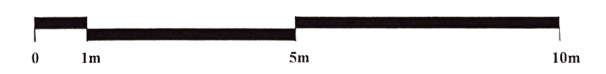
LLW (0.0m)

EXISTING 457Ø STEEL MOORING PILES TO REMAIN, NEW BRACKETS REQUIRED AROUND EXISTING PILES (BRACKETS NOT SHOWN)

4222 NON-STANDARD END MODULE
 6706 STANDARD INTERIOR MODULE
 1372 STANDARD END MODULE

- NOTES:
1. SEABED AND BEDROCK ELEVATIONS ARE APPROXIMATE ONLY
 2. TIMBER FLOAT SHOWN IS APPROXIMATE ONLY. FOR DETAILS OF TIMBER FLOAT SEE DFO FLOAT DRAWINGS
 3. IF LATERAL DEFLECTION OF MOORING PILES IS MORE THAN DESIRED, TOP OF PILES CAN BE CONNECTED TO CONCRETE DOCK USING HSS STRUT & P BOLTED TO SIDE OF CONCRETE DECK.

PROFESSIONAL ENGINEER
 J. J. J. J.
 17/05/20



SECTION B
 1:100
 01

PRINCE RUPERT
 COAST GUARD BASE,
 NEW FLOATS

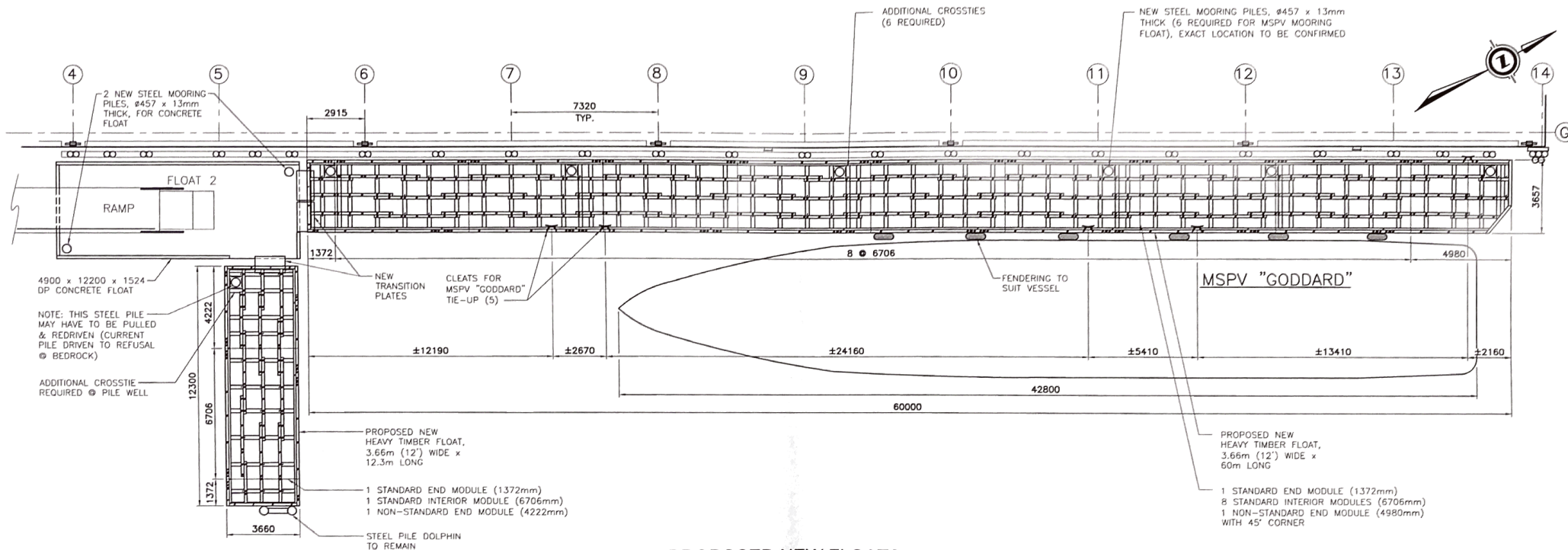
NO.	DESCRIPTION	DATE
A	ISSUED FOR TENDER	FEB. 2020

COAST ISLE ENGINEERING LTD.

Client: DFO - REAL PROPERTY
 Scale: 1:100
 Date: NOV. 2019

Drawn: CW Chkd: JT Dwg: E968-04

March 11, 2020 1:58:13 PM



PROPOSED NEW FLOATS
1:200

NOTES:

- RUB RAILS AND FENDERING NOT SHOWN.
- CLEAT LOCATIONS TO ACCOMMODATE STEEL REINFORCING FRAMES BETWEEN FLOAT TIMBERS. APPROXIMATE DIMENSIONS BETWEEN CLEATS SHOWN. CLEAT LOCATIONS TO BE CONFIRMED & APPROVED BY CCG PERSONNEL BEFORE FLOAT FABRICATION. ADJUST DEPTH OF FLOATATION BILLETS AROUND CLEAT REINFORCING TO ACCOMMODATE ADDITIONAL WEIGHT OF STEEL & KEEP FREEBOARD UNIFORM.

NOTES FOR FRP GRATING OPTION ON HEAVY TIMBER FLOATS:

- PROVIDE ALTERNATE DECKING OPTION OF FIBERGLASS GRATING FOR MSPV MOORING FLOAT AND FOR FLOAT#10. GRATING TO BE STRONGWELL DURAGATE MINI MESH OR APPROVED EQUAL. GRATING TO BE 38mm DEEP, HAVE 19mm (MAX) MESH OPENING ON TOP, BE ABLE TO SAFELY SPAN 914mm BETWEEN JOISTS WITH 4.8kPa UNIFORM LIVE LOAD OR ATV WHEEL LOAD (MAGNITUDE TO BE CONFIRMED.)
- GRATING TO HAVE GRIT-IMPREGNATED NON-SLIP TOP SURFACE.
- MINI MESH GRATING TO BE ATTACHED TO EACH JOIST USING MANUFACTURER-SUPPLIED CLIPS OR WASHERS (STAINLESS STEEL), AND #18 (7.5mm DIA) STAINLESS STEEL WOOD SCREWS WITH 15mm OF PENETRATION INTO JOISTS. HOLES IN JOISTS TO BE PREDRILLED WITH 5mm DIA. PILOT HOLE, AND TREATED WITH COPPER NAPHTHANATE BEFORE INSTALLING SCREW. SPACING OF SCREWS TO BE MAX 500mm (IE 4ft WIDE GRATING PANELS REQUIRE 3 SCREWS PER JOIST). SCREWS TO BE MIN 150mm CLEAR FROM END OF JOIST OR ANY EXISTING BOLT HOLE.



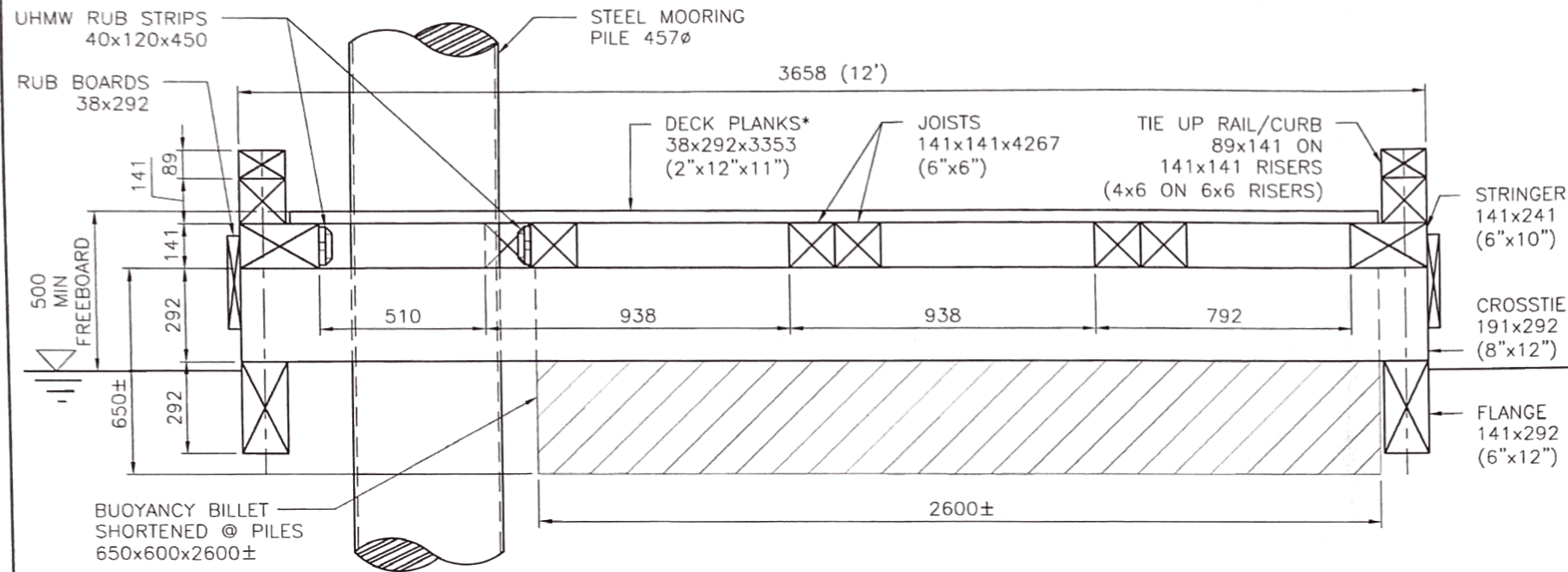
**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

Revisions	DATE
A	ISSUED FOR TENDER
	FEB. 2020

**COAST ISLE
ENGINEERING
LTD.**

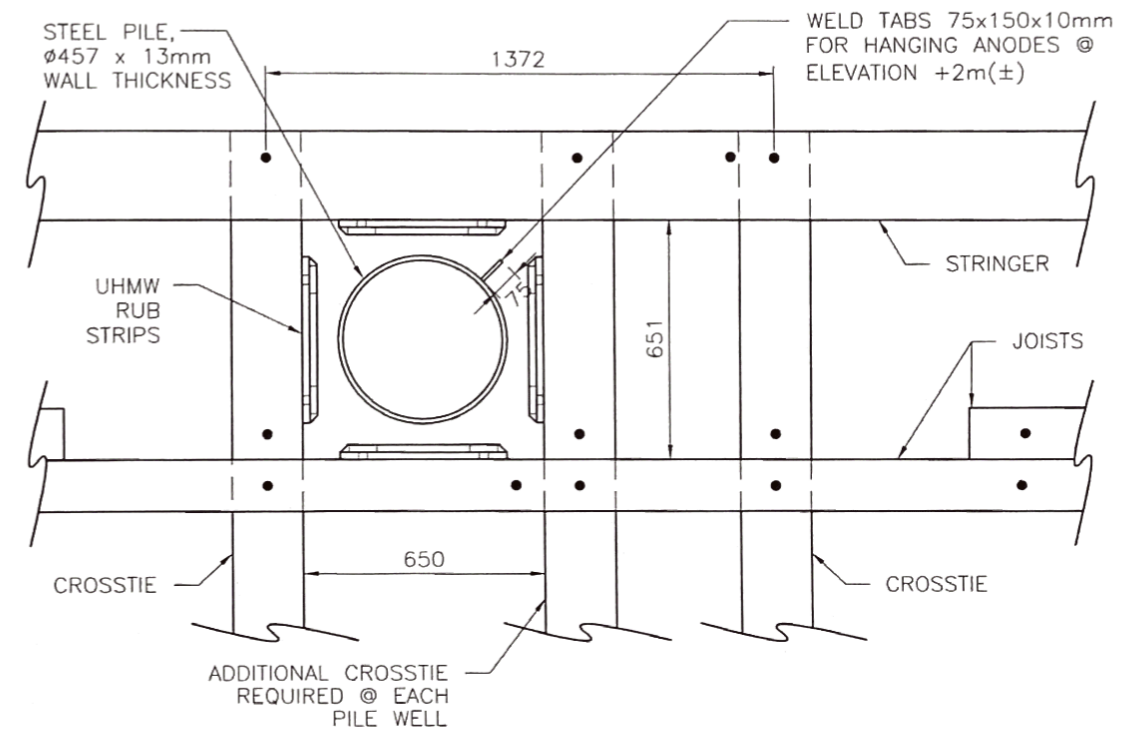
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Client: DFO -- REAL PROPERTY
Scale: 1:200
Drawn: MB/CW Chkd: JT Dwg: E958-05
Date: FEB. 2018

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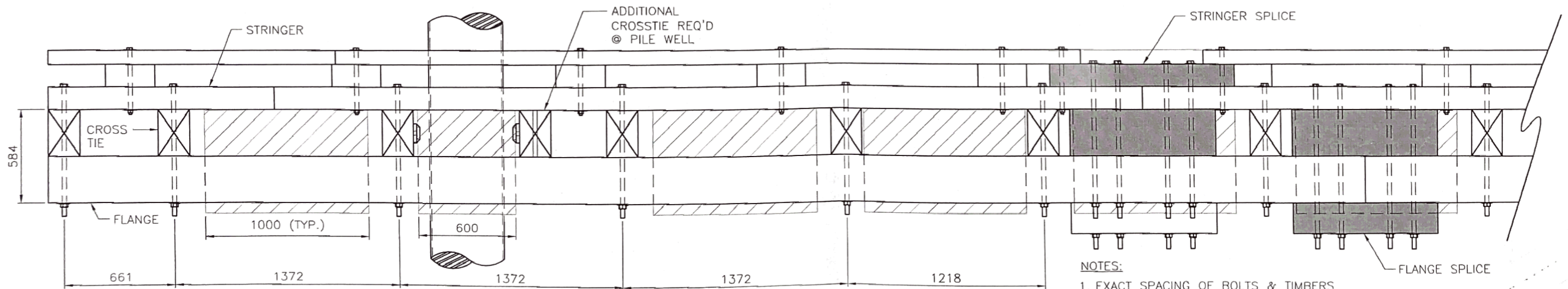


*FOR DETAILS OF FIBERGLASS GRATING ALTERNATE, SEE NOTES ON DWG 04

FLOAT SECTION
1:20



PILE WELL PLAN (AT TOP OF JOISTS)
1:20



FLOAT SIDE VIEW
1:25

NOTES:

1. EXACT SPACING OF BOLTS & TIMBERS MAY NOT BE CORRECT. CONFIRM WITH FLOAT FABRICATION DWGS.
2. SPLICE BLOCKS SHOWN SHADED FOR CLARITY.
3. FOR DETAILS OF TIMBER FLOAT SEE DFO FLOAT DRAWINGS.



March 17, 2020 1:55:13 PM

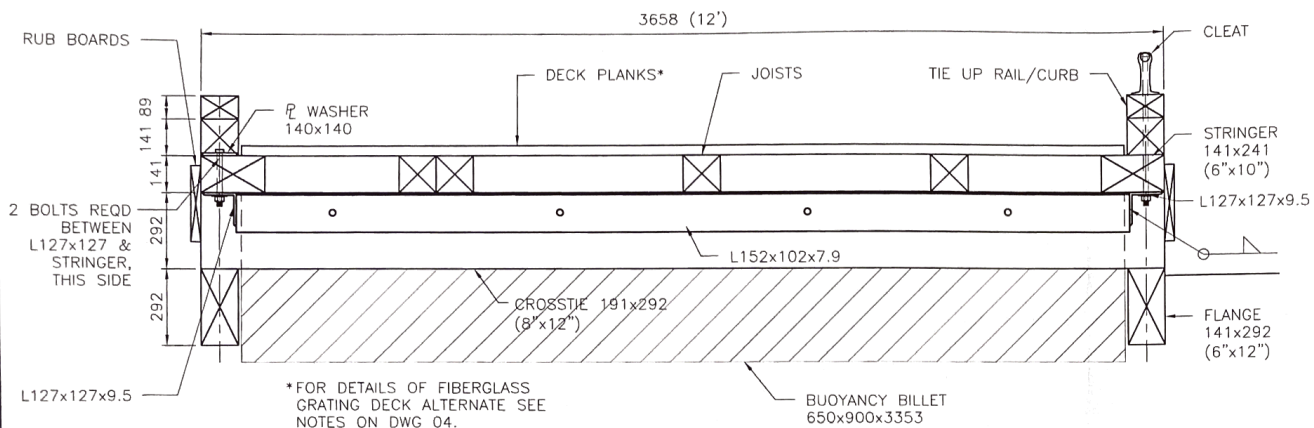
**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

A	ISSUED FOR TENDER	FEB. 2020

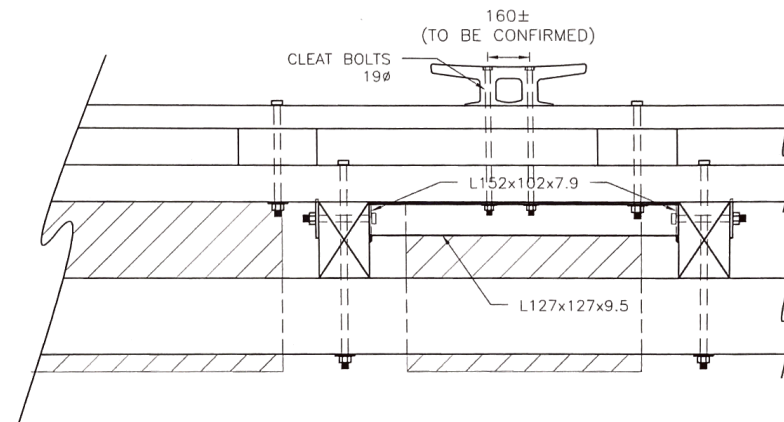
Revisions

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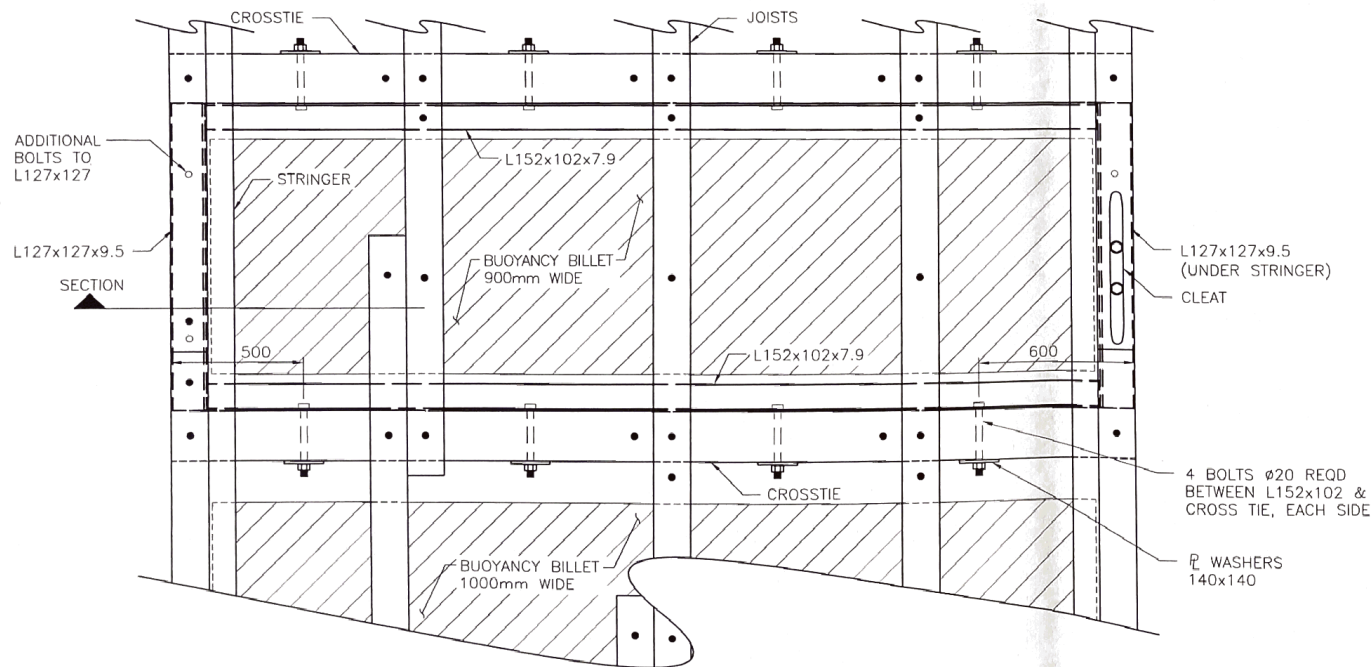
Title: NEW FLOAT FOR MSPV - FLOAT AND PILE WELL DETAILS
 Client: DFO - REAL PROPERTY
 Scale: 1:20 & 1:25
 Drawn: NM Chkd: JR Dwg: E968-06
 Date: JAN. 2018



FLOAT SECTION
1:20



CLEAT ELEVATION
1:20



ANGLE FRAMING PLAN
1:20

NOTES:

1. HSS FRAMING NOT SHOWN THIS PAGE. SEE DWG E968-08 FOR ADDITIONAL STEEL HSS FRAMING.
2. ANGLE FRAMING TO BE FABRICATED & FIT TO TIMBER FLOAT FRAMING BEFORE GALVANIZING. DRILL HOLES IN TIMBERS FOR ANGLE FRAMING BEFORE TREATMENT.



**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

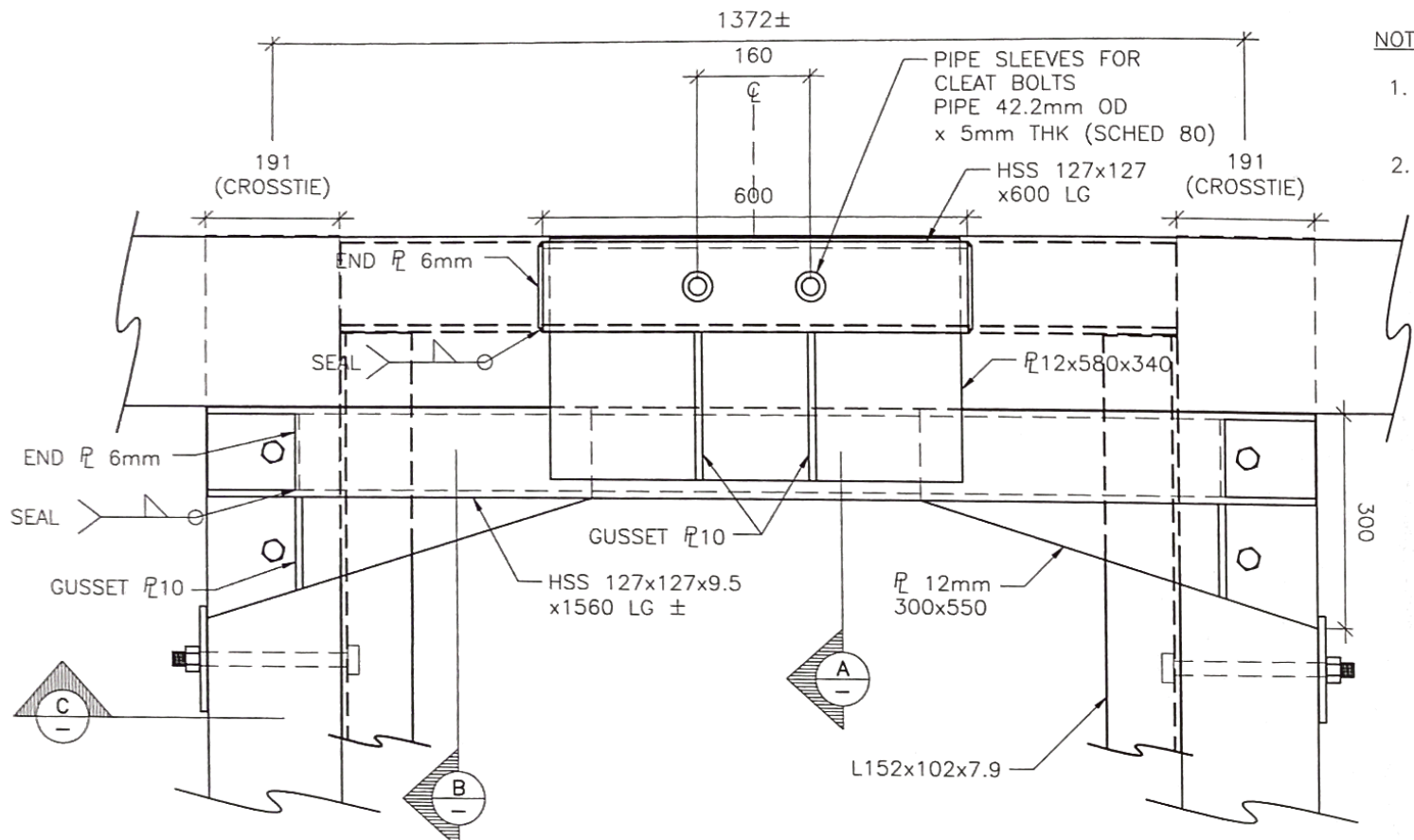
A	ISSUED FOR TENDER	FEB. 2020

Revisions

**COAST ISLE
ENGINEERING
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Title: NEW FLOAT FOR MSPV - CLEAT REINFORCEMENT DETAILS, SHEET 1
Client: DFO - REAL PROPERTY
Scale: 1:20
Drawn: hu Chkd: jr Dwg: E968-07
Date: JUN. 2019

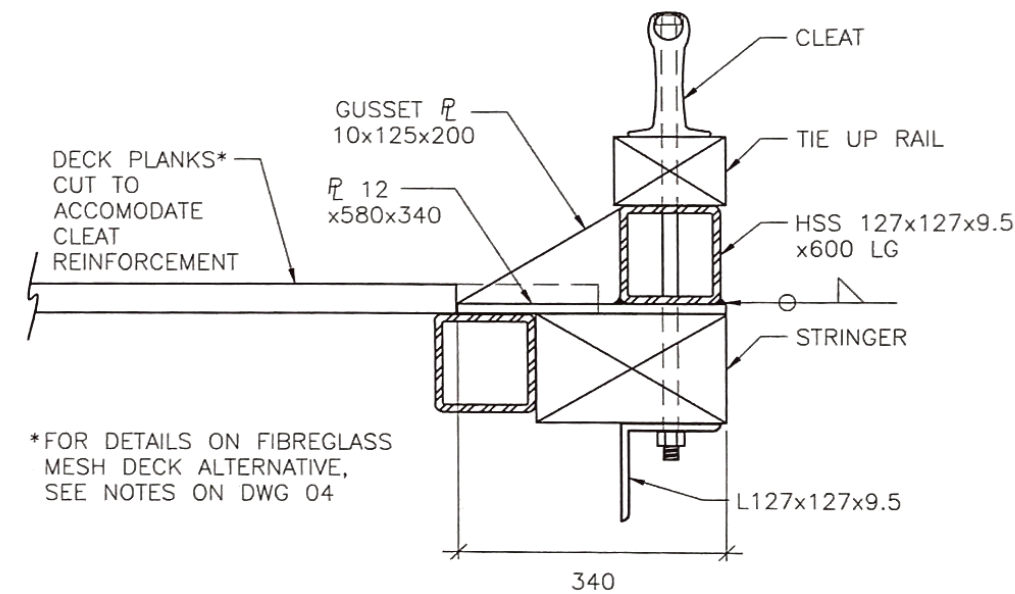
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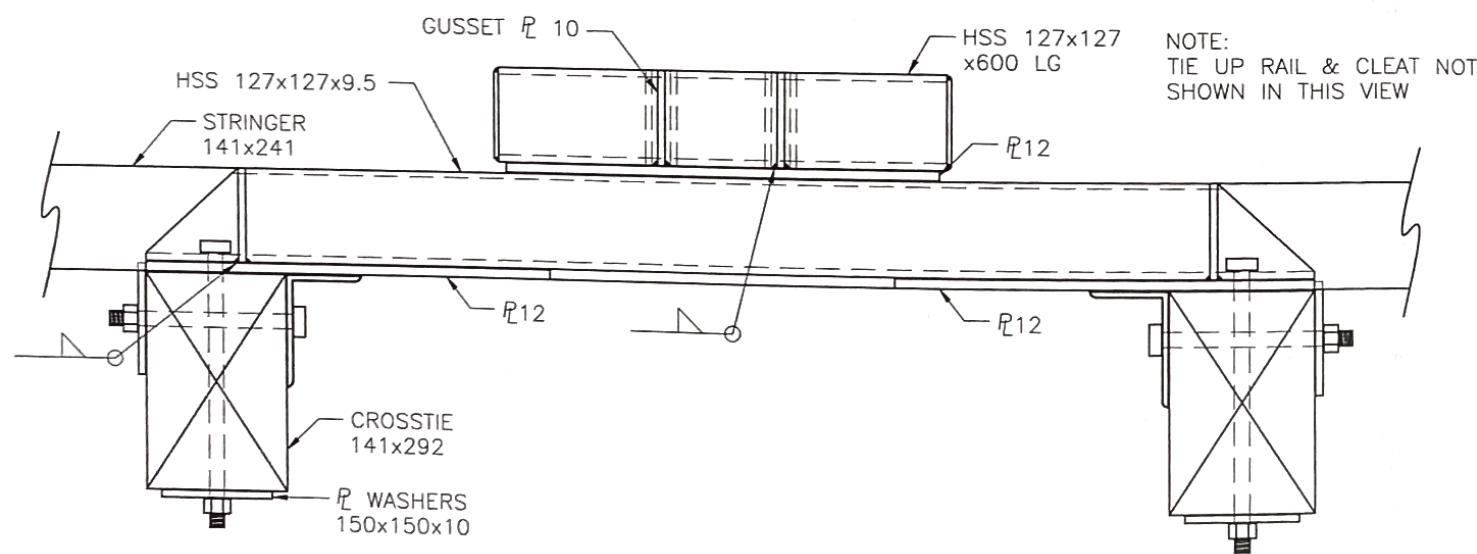
CLEAT REINFORCEMENT PLAN
1:10

NOTES:

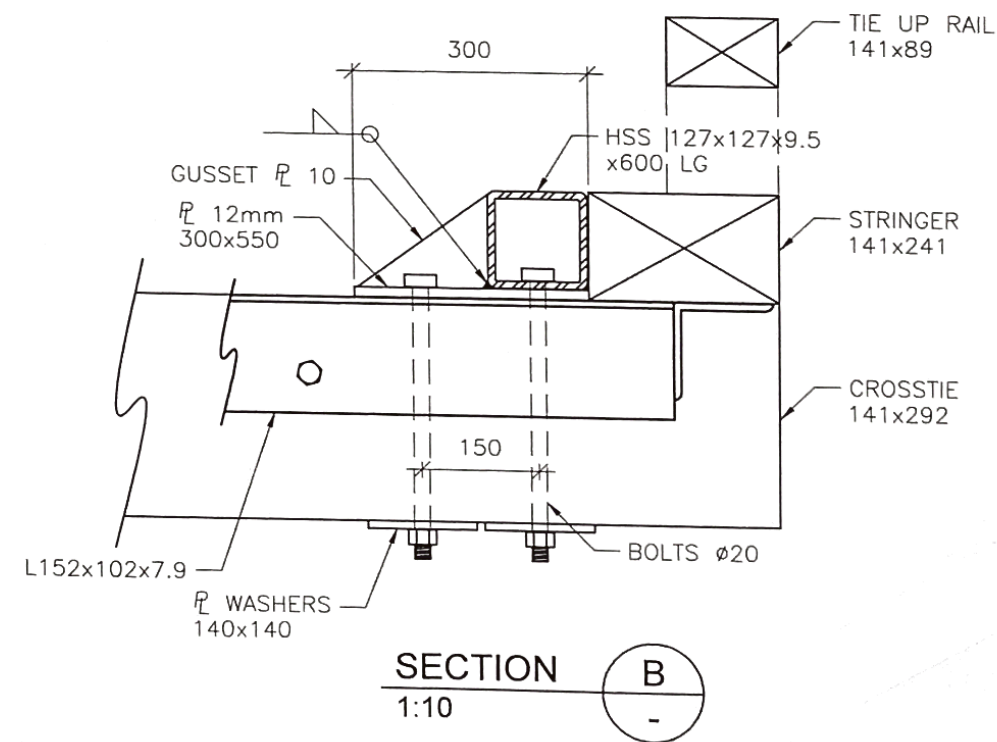
1. TIE UP RAIL & CLEAT NOT SHOWN IN THIS VIEW (FOR CLARITY)
2. LARGER FLOATATION BILLET REQUIRED TO COMPENSATE FOR ADDITIONAL WEIGHT OF STEEL REINFORCEMENT @ CLEATS



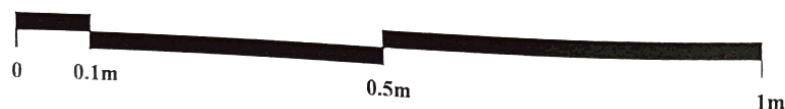
SECTION A
1:10



ELEVATION C
1:10



SECTION B
1:10



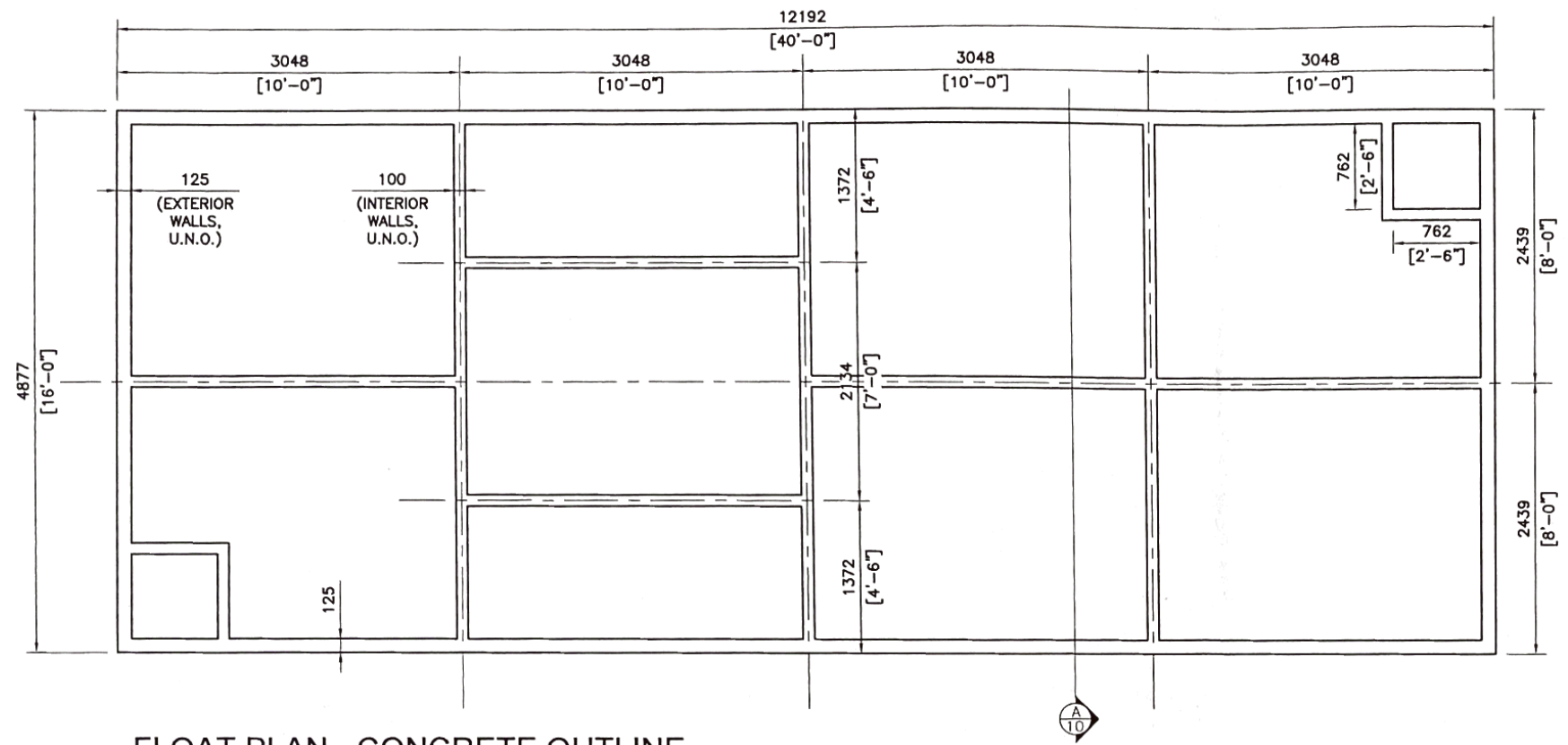
**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

A	ISSUED FOR TENDER	FEB. 2020
Revisions		

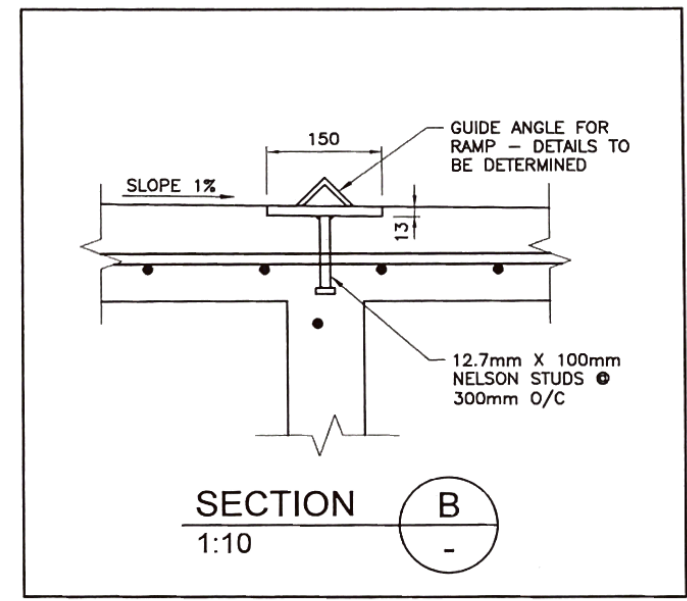
**COAST ISLE
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LTD.**

Title: NEW FLOAT FOR MSPV - CLEAT REINFORCEMENT DETAILS, SHEET 2
Client: DFO - REAL PROPERTY
Scale: 1:10
Drawn: NM Chkd: JT Dwg: E968-08
Date: JAN. 2019

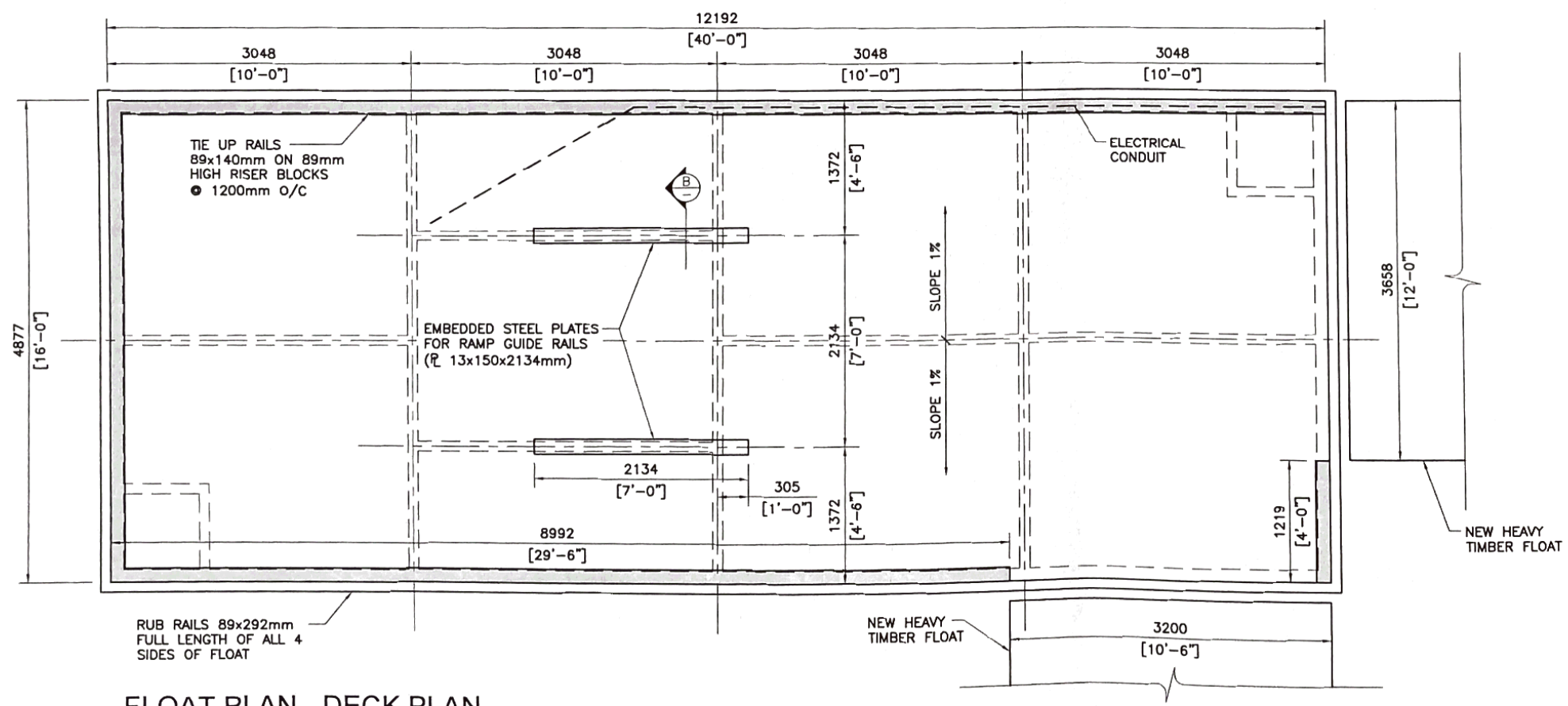
March 17, 2020 1:55:13 PM



FLOAT PLAN - CONCRETE OUTLINE
1:60



SECTION B
1:10



FLOAT PLAN - DECK PLAN
1:60

PROFESSIONAL
ENGINEER
17/03/20

March 17, 2020 11:58:13 PM



**PRINCE RUPERT
COAST GUARD BASE,
NEW FLOATS**

NO.	DESCRIPTION	DATE
A	ISSUED FOR TENDER	FEB 2020

**COAST ISLE
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Title: NEW CONCRETE FLOAT (FLOAT #2) - PLANS
Client: DFO - REAL PROPERTY
Scale: 1:60
Drwn: CW Chkd: JR Dwg: E968-09
Date: NOV. 2019

A

