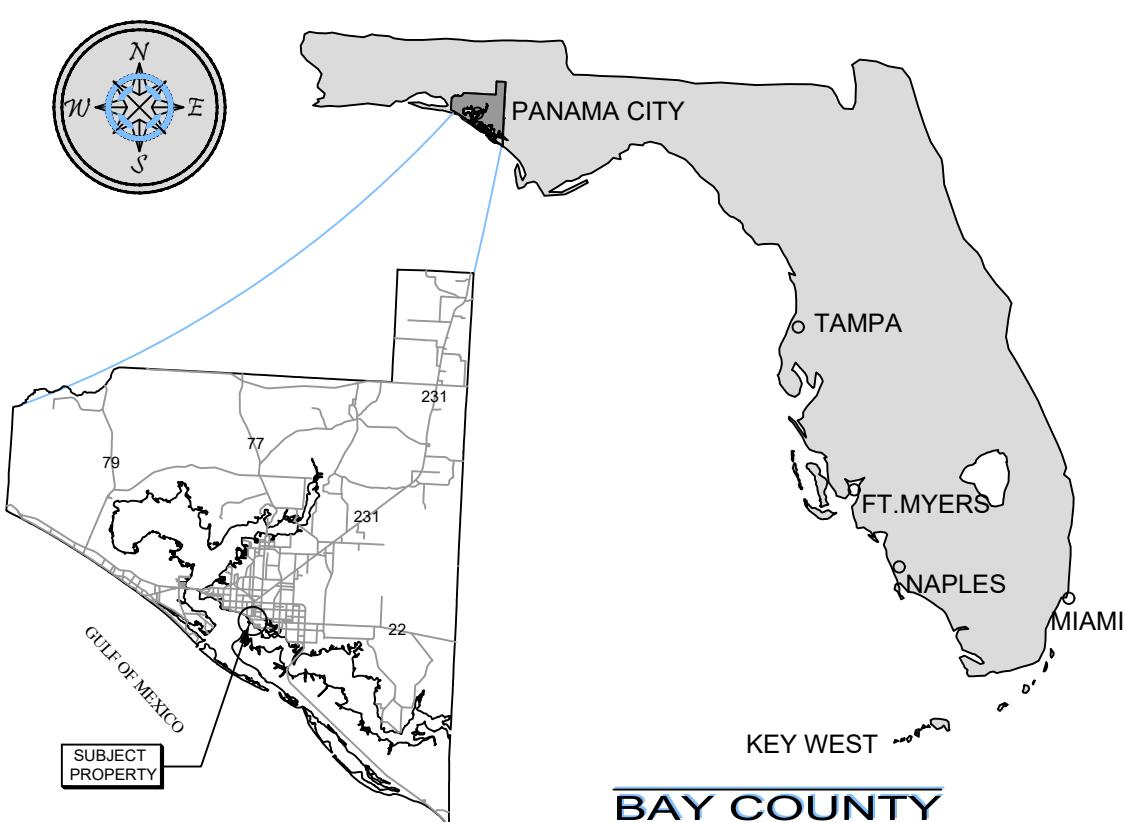


STATE OF FLORIDA



NOTES:

<> THESE DRAWINGS ARE INTENDED FOR CONSTRUCTION USE.

SITE ADDRESS:

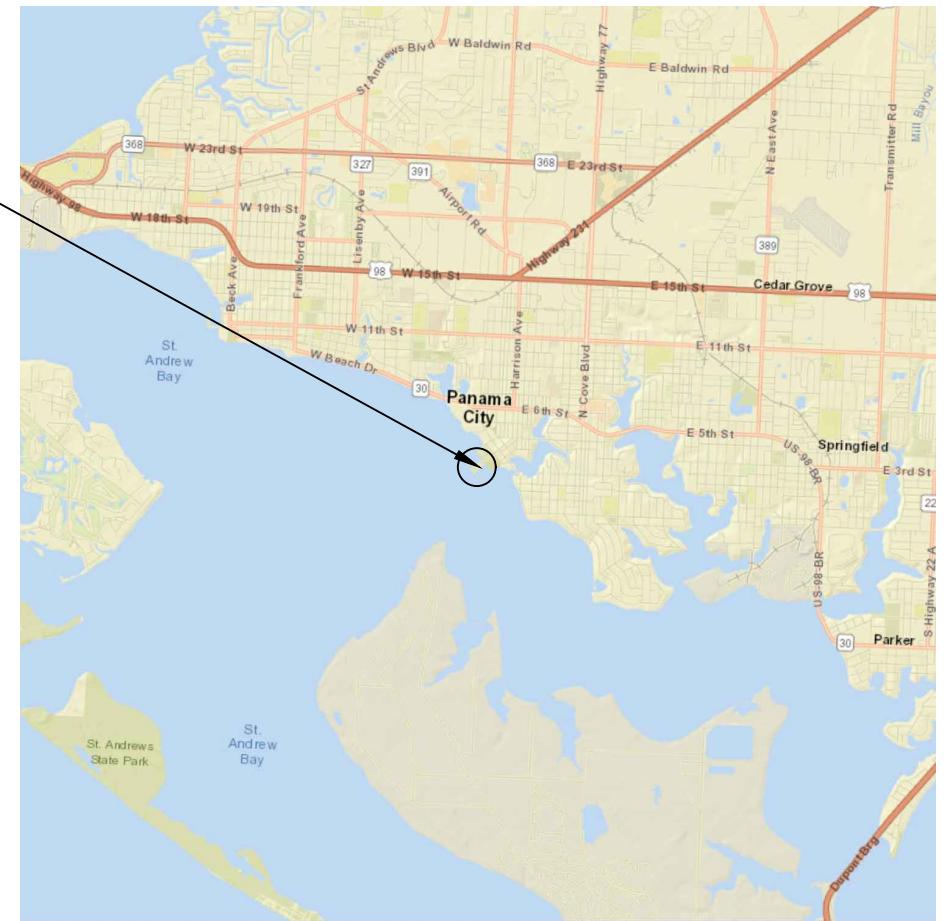
<> 1 HARRISON AVE <> LATITUDE: N 30.151850
PANAMA CITY, FL 32401 <> LONGITUDE: W -85.664873

DRAFT

JAKE J. JOERS
REGISTERED PROFESSIONAL ENGINEER
LICENSE NO. 98736
DATE: December 18, 2025

JAKE J. JOERS STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 98736. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY JAKE J. JOERS, P.E. USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

SUBJECT PROPERTY



VICINITY MAP

SUBJECT PROPERTY



COUNTY AERIAL

60% PLANS

1 HARRISON AVE PANAMA CITY FL 32401
PANAMA CITY MARINA
LOCATION PAGE


TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
3584 Exchange Ave, Suite B,
Naples, FL 34104-3732
Phone: (239) 643-0166 Fax: (239) 643-6632
email: tuna@thanaples.com
RY NO 5875

DRAWN BY:	REVIEWED BY:	REV #	REV BY:	DATE:	ON OR	CHANGED:
SHEET:		01	-	-	-	-
PROJECT:		02	-	-	-	-
DATE:		03	-	-	-	-
LAYOUT:		04	-	-	-	-
LOCATION PAGE		05	-	-	-	-
12-18-25		06	-	-	-	-
19145.01		07	-	-	-	-
G100		08	-	-	-	-
12		09	-	-	-	-
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10		11	-	-	-	-
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PANAMA CITY MARINA	
Sheet Number	Sheet Title
G100	LOCATION PAGE
G101	GENERAL NOTES
C100	EXISTING CONDITIONS AND DEMOLITION
C101	EXISTING BATHYMETRY
C102	MATRIX PLAN
C103	OVERALL FRAMING
C104	DOCK FRAMING LAYOUT (40' SLIPS)
C105	DOCK FRAMING LAYOUT (50' SLIPS)
C106	DOCK FRAMING LAYOUT (60' - 70' SLIPS)
C107	DOCK FRAMING LAYOUT (ACCESS PLATFORM)
C108	DOCK CONNECTION DETAILS
C109	PILE & FRAMING CROSS SECTIONS
C110	CROSS SECTIONS AA-BB
C111	CROSS SECTIONS CC-DD
C112	GANGWAY DETAILS
C113	ADA PLAN
C114	SIGN PLAN
C115	SIGN DETAILS
C116	RAILING DETAILS
C117	WIDTH OF WATERWAY
C118	CLEAT PLAN
C119	CLEAT DETAILS
C120	BREAKWATER DETAILS
U100	LIFE SAFETY PLAN
U101	LIFE SAFETY TABLES AND NOTES
U102	FIRE CALCULATIONS
U103	ELECTRIC PLAN
U104	PEDESTAL PLAN
U105	PEDESTAL & ELECTRIC TABLES
U106	POTABLE WATER PLAN
U107	UTILITY GANGWAY PLAN
U108	UTILITY NOTES 1
U109	UTILITY NOTES 2
U110	UTILITY SPEC 1
U111	UTILITY SPEC 2
U112	UTILITY SPEC 3
U113	UTILITY SPEC 4
U114	UTILITY SPEC 5
U115	UTILITY SPEC 6
U116	UTILITY SPEC 7

1 MOBILIZATION/DEMOBILIZATION

1.1 CONTRACTOR SHALL BE RESPONSIBLE FOR MOBILIZING AND DEMOBILIZING ANY AND ALL TOOLS, EQUIPMENT, MATERIAL, ETC. REQUIRED TO COMPLETE THE PROJECT.

1.2 ANY SPECIAL EQUIPMENT REQUIRED TO COMPLETE ANY PORTION OF THE PROJECT SHALL BE INCLUDED IN THE BID PROPOSAL.

1.3 CONTRACTOR WILL ALSO BE RESPONSIBLE FOR ACQUIRING ANY LOCAL BUILDING PERMITS THAT ARE REQUIRED FOR THE PROJECT.

2 SURVEYS:

2.1 CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN STAKEOUT SURVEY TO ENSURE PROPER PLACEMENT OF THE STRUCTURE.

2.2 FOR WORK OCCURRING WITHIN A SOVEREIGN SUBMERGED LAND LEASE THE STRUCTURE SHALL BE PLACED WITHIN +/-2" OF THE DESIGNED LOCATIONS AND SHALL BE CONFIRMED BY AN AS-BUILT SURVEY SUPPLIED BY THE CONTRACTOR AT THE COMPLETION OF DOCK INSTALLATION. ANY DEVIATIONS FROM THIS TOLERANCE WILL NEED TO BE REMEDIED OR APPROVED BY THE OWNER AND THE FDEP PRIOR TO FINAL PAYMENT.

2.3 ALL SURVEYS SHALL REFERENCE NAVD '88 VERTICAL DATUM

2.4 ALL SURVEYS SUPPLIED TO EOR SHALL BE GEO-REFERENCED AND SHALL REFERENCE FLORIDA STATE PLANE COORDINATES EAST ZONE

2 SUBMITTALS

2.1 SUBMITTALS SHALL BE SENT FROM THE CONTRACTOR TO THE ENGINEER OF RECORD. ENGINEER IS NOT RESPONSIBLE FOR DELAY IN WORK DUE TO SUBMITTAL APPROVAL. ENGINEER REQUIRES TEN (10) BUSINESS DAYS FROM THE DATE OF RECEIPT OF SUBMITTALS FOR SUBMITTAL APPROVAL.

3 SAFETY

3.1 CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONJUNCTION WITH THE WORK.

4 DEMOLITION

3.1 DEBRIS FROM DEMOLITION AND ITEMS INDICATED TO BE REMOVED SHALL BE REMOVED FROM THE OWNER'S PROPERTY AND PROPERLY DISPOSED OF BY THE CONTRACTOR IN A PERMITTED SANITARY LANDFILL OR C&D LANDFILL, AS IS APPROPRIATE FOR THE MATERIAL BEING REMOVED.

3.2 THE CONTRACTOR SHALL IMMEDIATELY REMOVE AND PROPERLY DISPOSE OF ANY DEBRIS THAT ENTERS THE WATER IN OR OUTSIDE OF THE CONSTRUCTION AREA DURING THE DEMOLITION OF THE INDICATED STRUCTURES.

3.3 SITE WILL BE CLEANED DAILY OF DEBRIS. REMOVE AND DISPOSE OF THE EXISTING FIXED DOCKS, ALL RELATED ATTACHMENTS, ANY ASSOCIATED UTILITIES, CONDUITS, OR DEBRIS.

3.4 ALL PILES, CONCRETE, AND OTHER DEBRIS WILL BE COMPLETELY REMOVED WITH NO DEBRIS REMAINING ABOVE SPECIFIED MARINA BOTTOM ELEVATION (POST DREDGE).

3.5 PROPER ELECTRIC AND WATER DISCONNECTS IN THE WORK AREA ARE THE RESPONSIBILITY OF THE CONTRACTOR.

3.6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DEMOLITION ACTIVITIES WITH UTILITY TRADES.

3.7 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISPOSAL FEES.

4 FIXED DOCK INSTALLATION

4.1 PILES

4.1.1 DOCK PILES SHALL BE 2.5 PCF CCA TREATMENT INSTALLED IN THE SIZES AND LOCATIONS SHOWN IN THE DRAWINGS.

4.1.2 PILE DIAMETER INDICATED ON THE DRAWINGS REFERS TO THE MINIMUM BUTT DIAMETER AS MEASURED BEFORE CUT OFF.

4.1.3 PILES SHALL HAVE A CONSISTENT TAPER NOT TO EXCEED 3IN. FROM BUTT TO TIP

4.1.4 ALL PILINGS AND TIMBERS TO BE VISUALLY STRAIGHT WITH NO SPLITS OR VOIDS AND OF GOOD GRADE.

4.1.5 NO PILES SHOULD BE DRIVEN WITHIN 50 FEET OF CURING CONCRETE.

4.1.6 ALL PILINGS SHALL BE DRIVEN TO PRACTICAL REFUSAL WITH 3800 LB DROP HAMMER OR EQUIVALENT METHOD AND ACHIEVE THE MINIMUM EMBEDMENT INTO SUBSTRATE SHOWN ON THE DRAWINGS.

4.1.6.1 FOR ANY PILES THAT REACH PRACTICAL REFUSAL BEFORE THE MINIMUM EMBEDMENT IS REACHED, CONTRACTOR SHALL NOTIFY EOR IMMEDIATELY. EOR MAY ELECT TO HAVE THE PILE DRILLED/ROCK PUNCHED.

4.1.6.2 PILES SHALL ONLY BE PUNCHED/DRILLED IF SPECIFIED PENETRATION CANNOT BE ACHIEVED BY STANDARD METHODS DUE TO NATURALLY OCCURRING SUBSURFACE ROCK.

4.1.7 TOLERANCES

4.1.7.1 TOP OF PILE CENTER SHALL BE WITHIN 3" OF THE LOCATION SHOWN ON THE DRAWING

4.2 PILE WRAP

4.2.1 ALL IN-WATER WOOD PILINGS SHALL HAVE BLACK VINYL PILE WRAP FROM 6IN. BELOW SUBSTRATE LINE TO 1FT. ABOVE THE MEAN HIGH-WATER LINE.

4.2.2 HDPE MATERIAL IS TO BE BLACK IN COLOR WITH A MINIMUM 30 MIL. THICKNESS

4.2.3 PILE WRAP TO BE OVERLAPPED A MINIMUM OF 6 IN. AND NAILED WITH 1 1/4 IN. STAINLESS STEEL RING-SHANK ROOFING NAILS INSTALLED EVERY 2 IN. ALONG THE SEAMS. ALL MECHANICAL

ATTACHMENT DEVICES (SCREWS/NAILS) SHALL BE 316 STAINLESS AND SHALL BE PARALLEL TO THE SLIP TO AVOID ANY CONTACT WITH VESSELS

4.3 PILE CAPS

4.3.1 LLDPE METALOCENE BASED POLYMER CONE SHAPED STYLE

4.3.2 PILE CAPS TO BE FASTENED WITH A MINIMUM OF (4) LARGE HEADED 316 SS RING SHANK NAILS

4.3.3 CAP DIAMETER SHALL NOT EXCEED PILE DIAMETER BY MORE THAN 1/2"

4.3.4 BOAT LIFT PILES WILL REQUIRE A FLAT CAP.

4.4 FRAMING

4.4.1 ALL FRAMING MEMBERS SHALL BE 0.60 PCF CCA TREATMENTS, GRADE NO.1 SOUTHERN YELLOW PINE.

4.4.2 LUMBER DIMENSIONS REFER TO S4S (SURFACED 4 SIDES), UNLESS OTHERWISE NOTED.

4.4.3 ALL FASTENERS EXPOSED TO BOATS MUST BE COUNTERSUNK.

4.4.4 CAP TIMBERS EXPOSED TO BOATS SHALL NOT PROTRUDE BEYOND PILINGS.

4.4.5 STRINGERS SHALL NOT BE NOTCHED FOR UTILITIES.

4.5 DECKING

4.5.1 ALL DECKING SHALL BE INSTALLED WITH FULL LENGTH DECK BOARDS, NO JOINTS EXCEPT WHERE LENGTHS EXCEED 12 FEET.

4.5.2 ALL DECKING AND RAIL SHALL BE RASPED OR Sanded TO FINISH THE EDGES.

4.5.3 TOLERANCE:

4.5.3.1 DECK BOARD SPACING SHALL BE MEASURED SUCH THAT A NAIL OF SAME DIAMETER AS SPACING FITS SNUGLY BETWEEN BOARDS.

4.5.3.2 SCREW LINES SHALL BE STRAIGHT WITH MAXIMUM TOLERANCE OF 1/16 INCH FROM A STRING LINE.

4.5.4 IPE (IF APPLICABLE)

4.5.4.1 IPE WOOD CUTS TO BE SEALED.

4.5.4.2 DECKING SCREWS MUST BE INSTALLED SUCH THAT THE SCREW HEAD IS BELOW THE DECKING SURFACE TO ACCOMMODATE FUTURE WOOD SHRINKAGE.

4.6 ANY ATTACHMENTS TO CONCRETE SHALL BE MINIMUM 316 STAINLESS STEEL ADHERED INTO CONCRETE WITH HILTI HY 150 ADHESIVE EPOXY OR EQUAL WITH PROPER DRILL SIZES AND DEPTHS INTO CONCRETE PER MANUFACTURER SPECIFICATIONS.

4.7 ALL BOLTS / ATTACHMENTS INTO DECKING OR RAILING SHALL BE #316 GRADE STAINLESS STEEL. FASTENERS INTO WOOD PILINGS SHALL BE 304/305 GRADE STAINLESS STEEL.

5 ELECTRIC

5.1 CONTRACTOR IS RESPONSIBLE FOR CONNECTION TO THE UPLAND SERVICES.

5.2 CONDUIT SUPPORTS SHALL BE 316 STAINLESS STEEL AND SPACED AT A MAXIMUM OF 4' O.C., UNLESS OTHERWISE NOTED.

5.3 CONTRACTOR'S ELECTRICIAN SHALL BE RESPONSIBLE FOR LOAD CALCULATIONS TO DETERMINE WIRE AND CONDUIT SIZING.

5.4 UPLAND PANELS SHALL BE STAINLESS STEEL OR WITHIN A WEATHER TIGHT ENCLOSURE.

5.5 ALL CONDUIT SHALL BE INDIVIDUAL FEEDS TO EACH PEDESTAL AND LIGHTING CIRCUIT PER CODE.

5.6 ALL CONDUIT COVERAGE SHALL BE PER CODE.

5.7 ALL SEAWALL PENETRATIONS SHALL BE SEALED TO PREVENT SEDIMENT LEACHING.

6 WATER

6.1 ALL WATER LINES SHALL BE INSTALLED WITH HOSE BIBS AND BACK-FLOW PREVENTERS.

6.2 ALL ATTACHMENT BRACKETS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

6.3 CONDUIT SUPPORTS SHALL BE 316 STAINLESS STEEL AND SPACED AT A MAXIMUM OF 4' O.C., UNLESS OTHERWISE NOTED.

6.4 CONTRACTOR IS RESPONSIBLE FOR CONNECTION TO EXISTING UPLAND SUPPLY.

7 FIRE

7.1 EXTINGUISHERS SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE DRAWINGS AND SHALL BE SPACED SUCH THAT ANY POSITION ON THE DOCK IS NOT MORE THAN 75 FOOT WALKING DISTANCE FROM AN EXTINGUISHER.

7.2 DRY STAND PIPE SHALL HAVE MINIMUM 30 INCH BURIAL WHERE APPLICABLE.

7.3 INSTALLATION OF ALL PIPING SHALL BE PER THE LATEST ADDITION ACCEPTED BY THE LOCAL AHJ OF THE FLORIDA BUILDING CODE - PLUMBING EDITION, NFPA 303, NFPA 14.

7.4 ALL PIPING SHALL BE SDR 11 HDPE, UNLESS OTHERWISE NOTED, AND ALL FITTINGS SHALL BE HEAT FUSED OR THREADED.

7.5 ALL PIPING SHALL BE PRESSURE TESTED AFTER CONNECTING APPLICABLE VALVES. PIPING SHALL BE TESTED TO AT LEAST 200 PSIG AND PRESSURE SHALL BE MAINTAINED FOR A MINIMUM OF 2 HOURS.

7.6 ALL ATTACHMENTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

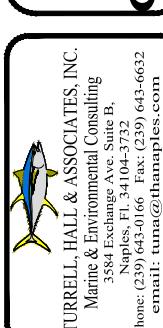
7.7 PIPING SHALL BE STRAPPED TO DOCK SYSTEM USING INTERFERENCE FIT STRAPS THAT RESTRICT MOVEMENT AND CONFINE EXPANSION/CONTRACTION TO THE AREA BETWEEN NEIGHBORING STRAPS.

7.8 ALL 90 DEGREE BENDS SHALL BE LONG RADIUS.

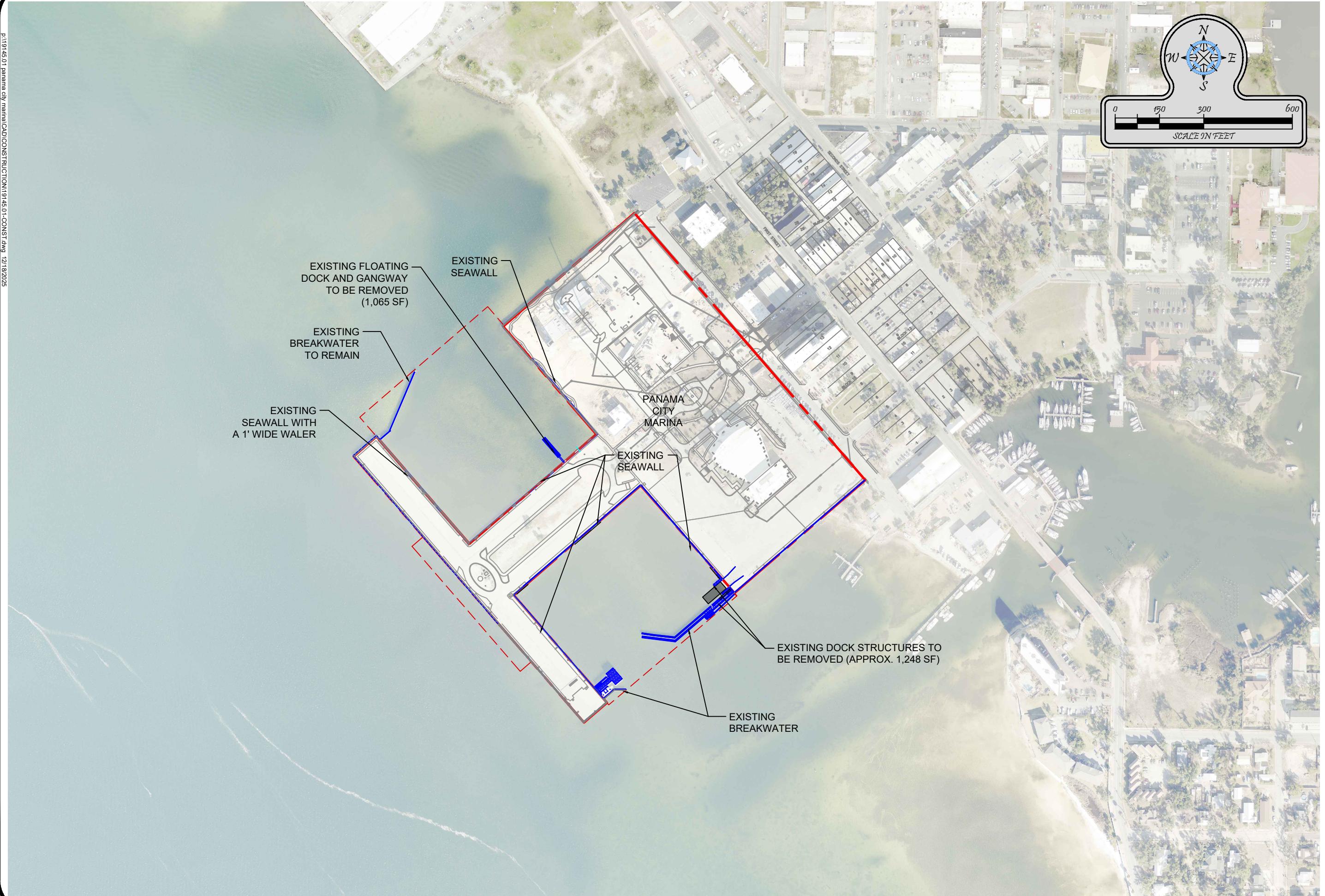
7.9 ALL UNDERGROUND FIRE PIPE SHALL UTILIZE MARKING BALLS, WIRE, AND/OR TAPE TO IDENTIFY THE LOCATION OF THE FIRE LINE.

7.10 DO NOT POUR CONCRETE AROUND ANY FIRE PIPING UNLESS SLEEVED.

1 HARRISON AVE PANAMA CITY FL 32401
PANAMA CITY MARINA
GENERAL NOTES

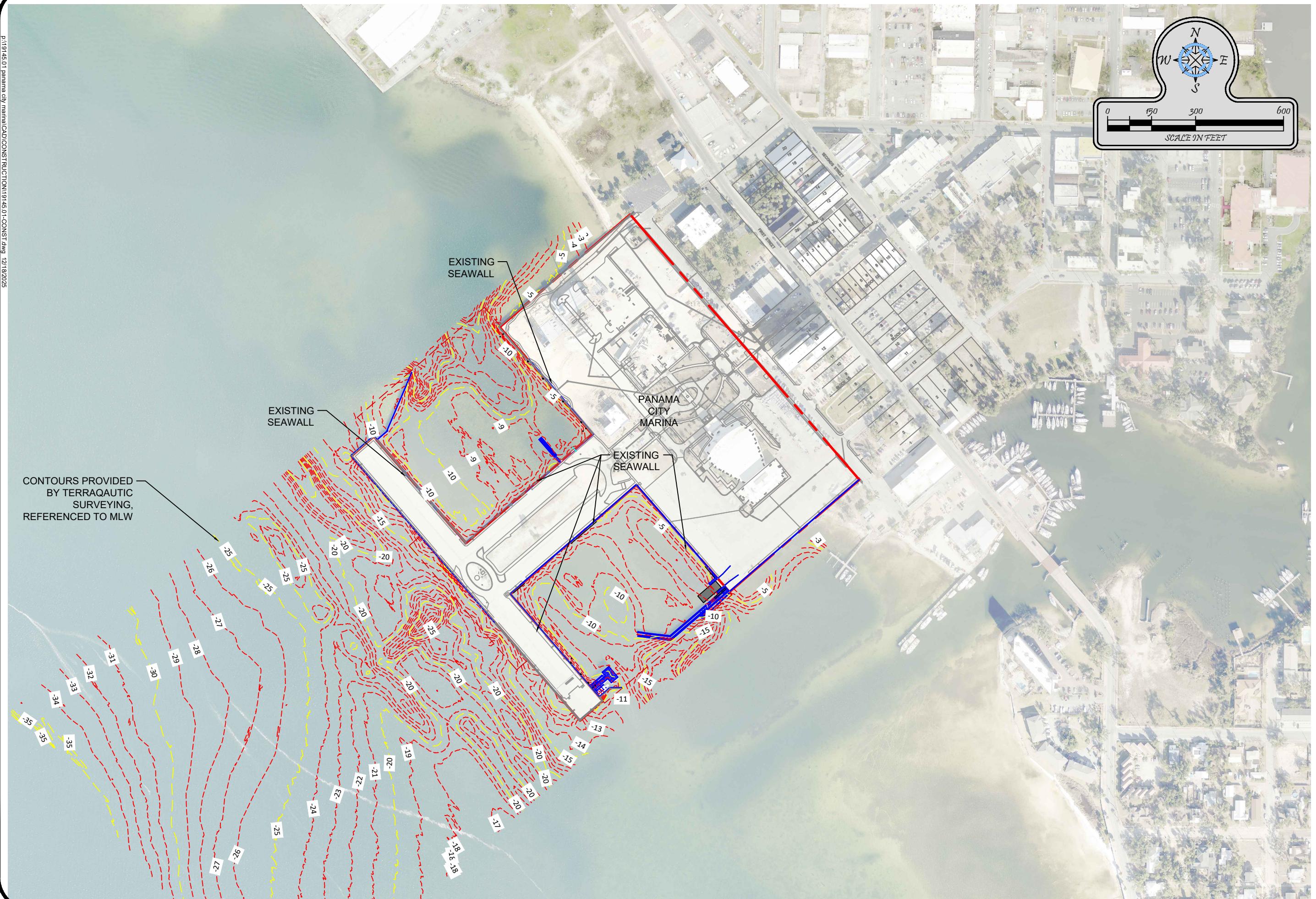


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REVIEWED BY:	J J
DATE:	19145.01
CHECKED BY:	J J
DATE:	12-18-25
PROJECT:	G101
DATE:	
LAYOUT:	
GENERAL NOTES:	



PANAMA CITY MARINA

DRAWN BY:	RMJ											
	REVIEWED BY:											
CHECKED BY:	JJ											
	SHEET:											
PROJECT#:	19145.01											
	C100											
DATE:	12-18-25											
	LAYOUT:											
Note: Machine, Lumber, Hoist, Piping, Etc.												



PANAMA CITY MARINA EXISTING BATHYMETRY



TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
3588 Exchange Ave, Suite B,
Naples, FL 34104-3732
Phone: (239) 643-6633
e-mail: tuna@thanxables.com

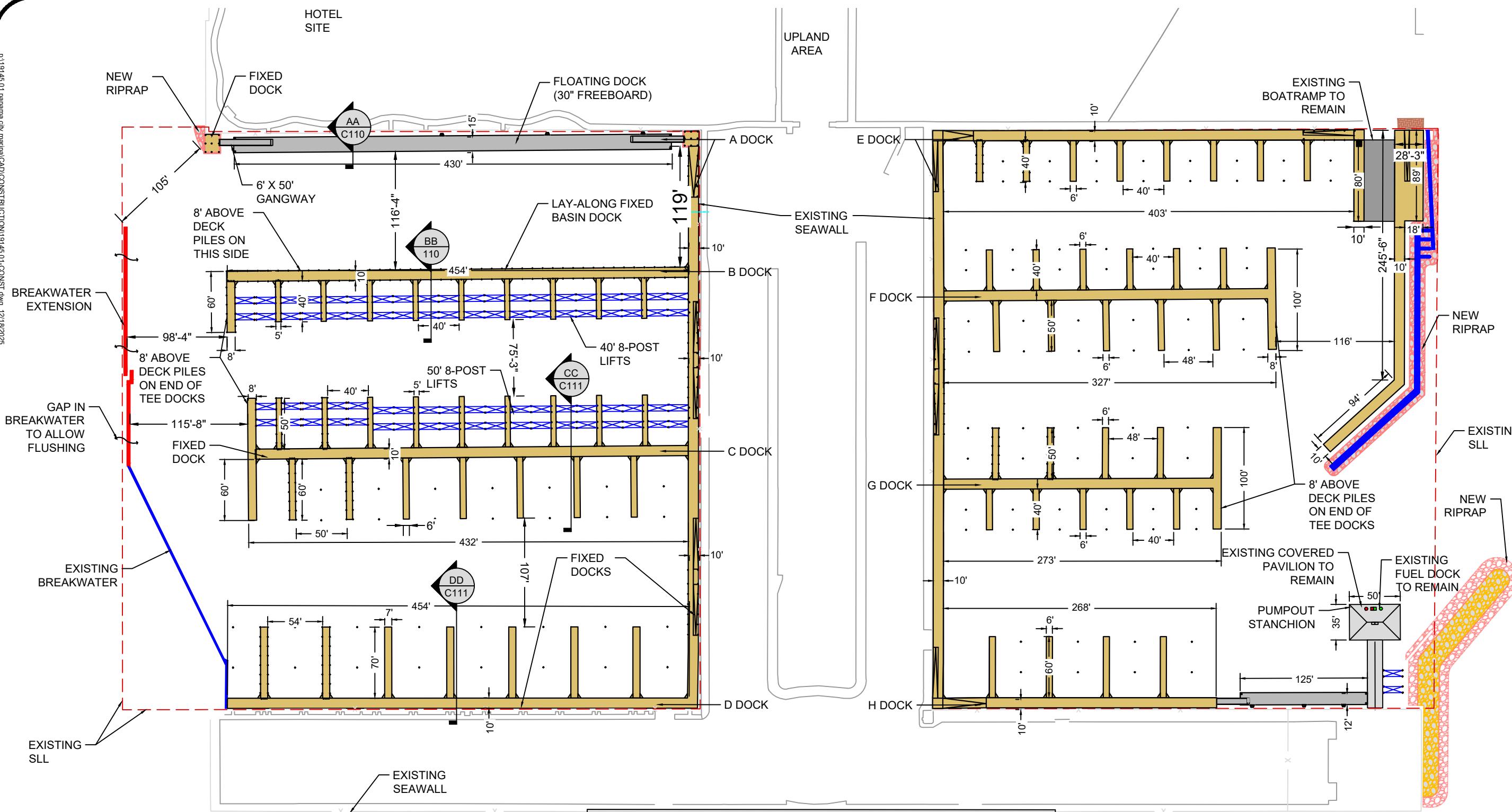
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CHECKED BY: JJ	SHEET: 1	PROJECT: 19145.01	DATE: 12-18-25	CHG BY: C101	CHANGED:

P:\19145.01 panama city marina\CAD\CONSTRUCTION\19145.01-CONST.dwg 12/18/2025

PANAMA CITY MARINA	
LENGTH	QUANTITY
40'-0"	43
40'-0" LIFTS	20
50'-0"	25
50'-0" LIFTS	19
60'-0"	25
70'-0"	15
SUB-TOTAL	147
TRANSIENT	35
TOTAL	182

PANAMA CITY MARINA

OVERALL FRAMING



BUILDING MATERIAL SPECIFICATION

NOTES:

- ⇒ DOCK PILES - 10" BUTT MEASURED BEFORE CUTTING 2.5 PCF CCA 10' MIN. PENETRATION INTO SUBSTRATE DRIVEN TO FIRM BEARING.
- ⇒ BOAT LIFT PILES - 12" BUTT MEASURED BEFORE CUTTING 2.5 PCF CCA 15' MIN. PENETRATION INTO SUBSTRATE DRIVEN TO FIRM BEARING.
- ⇒ PILING WRAP - PVC WRAP ALL PILES FROM 12" ABOVE MHWL TO 6" BELOW SUBSTRATE.
- ⇒ CAP TIMBERS - 3" X 10" 0.60 CCA NO.1 SYP S4S
- ⇒ STRINGERS - 3" X 8" 0.60 CCA NO.1 SYP S4S (NOT TO EXCEED 18" ON CENTER)
- ⇒ DECKING - 2" X 6" WEARDECK OR APPROVED ALTERNATIVE.
- ⇒ 5/8" GRADE 304/305 STAINLESS STEEL BOLTS THROUGH PILES, CAP TIMBERS, STRINGERS
- ⇒ 3" NO.10 GRADE 316 STAINLESS STEEL BUGLE HEAD SCREWS FOR DECKING.
- ⇒ BLACK VINYL CONE OR FLAT PILING CAPS
- ⇒ 2.5" DECK OVERHANG FROM STRINGER

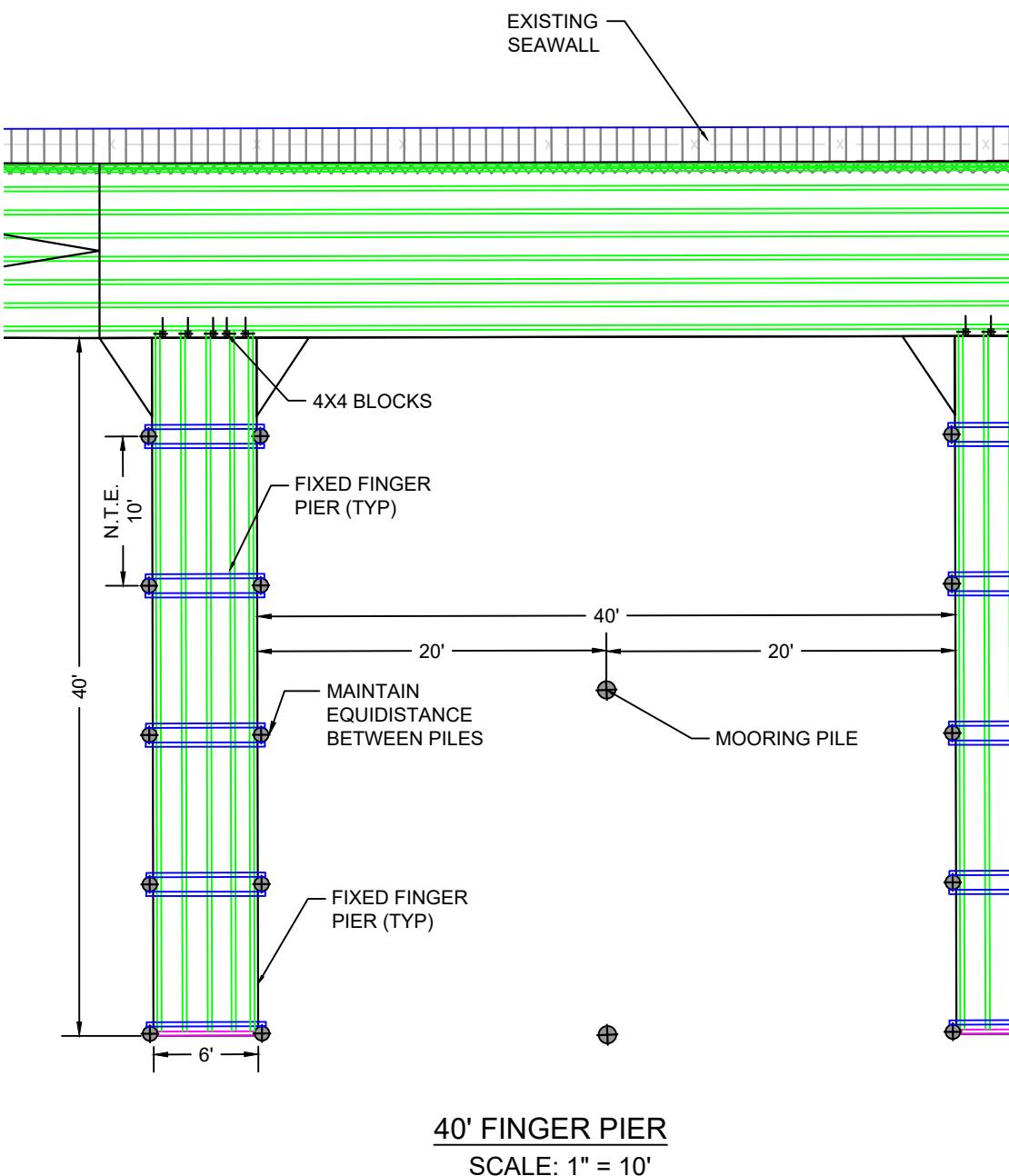
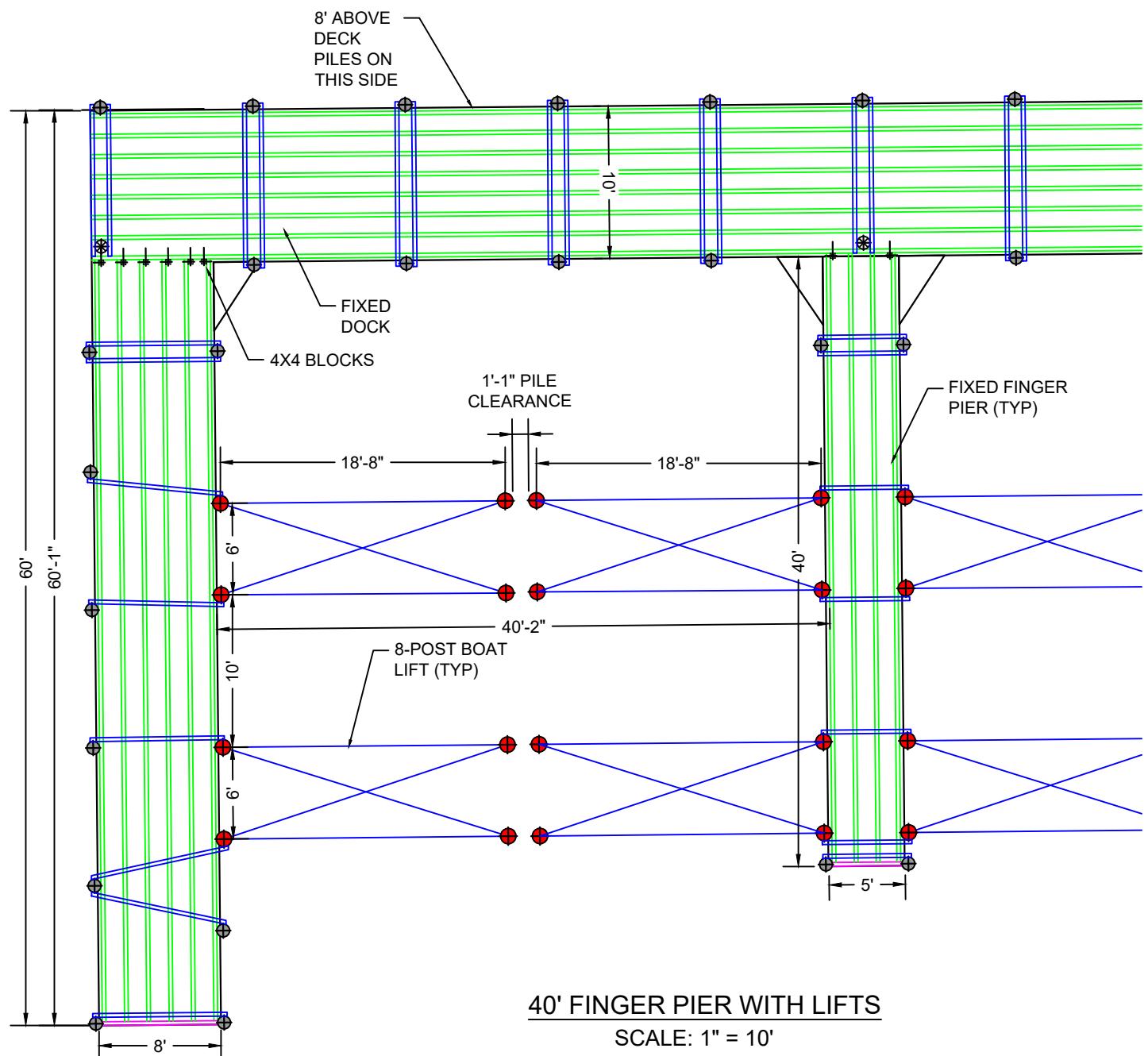
LEGEND

SYMBOL	DESCRIPTION
●	10" UP PILE
●	10" DOWN PILE
●	12" LIFT PILE
—	3"X10" CAP TIMBER
—	3"X8" STRINGER
—	3"X8" FASCIA
DECKING: 2"X6" WEARDECK (NOT SHOWN)	

DRAWN BY: R.M.J	REV'D BY: J.J	DATE: 01/01/01	CHG'D BY: -	CHANGED: -
SHEET: 1	1	01	-	-
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	11	11	-	-
	12	12	-	-


TURRELL, HALL & ASSOCIATES, INC.
 Marine & Environmental Consulting
 5584 Exchange Ave., Suite B,
 Naples, FL 34106, Fax: (239) 643-5732
 email: tunac@thanapies.com
 RY NO. 3875

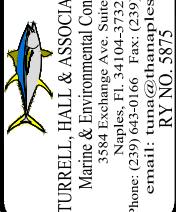
PROJECT: 19145.01	DATE: 12-18-25	AYOUT: OVERALL FRAMING
R.M.J	J.J	C103



NOTE: MAIN DOCK
FRAMING NOT SHOWN

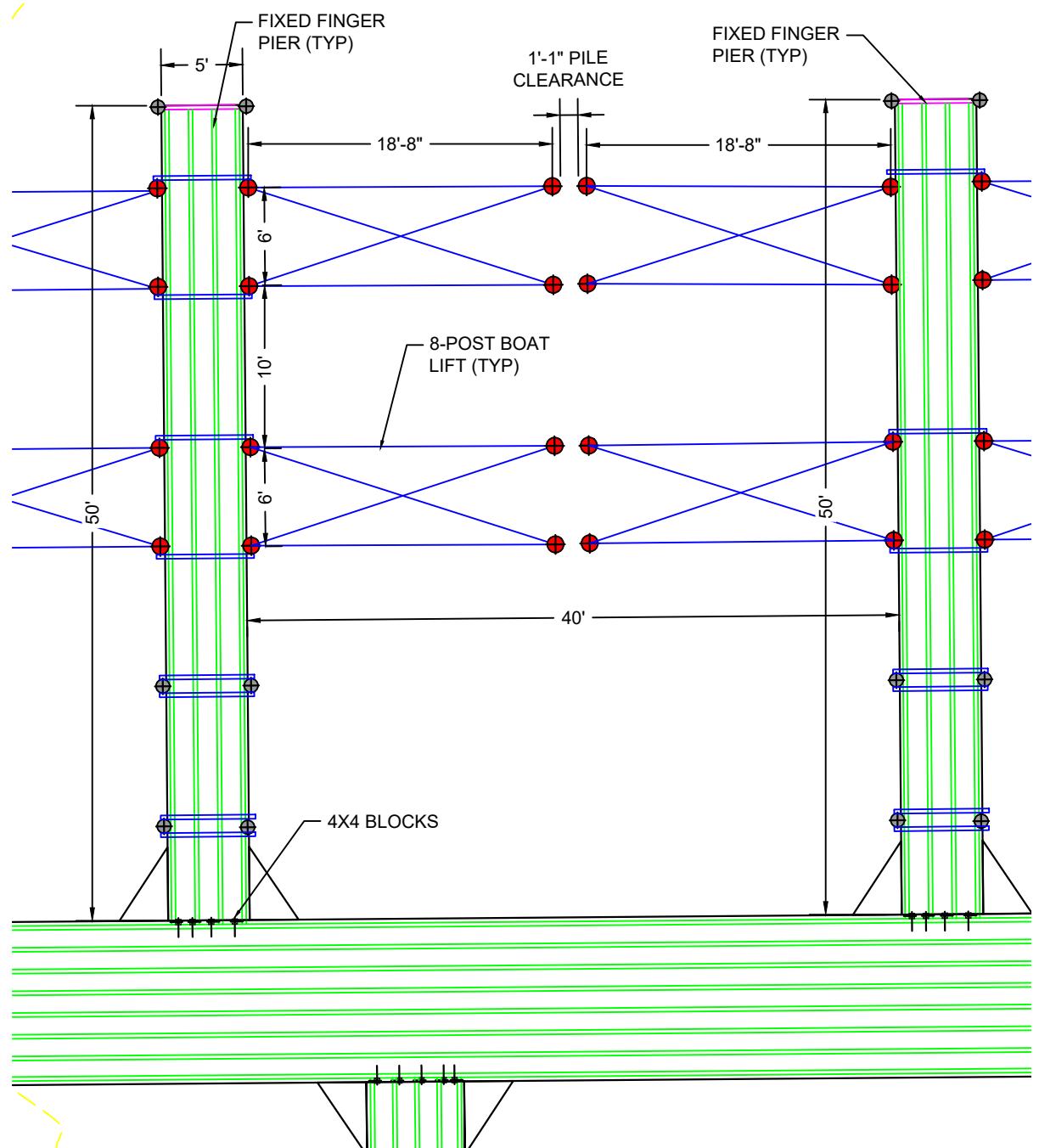
LEGEND	
SYMBOL	DESCRIPTION
●	10" UP PILE
○	10" DOWN PILE
● (red)	12" LIFT PILE
— (blue)	3"X10" CAP TIMBER
— (green)	3"X8" STRINGER
— (magenta)	3"X8" FASCIA
DECKING: 2"X6" WEARDECK (NOT SHOWN)	

PANAMA CITY MARINA
1 HARRISON AVE, PANAMA CITY, FL 32401
DOCK FRAMING LAYOUT (40' SLIPS)



TURRELL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5632
email: tma@thanapies.com
RY NO. 3875

DRAWN BY: R.M.J	REVIEWED BY: J.J.	REV'D BY: J.J.	DATE: 12-18-25	CHG'D BY: J.J.
SHEET: 1	01	02	03	04
PROJECT: 19145.01	05	06	07	08
DATE: 12-18-25	09	10	11	12
LAYOUT: DOCK FRAMING LAYOUT (40' SLIPS)				

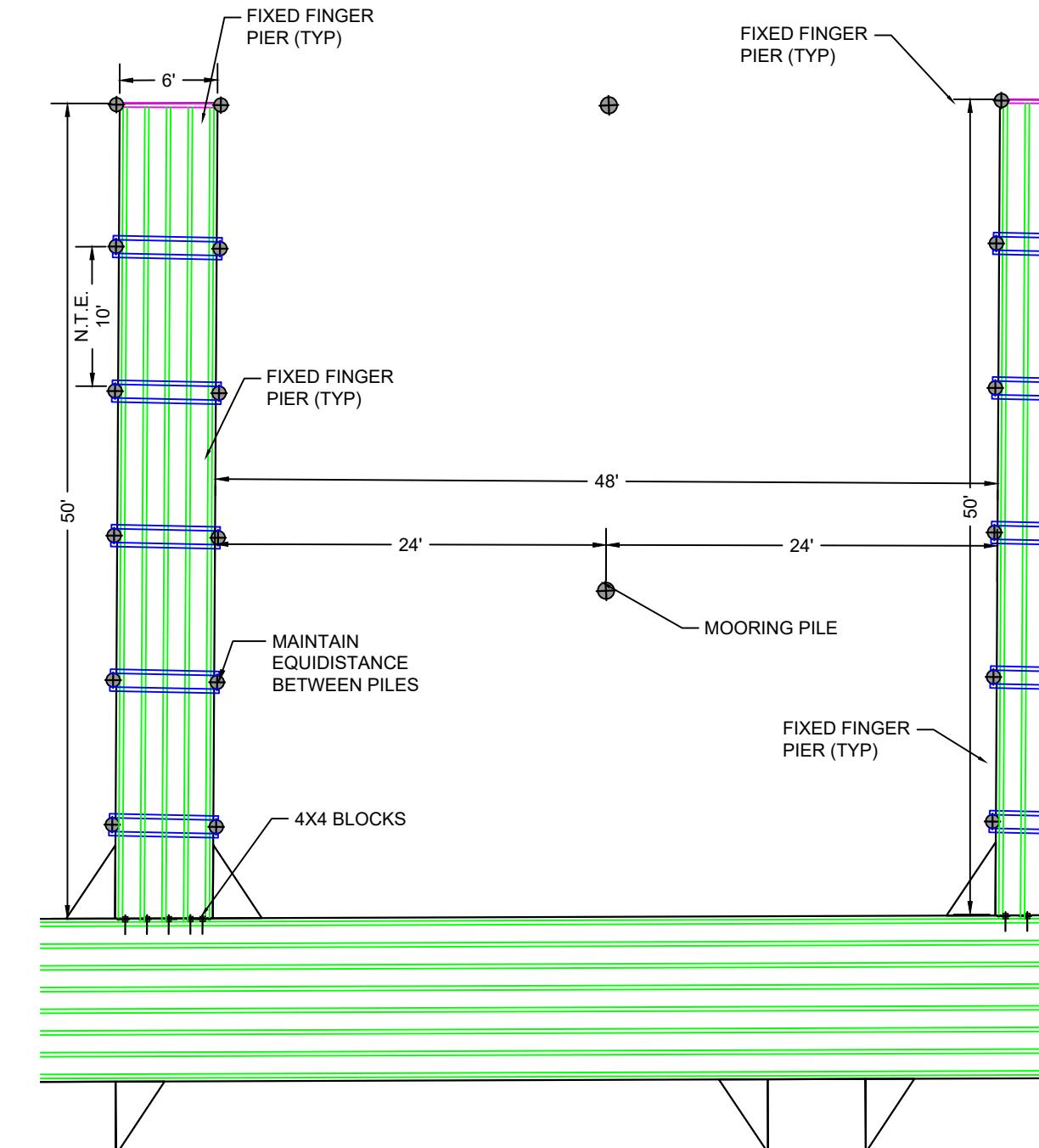


50' FINGER PIER WITH LIFTS

SCALE: 1" = 10'

LEGEND	
SYMBOL	DESCRIPTION
●	10" UP PILE
◎	10" DOWN PILE
●	12" LIFT PILE
—	3"X10" CAP TIMBER
—	3"X8" STRINGER
—	3"X8" FASCIA
DECKING: 2"X6" WEARDECK (NOT SHOWN)	

NOTE: MAIN DOCK FRAMING NOT SHOWN



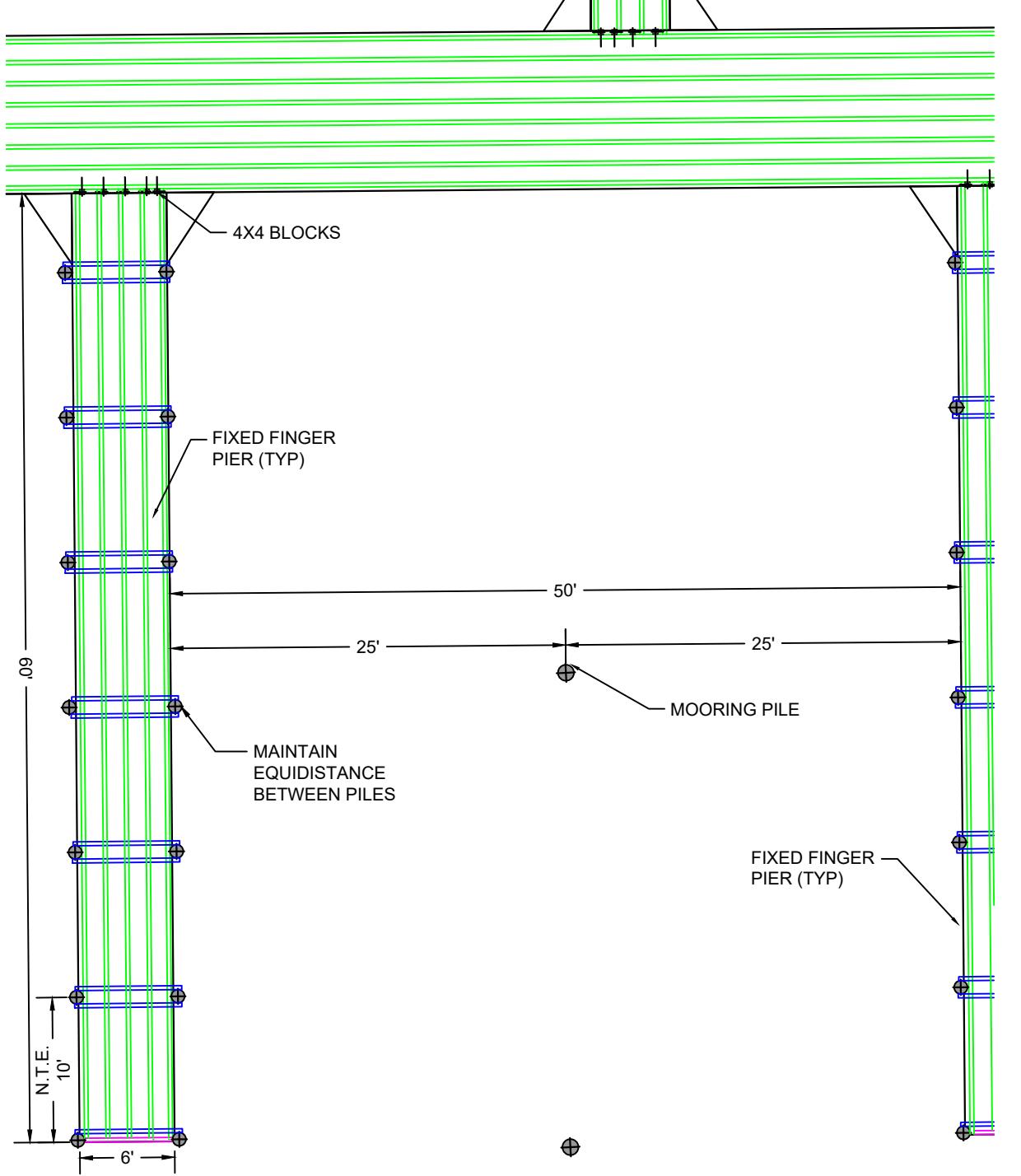
50' FINGER PIER

SCALE: 1" = 10'

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	REV/N	REV/Y			
SHEET: J		01	-	-	-
PROJECT: 19145.01	02	-	-	-	-
DATE: 12-18-25	03	-	-	-	-
LAYOUT: DOCK FRAMING LAYOUT (50' SLIPS)	04	-	-	-	-
	05	-	-	-	-
	06	-	-	-	-
	07	-	-	-	-
	08	-	-	-	-
	09	-	-	-	-
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	12	-	-	-	-

PANAMA CITY MARINA
DOCK FRAMING LAYOUT (50' SLIPS)

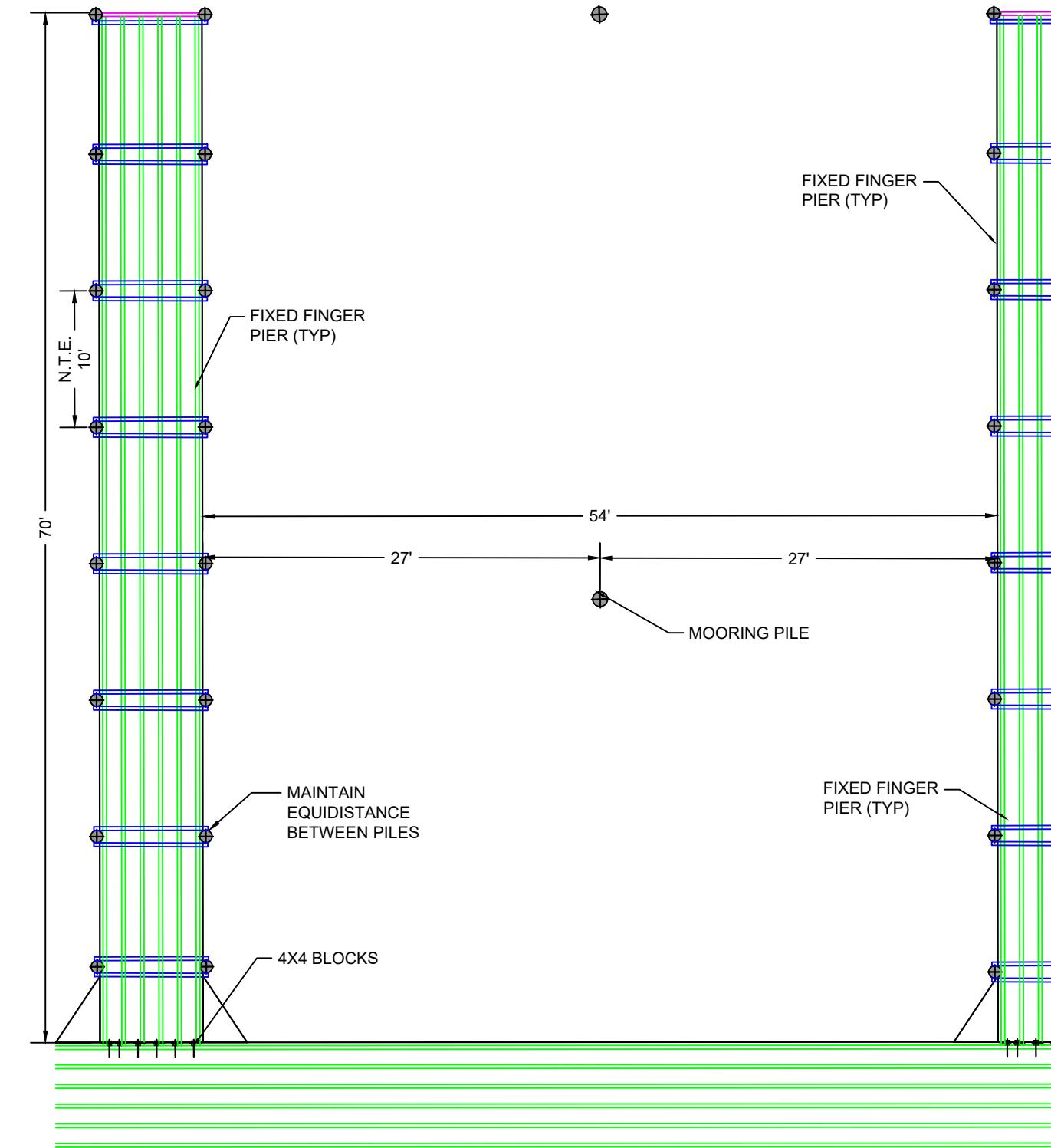

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5652
email: tunac@thanapvies.com
RY NO. 3875



60' FINGER PIER
SCALE: 1" = 10'

LEGEND	
SYMBOL	DESCRIPTION
●	10" UP PILE
○	10" DOWN PILE
● (red)	12" LIFT PILE
—	3"X10" CAP TIMBER
—	3"X8" STRINGER
—	3"X8" FASCIA
DECKING: 2"X6" WEARDECK (NOT SHOWN)	

NOTE: MAIN DOCK
FRAMING NOT SHOWN



70' FINGER PIER
SCALE: 1" = 10'

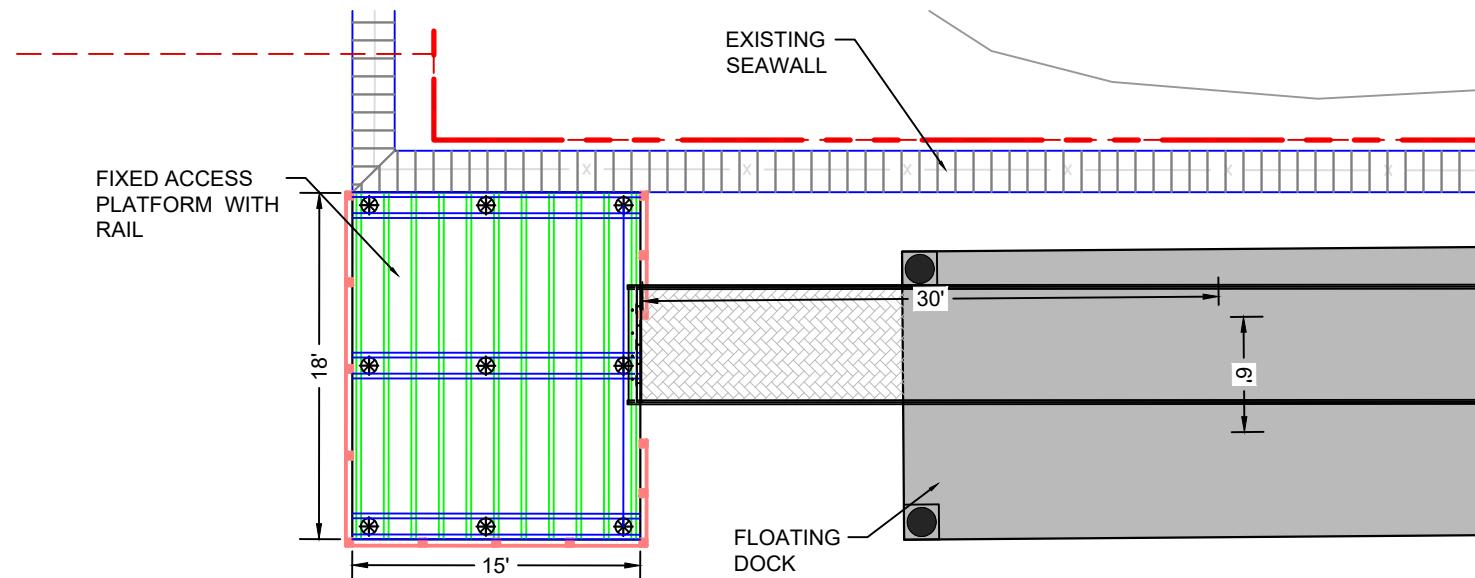
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PROJECT: 19145.01		01	02	03	04	05
DATE: 12-18-25		06	07	08	09	010
LAYOUT: 011		012	013	014	015	016

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Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5652
email: tunac@thanapies.com
RY NO: 3875

PANAMA CITY MARINA

HARRISON AVE, PANAMA CITY, FL 32401

DOCK FRAMING LAYOUT (60' - 70' SLIPS)



FIXED DOCK ACCESS PLATFORM

SCALE: 1" = 12'

LEGEND	
SYMBOL	DESCRIPTION
	10" UP PILE
	10" DOWN PILE
	12" LIFT PILE
	3"X10" CAP TIMBER
	3"X8" STRINGER
	3"X8" FASCIA
DECKING: 2"X6" WEARDECK (NOT SHOWN)	

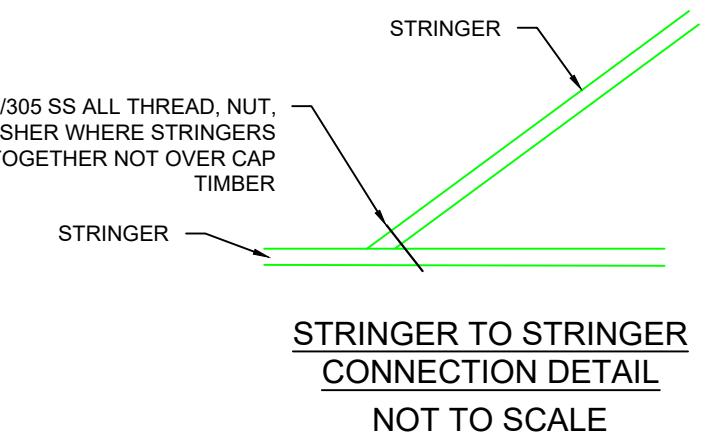
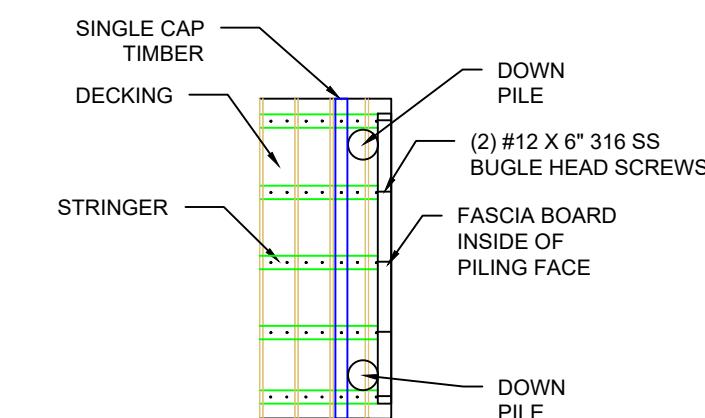
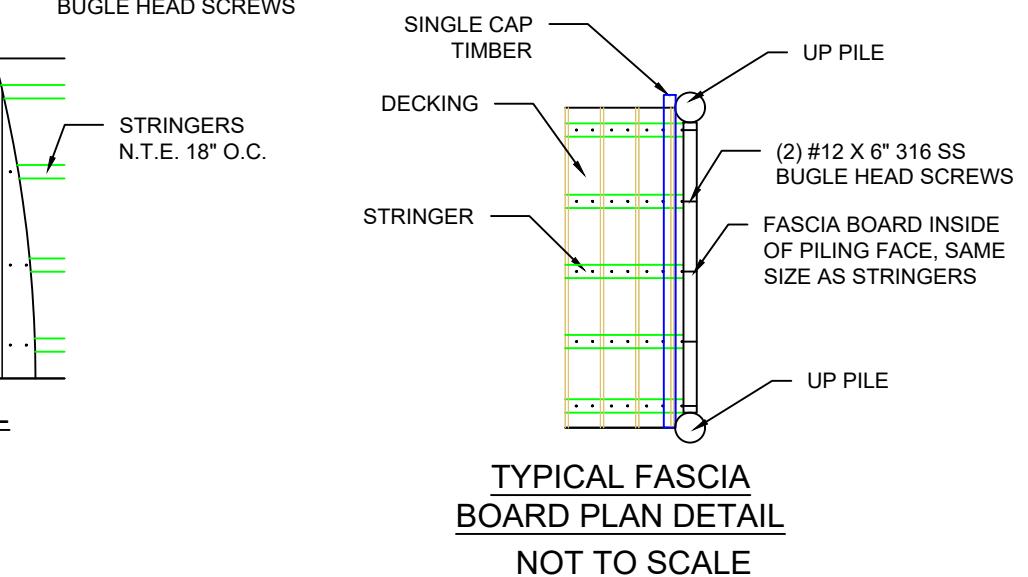
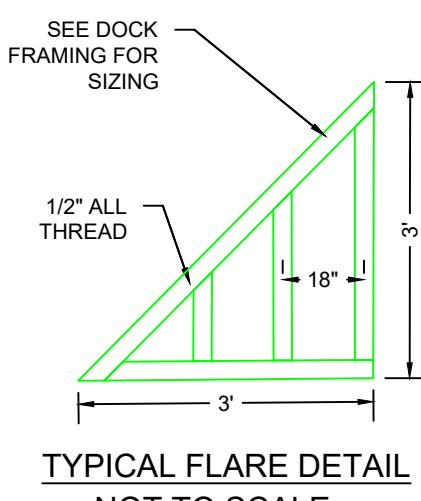
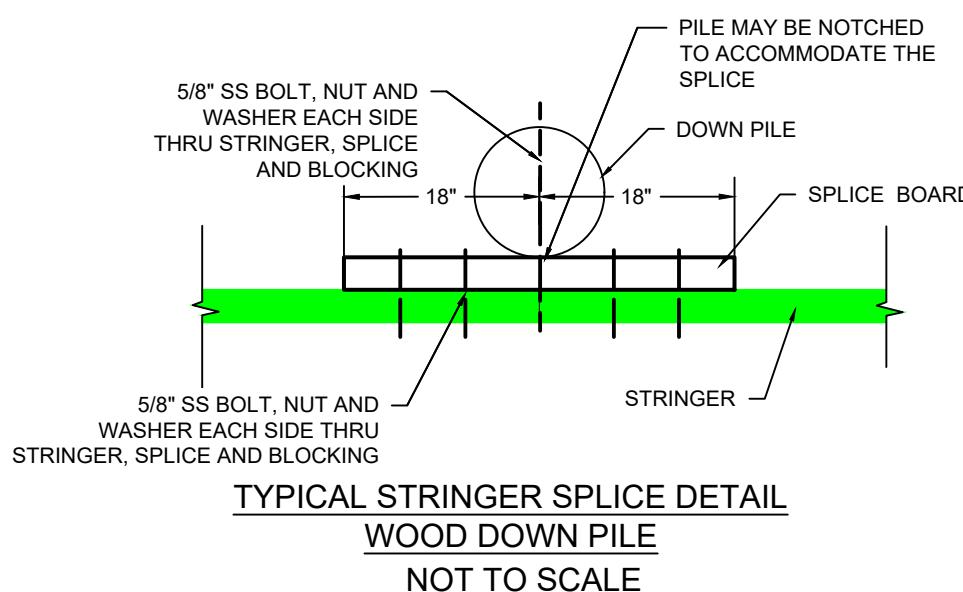
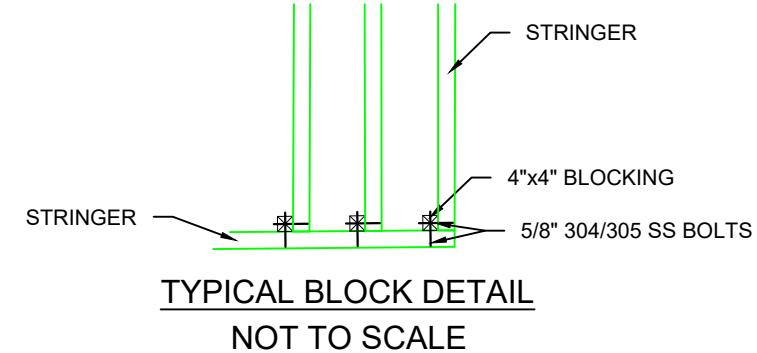
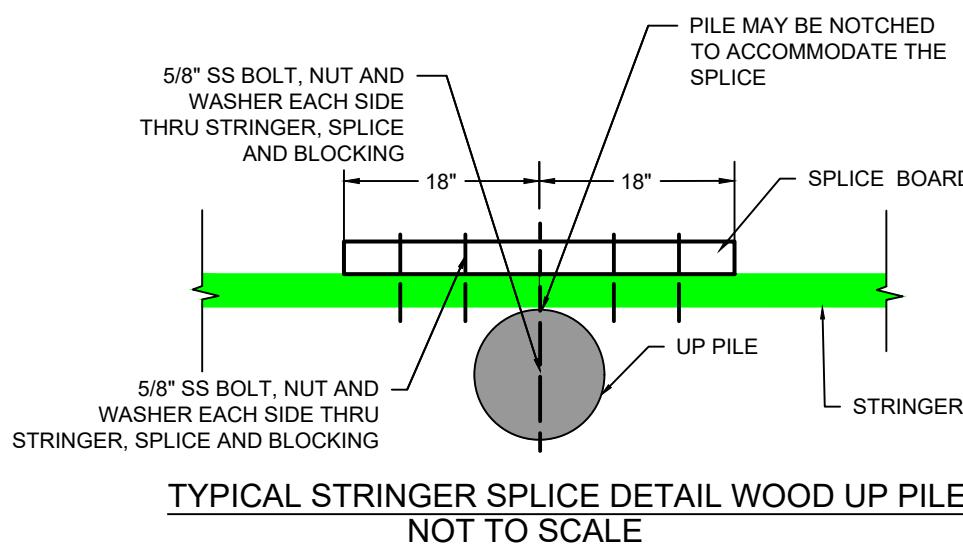
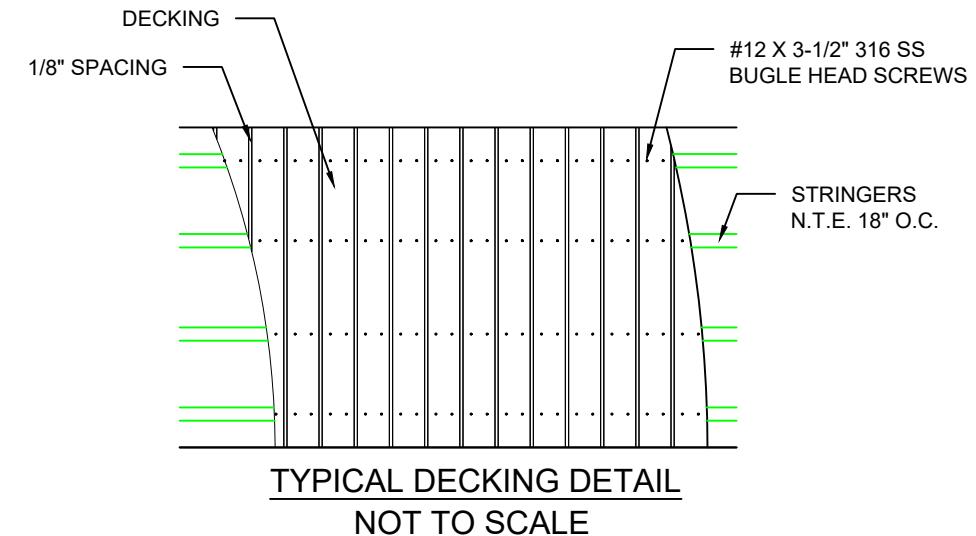
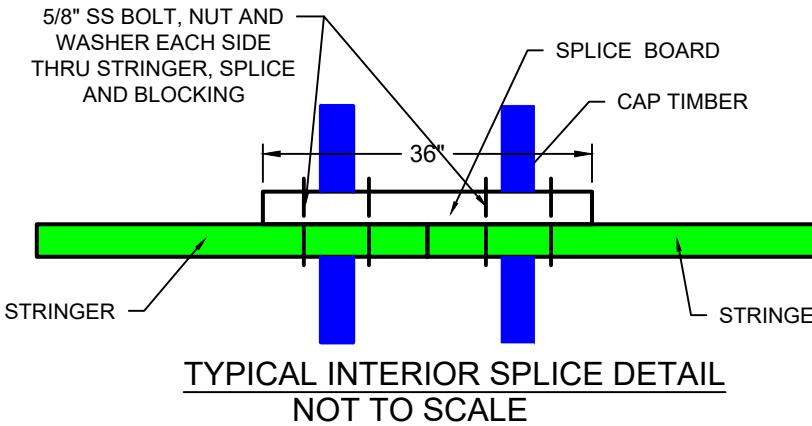
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CHECKED BY:	J-J			01	-	-	-	-
PROJECT:	19145.01			02	-	-	-	-
DATE:	12-18-25			03	-	-	-	-
LAYOUT:	2020-11-10 10:45:00 PM							



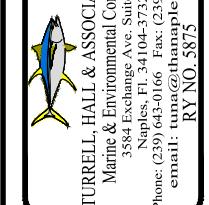
Marin & Environmental Consulting
3584 Exchange Ave, Suite B,
Naples, FL 34104-3732
Phone: (239) 634-0106 Fax: (239) 643-6632
email: tuna@thanapies.com
RY NO. 5875

PANAMA CITY MARINA

DOCK FRAMING LAYOUT (ACCESS PLATFORM)



DRAWN BY: R.M.J.		REVIEWED BY:	DATE:	CHANGED:
CHECKED BY: J.J.				
SHEET:	1	2	3	4
PROJECT:	19145-01	C108		
DATE:	12-18-25			
LAYOUT:				
DOCK CONNECTION DETAILS				



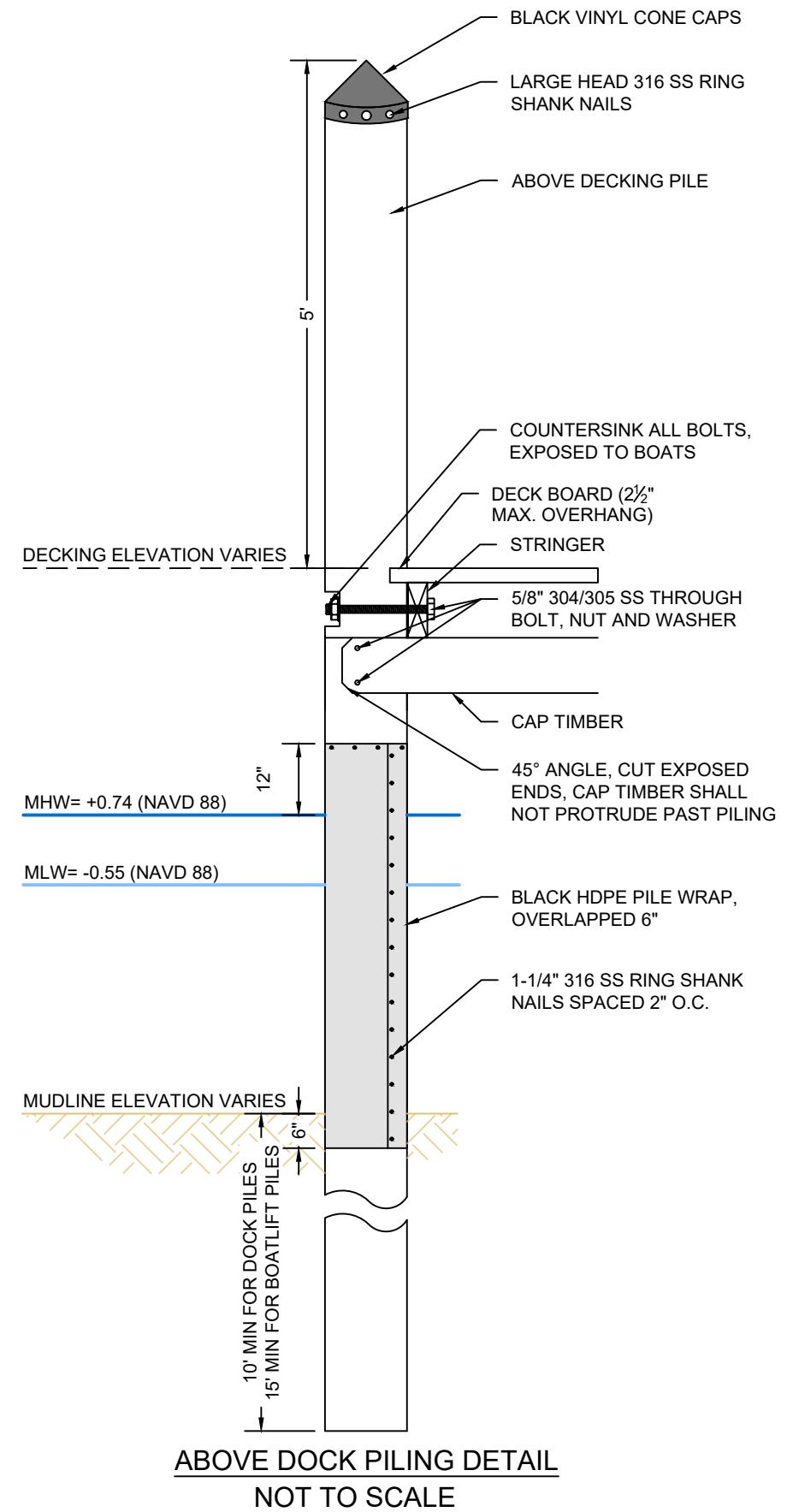
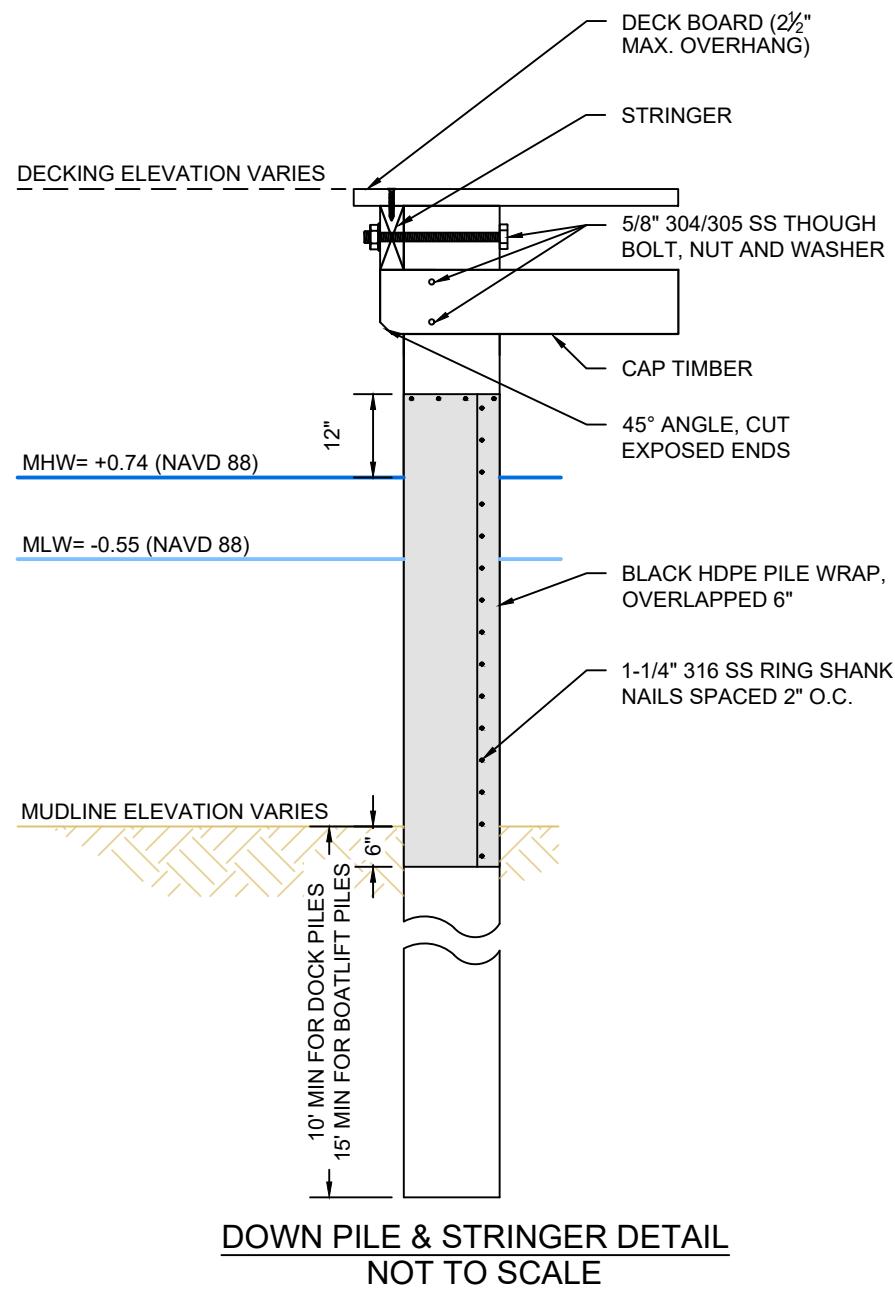
PANAMA CITY MARINA
DOCK CONNECTION DETAILS

1 HARRISON AVE, PANAMA CITY, FL 32401

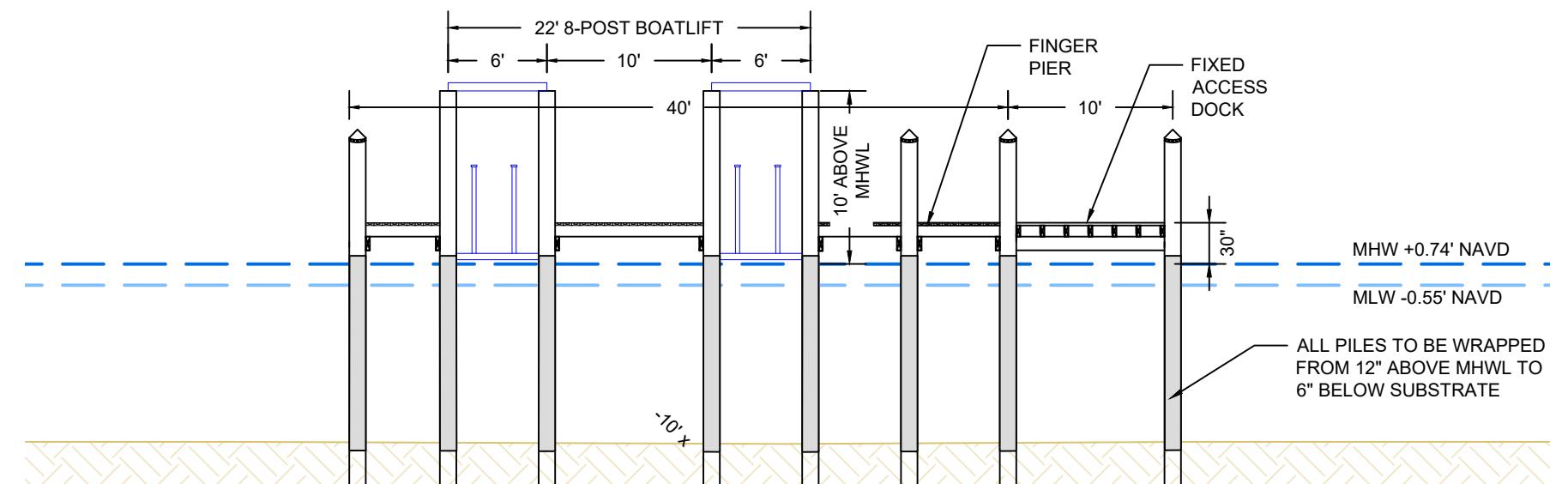
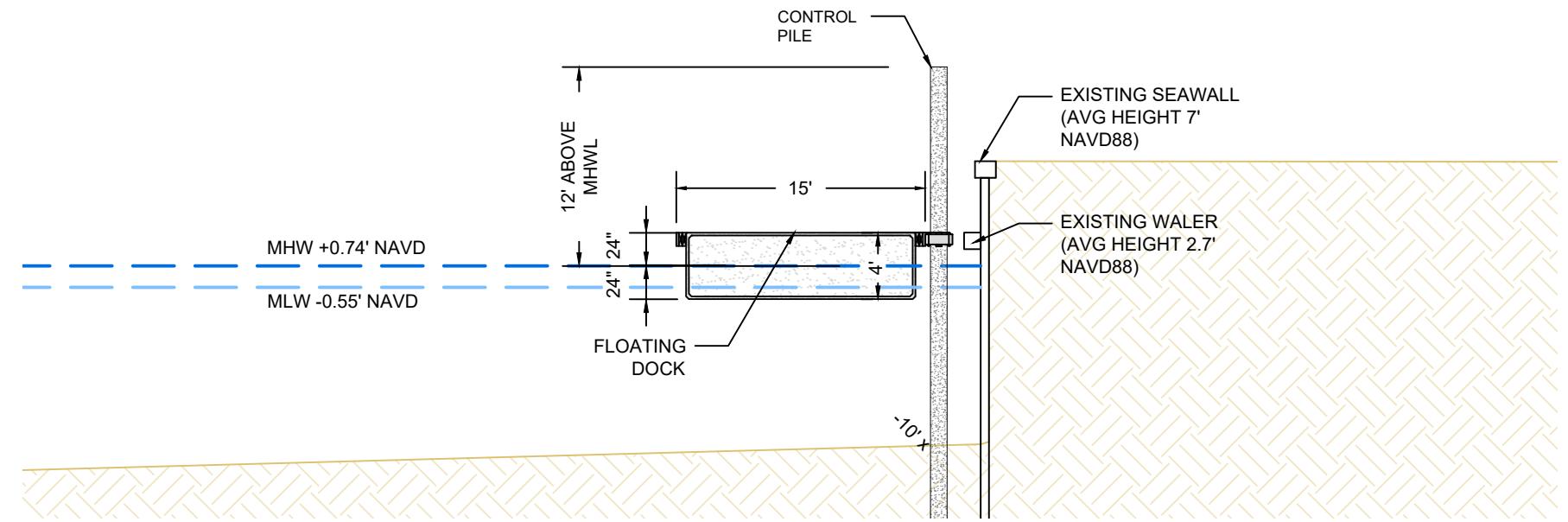
1 HARRISON AVE, PANAMA CITY, FL 32401
PANAMA CITY MARINA
PILING & FRAMING CROSS SECTIONS



TURRELL, HALL & ASSOCIATES, INC.
 Marine & Environmental Consulting
 3584 Exchange Ave, Suite B,
 Naples, FL 34104-3732
 Phone: (239) 643-0166 Fax: (239) 643-6632
 email: tuna@thanaples.com
 RY NO 5875



DRAWN BY	REV'D BY	DATE	CHECKED BY	DATE	CHECKED
R M J	J J	-	-	-	-
SHEET	1	01	02	03	04
PROJECT	19145-01	04	05	06	07
DATE	C109	08	09	10	11
LAYOUT	12-18-25	12	13	14	15
PILE/FRAMING CROSS SECTIONS					



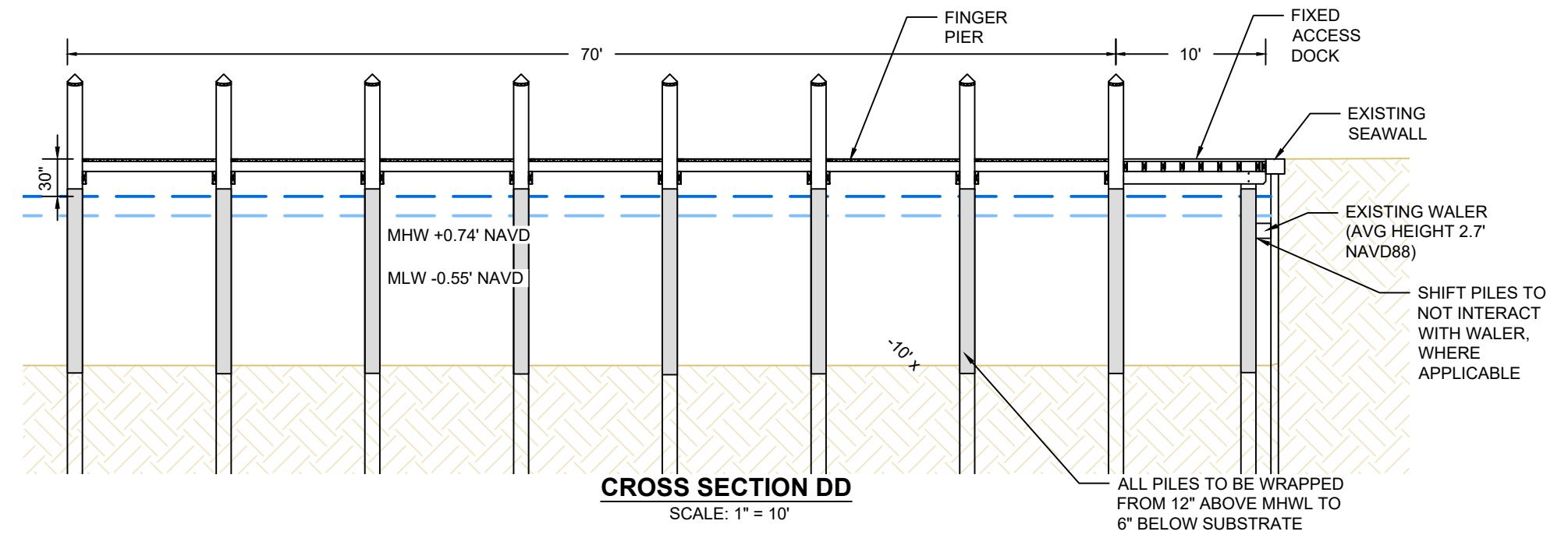
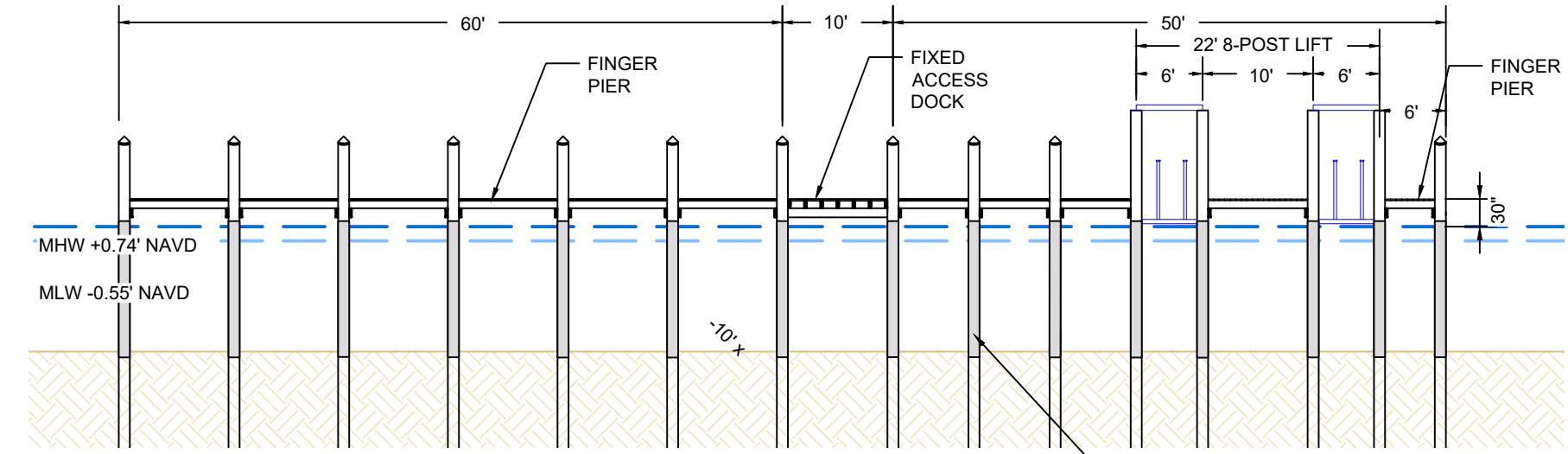
NOTE:
 => BOATLIFT PILES TO BE 10' ABOVE MHWL
 => STEEL CONTROL PILES WITH HDPE SLEEVE TO BE 12' ABOVE MHWL, PENETRATION TO BE 20' TO A FIRM BEARING AND STRAIGHT

1 HARRISON AVE, PANAMA CITY, FL 32401
PANAMA CITY MARINA
CROSS SECTIONS AA-BB



DRAWN BY	REVIEWED BY	DATE	CHECKED BY	DATE	CHANGED
R M J	J J	01	-	-	-
		02	-	-	-
		03	-	-	-
		04	-	-	-
		05	-	-	-
		06	-	-	-
		07	-	-	-
		08	-	-	-
		09	-	-	-
		10	-	-	-
		11	-	-	-
		12	-	-	-

SHEET: 1
 PROJECT: 19145-01
 DATE: C110
 LAYOUT: 12-18-25
 CROSS SECTIONS AA-BB

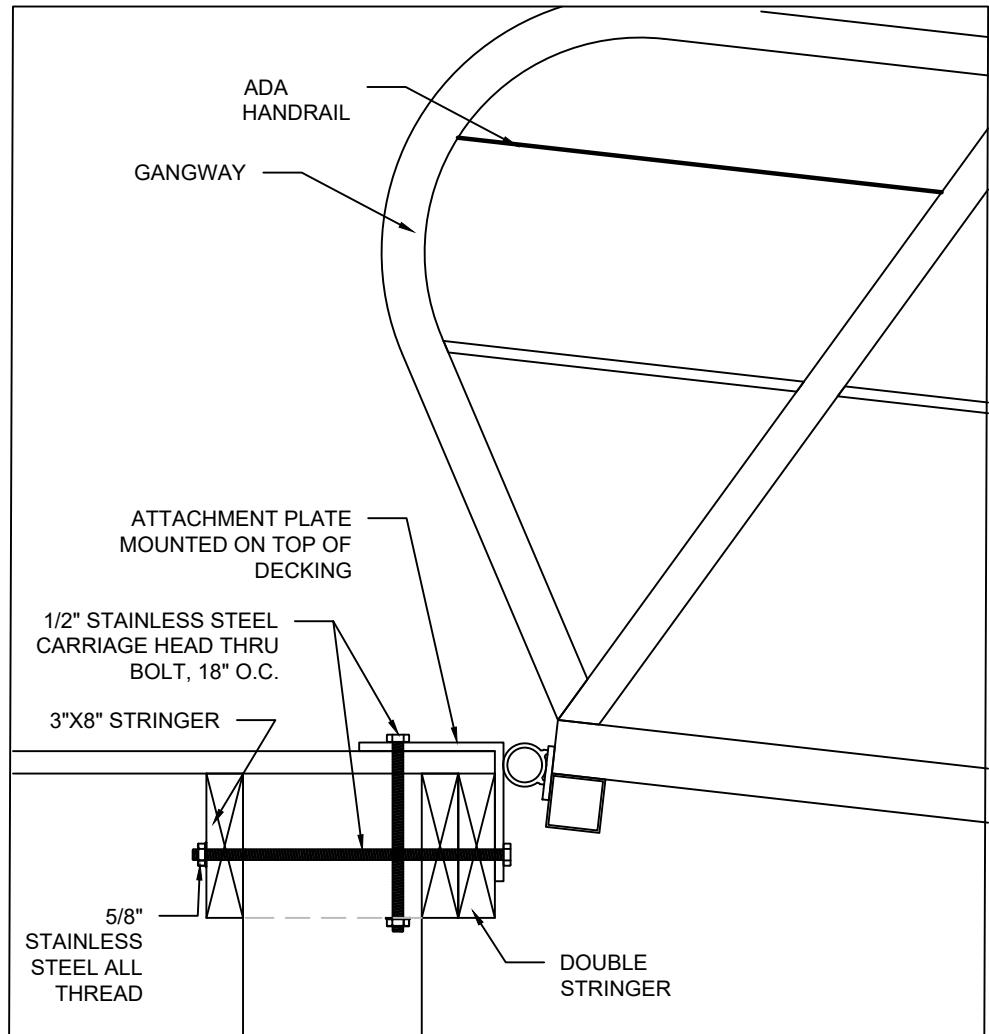


NOTE:
 => BOATLIFT PILES TO BE 10' ABOVE MHWL
 => STEEL CONTROL PILES WITH HDPE SLEEVE TO BE 12' ABOVE MHWL, PENETRATION TO BE 20' TO A FIRM BEARING AND STRAIGHT

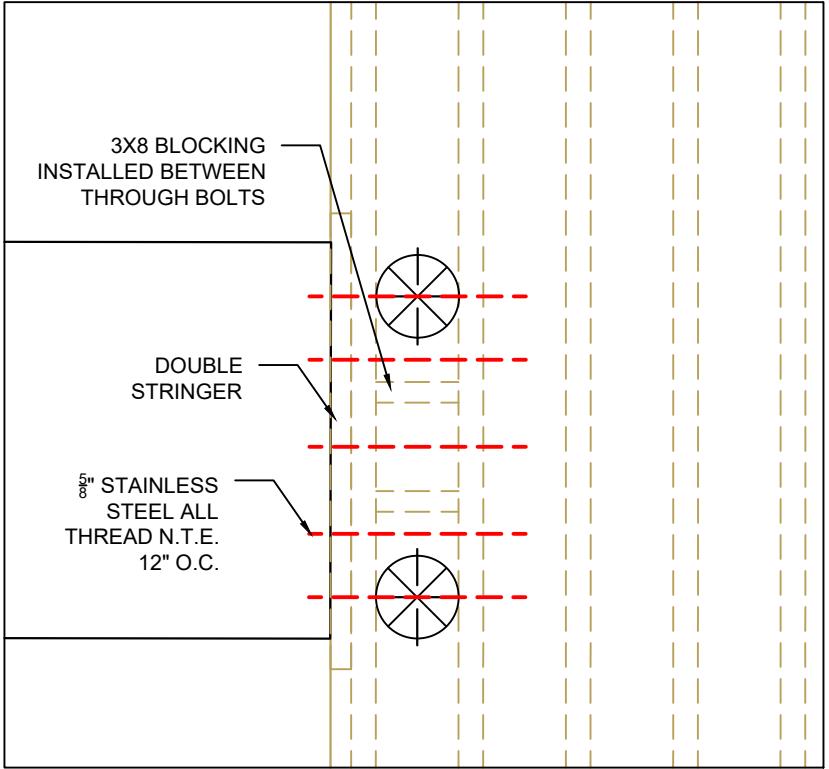
1 HARRISON AVE, PANAMA CITY, FL 32401
PANAMA CITY MARINA
CROSS SECTIONS CC-DD


TURRELL, HALL & ASSOCIATES, INC.
 Marine & Environmental Consulting
 3584 Exchange Ave, Suite B,
 Naples, FL 34104-3732
 Phone: (239) 643-0166 Fax: (239) 643-6632
 email: tuna@tunapests.com
 RY NO 5875

DRAWN BY: R M J		REVIEWED BY:	DATE:	CHANGED:
SHEET:	1	01	-	-
PROJECT:	19145-01 C111			
DATE:	12-18-25			
LAYOUT:	CROSS SECTIONS CC-DD	11	-	-
	12	-	-	-



TYPICAL GANGWAY CONNECTION TO WOOD FRAMING SECTION ON EDGE OF DOCK
N.T.S.



TYPICAL GANGWAY CONNECTION TO WOOD FRAMING ON EDGE OF DOCK
N.T.S.

NOTE: GANGWAY TO BE HEAVY DUTY
COMMERCIAL LOAD 100 LBS PER
SQUARE FOOT

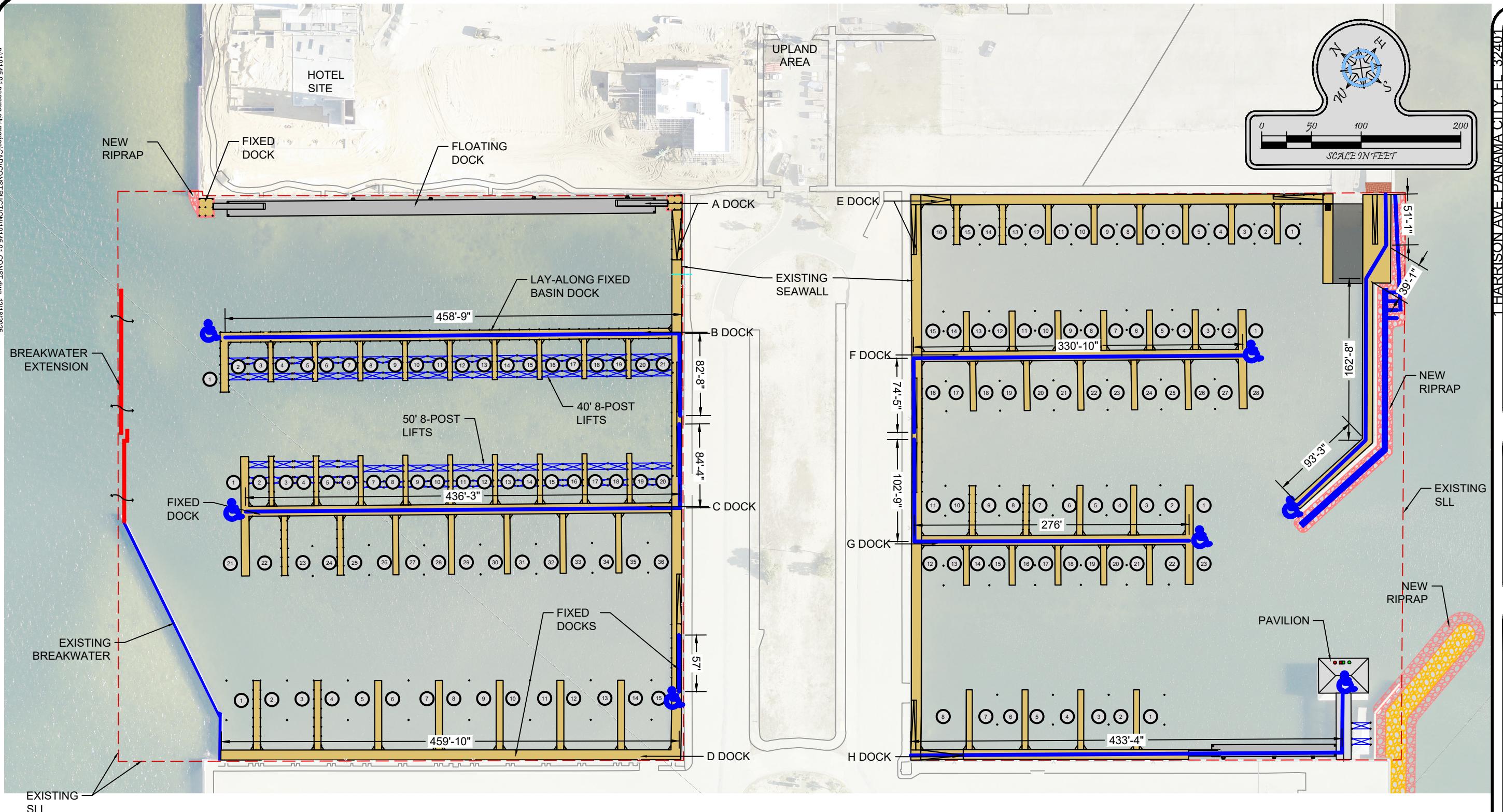
1 HARRISON AVE, PANAMA CITY, FL 32401
PANAMA CITY MARINA
GANGWAY DETAILS



TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
3584 Exchange Ave, Suite B,
Naples, FL 34104-3732
Phone: (239) 643-0166 Fax: (239) 643-6632
email: tuna@tunaplates.com
RY NO 5875

DRAWN BY	REV'D BY	DATE	CHECKED	CHANGED
R M J	J J	01	-	-
		02	-	-
		03	-	-
		04	-	-
		05	-	-
		06	-	-
		07	-	-
		08	-	-
		09	-	-
		10	-	-
		11	-	-
		12	-	-

SHEET	PROJECT	DATE	LAYOUT
J J	19145.01	C112	
	12-18-25		
	GANGWAY DETAILS		



PANAMA CITY MARINA ADA PLAN

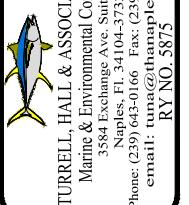
1 HARRISON AVE, PANAMA CITY, FL 32401

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5632
email: tunac@thnapies.com
RY NO. 3875

DRAWN BY: R.M.J		REV'D BY: J.J	DATE: 01/01/01	CHKBY: -	CHANGED: -
SHEET: 11		01	-	-	-
PROJECT: 19145.01		02	-	-	-
DATE: 12-18-25		03	-	-	-
LAYOUT: ADA PLAN		04	-	-	-
05		06	-	-	-
07		08	-	-	-
09		10	-	-	-
11		12	-	-	-
C113					

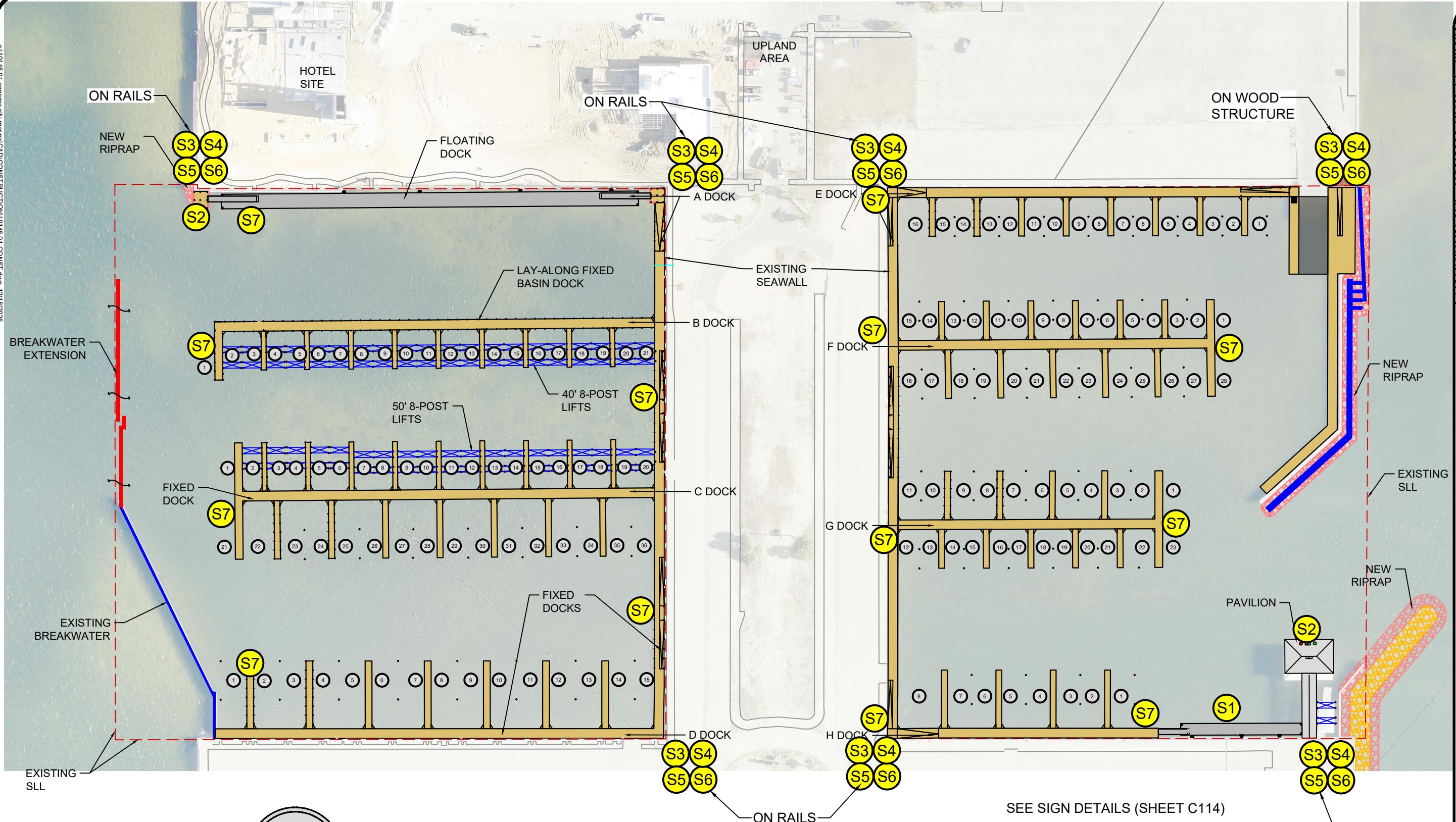
PANAMA CITY MARINA SIGN PLAN

1 HARRISON AVE, PANAMA CITY, FL 32401



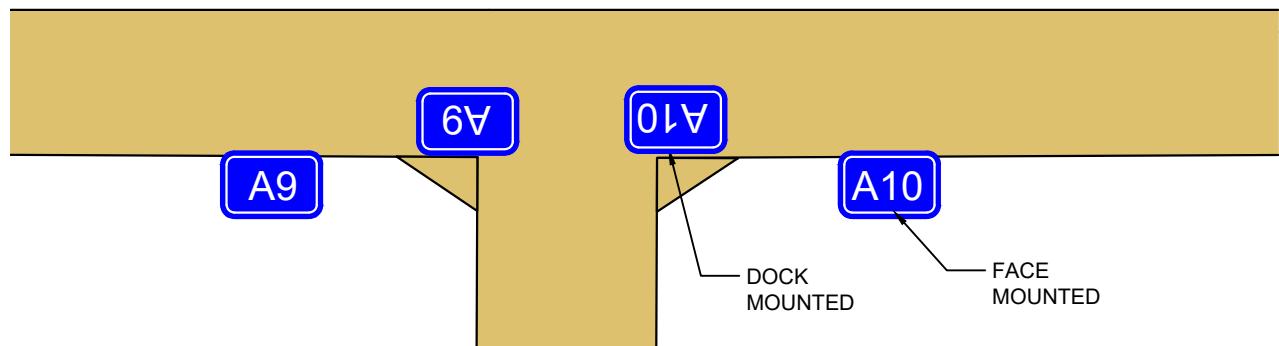
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SHEET:		01	-	-	-
		02	-	-	-
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		04	-	-	-
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		07	-	-	-
		08	-	-	-
		09	-	-	-
		10	-	-	-
		11	-	-	-
		12	-	-	-

PROJECT: 19145.01
DATE: 12-18-25
LAYOUT: SIGN PLAN

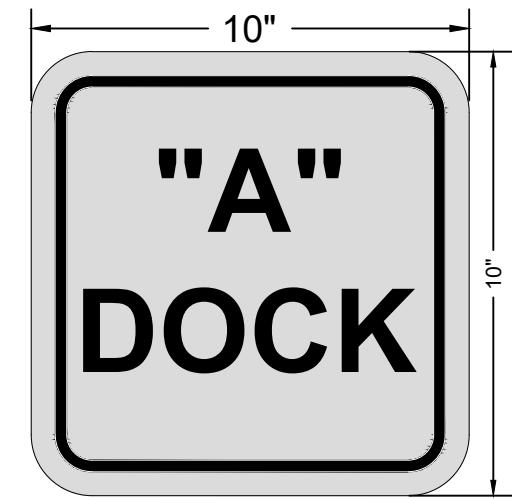


PANAMA CITY MARINA SIGN DETAILS


TURRELL, HALL & ASSOCIATES, INC.
 Marine & Environmental Consulting
 5584 Exchange Ave., Suite B,
 Naples, FL 34106. Phone: (239) 643-3652
 email: tuna@thnaplities.com
 RY NO. 3875



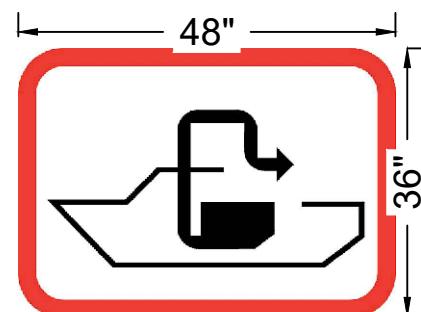
TYPICAL BOAT SLIP NUMBER LOCATION
(FINGER FLARES - FLOATING AND FIXED)



S7 "A" DOCK SIGN

NOTES : SHOWN AS TYPICAL

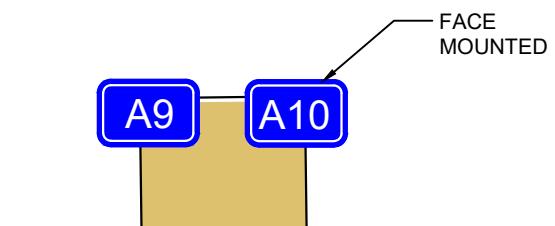
<> USE (4) SS SCREWS ON EACH SLIP NAME
 SIGN (1 SCREW FOR EACH CORNER)



S1 PUMP OUT SIGN



SLIP NUMBER

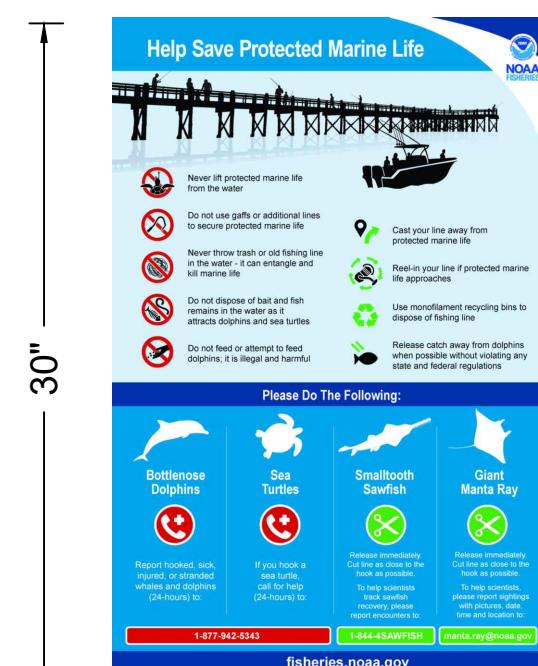
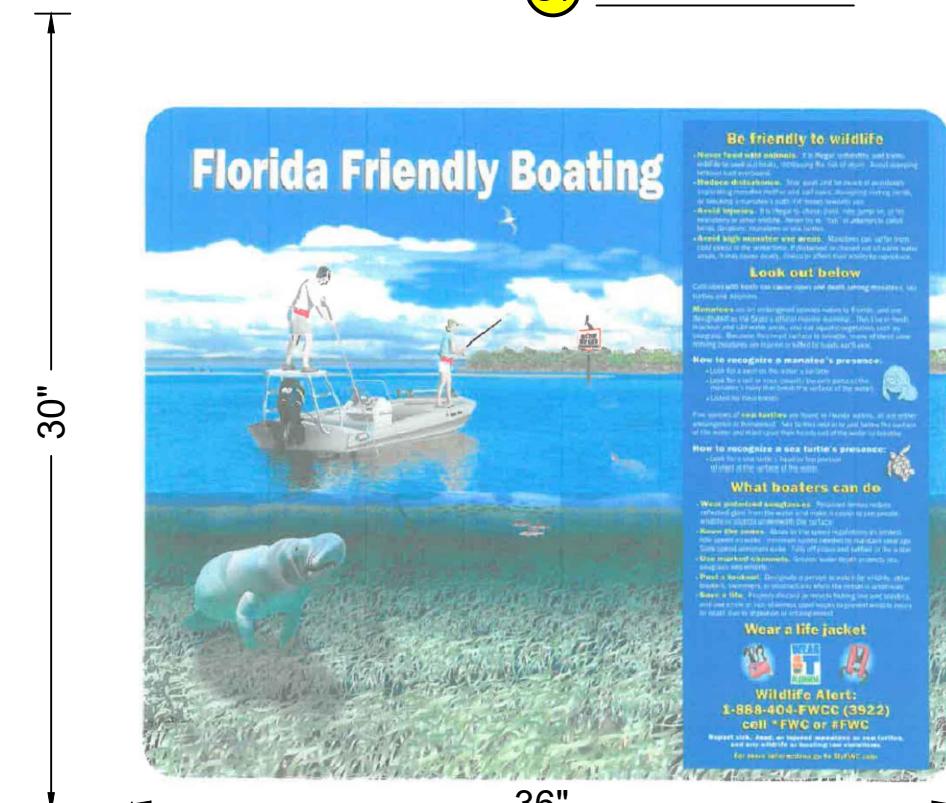
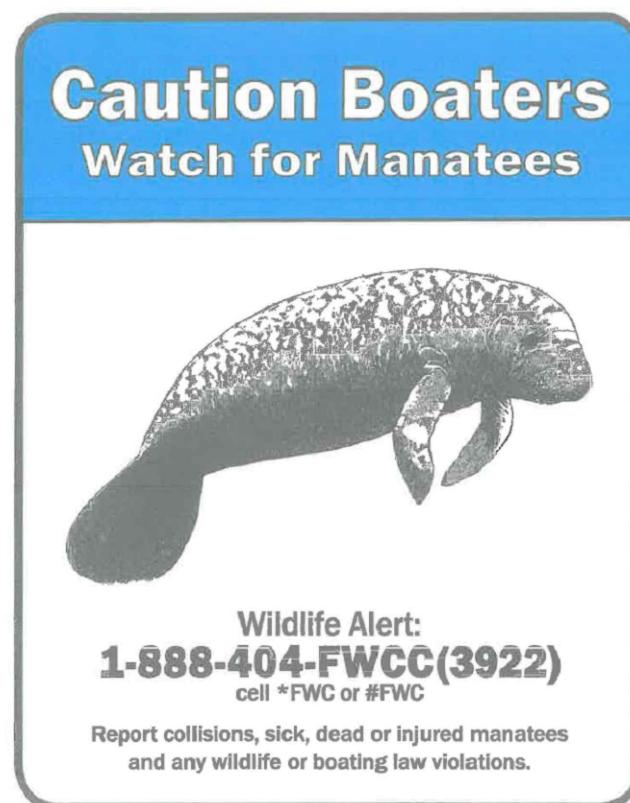


TYPICAL BOAT SLIP NUMBER LOCATION
(FINGER PIERS - FLOATING AND FIXED)

NOTES :
 <> ALL SIGNS SHOWN HEREON ARE NOT TO SCALE
 <> SEE SHEET C114 FOR SIGN LOCATIONS



S2 ADDRESS



DRAWN BY:	REVIEWED BY:	REV'D BY:	DATE:	CHKBY:	CHANGED:
R.M.J	J.J	01	-	-	-
		02	-	-	-
		03	-	-	-
		04	-	-	-
		05	-	-	-
		06	-	-	-
		07	-	-	-
		08	-	-	-
		09	-	-	-
		10	-	-	-
		11	-	-	-
		12	-	-	-

SHEET:	1

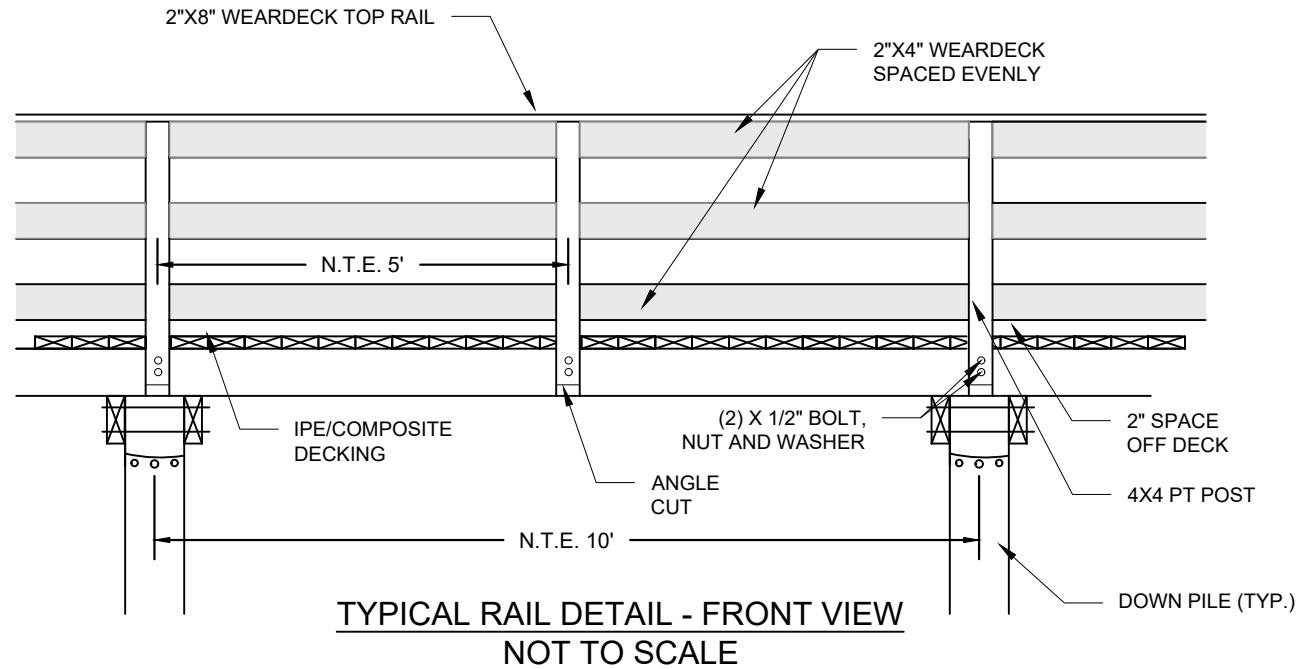
PROJECT:	C115
DATE:	12-18-25
LAYOUT:	SIGN DETAILS

MANATEE SIGN **(S3)**

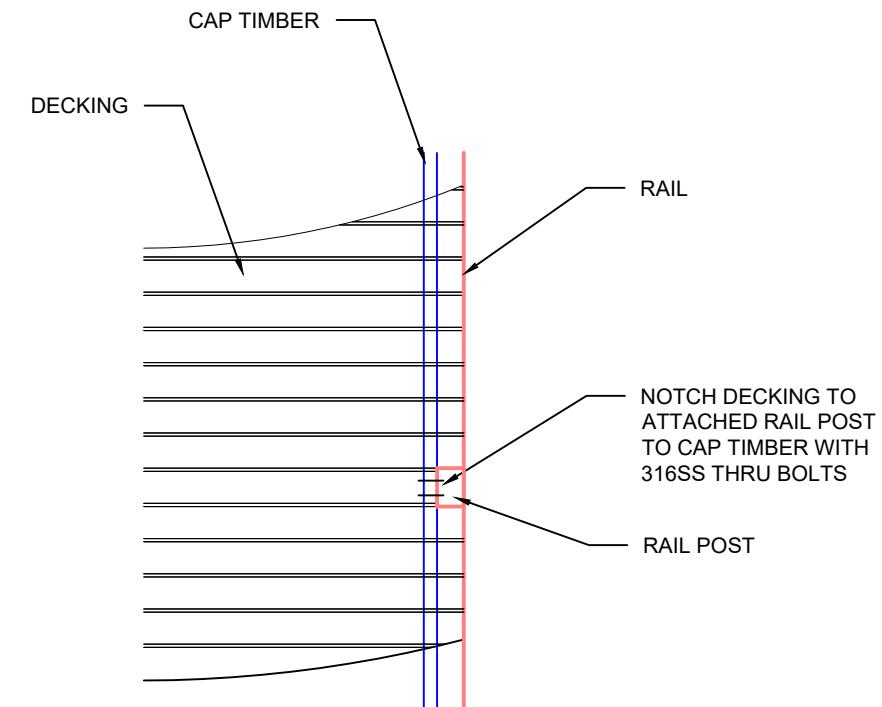
FRIENDLY BOATING SIGN **(S4)**

S5

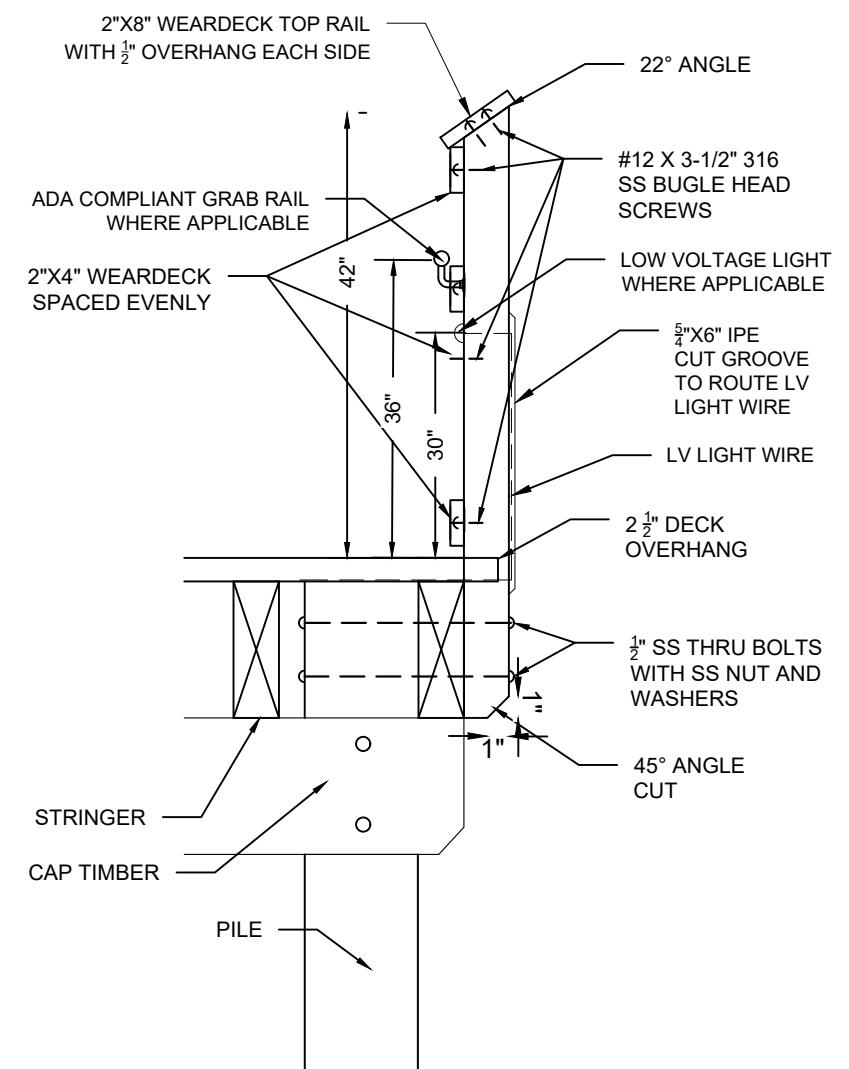
S6



TYPICAL RAIL DETAIL - FRONT VIEW
NOT TO SCALE



TYPICAL RAIL ATTACHMENT TO CAP TIMBER
(WHEN NO FASCIA IS AVAILABLE)
NOT TO SCALE



TYPICAL RAIL DETAIL - SIDE VIEW
NOT TO SCALE

DRAWN BY: RMJ		REVIEWED BY: JJ	REV'D BY: JJ	DATE: 01/01/2016	CHK BY: CHANGED:
CHECKED BY: JJ		SHEET: 1	REV BY: JJ	DATE: 01/01/2016	CHK BY: CHANGED:
PROJECT: 19145.01		01	02	-	-
DATE: 12-18-25		03	04	-	-
LAYOUT: RAILING DETAILS		05	06	-	-
		07	08	-	-
		09	10	-	-
		11	12	-	-

PANAMA CITY MARINA

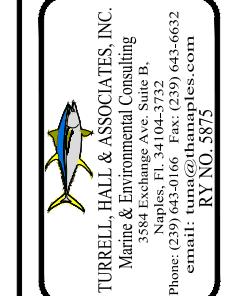
RAILING DETAILS



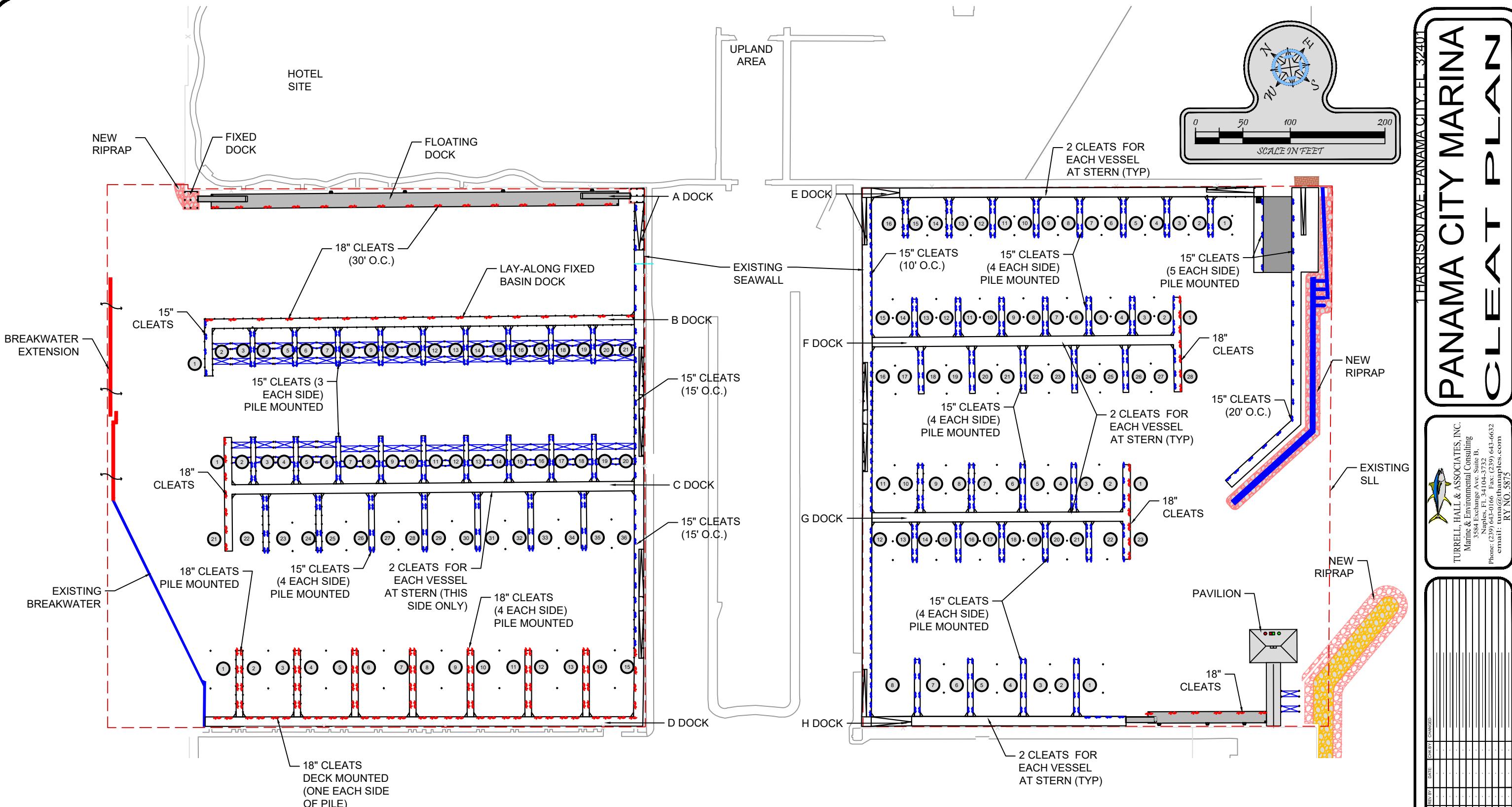
A business card for Turrell, Hall & Associates, Inc. The card features a large, detailed illustration of a yellowfin tuna on the left side. The text on the card includes the company name, address, phone number, fax number, email, and a reference number.



PANAMA CITY MARINA
WIDTH OF WATERWAY



DRAWN BY	REVIEWED BY	DATE	CHG BY	DATE	CHG BY	DATE	CHG BY
RMJ	JJ	-	-	-	-	-	-
CHECKED BY	JJ	-	-	-	-	-	-
SHEET:	1	03	-	04	-	05	-
PROJECT:	19145.01	05	-	06	-	07	-
DATE:	12-18-25	06	-	07	-	08	-
LAYOUT:	WIDTH OF WATERWAY	09	-	10	-	11	-
		12	-	13	-	14	-



NOTES:

- > CLEATS SHALL BE INSTALLED PARALLEL TO THE DOCK.
- > CLEATS SHALL BE INSTALLED WITH 316L SS THRU BOLTS, NUTS AND WASHERS OR TRACK MOUNTED STUDS.
- > MOUNTING METHODOLOGY SUBJECT TO FLOATING DOCK DESIGN.

LEGEND

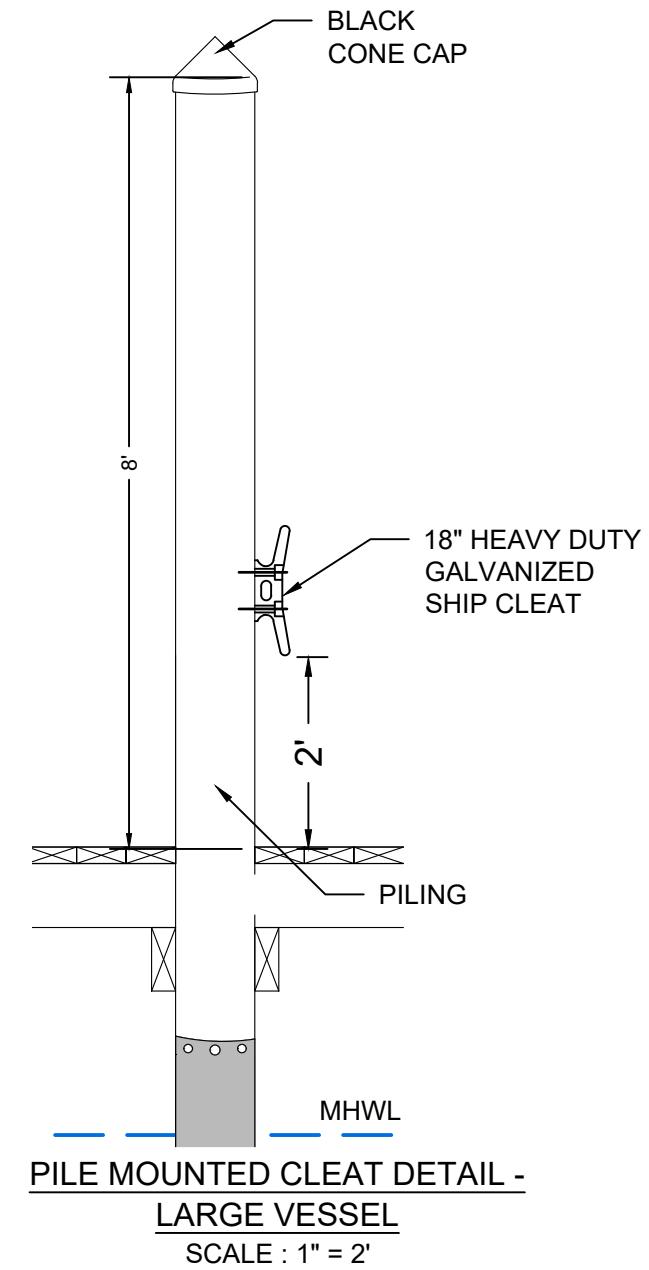
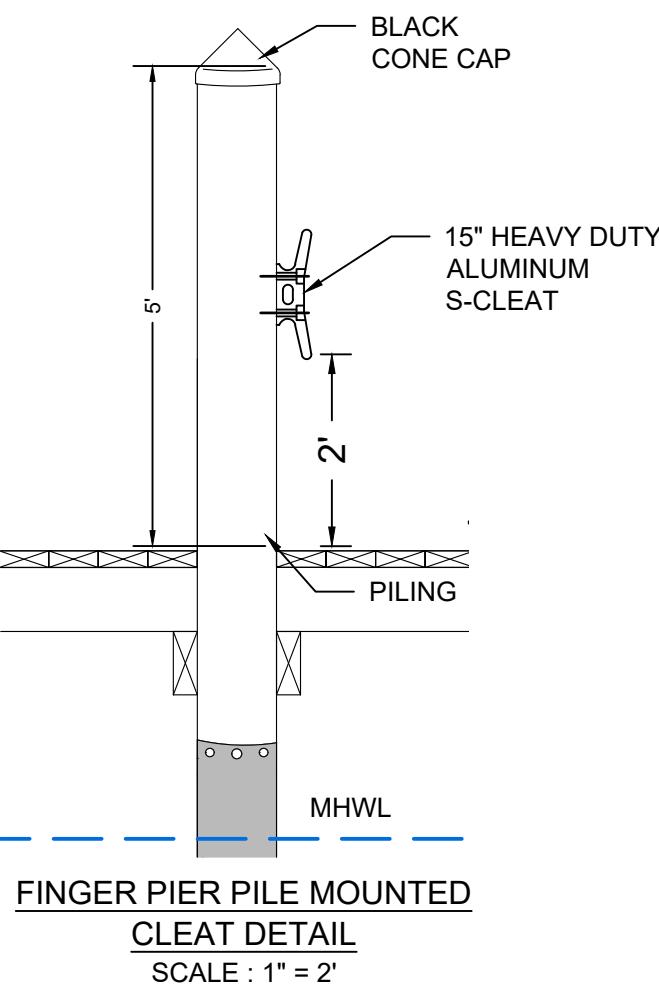
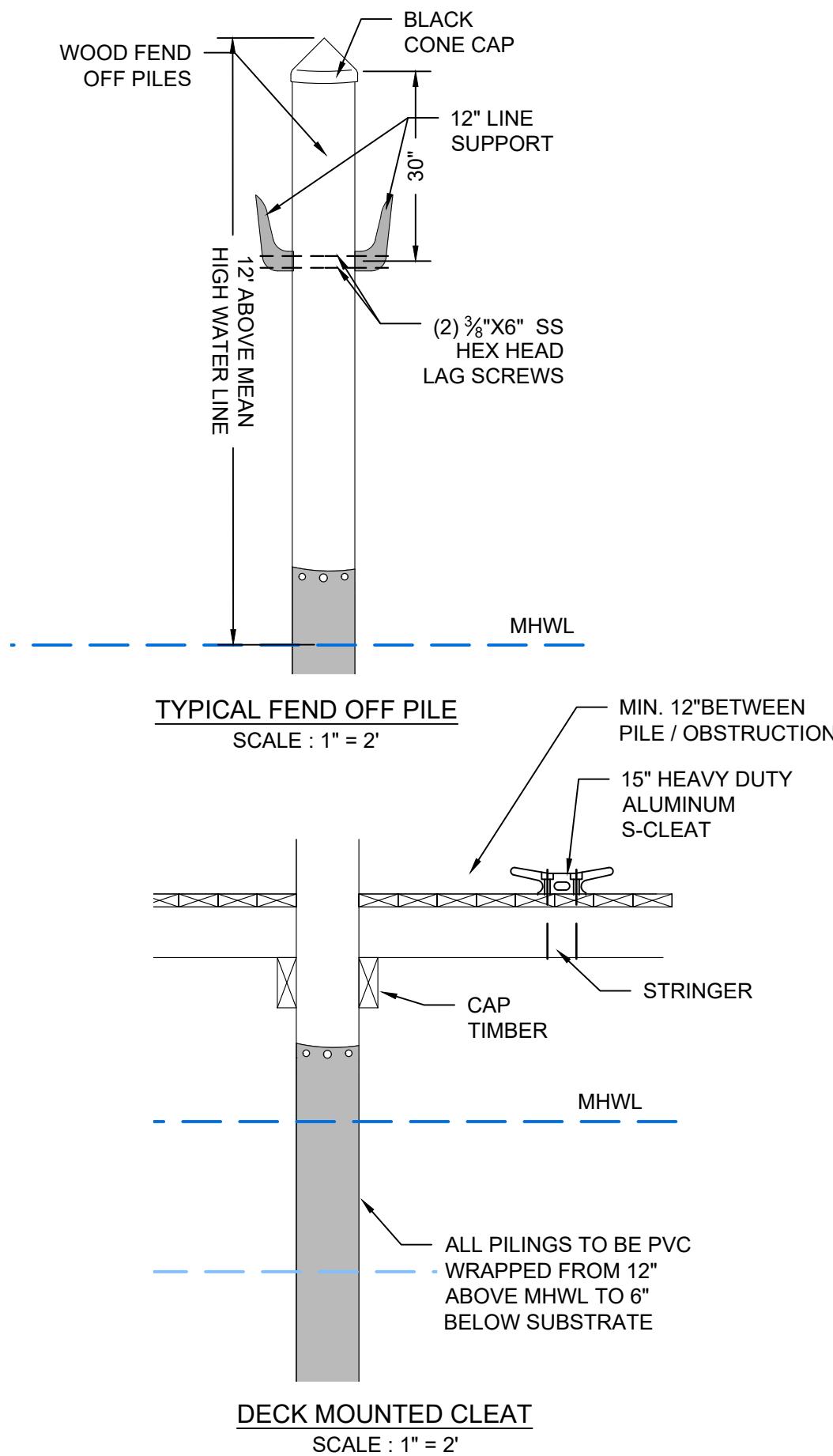
	15" ALUMINUM S-CLEAT OR STUD MOUNTED (QTY: 557)
	18" HEAVY DUTY GALVANIZED SHIP CLEAT OR STUD MOUNTED (QTY: 169)

DRAWN BY: R.M.J	REVIEWED BY: J.J	REV/N: 01	REV/R: 01	DATE: -	CHKBK: -	CHANGED: -
SHEET: 1						
PROJECT: 19145.01						
DATE: 12-18-25						
LAYOUT: C118						

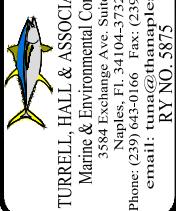
PANAMA CITY MARINA CLEAT PLAN

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5652
email: tunac@thnapies.com
RY NO: 3875

HARRISON AVE. PANAMA CITY, FL 32401



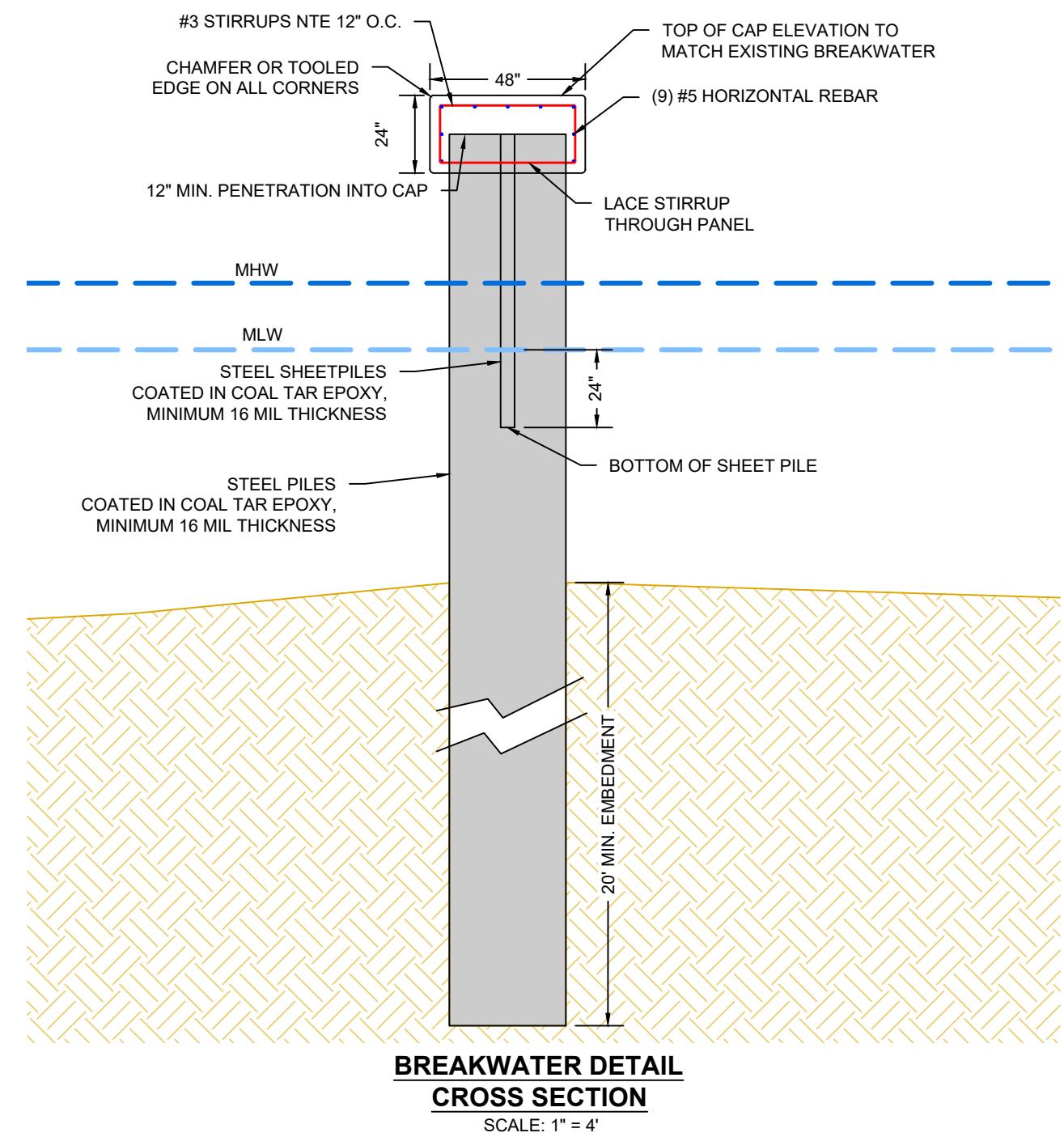
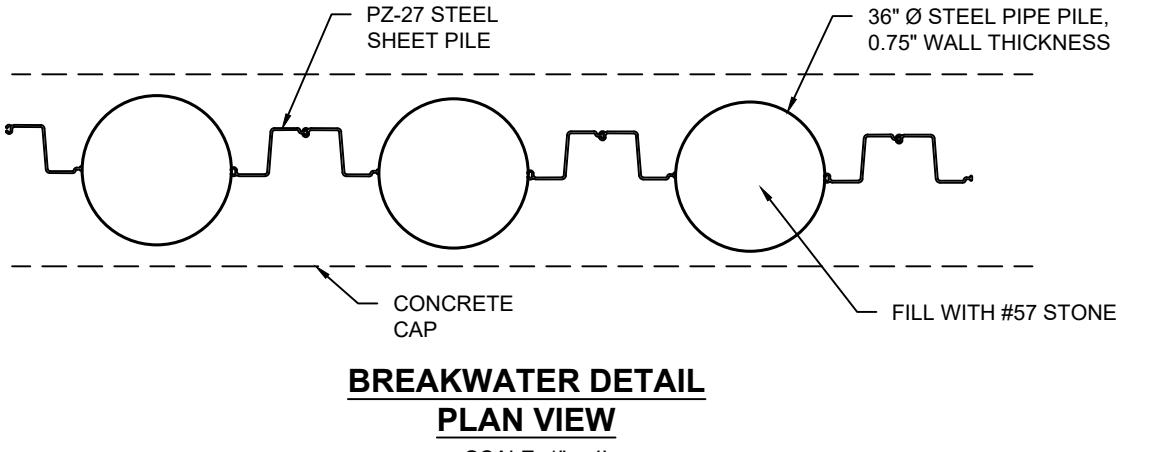
PANAMA CITY MARINA
CLEAT DETAILS



DRAWN BY: R.M.J		REVIEWED BY:	REV'D BY:	DATE:	CHG BY:	CHANGED:
SHEET:		01	02	-	-	-
		03	04	-	-	-
PROJECT:	19145.01	05	06	-	-	-
DATE:	12-18-25	07	08	-	-	-
LAYOUT:	C119	09	10	-	-	-
CLEAT DETAILS		11	12	-	-	-

1 - Concrete Specifications

- 1.1 All concrete to have 3 gal/cy of DCI-S corrosion inhibitor.
- 1.2 All steel to be ASTM Grade 60
- 1.3 All overlaps of continuous steel to be a minimum of 24" unless otherwise noted
- 1.4 All concrete to be 5,500PSI Florida DOT Class IV with a 0.41 W/C ratio, 4" slump ± 1 ", with #57 stone large aggregate for truck mixes and #89 stone for large aggregate for pump mixes
- 1.5 Contractor to submit proposed mix design and curing procedure to engineer for approval
- 1.6 All steel to have min. 3" coverage.

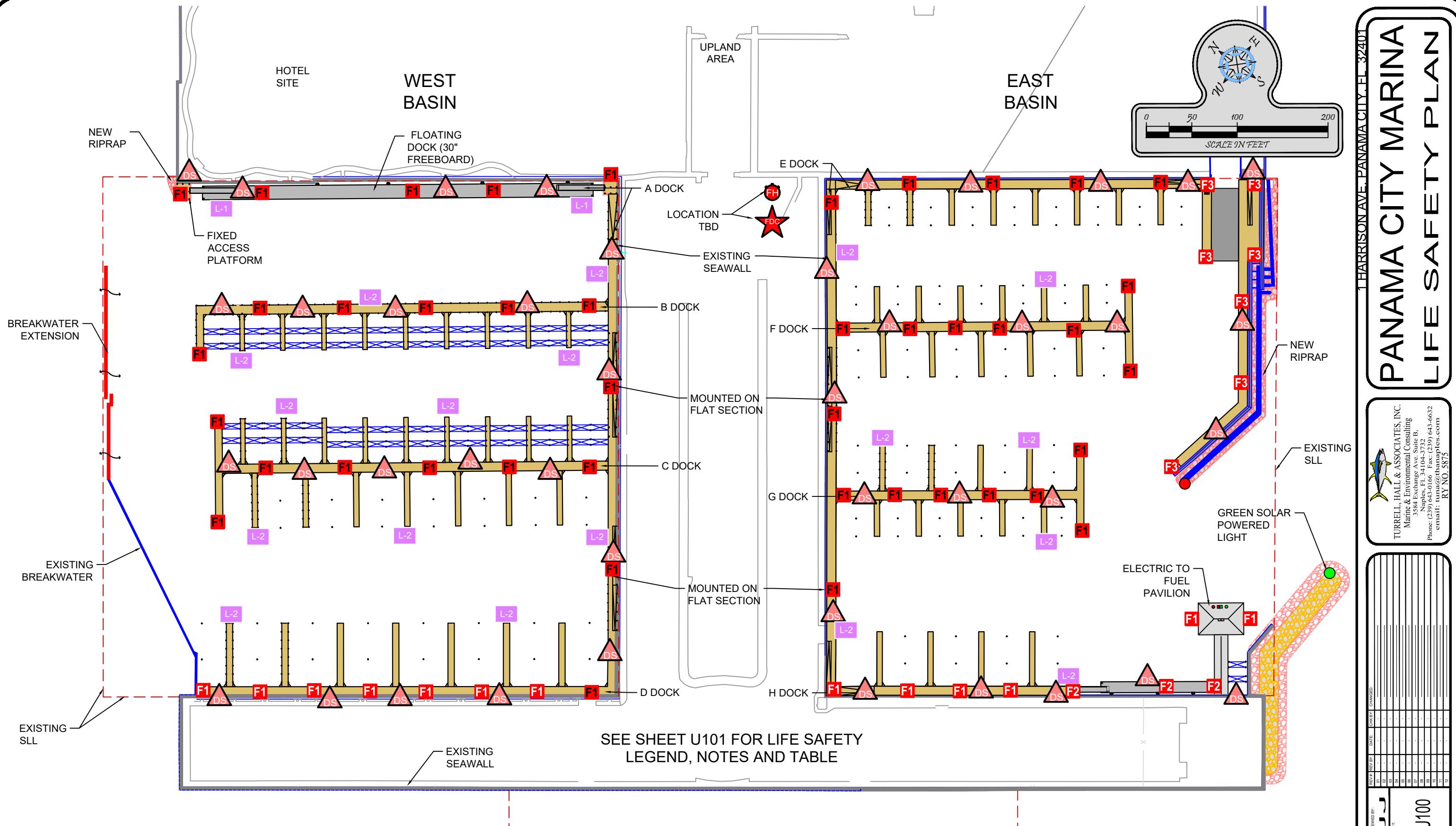


1 HARRISON AVE, PANAMA CITY, FL 32401
PANAMA CITY MARINA
BREAKWATER DETAILS



DRAWN BY: R.M.J		REVIEWED BY:	DATE:	CHANGED:
SHEET:	1	2	3	4
1	2	3	4	-
2	3	4	5	-
3	4	5	6	-
4	5	6	7	-
5	6	7	8	-
6	7	8	9	-
7	8	9	10	-
8	9	10	11	-
9	10	11	12	-

PROJECT: 19145-01
DATE: 12-18-25
LAYOUT: C120
BREAKWATER DETAILS



PANAMA CITY MARINA

LIFE SAFETY PLAN

TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5632
email: tunc@thanapies.com
RY NO. 3875

Life Safety Chart
Panama City Marina

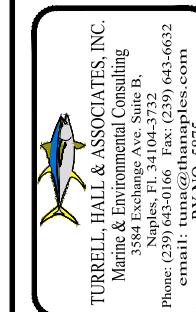
Description	Notes	Count
F-1: Fire Extinguisher Cabinet Wet Slips	MEE Fire Station with 10 Lb. "ABC" Extinguisher, One "LED" Light, and a Throwaway Device	55
F-2: Fire Extinguisher Cabinet Fuel Dock Area	MEE Fire Station With a 20Lb. 20A:120A-B-C Extinguisher, One "LED" Light, and a Throwaway Device.	3
F-3: Fire Extinguisher Cabinet Boat Ramp Area	MEE Fire Station with a 10Lb "ABC" Extinguisher, One "LED" Light, Throwaway Device, and a 20Amp 125V GFCI Duplex Receptacle Side Pod Mounted	7
DS: Dry Standpipe at all Wet Slips	2&1/2" Valve Mounted in a White Aluminum Tubular Base Mounted Fixture with Reflective ID	41
FDC: "Fire Department Connection" Within 100.0' of the Fire Hydrant	Connection Point for all of the Marina Standpipes with a Reflective Sign "Marina Standpipe Connection"	1
L-1: Floating Dock Escape Ladder	Six Step Floating Type Ladder Part : Marina Products Float Step	2
L-2: Fixed Dock Escape Ladder	Eight Step Lift and Drop Type Ladder Part : Marina Products Standard Lift Ladder	19
Red Navigation Light	Located at the End of Slip D-1 15 Amp 125Volt Blinking Light	1
Red and Green Navigation Lights	Located on the East Basin Jetty's Solar Powered Blinking Lights	1 Each

LEGEND

	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT
	MEE FIRE STATION MODEL FS1020, 10LB
	MEE FIRE STATION MODEL FS1020, 20LB
	MEE FIRE STATION MODEL FS1020, 10LB WITH A GFCI OUTLET ON A SIDE POD
	DRY FIRE STANDPIPE CONNECTION AT DOCKS
	FLOATING DOCK ESCAPE LADDER
	FIXED DOCK ESCAPE LADDER

AS PER NFPA 303 6.2.1.1 EXTINGUISHERS LISTED FOR CLASS A-B-C FIRES SHALL BE INSTALLED AT THE PIER/LAND INTERSECTION ON ANY PIER THAT EXCEEDS 25' IN LENGTH. ADDITIONAL FIRE EXTINGUISHERS SHALL BE PLACED THAT THE MAXIMUM TRAVEL DISTANCE TO AN EXTINGUISHER IS 75'. THIS INCLUDES UP AND BACK ON THE FINGER PIERS AS PART OF THE MAXIMUM TRAVEL DISTANCE. DRY STAND PIPES HAVE A SEPARATION OF 130' WHICH ALSO INCLUDES UP AND DOWN FINGER PIERS

PANAMA CITY MARINA



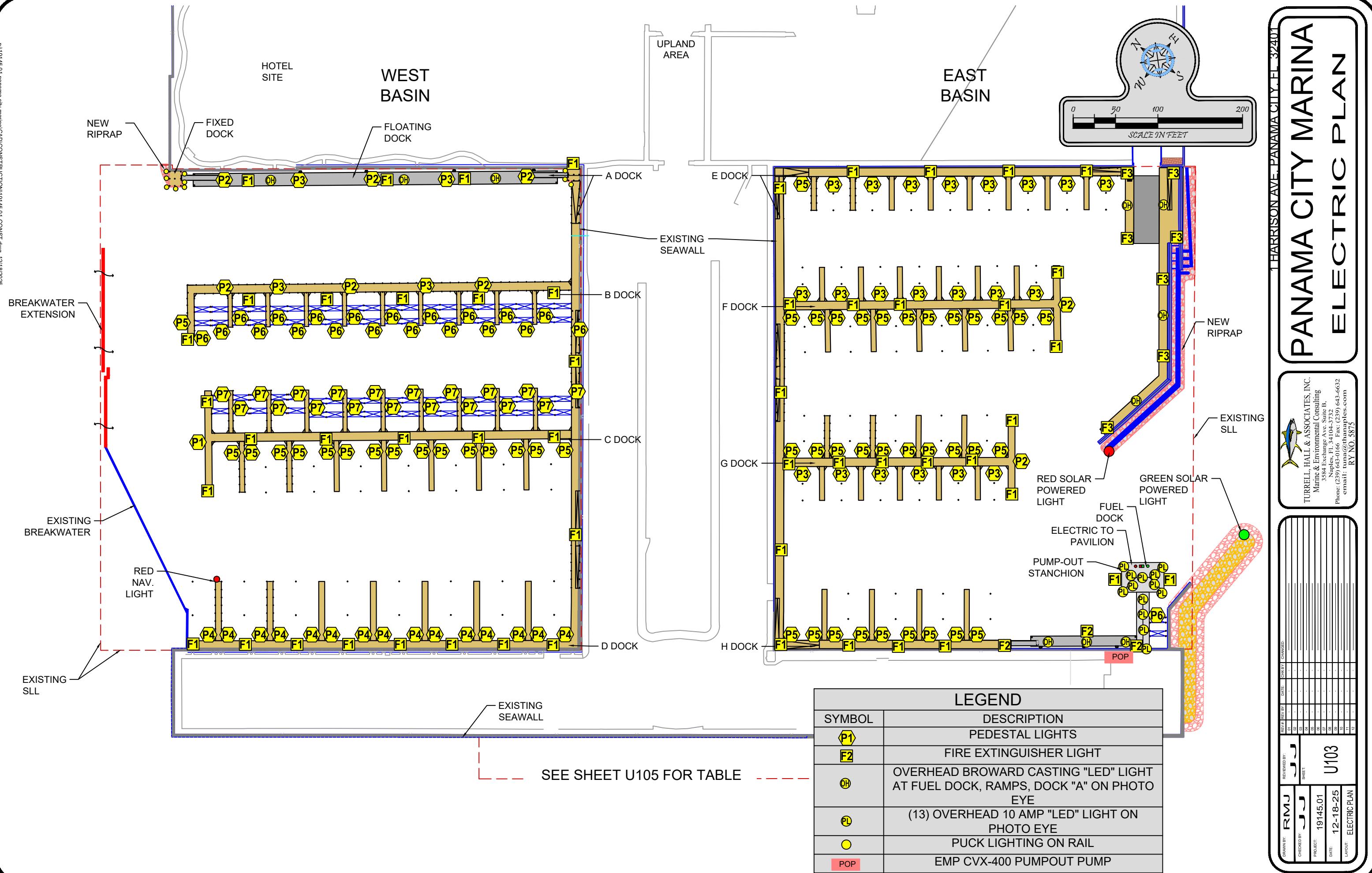
1 HARRISON AVE, PANAMA CITY, FL 32401

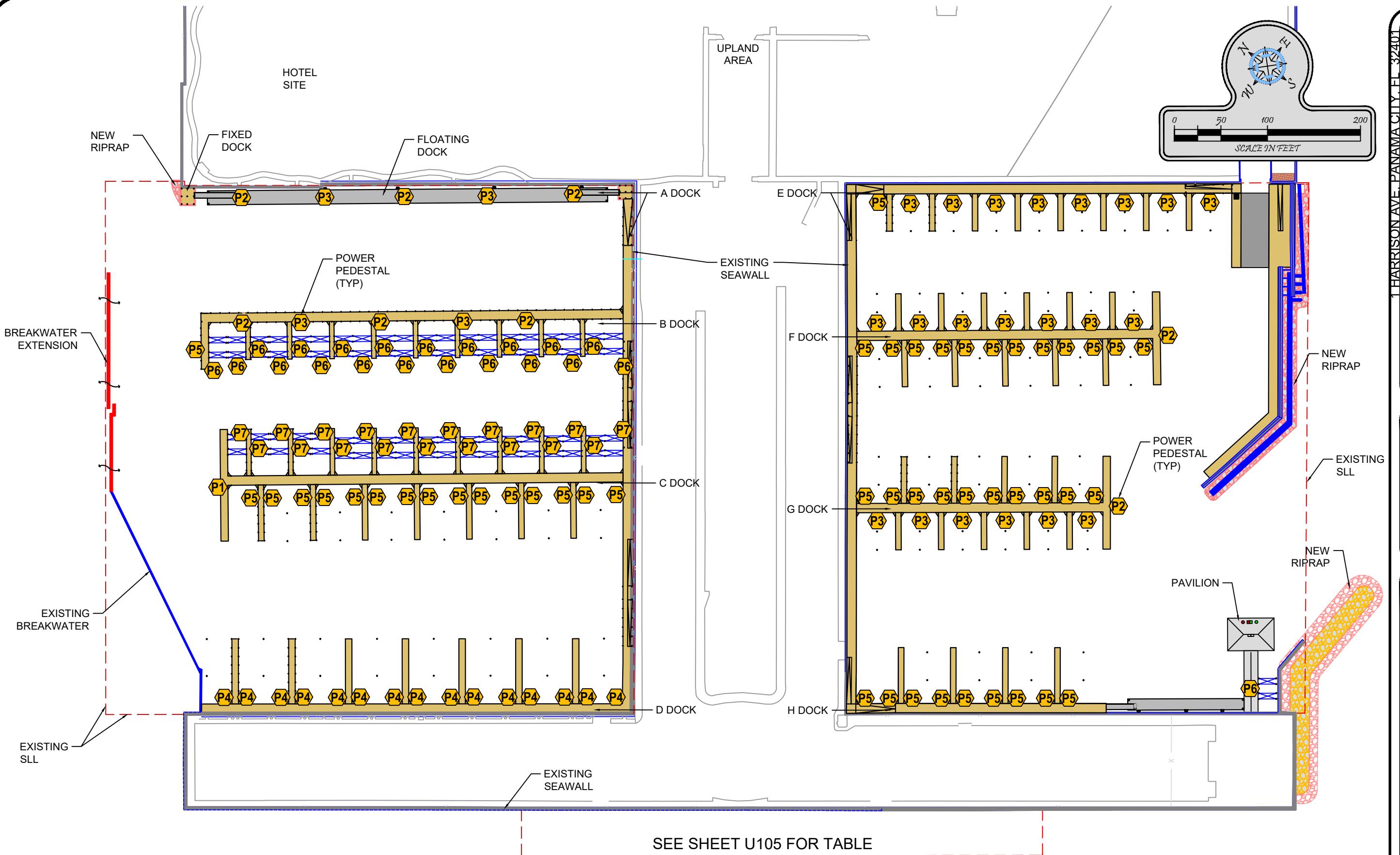
LIFE SAFETY TABLES AND NOTES

REVIEWED BY: R.M.J	REV/N 01	REV/Y 02	DATE: 19-18-25	CHG BY: U101	CHANGED
SHEET: 1					
CHECKED BY: J.J	03	04	05	06	07
PROJECT: 19-145-01	08	09	10	11	12
DATE: 12-18-25	13	14	15	16	17
LAYOUT: 1F SET 1 INDEX					

PLACEHOLDER FOR FIRE CALCULATIONS

DRAWN BY: RMJ		REVIEWED BY:	REV N	REV Y	DATE:	CHKBY:	CHANGED:
SHEET: U102		01	-	-	-	-	-
		02	-	-	-	-	-
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FIRE CALCULATIONS							
LAYOUT: FIRE CALCULATIONS							
PROJECT: 19145.01							
DATE: 12-18-25							
CADD: U102							
TURRELL, HALL & ASSOCIATES, INC.							
Marine & Environmental Consulting							
5388 Exchange Ave. Suite B,							
Naples, FL 34104-5732							
Phone: (239) 643-0160 Fax: (239) 643-5652							
email: tunac@thanapies.com							
RY NO. 3875							
1 HARRISON AVE, PANAMA CITY, FL 32401							
PANAMA CITY MARINA							
FIRE CALCULATIONS							





PANAMA CITY MARINA PEDESTAL PLAN

 TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave, Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-6632
email: tna@thanapies.com
RY NO. 3875

DRAWN BY: R.M.J		REV'D BY:	DATE:	CHKBY:	CHANGED:
J	J	01	-	-	-
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SHEET: U104

PROJECT: 19145.01

DATE: 12-18-25

LAYOUT: PEDESTAL PLAN

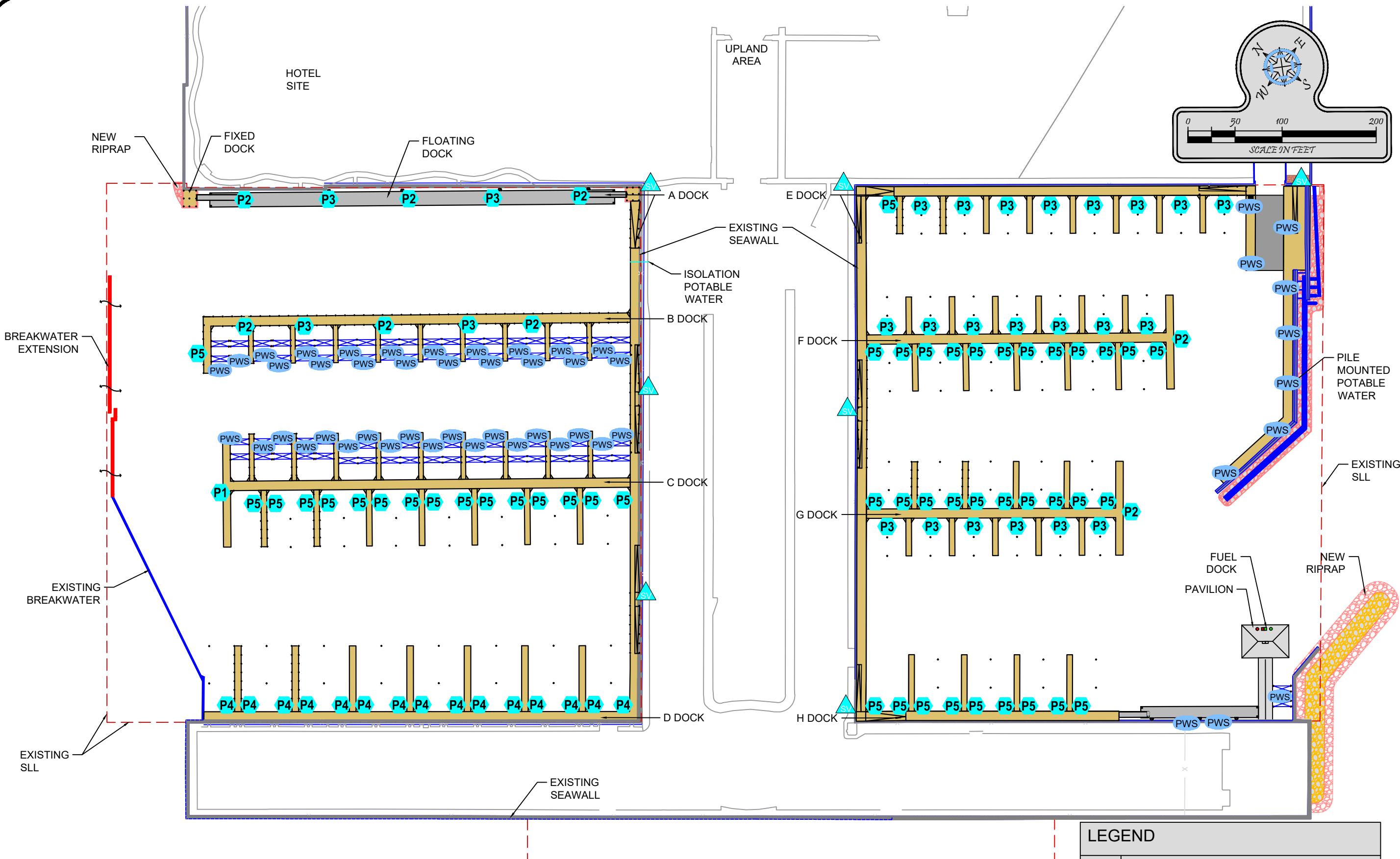
Description	P-1 Commodore	P-2 Commodore	P-3 Harbor Light	P-4 Harbor Light	P-5 Harbor Light	P-6 Bayside	P-7 Bayside	F-1 Fire Station	F-3 Fire Station	
20A GFCI	X	X	XX	X	X	X	X			
30A 125V Twist-Lock			XX XX	XX	XX	XX	X			
50A 240V Twist-Lock	XX	XX	XX	XX	XX		X			
100A 240V 1p Pin & Sleeve	XX	X		X						
100A 120/208Y 3p Pin & Sleeve	XX Side-2	X Side-2								
“LED” Light	XX	XX	X	X	X	X	X	X	X	
30A 240V 1p Two Pole Boat Lift Breaker						X				
40A 240V 1p Two Pole Boat Lift Breaker						X				
20A 125V GFCI Side Pod Mount Receptacle									X	

Power Pedestal Chart Panama City Marina

Description	Amps, Volts & Phase	Notes/Location	Count
EMP CVX-400 Pump Out Pump (POP)	30Amps 240 Volts Single Phase	Fuel Dock Connected to a Fuel Dock Mounted Hose Pedestal	1
Fuel Tank Location	100Amp Panel 240 Volts Single Phase	Mounted Adjacent to Tanks with a Weatherproof Enclosure	1
Fuel Office Area	150 Amp Panel 240 Volt Single Phase	Allocate an Indoor Area 4.0’W X 7.0’H for Equipment Mounting	1
Fuel Dock & Boat Ramp Overhead Lights	15 Amp Each Unit 125 Volt Single Phase	Two Bulbs per Unit Lenses to Be 12.0’ clear of the Deck	10
F-1 & F-2 Fire Stations @ all Wet Slips	5-amp 125 Volt Single Phase	Internal Photocell Controlled “LED” Light	58
F-3 Fire Stations at the Boat Launch Area	5-amp 125 Volt Single Phase “LED” Light	Add on 20 Amp 125 Volt GFCI Duplex Receptacle	7

Additional Electrical Equipment Chart

DRAWN BY: R.M.J	REVIEWED BY: J.J	REV/N: 01	REV/R: 02	DATE: -	CHKBY: -	CHANGED: -
SHEET: 1		03	04	-	-	-
PROJECT: 19145.01		05	06	-	-	-
DATE: 12-18-25		07	08	-	-	-
LAYOUT: PEDESTAL ELECTRIC TABLES		09	10	-	-	-
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		273	274			



LEGEND

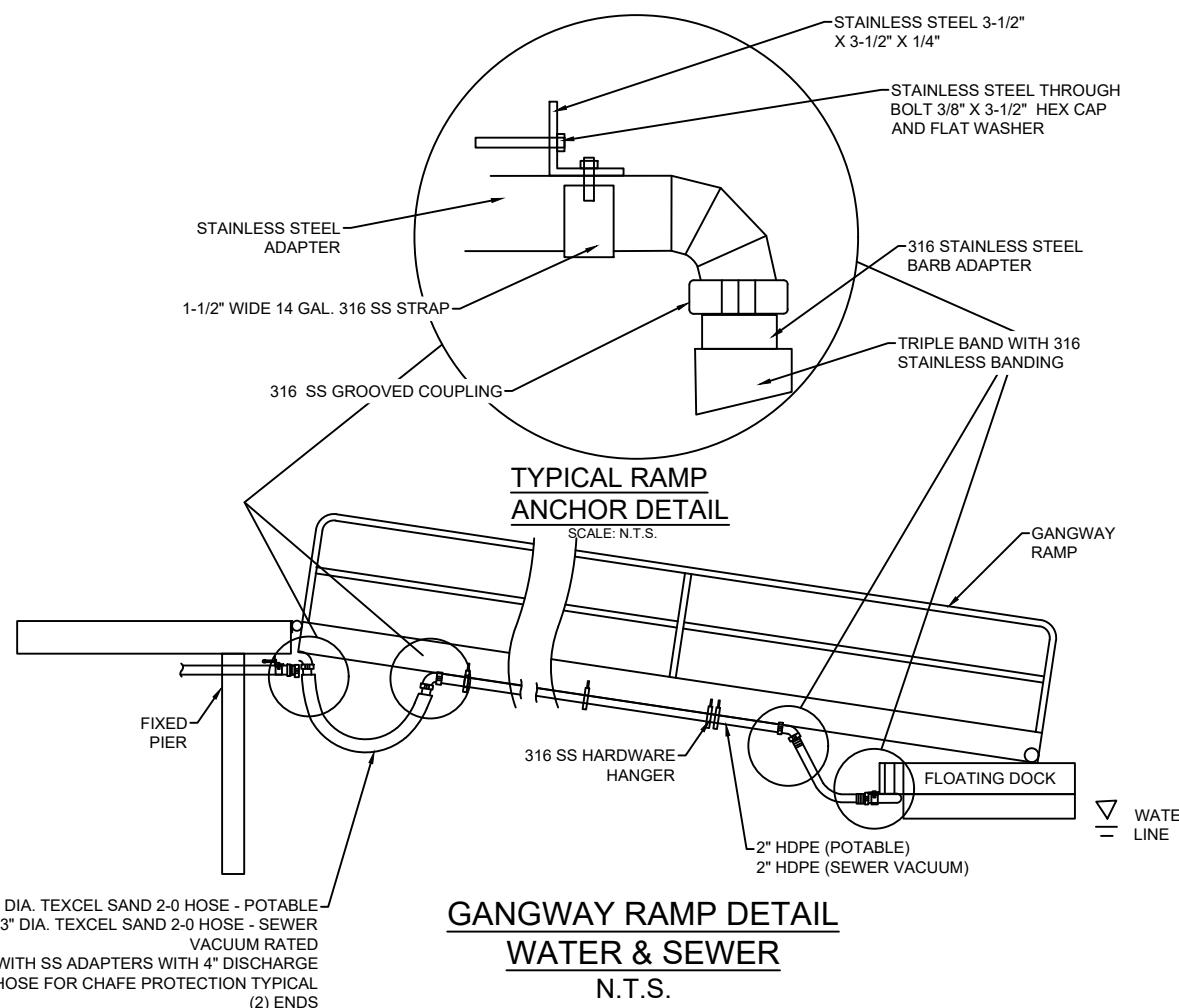
	WATER ON PEDESTAL
	3/4" POTABLE WATER SPIGOT SYSTEM - PILE MOUNTED
	POTABLE WATER SERVICE VALVE

PANAMA CITY MARINA POTABLE WATER PLAN


TURRELL, HALL & ASSOCIATES, INC.
 Marine & Environmental Consulting
 5584 Exchange Ave., Suite B,
 Naples, FL 34104-5732
 Phone: (239) 643-0160 Fax: (239) 643-6632
 email: tunc@thanapies.com
 RY NO. 3875

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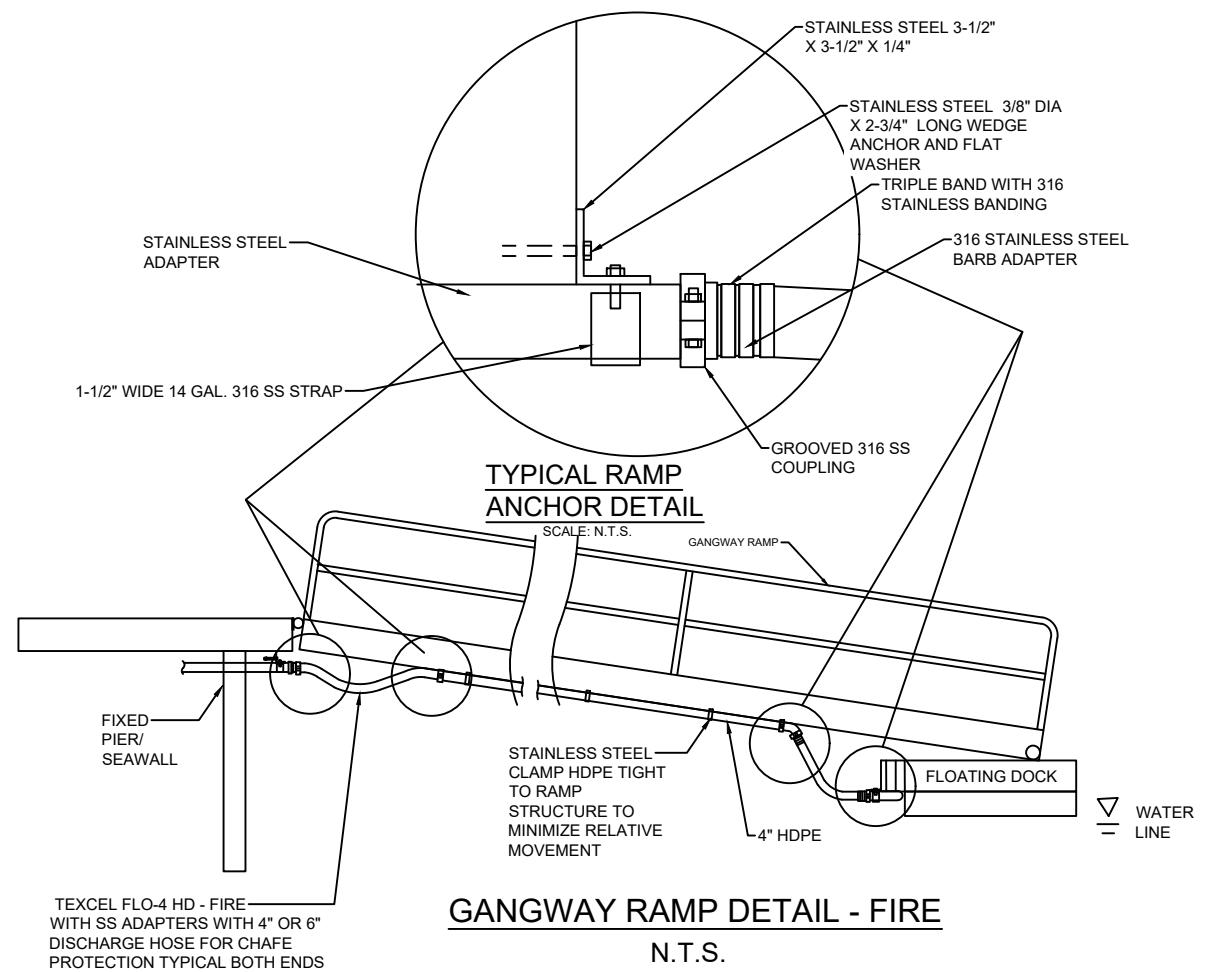
U106



TYPICAL WATER & SEWER LINE INSTALLATION

NOTES:

- <> ALL VALVES SHALL HAVE IDENTIFICATION
- <> ALL WATER SPIGOTS TO HAVE BRASS OR SS HANDLES
- <> ALL FIRE EXTINGUISHERS SHALL BE 10LB OR 20LB "ABC" RATED



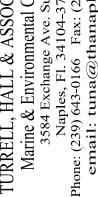
TYPICAL FIRE LINE INSTALLATION

PANAMA CITY MARINA
UTILITY GANGWAY PLAN


TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave. Suite B,
Naples, FL 34160 Fax: (239) 643-5732
Phone: (239) 643-0160 email: tma@thanapies.com
RY NO. 3875

DRAWN BY: R.M.J		REVIEWED BY:	REV/N	REV/Y	DATE:	CHKBY:	CHANGED:
SHEET:		01	-	-	-	-	-
PROJECT:		19145.01	-	-	-	-	-
DATE:		12-18-25	-	-	-	-	-
LAYOUT:		U107	-	-	-	-	-
UTILITY GANGWAY PLAN		-	-	-	-	-	-

PANAMA CITY MARINA



TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave. Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0160 Fax: (239) 643-5652
email: tna@thanapies.com
RY NC 3875

HARRISON AVE, PANAMA CITY, FL 32401

UTILITY NOTES 1

Marina Accessories

Cleats: Aluminum & Heavy Duty Galvanized

- Locations: As Per THA Plan Set.
- Dimensions:
 - 15" Aluminum S-Cleat
 - 18" Heavy Duty Galvanized Ship Cleat.
- Installation:
 - The Floating Dock Shall Have 18" Ship Cleats Thru Bolted With 304/305 S/S Bolts of the Appropriate Length.
 - The Cleats shall all be Installed Parallel to the Dock Facing Front Towards the Open Water Side.
 - The Fixed Dock Shall Have Both 15" S-Cleats and 18" Ship Cleats Pile Mounted.
 - See Cleat Pile Diagram in the Dock Construction Plans.
 - Both Cleats Shall Have 316L S/S Lag Screws and S/S Washer.
 - The 15" Cleats Shall Use a Lag Screw 1/2" X 6"
 - The 18" Cleats Shall Use a Lag Screws 1/2" X 8" Due to the Depth of the Cleat Fastening Holes.

Pile Caps: Black

- Locations:
 - Marina Wet Slips Shall Have a Cone Shaped Pile Cap.
 - Marina Control Piles Shall Have a Cone Shaped Pile Cap.
 - Boat Lift Piles Shall Have a Flat Cap.
 - All Pile Caps Shall be Manufactured Black in Color with Mildew Inhibitors and UV Stabilized.
- Installation:
 - All Pile Caps Used on Wood Piles Shall Be Secured with Large Headed S/S Nails At Least 1x1/2" Long Evenly Spaced No More than 4" Apart.
 - Control Piles on the Floating Docks if They are Steel HDPE Sleeved Shall Have S/S Self-Tapping Screws with S/S Fender Washers Securing Them.
 - If Wood Piles Are Used Follow Same Installation for the fixed docks as Above.

Dolphine Pile Line Supports: Marina Products Black.

- Location: All Dolphin Piles as per THA Plans.
- Units Shall Be Solid Plastic not Hollow Molded
- Installation:
 - Line Holders Shall be Installed on Wood Piles with a Minimum of Two 3/8"X 5" 316L S/S Lag Screws with a S/S #Washer.
 - The Top of the Horn on the Line Holder Shall be a Minimum of 3.0' From the Top of the Pile.
 - The Line Holder Shall be Installed on the Front Side (Open Water) of the Pile Parallel to the Wet Slip.

Potable Water:

- Marina Products Water Stanchion.
- Broward Casting Combination Water Spigot and Hose Holder.
- Location:
 - Fuel Dock & Boat Ramp Staging Dock as per THA Plan Set.
 - Boat Lift Finger Piers as per THA Plan Set.
- Color: White
- Installation:
 - The Water Stanchion Shall be Installed with 316L S/S Fastenings with either Lag Screws or Thru Bolts as Appropriate to the Mounting Location.
 - The Broward Casting Unit Shall be Installed with 316L S/S Lag Screws Appropriate for the Application.

- The Broward Casting Unit Shall be Installed 30" From its Bottom End to the Dock Surface.

Lighting:

- Marina Products DL-14 or Broward Casting Dual Wharf Light.
- Location:
 - Fuel Dock, Boat Ramp Staging Area, and Restaurant Transient Dock "A".
- Color: White
- Post: Square with a Large Square Base.
- Height: Lens to be 12.0' From the Dock Surface as per Fuel Code.
- Installation:
 - Units that may be Mounted on a Concrete Floating Dock Shall have Reinforced Area to Support the Light.
 - That is the Responsibility of the General Contractor to Ensure that the Reinforcement is Done.
 - Wood or Aluminum Docks Shall have a Reinforcement Installed, All Fastenings Shall be 316 S/S Bolts, Lag Screws as Required to the Particular Location.

Low Voltage Lighting: Railing Mounted PUC Lights.

- Product: Lite the Night Starlight Collection L192A 3X1/2" W Amber Or Approved Equivalent.
- Dimensions: 3X1/2" Diameter to fit on a Railing Post (Bronze).
- Location:
 - Railings as Indicated on the THA Plan Set.
- Power Source:
 - Shall Be Multiple 20Amp 125Volt GFCI Duplex Receptacle or Hard Wired if Location Permits to Power the Lighting Transformer.
- Installation:
 - The Wiring Shall be Gathered in a Neat Workman like Manner and Secured with Dell Clamps and Tie Wraps.
 - The Light Wire Shall Be Routed Thru the Railing Post or Pile.

General Note for the Project: The Contractor Will Supply all the Labor and Material Required to complete this Marina Project to Enable the Owner to Operate This Facility as it is Intended.

Aluminum Floating Dock Bonding

- All sections of the aluminum dock shall be connected by a bonding ground wire between the floats.
- Connected to an internal frame within the structure using a wire length of no more than 8.0' between floats.
- The connection shall be thru bolted (S/S) with lock washers and flat washers.
- The wire shall be green in color multi stranded of at least a # 10-gauge size.
- The terminal connectors shall be soldered and heat fused with shrink wrap.
- The cable shall be terminated in a panel board to the ground buss.

Panel Boards Identification

- All breakers have an engraved placard identifying each breaker as to slip number or other location.
- All panel board and transformers shall be identified as per the EE plans with an engraved placard.
- Special notices or notes for a specific piece of equipment shall have engraved placards.

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PROJECT: 19145.01				
DATE: 12-18-25				
LAYOUT: UTILITY NOTES 1				

PANAMA CITY MARINA

HARRISON AVE, PANAMA CITY, FL 32401



Pedestals

P-1: Marina Electric Equipment (MEE) Commodore S/S Model CD100200

- Location: Dock C-1 & D-1 as per THA Plan Set.
- Dimensions: 48" X 14" x 14".
- Count: One Units.
- Color: White.
- Receptacle Configuration:
 - Side One:
 - One 20 Amp 125Volt GFCI Duplex Receptacle.
 - Two 50 Amp 240Volt 1p SS-2 Twist-Lock Shorepower.
 - Two 100 Amp 240Volt 1p Pin & Sleeve Shorepower.
- Pedestal Accessories:
 - Two Cabel/Hose Holders. (MEE Type)
 - Two S/S 3/4" Full Flow Quick Close Potable Water Spigots with Back Flow Protection.
 - Manuel Meters for KVH Electric and Potable Water.
 - Two Photo Eye Controlled "LED" Lights with Amber Lenses.
 - Wireless MarineSync NanoPRO.
 - Ground Fault Circuit Breakers and with a Ground Fault Monitoring System.

P-2: Marina Electrical Equipment (MEE) Commodore S/D Model CD100200.

- Location: Docks B-1 & B-3 & B-5, F-15 & G-11 as per THA Plan Set.
- Dimensions: 48" X 14" x 14".
- Count: Ten Units.
- Color: White.
- Receptacle Configuration:
 - Side One:
 - One 20 Amp 125Volt GFCI Duplex Receptacle.
 - Two 50 Amp 240Volt 1p SS-2 Twist-Lock Shorepower.
 - One 100 Amp 240Volt 1p Pin & Sleeve Shorepower.
- Pedestal Accessories:
 - Two Cabel/Hose Holders (MEE)
 - Two S/S 3/4" Full Flow Quick Close Potable Water Spigot with Back Flow Protection.
 - Manuel Meters for KVH Electric and Potable Water.
 - Two Photo Eye Controlled "LED" Lights with Amber Lenses.
 - Wireless MarineSync NanoPRO.
 - Ground Fault Circuit Breakers and with a Ground Fault Monitoring System.

P-3: Marina Electrical Equipment Harbor Light S/S Model HLSS30100.

- Location: 40.0' Slips with Docks A-2 & A-4, B-2 & B-4, F-1 to F-14, E-2 to E-17, G-12 to G-23 as per THA Plan Set.
- Dimensions: 42.6" X 11.125" X 11.125".
- Count: Twenty-Three Units.
- Color: White.
- Receptacle Configuration: Shared Two Slips to One Pedestal with a Side One & Two.
 - Side One:
 - One 20 Amp 125 Volt GFCI Duplex Receptacle.
 - Two 30 Amp 125 Volt 1p L5-30R Twist-Lock Shorepower.
 - One 50 Amp 240 Volt 1p SS-2 Twist-Lock Shorepower.
- Side Two:
 - One 20 Amp 125 Volt GFCI Duplex Receptacle.
 - Two 30 Amp 125 Volt 1p L5-30R Twist-Lock Shorepower.
 - One 50 Amp 240 Volt 1p SS-2 Twist-Lock Shorepower.
- Pedestal Accessories:
 - Two Cabel/Hose Holders (MEE).
 - Two S/S 3/4" Full Flow Quick Close Potable Water Spigots

with Back Flow Protection.

- Manuel Meters for KVH Electric and Potable Water.
- One Photo Eye Controlled "LED" Light with Amber Lenses.
- Wireless MarineSync NanoPRO.
- Ground Fault Breakers and with a Ground Fault Monitoring System.

P-4: Marina Electrical Equipment Harbor Light S/S Model HLSS30100.

- Location: 70.0' Slips with Docks D-2 to D-18 as per THA Plan Set.
- Dimensions: 42.6" X 11.125" X 11.125".
- Count: Fifteen Units.
- Color: White.
- Receptacle Configuration:
 - One 20 Amp 125 Volt GFCI Duplex Receptacle.
 - Two 30 Amp 125 Volt 1p L5-30R Twist-Lock Shorepower.
 - Two 50 Amp 240 Volt 1p SS-2 Twist-Lock Shorepower.
 - One 100 Amp 240 Volt 1p Pin & Sleeve Shorepower.
- Pedestal Accessories:
 - Two Cabel/Hose Holders (MEE).
 - Two S/S 3/4" Full Flow Quick Close Potable Water Spigots with Back Flow Protection.
 - Manuel Meters for the KVH Electrical and Potable Water.
 - One Photo Eye Controlled "LED" light with Amber Lenses.
 - Wireless MarineSync NanoPRO.
 - Ground Fault Breakers and with a Ground Fault Monitoring System.

P-5: Marina Electrical Equipment Harbor Light Model HLSS30100.

- Location: 50.0' & 60.0' Slips with Docks C-21 to C-35, F-16 to F-27, G-12 to G-23, H-1 to H-9 as per THA Plan Set.
- Dimensions: 42.6" X 11.125" X 11.125".
- Count: Forty-Seven Units.
- Color: White.
- Receptacle Configuration:
 - One 20 Amp 125 Volt GFCI Duplex Receptacle.
 - Two 30 Amp 125 Volt 1p L5-30R Twist-Lock Shorepower.
 - Two 50 Amp 240 Volt 1p SS-2 Twist-Lock Shorepower.
- Pedestal Accessories:
 - Two Cabel/Hose Holders (MEE).
 - Two S/S 3/4" Full Flow Quick Close Potable Water Spigots with Back Flow Protection.
 - Manuel Meters for KVH Electrical and Potable Water.
 - One Photo Eye Controlled "LED" light with Amber Lenses.
 - Wireless MarineSync NanoPRO.
 - Ground Fault Breakers and with a Ground Fault Monitoring System.

P-6: Marina Electrical Equipment Bayside Model BU3050.

- Location: 40.0' Boat Lift Docks C-2 to C-20 as per THA Plan Set.
- Dimensions & Installation: Pile Mounted a Minimum of 40" from the deck to the Lower Edge of the Unit. 14.6" X 11.0" X 10.625".
- Count: Nineteen Units.
- Color: White.
- Receptacle Configuration:
 - One 20 Amp 125 Volt GFCI Duplex Receptacle.
 - Two 30 Amp 125 Volt 1p L5-30R Twist-Lock Shorepower.
 - One 30 Amp 240 Volt 1P Two-Pole Breaker for the Boat Lift

Power Supply.

- Pedestal Accessories:
 - One Photo-Eye Controlled "LED" Light with Amber Lenses.
 - One Manuel KVH Electrical Meter.
 - Ground Fault Breakers and with a Ground Fault Monitoring System.
 - Wireless MarineSync NanoPRO.
 - There is No Potable Water Spigot with this Unit Contractor to Provide a Standalone Pile Mounted 3/4" Potable Water Spigot System.

P-7: Marina Electrical Equipment Bayside Model BU3050.

- Location: 50.0' Boat Lift Docks C-2 to C-20 as per THA Plan Set.
- Dimensions & Installation: Pile Mounted a Minimum of 40" from the deck to the Lower Edge of the Unit. 14.6" X 11.0" X 10.625".
- Count: Nineteen Units.
- Color: White.
- Receptacle Configuration:
 - One 20 Amp 125 Volt GFCI Duplex Receptacle.
 - One 30 Amp 125 Volt 1p L5-30R Twist-Lock Shorepower.
 - One 50 Amp 240 Volt 1p SS-2 Twist-Lock Shorepower.
 - One 40 Amp 240 Volt 1P Two-Pole Breaker for the Boat Lift Power Supply.
- Pedestal Accessories:
 - One Photo-Eye Controlled "LED" Light with an Amber Lense.
 - One Manuel KVH Electrical Meter.
 - Ground Fault Breakers and with a Ground Fault Monitoring System.
 - Wireless MarineSync NanoPRO.
 - There is No Potable Water Spigot with this Unit the Contractor to install a Standalone Pile Mounted 3/4" Potable Water Spigot System.

DRAWN BY: R.M.J	REVIEWED BY: J.J	DATE: 19-45-01	CHKBY: -	CHANGED: -
SHEET: 1		12-18-25	10	11
		10	11	12
PROJECT: 19-45-01				
DATE: 12-18-25				
LAYOUT: UTILITY NOTES 2				



COMMODORE SS

Power Pedestal Models CD50200



STANDARD DIMENSIONS: 48"H 14"W 14"D

Marina Electrical Equipment strives to stay on the cutting-edge of product development. Modern marinas require more electrical capability than ever before, and our flagship power pedestal, the "Commodore SS" is designed to fit that need. With the ability to supply dual voltages/phases at up to 500A each, the "Commodore SS" enables the marina to accommodate the diverse power requirements of the larger super-yachts.



STANDARD FEATURES

- Intertek-ETL Listed, tested in accordance with Underwriters Laboratories-231
- Standards, CAN/CSA Standard C22.2 No.29 and NFPA 303
- Rugged, long-lasting stainless steel NEMA 3RX main housing
- Heavy-duty injection-molded polycarbonate top assembly
- Limited 1-Year Warranty
- Extra wide back-lit receptacle faceplate for easier plug-in
- Highest quality twist-lock receptacles and circuit breakers
- Highest quality 100-Amp pin and sleeve receptacles (when 100-amp receptacles are selected)
- Industry-trusted 200-Amp pin and sleeve receptacles (when 200-amp receptacles are selected)
- Patented pivoting receptacle faceplate assembly, which simplifies field-maintenance tasks such as replacing circuit breakers, receptacles or meter current transformer coils
- Two photocell-controlled LED light fixtures with fuse protection
- 250-Amp rated copper $\frac{3}{8}$ " stud-lug single phase 125/250V terminal block
- Newly designed, highly functional dual hose/cable brackets, capable of holding min. 50' of standard 5/8"ID garden hose or 50' of 50-ampere, 4-wire shore power (S.O.) cord
- Clean-looking flush-mounted access panels
- Lockable polycarbonate weatherproof doors which shield the receptacles and circuit breakers from the elements while in use (as required by NFPA 303 and NEC Article 555)

OPTIONAL FEATURES

- Receptacle Options:
 - 20A, 125V Duplex GFCI
 - 20A, 125V LS-20R Twist-Lock Shorepower
 - 30A, 125V LS-30R Twist-Lock Shorepower
 - 50A, 125V SS-1Twist-Lock Shorepower
 - 50A, 125/250V SS-2 Twist-Lock Shorepower
 - 100A, 125/250V Pin and Sleeve Shorepower
 - 100A, 480V Pin and Sleeve Shorepower
 - 200A, 480V Pin and Sleeve Shorepower
 - 250A, 125/250V Pin and Sleeve Shorepower
 - Hardwire Cam-type Connectors
 - Ground fault protected circuit breakers
 - Dual phase terminal blocks - available to 500-Amp ratings each
 - 250-Amp rated copper $\frac{3}{8}$ " stud-lug three phase 125/250V terminal block(s)
 - Solid-state electric monitoring for sub-metering KWH consumption
 - Wireless NUCORE™ remote meter reading
 - Ground Fault Monitoring at each slip (patented)
 - 250-Amp rated copper stud-lug three phase 125/250V terminal block
 - 250-Amp rated split terminal block
 - $\frac{3}{4}$ "IPS ball valve hose bibs
 - 3/4"IPS ball valve hose bibs
 - Hose bib vacuum breakers
 - Water metering
 - Phone, Cable TV, and/or Data ports
 - Amber or Clear Polycarbonate Lens



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HARBOR LIGHT SS

Power Pedestal Model HLSS30100



STANDARD DIMENSIONS: 42.5"H 11.125"W 11.125"D

Marina Electrical Equipment has performed extensive research and design to create the most innovative and user-friendly power pedestal, the "Harbor Light SS". This pedestal truly represents modernization and ease-of-use. We have taken all that we have learned over the past 30+ years in this business to create a power pedestal that is exceptionally durable, practical, and clean-looking, as well as simple to install and maintain.



STANDARD FEATURES

- Intertek-ETL Listed, tested in accordance with Underwriters Laboratories-231 standards, CAN/CSA Standard C22.2 No.29 and NFPA 303
- Rugged, long-lasting stainless steel NEMA 3RX main housing
- Heavy-duty injection-molded polycarbonate top and lens assemblies
- Limited 1-Year Warranty
- Extra-wide back-lit receptacle faceplate for easier plug-in
- Highest quality twist-lock receptacles and circuit breakers
- Highest quality 100-Amp pin and sleeve receptacles (when 100-amp receptacles are selected)
- Patented pivoting receptacle faceplate assembly, which simplifies field-maintenance tasks such as replacing circuit breakers, receptacles or meter current transformer coils
- Photocell-controlled LED light fixture with fuse protection
- 250-Amp rated copper $\frac{3}{8}$ " stud-lug single phase 125/250V terminal block
- Clean-looking, flush-mounted access panels
- Newly designed, highly functional dual hose/cable brackets capable of holding min. 50' of standard 5/8"ID garden hose or 50' of 50-ampere, 4-wire shore power (S.O.) cord
- Durable polycarbonate mounting base plate which isolates the receptacles and circuit breakers from the elements while in use (as required by NFPA 303 and NEC Article 555)

OPTIONAL FEATURES

- Receptacle Options:
 - 20A, 125V Duplex GFCI
 - 20A, 125V LS-20R Twist-Lock Shorepower
 - 30A, 125V LS-30R Twist-Lock Shorepower
 - 50A, 125V SS-1Twist-Lock Shorepower
 - 50A, 125/250V SS-2 Twist-Lock Shorepower
 - 100A, 125/250V Pin and Sleeve Shorepower
 - 100A, 480V Pin and Sleeve Shorepower
 - 200A, 480V Pin and Sleeve Shorepower
 - 250A, 125/250V Pin and Sleeve Shorepower
 - Ground fault protected circuit breakers
 - Solid-state electric monitoring for sub-metering kWH consumption
 - Wireless NUCORE™ remote meter reading
 - Ground Fault Monitoring at each slip (patented)
 - 250-Amp rated copper $\frac{3}{8}$ " stud-lug three phase 125/250V terminal block
 - 250-Amp rated split terminal block
 - $\frac{3}{4}$ "IPS ball valve hose bibs
 - Hose bib vacuum breakers
 - Water metering
 - Phone, Cable TV, and/or Data ports
 - Amber or Clear Polycarbonate Lens



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BAYSIDE

Utility Center Model BU3050



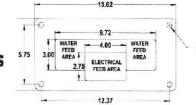
STANDARD DIMENSIONS: 14.5"H 11"W 10.625"D

STANDARD FEATURES

- Intertek-ETL Listed, tested in accordance with Underwriters Laboratories-231 standards, CAN/CSA Standard C22.2 No.29 and NFPA 303
- Heavy-duty injection-molded polycarbonate NEMA 3RX main housing
- Limited 1-Year Warranty
- Extra wide receptacle faceplate for easier plug-in
- Highest quality twist-lock receptacles and circuit breakers
- Patented pivoting receptacle faceplate assembly, which simplifies field-maintenance tasks such as replacing circuit breakers, receptacles or meter current transformer coils
- Photocell-controlled LED light fixture with fuse protection
- 140-Amp rated copper $\frac{1}{4}$ "stud-lug single phase 125/250V terminal block
- Lockable polycarbonate weatherproof doors which shield the receptacles and circuit breakers from the elements while in use (as required by NFPA 303 and NEC Article 555)

OPTIONAL FEATURES

- Receptacle Options:
 - 20A, 125V Duplex GFCI
 - 20A, 125V LS-20R Twist-Lock Shorepower
 - 30A, 125V LS-30R Twist-Lock Shorepower
 - 50A, 125V SS-1Twist-Lock Shorepower
 - 50A, 125/250V SS-2 Twist-Lock Shorepower
 - Ground fault protected circuit breakers
 - Solid-state electric monitoring for sub-metering KWH consumption
 - Wireless NUCORE™ remote meter reading
 - Ground Fault Monitoring at each slip (patented)
 - 140-Amp rated copper $\frac{1}{4}$ "stud-lug three phase 125/250V terminal block
 - Phone, Cable TV, and/or Data ports
 - Amber or Clear Polycarbonate Lens
 - Stainless steel pedestal
 - $\frac{3}{4}$ "IPS ball valve hose bibs (with pedestal option)
 - Hose bib vacuum breakers (with pedestal option)
 - Water metering (with pedestal option)



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FIRE STATION

Safety Pedestal Model FS1020



STANDARD DIMENSIONS: 42.5"H 11.125"W 11.125"D

STANDARD FEATURES

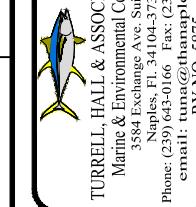
- Underwriters Laboratories standard ANSI/UL 2017
- Rugged, long-lasting stainless steel main housing
- Heavy-duty injection-molded polycarbonate top and lens assemblies
- Limited 1-year warranty on exterior components
- Continuous-duty LED light fixture with fuse protection.
- 50-Amp rated single phase 125V terminal block
- Unmistakable backlit fire extinguisher symbol laser-cut in spring-loaded hinged cabinet door with red polycarbonate window
- Durable injection-molded polycarbonate mounting base plate which isolates the bottom housing from the dock surface

OPTIONAL FEATURES

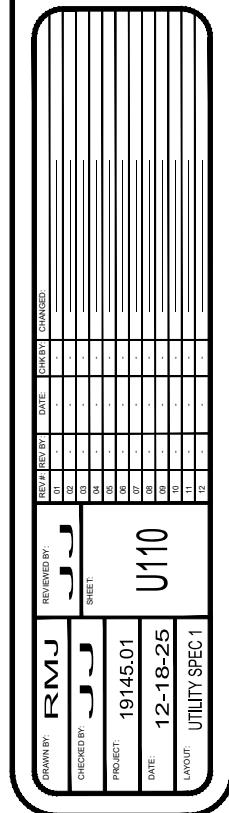
- 10-pound or 20-pound, Type ABC fire extinguisher, mounted on a bracket which suspends it above the bottom tray to inhibit corrosion.
- 24" life ring
- Dual-function alarm and siren which activates with the removal of the optional 24" life ring and/or fire extinguisher
- Amber or Clear Polycarbonate Lens



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TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave., Suite B,
Naples, FL 31166-5732
Phone: (239) 643-0160 Fax: (239) 643-5652
Email: tunac@thanapies.com
RY NO. 3875





DISTRIBUTION EQUIPMENT

Panelboards, Transformers, Switchgear, Safety Switches, Wire and Cable.

Marina Electrical Equipment is committed to being an all-inclusive manufacturer and supplier of the highest quality marina power products in the industry. Our product scope does not stop at power pedestals alone, as we have the resources and capabilities to produce or supply absolutely every piece of equipment necessary to satisfy your specific requirements. Whether your project requires stand-alone transformers, panelboards, switchboards, service-entrance equipment and wire/cable, we can provide it all, tailored to your exact specifications at the most competitive prices.



PANELBOARDS

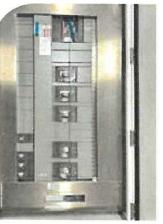
- Main Bus, 100-1200 Amp copper or aluminum
- Integrated Surge Protective Device (SPD) for maximum power protection
- Integrated Ground Fault Monitor (GFM) for maximum safety
- Main circuit breaker
- Main lug only
- Ground fault circuit breakers
- Feed-through lugs
- Branch-mounted main circuit breakers
- Standard NEMA 3R surface-mount enclosures available
- Stainless steel NEMA 3RX and NEMA 4X free-standing enclosures available
- Stainless steel NEMA 3RX and NEMA 4X surface-mount enclosures available
- UL/ETL, CSA Listed

WIRE & CABLE

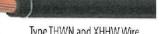
- Types THWN and XHHW single conductor wire
- Type W single and multi-conductor power cable
- Types G and G-GC multi-conductor power cable
- Many other types available

TRANSFORMERS

- Copper or aluminum wound coils
- Coils are double-dipped in high-temperature varnish and baked
- Single phase transformers available from 50 kVA to 330 kVA
- Three phase transformers available from 45 kVA to 500 kVA
- Typical primary voltages: 480V, 480V Delta Three Phase, 600V Delta Three Phase
- Typical secondary voltages: 120/240V Single Phase, 120/208V Wye Three Phase, 127/220V Wye Three Phase
- Standard NEMA 3R enclosures available
- Stainless steel NEMA 3RX and NEMA 4X enclosures available
- Dual phase, single and three phase in one unit



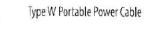
Panelboard Interior



Type THWN and XHHW Wire



Type W Portable Power Cable



Type G and Type G-GC Portable Power Cable



Dry type Isolation Transformer

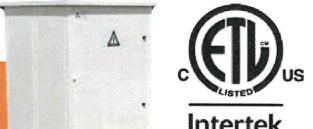
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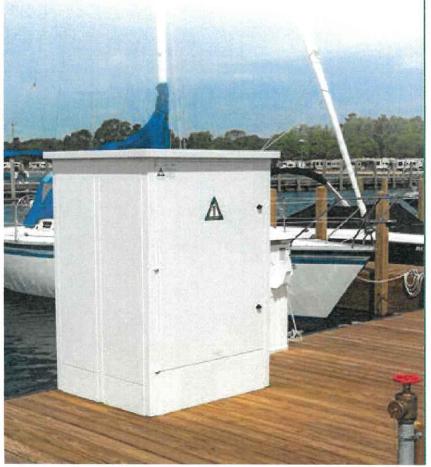
GTX™ UNIT SUBSTATION



STANDARD DIMENSIONS: 72"H 45"W 42/46"D



Marina Electrical Equipment's GTX™ Unit Substations are designed and manufactured to maximize cable and installation cost savings through integration of a dry-type isolation transformer and factory-installed secondary panelboard. Constructed of the highest quality powder-coated stainless steel, GTX™ Unit Substations are designed to withstand the harsh, corrosive environments found in marinas and boatyards.



STANDARD FEATURES

- Intertek-ETL Listed, tested in accordance with Underwriters Laboratories-1062 standards, CAN/CSA Standard C22.2 No.31-10 and NFPA 303
- Single Phase dry-type isolation transformers available to 330kVA
- Three Phase dry-type isolation transformers available to 300kVA
- (2) 2.5% FCAN and (2) 2.5% FCBN Primary taps to compensate for varying incoming voltage
- Transformer and secondary-side distribution panel mounted in single NEMA 3RX stainless steel enclosure with single lockable access door (patent pending)
- Integrated panelboard sizes up to 1200-ampere main circuit breaker/main lug
- Extra-large wiring access area with removable gland plate for simple cable entry/knockout
- Stainless steel hardware
- 360-degree "Take-Apart" enclosure construction
- Simple mounting and installation design:
 - Lifting: engineered lifting eyes designed/tested to lift four (4) times unit substation static weight (concealed beneath removable solar shield)
 - Handling/Positioning: front/side fork access
 - Mounting: 1/2" mounting slots at each corner (concealed behind removable access panels)
- Standard 12" base height, requiring no field-cubing or modifications to comply with 12" datum plane requirements
- White textured powder-coated exterior finish
- Thermospatially controlled axial fans maintain efficient operating temperature
- Fine-stranded, tin-plated copper leads
- Limited 1-Year Warranty

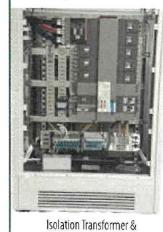
OPTIONAL FEATURES

- Primary Voltages: 480V Single Phase, 480V Delta Three Phase, or 600V Delta Three Phase
- Secondary Voltages: 120/240V Single Phase, 208Y/120V Three Phase, 220Y/127V Three-Phase
- 50 Hz or 60 Hz Frequency
- Primary Disconnect or Panelboard
- Integrated Surge Protective Device (SPD) for supreme surge protection
- Integrated Ground Fault Monitor Relay(s) (GFM) for maximum safety
- Custom Configurations Available
- Dual Phase Isolation Transformers

Typical Panel and Transformer Combinations	
Single-Phase Panel Main	Transformer Size
200A	50 kVA
400A	100 kVA
700A	167 kVA
800A	200 kVA
1000A	250 kVA
1200A	330 kVA
Three-Phase Panel Main	Transformer Size
200A	75 kVA
300A	112.5 kVA
400A	150 kVA
600A	225 kVA
800A	300 kVA



Integrated Panelboard



Isolation transformer & Panelboard



Concealed Lifting Eyes

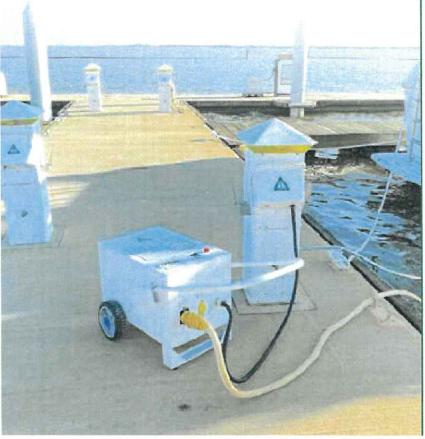
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VGFCU-ISO Isolating Vessel Ground Fault Check Unit

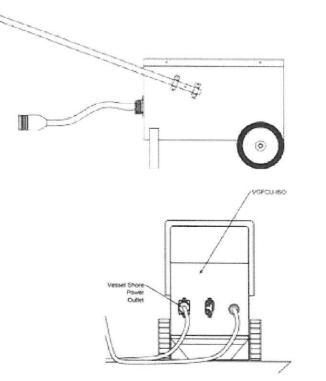


Marina Electrical Equipment employs the latest isolation and ground-fault relay technology to provide fast and accurate diagnosis of vessel ground faults in a convenient portable package. The National Fire Protection Association now requires marinas to test all vessels for ground faults at initial connection and annually. Compliance can present marina wiring and equipment conflicts or cause widespread outages to neighboring connected vessels. The VGFCU-ISO solves these issues since it isolates the test vessel from the marina's wiring.



STANDARD FEATURES

- NFPA 303 Compliant
- Portable white powder-coated stainless steel NEMA 1 enclosure complete with handle and wheels
- 50A 125/250V male locking plug with 72 in. power cord
- 30A 125V locking outlet with circuit breaker
- 50A 125/250V locking outlet with circuit breaker
- GFR480 digital ground fault relay with LCD digital display
- Neutral-to-Ground Error auto-detect alarm and light
- Reliable and user-friendly
- Simple operation
- Limited 1-year warranty
- Other configurations may be available – consult factory for details
- Patent-Pending



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PANAMA CITY MARINA

1 HARRISON AVE, PANAMA CITY, FL 32401

UTILITY SPEC 2



TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave., Suite B,
Naples, FL 31604-5732
Phone: (239) 643-0160 Fax: (239) 643-6632
email: tunac@thanaprises.com
RY NO. 3875

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MARINESYNC®



UtilIoT
METER • MONITOR • CONTROL

NanoPRO

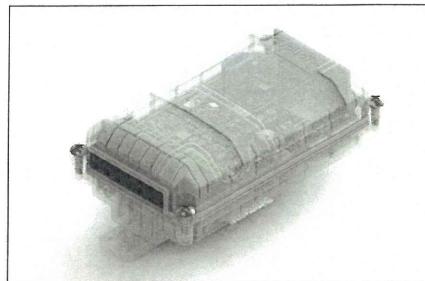
TECHNICAL SPECS

Manufacturing Part Number:

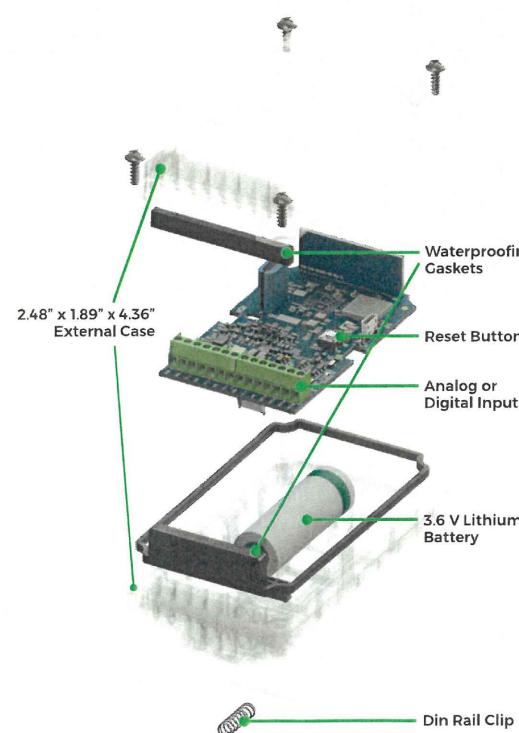
BM0310.000

Hardware Description:

Product Description:
The NanoPRO is a compact and versatile device that allows users to monitor and control various processes remotely. It is designed to interface with different types of sensors, switches, and actuators for automation and control purposes.



FEATURES



Monitoring:

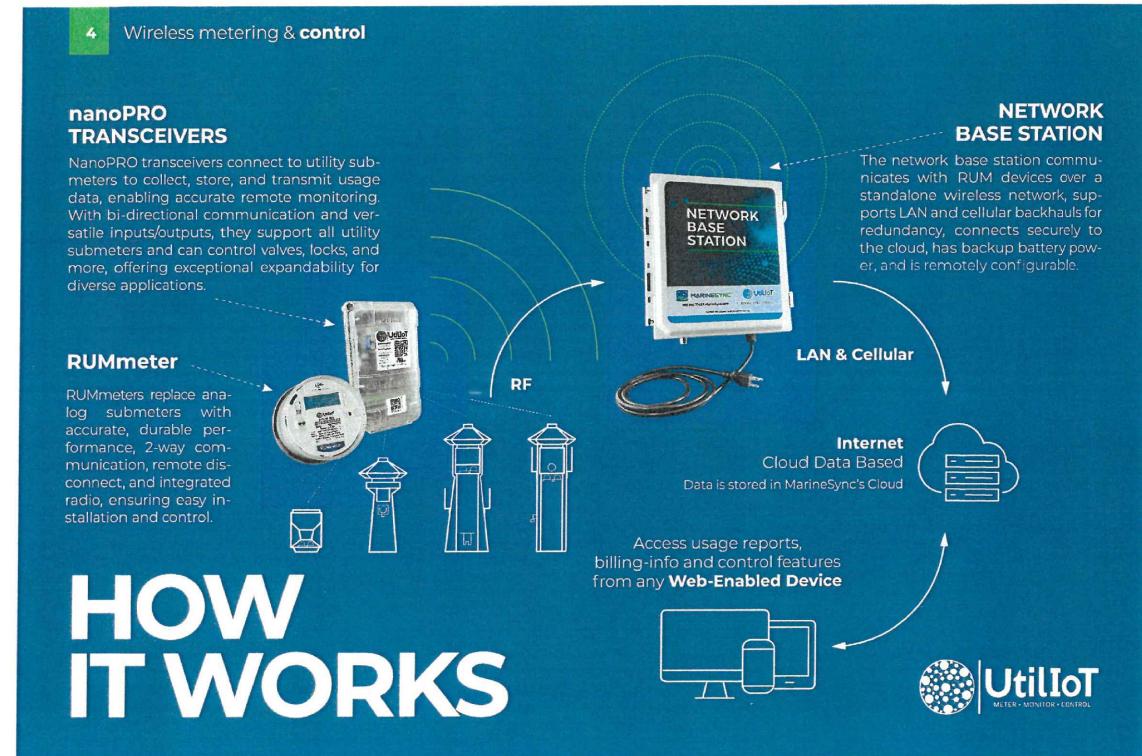
The device features four input channels, each capable of receiving digital or analog signals, typically in the form of pulses or ON/OFF states. These inputs can be connected to various types of meters or sensors such as watthour meters for measuring power consumption, water meters, proximity sensors, flow meters, level sensors, temperature sensors, etc.

Control

The NanoPRO pulse reader is equipped with four output channels. These outputs can drive external devices or actuators, such as shunts, relays, valves, motors, solenoids, or other devices required for remote control. The outputs allow the device to trigger actions based on the received input data or user-defined conditions.

Automation:

Streamline processes, boost productivity, and achieve unparalleled efficiency in your operations with ease. The NanoPRO provides edge automation and is configurable to process input and output functions for use in remote automation applications.



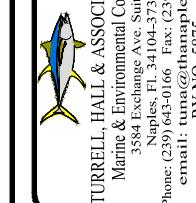
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MARINESYNC.COM | 888.888.SYNC | PO BOX 80174 | SAN DIEGO, CA 92138

1 HARRISON AVE PANAMA CITY FL 32401

PANAMA CITY MARINA

UTILITY SPEC 3



MURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
3884 Exchange Ave., Suite B.
Naples, FL 34104-3732
Phone: (239) 631-0166 Fax: (239) 643-6632
email: tuna@tunapex.com

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RMJ	J J	-	-
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DATE:	12-18-25		
YOU:	U112		
ITV SPEC 2			

PANAMA CITY MARINA

1 HARRISON AVE, PANAMA CITY, FL 32401

UTILITY SPEC 4



TURRELL, HALL & ASSOCIATES, INC.
Marine & Environmental Consulting
5584 Exchange Ave., Suite B,
Naples, FL 34104-5732
Phone: (239) 643-0166 Fax: (239) 643-3652
email: tma@thanapines.com
RY NO. 3875

SaniSailor CVX400
Central Vacuum SaniSailor Pumpout System
#1 Selling Marine Pumpout System in America

The SaniSailor Masterline CVX400

The Sanisailor Masterline CVX400 Central Vacuum Systems is designed to be used as a high vacuum, high discharge pumpout system. This system is for installation requiring a discharge capable of up to 350 feet vertical or up to thousands of feet horizontally. The Sanisailor Masterline CVX400 is more than just a lift station. With the capability of high vacuum and eliminates the need for a separate lift station.

The Sanisailor Masterline CVX400 Central Vacuum System is used as a dockside pump station. It is designed for rugged use where higher frequency of use and higher capacity applications are required. The Sanisailor Masterline CVX400 develops a high vacuum which enables it to pump out boats located hundreds of feet from the pumpout station.

CVX400 Specifications

Capacity: 40 - 50 GPM
Vacuum: 29 inch Hg
Discharge Head: 190 PSI
Suction Lift: 29 Feet Vertical
Power Required: 5 HP
Dimensions: 34" L x 24" W x 46" H
Weight: 425 Lbs

Patented Technology Inside Every Pump

EMP Industries
Clean Marinas, Clear Value.
bestmarinapumps.com | empsales@empind.net
t. (800) 355-7867

SaniSailor Stanchions
Pumpout Stanchions Pedestal

SaniSailor Stanchions

SaniSailor Stanchions are used for remote pumpout locations. These heavy duty aluminum stanchions are made with a marine grade aluminum electromagnetic powder coating for a long lasting, easy care finish. Easy access panels at the units bottom for plumbing and an overhanging top for electrical. Built strong and durable, SaniSailor stanchions have withstood the test of time in rigorous saltwater environments.

Stanchions are available with the following options: Heavy duty hose hanger, low voltage on/off push button controls, wireless on/off controls, and hour meter for low voltage units.

Electrical Specifications:
Electrical Enclosure: NEMA3R containing one on (green) push button switch and one off (red) push button switch with rubber boot for outdoor wet location. Pre-wired buttons in the enclosure are color coded; leads are made to intervening field wiring from the pump inside the access plate on the bottom of the stanchion.

Plumbing Specifications:
Plumbing Internal: a 1-1/2" schedule 40 unionized plumbing connection to the 2" intervening field plumbing. Plumbing External: 1-1/2" 45 degree (vertical configuration) polypropylene cam and groove (cam lock) male connector (for connection to pumpout hose via 1-1/2" inch female cam and groove connector).

Dimensions:
STB201: 5" x 6" x 36"
STB300: 5" x 6" x 36"
STB100: 5" x 6" x 36"
STB200: 5" x 6" x 36"

Fixtures Attributes:
Housing/Glass: Plastic
Primary Material: No
Shade Included: No

Product Ordering Information:
Style: 15E120BK
Finish: Black Material (Not Painted)
UPC: 783927278485

Finishes:
Black Material (Not Painted)

ALSO IN THIS FAMILY:
15E60BK

EMP Industries
Clean Marinas, Clear Value.
bestmarinapumps.com | empsales@empind.net
t. (800) 355-7867

Standard Series Transformer
15E120BK
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SPECIFICATIONS

Certifications/Qualifications:
ADA Compliant: No
People: No
Dark Sky Compliant: No
Location Rating: Wet
kichler.com/warranty

Dimensions:
Height: 3.75"
Length: 6.75"
Width: 4"
Weight: 4.65 LBS

Electrical:
Input Voltage: 120 V
Light Source: No
Dimmable: No

Mounting/Installation:
Interior/Exterior: Exterior Product
Mountable On Wall Or Ceiling: No
Mounting Weight: 4.65 LBS
Modular: No
Lead Wire Length: 36"

Fixture Attributes:
Housing/Glass: Plastic
Primary Material: No
Shade Included: No

Product Ordering Information:
Style: 15E120BK
Finish: Black Material (Not Painted)
UPC: 783927278485

Finishes:
Black Material (Not Painted)

KICHLER.

Broward Casting

Boat Lift Slips
Call us at 854-584-8400

Broward Casting

Marina Products Outdoor Showers / Hose Holders

Hose Holders
These are manufactured using a quality casting of non-corrosive aluminum alloy. They are available in natural aluminum finish or powder coated in black or white. Custom colors also available. Available in 2 sizes:
Small Hose Holder, 50' Large Hose Holder, 100'

Outdoor Showers
7' tall outdoor pool, deck and dock shower with 8' x 8' aluminum base. Comes standard white powder coated with S/S faucet and chrome brass self closing shower valve. Optional rain head, hose holders, and custom powder coat colors available.

Water Stanchion
4" x 4" x 36"
Natural aluminum finish or powder coated white or black. Options include custom sizes and colors. Also available with dual hose holders and hose bibs.

Fuel Dock

Life Ring Stand
Our Life Ring Stand is 36" in height and offers an easily accessible and eye catching way to store your life ring. This marine grade aluminum 4"x4" stand has an 8"x8" square base plate, which mounts to the dock. The life ring is secured to an aluminum bracket, which comes in 2 sizes to accommodate either a 24" or 30" life ring. Life rings are available and are sold separately.

MarinaProducts.com | 954-462-9047

MARINA PRODUCTS Piling Caps

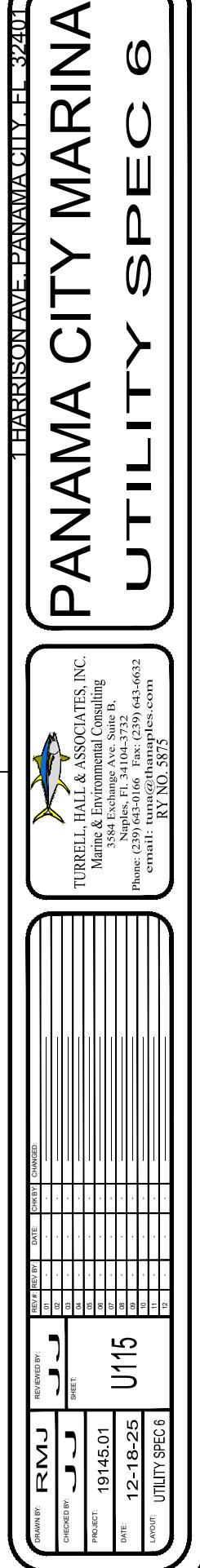
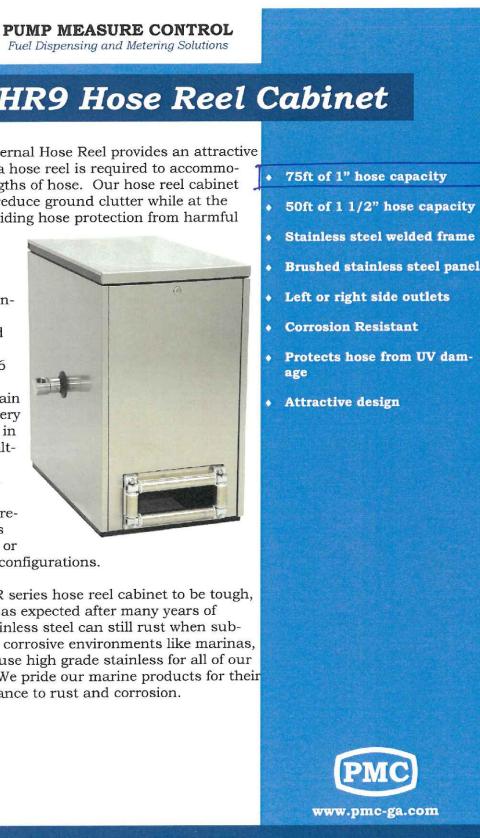
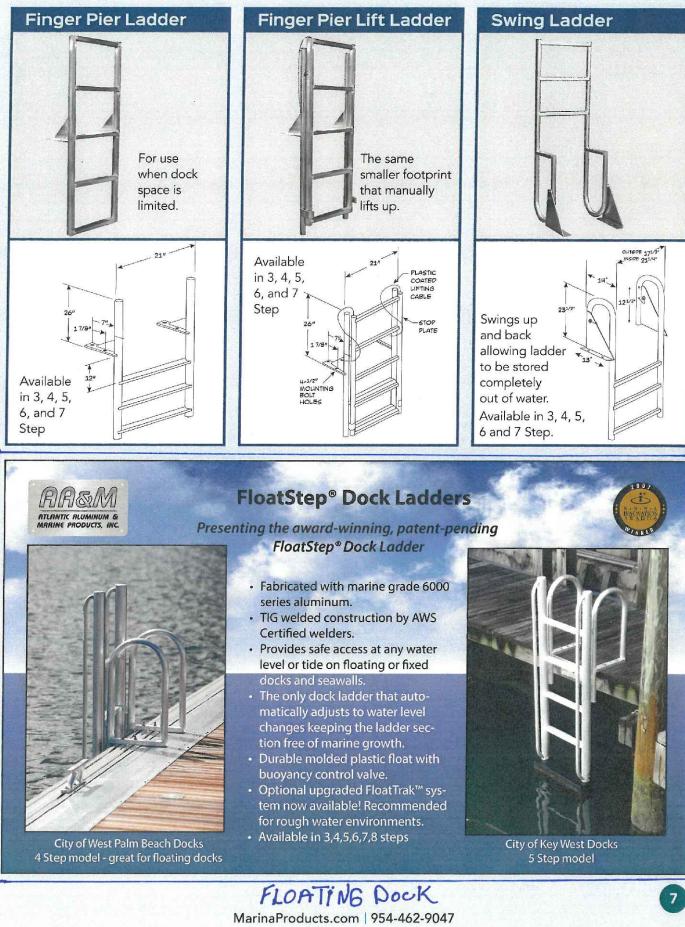
Piling Caps
This superior line of piling caps is offered in 26 sizes from 6" to 18" (in 1/2" increments), in both black and white. Round cone is also available in green. An injection-molded process makes these caps superior in strength, flexibility, and dimensional consistency. The marine grade mold inhibitors and is UV stabilized. These piling caps will stand up to the harsh marine environment, keep birds from roosting, and protect pilings from internal rot which extends the life of pilings for many years. When ordering piling caps, if the piling measures an uneven increment, order the next half-size up.
Example: if piling measures 9-1/4", order 9-1/2" cap.

Marina Products

ENHANCE YOUR DECK WITH THE ELEGANCE OF COPPER PILING CAPS
Solid Natural Copper Post & Piling Caps
Quality products made to stand the test of time
Manufactured by **Nortek COPPERWORKS**
Cap diameters made on the 1/4" increments to achieve a great fit

MarinaProducts.com | 954-462-9047

DRAWN BY:	R.M.J	REV'D BY:	DATE:	CHKBY:	CHANGED:
SHEET:	J	J			
PROJECT:	19145.01	U113			
DATE:	12-18-25				
LAYOUT:	UTILITY SPEC 4				



Emergency Stop Operator

Single Push Button Operator with Cover with Alarm

IA-ESOCA

- High Visibility
- Outdoor Installation
- Deters Nuisance Pressing of the Emergency Stop
- Alarm Sounds When Cover is Lifted

A simple solution to erroneous, nuisance pressing of the emergency stop control stations. The IA-ESOCA is designed for outdoor installation in a single gang electrical switch box and comes with required accessories to allow installation to either a flush or surface mount applications. The IA-ESOCA is a momentary push button with both "Normal-Open" and "Normal- Closed" contacts, for use with most emergency stop control devices.

With its combination of clear cover and alarm, the IA-ESOCA provides a means of reducing the costly nuisance pressing of the emergency stop control station.

Power Integrity offers other configurations for Emergency Stop Operators to match the needs of the customer. Contact Power Integrity for more information.

Operating Characteristics:

Connection Method: Screw terminals, 22-16 awg wire

Contacts Provided: (1) Normally Open Contact; (1) Normally Closed Contact

Contact Rating: 6 Amp; 600 VAC

POWER INTEGRITY
CORPORATION

1834 Pembroke Road

Greensboro, NC 27408

(800) 237-6260 ■ (336) 379-9777

Fax: (336) 379-1301

Website: www.pico.com

The image shows a product comparison. On the left is a photograph of a real-world application of the A0729 E-Stop Pedestal. It is a tall, rectangular, welded aluminum pedestal mounted on a wooden dock. A red and yellow emergency shut-off switch is mounted on top of the pedestal. The switch has a red faceplate with the text 'EMERGENCY SHUT-OFF SWITCH' and a yellow handle. On the right is a technical line drawing of the A0729 E-Stop Pedestal. The drawing shows a front view of the pedestal with dimensions: a 2" square hole at the top, a height of 48", and a base width of 8". The drawing also shows a side view of the pedestal's profile.

A0729 E-Stop Pedestal for emergency shut-off switches. Hole in base provides wiring access. Welded aluminum construction. Tiger series 38 super durable powder coating in anodized silver, meets AAMA 2604 compliance providing corrosion and weather resistance in marine and other harsh environments. UV resistant for five years in Florida exposure. Custom sizes available. E-stop and sign not included.

Emco Wheaton Retail Corporation
2300 Industrial Park Drive • Wilson, North Carolina 27893
252-243-0150 • 252-243-4603 (fax) • www.emcoretail.com

VEEDER-ROOT

CONNECTED. SECURE. COMPLIANT.

TLS-450PLUS Automatic Tank Gauge

The Fuel Management System to Grow Your Business

Why the TLS-450PLUS?

The TLS-450PLUS Automatic Tank Gauge (ATG) provides the most comprehensive site data for advanced fuel asset management. Combining industry-leading algorithms with enhanced security, real-time notification, and anywhere anytime access, the TLS-450PLUS keeps your customer's site running profitably. The TLS-450PLUS is ideal for retail and commercial/industrial applications that have multiple tanks, requiring more than 12 probe and sensor inputs.

► MAINTAIN CONTROL OF YOUR FUELING OPERATIONS

- **Inspection ready compliance** – easy access to all federal, state, and local agency reports
- **Remote connectivity** – monitor your site performance, receive real-time alerts, and access compliance data via web-enabled devices – anytime, anywhere with a wide range of options including THE PLUSVIEW app, Web-Enabled Interface, and Managed Services, with cloud-based fuel management through site360
- **Data protection** – store up to 3 years data and protect it from power outages, battery replacements, or software upgrades
- **Security controls** – partitioned Ethernet networks, customized user access, and Secure Socket Layer (SSL) encrypted connectivity to keep your network safe

► OPERATE AT PEAK EFFICIENCY

- **Remote software download** – hassle-free access to software updates
- **Logistics visibility** – increase inventory management awareness to avoid runouts and bottlenecks
- **Faster problem resolution** – diagnose and troubleshoot issues remotely to understand tagging situations better and avoid unnecessary dispatch
- **Customized alarms** – preprogram alarm alerts to provide scenario-specific information to predetermined individuals
- **Graphical User Interface (GUI)** – designed with features for ease of use, including workflow wizard, context sensitive help, and user-defined favorites

veeder-root.com

π CON Console Controller

from Progressive International

π CON

PICON is the economical solution to fuel dispensing. Using state of the art technology and design, Progressive has created a console controller for the future. Even at a fraction of the cost of competitors' controllers, PICON is feature-packed.

Full featured console which includes prepay/postpay, preset, drive-away alerts, stacked sale, cash/credit operation

Management features including dispenser totals, shift totals, station totals, management security, and prices programmed by product

Multi-lingual

Control of up to 16 fueling positions, including all major electronic dispensers and new blending pumps

Audible alerts for call, drive-away and collect

Backed memory to retain data in the event of power outage

Built-in hardware clock to time stamp all reports

Compact size, allowing counter-top positioning or bracket mounting

Standard printer interface for use with most low-cost printers

Automatic Tank Gauging (ATG) interface capabilities

Ease of installation -- console wires directly into dispenser distribution box or Progressive's PI Dbox

π Progressive
International
ELECTRONICS

PANAMA CITY MARINA

UTILITY SPEC 7



A business card for Turrell, Hall & Associates, Inc. The card features a large, detailed illustration of a yellowfin tuna on the left side. The text on the right side is arranged in three columns: the company name at the top, followed by 'Marine & Environmental Consulting' and the address '3584 Exchange Ave. Suite B, Naples, FL 34104-5372'. Below that is the phone number '(239) 943-0116', the fax number '(239) 943-6632', and the email address 'mailto:nh@thamples.com'.