

CITY OF KEY WEST

TRUMBO ROAD FLOATING DOCKS

KEY WEST BIGHT MARINA

PROJECT NO. KB1201
 MONROE COUNTY, FLORIDA
 STANTEC PROJECT NO. 215615432

SECTION: 31
 TOWNSHIP: 67 S
 RANGE: 25 E
 LATITUDE: 24° 33' 46.1" N
 LONGITUDE: 81° 47' 55.0" W

INDEX OF SHEETS

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C04	GEOMETRY PLAN
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C06	UTILITY DOCK DETAILS
C07	PROPOSED DOCK DETAILS
C08	CROSS SECTIONS
E-01 - E-07	ELECTRICAL PLANS
FP-01 - FP-04	FIRE PROTECTION PLANS
P-01 - P-04	PLUMBING PLANS
S01	STRUCTURAL PILE LAYOUT
-	SURVEY



LOCATION MAP
 Scale: 1"=300'



MAYOR & COMMISSION:

Teri Johnston, Mayor
 Jimmy Weekley, Commissioner
 Samuel Kaufman, Commissioner
 Billy Wardlow, Commissioner
 Gregory Davila, Commissioner
 Mary Lou Hoover, Commissioner
 Clayton Lopez, Commissioner

City Manager: Gregory Veliz

100% SET

May 29, 2020

.....APPROVALS.....			
AGENCY	SUBMITTAL DATE	APPROVAL DATE	PERMIT NUMBER

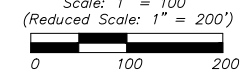
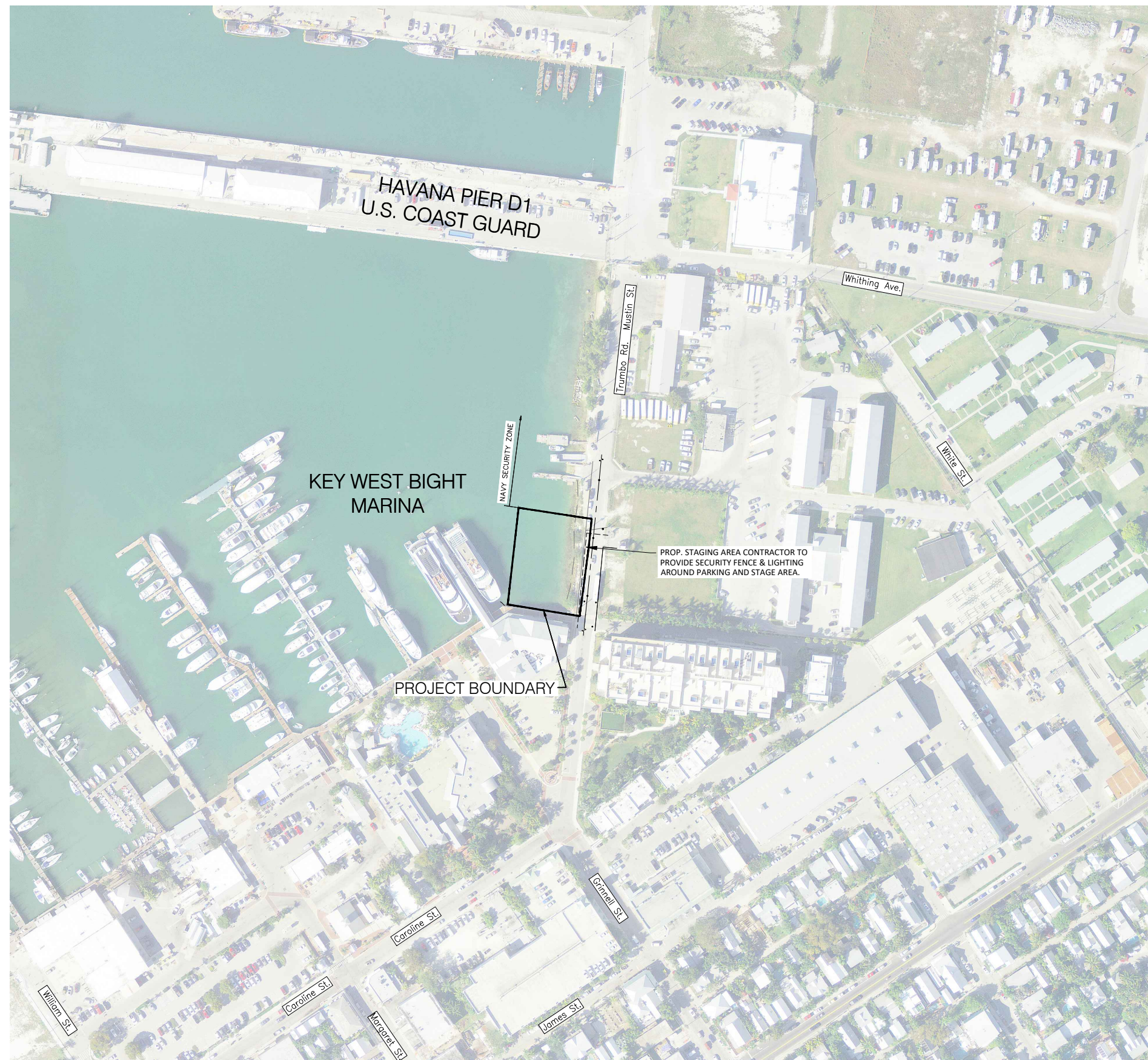


Stantec

901 Ponce de Leon Blvd. Suite 900
 Coral Gables, Florida, 33134
 Tel. 305-445-2900
 Fax. 305-445-3344
 www.stantec.com

APPROVED BY

CARLOS M. HERDOCIA
 REGISTERED ENGINEER NO. 47660
 STATE OF FLORIDA



NOTE: WATER ELEVATION DATA WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM WEBSITE (LABINS.ORG) AND IS REFERENCED TO TIED INTERPOLATION POINT #3262.
MEAN HIGH WATER EL. = 0.94' NGVD29
MEAN LOW WATER EL. = -0.09' NGVD29.

SITE SURVEY INFORMATION FROM:
FLORIDA KEYS LAND SURVEYING
19960 OVERSEAS HIGHWAY
SUGARLOAF KEY, FL 33042
FIELD WORK DATE: SEPTEMBER 5, 2017
REVISION DATE: SEPTEMBER 27, 2017
SIGNED AND SEALED BY:
ERIC A. ISAACS PSM# 6783, LB# 7847

[illegible]

Seal

CARLOS M. HERDOCIA, P.E.
REGISTERED ENGINEER NO. 47660
STATE OF FLORIDA

Consultants



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CITY OF KEY WEST
TRUMBO ROAD FLOATING DOCKS
KEY WEST BIGHT MARINA

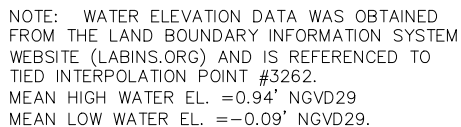
File Name:	RHF	CH	DS	20.05.29
	Dwn.	Chkd.	Dsan.	YY.MM.DD

OVERALL AERIAL PLAN

Project No.	Scale
215615432	SEE PLANS

Drawing No.	Sheet	Revision
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C02 of -



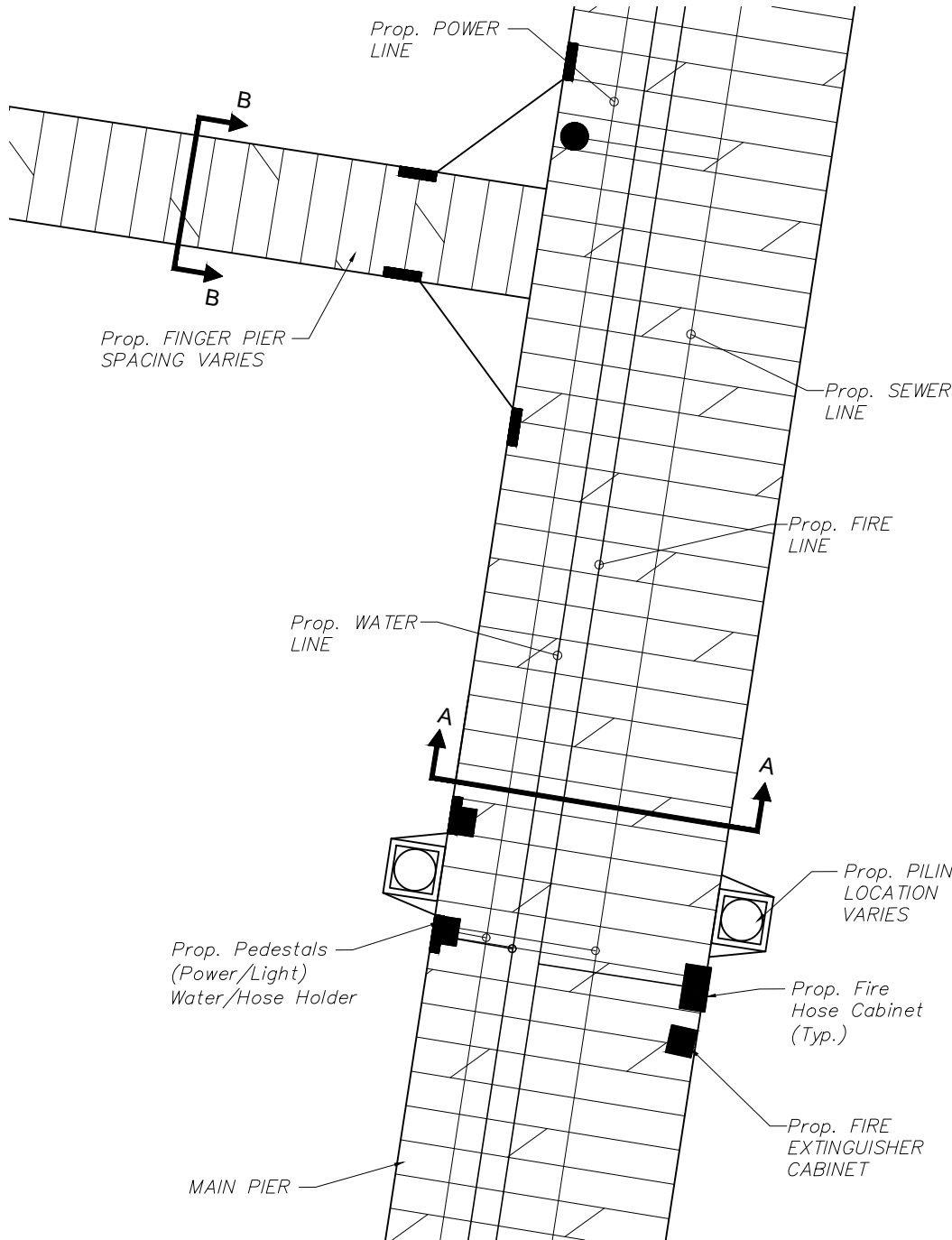
**KNOW WHAT'S BELOW
ALWAYS CALL 811
BEFORE YOU DIG**

It's fast. It's free. It's the law.

www.callsunshine.com

Location of existing facilities as shown on construction drawings are from available records. The Engineer assumes no responsibility for the accuracy of the facilities shown or for any facility not shown. Verify the elevation, type of pipes and location of existing facilities prior to construction. If an existing facility is found to conflict with the proposed construction upon excavation the contractor shall immediately notify the engineer of record so that appropriate measures can be taken to resolve the problem. Contractor to notify Owner and Sunshine State One Call of Florida, Inc. @ 811 at Least Forty Eight (48) Hours Prior to Excavating. Evidence of such notice shall be furnished to Stantec prior to excavating.

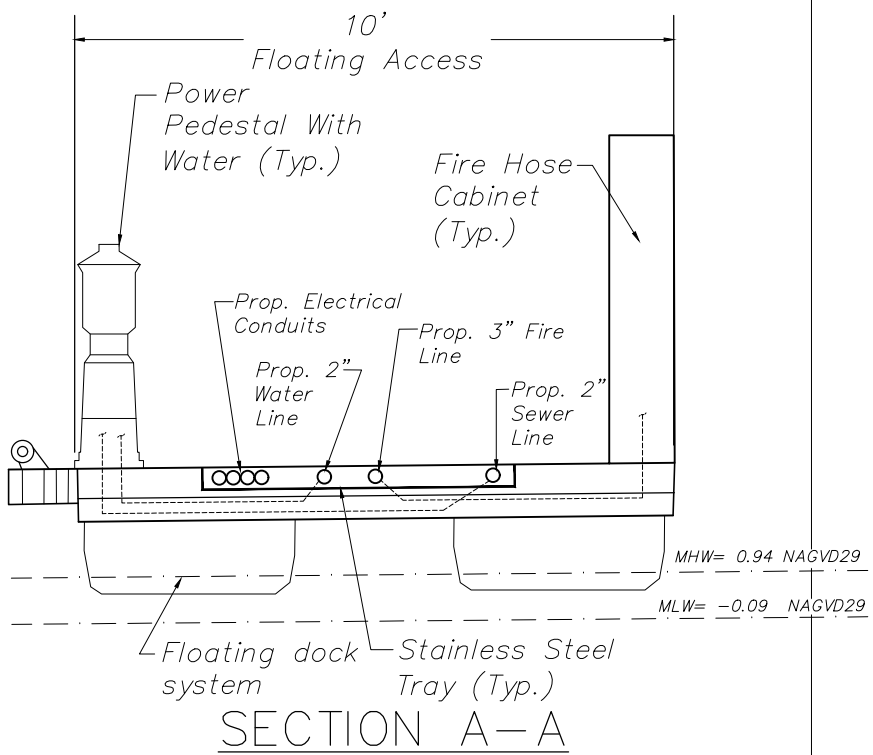
ANY FINDING OF ARTIFACTS DURING CONSTRUCTION PHASE MUST BE DISCLOSED TO HARC, WHICH WILL CONTACT LICENSED ARCHAEOLOGISTS FOR FURTHER EVALUATION.



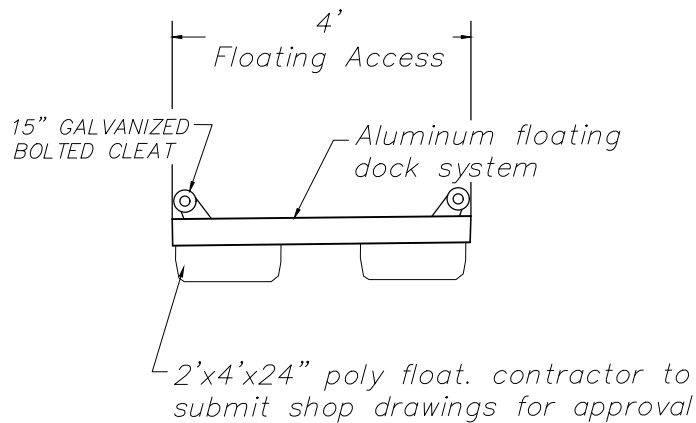
TYPICAL PEDESTAL /CABINET LOCATION

CONSTRUCTION NOTE:
Location of existing facilities as shown on construction drawings are from available records. The Engineer assumes no responsibility for the accuracy of the facilities shown or for any facility not shown. Verify the elevation, type of pipes and location of existing facilities prior to construction. If an existing facility is found to conflict with the proposed construction upon excavation the contractor shall immediately notify the engineer of record so that appropriate measures can be taken to resolve the problem. Contractor to notify Owner and Sunshine State One Call of Florida, Inc. @ 811 at Least Forty Eight (48) Hours Prior to Excavating. Evidence of such notice shall be furnished to Stantec prior to excavating.

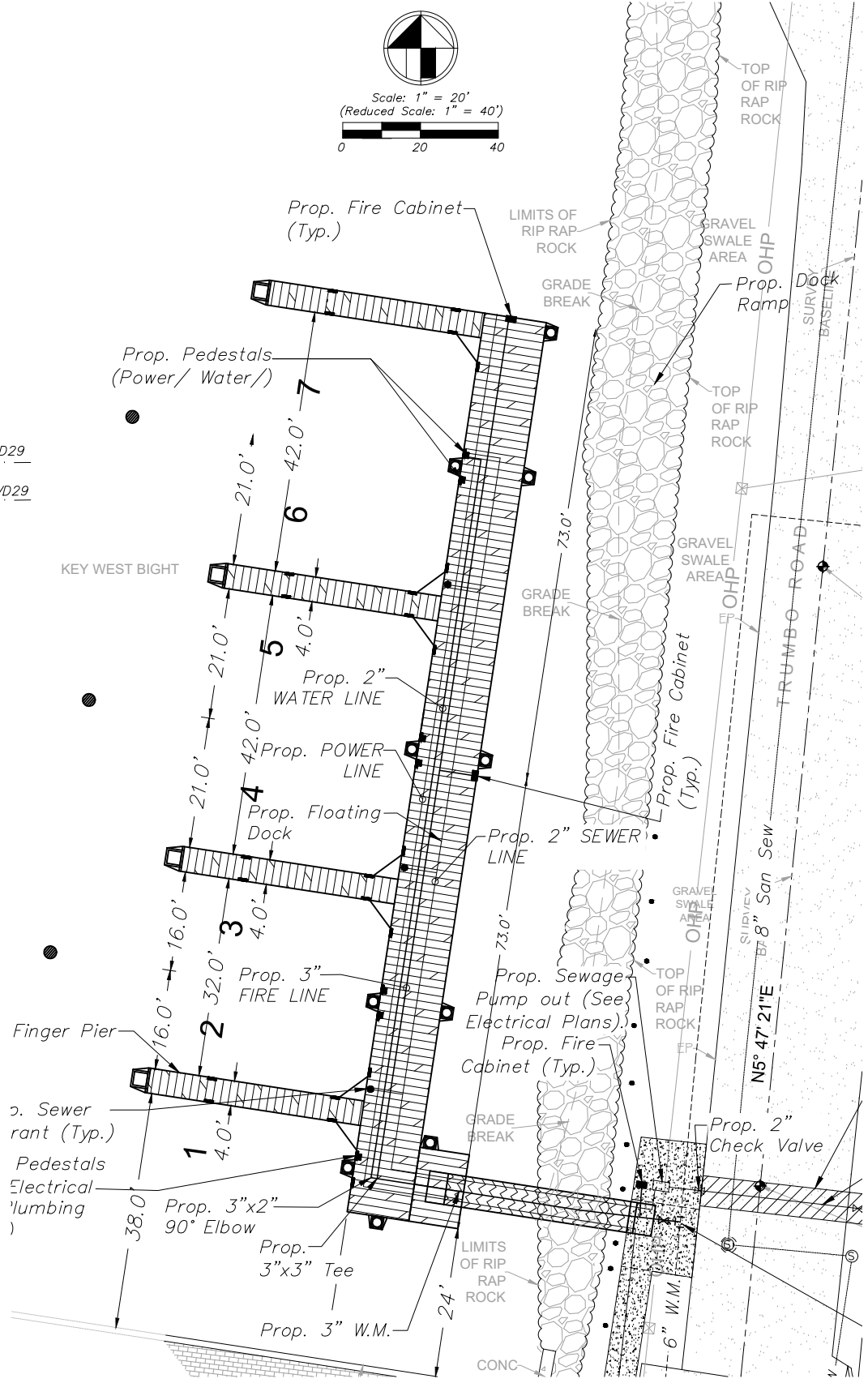
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MEAN HIGH WATER EL. =0.94' NGVD29
MEAN LOW WATER EL. =-0.09' NGVD29.



- NOTES:
- 1) POSITION UTILITY PEDESTAL AND CABINETS AS CLOSE TO END OF MAIN PIER AS POSSIBLE TO MAXIMIZE CLEAR SPACE FROM EQUIPMENT UP TO FINGER PIER.
 - 2) ALL UTILITIES SHALL BE RUN IN STAINLESS STEEL TRAYS.
 - 3) SEWER LINE, WATER LINE, FIRE LINE, POWER LINE SHOWN FOR COORDINATION ONLY. SEE CONSTRUCTION PLANS OF OTHER TRADES FOR ADDITIONAL INFORMATION.



SECTION B-B



OVERALL PEDESTAL CABINET LOCATION

Revision	By	Appd.	YY.MM.DD	Issued	By	Appd.	YY.MM.DD

Seal

CARLOS M. HERDOCIA, P.E.
REGISTERED ENGINEER NO. 47660
STATE OF FLORIDA

Consultants

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KEY WEST BIGHT MARINA

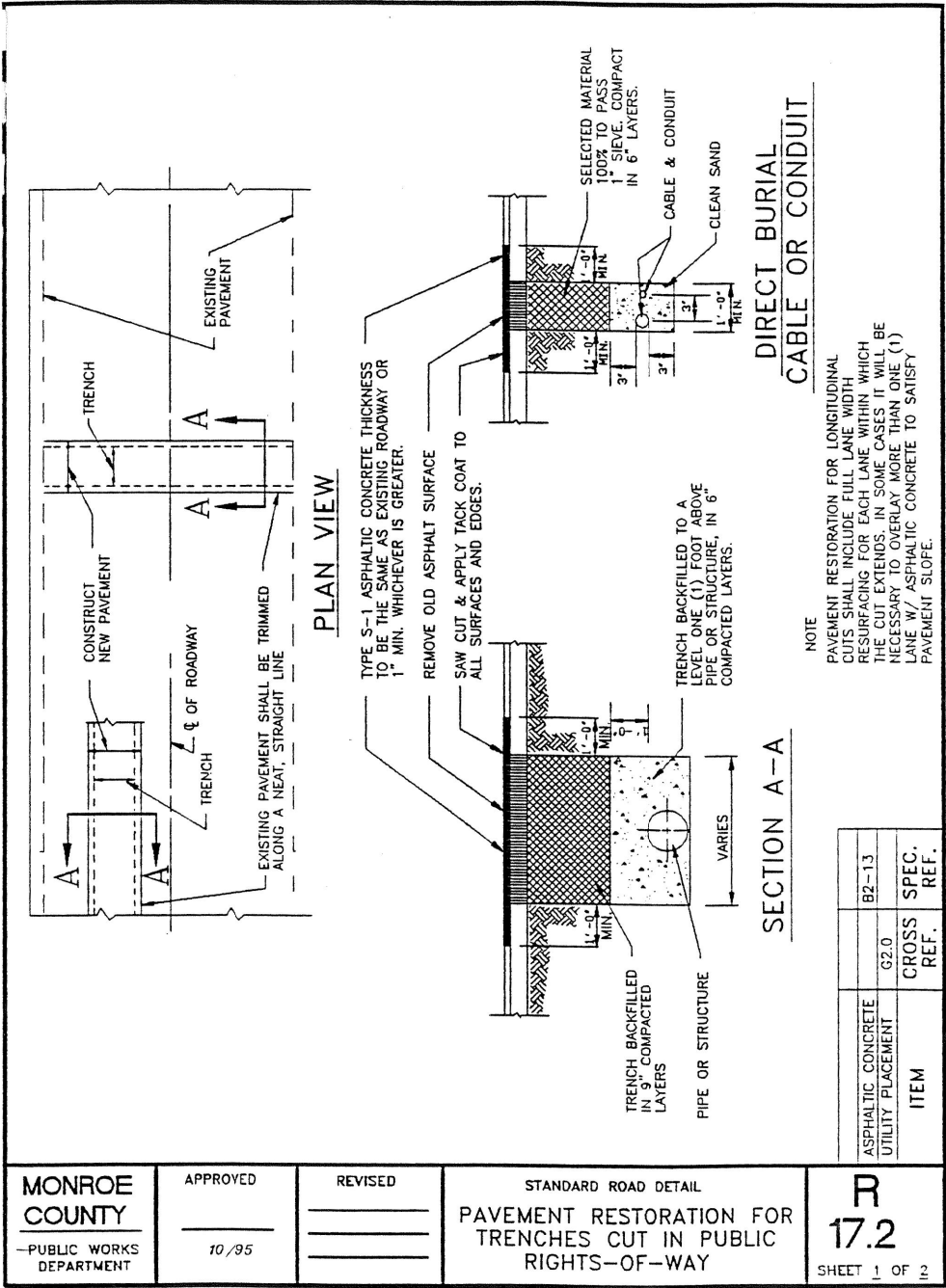
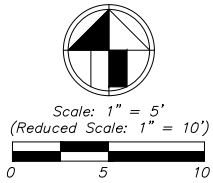
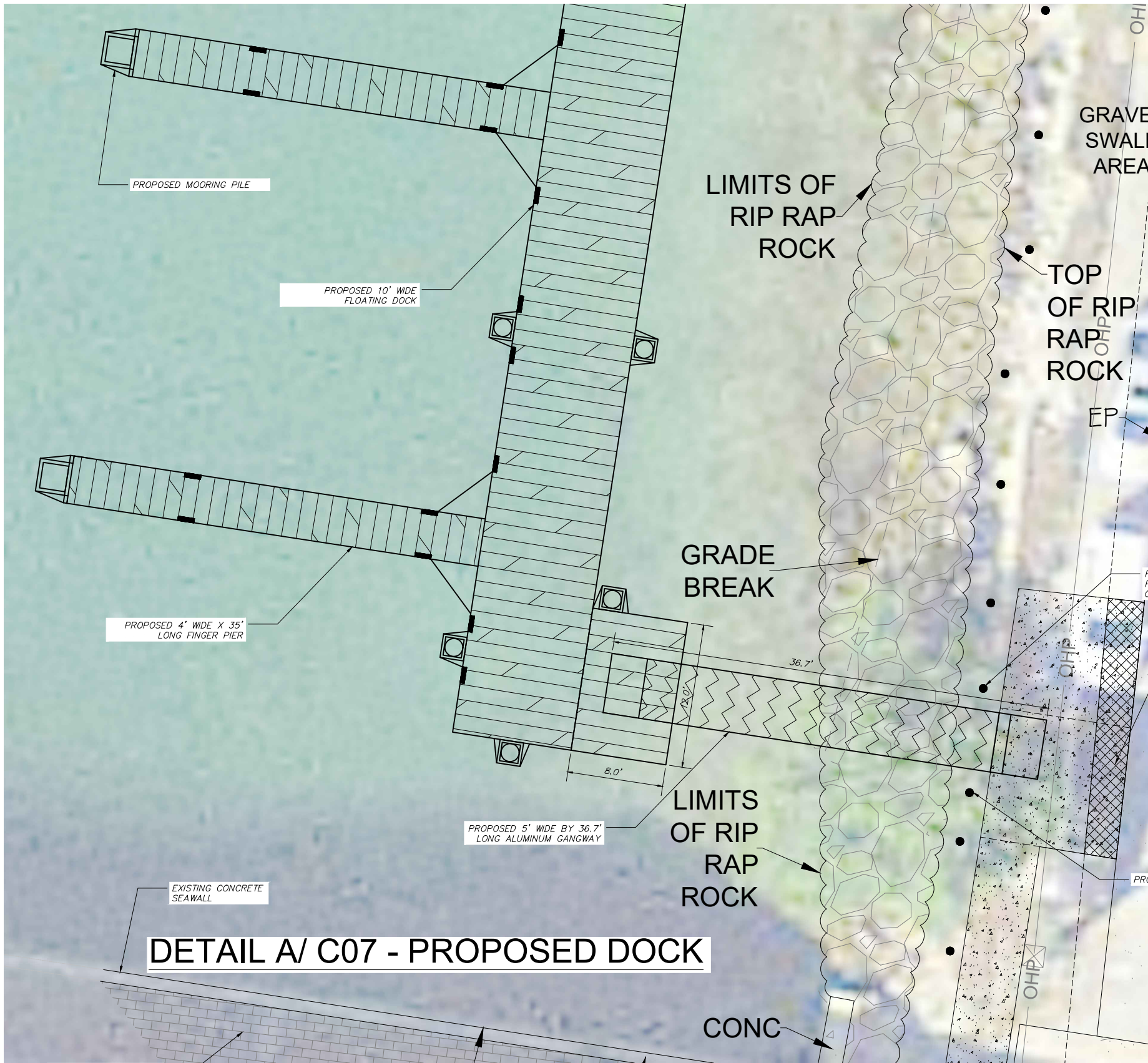
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UTILITY DOCK DETAILS

Project No. 215615432 Scale SEE PLANS
Drawing No. C06 Sheet of Revision

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ORIGINAL SHEET -- ANSI D HORIZ



Revision	By	Appd.	YY.MM.DD	Issued	By	Appd.	YY.MM.DD

Seal

CARLOS M. HERDOCIA, P.E.
REGISTERED ENGINEER NO. 47660
STATE OF FLORIDA

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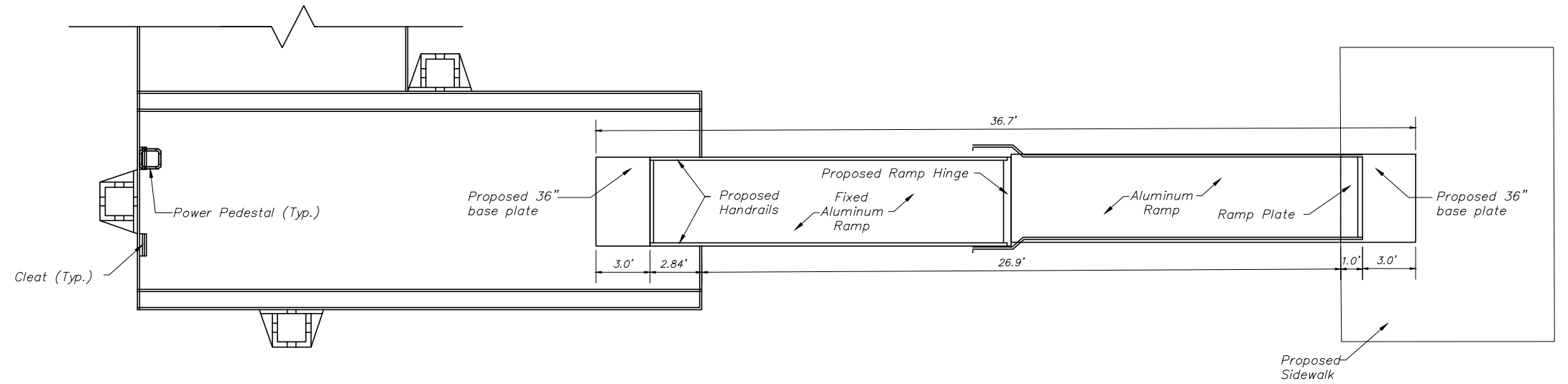
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Dwn. Chkd. Dsgn. YY.MM.DD

PROPOSED DOCK DETAILS

Project No. 215615432 Scale SEE PLANS

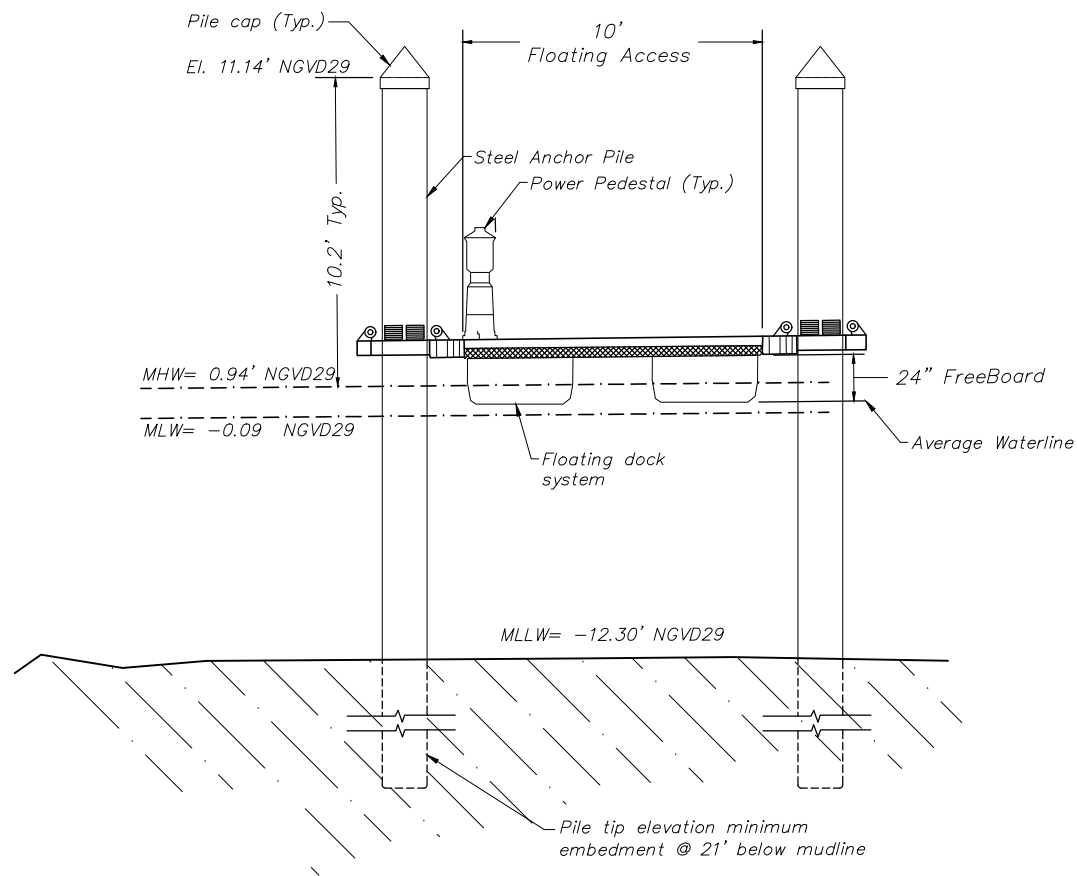
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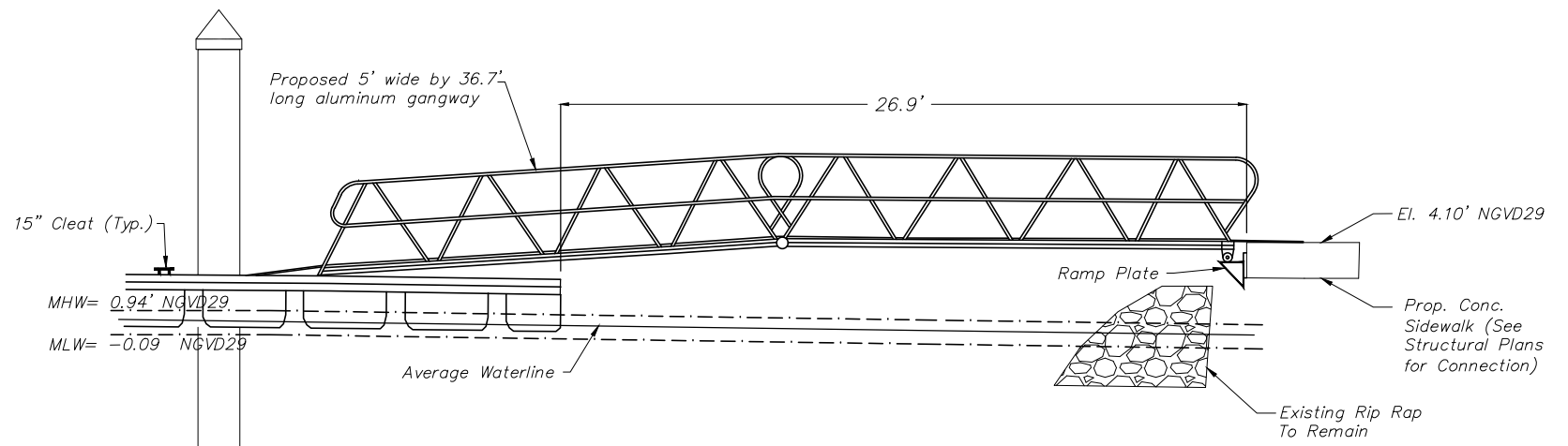
PLAN VIEW

N.T.S.



CROSS SECTION A-A

N.T.S.



CROSS SECTION B-B

N.T.S.

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BRADLEY C. BUCHANAN, P.E. REGISTERED ENGINEER NO. 86225 STATE OF FLORIDA	

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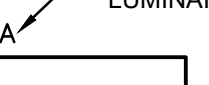
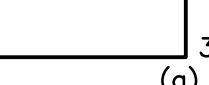

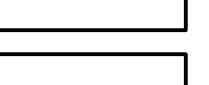
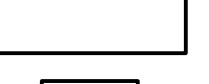

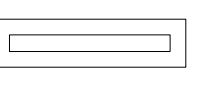
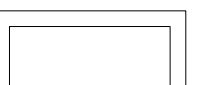


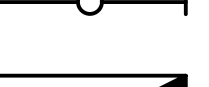



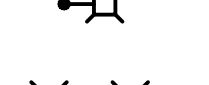
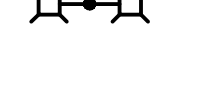
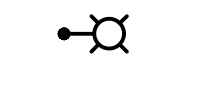
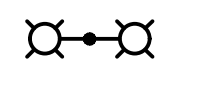


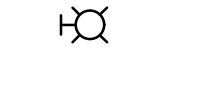








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









































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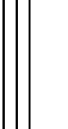
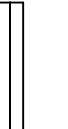


























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File Name:	RHF	CH	DS	20.05.28
	Dwn.	Chkd.	Dsgn.	YY.MM.DD




























ELECTRICAL LEGEND		
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







PLAN SYMBOLS	
	LUMINAIRE TYPE DESIGNATION
	CIRCUIT NUMBER
	SWITCH REFERENCE
	1x4 FLUORESCENT TROFFER, SURFACE MTD
	2x4 FLUORESCENT TROFFER, SURFACE MTD
	2x2 FLUORESCENT TROFFER, SURFACE MTD
	1x4 FLUORESCENT TROFFER, RECESSED
	2x4 FLUORESCENT TROFFER, RECESSED
	2x2 FLUORESCENT TROFFER, RECESSED
	GENERAL PURPOSE INDUSTRIAL FLUORESCENT, SIZE PER PLANS
	LUMINAIRE w/ EMERGENCY BATTERY PACK
	UNSWITCHED LUMINAIRE
	HID, POLE MTD w/ SINGLE SQUARE HEAD
	HID, POLE MTD w/ DOUBLE SQUARE HEAD
	HID, POLE MTD w/ SINGLE ROUND HEAD
	HID, POLE MTD w/ DOUBLE ROUND HEAD
	SURFACE MTD
	RECESSED
	WALL MTD
	EXIT, SURFACE MTD
	EXIT, WALL MTD
	EMERGENCY, WALL MTD
	EMERGENCY w/ EXIT AND EMERGENCY BATTERY PACK, WALL MTD
	SINGLE POLE, MTD 48" AFF UNO
	2-GANG, MTD 48" AFF UNO
	3-GANG, MTD 48" AFF UNO
	4-GANG, MTD 48" AFF UNO
	TWO POLE, MTD 48" AFF UNO
	THREE WAY, MTD 48" AFF UNO, (LOWER CASE LETTER INDICATES SWITCH CONTROL LEG)

	KEY OPERATED, MTD 48" AFF UNO
	PILOT LIGHT, MTD 48" AFF UNO
	RECEPTACLE 20A SINGLE, MTD 18" AFF UNO
	RECEPTACLE 20A DUPLEX, MTD 18" AFF UNO
	RECEPTACLE 20A SPLIT FEED, MTD 18" AFF UNO
	RECEPTACLE 20A FOURPLEX, MTD 18" AFF UNO
	RECEPTACLE 20A DUPLEX, CLG MTD
	RECEPTACLE 20A FOURPLEX, CLG MTD
	RECEPTACLE 20A DUPLEX, FLR MTD
	RECEPTACLE 20A FOURPLEX, FLR MTD
	RECEPTACLE 20A DUPLEX, MTD 18" AFF UNO
	RECEPTACLE 20A FOURPLEX, MTD 18" AFF UNO
	RECEPTACLE, SPECIAL USE, RATING NOTED
	RECEPTACLE 208V, MTD 18" AFF UNO
	RECEPTACLE REEL CORD
	JUNCTION BOX, SURFACE MTD
	JUNCTION BOX, WALL MTD
	JUNCTION BOX, FLR MTD
	PANELBOARD, NORMAL POWER
	PANELBOARD, EMERGENCY POWER
	MOTOR, HORSEPOWER NOTED
	DAMPER MOTOR
	DISCONNECT SWITCH NON-FUSED, BUSS RATING NOTED
	DISCONNECT SWITCH FUSED, BUSS (AF) AND FUSE (AT) RATING NOTED
	CONTACTOR, NEMA SIZE NOTED
	STARTER, NEMA SIZE NOTED
	COMBINATION MOTOR STARTER, NEMA SIZE NOTED
	TRANSFORMER
	PUSHBUTTON
	HAND HOLE
	- AHH: ANALOG HAND HOLE 4-20mA SIGNAL, ETHERNET FIBER/UPT, TEL CONTROL HAND HOLE IZO/DIGITAL/DISCRETE SIGNAL, 120V
	- CHH: CONTROL HAND HOLE IZO/DIGITAL/DISCRETE SIGNAL, 120V
	POWER
	- PHH: POWER HAND HOLE 480V/277V/208V
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT STUB
	CONDUIT HOMERUN, EXPOSED
	CONDUIT HOMERUN, UNDERGROUND OR CONCEALED
	TELEPHONE, MTD 18" AFF UNO
	DATA, MTD 18" AFF UNO
	TEL/DATA, MTD 18" AFF UNO
	TELEPHONE, CLG MTD
	DATA, CLG MTD
	TELEPHONE, FLR MTD
	DATA, FLR MTD

	SC CONNECTORS, 19" RACK MTD
	CAT6 PATCH PANEL, 110 PUNCH BLOCKS, 19" RACK MTD
	FIRE ALARM ANNUNCIATOR
	FIRE ALARM CONTROL PANEL
	FIRE ALARM EVACUATION COMBINATION AUDIBLE AND VISIBLE APPLIANCE (HORN/STROBE), WALL MTD w/ LENS 80" MIN & 96" MAX AFF
	FIRE ALARM EVACUATION VISIBLE APPLIANCE (STROBE), CLG MTD
	FIRE ALARM EVACUATION VISIBLE APPLIANCE (STROBE), WALL MTD w/ LENS 80" MIN & 96" MAX AFF
	FIRE ALARM HEAT DETECTOR
	FIRE ALARM MANUAL PULL STATION, WALL MTD w/ OPERABLE PART 42" MIN & 48" MAX AFF
	FIRE ALARM SMOKE DETECTOR, DUCT MTD w/ SAMPLE TUBES
	FIRE ALARM SMOKE DETECTOR, CLG MTD
	FIRE SPRINKLER RISER FLOW SWITCH, COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN
	FIRE SPRINKLER RISER VALVE TAMPER SWITCH, COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN
	OCCUPANCY SENSOR, SURFACE MTD
	OCCUPANCY SENSOR, WALL MTD
	125kHz RFID PROXIMITY READER
	DOOR CONTACT
	SECURITY KEYPAD
	EGRESS PIR FOR DOOR SHUNT
	360° PIR/GLASS BREAK DETECTOR
	REQUEST TO EXIT PUSHBUTTON
	PANIC/DURESS PUSHBUTTON
	INTRUSION ALARM CONTACT
	ELECTRIC DOOR STRIKE
	ELECTRIC LOCK w/ INTERNAL RELAY
	SPEAKER, CONE TYPE (PUBLIC ADDRESS)
	SPEAKER, HORN TYPE WATTAGE NOTED
	CCTV CAMERA, PTZ: PAN/TILT/ZOOM

NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED

DIAGRAM SYMBOLS	
	MOLDED-CASE CIRCUIT BREAKER IN
	MOTOR CIRCUIT PROTECTOR IN
	MOTOR STARTER CONTACTOR
	VACUUM CONTACTOR
	MOTOR STARTER OVERLOAD RELAY
	MOTOR PROTECTION RELAY
	SOLID STATE REDUCED VOLTAGE STARTER
	FUSE, RATING NOTED
	TRANSFORMER, DELTA/WYE
	GROUND
	AUTOMATIC TRANSFER SWITCH
	DISCONNECT SWITCH
	POTENTIAL TRANSFORMER
	3 PHASE, 3 WIRE, DELTA
	3 PHASE, 4 WIRE, WYE, GND
	CURRENT TRANSFORMER, RATIO AND NUMBER OF CTS AS NOTED
	CURRENT TRANSFORMER, ZERO SEQUENCE TYPE
	BUSHING TYPE CURRENT TRANSFORMER
	ISOLATING FUSE SWITCH, HIGH VOLTAGE PRIMARY FUSE CUT OUT, DRY
	ISOLATING FUSE SWITCH FOR ON-LOAD SWITCHING
	LIGHTNING ARRESTER
	CAPACITOR
	DRAWOUT CIRCUIT BREAKER
	POWER CIRCUIT BREAKER, FIXED TYPE, LOW OR MEDIUM VOLTAGE
	POWER CIRCUIT BREAKER, DRAWOUT TYPE, LOW OR MEDIUM VOLTAGE
	LOADBREAK ELBOW
	DISCONNECT SWITCH, GROUP OPERATED
	DISCONNECT SWITCH, STICK OPERATED
	DISCONNECT SWITCH, SELECTOR OR DOUBLE THROW
	DISCONNECT SWITCH WITH ARCING HORNS, MANUALLY OPERATED
	POTHEAD

	FIRE EXTINGUISHER CABINET, SEE FIRE PROTECTION PLANS.
	FIRE HOSE CABINET, SEE FIRE PROTECTION PLANS.
	GROUND FAULT MONITORING SYSTEM
	EXISTING POWER PEDESTAL POWER PEDESTALS ARE TO BE REPLACED. CONTRACTOR SHALL INSTALL AND MAKE ALL CONNECTIONS.
	WATER BOX, SEE PLUMING PLANS.
	ELECTRICAL PANELBOARD WITH NEMA 3R/SS WITH POWDERCOAT FINISH, SEE PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
	PAD MOUNTED UTILITY TRANSFORMER COORDINATE WITH LOCAL UTILITY COMPANY.
	SURGE PROTECTION DEVICE - SEE SPECIFICATIONS.
ABBREVIATIONS	
A	AMPERE
ABV	ABOVE
AC	ALTERNATING CURRENT
ADD	ADDENDUM
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	ASYMMETRICAL INTERRUPTING CAPACITY
ARCH	ARCHITECT/ARCHITECTURAL
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO/VISUAL
BFE	BASE FLOOD ELEVATION
CHG	BATTERY CHARGER
C	CONDUIT
CAB	CABINET
CAT6	CATEGORY 6
CB	CIRCUIT BREAKER, COMBINER BOX
CC	CHARGE CONTROLLER
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
COMB	COMBINATION
CONN	CONNECTION, OR CONNECT
CONTR	CONTRACTOR
COORD	COORDINATE
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DC	DIRECT CURRENT, CONVERTER
DET	DETAIL
DIST	DISTRIBUTION
DIV	DIVISION
DN	DOWN
DS	DISCONNECT SWITCH
DWG	DRAWING
EA	EACH
ELECT	ELECTRICAL
EMCS	ENERGY MANAGEMENT AND CONTROL
SYSTEMS	EQUIP EQUIPMENT
EXPL	EXPLOSION PROOF
EWC	ELECTRIC WATER COOLER
F	FUSED
FA	FIRE ALARM
FD	FUSIBLE DISCONNECT
FIN	FINISHED FL FLOOR
FUT	FUTURE
FIXT	FIXTURE LTG
FVNR	FULL VOLTAGE NON-REVERSING
G	GENERATOR
GND	GROUND
GFI	GROUND FAULT INTERRUPTER
HOA	HAND - OFF - AUTO
HP	HORSEPOWER
HTG	HEATING
HTR	HEATER
Hz	HERTZ
IC	INTERRUPTING CAPACITY
IIC	INTERCOM
INV	INVERTER
JB	JUNCTION BOX
kW	KILOWATTS
kVA	KILOVOLT AMPERE
LP	LIGHTING PANEL
LTG	LIGHTING, LIGHT OR LIGHTS
LTFC	LIQUIDTIGHT FLEXIBLE CONDUIT
MAX	MAXIMUM
MCB	MOLDED CASE BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION

ABBREVIATIONS	
MECH	MECHANICAL
MIN	MINIMUM
MFG	MANUFACTURER
MTR	MOTOR
MSS	MOTOR STARTER SWITCH
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
N.C.	NORMALLY CLOSED
NF	NON FUSED
NO	NORMALLY OPEN
Ø	PHASE
PB	PUSH BUTTON
PNL	PANEL
PP	POWER PEDESTAL
PR	PAIR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
RECEPT	RECEPTACLE
RM	ROOM
RMC	RIGID METAL CONDUIT
SA	SUB ARRAY
SHT	SHEET
SPEC	SPECIFICATION
SPD	SURGE PROTECTION DEVICE
SPP	SUB PLANT PANEL
SPR	SUB PLANT RACK
STR	STARTER
ST	SHUNT TRIP
STP	SHIELDED TWISTED PAIR
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TDR	TIME DELAY RELAY
TEL	TELEPHONE
TERM	TERMINAL
UTP	UNSHIELDED TWISTED PAIR
XFMR	TRANSFORMER
TV	TELEVISION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UG	UNDERGROUND
V	VOLTS
VA	VOLT AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WP	WEATHERPROOF

BRADLEY C. BUCHANAN, P.E.
REGISTERED ENGINEER NO. 86225
STATE OF FLORIDA

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SECTION 16450 SECONDARY GROUNDING				SECTION 16620 GROUND MONITORING SYSTEM			
PART 1 - GENERAL				PART 1 - GENERAL			
1.01 WORK INCLUDED				1.01 DESCRIPTION			
A. POWER SYSTEM GROUNDING.				A. THIS SECTION DESCRIBES THE MATERIALS AND INSTALLATION REQUIREMENTS FOR GROUND MONITORING EQUIPMENT TO MEASURE "LEAKAGE" CURRENT TO GROUND.			
B. ELECTRICAL EQUIPMENT AND RACEWAY GROUNDING AND BONDING.							
1.02 SYSTEM DESCRIPTION				1.02 RELATED WORK SPECIFIED ELSEWHERE			
A. BOND TOGETHER SYSTEM NEUTRALS, SERVICE EQUIPMENT ENCLOSURES, EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT, METAL RACEWAY SYSTEMS, GROUNDING CONDUCTOR IN RACEWAYS AND CABLES, RECEPTACLE GROUND CONNECTORS, AND PLUMBING SYSTEMS.				A. GENERAL ELECTRICAL REQUIREMENTS			
				B. RACEWAYS, BOXES, AND FITTINGS.			
PART 3 - EXECUTION				C. WIRE AND CABLE			
3.01 INSTALLATION				D. GROUNDING			
A. PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT. TERMINATE EACH END ON A GROUNDING LUG, BUS, OR BUSHING.				1.03 SUBMITTALS			
B. CONNECT GROUNDING ELECTRODE CONDUCTORS TO METAL WATER PIPE USING AN APPROVED GROUND CLAMP. MAKE CONNECTIONS TO FLANGED PIPING AT STREET SIDE OF FLANGE. PROVIDE BONDING JUMPER AROUND WATER METER.				A. SUBMIT SHOP DRAWINGS, PRODUCT DATA AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.			
C. ALL GROUND CONNECTIONS AT GROUND RODS, BUILDING STEEL, AND CONCRETE REINFORCING STEEL SHALL BE EXOTHERMIC WELD TYPE.				B. THE GROUND MONITOR SUBMITTALS SHALL ALSO INCLUDE:			
				1. DIMENSIONAL DRAWINGS OF EACH MONITOR TYPE.			
3.02 FIELD QUALITY CONTROL				2. PANELBOARD MOUNTING DETAIL.			
A. INSPECT GROUNDING AND BONDING SYSTEM CONDUCTORS AND CONNECTIONS FOR RIGHTNESS AND PROPER INSTALLATION.				1.04 MANUFACTURERS			
END OF SECTION				A. ALL MONITORS FOR AC DISTRIBUTION AND BRANCH CIRCUIT PROTECTION WITHIN A SINGLE FACILITY SHALL BE PROVIDED BY A SINGLE MANUFACTURER.			
SECTION 16470 PANELBOARD				PART 2 - PRODUCTS			
PART 1 - GENERAL				2.01 MAIN SERVICE MONITORS AT DISTRIBUTION PANELS			
1.01 WORK INCLUDED				A. MONITORS SHALL BE LISTED IN ACCORDANCE WITH U.L. FILE #E173157.			
A. MODIFICATIONS TO EXISTING POWER DISTRIBUTION PANELS AS SHOWN ON DRAWINGS.				B. THE GROUND FAULT MONITORS SHALL MATCH EXISTING MARINE SYNC REMOTE UTILITY MONITORING AND CONTROL (RUM) OR APPROVED EQUAL. THESE DEVICES SHALL MONITOR THE INSULATION LEVEL OF GROUNDED SINGLE PHASE MARINA POWER SYSTEM BY MEASURING THE GROUND FAULT LEAKAGE CURRENT.			
1.02 SUBMITTALS				C. MONITORS SHALL BE SUITABLE FOR INSTALLATION INTO STANDARD DISTRIBUTION PANELS.			
A. SUBMIT SHOP DRAWINGS FOR EQUIPMENT AND COMPONENT DEVICES.				D. THE MONITORS SHALL INDIVIDUALLY MONITOR EACH FEEDER CIRCUIT LEAVING THE PANEL. THE ALARM RELAY SHALL BE CONNECTED TO SHUNT TRIP OF THE ASSOCIATED CIRCUIT BREAKER.			
B. INCLUDE OUTLINE AND SUPPORT POINT DIMENSIONS, VOLTAGE, MAIN BUS AMPACITY, INTEGRATED SHORT CIRCUIT AMPERE RATING, CIRCUIT BREAKER AND FUSIBLE SWITCH ARRANGEMENT AND SIZES.				PART 3 - EXECUTION			
PART 2 - PRODUCTS				3.01 DISTRIBUTION PANEL			
2.01 ACCEPTABLE MANUFACTURERS				A. CONDUCTORS BETWEEN THE MONITOR AND POINT OF ATTACHMENT SHALL BE KEPT SHORT AND STRAIGHT.			
A. SIEMENS				END OF SECTION			
B. OR EQUAL							
2.02 PANELBOARDS							
A. ALL BREAKERS AND ACCESSORIES SHALL BE FULLY RATED WITH MINIMUM INTEGRATED SHORT CIRCUIT RATING EQUAL TO THE SHORT CIRCUIT RATING OF THE THE EXISTING PANEL.							
B. MOLDED CASE CIRCUIT BREAKERS SHALL MATCH EXISTING THERMAL/MAGNETIC TRIP CIRCUIT BREAKERS, WITH COMMON TRIP HANDLE FOR ALL POLES. PROVIDE CIRCUIT BREAKERS UL LISTED. BREAKERS SHALL HAVE SHUNT TRIP OPTION FOR CONNECTION TO THE GROUND FAULT MONITOR.							
PART 3 - EXECUTION							
3.01 INSTALLATION							
C. MAXIMUM HEIGHT: 6 FT. TO TOP.							
D. PROVIDE FILLER PLATES FOR UNUSED SPACES IN PANELBOARDS.							
E. PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD. REVISE DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS.							
F. PROVIDE ENGRAVED LABELS AS SHOWN ON DRAWINGS. LABELS SHALL BE SECURELY FASTENED TO THE PANEL.							
3.02 FIELD QUALITY CONTROL							
A. VISUAL AND MECHANICAL INSPECTION: INSPECT FOR PHYSICAL DAMAGE, PROPER ALIGNMENT, ANCHORAGE, AND GROUNDING. CHECK PROPER INSTALLATION AND TIGHTNESS OF CONNECTIONS FOR CIRCUIT BREAKERS							
END OF SECTION							

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BRADLEY C. BUCHANAN, P.E. REGISTERED ENGINEER NO. 86225 STATE OF FLORIDA

Consultants

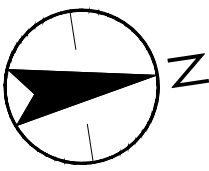
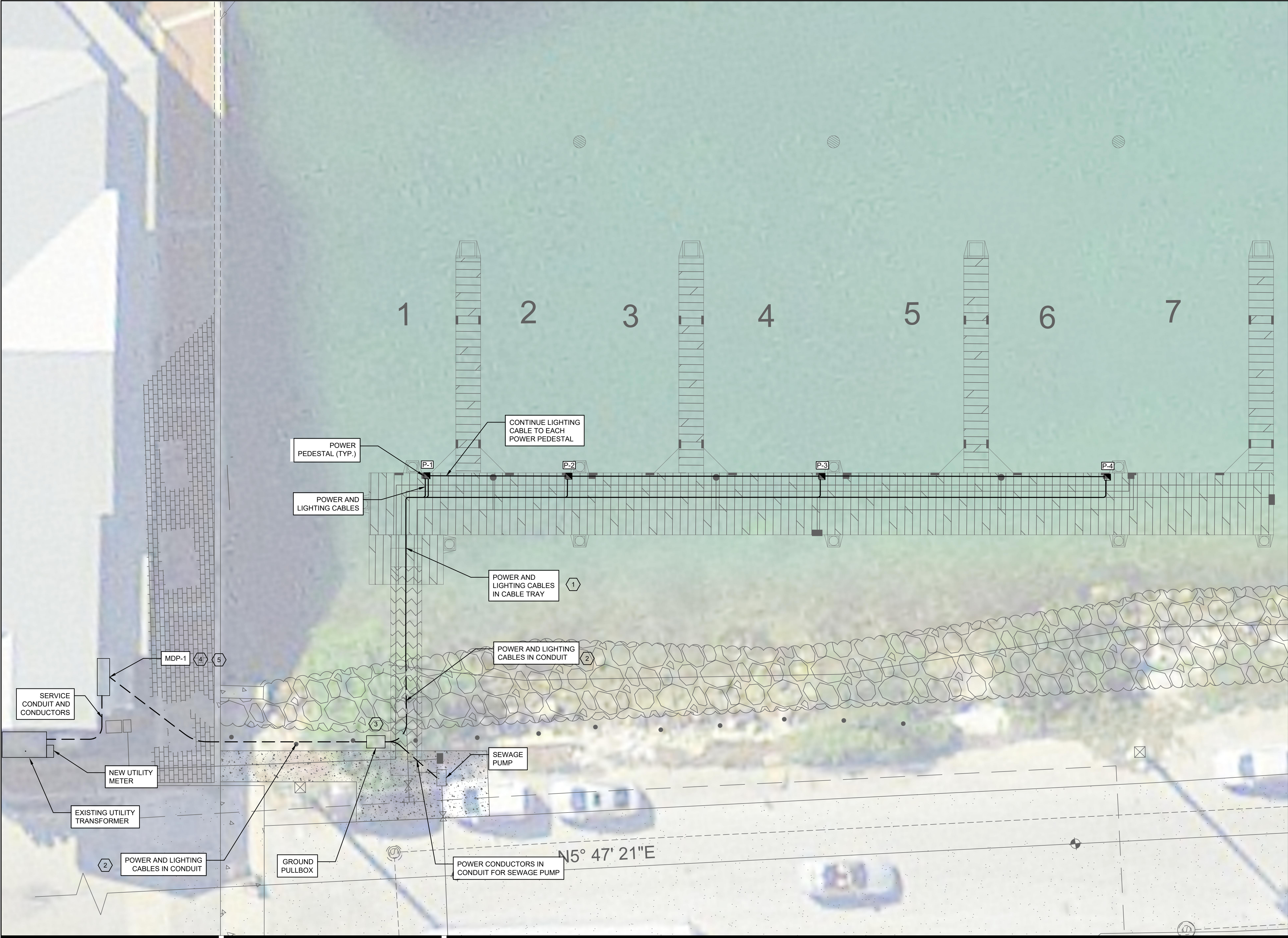


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CITY OF KEY WEST TRUMBO ROAD FLOATING DOCKS KEY WEST BIGHT MARINA			
File Name:	RHF Dwn.	CH Chkd.	DS Dsgn.
20.05.28 YY.MM.DD			

ELECTRICAL SPECIFICATION		
Project No. 215615432	Scale NO SCALE	
Drawing No. E-03	Sheet of	Revision -



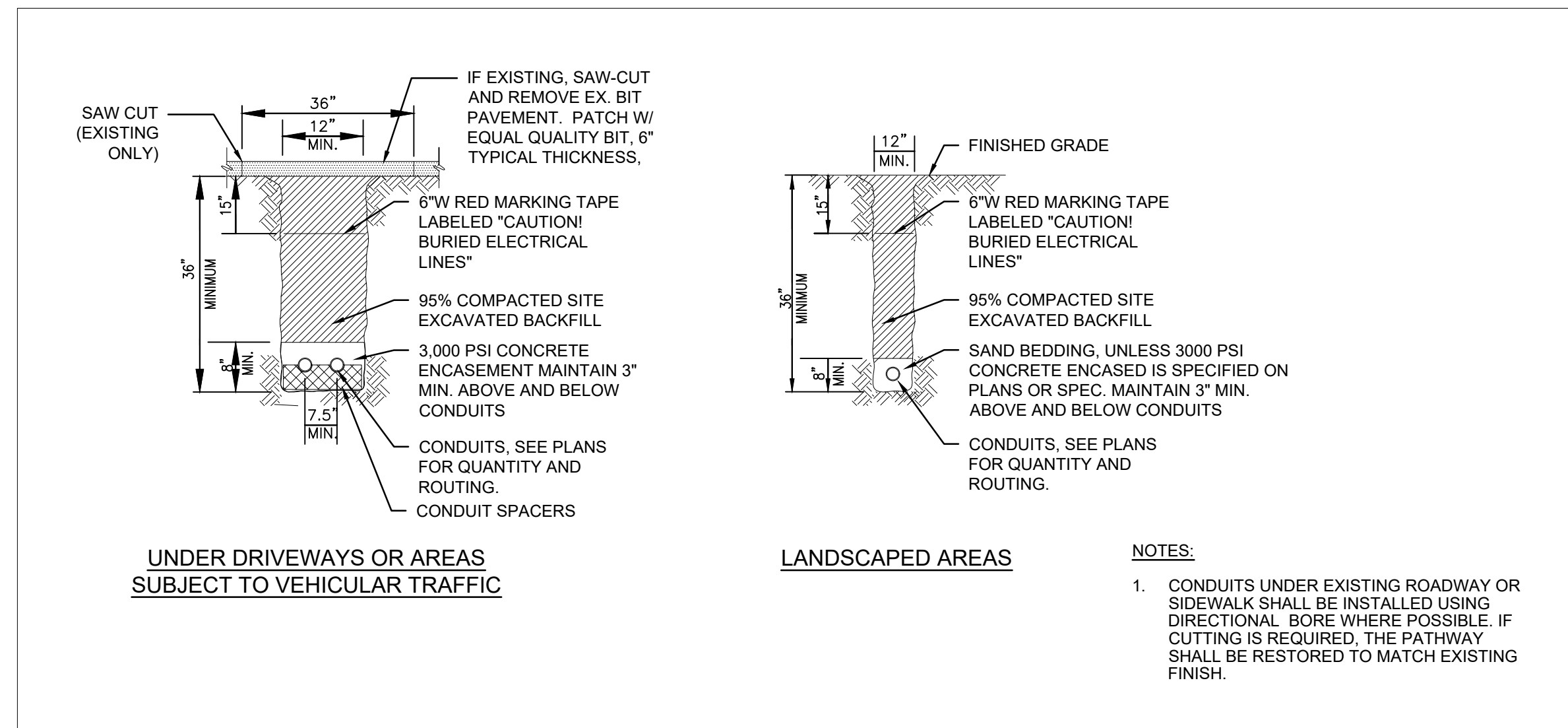
GENERAL NOTES

- A. FURNISH AND INSTALL 120/240V POWER DISTRIBUTION SYSTEM AS SHOWN ON ONE-LINE TO SUPPORT POWER PEDESTAL CONFIGURATION, AND SEWER PUMP. THE PANEL SHALL HAVE GFCI PROTECTION FOR ALL BRANCH CIRCUITS PER NEC ARTICLE 555.
- B. CABLE SHALL BE IN CONDUIT IN GROUND AND IN CABLE TRAY AT FLOATING DOCK. ROUTING OF CONDUIT, TRAY AND CONDUCTORS ON THIS DRAWING IS FOR INFORMATION ONLY, IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE BEST ROUTING TO SUIT LOCAL CONDITIONS.
- C. THE POWER DISTRIBUTION LAYOUT IS DIAGRAMMATIC ONLY AND DOES NOT SHOW EVERY FITTING THAT MAY BE REQUIRED.
- D. COORDINATE THIS LAYOUT WITH OTHER EQUIPMENT AND STRUCTURES BEFORE ROUGHING IN.
- E. GROUNDING CONTINUITY SHALL BE MAINTAINED THROUGH THE ENTIRE RACEWAY SYSTEM.
- F. SEE PEDESTAL AND MDP SCHEDULES ON DRAWINGS E06 AND E07.
- G. PROVIDE PULL AND/OR JUNCTION BOXES WHERE REQUIRED BY NEC AND LOCAL CODES WHETHER OR NOT SHOWN ON DRAWINGS. ALL CABLES SHALL HOMERUN TO MDP. NO SPLICES ARE PERMITTED IN HANDHOLES.
- H. A SEPARATE CIRCUIT FED FROM MDP WILL SUPPORT LIGHTING. PROVIDE CABLE TYPE "SOOW" FOR THIS PURPOSE.
- I. FURNISH AND INSTALL PEDESTAL NUMBER LABELS TO MATCH ORDER SHOWN ON PLAN.

KEY NOTES

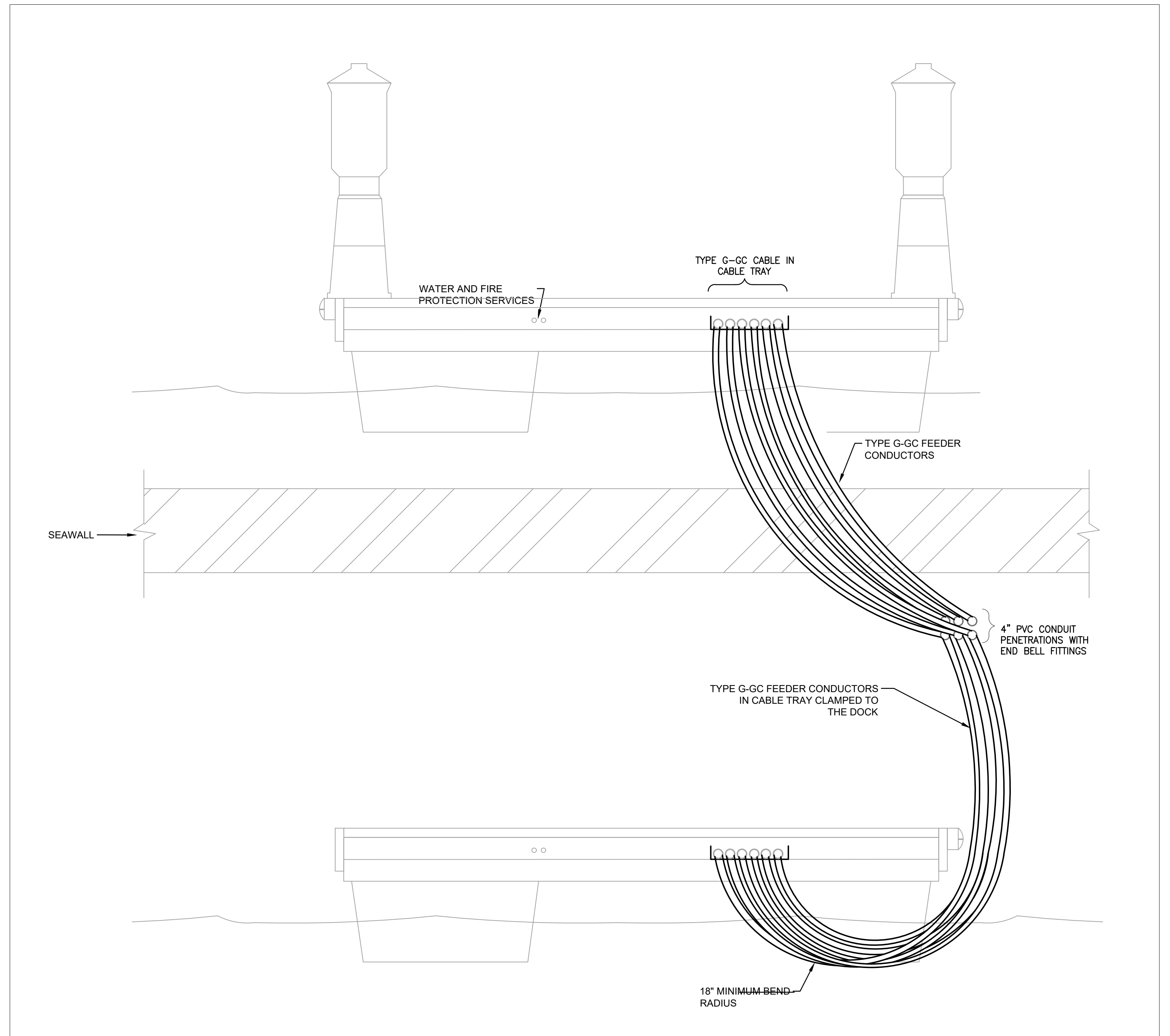
- 1. FURNISH AND INSTALL TYPE G-GC CABLE (3 CONDUCTOR PLUS GROUND) IN CABLE TRAY FOR PEDESTAL ELECTRICAL POWER. FURNISH AND INSTALL CABLE TYPE "SOOW" FOR LIGHTING CIRCUIT. SEWAGE PUMP WIRE SHALL BE XHHW-2. CABLE/WIRE SIZE SHALL BE PER SCHEDULE ON E-07. CONDUIT SIZE SHALL BE PER KEYNOTE 2 ON THIS SHEET.
- 2. EACH PEDESTAL POWER CABLE SHALL BE IN SEPARATE 4" CONDUIT BURIED UNDERGROUND TO SHORELINE TRANSITION. LIGHTING CABLE AND SEWAGE PUMP POWER CONDUCTORS SHALL BE IN 1" CONDUIT.
- 3. ALL CONDUITS SHALL ENTER A MIN 24Wx36Lx24H. MINIMUM PULL BOX DIMENSIONS SHALL BE IN ACCORDANCE WITH NEC CODE DEPENDANT ON THE CONFIGURATION AND SIZE OF CONDUITS ENTERING THE BOX. THE PULLBOX SHALL CONTAIN NO SPLICES UNLESS SPECIFICALLY APPROVED BY THE ENGINEER. PULLBOX SHALL BE POLYMER CONCRETE WITH TIER 22 RATING AND STAINLESS STEEL BOLTS, MANUFACTURED BY HUBBELL OR EQUAL.
- 4. SERVICE AND POWER DISTRIBUTION CABINETS SHALL BE INSTALLED ON SIDE OF BUILDING, ABOVE ELEVATED BALCONY. ALL PANELS SHALL HAVE MIN. 3.5 FEET CLEARANCE IN FRONT OF THE PANEL. SECURE PANELS TO BUILDING WITH STAINLESS STEEL HARDWARE.
- 5. IN ACCORDANCE WITH NEC ARTICLE 225.37, FURNISH AND INSTALL A PERMANENT PLAQUE AT THE NEW PIER SERVICE DISCONNECT INDICATING THE SERVICE IS FOR THE PIER. IN ADDITION, FURNISH AND INSTALL A PERMANENT PLAQUE AT ALL OTHER EXISTING SERVICES SUPPLYING THE BUILDING (OR PASSING THROUGH THE STRUCTURE) AND THE AREA SERVED BY EACH. ALL PLAQUES SHALL ALSO INCLUDE TEXT OR A DIRECTORY THAT CLEARLY IDENTIFIES THE LOCATIONS OF THE OTHER SERVICE DISCONNECTS. SUBMIT SHOP DRAWINGS FOR EACH PLAQUE THAT INCLUDES MATERIAL CUT SHEETS AND TEXT.

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TYPICAL CONDUIT TRENCH DETAIL

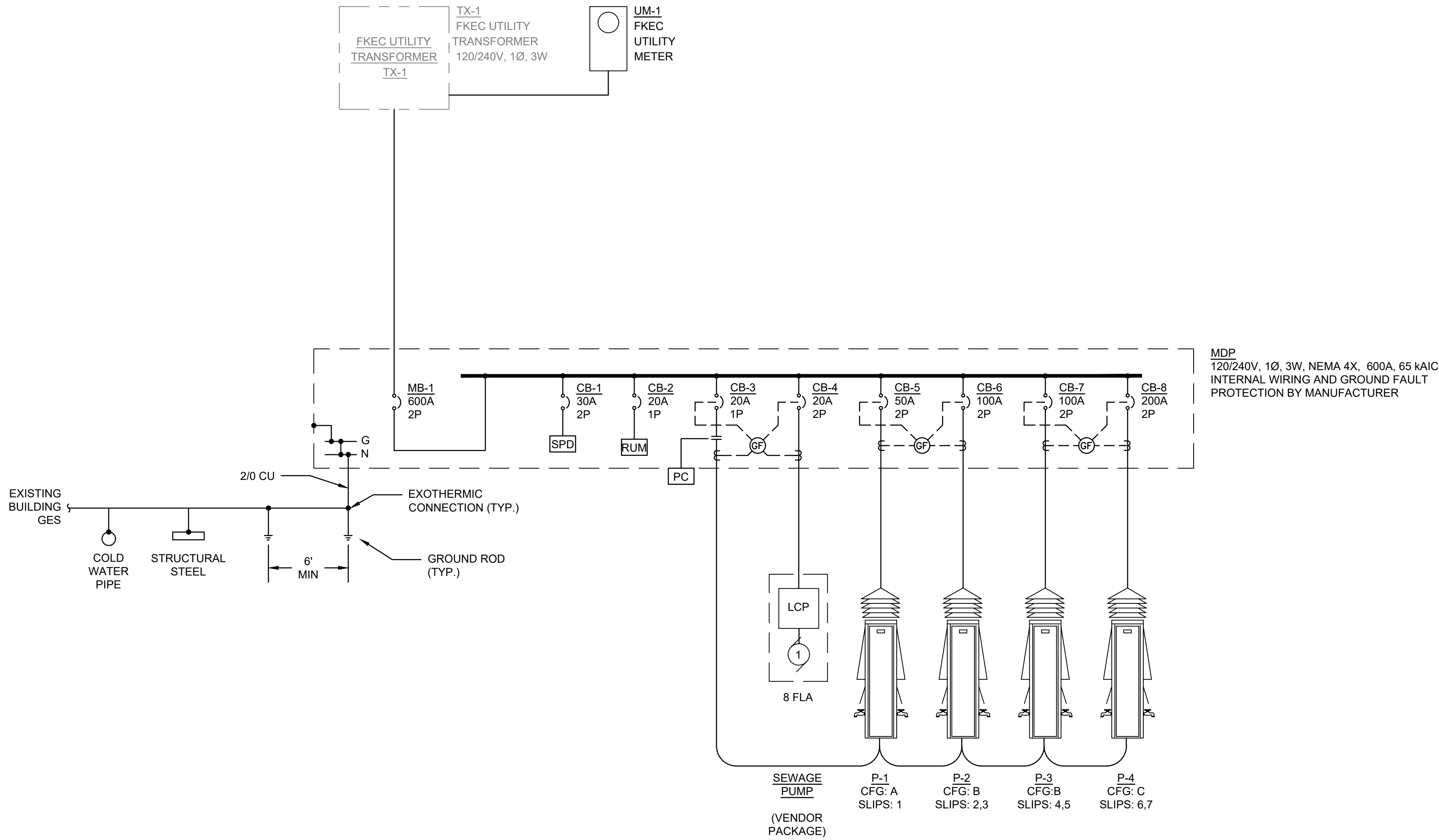
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FLEXIBLE ELECTRICAL SERVICE CONNECTION DETAIL
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ONE-LINE DIAGRAM

NOTES

- REFER TO DRAWING E-07 FOR PEDESTAL CONFIGURATION (CFG) AND DETAIL.
- FURNISH AND INSTALL NEW MAIN DISTRIBUTION PANEL AS SHOWN WITH GROUND FAULT PROTECTION FOR ALL FEEDERS.
- REFER TO THE POWER DISTRIBUTION VOLT DROP SCHEDULE ON E-07 FOR CONDUCTOR QUANTITIES AND SIZES.
- ALL CIRCUITS SHALL HAVE ADJUSTABLE GROUND FAULT PROTECTION RELAYS SET AT 100mA IN ACCORDANCE WITH NEC CODE.

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Seal

BRADLEY C. BUCHANAN, P.E.
REGISTERED ENGINEER NO. 86225
STATE OF FLORIDA

Consultants



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Coral Gables, Florida 33134
www.stantec.com

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CITY OF KEY WEST
TRUMBO ROAD FLOATING DOCKS
KEY WEST BIGHT MARINA

File Name: RHF CH DS 20.05.28
Dwn. Chkd. Dsgn. YY.MM.DD

ONE-LINE DIAGRAM

Project No. 215615432
Drawing No. E-06
Scale NO SCALE
Sheet of
Revision

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2020/05/28 2:04 PM By: Santiago, Dony

PEDESTAL CONFIGURATIONS

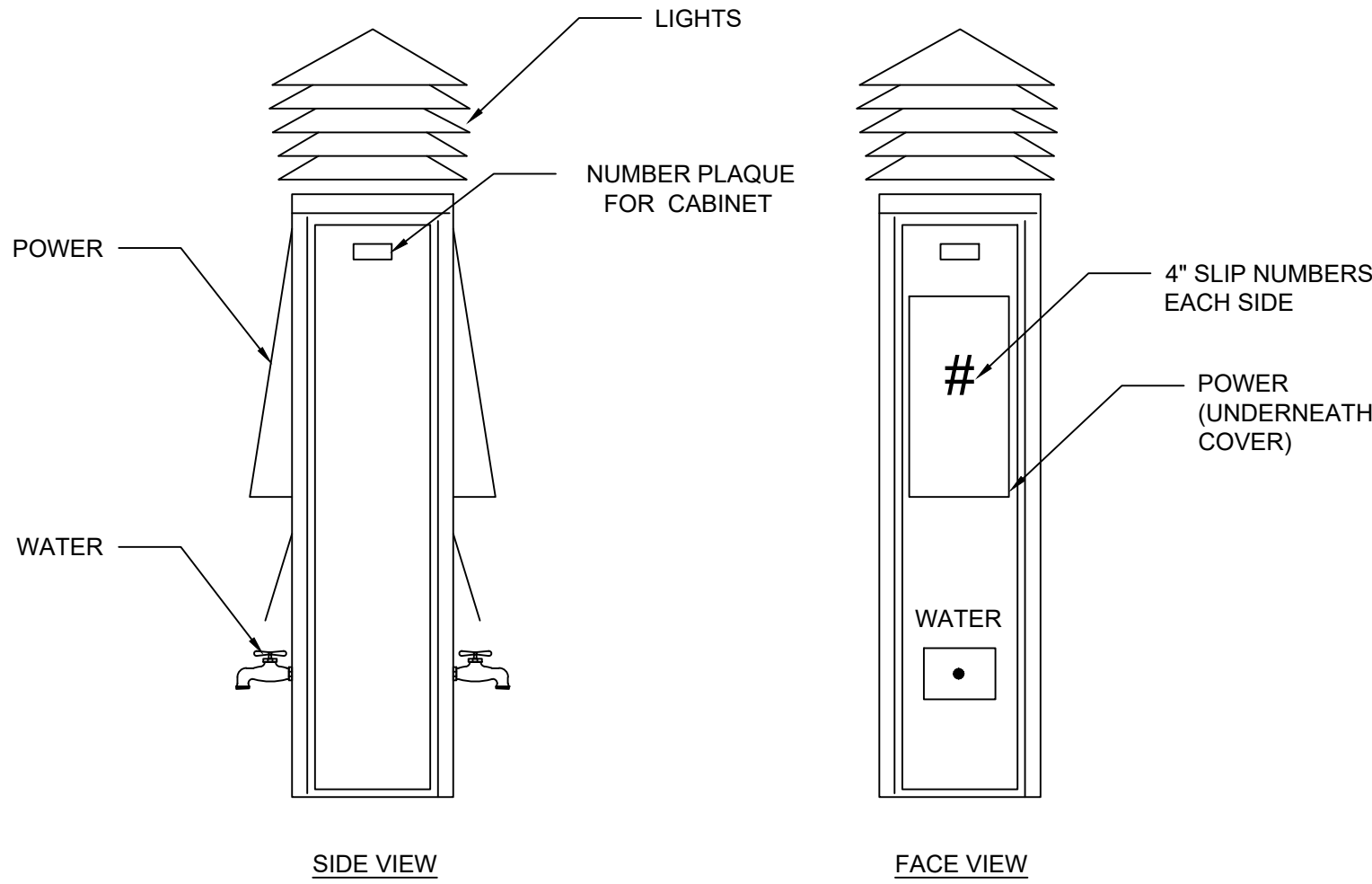
CONFIGURATION A:
SIDE 1: 50A
SIDE 2: N/A
MODEL: PCMFS-16-D-BLANK-PCL-RLF-W-TPL(LED)
TOTAL QUANTITY: 1

CONFIGURATION B:
SIDE 1: 50A
SIDE 2: 50A
MODEL: PCMFS-16-D-D-PCL-RLF-W-TPL(LED)
TOTAL QUANTITY: 2

CONFIGURATION C:
SIDE 1: 100A
SIDE 2: 100A
MODEL: PCMFS-16-E-E-PCL-RLF-W-TPL(LED)
TOTAL QUANTITY: 1

NOTES:

- ALL PEDESTALS SHALL INCLUDE A PHOTOCELL, LED LIGHT, AND A WATER FAUCET FOR EACH SLIP.
- ALL PEDESTALS SHALL INCLUDE WATER DEDUCT METERS.
- ALL PEDESTALS SHALL INCLUDE ELECTRICAL DEDUCT METERS.
- MANUFACTURER SHALL BE MARINA POWER COMPANY OR APPROVED EQUAL.



PEDESTAL DETAIL TYPICAL

POWER DISTRIBUTION VOLT DROP SCHEDULE

CIRC. No. OR PANEL	SERVICING	VOLTAGE	PH	POWER FACTOR	STATION DEMAND (VA)	AMBIENT TEMP(°C)	WIRE OP TEMP(°C)				SECTION VOLT DROP	TOTAL VOLT DROP IN %
								SIZE	*LENGTH IN FT.	QTY. PER PH.		
TX-1	MDP	120 / 240	1	0.9	99160	30	75	2[3#350]	50	2	1.06	0.44%
MDP-1	SEWER PUMP	120 / 240	1	0.9	1920	30	75	2#12 + 1#12G	90	1	2.63	1.54%
MDP-2	P-1	120 / 240	1	0.9	12000	30	75	3#8 + 1#10G	125	1	9.06	4.22%
MDP-3	P-2	120 / 240	1	0.9	24000	30	75	3#3 + 1#8G	145	1	7.11	3.40%
MDP-4	P-3	120 / 240	1	0.9	24000	30	75	3#3 + 1#8G	185	1	9.07	4.22%
MDP-5	P-4	120 / 240	1	0.9	48000	30	75	3#3/0 + 1#6G	235	1	8.23	3.87%
MDP-6	LIGHTING CIRCUIT	120	1	0.9	40	30	75	2#12 + 1#12G	235	1	0.29	0.68%

NOTES:

- FEEDER LENGTHS HERE IN ARE FOR VOLTAGE DROP CALCULATION ONLY. THE REAL LENGTH SHALL BE MEASURED ON FIELD.
- THE CONDUCTOR AND GROUND WIRES LISTED HEREIN REPRESENT MINIMUM SIZE REQUIREMENTS.

PEDESTAL LOAD CALCULATION

CONFIGURATION A:
(1x) 50A, 120/240V RECEPTACLES PER NEC 555.12 12,000VA
@240V = 50A

CONFIGURATION B:
(2x) 50A, 120/240V RECEPTACLES PER NEC 555.12 24,000VA
@240V = 100A

CONFIGURATION C:
(2x)100A, 120/240V RECEPTACLES PER NEC 555.12 48,000VA
@240V = 200A

LOAD CALCULATION

SERVICE VOLTAGE 120/240V-1PH-3W+G

CONNECTED LOAD	PED QTY	REC QTY	VA
CONFIGURATION A	1	1	12,000
CONFIGURATION B	2	2	48,000
CONFIGURATION C	1	2	48,000
TOTAL	4	5	108,000

5 RECEPTACLES TOTAL
90% DEMAND PER NEC TABLE 555.12 97,200 VA
LIGHTING 4 PEDESTALS @ 9W 0.9PF 40 VA
SEWER PUMP 1,920 VA
TOTAL 99,160 VA

@240VAC = 413A

TYPE: MARINA POWER CABINET		POWER DISTRIBUTION PANEL MDP			ENCLOSURE: FREE STANDING	
VOLTAGE: 120/240V-1PH-3W					LOCATION: SHORE	
A.I.C.S.: 65K					FED FROM: UTILITY TRANSFORMER	
MAIN BREAKER:						
MDP						
CIRC. No.	SERVICING	CIRCUIT BREAKER			SLIP NUMBER	
		POLE	TRP	TYPE		
1	SPD	2	30			
2	RUM (GFI PANEL)	1	20			
3	LIGHTING CIRCUIT	1	20			
4	SEWAGE PUMP	2	20			
5	PEDESTAL P-1	2	50		1	
6	PEDESTAL P-3	2	100		2, 3	
7	PEDESTAL P-2	2	100		4, 5	
8	PEDESTAL P-4	2	200		6, 7	
NOTES:						
1. SEE LOAD CALCULATION ON THIS SHEET						
2. FOR FEEDER SIZE SEE VOLTAGE DROP SCHEDULE ON THIS SHEET						

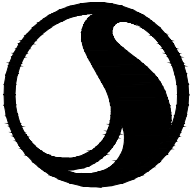
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Revision	By	Appd.	YY.MM.DD	

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Issued	By	Appd.	YY.MM.DD	

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CITY OF KEY WEST
TRUMBO ROAD FLOATING DOCKS
KEY WEST BIGHT MARINA

File Name:	RHF	CH	DS	20.05.28
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

ELECTRICAL SCHEDULES

Project No. 215615432	Scale NO SCALE	
Drawing No.	Sheet	Revision

E-07 of -

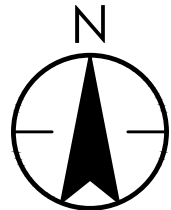
FIRE HYDRANT FLOW TEST SUMMARY

DRAWING SYMBOLS

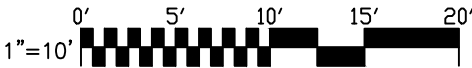
1- PLAN OR DIAGRAM DESIGNATION
FP03- DRAWING NUMBER WHERE DRAWN

A- SECTION DESIGNATION
FP04- DRAWING NUMBER WHERE DRAWN

- FW FIRE WATER PIPE
- PW POTABLE WATER PIPE
- POTABLE WATER PIPE
- SW SANITARY VACUUM PIPE
- PIPE TURN UP
- PIPE TURN DOWN
- RISE OR DROP IN PIPE
- SIDE CONNECTION
- BOTTOM CONNECTION
- TOP CONNECTION
- CROSS BOTTOM CONNECTION
- CHECK VALVE
- BALL VALVE
- HICO SEWER CLEANOUT



PLAN NORTH



GRAPHIC SCALE

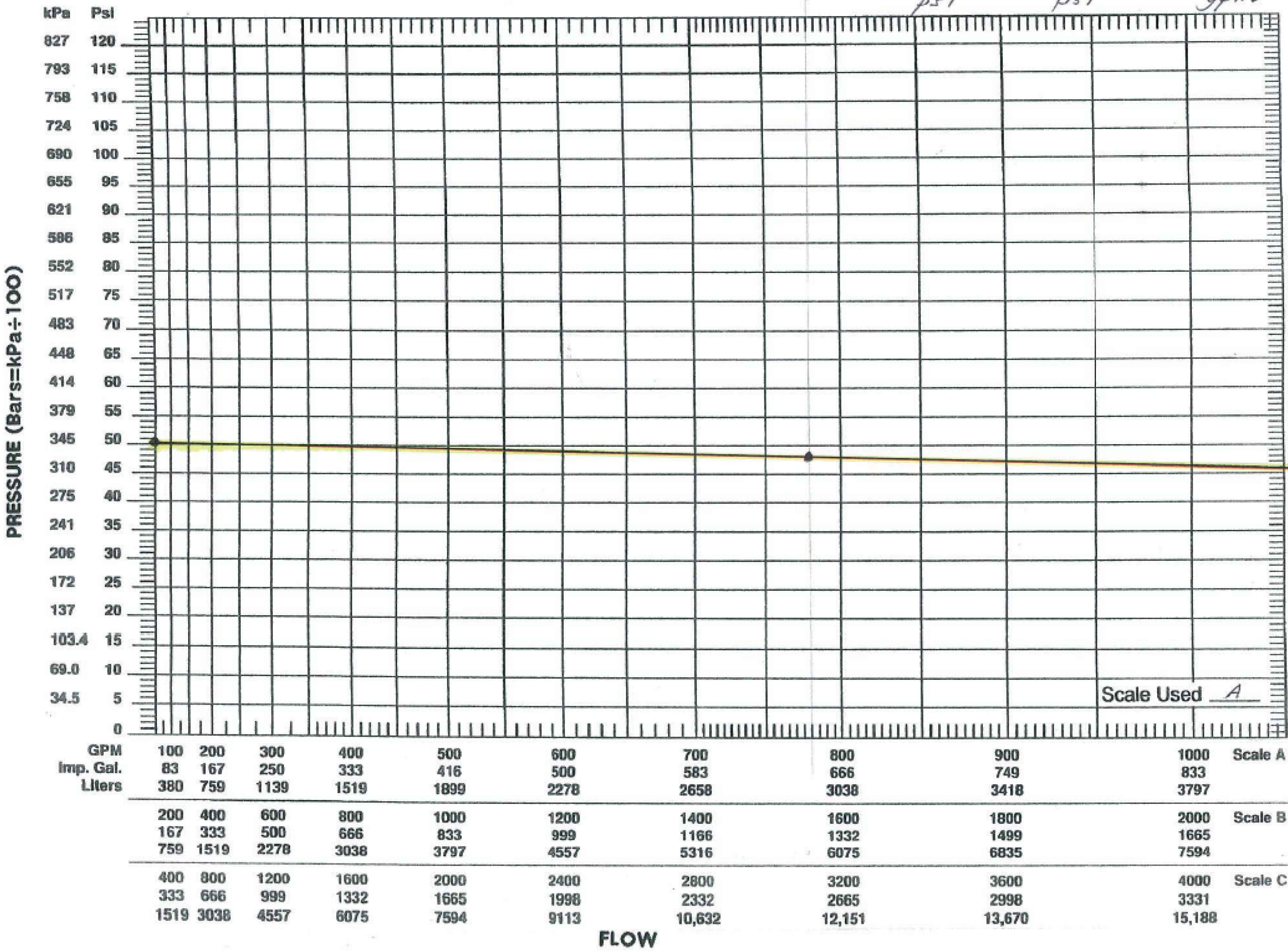
- KEYED NOTE
- REVISION NUMBER
- CONNECT TO EXISTING
- POTABLE WATER AND SANITARY SEWER DOCK BOX
- FIRE EXTINGUISHER CABINET
- FIRE HOSE CABINET
- ELECTRICAL POWER PEDESTAL
- ELECTRICAL DISTRIBUTION PANEL
- EXISTING
- HOSE BIBB



Fire Protection Publications
Oklahoma State University
Stillwater, OK 74078

Universal Water Flow Test Summary Sheet

Conducted by George Lopez Location Key West Date 4-24-14
Hatalovsky/Judge Location 100 Grinnell St.
Hydrant coefficient _____ Elevation _____ Static 50.5 Residual 48 @ Flow 780
psi psi gpm



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Seal

MATTHEW DONOLLI, P.E.
LICENSE No. 56407

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Client/Project

CITY OF KEY WEST
TRUMBO ROAD FLOATING DOCKS
KEY WEST BIGHT MARINA

File Name:

RHF
Dwn.

CH
Chkd.

DS
Dsgn.

20.01.21
YY.MM.DD

Title

FIRE PROTECTION LEGEND

Project No.

215615432

Scale

NTS

Drawing No.

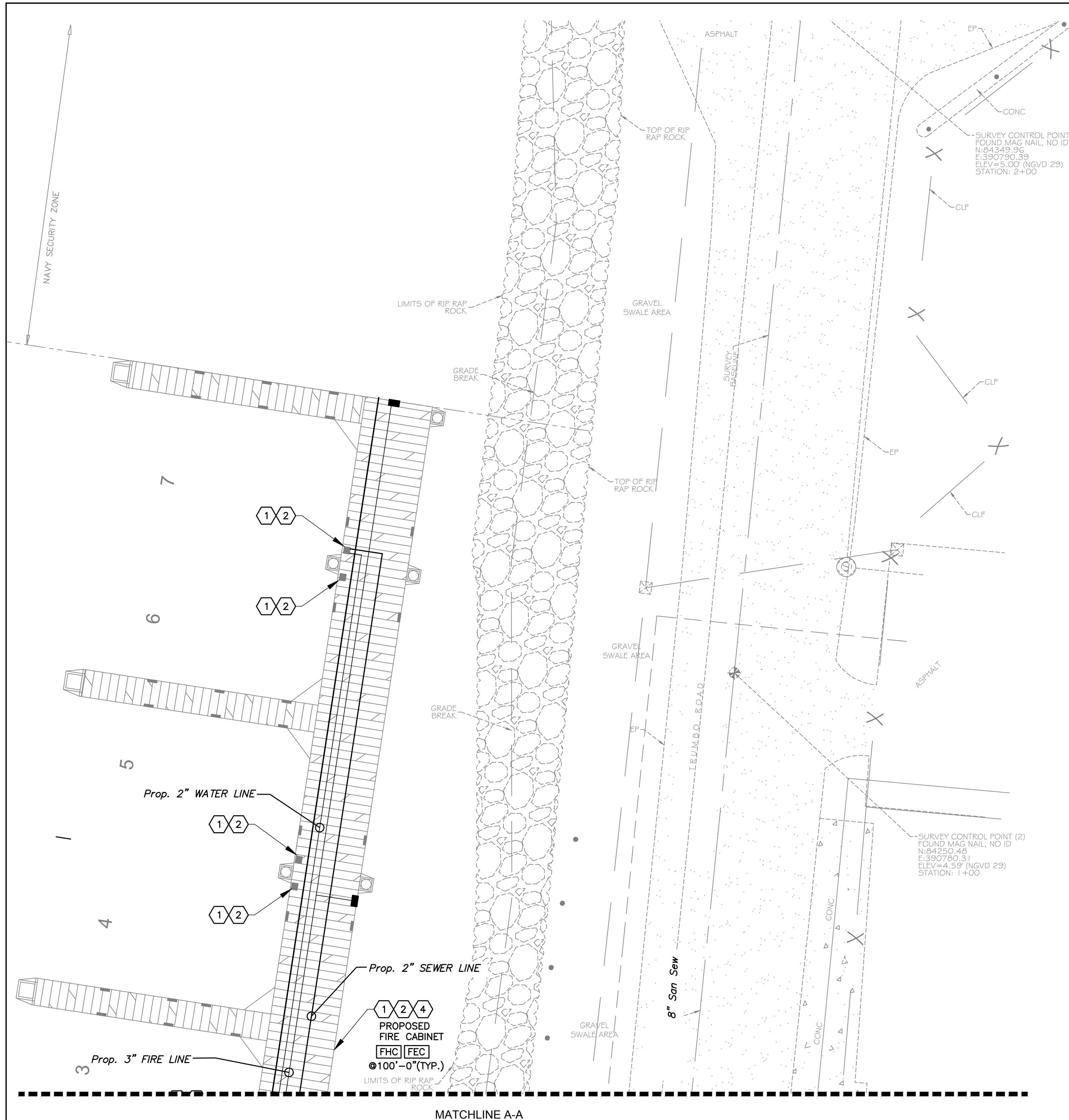
FP-01

Sheet

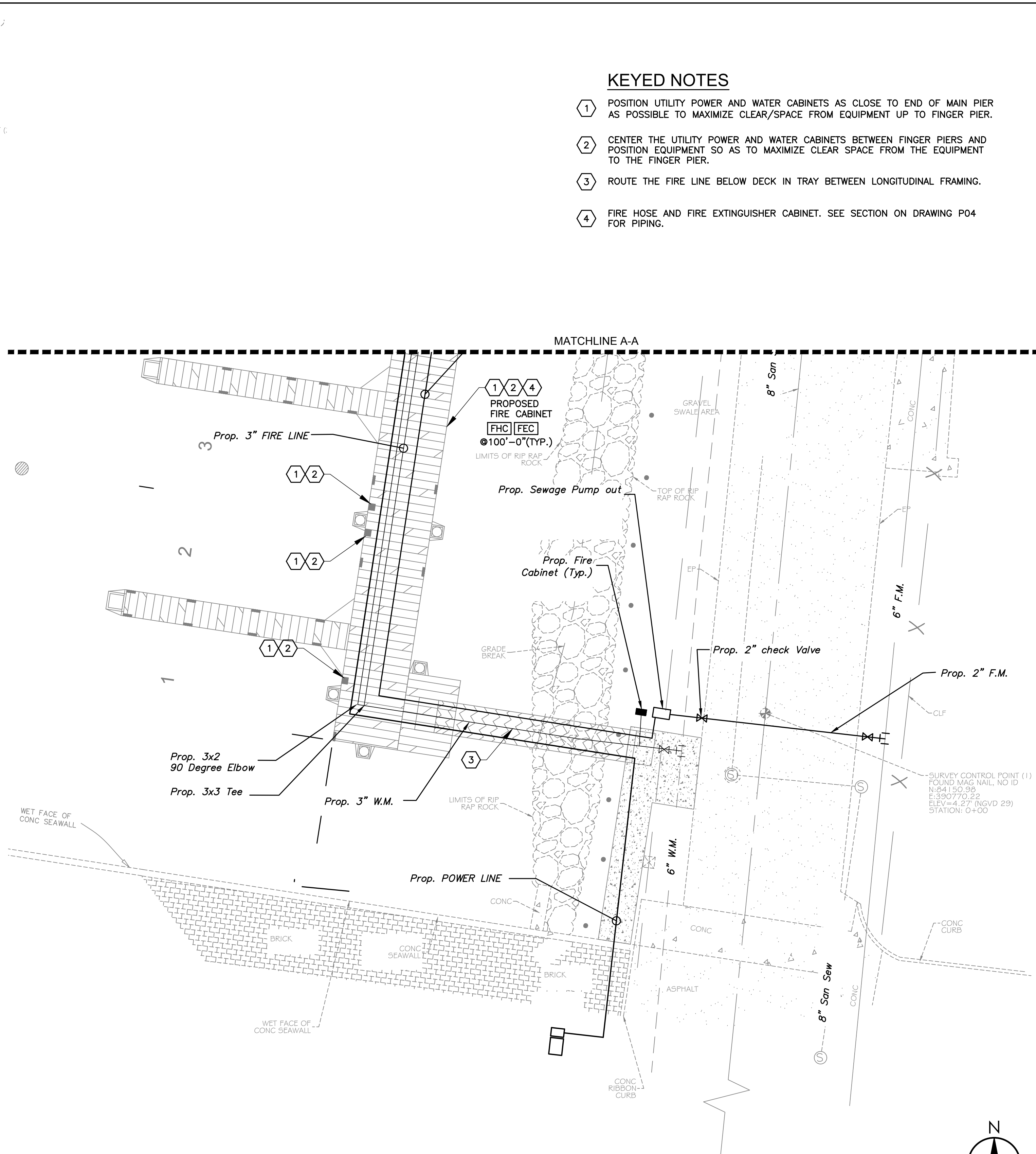
of

Revision

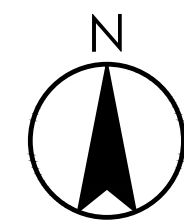
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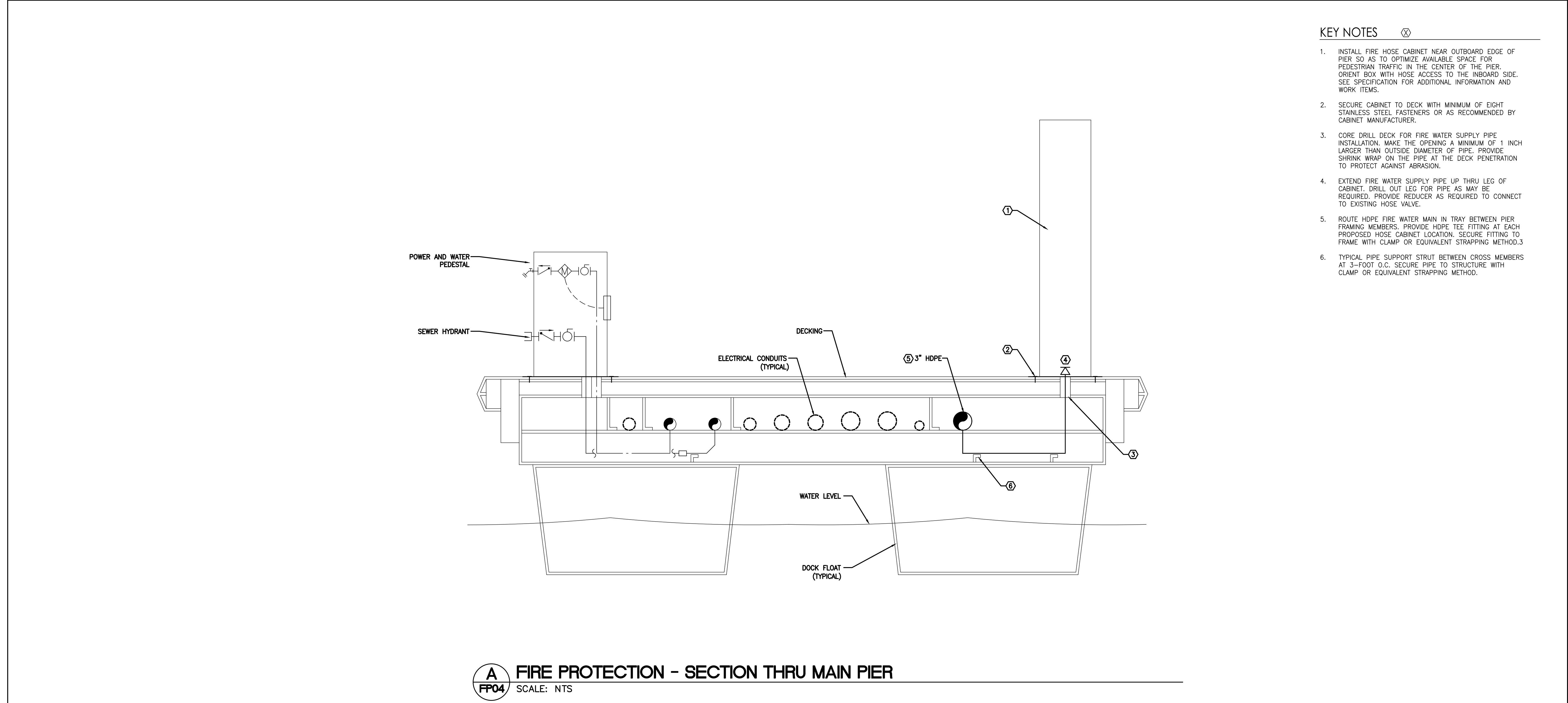
2 FIRE PROTECTION PLAN - PART 2
FP03 SCALE: 1:10



1 FIRE PROTECTION PLAN - PART 1
FP03 SCALE: 1:10



<div>Revision</div> <div>By</div> <div>Appd.</div> <div>YY.MM.DD</div>				<div>Issued</div> <div>By</div> <div>Appd.</div> <div>YY.MM.DD</div>				<div>Seal</div> <div>MATTHEW DONOLLI, P.E. LICENSE No. 56407</div>		<div>Consultants</div>		<div>Stantec 901 Ponce de Leon Blvd. Suite 900 Coral Gables, Florida 33134 www.stantec.com</div> <div>The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.</div>		<div>Client/Project</div> <div>CITY OF KEY WEST TRUMBO ROAD FLOATING DOCKS KEY WEST BIGHT MARINA</div>		<div>Title</div> <div>FIRE PROTECTION PLAN</div>		<div>Project No.</div> <div>215615432</div>		<div>Scale</div> <div>AS NOTED</div>		<div>Drawing No.</div> <div>FP-03</div>		<div>Sheet</div> <div>of - -</div>		<div>Revision</div>	
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- KEY NOTES ⓧ
1. INSTALL FIRE HOSE CABINET NEAR OUTBOARD EDGE OF PIER SO AS TO OPTIMIZE AVAILABLE SPACE FOR PEDESTRIAN TRAFFIC IN THE CENTER OF THE PIER. ORIENT BOX WITH HOSE ACCESS TO THE INBOARD SIDE. SEE SPECIFICATION FOR ADDITIONAL INFORMATION AND WORK ITEMS.
 2. SECURE CABINET TO DECK WITH MINIMUM OF EIGHT STAINLESS STEEL FASTENERS OR AS RECOMMENDED BY CABINET MANUFACTURER.
 3. CORE DRILL DECK FOR FIRE WATER SUPPLY PIPE INSTALLATION. MAKE THE OPENING A MINIMUM OF 1 INCH LARGER THAN OUTSIDE DIAMETER OF PIPE. PROVIDE SHRINK WRAP ON THE PIPE AT THE DECK PENETRATION TO PROTECT AGAINST ABRASION.
 4. EXTEND FIRE WATER SUPPLY PIPE UP THRU LEG OF CABINET. DRILL OUT LEG FOR PIPE AS MAY BE REQUIRED. PROVIDE REDUCER AS REQUIRED TO CONNECT TO EXISTING HOSE VALVE.
 5. ROUTE HDPE FIRE WATER MAIN IN TRAY BETWEEN PIER FRAMING MEMBERS. PROVIDE HDPE TEE FITTING AT EACH PROPOSED HOSE CABINET LOCATION. SECURE FITTING TO FRAME WITH CLAMP OR EQUIVALENT STRAPPING METHOD.3
 6. TYPICAL PIPE SUPPORT STRUT BETWEEN CROSS MEMBERS AT 3-FOOT O.C. SECURE PIPE TO STRUCTURE WITH CLAMP OR EQUIVALENT STRAPPING METHOD.

<div>Revision</div> <div>By</div> <div>Appd.</div> <div>YY.MM.DD</div>				<div>Issued</div> <div>By</div> <div>Appd.</div> <div>YY.MM.DD</div>				<div>Seal</div> <div>MATTHEW DONOLLI, P.E. LICENSE No. 56407</div> <div></div>	<div>Consultants</div>	<div></div> <div>901 Ponce de Leon Blvd, Suite 900 Coral Gables, Florida 33134 www.stantec.com</div> <div>The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.</div>	<div>Client/Project</div> <div>CITY OF KEY WEST TRUMBO ROAD FLOATING DOCKS KEY WEST BIGHT MARINA</div> <div>File Name:</div> <div>RHF Dwn. CH Chkd. DS Dsgn. 20.05.15 YY.MM.DD</div>	<div>Title</div> <div>FIRE PROTECTION SECTION</div> <div>Project No. 215615432</div> <div>Scale NO SCALE</div> <div>Drawing No. FP-04</div> <div>Sheet of - -</div> <div>Revision</div>
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DRAWING SYMBOLS

1

P03

PLAN OR DIAGRAM DESIGNATION

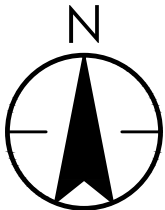
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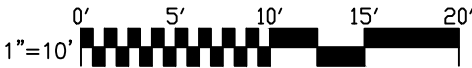
P04

SECTION DESIGNATION

DRAWING NUMBER WHERE DRAWN



PLAN NORTH



GRAPHIC SCALE

- FW

FIRE WATER PIPE
- PW

POTABLE WATER PIPE
- —

POTABLE WATER PIPE
- SW

SANITARY VACUUM PIPE
- PIPE TURN UP
- ⤿

PIPE TURN DOWN
- ⤿

RISE OR DROP IN PIPE
- ├

SIDE CONNECTION
- ⊕

BOTTOM CONNECTION
- ⊕

TOP CONNECTION
- ⊕

CROSS BOTTOM CONNECTION
- ⤿

CHECK VALVE
- ⊕

BALL VALVE
- ||CO

SEWER CLEANOUT

- X

KEYED NOTE
- Δ

REVISION NUMBER
- ⊕

CONNECT TO EXISTING
- W

POTABLE WATER AND
SANITARY SEWER DOCK BOX
- FEC

FIRE EXTINGUISHER CABINET
- FHC

FIRE HOSE CABINET
- P

ELECTRICAL POWER PEDESTAL
- EDP

ELECTRICAL DISTRIBUTION PANEL
- EX

EXISTING
- HB

HOSE BIBB

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TRUMBO ROAD FLOATING DOCKS
KEY WEST BIGHT MARINA

File Name:

RHF
Dwn.

CH
Chkd.

DS
Dsgn.

20.01.21
YY.MM.DD

Title

PLUMBING LEGEND

Project No.

215615432

Scale

NTS

Drawing No.

P-01

Sheet

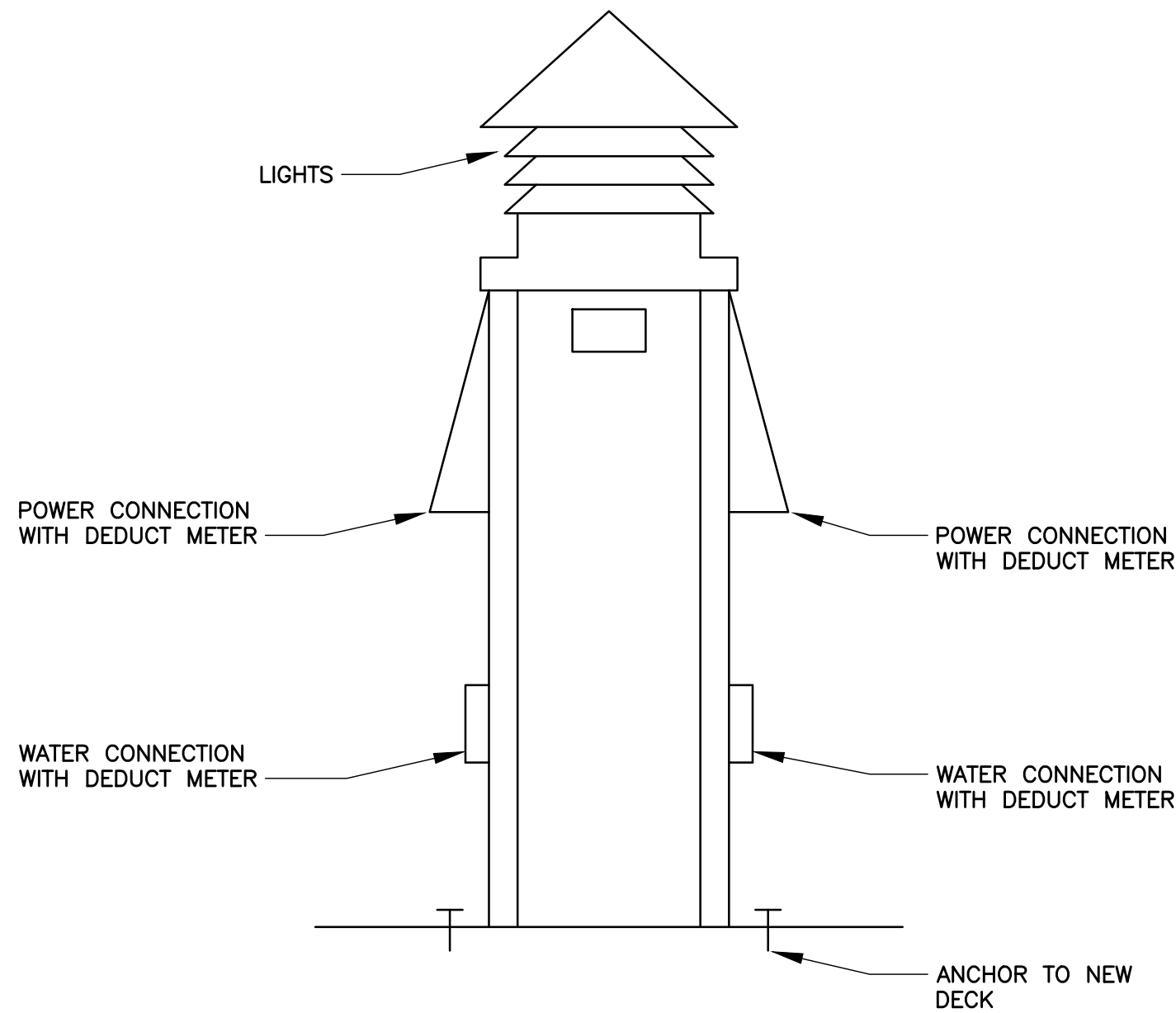
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Revision

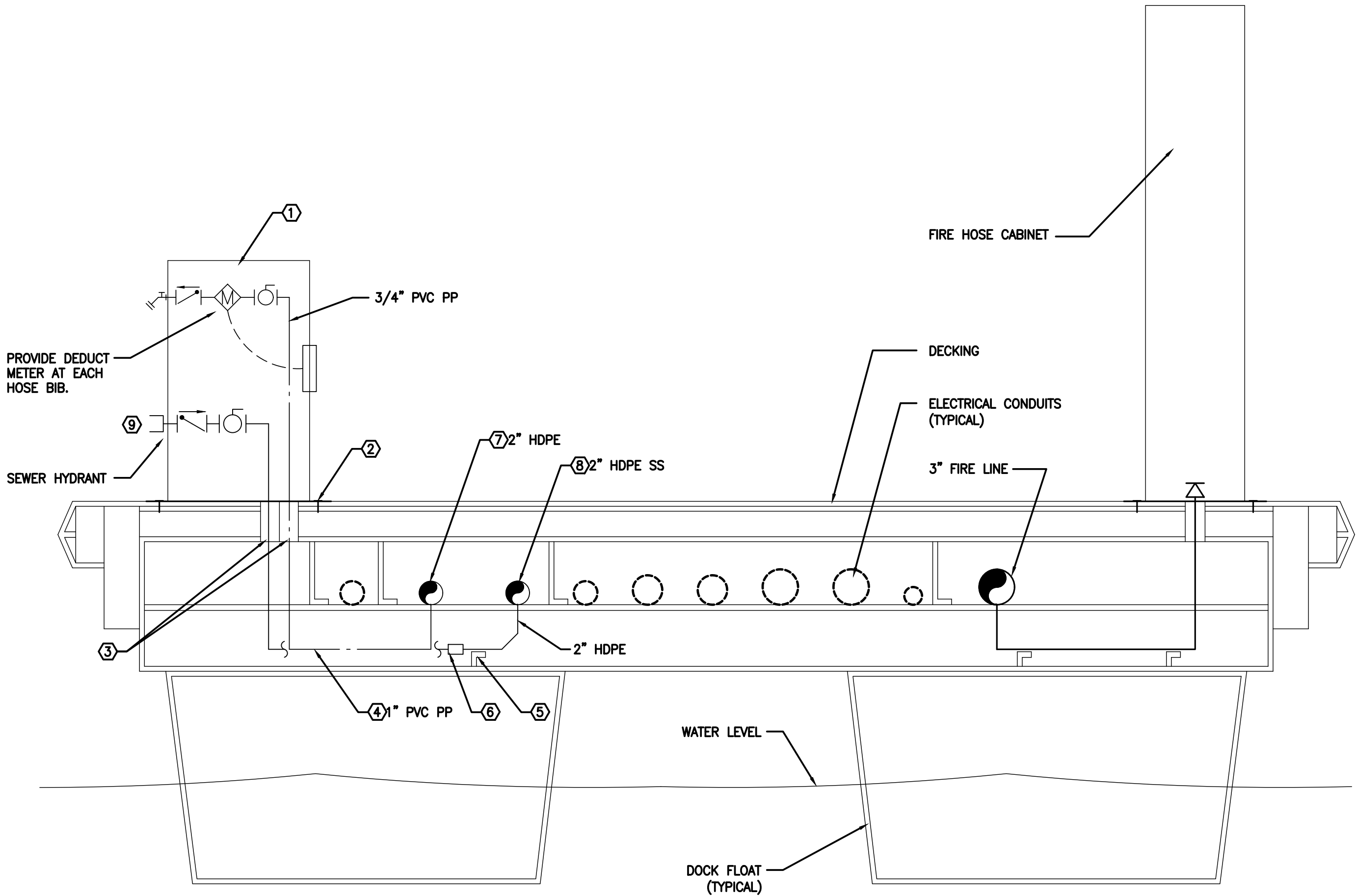
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KEY NOTES

1. SINGLE SLIP POTABLE WATER & SANITARY POWER PEDESTAL. INSTALL DOCK BOX NEAR OUTBOARD EDGE OF PIER SO AS TO OPTIMIZE AVAILABLE SPACE FOR PEDESTRIAN TRAFFIC IN THE CENTER OF THE PIER. ORIENT BOX WITH HOSE BIBBS TO THE OUTBOARD SIDE AND RF METER READER DEVICES TO THE INBOARD SIDE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND WORK ITEMS. COORDINATE W/ ELECTRICAL PANEL.
2. SECURE CABINET TO DECK WITH MINIMUM OF FOUR STAINLESS STEEL FASTENERS OR AS RECOMMENDED BY CABINET MANUFACTURER.
3. CORE DRILL DECK FOR POTABLE WATER AND SANITARY SEWER PIPE INSTALLATION. MAKE THE OPENING A MINIMUM OF 1 INCH LARGER THAN OUTSIDE DIAMETER OF PIPE. PROVIDE SHRINK WRAP ON THE PIPE AT THE DECK PENETRATION TO PROTECT AGAINST ABRASION.
4. EXTEND PVC PRESSURE PIPE FOR POTABLE WATER SUPPLY TO DOCK BOX AND TIE INTO SINGLE POINT CONNECTION FOR PW SUPPLY.
5. TYPICAL PIPE SUPPORT STRUT BETWEEN CROSS MEMBERS AT 3-FOOT O.C. SECURE PIPE TO STRUCTURE WITH CLAMP OR EQUIVALENT STRAPPING METHOD.
6. PROVIDE FERNCO OR EQUIVALENT RUBBER BOOT CONNECTOR WITH 316 STAINLESS STEEL HARDWARE TO CONNECT HDPE BRANCH TEE TO PVC-DWV SANITARY HYDRANT BRANCH PIPE.
7. ROUTE HDPE POTABLE WATER SUPPLY MAIN IN TRAY BETWEEN PIER FRAMING MEMBERS. PROVIDE HDPE TEE FITTING AT EACH PAIR OF PROPOSED POTABLE WATER DOCK BOXES. TRANSITION TO PVC PRESSURE PIPE AFTER BRANCH TEE.
8. ROUTE HDPE SANITARY VACUUM PIPE MAIN IN TRAY BETWEEN PIER FRAMING MEMBERS. PROVIDE HDPE TEE FITTING AT EACH PIER OF PROPOSED DOCK BOXES. USE LOW SWEEP FITTINGS
9. SEWER HYDRANT CONNECTION.



B POWER AND WATER PEDESTAL DETAIL
P04 SCALE: NTS

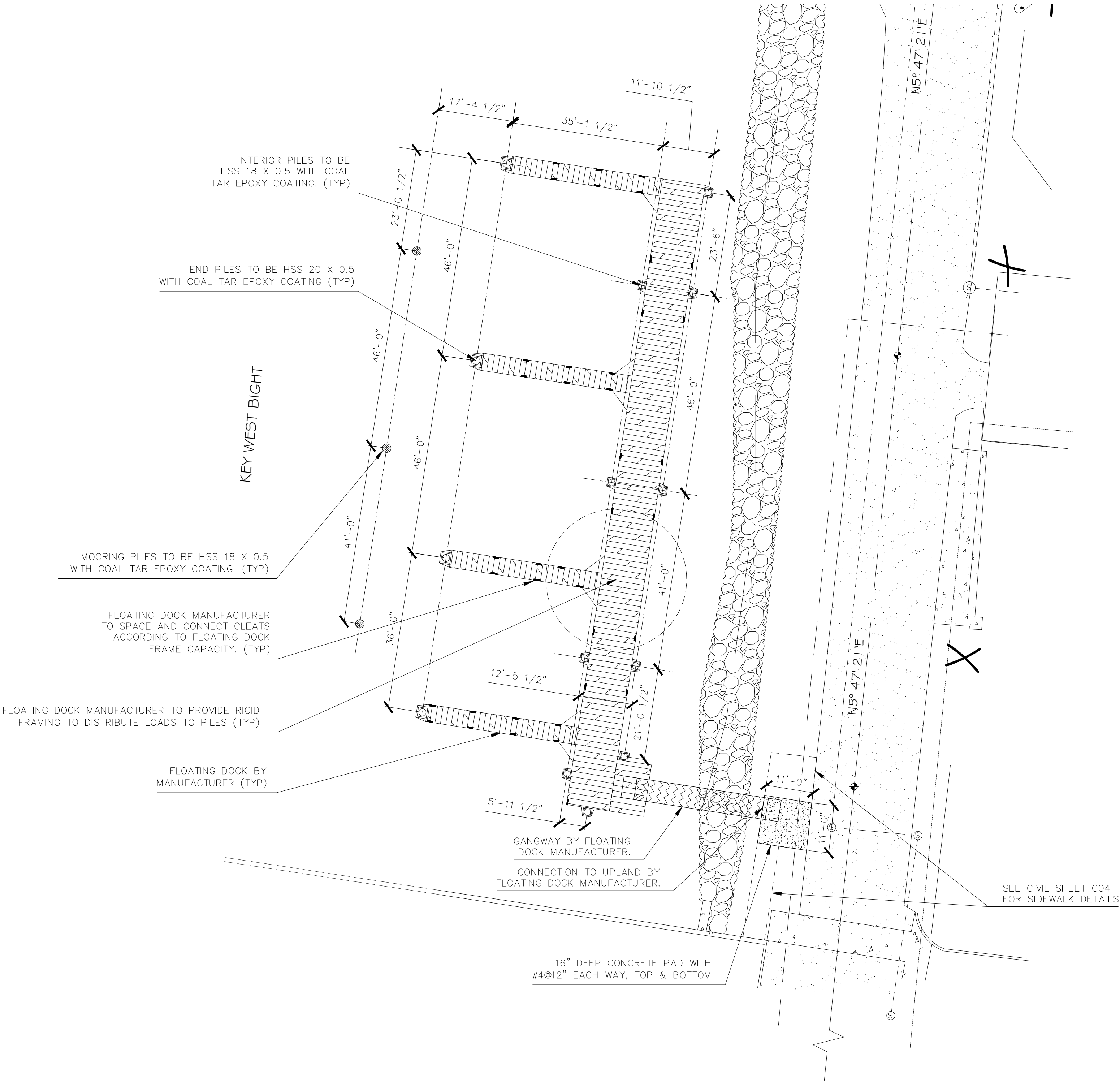


A PLUMBING - SECTION THRU MAIN PIER
P04 SCALE: NTS

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2020/05/22 2:36 PM By: HRA

1 PILE PLAN
SCALE: 1/16" = 1'-0"



GENERAL NOTES

- CONTRACTOR TO FOLLOW ALL DETAILS, SECTIONS, AND PLANS SHOWN IN THE FOLLOWING SHEETS. IF ANY CONFLICTS ARISE OR ALTERNATIVES ARE DESIRED, THE CONTRACTOR MUST NOTIFY THE EOR AND SUPPLY SHOP DRAWINGS PRIOR TO PURCHASING OR INSTALLING MATERIALS.
- ELEVATIONS SHOWN REFER TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.
- ALL DIMENSIONS ON PLANS ARE SUBJECT TO VERIFICATION IN THE FIELD.
- IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH WORK.
- IT IS THE INTENT OF THESE PLANS AND THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH LOCAL, STATE, AND FEDERAL ENVIRONMENTAL PERMITS ISSUED FOR THIS PROJECT. DESIGN COMPLIES WITH FLORIDA BUILDING CODE 2017, 6th EDITION.
- OWNER TO NOTIFY THE ENGINEER IF THERE IS A SUBSTANTIAL MODIFICATION TO THE BOTTOM ELEVATION OF THE HARBOR IN THE FUTURE. THIS DESIGN ACCOUNTS FOR A 14' MAX DISTANCE FROM THE MUDLINE TO THE TOP OF DECK.
- CONTRACTOR TO TAKE PRECAUTIONS TO PREVENT DEBRIS FROM FALLING INTO WATER DURING DEMOLITION.

DESIGN:

- PILES DESIGNED FOR FOLLOWING ASD LOADS, RESULTANT FROM DESIGN CRITERIA IN NOTE 2.
 - END PILE: 15K LOAD AT TIP OF 14' CANTILEVER. [ASD]
 - INTERIOR PILE & MOORING PILE: 7k LOAD AT TIP OF 14' CANTILEVER [ASD]
- PILES HAVE BEEN DESIGNED FOR THE FOLLOWING LOAD CRITERIA AS A TRANSIENT DOCK. FLOATING DOCK MANUFACTURER TO DESIGN DOCKS TO ADHERE TO THE FOLLOWING CRITERIA AS WELL. THE DOCK HAS NOT BEEN DESIGNED TO SUPPORT VESSELS DURING STORM EVENTS.
 - 120 MPH FASTEST MILE WIND - FULLY OCCUPIED.
 - 150 MPH FASTEST MILE - NO MORE THAN ONE BOAT BETWEEN EACH FINGER PIER ON EACH SIDE (30% OCCUPIED).
 - FLOATING DOCK MANUFACTURER TO NOTIFY EOR IMMEDIATELY IF THE PILE LOADS IN NOTE 1 ABOVE ARE EXCEEDED IN ANY WAY.
 - DOCK LIVE LOAD = 100PSF
 - DOCK MISC DEAD LOAD = 20 PSF
- NO CLEATS TO BE INSTALLED ON PILES.
- THE OWNER HAS BEEN MADE AWARE THAT VESSELS CANNOT BE MOORED AT THE PIER DURING STORM EVENTS. THE FOLLOWING PILE LATERAL DEFLECTIONS ARE TO BE EXPECTED DURING LOADS IN NOTE 1 ABOVE, PER GEOTECH REPORT.
 - END PILES: HSS 20 X 0.5 1.4"
 - INTERIOR PILES & MOORING PILES: HSS 18 X 0.5 2.5"

PILES:

- PILES MUST BE DRIVEN TO HAVE A MINIMUM OF 14'-0" OF EMBEDMENT DEPTH IN ACCORDANCE WITH GEOTECH REPORT.
- PILES USED AS GUIDES FOR THE FLOATING DOCK TO BE ATTACHED TO THE DOCKS USING SIDE PILE GUIDE.
 - CONNECTION OF GUIDES TO DOCKS TO CONFORM TO REQUIREMENTS OF MANUFACTURER.
- ALL PILES TO BE COATED WITH COAL TAR EPOXY PER MANUFACTURERS SPECIFICATIONS. COATING SHOULD BE APPLIED ON INTERIOR AND EXTERIOR OF HSS PILE, AND MUST EXTEND A MINIMUM OF 2' INTO THE SOIL GRADE WITH 16 MIL THICKNESS.
- HSS PILES TO BE ASTM A500 - Gr. B (Fy = 42ksi)

FLOATING DOCK:

- FLOATING DOCK TO BE DESIGNED TO RIGIDLY DISTRIBUTE LATERAL FORCES TO PILES AS A GROUP.
- SUBMIT SHOP DRAWINGS TO EOR FOR APPROVAL FOR DESIGN LOADS.
- FLOATING DOCK SHOP DRAWINGS MUST BE APPROVED BY EOR AND MEET ALL REQUIREMENTS OF THESE PLANS. REPORT DISCREPANCIES IN DIMENSIONS TO EOR IMMEDIATELY.
- PILE GUIDE CONNECTION TO RESIST ASD LOADS SHOWN IN DESIGN NOTE #1 AND DEFLECTIONS IN DESIGN NOTE #4.

GEOTECH NOTES:

- SEE GEOTECH REPORT NUMBER 1661.57 ADDENDUM 1, SIGNED AND SEALED BY NUTTING ENGINEERS DATED JUNE 2019 AND UPDATED NOVEMBER 2019.

DELEGATED DESIGNS:

- CONTRACTOR IS REQUIRED TO SUBMIT ALL DELEGATED DESIGNS TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL THE SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A LICENSED FLORIDA PROFESSIONAL ENGINEER.
- ITEMS TO BE DELEGATED
 - FLOATING DOCKS AND CONNECTIONS.
 - ALL ITEMS NOT SHOWN ON PLANS.
 - ANY ITEM MODIFIED FROM EOR PLANS.

PERMIT SET

Seal

Consultants

ANESTA CONSULTING, INC.

1151 W Magnolia Cir, Delray Beach, Florida 33445
Tel: 561-702-2569, Certificate of Authorization #31180

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Anesta Consulting Project Number: 2019-19002



Stantec

901 Ponce de Leon Blvd, Suite 900
Coral Gables, Florida 33134
www.stantec.com

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CITY OF KEY WEST
TRUMBO ROAD FLOATING DOCKS
KEY WEST BIGHT MARINA

File Name:

HRA

Dwn.

Chkd.

HRA

Dsgn.

20.05.22

YY.MM.DD

STRUCTURAL PILE LAYOUT

Project No.

Scale

215615432

Drawing No.

Sheet

Revision

S01

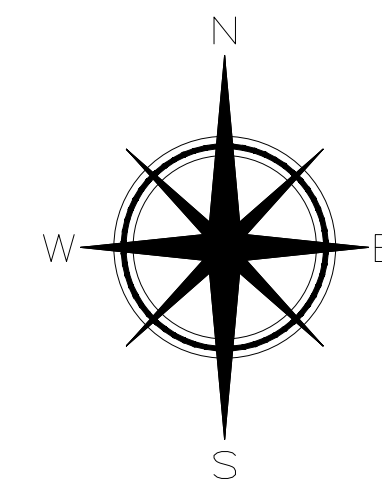
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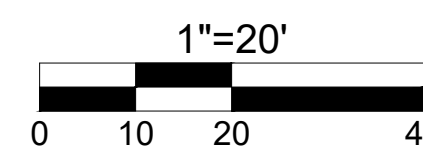
HEATHER R. ANESTA, P.E.
FLORIDA ENGINEER NO. 74733
ANESTA CONSULTING, INC.



LOCATION MAP - NTS
SEC. 31-T67S-R25E



GRID NORTH



*VERIFY ORIGINAL SCALE OF 2"

SURVEYOR NOTES

- THIS IS NOT A BOUNDARY SURVEY, ANY BOUNDARY OR RIGHT OF WAY LINES SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY, AND ARE A GRAPHICAL REPRESENTATION OF THE BOUNDARY BASED ON THE RECOVERY OF SUFFICIENT BOUNDARY MONUMENTATION TO SPATIALLY DEFINE THE BOUNDARY LINES. NO ATTEMPT WAS MADE TO RESOLVE CONFLICTS BETWEEN THE RECOVERED BOUNDARY INFORMATION AND THE OCCUPANCIAL LINES.
- HORIZONTAL COORDINATES AND BEARINGS SHOWN ARE REFERENCED TO GRID NORTH, BASED ON THE 2011 ADJUSTMENT OF THE NORTH AMERICAN DATUM OF 1983 (NAD 83/2011), OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (TRANSVERSE MERCATOR PROJECTION), EAST ZONE (0901).
- COORDINATES WERE ESTABLISHED BY A REAL-TIME KINEMATIC (RTK) GNSS CONTROL SURVEY WHICH IS CERTIFIED TO A 2 CENTIMETER LOCAL ACCURACY, RELATIVE TO THE NEAREST CONTROL POINT WITHIN THE NATIONAL GEODETIC SURVEY (NGS) GEODETIC CONTROL NETWORK.
- METHOD: WIDE AREA CONTINUOUSLY OPERATING GPS REFERENCE STATION NETWORK (TRIMBLE VRS).
- ALL UNITS ARE SHOWN IN U.S. SURVEY FEET.
- ELEVATIONS SHOWN HEREON ARE IN FEET AND BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929).
- ELEVATIONS SHOWN AT THE BOTTOM OF "KEY WEST BIGHT" ARE ACTUAL ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929).
- ELEVATIONS SHOWN AT THE BOTTOM OF "KEY WEST BIGHT" ARE TOP OF BOTTOM, NOT REFUSAL.
- BENCHMARK DESCRIPTION: NATIONAL GEODETIC SURVEY BENCHMARK: DESIGNATION 872 4580 TIDAL BASIC, P.I.D. AAOO08, ELEVATION= 14.32' (NGVD 1929).
- ADDITIONS OR DELETIONS TO SURVEY MAP OR REPORT BY OTHERS THAN THE SIGNING PARTY IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.
- ANY UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD EVIDENCE. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON ENCOMPASS ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE EVIDENCE AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- LEGAL DESCRIPTIONS HAVE BEEN FURNISHED BY THE CLIENT OR HIGHER REPRESENTATIVE. PUBLIC RECORDS HAVE NOT BEEN RESEARCHED BY THE SURVEYOR TO DETERMINE THE ACCURACY OF THESE DESCRIPTIONS NOR HAVE ADJOINING PROPERTIES BEEN RESEARCHED TO DETERMINE OVERLAPS OR HIATUS. ADDITIONS OR DELETIONS TO SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY. THE BOLD LINE SHOWN HEREON REPRESENTS THE SURVEYORS OPINION OF THE DEED LINES. THE MEAN HIGH WATER LINE WAS NOT DETERMINED FOR THIS SURVEY, THE APPARENT MEAN HIGH WATER LINE IS SHOWN FOR REFERENCE ONLY.
- ALL FIELD DATA WAS ACQUIRED ON 09/05/2017.

SYMBOL LEGEND:

	SPOT ELEVATION (TYPICAL)		TELEPHONE MANHOLE		FLOW ARROWS		FOG = POINT OF CONJUNCTION FPC = FOG POINT OF CONJUNCTION FPM = PERMANENT REFERENCE
	CATCH BASIN		WATER VALVE		CONCRETE CURB & GUTTER		IRON ROD
	DRAINAGE MANHOLE		WATER METER		CONCRETE BLOCK		IRON ROD
	CONCRETE UTILITY POLE		LIGHT POLE		CONCRETE BLOCK WALL		IRON ROD
	ELECTRIC MANHOLE		WOOD UTILITY POLE		CELENTRIFUGAL PIPE		IRON ROD
	FIRE HYDRANT		TRAFFIC CONTROL BOX		CONCRETE MANJOINT		IRON ROD
	GUY WIRE		BOLT/WOOD BOLLARD		CONCRETE MANJOINT		IRON ROD
	MAILBOX				CONCRETE MANJOINT		IRON ROD
	SANITARY CLEANOUT				CONCRETE MANJOINT		IRON ROD
	SANITARY MANHOLE				CONCRETE MANJOINT		IRON ROD
	SIGN				CONCRETE MANJOINT		IRON ROD

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES AND COMPLIES WITH CHAPTER 177, FLORIDA STATUTES.

SIGNED

ERIC A. ISAACS, PSM #6783, PROFESSIONAL SURVEYOR AND MAPPER, LB# 7847

NOT VALID WITHOUT THE
SIGNATURE AND THE RAISED
SEAL OF A FLORIDA
SURVEYOR AND MAPPER.

FLORIDA KEYS
LAND SURVEYING

19960 OVERSEAS HIGHWAY
SUGARLOAF KEY, FL 33042
PHONE: (305) 394-3690
EMAIL: FKL5email@Gmail.com

TOPOGRAPHIC & BATHYMETRIC SURVEY
OF A PORTION OF TRUMBO ROAD
KEY WEST, MONROE COUNTY, STATE OF FLORIDA

DATE: 09/27/2017	SURVEY BY: EAI	PROJECT: STANTEC-TRUMBO
ORDER: 17-317	DRAWN BY: MPB	H. SCALE: 1"=20'
BOOK:	CHECKED BY:	SHEET 1 OF 1