



City of Miami

ADDENDUM No. 8

March 8, 2019

REQUEST FOR PROPOSALS No. 18-19-005

DESIGN-BUILD SERVICES FOR DINNER KEY MARINA REPAIRS AND RESTORATION PROJECT

TO: ALL PROSPECTIVE PROPOSERS:

The following changes, additions, clarifications, and/or deletions amend the above-captioned Request for Proposals (RFP) and shall become an integral part of the proposal submitted and the Contract to be executed for **Design-Build Services for Dinner Key Marina Repairs and Restoration Project, RFP No. 18-19-005** (the "Project"). Please note the contents herein and affix it to the documents you have on hand.

All attachments (if any) are available on the Office of Capital Improvements (OCI) website and are part of this Addendum.

MODIFICATIONS:

1. A limited number of drawings, 21 of the original 68 advertised on November 7, 2018, have been revised by Moffatt & Nichol, the Design Criteria Professional (DCP) for this project. All revised drawings are hereby attached for the Proposer's review.

REQUESTS FOR INFORMATION (RFIs):

RFI No. 3, submitted by Kearns Construction Co. on February 4, 2019

- Q10. For Bid Additive Alternate #2, can KCC build the entire finger pier at a constant slope (1/24 or 1/36)?
- A10. No. It is not acceptable to provide a constant slope.
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- Q13. Please provide the City's desired quantity of the required trash and recycling receptacles.
- A13. The City has indicated a quantity of 48 receptacles; each receptacle will have two 55-gallon capacity containers with lids that secure. The receptacles should be suitable for marina (salt-water) applications.
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- Q17. The M&N Hurricane Irma Assessment Report (Exhibit 17A, attached) schedules only 630 LF of grating to be replaced. The RFP's Amendment No. 3 and the bid form (Exhibit 17B, attached) require all grating to be replaced.
- The bid form lists "53,500 SF" of grating to be replaced. Amendment No 3 also states that all grating is 7' wide.

- The grating at Pier No. 8 and Pier No. 9 are not 7' wide.
- The grating at Pier 8 is 3'-6" wide.
- The grating at Pier 9 is only 4' wide.

Consequently, the actual grating is about 10% less than what is listed on the Step 2 bid form. Should the D/B Team's Step 2 proposal include the 53,500 SF of grating listed on the bid form or include the SF of grating required to complete the project? The additional grating represents about \$100,000 in added costs.

A17. The grating quantity in the Bid Schedule was revised to indicate 1 LS. A unit price (\$/SF) for Fiberglass Reinforced Plastic (FRP) Grating Replacement was added to the Bid Schedule.

Q23. What are the requirements to repair the guard gate gazebos that the entrance for Piers 1-77? Do the awnings need to be replaced? Do the existing gates need to be replaced? Can the aluminum gates be repainted? Does the existing concrete require need painting?

A23. The City has provided guidance to remove and re-coat the existing aluminum gates with an appropriate coating. The awnings need to be repaired, and if repair is not practical then they need to be replaced to restore to in-kind conditions.

Q27. Does the schedule duration include the time required to complete the permitting process? A prior response to this question is incomplete.

A27. The Design-Build team shall provide the construction duration. The Contract duration will be extended to allow adequate time for permitting.

Q29. The City provided a land-locked staging area in the RFP's Amendment No.3 (Exhibit 29A, attached). A land locked staging area is not suitable for the reconstruction of the Dinner Key Marina. The project documents (Exhibit 29B, attached) state, "Access to the project work area will be generally along the waterfront of the marina as construction progresses." We propose one waterfront staging area for each phase of construction (Exhibit 29C & 29D, attached).

A29. Moffatt & Nichol recommends allowing the Design-Build team to utilize their proposed waterfront staging areas to benefit the City in regards to total construction cost and construction duration. The City will make the final decision at the appropriate time.

Q45. On DCP Sheet S-001, Hardware Note #1 states, "All bolts and hardware shall be HDG steel." Whereas note #4 states, "Misc. metals, bolts, straps, structural shapes and other connection hardware shall be 316 stainless steel." In addition, Timber Construction Note 6E states connection bolts and nuts shall be 316 stainless steel. Please clarify if the base bid shall include HOG or 316 stainless steel. Please clarify what type of steel should be used for each specific item.

A45. The note in Design Criteria drawings indicating to provide stainless steel has been removed. The intent is to provide Hot Dip Galvanized hardware for timber hardware. The Design-Build team may provide stainless steel hardware in-lieu of galvanized hardware to meet the required 25-year design service life.

Q47. Will the City of Miami waive the City building permit fee?

A47. A \$20,000 Owner Permit Allowance was added to the Bid Schedule.

Q48. Will the City of Miami pay/reimburse subcontractor permit fees?

A48. Please refer to response to Q47, above.

Q49. Will the City of Miami pay/reimburse for City-required trash dumpster permit fees?

A49. Please refer to response to Q47, above.

RFI No. 4, submitted by Kearns Construction Co. on February 8, 2019

Q6. The DCP Plan P-001 requires that the existing vacuum station be abandoned and a minimum of three (3) new pumps installed. Please respond to the following questions for this work:

- a) What are the requirements for the abandonment of the existing sewer vacuum pump?
- b) Where are the desired locations of the three new sewer vacuum stations?
- c) Will the existing vacuum piping on the piers also be abandoned?
- d) Can the existing upland vacuum piping be reused?
- e) Should the DB Team include upland demolition, excavation, plumbing, backfill and patching for the new sewer pumps and piping?
- f) Are the new sewer pumps required to be installed at new flood elevation?

A6. Please see responses a) through f), below:

- a) Remove the equipment and piping to the ground floor and walls, and dispose appropriately. Cap and abandon existing force main lines appropriately, requiring flushing of lines with a vactor, or similar equipment. Pump slurry mix to fill and abandon lines. Clean all construction debris and leave existing building broom swept as approved by the City.
- b) The DCP has completed a preliminary design of a replacement sewage pump-out system for the purposes of the hurricane damage assessment and for estimating budgets. New stations were located near City Hall, in the center of the marina, and near docks 8 and 9. The intent was for these stations to restore "in-slip" sewage pump out as was previously provided, and to add services for the remaining docks. The design plans were included in the DCP for the latest sewage pump-out improvements. These vacuum stations would then pump the collected sewage to the existing sanitary sewer manhole near the existing pump house. Based on the selected pump system, the Design-Build team can review this approach or suggest other alternate systems to provide the in-slip collection and distribution to the existing manhole.
- c) The intent of the DCP is to repair the observed damage, as the entire system was replaced recently based on the design plans provided. However, the Design-Build team is responsible for verifying the pump hydraulics based on the selected pump system(s) and configuration. Larger pipe sizes and appurtenances may be required.
- d) Based on information provided by the City, the upland piping is original, dating back to late 1980's. The repair plans included upland piping that was reused; the work was limited from the bulkhead water ward. The City has indicated the existing vacuum system was functioning adequately before the hurricane. The preliminary

layouts required new vacuum and force main piping for the anticipated three stations. The Design-Build team can evaluate replacement of the single vacuum system, which would facilitate reuse of the pump room. However, the DCP has not evaluated building code upgrades to the building that may be required as part of the restoration.

- e) Yes, the Design-Build team shall include this work as required.
- f) Some of the pump systems evaluated can be submerged for short periods of time. The Design-Build team will need to evaluate and specify an appropriate system.

Q7. Please review and respond to the questions listed in SERLL Electric letter dated February 01, 2019 (Exhibit 1, attached) and request time extensions for the Step 2 proposal (Exhibit 2 & Exhibit 3, attached).

- a) Aluminum Pedestals
- b) Communications
- c) Electrical Design/Bid Details
- d) Vacuum Sewer pumps

A7. Please see responses a) through d), below:

- a) Please provide pricing as specified in the RFP documents. At the Design-Build team's discretion, a value-engineered (VE) alternative may be submitted as an alternate item to the RFP specified equipment.
- b) The City has designated a communications provider to supply this equipment; however, the Design-Build team must coordinate both location, size and requirements the infrastructure (conduit, etc.) required to bring this equipment to operation. In addition, the Design-Build team will be responsible for providing electrical service as required to components as described in Single Line Diagrams for 120VAC circuits.
- c) Please provide pricing as specified in the RFP documents. At the Design-Build team's discretion, an alternate electrical distribution system can be proposed as line item option to the RFP. Additionally, the option must meet the following electrical requirements:
 - Design voltages at pedestals – 120/240V, 1P, 3W. (208v/127V, 3 Phase distribution not acceptable.
 - Demand Loads as required by NEC Article #555.
 - Ground fault protection as specified in RFP documents.
 - Contractor responsible for balancing of phases on distribution system.
- d) It was assumed that this site would maintain the current locations; however, final site, location, and HP must be confirmed with the City. Please, refer to responses to Question 6.

RFI No. 6, submitted by Kearns Construction Co. on February 15, 2019

Q1. Will the RF (radio frequency) controls for "Hose Reel Cart" be provided for the hose carts?

A1. The City has indicated the previous system functioned when the valve connection to the in-slip sewage pump out system was opened, the pressure differential was sensed by the

system, and the vacuum pump operated. The City does not require a RF system; the valves should be sufficient.

Q2. Will on one RF control module be provided for each of 7 piers? If not how many?

A2. Not applicable; a RF control module is not required.

Q3. Alternate offers design-build a new Vortex hose reel carts with active reeling mechanism, patented vacuum mode, and each RF controls. How many will be required?

A3. The City has indicated the previous hose carts functioned adequately. The Design-Build team should provide a minimum of three carts per dock, as part of the system supplied and installed by the Design-Build team.

RFI No. 7, submitted by Kearns Construction Co. on February 19, 2019

Q1. During the Dinner Key Marina (DKM) industry day meeting, the City stated that that fire pipe would be replaced in-kind. The existing fire pipe is scheduled 40 galvanized. The specifications for the Dinner Key Marina require stainless steel fire pipe. Using the stainless- steel pipe will add approximately \$250,000 to the cost to the project. Will the City accept schedule 40 galvanized fire pipe for the Dinner Key Marina project?

A1. The DCP has been revised and distributed by the City. The galvanized fire line, must meet Florida Building Code (FBC), National Fire Protection Association (NFPA), and City requirements to be acceptable.

Q2. Please provide the specifications for the fire cabinets. We are unable to find the fire cabinet specifications.

A2. The City requires a cabinet for the standpipe with the required fire extinguisher. The hose cabinets that are currently installed are not required. FC-1 Fire Pedestal, as manufactured by Marina Power Company (or equivalent), is acceptable. The installation needs to be acceptable to the Fire Marshall.

Q3. Can the electrical cabinets be fabricated from aluminum? Currently, the existing electrical cabinets are aluminum. The project specifications require stainless steel electrical cabinets. This upgrade will add approximately \$200,000 of cost to the project.

A3. The City will accept coated aluminum pedestals, and it will also accept the same type of materials and coating for the electrical cabinets.

Q4. Specs call for stainless steel pipe and galvanized fittings and fasteners. The current installation is SCH 40 galvanized pipe with a marine coating that has survived remarkably well with no failure in this corrosive environment. We believe this to be a superior and cost effective alternative as stainless steel coatings cannot be repaired when damaged in the fabrication process. City of Miami Fire also requested SCH 40 galvanized pipe be used. Please inquire if this alternative is acceptable.

A4. The updated DCP addresses this question. The galvanized pipe shall be coated with two coats of commercial latex paint.

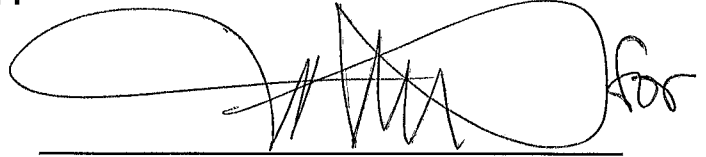
Q5. No cabinet specs were issued. We currently have marine grade fiberglass cabinets for a single Fire Hose Valve included. Please inquire as to cabinet requirements should they differ from the above.

A5. See response to Item 2.

Attachment

- Design Criteria Drawings for the Dinner Key Marina Improvements, Revision 1 dated March 1, 2019, 21 pages.

THIS ADDENDUM IS AN ESSENTIAL PORTION OF THE CONTRACT DOCUMENT AND SHALL BE MADE A PART THEREOF.

A handwritten signature in black ink, appearing to read 'Annie Perez', is written over a horizontal line. The signature is stylized and somewhat illegible.

**Annie Perez, CPPO, Director
Department of Procurement, City of Miami**

CONCRETE AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE", UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL REINFORCED CONCRETE MATERIALS SHALL BE PROPORTIONED, FABRICATED, DELIVERED, AND PLACED IN ACCORDANCE WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF THE "ACI MANUAL OF CONCRETE PRACTICE" INCLUDING BUT NOT LIMITED TO: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI SP-66 "ACI DETAILING MANUAL".
3. ALL REINFORCING BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES IN ACCORDANCE WITH ACI 318, CHAPTER 12, UNLESS OTHERWISE NOTED.
4. ALL CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (145± PCF).
5. MINIMUM CONCRETE COVER FOR STEEL REINFORCEMENT SHALL BE 3", UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. PROVIDE 3/4", 45° CHAMFER ON ALL EXPOSED EXTERNAL CORNERS OF CONCRETE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
7. ALL JOINTS BETWEEN CAST-IN-PLACE CONCRETE AND HARDENED CONCRETE SHALL BE CLEANED WITH A ROUGHENED SURFACE OF 1/4" AMPLITUDE AND COATED A EPOXY BONDING COMPOUND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS OTHERWISE NOTED.
8. CONCRETE MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - A. CAST-IN-PLACE CONCRETE. 5500 PSI @ 28 DAYS (MIN FDOT CLASS IV)
 - B. PRESTRESSED CONCRETE PILES. 6000 PSI @ 28 DAYS
4000 PSI @ RELEASE
 - C. PRESTRESSED CONCRETE BEAMS. 8000 PSI @ 28 DAYS
9. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A 615. CONCRETE REINFORCING MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - A. REINFORCEMENT FOR CONCRETE. ASTM A 615, GR 60
 - B. PRESTRESSING STEEL. ASTM A 416, GRADE 270
(LOW RELAXATION STRANDS)
10. CURE CONCRETE USING CONTINUOUS MOISTURE AND/OR MEMBRANE CURING COMPOUND IN ACCORDANCE WITH FDOT SPECIFICATION 400-16.1 AND 400-16.2

REPAIR NOTES

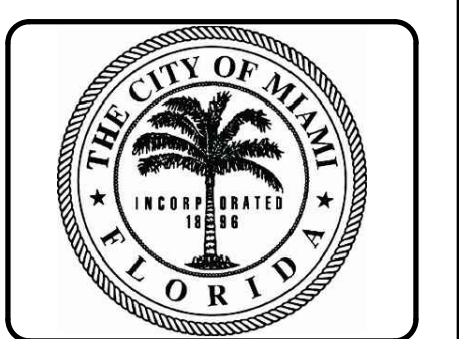
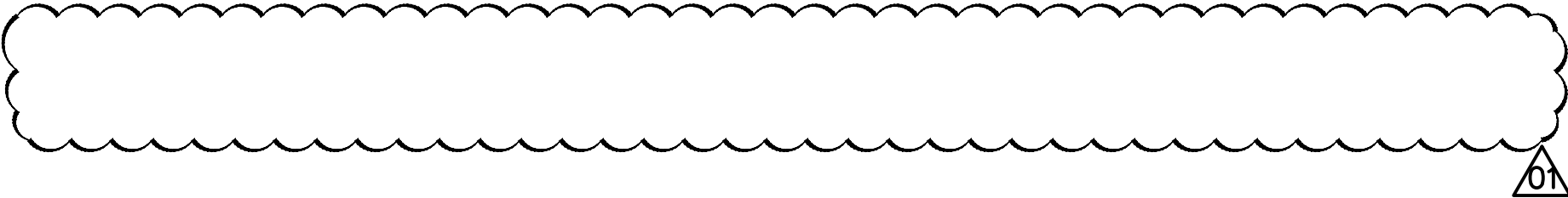
1. REINFORCING IN THE REPAIR AREAS SHALL BE PROVIDED WITH A MINIMUM OF 3 INCHES CONCRETE COVER TO MATCH EXISTING UNLESS OTHERWISE NOTED.
2. CONCRETE REPAIRS CONSIST OF SMALL PATCH REPAIRS AND PARTIAL DEPTH REPLACEMENT OF DECK, PILE CAPS, AND PILE ENCASEMENTS. NO DISTINCTION IS MADE BETWEEN SPALLS AND DELAMINATIONS SINCE REPAIRS ARE THE SAME.
3. REMOVE DELAMINATED OR DETERIORATED CONCRETE UNTIL SOUND CONCRETE IS ENCOUNTERED. CHIPPED OUT AREA SHALL EXTEND AN ADDITIONAL 2" ALL AROUND.
4. CHECK SURFACES TO ENSURE THEY ARE FREE FROM LOOSE AGGREGATE OR ADDITIONAL DELAMINATIONS.
5. CHIPPED OUT AREA SHALL BE NOT LESS THAN 1" CLEAR AROUND ALL EXPOSED REINFORCING BARS.
6. EDGES OF THE CHIPPED OUT AREA SHALL BE SAWCUT PERPENDICULAR TO THE CONCRETE SURFACE FOR A MINIMUM DEPTH OF 1". DO NOT SAWCUT THROUGH EXISTING REINFORCING BARS. SAWCUT SHALL NOT EXTEND BEYOND CHIPPED OUT AREA.
7. EXPOSED REINFORCING BARS SHALL BE CLEANED OF SCALE, RUST, DIRT, OIL, AND OTHER DELETERIOUS MATERIALS.
8. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
9. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4. WELDING OF STAINLESS STEEL MATERIAL SHALL CONFORM TO AWS D1.6. E70XX LOW-HYDROGEN ELECTRODES SHALL BE USED IN WELDING GRADE A-706 BARS.
10. SPLICES SHALL BE STAGGERED BY LENGTH OF SPlice OR 6" MINIMUM, WITH NO MORE THAN 50% OF THE BARS BEING SPLICED AT ANY ONE LOCATION.
11. IN DECK AND PILE CAP REPAIRS, DISCRETE GALVANIC ANODES TO BE PLACED NEAR PERIMETER OF REPAIR AREA.
12. DISCRETE GALVANIC ANODES TO BE DIRECTLY CONNECTED TO TOP OR BOTTOM LAYERS OF REINFORCEMENT PER ACI RAP-8.
13. FORMS SHALL BE WATER TIGHT.
14. DO NOT FEATHER EDGES OF REPAIR.
15. AT INTERFACES BETWEEN EXISTING AND NEW CONCRETE, ROUGHEN EXISTING SURFACE TO 1/4" AMPLITUDE MINIMUM.
16. DEDICATED STAINLESS STEEL TOOLS SHALL BE USED FOR STAINLESS STEEL MATERIAL TO AVOID CONTAMINATION OF DISSIMILAR MATERIAL.

TIMBER CONSTRUCTION:

1. ALL TIMBER CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
2. TIMBER PILES SHALL BE DRIVEN TO THE TIP ELEVATION INDICATED ON THE D/B TEAM DRAWINGS AND GEOTECHNICAL CRITERIA, USING A HAMMER OF AN APPROVED TYPE, WITH A CAPACITY AT LEAST EQUAL TO THE HAMMER MANUFACTURER'S RECOMMENDATION FOR THE TOTAL WEIGHT OF PILE AND CHARACTER OF THE SUBSURFACE MATERIAL TO BE ENCOUNTERED.
3. SPUDDING AND/OR JETTING OF TIMBER PILES SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.
4. TIMBER PILES SHALL BE TREATED IN ACCORDANCE WITH AWPA MP-1 FOR TIMBER IN SALTWATER IMMERSION. PRESERVATIVE RETENTION SHALL BE 2.5 PCF. CCA PRESERVATIVE RETENTION OF 2.50 PCF IS ALLOWED ONLY IN MEMBERS SUBJECT TO SALT WATER IMMERSION.
5. ALL OTHER TIMBER MATERIALS SHALL BE TREATED IN ACCORDANCE WITH AWPA U1 FOR TIMBER EXPOSED TO THE MARINE ENVIRONMENT. THE FOLLOWING ITEMS SHALL BE PROVIDED WITH TREATMENT AS INDICATED:
 - A. DECKING MCQ TREATMENT @ 0.60 PCF
 - B. TIMBER BENT CAPS CCA 0.6 PCF
 - C. TIMBER STRINGERS CCA 0.6 PCF
 - D. CROSS-BRACING CCA 2.5 PCF
6. TIMBER RELATED MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:
 - A. TIMBER PILES ASTM D 25-99
 - B. TIMBER BENT CAPS SP NO. 1 DENSE (S4S)
 - C. TIMBER STRINGERS SP NO. 1 DENSE (S4S)
 - D. MISC TIMBER SP NO. 1 DENSE (S4S)
 - E. CONNECTING BOLTS & NUTS ASTM 316, STAINLESS STEEL, UON
7. WASHERS SHALL BE CIRCULAR FLAT SMOOTH AND SHALL CONFORM TO ANSI B18.22.1. USE DOCK WASHERS OR OGEE WASHERS WHERE INDICATED OR REQUIRED.
8. CHECK ALL BOLTS BY BURRING THE THREADS AFTER THE NUTS HAVE BEEN FINALLY TIGHTENED. RECOAT EXPOSED PORTION OF BOLT WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT.
9. BORE HOLES FOR THRU BOLTS WITH A BIT 1/16 INCH LARGER IN DIAMETER THAN THE SHANK OF THE BOLT.
10. TIMBER PILES SHALL BE WRAPPED WITH HDPE OR PVC BLACK PILE WRAP WITH A MINIMUM 6 INCHES OVERLAP. PILE WRAP SHALL EXTEND FROM BOTTOM OF PILE CAP TO A MINIMUM OF 2 FEET BELOW THE MUDLINE. INSTALL USING 1-1/2 INCH STAINLESS STEEL SPIRAL-SHANK ROOFING NAILS SPACED AT 2 INCHES ON CENTER ALONG SEAM.

HARDWARE NOTES:

1. ALL BOLTS AND HARDWARE SHALL BE HDG STEEL PER ASTM A153 FOR MARINE APPLICATIONS UON.
2. ALUMINUM LADDERS SHALL BE INTERNATIONAL DOCK PRODUCTS OR EQUIVALENT, 6 STEPS.
3. ALL CLEATS SHALL BE ALUMINUM ALMAG "S" OR EQUIVALENT, SIZE 15-INCH.



Rev.	Date	Description
01	03.01.19	Mark

**DINNER KEY MARINA
DCP DRAWINGS**

STRUCTURAL NOTES

Designed by: DSGN	DATE	Rev. 01
Dwn by: DRFT	M&N Project No: 9450-08	
Chk by: CHKR	Drawing code:	
Reviewed by: REVR	Drawing Scale:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Plot scale: 1:1 (0 SHEET)	

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

SEAL

RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
NOT TO BE USED FOR CONSTRUCTION

Sheet
Reference No.
S-001
INDEX: 9 OF 69

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POWER SYSTEM BID REQUIREMENT

- THESE PLANS INDICATE THE GENERAL LOCATIONS OF POWER PEDESTALS, LIGHTING FIXTURES, AND MECHANICAL EQUIPMENT. THE DESIGN-BUILD TEAM (DB) SHALL BE REQUIRED TO PROVIDE ALL ITEMS SHOWN AND ALL ITEMS NECESSARY TO SERVE THE VARIOUS ITEMS INCLUDING ELECTRICAL POWER CONDUIT & WIRING AND COMMUNICATIONS CONDUIT TO THE VARIOUS PEDESTALS AND OTHER ITEMS SHOWN ON THE DRAWINGS AND RFP DOCUMENTS. POWER SHALL BE DISTRIBUTED TO THE POWER PEDESTALS VIA PANELBOARDS SUPPORTED ON THE PIERS. ALL PANELBOARDS SHALL BE HOUSED IN NEMA 3R STAINLESS STEEL ENCLOSURES. ENCLOSURES MOUNTED ON THE PIERS CANNOT EXCEED 24 INCHES IN DEPTH.
- PRIOR TO COMMENCING CONSTRUCTION, THE DB SHALL PROVIDE A COMPLETE SHOP DRAWING SET DEPICTING THE PROPOSED POWER SINGLE LINE DIAGRAM(S). THE SINGLE LINE DIAGRAM(S) SHALL INCLUDE PANELBOARD RATINGS AND MAIN FEEDER SIZES. ALL CONDUCTORS AND THEIR RESPECTIVE CONDUITS SHALL BE SIZED FOR ALL CIRCUIT RUNS AND THE RESULTS SHALL BE LISTED IN A TABLE OR DEPICTED ON A PLAN VIEW OF THE MARINA. CALCULATED VOLTAGE DROPS FOR ALL CIRCUITS SHALL BE INDICATED ALONG WITH THE CONDUCTOR AND CONDUIT INFORMATION. THE VOLTAGE DROP OF ANY CIRCUIT SHALL NOT EXCEED 5% OF THE CIRCUIT VOLTAGE. A PLAN VIEW OF THE MARINA SHALL BE PROVIDED INDICATING THE LOCATION OF ALL PANELBOARDS, POWER PEDESTALS AND ROUTING OF CONDUITS. SHOW MOUNTING DETAILS OF SUBSTATIONS, PANELBOARDS AND PEDESTALS ON THE SHOP DRAWINGS. THE DB'S PROPOSAL SHALL BE REVIEWED BY THE OWNER REPRESENTATIVE. NO ELECTRICAL EQUIPMENT SHALL BE INSTALLED PRIOR TO PROPOSAL APPROVAL BY THE OWNER REPRESENTATIVE.

ELECTRICAL GENERAL NOTES

- GENERAL CONDITIONS:
 - UNDER THIS SECTION THE DB SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, APPURTENANCES, SERVICES AND SUPERVISION FOR A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWING. ALL MATERIAL AND EQUIPMENT SHALL BE WORKED INTO A COMPLETE, CONVENIENT, AND ECONOMICAL SYSTEM OR SYSTEMS. ALL APPARATUS, PARTS, MATERIAL, AND ACCESSORIES WHICH ARE NECESSARY TO ACCOMPLISH THIS RESULT SHALL BE PROVIDED. MANUFACTURER'S INSTRUCTIONS, WRITTEN OR OTHERWISE, SHALL BE FOLLOWED BY UNLESS SUPERSEDED HERE IN. ALL ITEMS SHOWN ARE NEW AND SHALL BE PROVIDED FOR THE DB UNLESS SPECIFICALLY INDICATED OTHERWISE.
 - PROVIDE IS DEFINED TO MEAN THAT THE DB SHALL FURNISH, INSTALL, ADJUST, TEST AND INTEGRATE INTO A COMPLETE SYSTEM THE ITEM INDICATED. INCLUDING ALL HARDWARE WIRING, AND MISCELLANEOUS ITEMS AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
 - DB SHALL GIVE REQUIRED NOTICES, OBTAIN ALL NECESSARY PERMITS, AND PAY PERMIT FEES.
 - THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT OF THE WORK. MINOR VARIATIONS IN LOCATION OF EQUIPMENT SHALL BE MADE UPON WRITTEN APPROVAL OF THE OWNER REPRESENTATIVE AT NO ADDITIONAL CHARGE.
 - ALL DIMENSIONS AND ELEVATIONS NOTED ARE ENGLISH UNITS UNLESS OTHERWISE NOTED.
 - COOPERATE AND COORDINATE THE WORK OF THIS DIVISION WITH OTHER TRADES.
 - THE LATEST EFFECTIVE PUBLICATIONS OF THE FOLLOWING STANDARDS, CODES, ETC. FORM A PART OF THESE SPECIFICATIONS:
 - ALL STATE AND LOCAL BUILDING CODES.
 - SERVICE RULES AND REGULATIONS OF THE LOCAL ELECTRIC UTILITY COMPANY.
 - AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
 - ASTM INTERNATIONAL (ASTM).
 - BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL (BICSI).
 - INTERNATIONAL BUILDING CODE (IBC).
 - INTERNATIONAL FIRE CODES (IFC).
 - INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
 - NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).
 - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
 - NATIONAL ELECTRICAL CODE (NEC).
 - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA).
 - UNDERWRITERS LABORATORIES (UL).
 - ILLUMINATING ENGINEERING SOCIETIES (IES)
 - WI-FI ALLIANCE (WI-FI)

- SUBSTANTIAL COMPLETION: UPON COMPLETION OF THE ENTIRE WORK, THE DB SHALL PERFORM SUCH TESTS AS REQUIRED BY THE OWNER. THE OWNER SHALL BE GIVEN 48 HOURS NOTICE BEFORE TESTS ARE MADE. THE DB SHALL FURNISH THE ENGINEER A CERTIFICATE OF APPROVAL FROM THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION.
- WARRANTY: DB SHALL FURNISH WRITTEN WARRANTY, COUNTERSIGNED, AND GUARANTEED BY THE DB, STATING THAT THE WORK EXECUTED UNDER THIS DIVISION OF THE SPECIFICATIONS SHALL BE FREE FROM DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE. DEFECTS DEVELOPING DURING THAT PERIOD SHALL BE CORRECTED WITHOUT COST TO THE OWNER.
- IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE INTEGRITY OF THE SYSTEMS. DB SHALL PROVIDE OWNER WITH COMPLETE OPERATION AND MAINTENANCE INFORMATION FROM EQUIPMENT MANUFACTURERS.
- SIX COMPLETE SCHEDULES OF MATERIALS AND EQUIPMENT PROPOSED FOR INSTALLATION SHALL BE SUBMITTED TO THE ENGINEER WITHIN 30 DAYS AFTER AWARD OF THE CONTRACT. THE SCHEDULES SHALL INCLUDE CATALOG CUTS, DIAGRAMS AND SUCH OTHER DESCRIPTIVE DATA AND/OR SAMPLES AS MAY BE REQUIRED BY THE ENGINEER. LIGHTING FIXTURE SUBMITTALS SHALL INCLUDE PHOTOMETRIC REPORTS BY INDEPENDENT TESTING LABORATORIES FOR EACH FIXTURE INDICATED BASED ON IES PUBLISHED PROCEDURES.

6. SUBMITTALS THAT DO NOT BEAR THE GENERAL DB'S STAMP OF APPROVAL THEREON WILL BE REJECTED WITHOUT REVIEW.

- GENERAL MATERIAL REQUIREMENTS:
 - EQUIPMENT AND PRODUCTS TO BE USED SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO PLACING ORDER OR PURCHASE.
 - ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE LABEL OF A NATIONALLY RECOGNIZED TESTING AGENCY AND SHALL BE INSTALLED IN THE MANNER FOR WHICH IT IS DESIGNED AND APPROVED.
 - ALL MATERIAL, INCLUDING CONDUIT BODIES, FITTINGS AND MOUNTING HARDWARE INSTALLED OUTSIDE SHALL BE APPROVED WEATHERTIGHT CORROSION RESISTANT (STAINLESS STEEL), UNLESS NOTED OTHERWISE.
 - DB SHALL INSPECT MATERIALS DELIVERED TO SITE FOR DAMAGE. UNLOAD AND STORE WITH MINIMUM HANDLING. STORE MATERIALS ON SITE IN ENCLOSURES OR UNDER PROTECTIVE COVERING. STORE PLASTIC PIPING UNDER COVER OUT OF DIRECT SUNLIGHT. DO NOT STORE MATERIALS DIRECTLY ON THE GROUND. KEEP INSIDE OF CONDUITS, FITTINGS AND EQUIPMENT FREE OF DIRT AND DEBRIS. HANDLE CONDUIT, FITTINGS, AND OTHER ACCESSORIES IN SUCH MANNER AS TO ENSURE DELIVERY TO THE INSTALLATION LOCATION IN A SOUND UNDAMAGED CONDITION.
 - STARTERS, CONTROLLERS, INDICATING LIGHTS, ETC.; AND CONTROL WIRING AND WIRING FOR REMOTE STATIONS REGARDLESS OF VOLTAGE SHALL BE PROVIDED UNDER THE DIVISION PROVIDING THE RESPECTIVE MOTOR AND/OR EQUIPMENT UNLESS OTHERWISE INDICATED.
 - SUPPORTS AND HARDWARE SHALL BE TYPE 316 STAINLESS STEEL. SUBMIT SHOP DRAWINGS OR CATALOG DATA FOR REVIEW AND APPROVAL. A DIELECTRIC ISOLATION SHEET SHALL BE PLACED WHERE DISSIMILAR METALS CONTACT ON THE SUPPORT.
 - PANELBOARDS, ENCLOSED CIRCUIT BREAKERS AND SAFETY SWITCHES, WHEN APPLICABLE, SHALL BE MANUFACTURED BY THE SAME MANUFACTURER. WIRING DEVICES SHALL BE MANUFACTURED BY ONE MANUFACTURER.
 - SUBSTITUTION OF MATERIAL AND EQUIPMENT: THE NAME OF A CERTAIN BRAND, MAKE, MANUFACTURER OR DEFINITE SPECIFICATION IS TO DENOTE THE QUALITY STANDARD OF ARTICLE DESIRED. SUBSTITUTION OF ANY OTHER BRAND, MAKE, OR MANUFACTURER, WHICH IN THE OPINION OF THE ENGINEER IS RECOGNIZED THE EQUAL OF THAT SPECIFIED MAY BE ACCEPTED.
 - PROVIDE ENGRAVED PLASTIC NAMEPLATES ON ALL DISTRIBUTION EQUIPMENT AND PANELS, SECURED BY MEANS OF STAINLESS STEEL RIVETS. TAPES AND ADHESIVES ARE NOT ACCEPTABLE.
 - UNLESS NOTED OTHERWISE, ALL PANEL BUSES, FEEDER CONDUCTORS AND BRANCH CIRCUIT WIRING SHALL BE COPPER. ALL WIRE SHALL BE UL LISTED, RATED FOR 600 VOLTS, NO. 12 MINIMUM SIZE, UNLESS NOTED OTHERWISE.
 - ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.

- GENERAL INSTALLATION REQUIREMENTS:
 - INSTALL MATERIALS AND EQUIPMENT IN FIRST CLASS AND WORKMANLIKE MANNER AND RUN CONCEALED, EXCEPT AS INDICATED.
 - POWER WIRING AND POWER CONNECTIONS TO EQUIPMENT SHALL BE PROVIDED UNDER "ELECTRICAL" UNLESS OTHERWISE INDICATED ON THE ELECTRICAL DRAWINGS. WHEN SUBSTITUTED MOTORS AND/OR EQUIPMENT REQUIRES ELECTRICAL MODIFICATIONS, THE COST OF THE ELECTRICAL MODIFICATIONS AND COORDINATION SHALL BE INCLUDED UNDER THE DIVISION PROVIDING THE MOTOR AND/OR EQUIPMENT.
 - THE ELECTRICAL DB SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER, WITHOUT APPROVAL FROM THE ENGINEER. THE ELECTRICAL DB SHALL PROVIDE SUPPORT FOR ALL ELECTRICAL EQUIPMENT TO COMPLY WITH THE REQUIREMENTS OF THE LATEST ADOPTED BUILDING CODE AND ALL LOCAL ORDINANCES.
 - SCHEDULING, LINE SHUTDOWN, DRAINAGE, TIE-IN, CONDUIT SUPPORTS, INSTALLATION OF NEW LINE, WALL PENETRATIONS, AND EQUIPMENT PLACEMENTS, TESTING, WARNING TAPE, BACKFILL, SURFACING, LANDSCAPING, ACTIVATION OF SERVICE, ETC., SHALL COMPLY WITH THE LOCAL BUILDING CODE STANDARDS AND REGULATIONS AND SHALL BE COORDINATED WITH THE LOCAL CODE OFFICIAL AND THE FIRE DEPARTMENTS. PRIOR APPROVAL OF AND NOTICE TO PROCEED WITH CONCEALING ELECTRICAL WIRING AND FINAL CONNECTIONS ARE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
 - THE OWNER'S AUTHORIZED REPRESENTATIVE SHALL WITNESS TESTING.
 - DB SHALL VERIFY ALL EXISTING UTILITY LOCATIONS IN THE FIELD BEFORE STARTING WORK. PROPERTY OWNERS SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF SHUTDOWN. THE DB SHALL FIELD VERIFY THE POINTS OF CONNECTIONS AND PHASED CONSTRUCTION TIE-INS. LOCATIONS OF PIPING AND APPURTENANT FITTINGS SHOWN ON THE DRAWINGS ARE APPROXIMATE. IT IS INTENDED THAT SUCH ITEMS BE LOCATED BASED ON EXACT LOCATIONS DETERMINED IN THE FIELD AND THE SUPPLIED MATERIALS.
 - DB SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. SHOULD SPECIAL EQUIPMENT BE REQUIRED TO WORK OVER AND AROUND THE UTILITIES, DB SHALL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FOR FURNISHING SPECIAL EQUIPMENT SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
 - DIELECTRIC COUPLINGS/FLANGES SHALL BE USED AT DISSIMILAR METAL PIPING CONNECTIONS.
 - THE ELECTRICAL DB SHALL INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE. AVOID OBSTRUCTIONS, AND MEET ALL STRUCTURAL CODE REQUIREMENTS. THESE DRAWINGS ARE PRIMARILY DIAGRAMMATIC, AND DO NOT SHOW ALL SUCH REQUIRED BENDS, OFFSETS, FITTING, BOXES, ETC..
 - THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NATIONAL ELECTRICAL CODE. POWER CONDUITS SHALL HAVE AN INSULATED COPPER, CODE SIZED GROUND WIRE INSTALLED.
 - VEHICULAR ACCESS MUST BE PROVIDED AND MAINTAINED SERVICEABLE THROUGHOUT CONSTRUCTION.

- CONDUIT REQUIREMENTS:
 - ALL CONDUIT SHALL FOLLOW THE GENERAL ARRANGEMENT SHOWN. CONDUIT SHALL BE RUN ESSENTIALLY AS INDICATED, CARE BEING TAKEN TO AVOID INTERFERENCE WITH OTHER PIPING, CONDUIT OR EQUIPMENT. BEFORE JOINTING AND INSTALLATION OF CONDUIT, THOROUGHLY CLEAN INTERIORS OF CONDUIT, AND COMPONENTS. MAINTAIN CLEANLINESS BY CLOSURE OF CONDUIT OPENINGS WITH CAPS OR PLUGS.
 - THE DB SHALL ENSURE SUFFICIENT CONDUIT FLEXIBILITY AND ANCHORAGE IS PROVIDED FOR ALL LINES FOR THERMAL EXPANSION AND CONTRACTION, PRESSURE AND FLEXING. THE STRUCTURE AND COMPONENTS SHALL ACCOMMODATE THE CONDUIT LAYOUT REQUIREMENTS SUCH THAT THE CONDUIT SHALL NOT BECOME OVERSTRESSED. THE CONDUIT SHALL BE PROPERLY SUPPORTED AND ANCHORED.
 - CONDUIT AND FITTINGS SHALL CONFORM TO THE FOLLOWING:
 - RIGID STEEL – ANSI C80 (HOT DIPPED GALVANIZED).
 - PLASTIC CONDUIT (PVC) – NEMA TC-2 AND TC-3.
 - LIQUID-TIGHT FLEXIBLE METAL CONDUIT – UL-360.
 - CONDUIT SHALL BE RUN CONCEALED, EXCEPT CONDUIT MAY BE EXPOSED AS APPROVED BY THE ENGINEER. WHERE FLEXIBILITY IS REQUIRED, PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT EXCEPT AS INDICATED OTHERWISE. CONDUITS RUN EXPOSED SHALL BE GALVANIZED RIGID STEEL.
 - MINIMUM SIZE CONDUIT SHALL BE THREE-QUARTER INCH WITH LARGER SIZES AS REQUIRED BY THE NATIONAL ELECTRICAL CODE FOR NUMBER OF WIRES CONTAINED THEREIN. CONDUITS FOR COMMUNICATIONS CIRCUITS SHALL BE THREE QUARTER INCH DIAMETER MINIMUM FOR A SINGLE CABLE, ONE INCH DIAMETER MINIMUM FOR MORE THAN ONE CABLE AND LARGER CONDUIT DIAMETERS AS DIRECTED BY TIA AND BICSI RECOMMENDATIONS.
 - RIGID CONDUIT FITTINGS SHALL BE THREADED.
 - FLEXIBLE CONDUIT SHALL HAVE A PLASTIC COVERING IN ACCORDANCE WITH NEC. FITTINGS SHALL BE STANDARD UL APPROVED WITH GROUND CONNECTOR. WATER TIGHT CONNECTORS SHALL BE USED WITH FLEXIBLE CONDUIT, MINIMUM 18 INCHES IN LENGTH, SHALL BE USED FOR CONNECTIONS TO MOTORS, DRY TYPE SUBSTATIONS AND OTHER EQUIPMENT SUBJECT TO VIBRATION.
 - EXPOSED CONDUITS SHALL BE RUN PARALLEL AND PERPENDICULAR TO STRUCTURES AND SHALL BE SUPPORTED AS SPECIFIED AND IN ACCORDANCE WITH NEC.
 - CONDUIT SUPPORTS SHALL BE APPROVED WALL BRACKETS, TO METAL SURFACES WITH MACHINE SCREWS; AND TO WOOD WITH WOOD SCREWS. ANY FORM OF TIE WIRE IS UNACCEPTABLE.
 - PROVIDE EXPANSION FITTINGS WHERE CONDUITS CROSS EXPANSION JOINTS. PROVIDE SLIP JOINTS AS NECESSARY FOR THERMAL EXPANSION AND CONTRACTION.
 - CONDUIT TERMINATIONS AND CONDUIT STUBS SHALL HAVE INSULATING BUSHINGS.
 - CONDUITS PASSING THROUGH BULKHEADS, CONCRETE WALLS, FLOORS OR FOOTINGS AND SLAB ON GRADE SHALL BE MADE WATER TIGHT. PROVIDE PIPE SLEEVES WITH ONE-HALF INCH MINIMUM CLEARANCE AROUND THE CONDUIT AND CAULK WITH ASKUM AND SEALANT.
 - PROVIDE 12" MINIMUM SEPARATION BETWEEN ELECTRICAL DUCT AND OTHER UTILITIES.

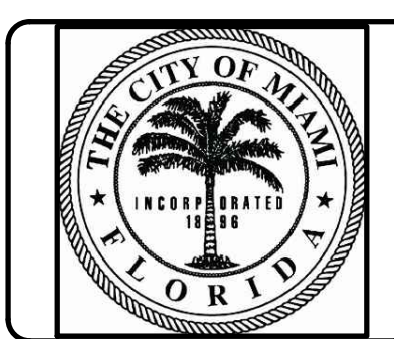
- WIRING REQUIREMENTS:
 - THE ENTIRE WIRING SYSTEM SHALL BE TESTED FOR SHORT CIRCUITS, GROUNDS AND INSULATION RESISTANCE BETWEEN CONDUCTORS AND TO GROUND PRIOR TO COMPLETION OF PROJECT.
 - WIRE AND CABLE SHALL BE INSTALLED IN CONDUIT EXCEPT AS SPECIFICALLY INDICATED OTHERWISE
 - WIRE AND CABLE SHALL BE COPPER, 600 VOLT INSULATION, MINIMUM SIZE NO. 12, TYPE "THWN" OR "XHHW" AS APPLICABLE, UNLESS OTHERWISE INDICATED ON DRAWINGS.
 - WIRES NO. 10 AND 12 AWG SHALL BE CONNECTED WITH COIL SPRING INSERT "WIRE-NUT" OR "WING-NUT" CONNECTORS MANUFACTURED BY IDEAL INDUSTRIES OR APPROVED EQUAL CONNECTORS SHALL BE RATED 600 VOLTS.
 - WIRE SHALL BE COLOR CODED AS FOLLOWS:

480Y/277V SYSTEM	120/240V 1 PH SYSTEM
PH A – BRN	PH A – BLK
PH B – ORN	PH B – RED
PH C – YEL	NEUT – WHT W/GRY STRIPE
NEUT – GRY	
GND – GRN W/YEL STRIPE	GND – GRN
	GND – GRN W/WHT STRIPE

LEGEND (REFER TO RFP DOCUMENTS)

- (A1) 1-30 AMP SINGLE SLIP PEDESTAL
- (A2) 2-30 AMP DUAL SLIP PEDESTAL
- (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
- (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- (C2) 4-50 AMP DUAL SLIP PEDESTAL
- (D1) 2-50 AMP & 1-100 AMP
- (D2) 4-50 AMP & 2-100 AMP
- (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- (F2) 4-100 AMP, 3 PHASE, 480V
- PANELBOARD
- MARINE SUBSTATION
- LIGHT BOLLARD
- TRANSFORMER
- SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)

NOTE:
PROVIDE 30mA CIRCUIT BREAKERS IN PEDESTAL FOR ALL 30 AMP AND 50 AMP SHORE POWER RECEPTACLES.



Rev.	Date	By	Description
01	03.01.19	WNC	

**DINNER KEY MARINA
DCP DRAWINGS**

**ELECTRICAL NOTES,
ABBREVIATIONS AND
LEGEND**

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No: 9450-08	
Reviewed by: DJS	Drawing code: DCM	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale: As Shown	Plot scale: 1:1 (D SHEET)

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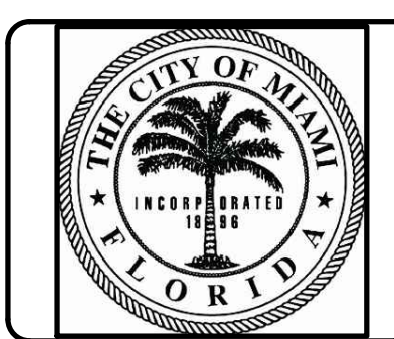
moffatt & nichol

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DCP DRAWINGS
24 OCTOBER 2018
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Sheet Reference No.
E-001
INDEX: 52 OF 69

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Rev.	Date	Description
01	03.01.19	W/C

**DINNER KEY MARINA
DCP DRAWINGS**

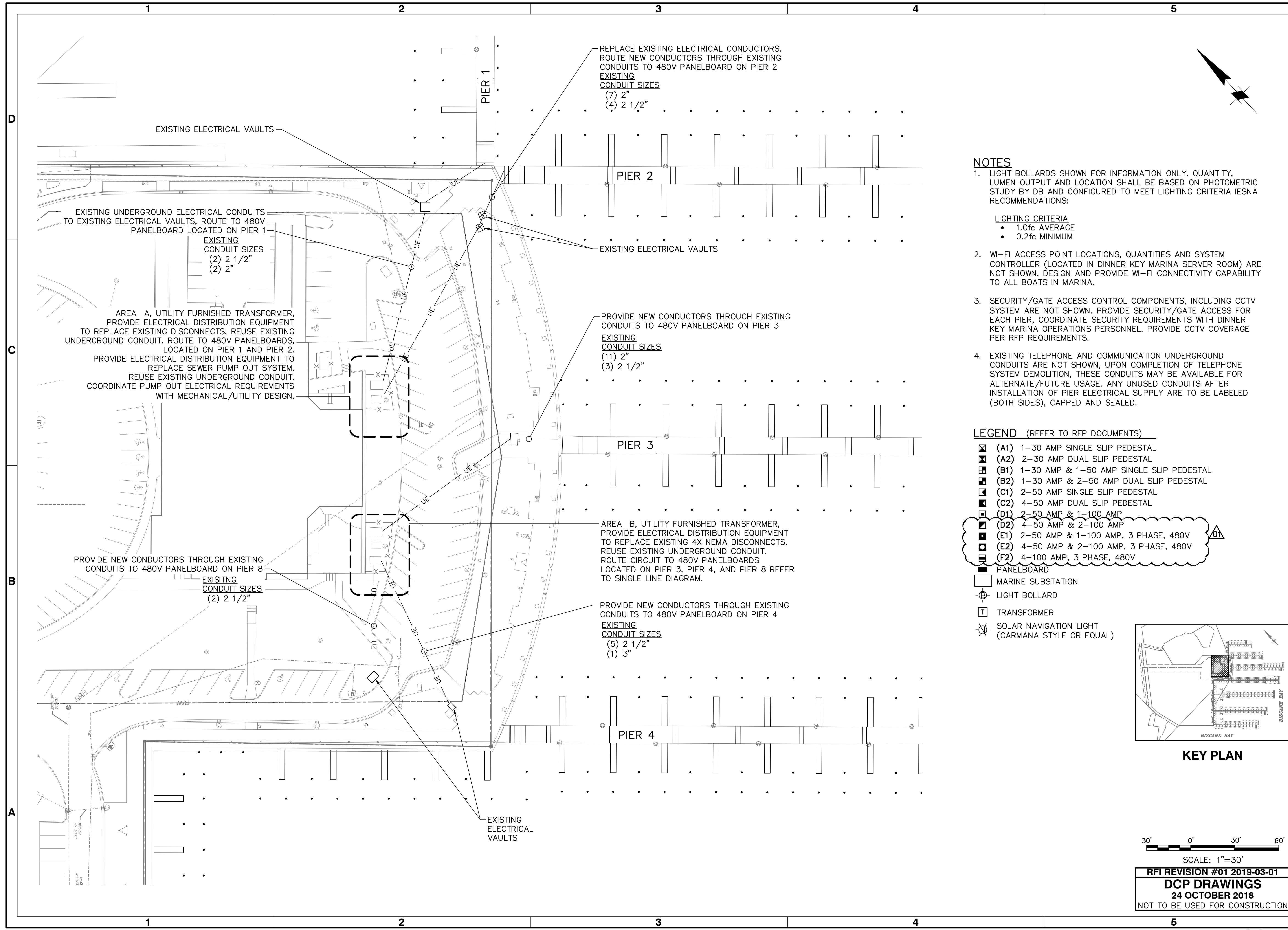
**LANDSIDE ELECTRICAL PLAN
(1 OF 2)**

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale:	Plot scale: 1:1 (D SHEET)

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Sheet Reference No.
E-010
INDEX: 53 OF 69



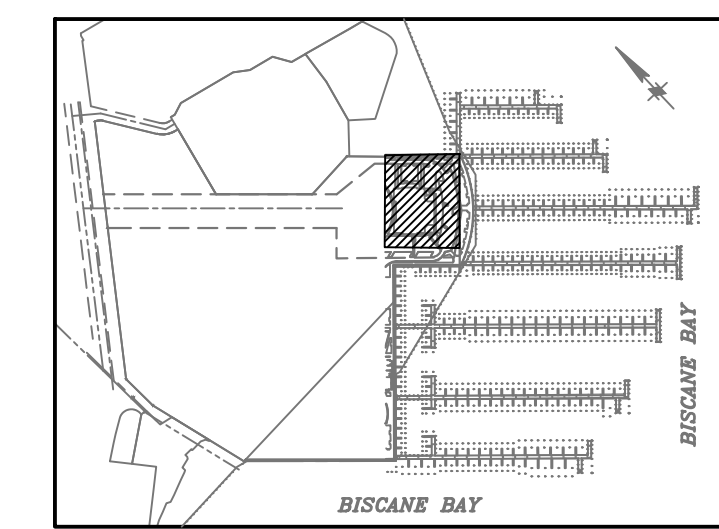
NOTES

- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:

LIGHTING CRITERIA
 - 1.0fc AVERAGE
 - 0.2fc MINIMUM
- WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
- SECURITY/GATE ACCESS CONTROL COMPONENTS, INCLUDING CCTV SYSTEM ARE NOT SHOWN. PROVIDE SECURITY/GATE ACCESS FOR EACH PIER, COORDINATE SECURITY REQUIREMENTS WITH DINNER KEY MARINA OPERATIONS PERSONNEL. PROVIDE CCTV COVERAGE PER RFP REQUIREMENTS.
- EXISTING TELEPHONE AND COMMUNICATION UNDERGROUND CONDUITS ARE NOT SHOWN, UPON COMPLETION OF TELEPHONE SYSTEM DEMOLITION, THESE CONDUITS MAY BE AVAILABLE FOR ALTERNATE/FUTURE USAGE. ANY UNUSED CONDUITS AFTER INSTALLATION OF PIER ELECTRICAL SUPPLY ARE TO BE LABELED (BOTH SIDES), CAPPED AND SEALED.

LEGEND (REFER TO RFP DOCUMENTS)

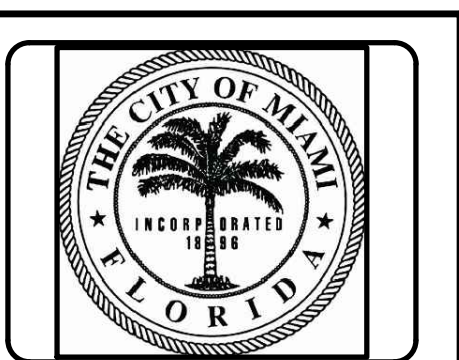
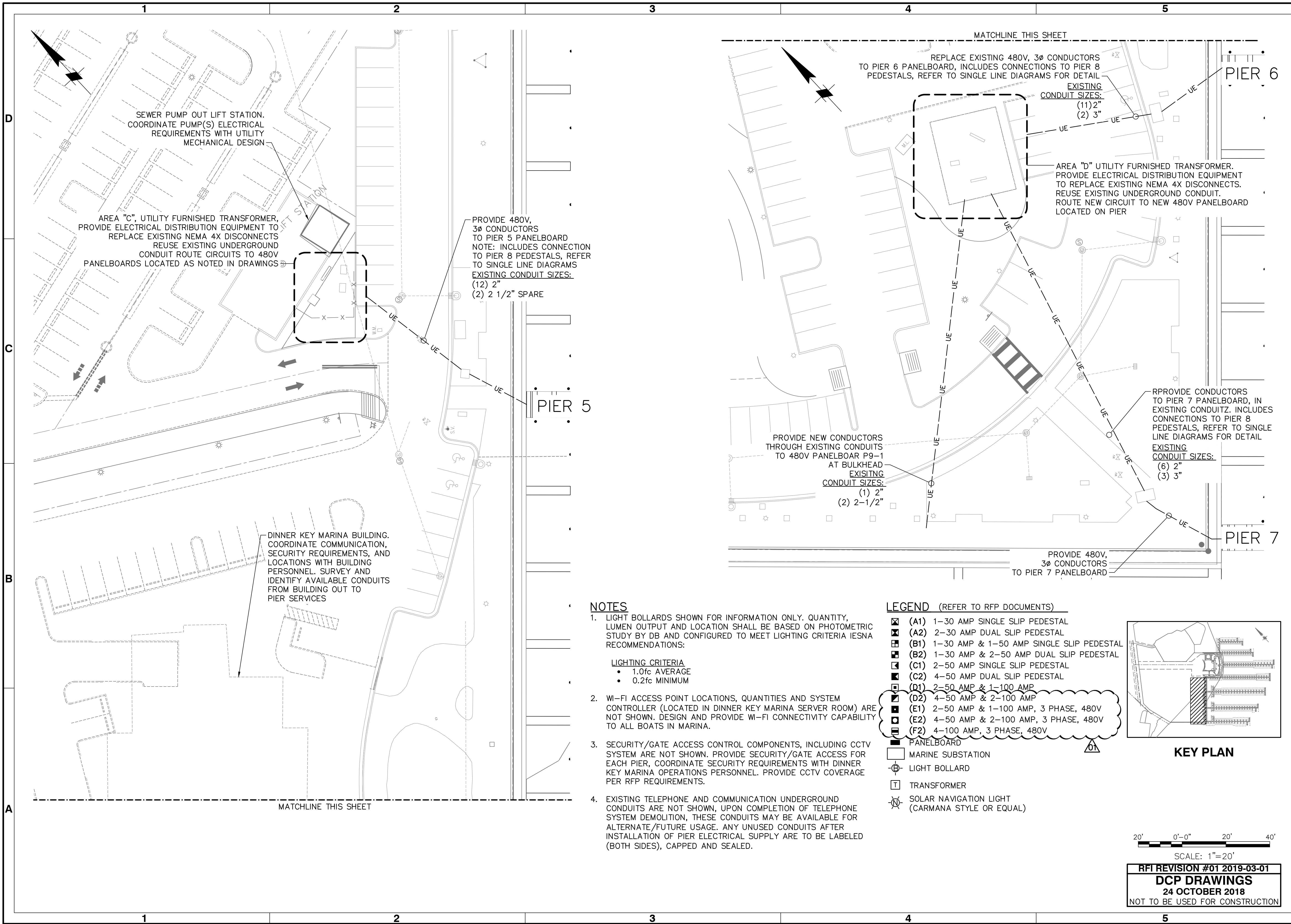
- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
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- ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
- ☒ (D1) 2-50 AMP & 1-100 AMP
- ☒ (D2) 4-50 AMP & 2-100 AMP
- ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- ☒ (F2) 4-100 AMP, 3 PHASE, 480V
- ☐ PANELBOARD
- ☐ MARINE SUBSTATION
- ⊕ LIGHT BOLLARD
- ⊞ TRANSFORMER
- ☉ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



SCALE: 1"=30'

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Mark	Revision	Date	By
01	REVISION 1	03.01.19	IMC

**DINNER KEY MARINA
DCP DRAWINGS**

**LANDSIDE ELECTRICAL PLAN
(2 OF 2)**

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale:	Plot scale: 1:1 (D SHEET)

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Sheet Reference No.
E-011
INDEX: 54 OF 47

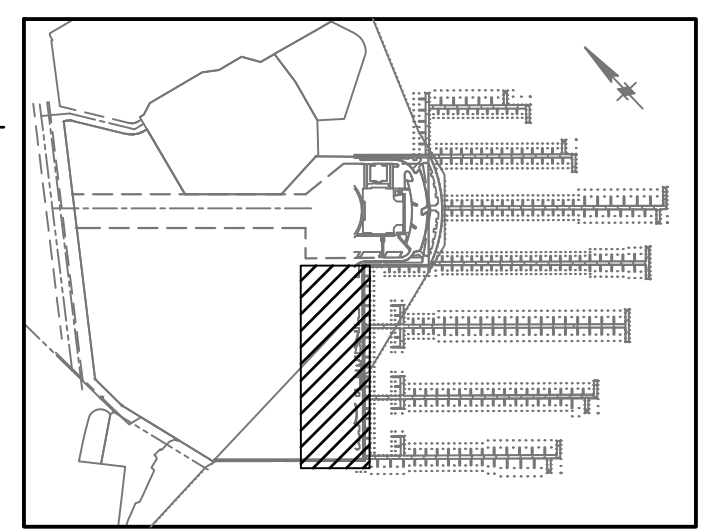
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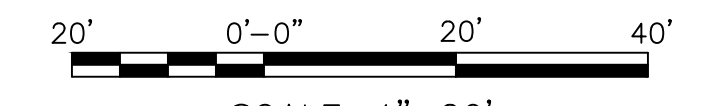
LIGHTING CRITERIA
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- MARINE SUBSTATION
- LIGHT BOLLARD
- TRANSFORMER
- SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



KEY PLAN



SCALE: 1"=20'

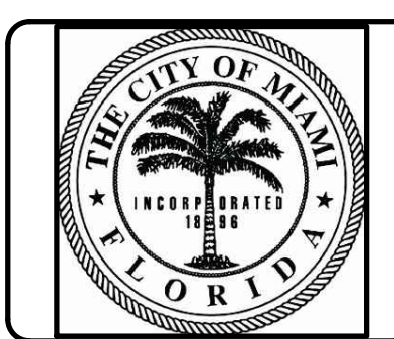
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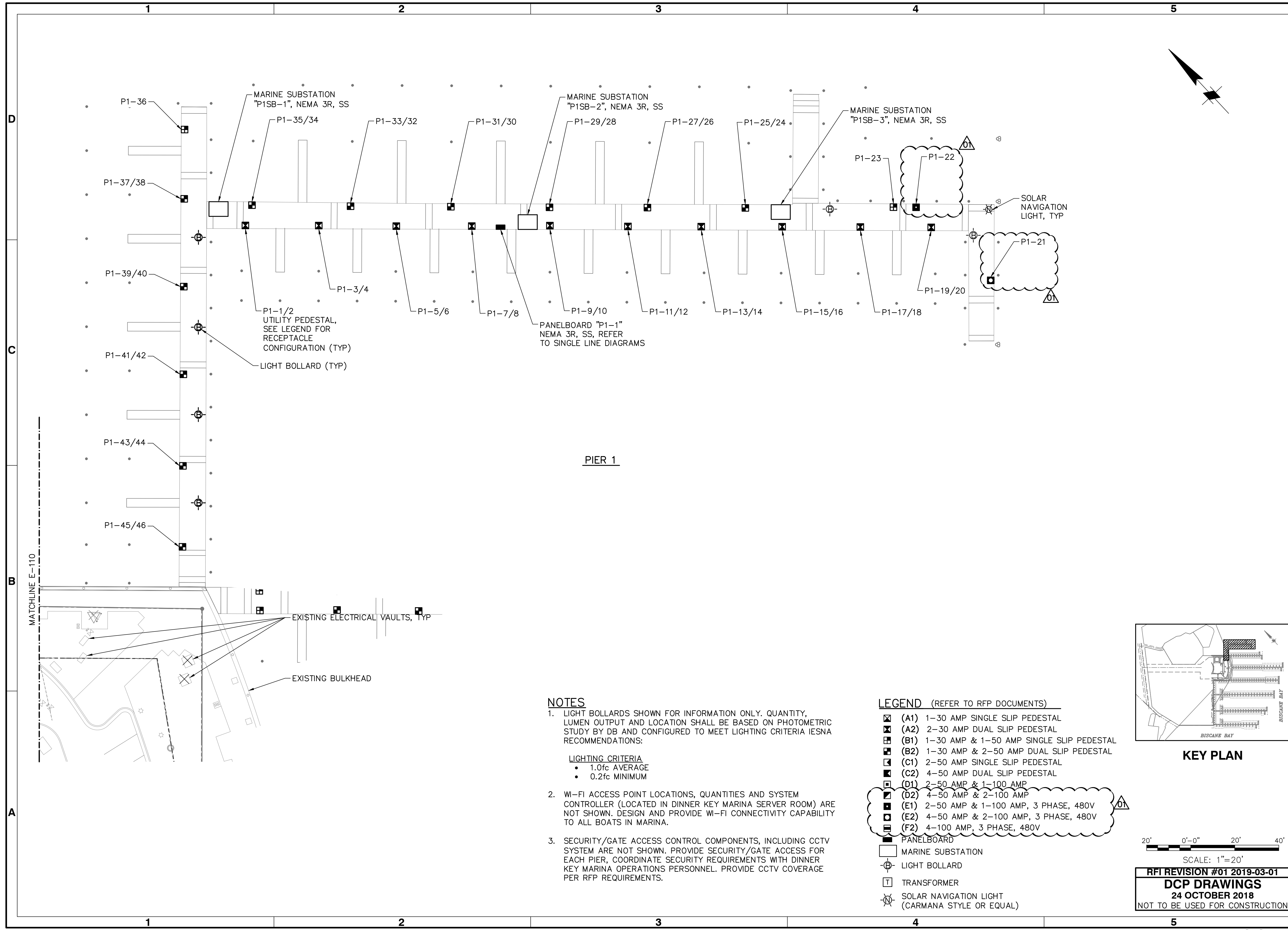
PIER 1 ELECTRICAL PLAN

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale: Plot scale: 1:1 (D SHEET)	

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(FL EB 4877)

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Sheet Reference No.
E-101
INDEX: 55 OF 69



PIER 1

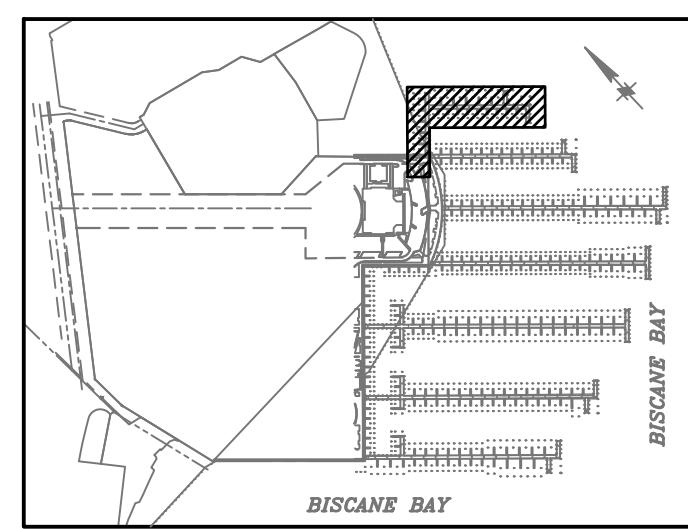
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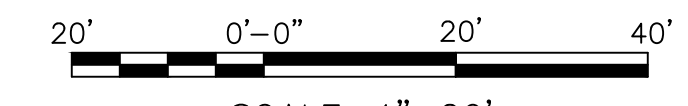
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- ☐ MARINE SUBSTATION
- ⊕ LIGHT BOLLARD
- ⊞ TRANSFORMER
- ☼ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)

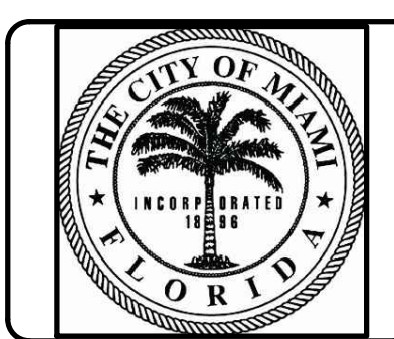


KEY PLAN



SCALE: 1"=20'
RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
NOT TO BE USED FOR CONSTRUCTION

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01	03.01.19		

DINNER KEY MARINA
DCP DRAWINGS

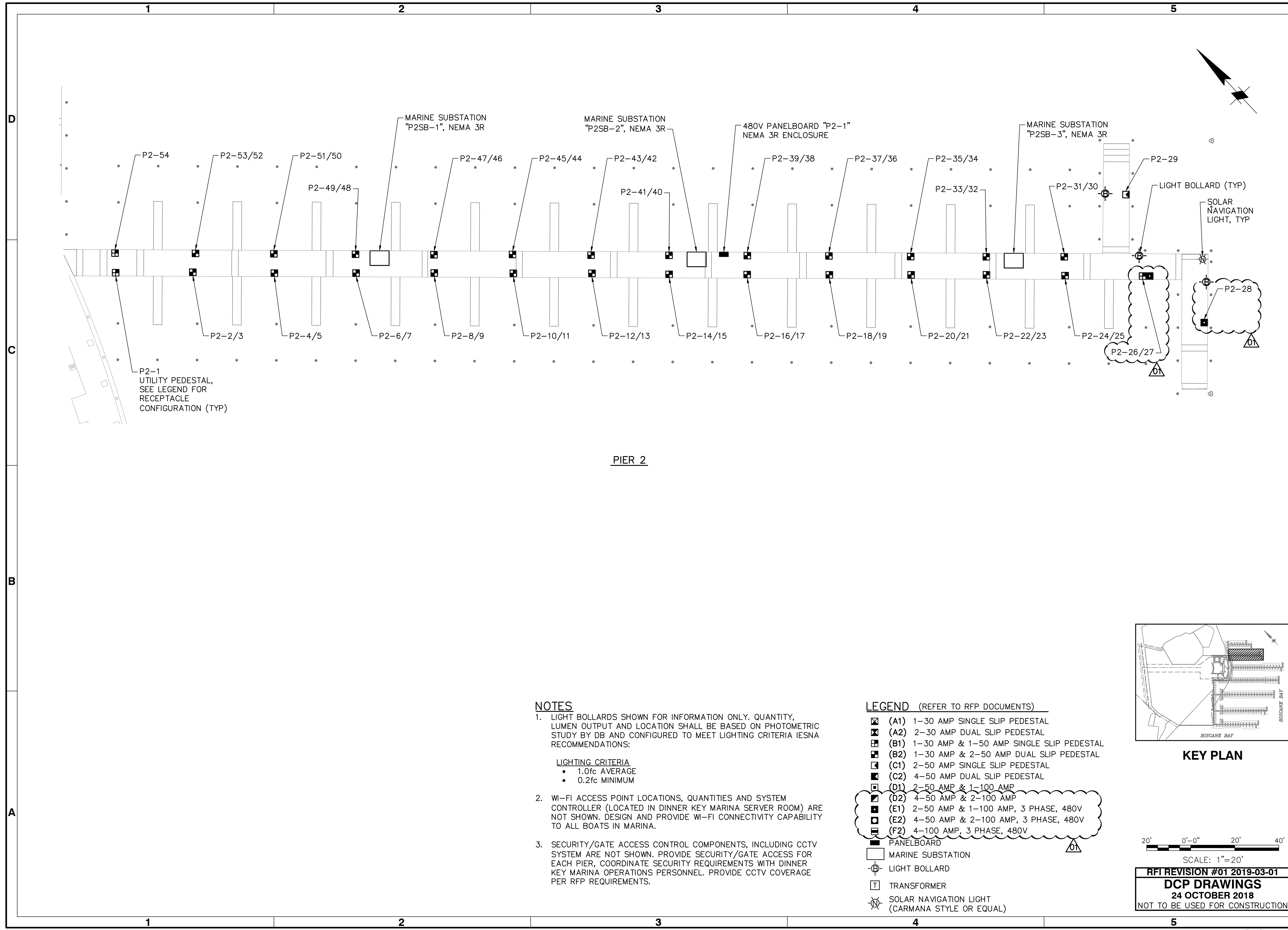
PIER 2 ELECTRICAL PLAN

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale: Plot scale: 1:1 (D SHEET)	

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Sheet Reference No.
E-102
INDEX: 56 OF 69



PIER 2

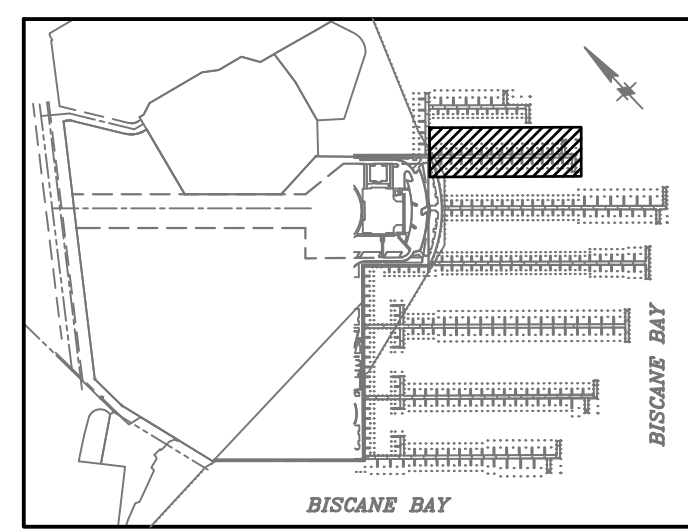
NOTES

- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:

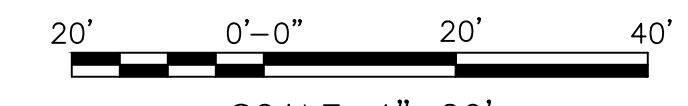
LIGHTING CRITERIA
 - 1.0fc AVERAGE
 - 0.2fc MINIMUM
- WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
- SECURITY/GATE ACCESS CONTROL COMPONENTS, INCLUDING CCTV SYSTEM ARE NOT SHOWN. PROVIDE SECURITY/GATE ACCESS FOR EACH PIER, COORDINATE SECURITY REQUIREMENTS WITH DINNER KEY MARINA OPERATIONS PERSONNEL. PROVIDE CCTV COVERAGE PER RFP REQUIREMENTS.

LEGEND (REFER TO RFP DOCUMENTS)

- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
- ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
- ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
- ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
- ☒ (D1) 2-50 AMP & 1-100 AMP
- ☒ (D2) 4-50 AMP & 2-100 AMP
- ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- ☒ (F2) 4-100 AMP, 3 PHASE, 480V
- ☐ PANELBOARD
- ☐ MARINE SUBSTATION
- ⊕ LIGHT BOLLARD
- ☐ TRANSFORMER
- ☼ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)

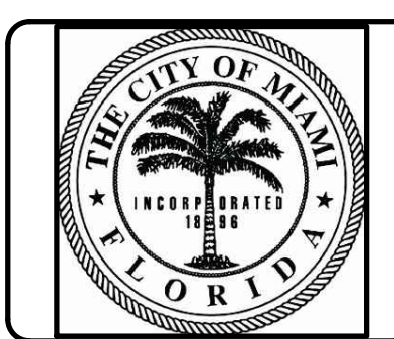


KEY PLAN



SCALE: 1"=20'
RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
NOT TO BE USED FOR CONSTRUCTION

File: G:\MIA\9450-08\0500_CAD\Active\marina_dcp\945008_E-102_Plot.dwg; Plotted: 3/1/2019 5:22 p.m. by ESPINO, GUILLERMO; Saved: 3/1/2019 11:32 a.m. by JDUFRAN



Rev.	Date	By	Check	Description
01	03.01.19	IWC		REVISION 1

**DINNER KEY MARINA
DCP DRAWINGS**

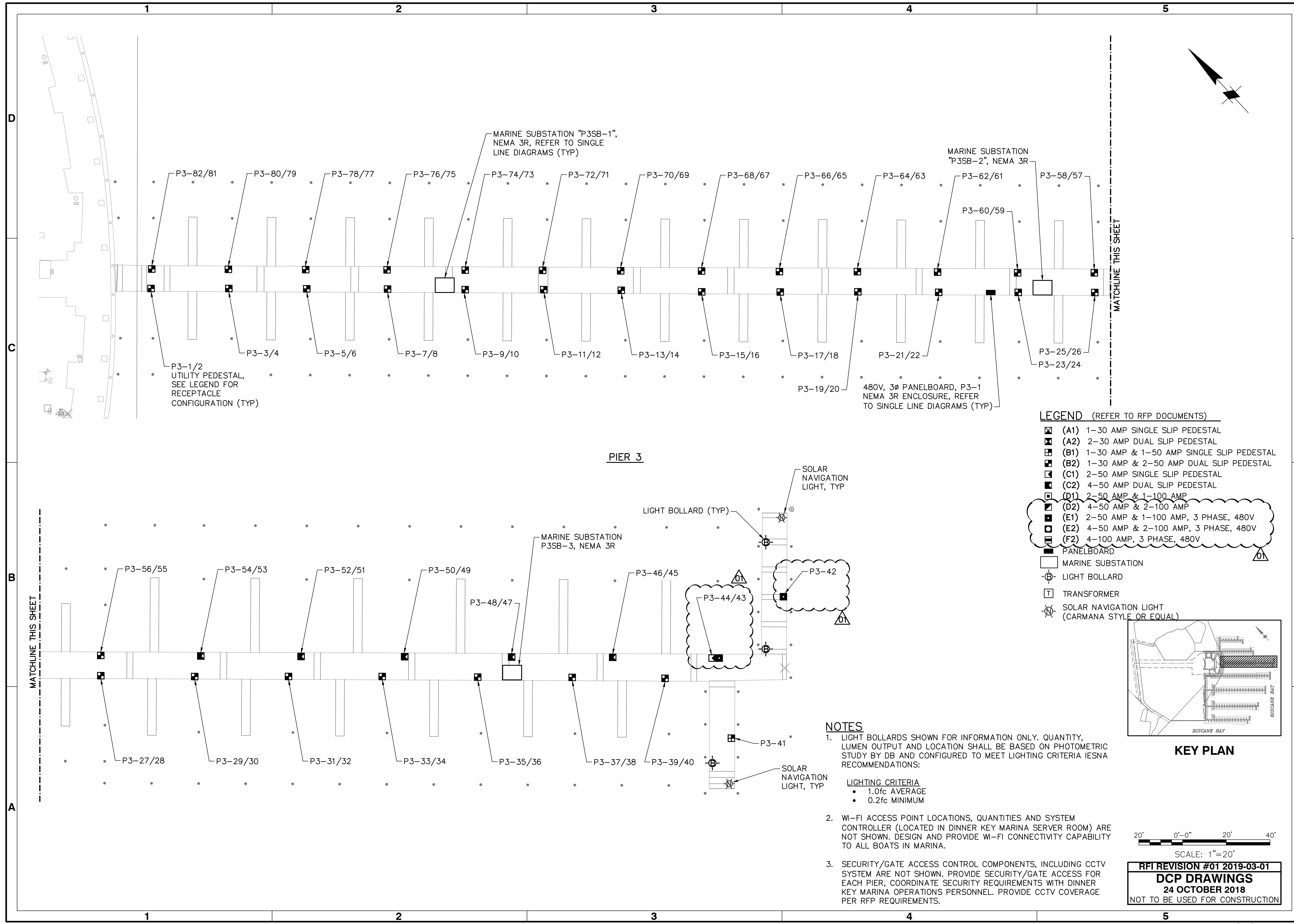
PIER 3 ELECTRICAL PLAN

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale: As Shown	Plot scale: 1" = 20'

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

SEAL

Sheet Reference No.
E-103
INDEX: 57 OF 69



- LEGEND (REFER TO RFP DOCUMENTS)**
- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
 - ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
 - ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
 - ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
 - ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
 - ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
 - ☒ (D1) 2-50 AMP & 1-100 AMP
 - ☒ (D2) 4-50 AMP & 2-100 AMP
 - ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
 - ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
 - ☒ (F2) 4-100 AMP, 3 PHASE, 480V
 - ☐ PANELBOARD
 - ☐ MARINE SUBSTATION
 - ⊕ LIGHT BOLLARD
 - ⊕ TRANSFORMER
 - ☒ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)

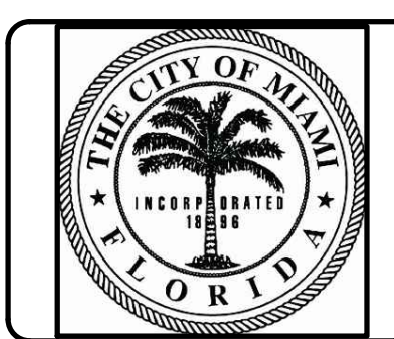
- NOTES**
- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:
LIGHTING CRITERIA
 - 1.0fc AVERAGE
 - 0.2fc MINIMUM
 - WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
 - SECURITY/GATE ACCESS CONTROL COMPONENTS, INCLUDING CCTV SYSTEM ARE NOT SHOWN. PROVIDE SECURITY/GATE ACCESS FOR EACH PIER, COORDINATE SECURITY REQUIREMENTS WITH DINNER KEY MARINA OPERATIONS PERSONNEL. PROVIDE CCTV COVERAGE PER RFP REQUIREMENTS.

20' 0'-0" 20' 40'

SCALE: 1"=20'

RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
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File: C:\MIA\9450-08\0500_C4D\Active_marina_dcp\945008_E-103_Plotfiled: 3/1/2019 11:35 a.m. by: JDUJAN



Rev.	Date	W/C
01	03.01.19	

**DINNER KEY MARINA
DCP DRAWINGS**

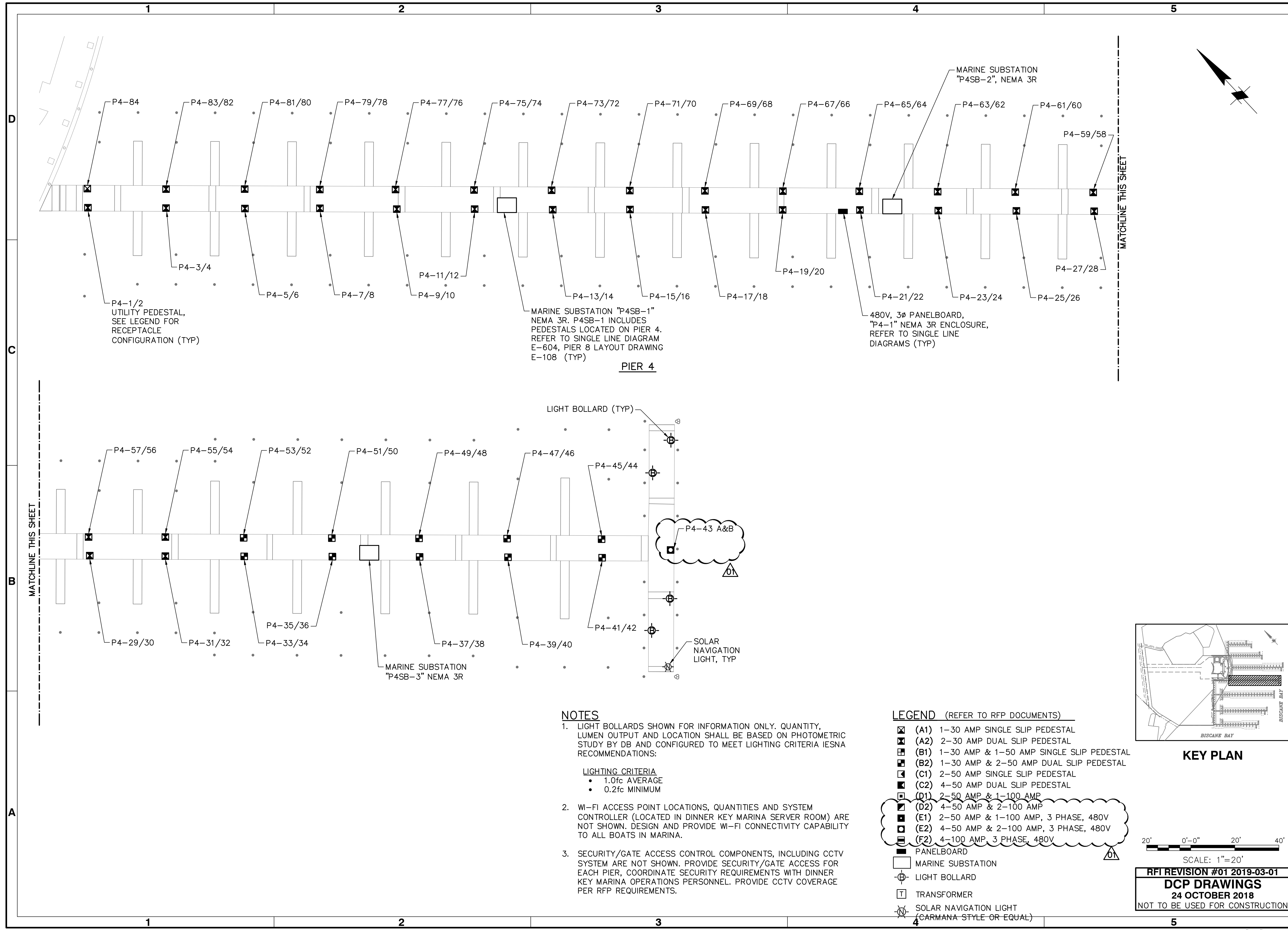
PIER 4 ELECTRICAL PLAN

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale: Plot scale: 1" (0 SHEET)	

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

SEAL

Sheet Reference No.
E-104
INDEX: 58 OF 69



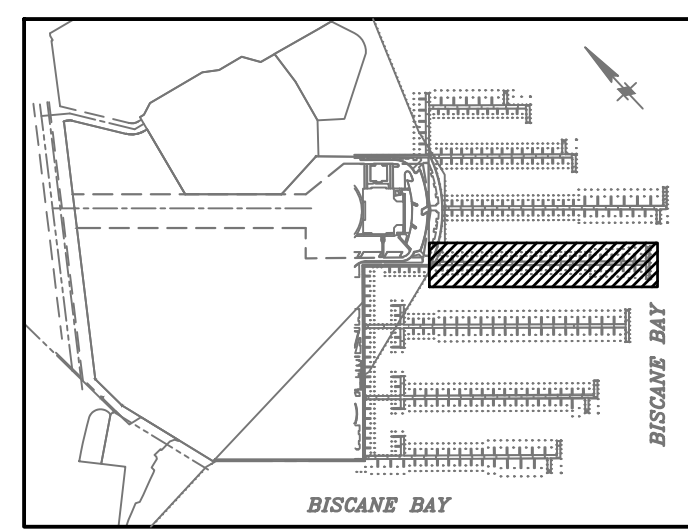
NOTES

- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:

LIGHTING CRITERIA
 - 1.0fc AVERAGE
 - 0.2fc MINIMUM
- WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
- SECURITY/GATE ACCESS CONTROL COMPONENTS, INCLUDING CCTV SYSTEM ARE NOT SHOWN. PROVIDE SECURITY/GATE ACCESS FOR EACH PIER, COORDINATE SECURITY REQUIREMENTS WITH DINNER KEY MARINA OPERATIONS PERSONNEL. PROVIDE CCTV COVERAGE PER RFP REQUIREMENTS.

LEGEND (REFER TO RFP DOCUMENTS)

- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
- ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
- ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
- ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
- ☒ (D1) 2-50 AMP & 1-100 AMP
- ☒ (D2) 4-50 AMP & 2-100 AMP
- ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- ☒ (F2) 4-100 AMP, 3 PHASE, 480V
- ☐ PANELBOARD
- ☐ MARINE SUBSTATION
- ⊕ LIGHT BOLLARD
- ⊞ TRANSFORMER
- ☉ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



20' 0'-0" 20' 40'

SCALE: 1"=20'

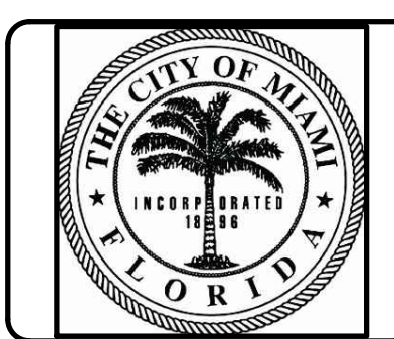
RFI REVISION #01 2019-03-01

DCP DRAWINGS

24 OCTOBER 2018

NOT TO BE USED FOR CONSTRUCTION

File: C:\MIA\9450-08\0500_CAD\Active\marina_dcp\945008_E-104_Plotted: 3/1/2019 11:40 a.m. by: JDUJAN



Rev.	Date	Description
01	03.01.19	REVISION 1
		Mark
		W/C
		Appr

**DINNER KEY MARINA
DCP DRAWINGS**

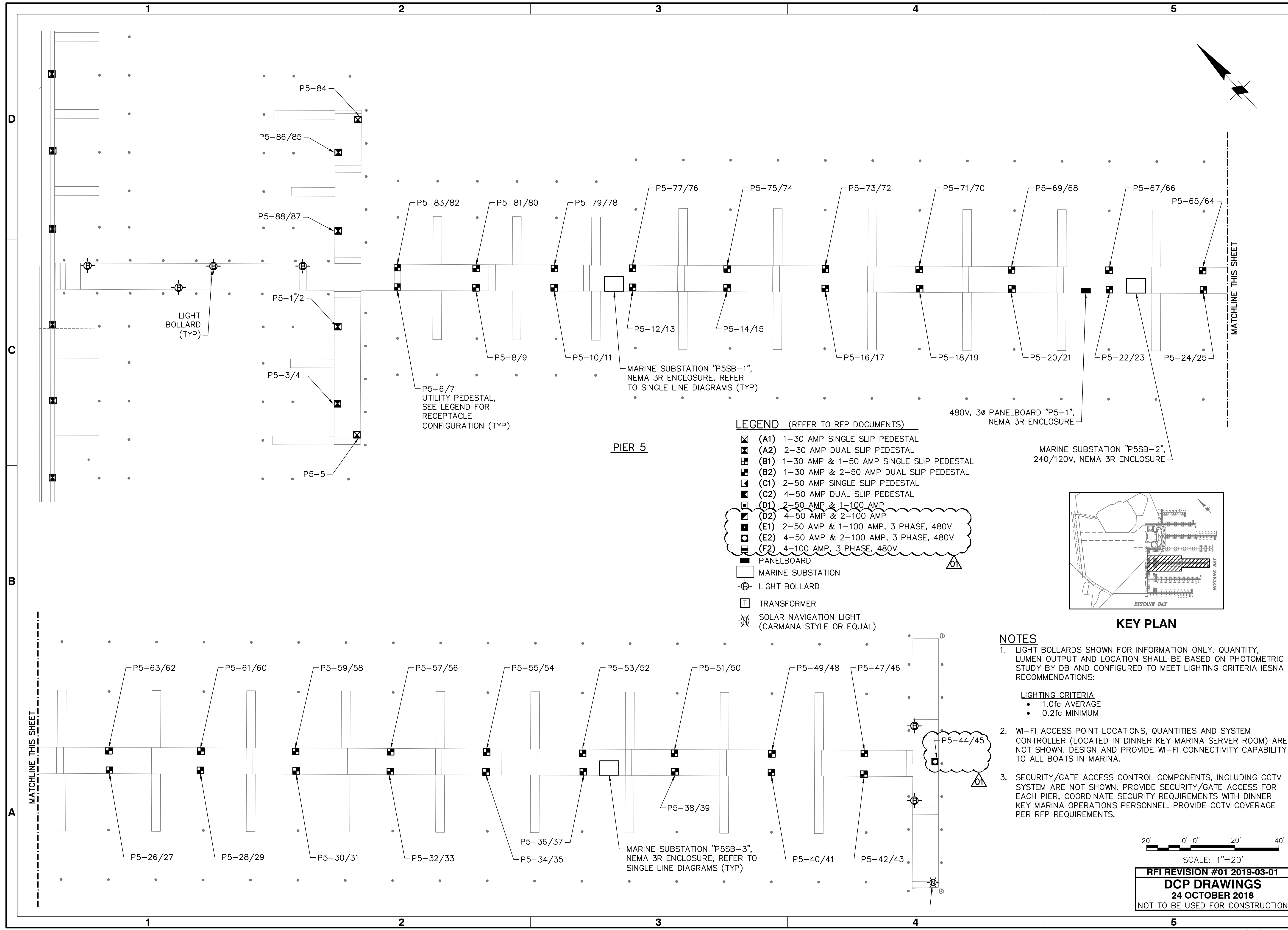
PIER 5 ELECTRICAL PLAN

Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Checked by: DCM	Drawing Scale: As Shown
Reviewed by: DJS	Drawing code:	Plot scale: 1" (0 SHEET)

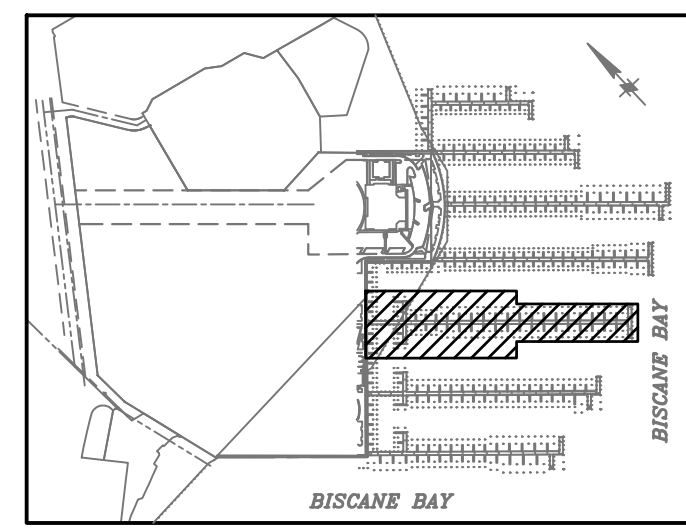
2937 SW 27th Ave, Ste 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

SEAL

Sheet Reference No.
E-105
INDEX: 59 OF 69



- LEGEND (REFER TO RFP DOCUMENTS)**
- (A1) 1-30 AMP SINGLE SLIP PEDESTAL
 - (A2) 2-30 AMP DUAL SLIP PEDESTAL
 - (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
 - (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
 - (C1) 2-50 AMP SINGLE SLIP PEDESTAL
 - (C2) 4-50 AMP DUAL SLIP PEDESTAL
 - (D1) 2-50 AMP & 1-100 AMP
 - (D2) 4-50 AMP & 2-100 AMP
 - (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
 - (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
 - (F2) 4-100 AMP, 3 PHASE, 480V
 - PANELBOARD
 - MARINE SUBSTATION
 - LIGHT BOLLARD
 - TRANSFORMER
 - SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



- NOTES**
- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:
 - LIGHTING CRITERIA
 - 1.0fc AVERAGE
 - 0.2fc MINIMUM
 - WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
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SCALE: 1"=20'

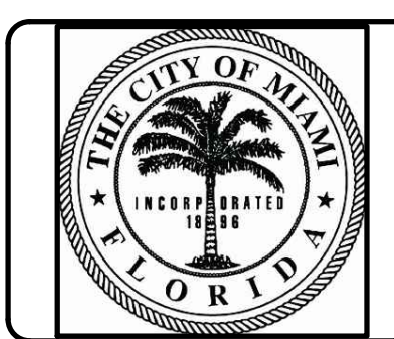
RFI REVISION #01 2019-03-01

DCP DRAWINGS

24 OCTOBER 2018

NOT TO BE USED FOR CONSTRUCTION

File: C:\MIA\9450-08\0500_CAD\Active_marina_dcp\945008_E-105_Plot.dwg; Plotted: 3/1/2019 5:24 p.m. by ESPINO, GUILLERMO; Saved: 3/1/2019 11:42 a.m. by JUDRAN



Rev.	Date	By	Description
01	03.01.19	IWC	

**DINNER KEY MARINA
DCP DRAWINGS**

PIER 6 ELECTRICAL PLAN

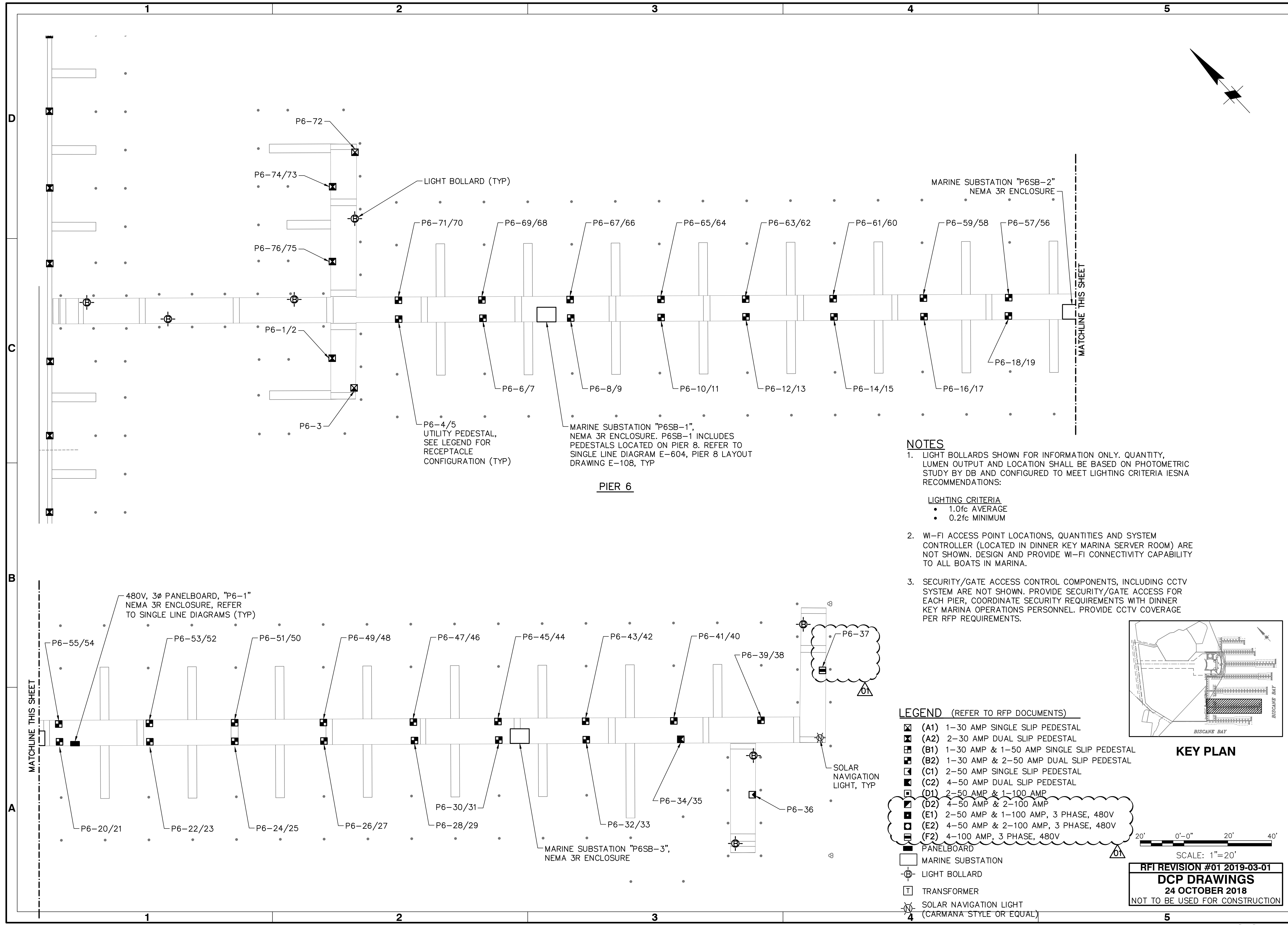
Designed by:	DLA	Checked by:	JMJ	Reviewed by:	DJS
Date:	10/17/18	M&N Project No.:	9450-08	Drawing Code:	
Submitted by:	TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale:	Plot scale: 1:1 (0 SHEET)		

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

moffatt & nichol

SEAL

Sheet Reference No.
E-106
INDEX: 60 OF 69



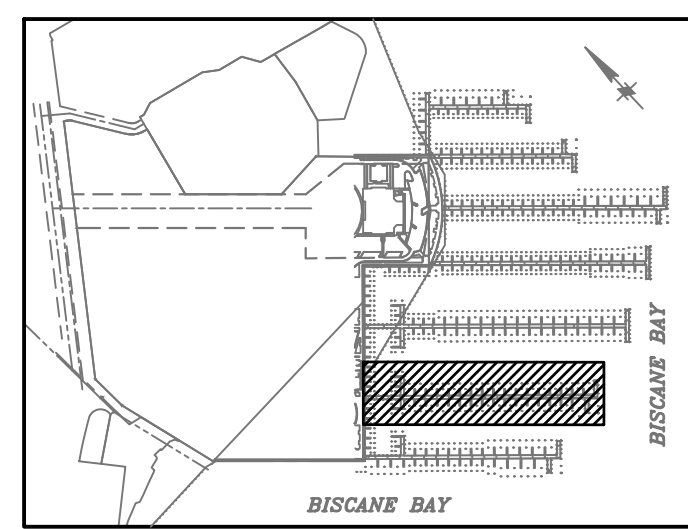
NOTES

- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:

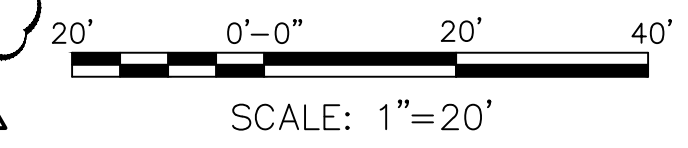
LIGHTING CRITERIA

- 1.0fc AVERAGE
- 0.2fc MINIMUM

- WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
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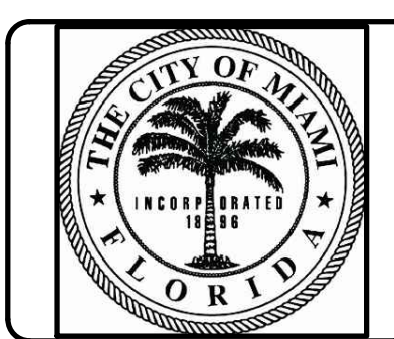


- LEGEND (REFER TO RFP DOCUMENTS)**
- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
 - ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
 - ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
 - ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
 - ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
 - ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
 - ☒ (D1) 2-50 AMP & 1-100 AMP
 - ☒ (D2) 4-50 AMP & 2-100 AMP
 - ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
 - ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
 - ☒ (F2) 4-100 AMP, 3 PHASE, 480V
 - ☐ PANELBOARD
 - ☐ MARINE SUBSTATION
 - ⊕ LIGHT BOLLARD
 - ☐ TRANSFORMER
 - ☐ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
NOT TO BE USED FOR CONSTRUCTION

File: C:\MIA\9450-08\0500_CAD\Active\marina_dcp\945008_E-106_Plot.dwg; Plotted: 3/1/2019 5:24 p.m. by ESPINO, GUILLERMO; Saved: 3/1/2019 11:44 a.m. by JUDURAN



Rev.	Date	Mark	W/C
01	03.01.19		

**DINNER KEY MARINA
DCP DRAWINGS**

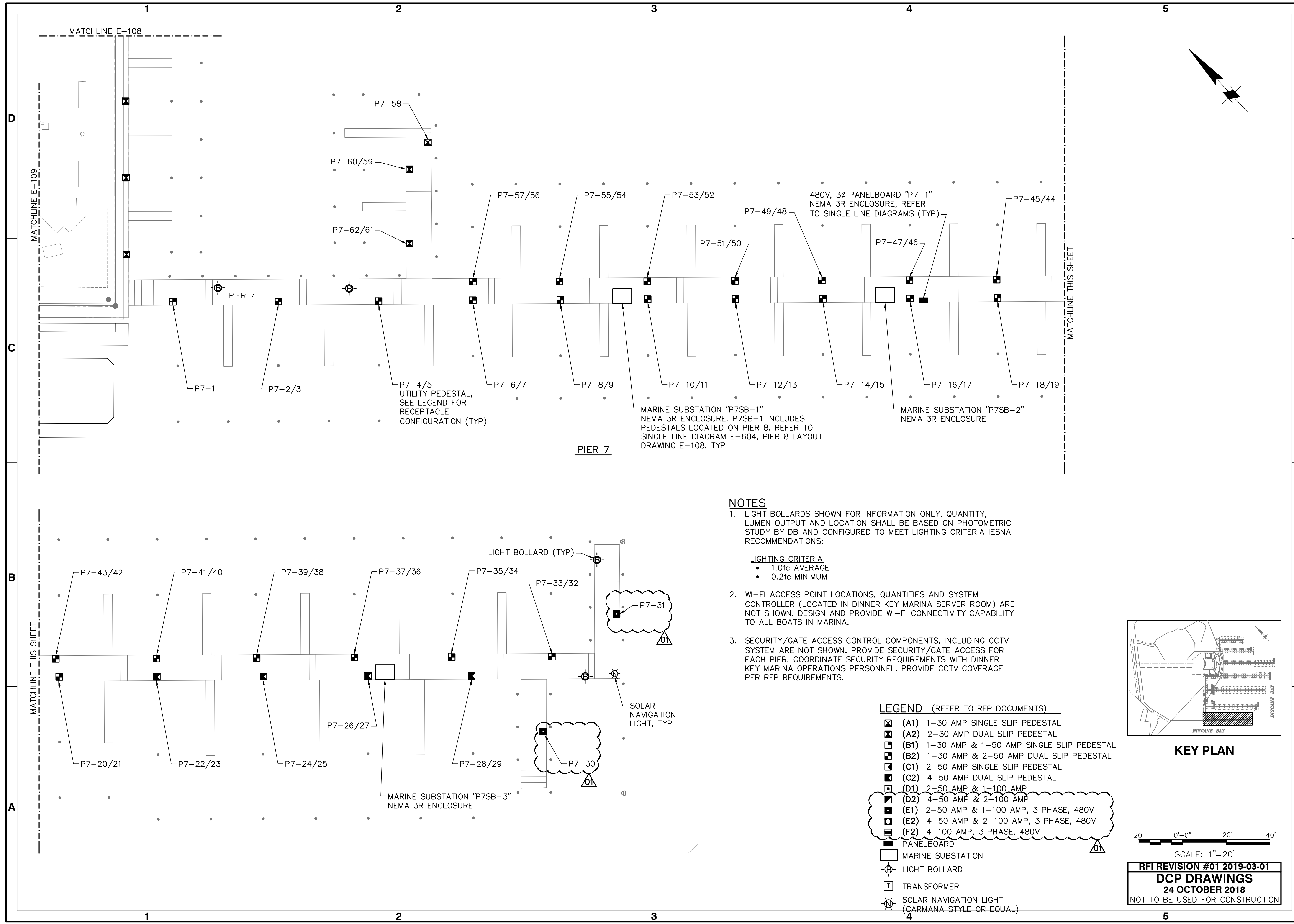
PIER 7 ELECTRICAL PLAN

Designed by:	DLA	Date:	10/17/18	Rev.	01
Dwn by:	JMJ	M&N Project No.:	9450-08		
Reviewed by:	DJS	DCM			
Submitted by:	TIM BLANKENSHIP MOFFATT & NICHOL	Drawing code:		Drawing Scale:	Plot scale: 1:1 (D SHEET)

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

SEAL

Sheet Reference No.
E-107
INDEX: 61 OF 69



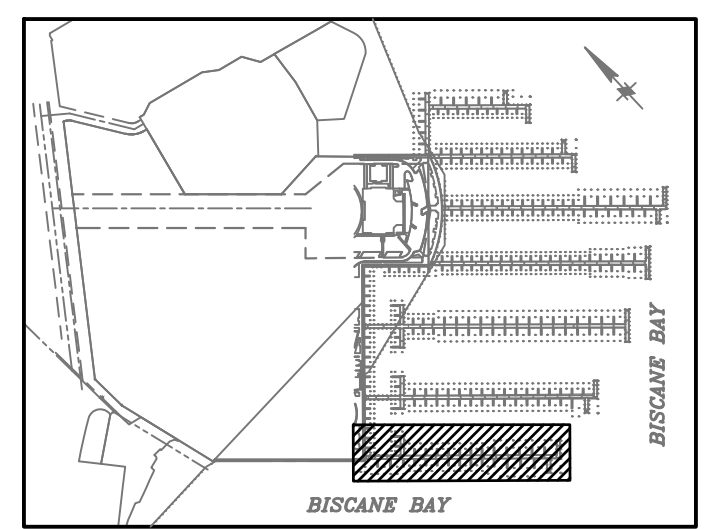
NOTES

- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:
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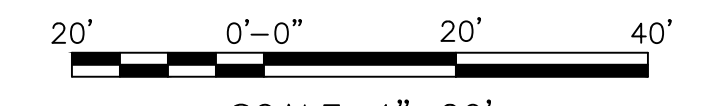
- LIGHTING CRITERIA**
- 1.0fc AVERAGE
 - 0.2fc MINIMUM

LEGEND (REFER TO RFP DOCUMENTS)

- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
- ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
- ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
- ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
- ☒ (D1) 2-50 AMP & 1-100 AMP
- ☒ (D2) 4-50 AMP & 2-100 AMP
- ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- ☒ (F2) 4-100 AMP, 3 PHASE, 480V
- ☐ PANELBOARD
- ☐ MARINE SUBSTATION
- ⊕ LIGHT BOLLARD
- ⊞ TRANSFORMER
- ☉ SOLAR NAVIGATION LIGHT (CARMANA-STYLE OR EQUAL)

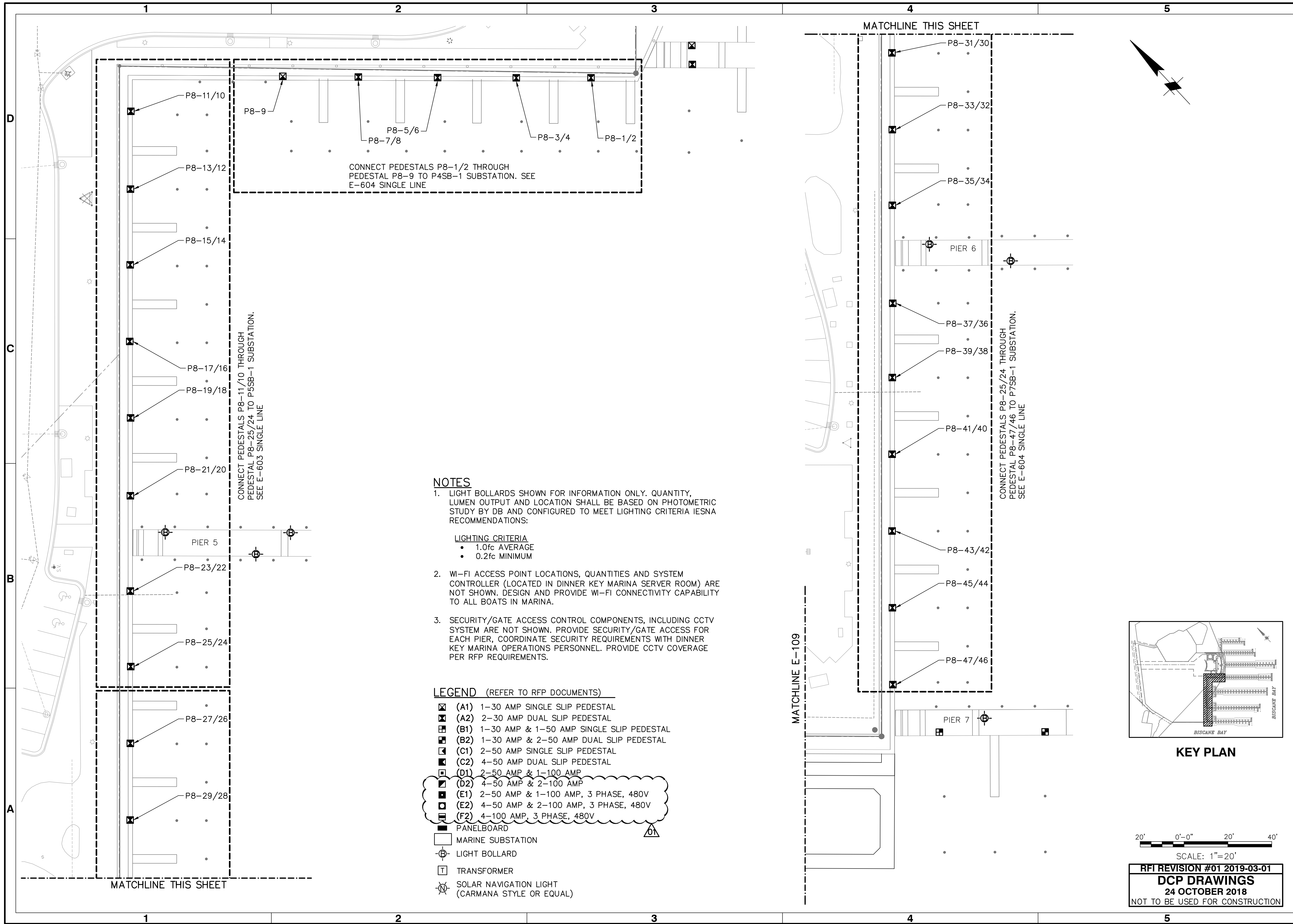


KEY PLAN



SCALE: 1"=20'
RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
NOT TO BE USED FOR CONSTRUCTION

File: G:\MIA\9450-08\0500_CAD\Active\marina_dcp\945008_E-107_Plot.dwg; Plotted: 3/1/2019 5:24 p.m. by ESPINO, GUILLERMO; Saved: 3/1/2019 11:47 a.m. by UDURAN



CONNECT PEDESTALS P8-1/2 THROUGH PEDESTAL P8-9 TO P4SB-1 SUBSTATION. SEE E-604 SINGLE LINE

CONNECT PEDESTALS P8-11/10 THROUGH PEDESTAL P8-25/24 TO P5SB-1 SUBSTATION. SEE E-603 SINGLE LINE

CONNECT PEDESTALS P8-25/24 THROUGH PEDESTAL P8-47/46 TO P7SB-1 SUBSTATION. SEE E-604 SINGLE LINE

NOTES

1. LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:

- LIGHTING CRITERIA**
- 1.0fc AVERAGE
 - 0.2fc MINIMUM

2. WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.

3. SECURITY/GATE ACCESS CONTROL COMPONENTS, INCLUDING CCTV SYSTEM ARE NOT SHOWN. PROVIDE SECURITY/GATE ACCESS FOR EACH PIER, COORDINATE SECURITY REQUIREMENTS WITH DINNER KEY MARINA OPERATIONS PERSONNEL. PROVIDE CCTV COVERAGE PER RFP REQUIREMENTS.

LEGEND (REFER TO RFP DOCUMENTS)

- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
- ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
- ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
- ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
- ☒ (D1) 2-50 AMP & 1-100 AMP
- ☒ (D2) 4-50 AMP & 2-100 AMP
- ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- ☒ (F2) 4-100 AMP, 3 PHASE, 480V
- ☐ PANELBOARD
- ☐ MARINE SUBSTATION
- ⊕ LIGHT BOLLARD
- ⊕ TRANSFORMER
- ☉ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



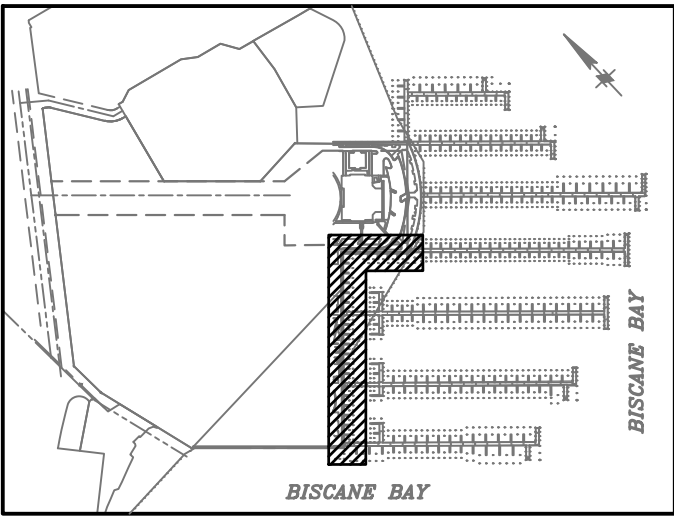
Rev.	Date	Description
01	03.01.19	REVISION 1

DINNER KEY MARINA DCP DRAWINGS

PIER 8 ELECTRICAL PLAN

Designed by: DLA	Drawn by: JMJ	Checked by: DCM	Reviewed by: DJS	Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL
Date: 10/17/18	M&N Project No: 9450-08	Drawing code:	Drawing Scale: Plot scale: 1:1 (D SHEET)	

2937 SW 27th Ave, Ste 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)



KEY PLAN



SCALE: 1"=20'

RFI REVISION #01 2019-03-01

DCP DRAWINGS

24 OCTOBER 2018

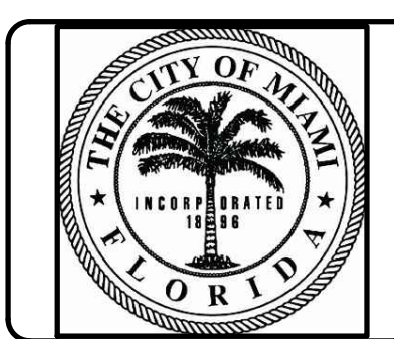
NOT TO BE USED FOR CONSTRUCTION

SEAL

Sheet Reference No.
E-108

INDEX: 62 OF 69

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Rev.	Date	Description	Mark	Appr.
01	03.01.19	REVISION 1		

**DINNER KEY MARINA
DCP DRAWINGS**

**MARGINAL DOCK
ELECTRICAL PLAN**

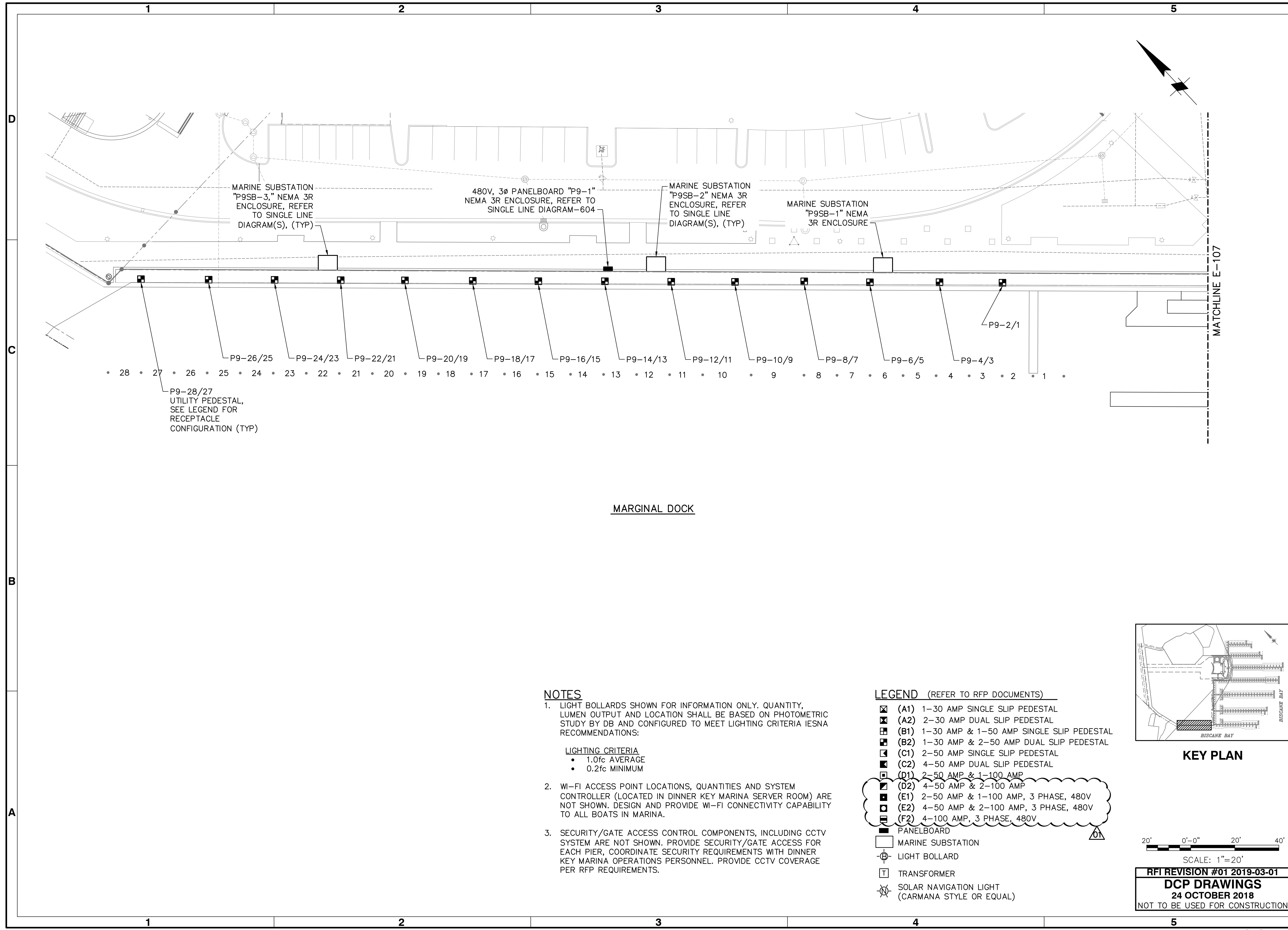
Designed by: DLA	Date: 10/17/18	Rev. 01
Dwn by: JMJ	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale:	Plot scale: 1:1 (D SHEET)

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

moffatt & nichol

SEAL

Sheet Reference No.
E-109
INDEX: 63 OF 69



MARGINAL DOCK

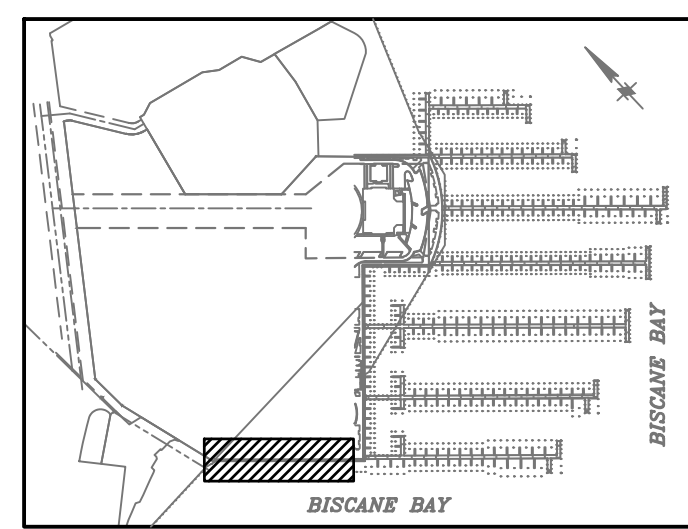
NOTES

- LIGHT BOLLARDS SHOWN FOR INFORMATION ONLY. QUANTITY, LUMEN OUTPUT AND LOCATION SHALL BE BASED ON PHOTOMETRIC STUDY BY DB AND CONFIGURED TO MEET LIGHTING CRITERIA IESNA RECOMMENDATIONS:

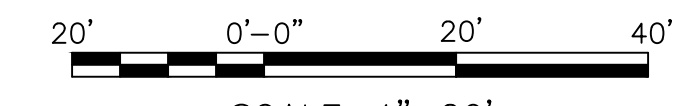
LIGHTING CRITERIA
 - 1.0fc AVERAGE
 - 0.2fc MINIMUM
- WI-FI ACCESS POINT LOCATIONS, QUANTITIES AND SYSTEM CONTROLLER (LOCATED IN DINNER KEY MARINA SERVER ROOM) ARE NOT SHOWN. DESIGN AND PROVIDE WI-FI CONNECTIVITY CAPABILITY TO ALL BOATS IN MARINA.
- SECURITY/GATE ACCESS CONTROL COMPONENTS, INCLUDING CCTV SYSTEM ARE NOT SHOWN. PROVIDE SECURITY/GATE ACCESS FOR EACH PIER, COORDINATE SECURITY REQUIREMENTS WITH DINNER KEY MARINA OPERATIONS PERSONNEL. PROVIDE CCTV COVERAGE PER RFP REQUIREMENTS.

LEGEND (REFER TO RFP DOCUMENTS)

- (A1) 1-30 AMP SINGLE SLIP PEDESTAL
- (A2) 2-30 AMP DUAL SLIP PEDESTAL
- (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
- (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
- (C1) 2-50 AMP SINGLE SLIP PEDESTAL
- (C2) 4-50 AMP DUAL SLIP PEDESTAL
- (D1) 2-50 AMP & 1-100 AMP
- (D2) 4-50 AMP & 2-100 AMP
- (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
- (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
- (F2) 4-100 AMP, 3 PHASE, 480V
- PANELBOARD
- MARINE SUBSTATION
- LIGHT BOLLARD
- TRANSFORMER
- SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)



KEY PLAN



SCALE: 1"=20'

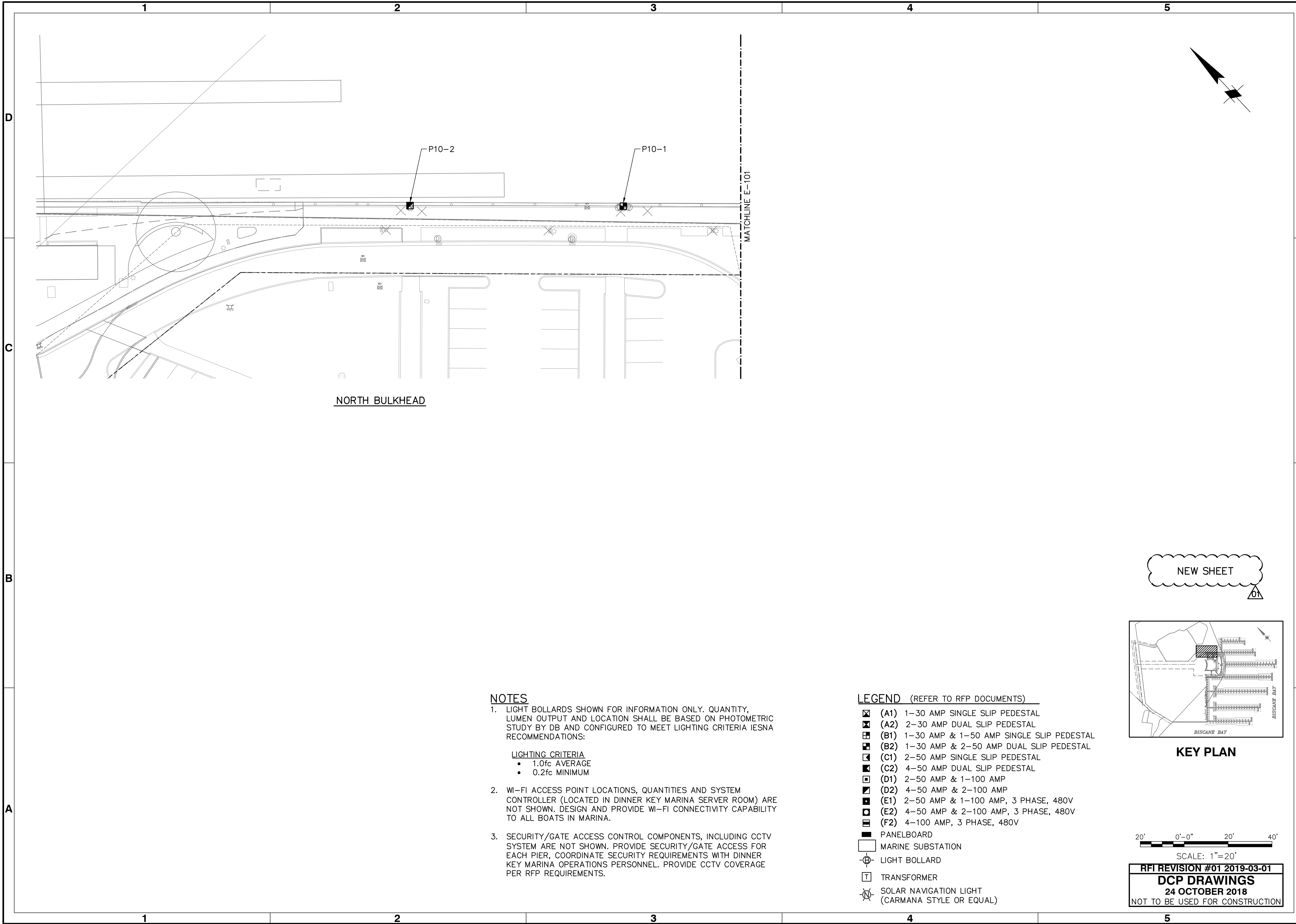
RFI REVISION #01 2019-03-01

DCP DRAWINGS

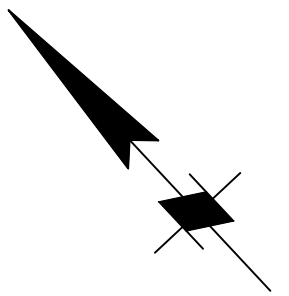
24 OCTOBER 2018

NOT TO BE USED FOR CONSTRUCTION

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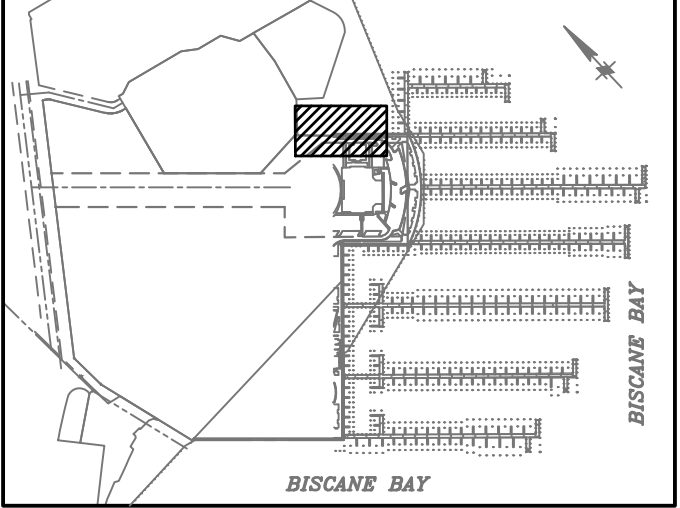
NORTH BULKHEAD



- NOTES**
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- LEGEND (REFER TO RFP DOCUMENTS)**
- ☒ (A1) 1-30 AMP SINGLE SLIP PEDESTAL
 - ☒ (A2) 2-30 AMP DUAL SLIP PEDESTAL
 - ☒ (B1) 1-30 AMP & 1-50 AMP SINGLE SLIP PEDESTAL
 - ☒ (B2) 1-30 AMP & 2-50 AMP DUAL SLIP PEDESTAL
 - ☒ (C1) 2-50 AMP SINGLE SLIP PEDESTAL
 - ☒ (C2) 4-50 AMP DUAL SLIP PEDESTAL
 - ☒ (D1) 2-50 AMP & 1-100 AMP
 - ☒ (D2) 4-50 AMP & 2-100 AMP
 - ☒ (E1) 2-50 AMP & 1-100 AMP, 3 PHASE, 480V
 - ☒ (E2) 4-50 AMP & 2-100 AMP, 3 PHASE, 480V
 - ☒ (F2) 4-100 AMP, 3 PHASE, 480V
 - PANELBOARD
 - MARINE SUBSTATION
 - ⊕ LIGHT BOLLARD
 - ⊞ TRANSFORMER
 - ☒ SOLAR NAVIGATION LIGHT (CARMANA STYLE OR EQUAL)

NEW SHEET



KEY PLAN



SCALE: 1"=20'
RFI REVISION #01 2019-03-01
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24 OCTOBER 2018
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Rev.	Date	Description	Appr.
01	03.01.19	REVISION 1	IWC

**DINNER KEY MARINA
DCP DRAWINGS**

NORTH SIDE BULKHEAD PLAN

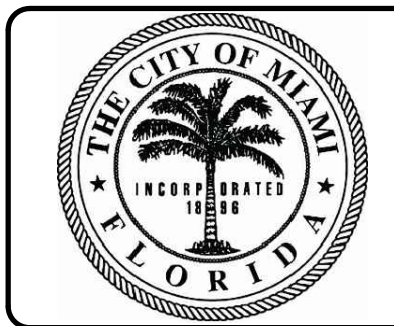
Designed by: DLA	DATE	Rev. 01
Dwn by: HJP	M&N Project No. 9450-08	
Reviewed by: DJS	Drawing code:	
Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL	Drawing Scale:	Plot scale: 1:1 (0 SHEET)

2837 SW 27th AVE, STE 101A
 COCONUT GROVE, FL 33133
 305-230-1924
 (FL EB 4877)

moffatt & nichol

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Sheet Reference No.
E-110
 INDEX: 64 OF 69



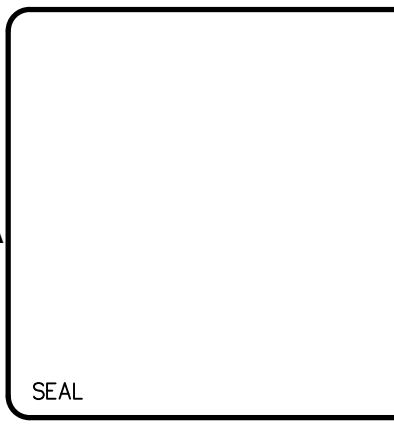
Rev.	Date	Description
01	03.01.19	W/C

**DINNER KEY MARINA
DCP DRAWINGS**

**PEDESTAL
CONFIGURATIONS**

Designed by: DSGN	Drawn by: DRFT	Checked by: CHKR	Reviewed by: REVR	Submitted by: TIM BLANKENSHIP MOFFATT & NICHOL
Date:	M&N Project No: 9450-08	Drawing code:	Drawing Scale:	Plot scale: 1:1 (D SHEET)

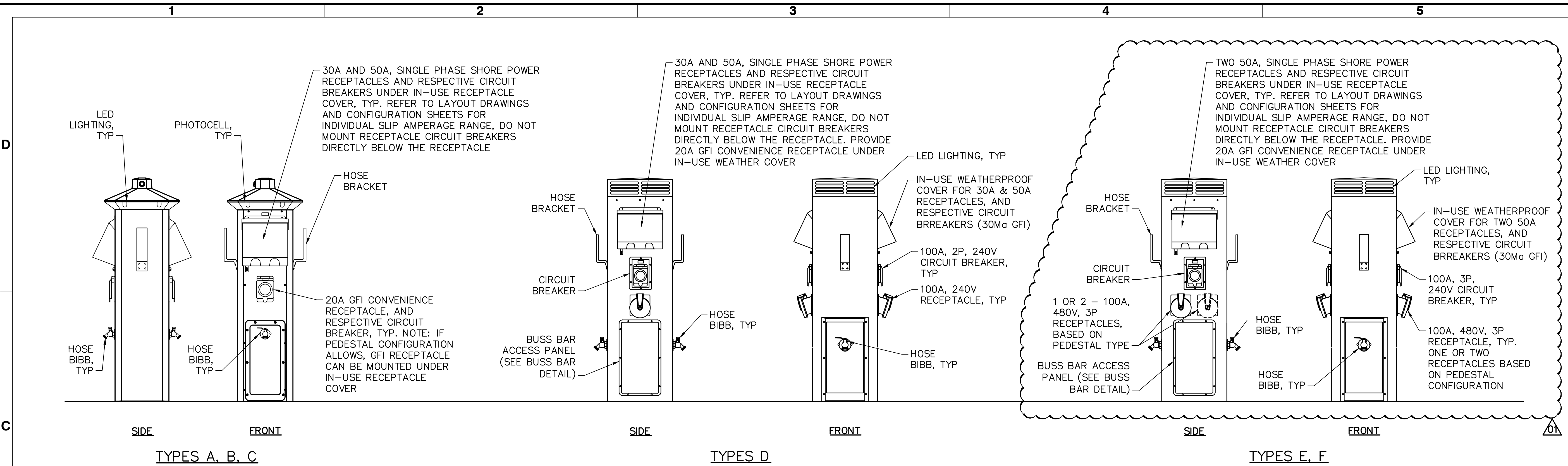
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305-230-1924
(FL EB 4877)



Sheet Reference No.
E-501
INDEX: 65 OF 69

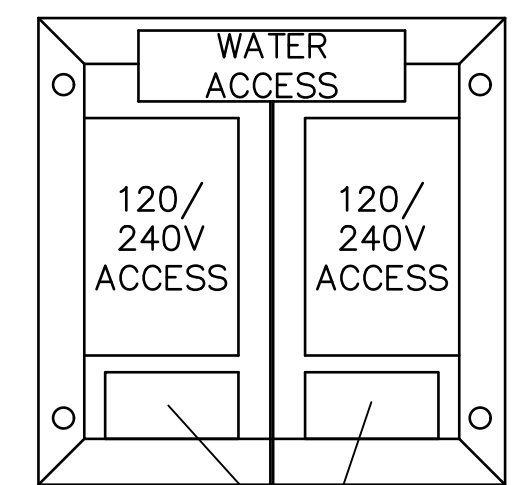
RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

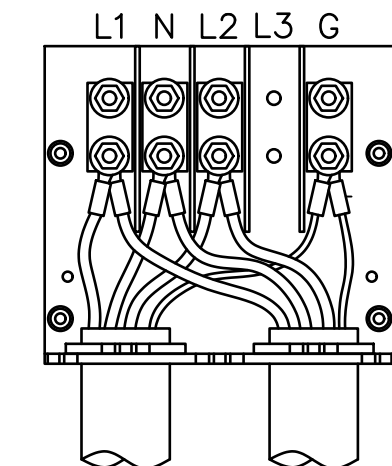


NOTES:

1. PROVIDE ALL PEDESTALS AS POWDER COATED ALUMINUM, TYP.
2. PROVIDE ALL PEDESTALS WITH SINGLE SLIP METERING OF TOTAL ELECTRICAL USAGE. INCLUDE OPTION FOR REMOTE (WI-FI) METERING CAPABILITIES.
3. PROVIDE ALL PEDESTALS WITH LED LIGHTING, INCLUDING INTEGRAL PHOTOCELL DAY/NIGHT OPERATION CONTROLS.
4. PROVIDE ALL PEDESTALS WITH POTABLE WATER SERVICE FOR EACH SLIP (HOSE BIBB & HOSE BRACKET).
5. DUAL SLIP PEDESTALS SHOWN. ACTUAL PEDESTAL CONFIGURATION (SINGLE / DUAL SLIP) BASED ON MARINA/SLIP LAYOUT AND AMERAGE REQUIREMENTS.
6. PEDESTALS SHALL PROVIDE UL LISTED SERVICE BUSS ARRANGEMENT.
7. INCLUDE PEDESTAL LIGHTING IN PIER PHOTOMETRIC CALCULATIONS.
8. INTEGRAL COMMUNICATION CONNECTIONS ARE NOT REQUIRED FOR DINNER KEY MARINA.
9. CONTRACTOR SHALL PROVIDE A CRIMP TERMINAL LUG OR FERRULE FOR ALL LINE WIRES.
10. REFER TO MANUFACTURER INSTRUCTIONS AND DETAILS TO ORGANIZE PEDESTAL CONNECTION CONFIGURATIONS. "BASE FOOTPRINT" SHOWN FOR INFORMATIONAL PURPOSES ONLY.
11. PROVIDE ADDITIVE ALTERNATE 3 OPTIONAL BID ITEM FOR SEPERABLE PEDESTAL BASE AND "PEDESTAL HEAD".
12. PROVIDE ADDITIVE ALTERNATE 4 OPTIONAL BID ITEM FOR PEDESTAL GROUND FAULT LEVEL ANDKWH CONSUMPTION VIA WI-FI FOR REMOTE MONITORING. COORDINATE WI-FI MONITORING WITH WI-FI SYSTEM PROVIDER TO FURNISH A COMPLETE AND INTEGRATED SOLUTION.



BASE FOOTPRINT



BUSS BAR

COMPRESSION OR UL APPROVED SCREW CLAMP TERMINALS, SEE NOTE 6, 9, TYP

A

C

D

A

C

D

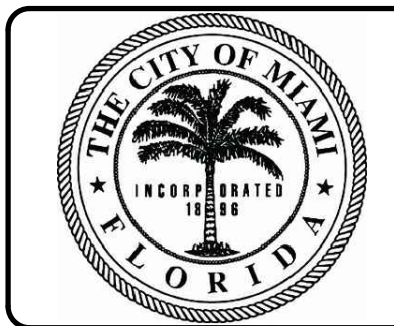
1

2

3

4

5



Rev.	Date	By	Appr.
01	03.01.19	WNC	

**DINNER KEY MARINA
DCP DRAWINGS**

**AREA A SINGLE LINE
DIAGRAM**

Designed by:	DSGN	Chk by:	CHKR	Reviewed by:	REVR	Submitted by:	TIM BLANKENSHIP MOFFATT & NICHOL
Date:	DATE	M&N Project No.:	9450-08	Drawing code:		Drawing Scale:	Plot scale: 1:1 (D SHEET)

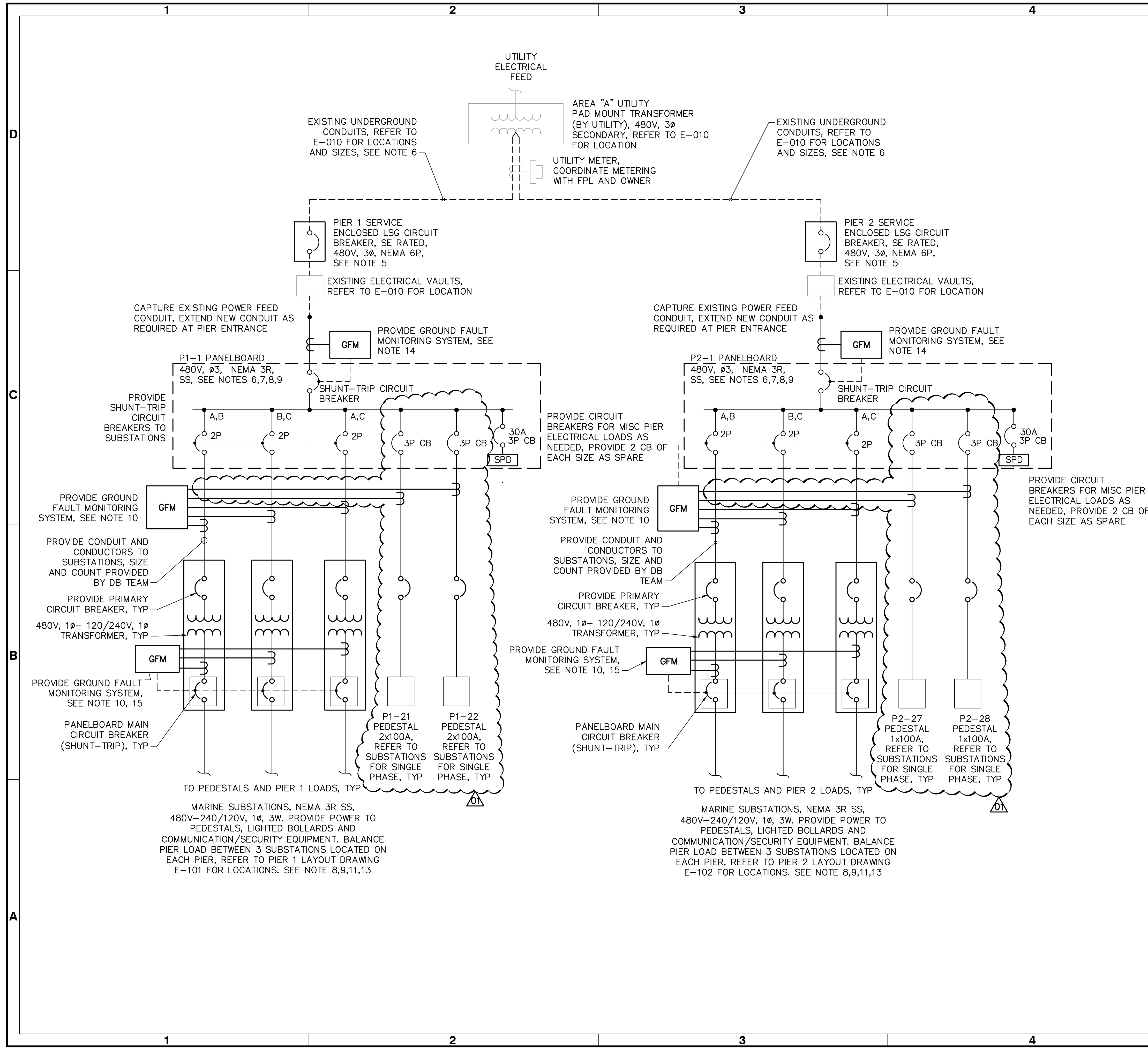
2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)
moffatt & nichol

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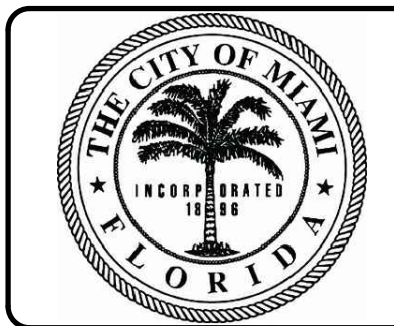
Sheet Reference No.
E-601
INDEX: 66 OF 69

NOTES:

- SINGLE LINE DIAGRAM IS FOR INFORMATIONAL AND CRITERIA REQUIREMENT PURPOSES ONLY, FINAL DESIGN WILL BE BASED ON DB TEAM CALCULATIONS AND DESIGN.
- ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS ARE NOT ACCEPTABLE.
- PROVIDE TERMINATION LUGS FOR ALL ELECTRICAL EQUIPMENT AS SHOWN IN THESE PLANS.
- PROVIDE PHENOLIC LABELS (WHITE WITH BLACK LETTERS) ON ALL ELECTRICAL GEAR COMPONENTS SHOWN. COORDINATE WITH OWNER FOR EXACT NAMING CONVENTION.
- PROVIDE NEMA 6P, SS DISCONNECTS FOR EACH PIER FEED. SIZE BASED ON LOAD CALCULATIONS. REUSE EXISTING CONDUITS FROM EXISTING DISCONNECT LOCATION TO EACH PIER. SEAL CONDUITS WATER TIGHT INTO 6P ENCLOSURE.
- EXISTING UNDERGROUND CONDUIT BETWEEN PIER SERVICE DISCONNECT AND PIER IS TO BE REUSED. REMOVE EXISTING FEED CONDUCTORS, CLEAN CONDUIT AND REPAIR AS NECESSARY. CONDUCTOR SIZE AND COUNT BASED ON DB TEAM ELECTRICAL DESIGN CALCULATIONS.
- PROVIDE 480V, 3Ø NEMA 3R, SS PANELBOARDS AT EACH PIER FOR ELECTRICAL DISTRIBUTION OF 480V, 1Ø POWER TO EACH MARINE SUBSTATION. REFER TO ELECTRICAL LAYOUT SHEETS E-101 TO E-109 FOR LOCATIONS OF PANELBOARDS. BALANCE SINGLE PHASE LOADS. PROVIDE PANELBOARD WITH SHUNT-TRIP MAIN CIRCUIT BREAKER, AND PROVIDE SHUNT-TRIP CIRCUIT BREAKERS FOR SUBSTATION FEEDER CIRCUITS. FACTORY INSTALL AND PREWIRE AS INTEGRAL PART OF PANELBOARD.
- PROVIDE (3) MARINE SUBSTATIONS WITH INTEGRAL PRIMARY CIRCUIT BREAKER, TRANSFORMER, AND MCB PANELBOARD. BALANCE LOADS IN PANELBOARD FOR SUBSTATION LOADING.
- BALANCE LOADS OF EACH PIER INTO 3 SUBSTATIONS EQUALLY. INCLUDE MISCELLANEOUS LOADS ON PIER INTO SUBSTATIONS INCLUDING: SINGLE PHASE LOADS FOR LIGHT BOLLARDS, ACCESS POINT POWER, AND GATE SECURITY AS REQUIRED.
- PROVIDE GROUND FAULT PROTECTION MONITORING AS SHOWN ON SINGLE LINE, SIMILAR TO BENDER GROUND FAULT MONITOR SYSTEM OR EQUAL. MOUNT AT PANELBOARD LOCATIONS, IN NEMA 3R, SS ENCLOSURE. CONTROL OUTPUT OF GFM TO SHUNT-TRIP CIRCUIT BREAKERS AS SHOWN. SET TRIP RATING FOR GFM AT 30mA MAXIMUM. PROVIDE DEDICATED GFM OF 100A RECEPTACLES, AS THESE CIRCUIT BREAKERS CANNOT BE PROVIDED WITH THE REQUIRED 30mA GFI OPTION. PROVIDE SHUNT-TRIP CIRCUIT BREAKERS IN PANELBOARDS FOR 100A, 240V RECEPTACLES.
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- PROVIDE 100 mA GFM WITH SHUNT-TRIP CIRCUIT BREAKERS.
- ADDITIONAL GROUND FAULT PROTECTION NOT REQUIRED FOR CIRCUITS BREAKERS FED FROM GFI (50 AND BELOW).



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24 OCTOBER 2018
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Rev.	Date	By	Check	Description
01	03.01.19	WNC	Apr	

**DINNER KEY MARINA
DCP DRAWINGS**

**AREA B SINGLE LINE
DIAGRAM**

Designed by:	DSGN	Chk by:	CHKR	Rev.:	01
Dwn by:	DRFT	Rev.:	REVR	Date:	
Submitted by:	TIM BLANKENSHIP MOFFATT & NICHOL	M&N Project No.:	9450-08	Drawing code:	
Drawing Scale:		Plot scale: 1:1 (D SHEET)			

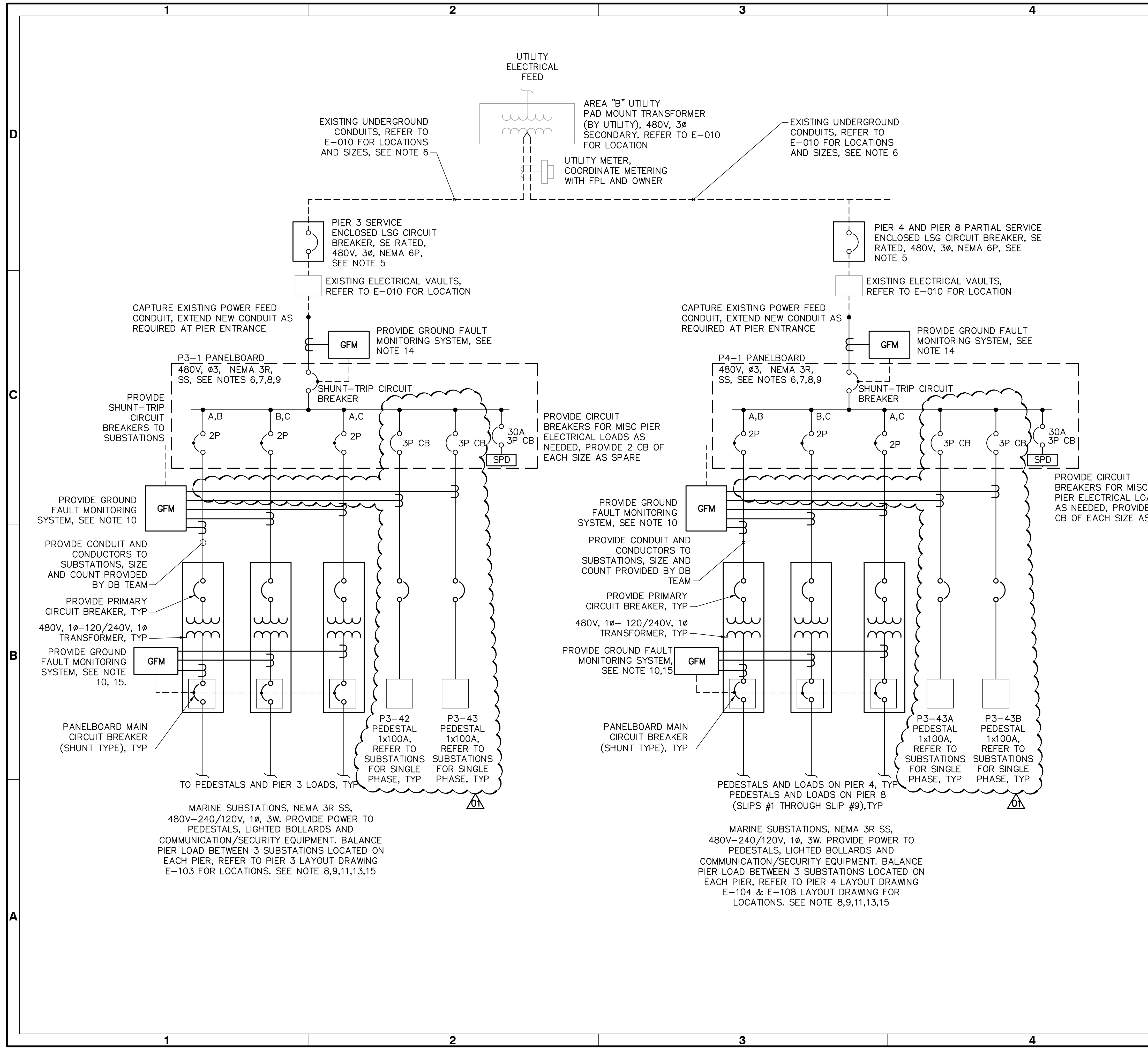
2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
(FL EB 4877)

SEAL

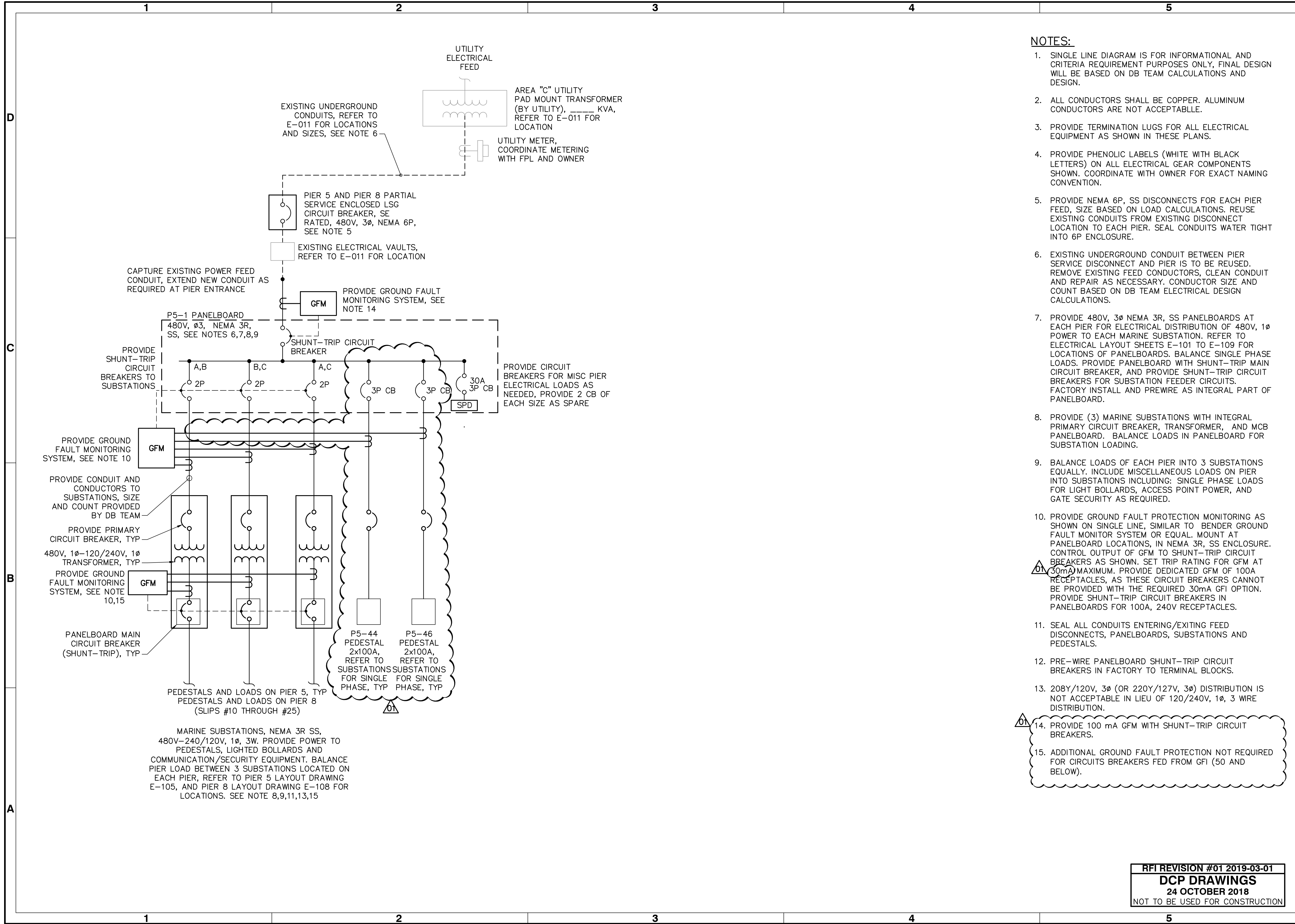
Sheet Reference No.
E-602
INDEX: 67 OF 69

NOTES:

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- BALANCE LOADS OF EACH PIER INTO 3 SUBSTATIONS EQUALLY. INCLUDE MISCELLANEOUS LOADS ON PIER INTO SUBSTATIONS INCLUDING: SINGLE PHASE LOADS FOR LIGHT BOLLARDS, ACCESS POINT POWER, AND GATE SECURITY AS REQUIRED.
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Rev.	Date	Description	Mark	Appr.
01	03.01.19	REVISION 1		

**DINNER KEY MARINA
DCP DRAWINGS**

**AREA C SINGLE LINE
DIAGRAM**

Designed by:	DATE:	Rev.:	01
DSGN	DATE	M&N Project No.:	9450-08
Dwn by:	CHKR	Drawing code:	
DRFT	CHKR	Drawing Scale:	
Reviewed by:	REVR	Submitted by:	TIM BLANKENSHIP
		MOFFATT & NICHOL	

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DCP DRAWINGS
24 OCTOBER 2018
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Sheet
Reference No.
E-603
INDEX: 68 OF 69

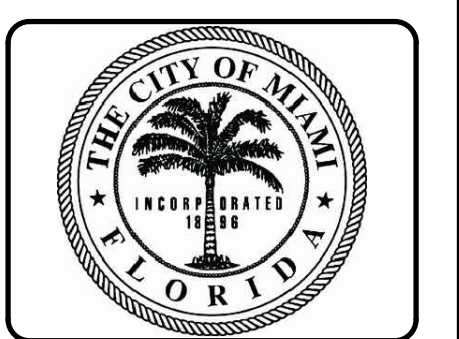
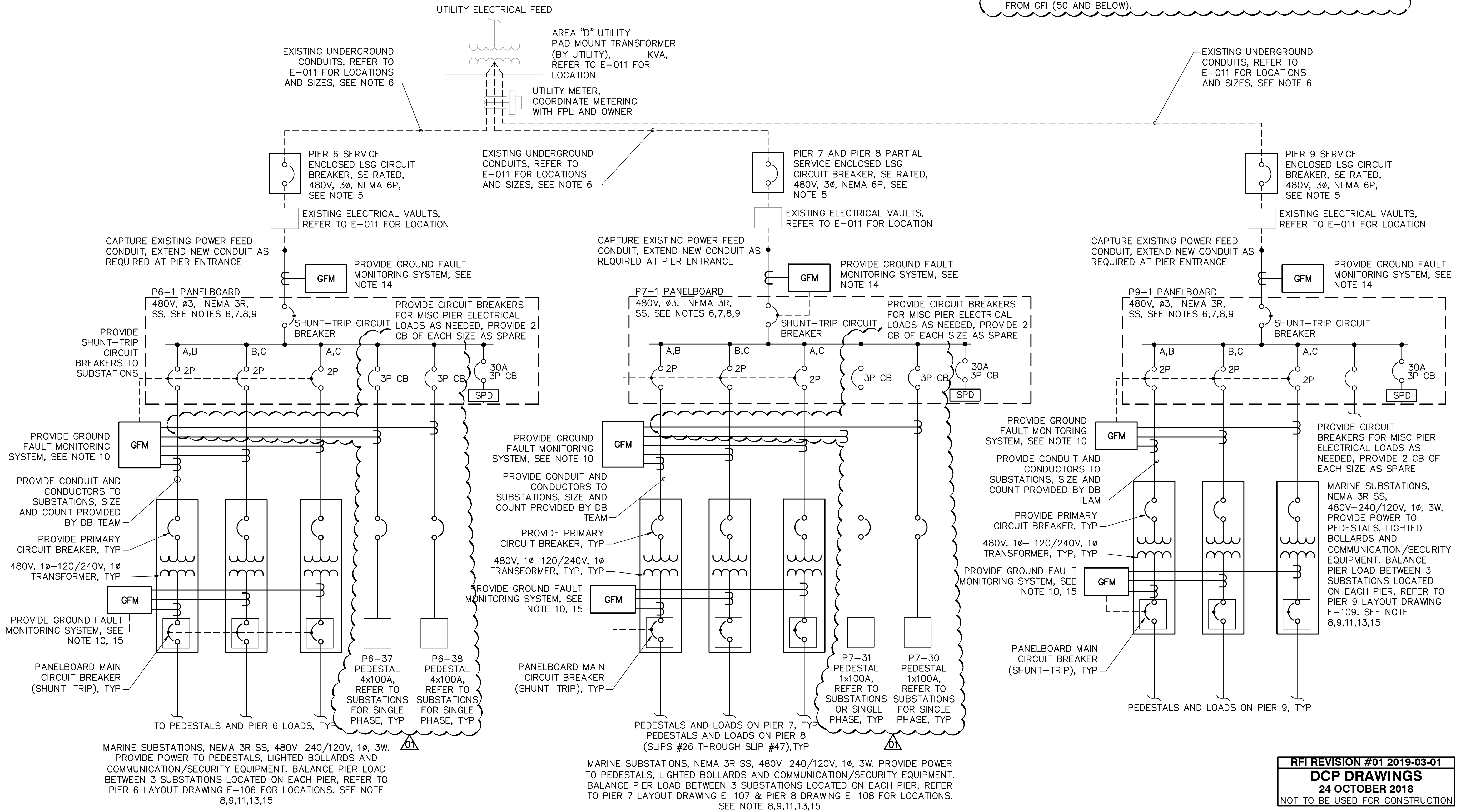
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- PROVIDE 480V, 3 ϕ NEMA 3R, SS PANELBOARDS AT EACH PIER FOR ELECTRICAL DISTRIBUTION OF 480V, 1 ϕ POWER TO EACH MARINE SUBSTATION. REFER TO ELECTRICAL LAYOUT SHEETS E-101 TO E-109 FOR LOCATIONS OF PANELBOARDS. BALANCE SINGLE PHASE LOADS. PROVIDE PANELBOARD WITH SHUNT-TRIP MAIN CIRCUIT BREAKER, AND PROVIDE SHUNT-TRIP CIRCUIT BREAKERS FOR SUBSTATION FEEDER CIRCUITS. FACTORY INSTALL AND PREWIRE AS INTEGRAL PART OF PANELBOARD.
- PROVIDE (3) MARINE SUBSTATIONS WITH INTEGRAL PRIMARY CIRCUIT BREAKER, TRANSFORMER, AND MCB PANELBOARD. BALANCE LOADS IN PANELBOARD FOR SUBSTATION LOADING.
- BALANCE LOADS OF EACH PIER INTO 3 SUBSTATIONS EQUALLY. INCLUDE MISCELLANEOUS LOADS ON PIER INTO SUBSTATIONS INCLUDING: SINGLE PHASE LOADS FOR LIGHT BOLLARDS, ACCESS POINT POWER, AND GATE SECURITY AS REQUIRED.
- PROVIDE GROUND FAULT PROTECTION MONITORING AS SHOWN ON SINGLE LINE, SIMILAR TO BENDER GROUND FAULT MONITOR SYSTEM OR EQUAL. MOUNT AT PANELBOARD

LOCATIONS, IN NEMA 3R, SS ENCLOSURE. CONTROL OUTPUT OF GFM TO SHUNT-TRIP CIRCUIT BREAKERS AS SHOWN. SET TRIP RATING FOR GFM AT (30mA) MAXIMUM. PROVIDE DEDICATED GFM OF 100A RECEPTACLES, AS THESE CIRCUIT BREAKERS CANNOT BE PROVIDED WITH THE REQUIRED 30mA GFI OPTION. PROVIDE SHUNT-TRIP CIRCUIT BREAKERS IN PANELBOARDS FOR 100A, 240V RECEPTACLES.

- SEAL ALL CONDUITS ENTERING/EXITING FEED DISCONNECTS, PANELBOARDS, SUBSTATIONS AND PEDESTALS.
- PRE-WIRE PANELBOARD SHUNT-TRIP CIRCUIT BREAKERS IN FACTORY TO TERMINAL BLOCKS.
- 208Y/120V, 3 ϕ (OR 220Y/127V, 3 ϕ) DISTRIBUTION IS NOT ACCEPTABLE IN LIEU OF 120/240V, 1 ϕ , 3 WIRE DISTRIBUTION.
- PROVIDE 100 mA GFM WITH SHUNT-TRIP CIRCUIT BREAKERS.
- ADDITIONAL GROUND FAULT PROTECTION NOT REQUIRED FOR CIRCUITS BREAKERS FED FROM GFI (50 AND BELOW).



Rev.	Date	By	Description
01	03.01.19	WNC	Mark

**DINNER KEY MARINA
DCP DRAWINGS**

**AREA D SINGLE LINE
DIAGRAM**

Designed by:	DSGN	Chk by:	CHKR	Rev.:	01
Dwn by:	DRFT	Rev.:	REVR	Date:	
Submitted by:	TIM BLANKENSHIP MOFFATT & NICHOL	M&N Project No.:	9450-08	Drawing code:	
Drawing Scale:		Drawing Size:		Plot scale: 1:1 (D SHEET)	

2837 SW 27th AVE, STE 101A
COCONUT GROVE, FL 33133
305-230-1924
moffatt & nichol
(FL EB 4877)

SEAL

RFI REVISION #01 2019-03-01
DCP DRAWINGS
24 OCTOBER 2018
NOT TO BE USED FOR CONSTRUCTION

Sheet Reference No.
E-604
INDEX: 69 OF 69