

PROJECT LOCATION KEY PLAN
SCALE: NOT TO SCALE

HATCHED TO INDICATE
PROJECT LOCATION, REFER
TO ENLARGED DETAIL ON
SHEET E-1.0

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APPLICANT:

Miami-Dade County Public Works and Waste Management Department

Reworld™ Miami-Dade
6990 NW 97 ST
Doral, FL 33178

PROJECT NAME:

ELECTRICAL SERVICES DESIGN FOR SITE UTILITY RELOCATION AT RRF

EDP PROJECT:

EDP-SW-18611-25

Honorable Daniella Levine Cava
Mayor

BOARD OF COUNTY COMMISSIONERS

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Honorable Anthony Rodriguez, Vice Chairman
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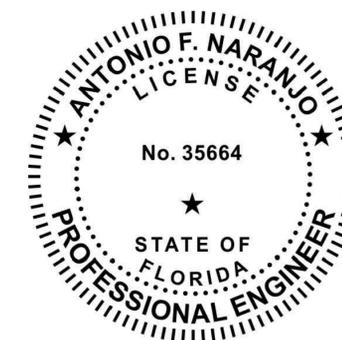
Honorable René García
District 13

Aneisha Daniel
Department of Solid Waste
Management Director

MEP MECHANICAL / ELECTRICAL ENGINEER ANTONIO NARANJO PE35664
ELECTRICAL PLUMBING {#EBO006115} TEL.(305) 471-0160

MEP ENGINEERING INC.

10590 N.W. 27 ST. SUITE 101 MIAMI FL. 33172



ANTONIO NARANJO, PE
FLORIDA LICENSE PE35664

DATE: _____

Sheet Index MEP Engineering

| Sheet | Description |
|-------|--|
| C-0.1 | COVER SHEET |
| E-0.1 | ELECTRICAL NOTES AND LEGEND |
| E-1.0 | ELECTRICAL FOR UTILITY COORDINATION |
| E-1.1 | MODULAR TRAILER ELECTRICAL ENLARGED DETAIL |
| E-1.2 | MAINTENANCE BLDG ELECTRICAL ENLARGED DETAIL |
| E-1.3 | LIFT STATION BLDG 938 ELECTRICAL ENLARGED DETAIL |
| E-1.4 | SCALE HOUSE ELECTRICAL ENLARGED DETAIL |
| E-2.0 | ELECTRICAL RISER DIAGRAM |
| E-2.1 | ELECTRICAL PANEL SCHEDULES |
| E-3.1 | ELECTRICAL PULL BOX SPECIFICATIONS |

PROJECT SCOPE OF WORK:

LIMITED TO PROVIDE NEW ELECTRICAL SERVICE MAINS AND FEEDERS FROM A NEW FPL TRANSFORMER, TYPICAL FOR EXISTING MODULAR TRAILERS, MAINTENANCE BUILDING, LIFT STATION BUILDING, AND SCALE HOUSE BUILDING. REFER TO DESIGN INFORMATION ON THE LISTED SHEETS.

GENERAL ELECTRICAL NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, 2023 FLORIDA BUILDING CODE (8TH EDITION) AND OTHER APPLICABLE CODES & STANDARDS. FIRE ALARM SYSTEM SHALL COMPLY WITH REQUIREMENTS OF 2021 NFPA 101, 2019 NFPA 72 AND 2021 NFPA 1, UNIFORM FIRE CODE
- THE CONTRACTOR SHALL SATISFACTORILY REPAIR/REPLACE EQUIPMENT OR PART OF STRUCTURE DAMAGED AS A RESULT OF HIS WORK. SURFACES AND FINISHED AREAS SHALL BE RESTORED TO MATCH ADJACENT AREAS.
- APPROVAL SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO CUTTING OR DRILLING ANY STRUCTURAL SUPPORT MEMBER.
- ALL DEVICE BOXES SHALL BE INSTALLED FLUSH AND CONDUITS RUN CONCEALED IN FINISHED AREAS EXCEPT AS SPECIFICALLY SHOWN/ NOTED OTHERWISE.
- NOT USED.
- MINIMUM WIRE SIZE SHALL BE #12 THHN/THWN UNLESS OTHERWISE NOTED ON PLANS. CONDUCTORS #6 AND LARGER SHALL BE THWN.
- ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED ON PLANS.
- ALL CONDUCTORS SHALL BE RUN IN CONDUIT (METALLIC TYPE). PVC SCHEDULE 40 CAN BE USED FOR UNDERGROUND BRANCH/FEEDERS, AN EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC 250-122 MUST BE INSTALLED IN ALL CONDUIT, CONDUIT SIZE SHALL BE INCREASED AS REQUIRED.
- ALL MATERIALS SHALL BE U.L. APPROVED.
- ALL BRANCH CIRCUITS SHALL BE PROPERLY PHASE BALANCED.
- CONTRACTOR SHALL SEAL ALL FIRE RATED PENETRATIONS WITH A FIRE SEALANT EQUAL TO THE RATINGS OF THE PENETRATION.
- ALL EMPTY CONDUITS TO BE PROVIDED WITH NYLON PULL STRINGS.
- FUSES SHALL BE DUAL ELEMENT, TIME DELAY TYPE UNLESS OTHERWISE NOTED.
- RISERS ARE DIAGRAMMATIC ONLY. THEY DO NOT SHOW EVERY BEND REQUIRED FOR THE INSTALLATION.
- THESE DRAWING ARE A GUIDE FOR THE INSTALLATION OF ELECTRICAL SERVICE. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A FUNCTIONING SYSTEM.
- ALL CABLES SHALL BE RUN WITHOUT SPLICES. EXCEPT AS OTHERWISE INDICATED.
- ALL PULL AND JUNCTION BOXES SHALL BE ACCESSIBLE AT ALL TIMES.
- EXACT POINT & METHODS OF CONNECTIONS TO EQUIPMENT'S SHALL BE DETERMINED IN FIELD.
- ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER.
- MINIMUM UNDERGROUND CONDUIT SIZE FOR BRANCH CIRCUITS 1" PVC SCHEDULE 40.
- NON-LOCKING RECEPTACLES IN DAMP AND WET LOCATIONS SHALL BE LISTED WHEATER-PROOF (IN ADDITION TO PROVISION OF THE REQUIRED TYPE OF COVERS) AS PER NEC 406.9(A)&(B).
- NO ELECTRICAL CONDUIT SHALL BE FILLED ABOVE 40% OF CONDUIT AREA. IF ANY AREA REQUIRE ADDITIONAL CONDUITS FOR CONTROL, SECURITY OR OTHER LOW VOLTAGE WIRING, CONTRACTOR SHALL INSTALL ADDITIONAL CONDUITS AS NEEDED.
- CONTRACTOR SHALL SUBMIT SPECIFICATION SHEETS OF ALL NEW EQUIPMENT & WIRING FOR REVIEW AND APPROVAL, ALTERNATES CAN WILL BE EVALUATED IF MEET OF EXCEED THE REQUIRED SPECIFICATION.

CAUTION NOTES:

- IN ORDER TO PREVENT SOUND TRANSMISSION AND THE SPREAD OF FIRE, ALL BOXES MOUNTED ON FIRE RATED WALLS MUST BE STAGGERED AND BE WRAPPED WITH U.L. FIRE RATED MATERIAL EQUAL TO THE RATING OF WALL. THIS NOTE IS APPLICABLE EVEN WHEN BOXES FOR DEVICES ON DRAWING ARE SHOWN BACK TO BACK.
- ALL LOCATIONS OF OUTLETS WITHIN CABINETS, MUST BE COORDINATED WITH CABINET AND APPLIANCE MANUFACTURERS.
- LOCATION OF LIGHT FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS AND AFTER FINAL VERIFICATION WITH ARCHITECT.
- OWNER RESERVES THE RIGHT TO CHANGE THE LOCATIONS OF ANY WALL DEVICE PRIOR TO INSTALLATION AT NO ADDITIONAL COST. THEREFORE, COORDINATE WITH ARCHITECT AND/OR OWNER PRIOR TO ROUGHING-IN OF WALL DEVICES.

ABBREVIATIONS

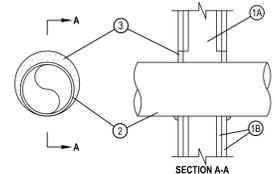
| | | | |
|------|------------------------|-------|--------------------------------------|
| A | AMPERE | 3R WP | WEATHER PROOF, NEMA 3R ENCLOSURE. |
| AFF | ABOVE FINISHED FLOOR | WL | LISTED WET LOCATION ENCLOSURE. |
| AWG | AMERICAN WIRE GAUGE | DL | LISTED DAMP LOCATION ENCLOSURE. |
| DL | DAMP LOCATION | E | EXISTING FIXTURE TO REMAIN. |
| DISC | DISCONNECT | RE | ELECTRICAL FIXTURE TO BE RELOCATED. |
| DWG | DRAWING | C.B. | ENCLOSED CIRCUIT BREAKER |
| JB | JUNCTION BOX | I.W.H | TANK-LESS INSTANT WATER HEATER |
| TYP | TYPICAL | E.W.H | TANK ELECTRIC WATER HEATER |
| KCML | THOUSAND CIRCULAR MILS | LTS | LIGHTS |
| XFMR | TRANSFORMER | NIC | NOT INCLUDED UNDER THIS DESIGN |
| | | MBJ | GROUNDING SYSTEM MAIN BONDING JUMPER |

GENERAL ELECTRICAL LEGEND

WIRING DEVICES

| | | | |
|---------------------|---|--------------------------------|---|
| | 20A, 120V, DUPLEX RECEPTACLE WALL MOUNTED. | | HAND DRYER, VERIFY CONNECTION REQUIREMENT. |
| | 20A, 120V, DUPLEX ISOLATED GROUND RECEPTACLE WALL MOUNTED. | | FLEXIBLE CONDUIT (NO LONGER THAN 6'-0") |
| | 20A, 120V, SINGLE RECEPTACLE. | | HOME RUN PANEL, CIRCUIT # 3 TICK MARKS DENOTE NUMBER OF WIRES: (U.I.O. # 12 IN 1/2" C). LONG MARKS NEUTRAL, SHORT MARKS HOT OR SWITCH LEGS, FIRST DOT MARK GREEN GROUND WIRE, SECOND DOT MARK ISOLATED GROUND WIRE (WHERE APPLY) |
| | 20A, 120V, QUAD RECEPTACLE. | | CENTER HUNG CABLE TRAY SYSTEM |
| | 20A, 120V, GROUND FAULT TYPE DUPLEX RECEPTACLE. | | INDICATES BRANCH CIRCUIT WIRING OR SWITCHING CONTROL. |
| | 20A, 120V, GROUND FAULT TYPE ABOVE COUNTER, DUPLEX RECEPTACLE. | | INDICATES LOADS CONNECTED TO THE SAME PANEL BRANCH CIRCUIT BUT SWITCHED IN SEPARATED GROUPS AS INDICATED. |
| | 20A, 120V, DUPLEX RECEPTACLE FLOOR MOUNTED. PROVIDE METALLIC FACE PLATE. | | TRANSIENT VOLTAGE SURGE SUPPRESSION DEVICE. (S-SERVICE ENTRANCE LEVEL, P-PANELBOARD LEVEL) (INTERMATIC OR APPROVED EQUAL) |
| | (2)20A, 120V, DUPLEX GFCI RECEPTACLE FLOOR MOUNTED. POKED THRU EXISTING SLAB AND CONNECTED FROM FLOOR BELOW, CONTRACTOR TO COORDINATE & VERIFY EACH LOCATION. | LIGHTING | |
| | COMBINATION RECEPTACLE AND LOW VOLTAGE OUTLETS, PEDESTAL MOUNTED (HEIGHT: 12"). RECEPTACLE & LOW VOLTAGE SPECIFICATION AS REQUIRED ON EACH CASE. | | UP/DOWN WALL MOUNTED LIGHT FIXTURE. |
| | 20A, 120V, DUPLEX RECEPTACLE PEDESTAL MOUNTED. PEDESTAL HEIGHT: 12". SUBMIT SPECIFICATION FOR APPROVAL. | | 2'X4' FLUORESCENT LIGHT FIXTURE |
| | 20A, 120V, GFCI DUPLEX RECEPTACLE FLOOR MOUNTED. PROVIDE METALLIC FACE PLATE. | | 2'X4' FLANGED FLUORESCENT LIGHT FIXTURE |
| | 20A, 120V, GFCI DUPLEX REC. PEDESTAL MOUNTED. PEDESTAL HEIGHT: 12". SUBMIT SPECIFICATION FOR APPROVAL. | | 1'X4' FLUORESCENT LIGHT FIXTURE |
| | 20A, 120V, DUPLEX RECEPTACLE CEILING MOUNTED. PROVIDE METALLIC FACE PLATE. | | 1'X4' FLUORESCENT LIGHT FIXTURE EMERGENCY LIGHT |
| | 208/240V, 3 PHASE POWER RECEPTACLE WALL MOUNTED. AMPACITY TO BE VERIFY W/EQUIPMENT SPECIFICATION. NEUTRAL REQUIREMENT TO BE VERIFIED. | | DOWNLIGHT FIXTURE |
| | 208/240V, 1 PHASE POWER RECEPTACLE WALL MOUNTED. AMPACITY TO BE VERIFY W/EQUIPMENT SPECIFICATION. NEUTRAL REQUIREMENT TO BE VERIFIED. | | DOWNLIGHT FIXTURE, EMERGENCY LIGHT |
| | LIGHT SWITCH, SILENT TYPE | | CORRIDOR LOBBIES CHANDELIER |
| | LIGHT SWITCH, SILENT TYPE 3WAY. | | HALL CHANDELIER |
| | MOTOR RATED SWITCH. | | CEILING VACANCY SENSOR TO CONTROL LIGHTS |
| | TWO POLES SWITCH RATED 240V/30A | | CEILING OCCUPANCY SENSOR TO CONTROL LIGHTS |
| | DIMMER SWITCH RATED FOR THE CONNECTED LOAD | | WALL MOUNTED LIGHT FIXTURES |
| | SINGLE SWITCH WITH OCCUPANCY SENSOR | | EXTERIOR WALLPACK LIGHT FIXTURE |
| DISTRIBUTION | | | WALL/CEILING EMERGENCY LIGHT FIXTURES W/BATTERY BACKUP 90 MINUTES MINIMUM, CONNECTED UNSWITCHED IN LOCAL LIGHTING CIRCUIT |
| | ELECTRICAL PANEL | | EXIT LIGHT, 120V, (W/BATTERY BACKUP 90 MINUTES MINIMUM). DARK AREA INDICATES FACE OF FIXTURE, ARROW INDICATES DIRECTION TO EXIT, CONNECTED UNSWITCHED IN LOCAL LIGHTING CIRCUIT. INTERNALLY ILLUMINATED EXIT SIGN SHALL NOT EXCEED 5W PER SIDE(FACE) FBC EC 405.4 |
| | ELECTRICAL METER | | LIGHT FIXTURE TYPE. SEE LUMINARIES SCHEDULE. |
| | DISCONNECT SWITCH CIRCUIT BREAKER TYPE. | COMMUNICATIONS/SECURITY | |
| | CEILING/WALL/FLOOR MOUNTED JUNCTION BOX. | | TELEVISION OUTLET WALL MOUNTED. |
| | FAN MOTOR. | | TELEPHONE OUTLET WALL MOUNTED. |
| | 120V AC PROVISION FOR POWER SUPPLY FOR CARD ACCESS (READER) CONTROL. REFER MANUF. MANUALS. | | EMERGENCY TELEPHONE OUTLET 48" A.F.F WALL MOUNTED. |
| | DISCONNECT SWITCH SIDE HANDLE TYPE | | COMBINATION OF TELEPHONE & DATA OUTLET WALL MOUNTED. (VERIFY LOCATIONS WITH OWNER). |
| | FUSED DISCONNECT SWITCH, SELECT POLES, VOLTAGE & FUSE SIZE AS PER MANUFACTURER SPEC, TYPICAL | | TELEPHONE BACKBOARD |

| System No. W-L-1054 | |
|---|--|
| ANSI/UL1479 (ASTM E814) | CANULC S115 |
| F Ratings — 1 and 2 Hr (See Items 1 and 3) | F Ratings — 1 and 2 Hr (See Items 1 and 3) |
| T Rating — 0 Hr | FT Rating — 0 Hr |
| L Rating at Ambient — Less Than 1 CFM/sq ft | FH Ratings — 1 and 2 Hr (See Items 1 and 3) |
| L Rating at 400 F — Less Than 1 CFM/sq ft | FTH Rating — 0 Hr |
| | L Rating at Ambient — Less Than 1 CFM/sq ft, Rating at 400 F — Less Than 1 CFM/sq ft |



1. Wall Assembly — 1 or 2 hr fire-rated gypsum wallboard/brick wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the dam opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the dam of the penetrating item such that, when the penetrating item is installed in the opening, it is 3 to 3 1/2 in. (76 to 89 mm) clearance is present between the penetrating item and the framing on all four sides.

B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and steel orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

The F and FH Ratings of the freestop system are equal to the fire rating of the wall assembly.

2. Through Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the freestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.

B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.

C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam steel conduit.

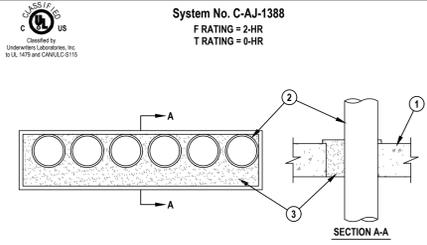
D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point of continuous contact between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — FS-One Sealant or FS-ONE MAX Intumescent Sealant

*Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Floor or Wall Assembly Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening 224 sq in. with max dimension of 32 in.

See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.

2. Conduit One or more nom 4 in. diam (or smaller) steel electrical metallic tubing or steel conduit to be installed either concentrically or eccentrically within the freestop system. The space between conduits or tubes shall be min 0 in. (point contact) to max 1/2 in. The annular space between the conduit or tube and periphery of opening shall be min 0 in. (point contact) to max 2-3/4 in. Conduit or tube to be rigidly supported on both sides of floor or wall assembly.

Conduit — Nom 4 in. diam (or smaller) steel electrical metallic conduit or steel conduit.

3. Fill, Void or Cavity Material*: Foam Min 5 in. thickness of fill material applied within the annulus, extending 1/2 in. above the top surface of the floor or both surfaces of wall and overlapping the concrete 1/2 in. on all sides of the opening.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP 620 Fire Foam

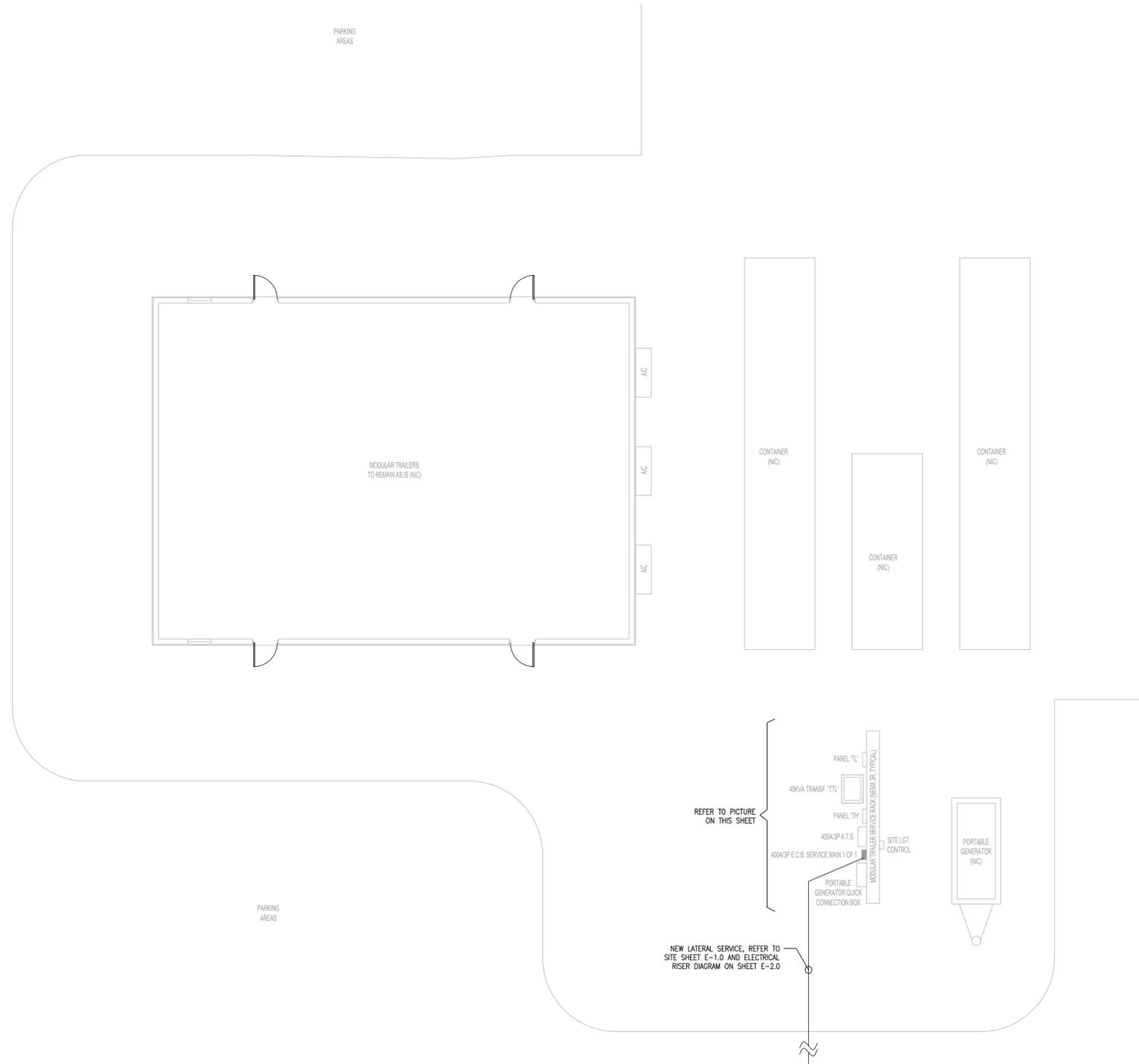
*Bearing the UL Classification Mark



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EXISTING SERVICE RACK PICTURE 2
SCALE: N.T.S. E-1.1



EXISTING MODULAR TRAILER ELECTRICAL ENLARGED DETAIL 1
SCALE: 1/8" = 1'-0" E-1.1

| REVISIONS |
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09-09-2025

SHEET TITLE
MODULAR TRAILER ELECTRICAL ENLARGED DETAIL
SHEET NO.
E-1.1



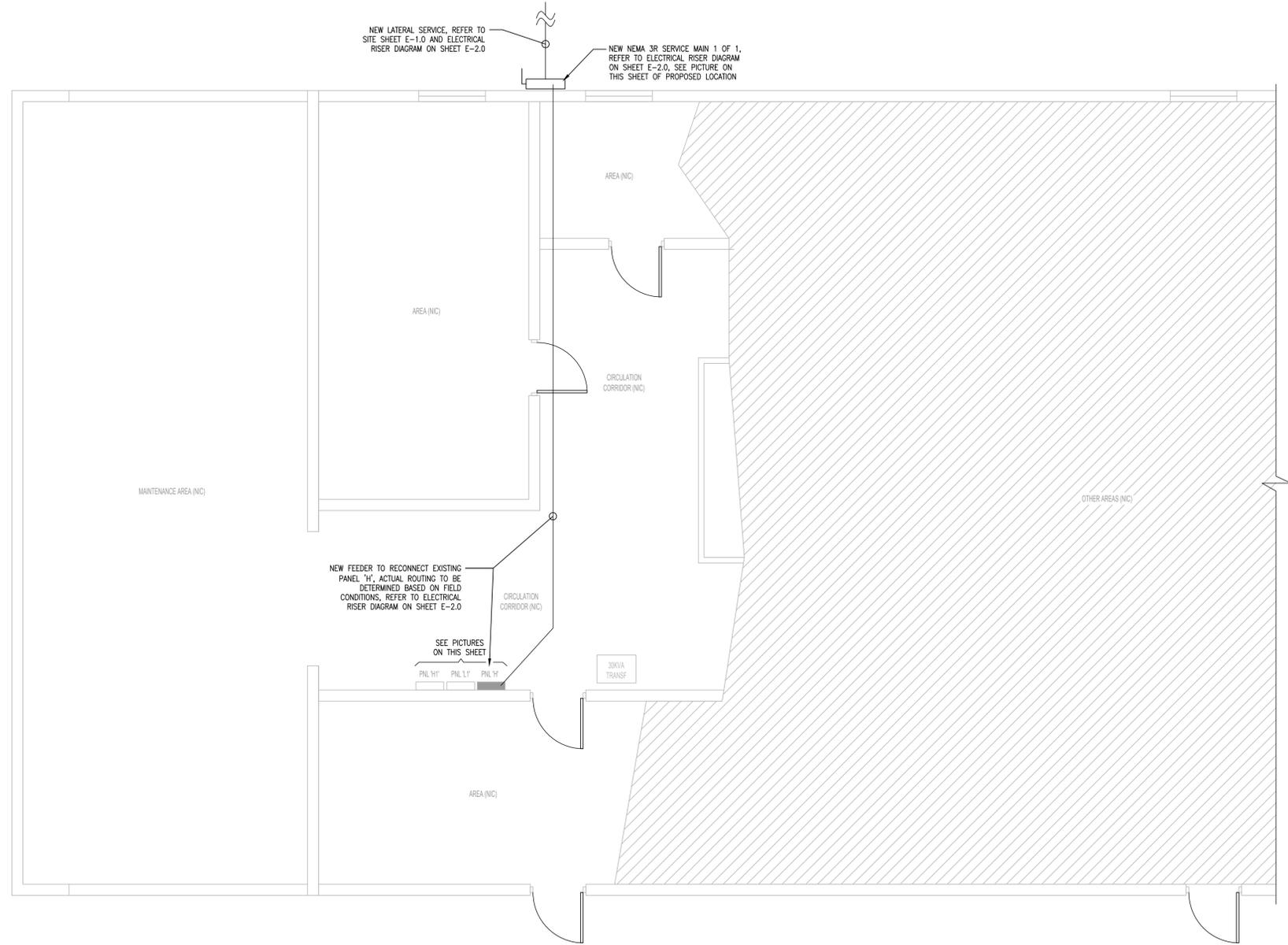
EXISTING EXTERIOR WALL PICTURE 2
SCALE: N.T.S. E-1.2



EXISTING ELECT PANELS PICTURE 3
SCALE: N.T.S. E-1.2



NEW GROUDING BAR LOCATION PICTURE 3
SCALE: N.T.S. E-1.2



EXISTING MAINTENANCE BUILDING ELECTRICAL ENLARGED DETAIL 1

16" 8" 4" 0" SCALE: 1/4" = 1'-0"

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SHEET TITLE
MAINTENANCE BLDG
ELECTRICAL
ENLARGED DETAIL

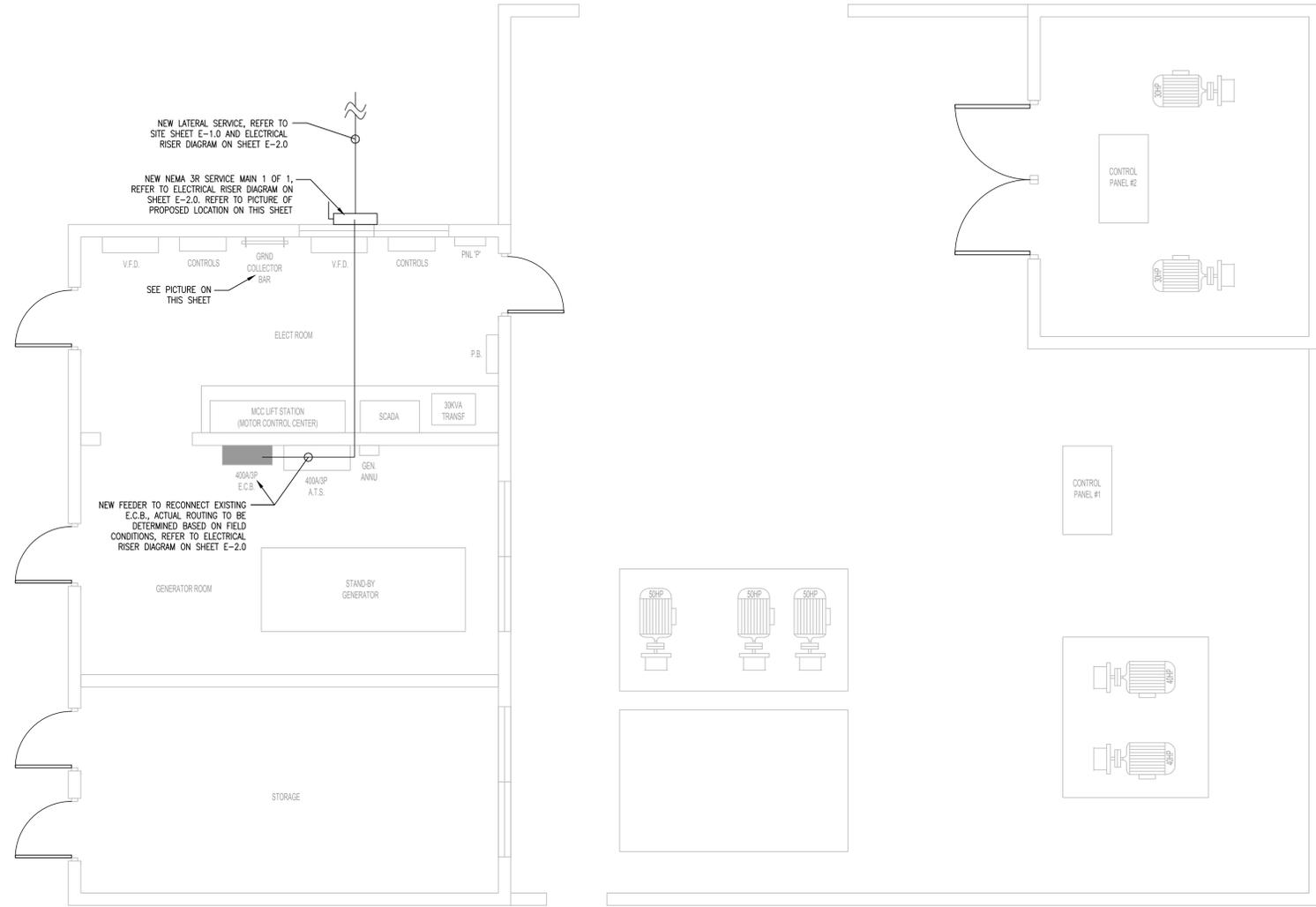
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E-1.2



EXISTING EXTERIOR WALL PICTURE 2
SCALE: N.T.S. E-1.3



EXISTING GROUDING BAR PICTURE 3
SCALE: N.T.S. E-1.3



EXISTING LIFT STATION BLDG 938 ELECTRICAL ENLARGED DETAIL 1
SCALE: 1/4" = 1'-0" E-1.3

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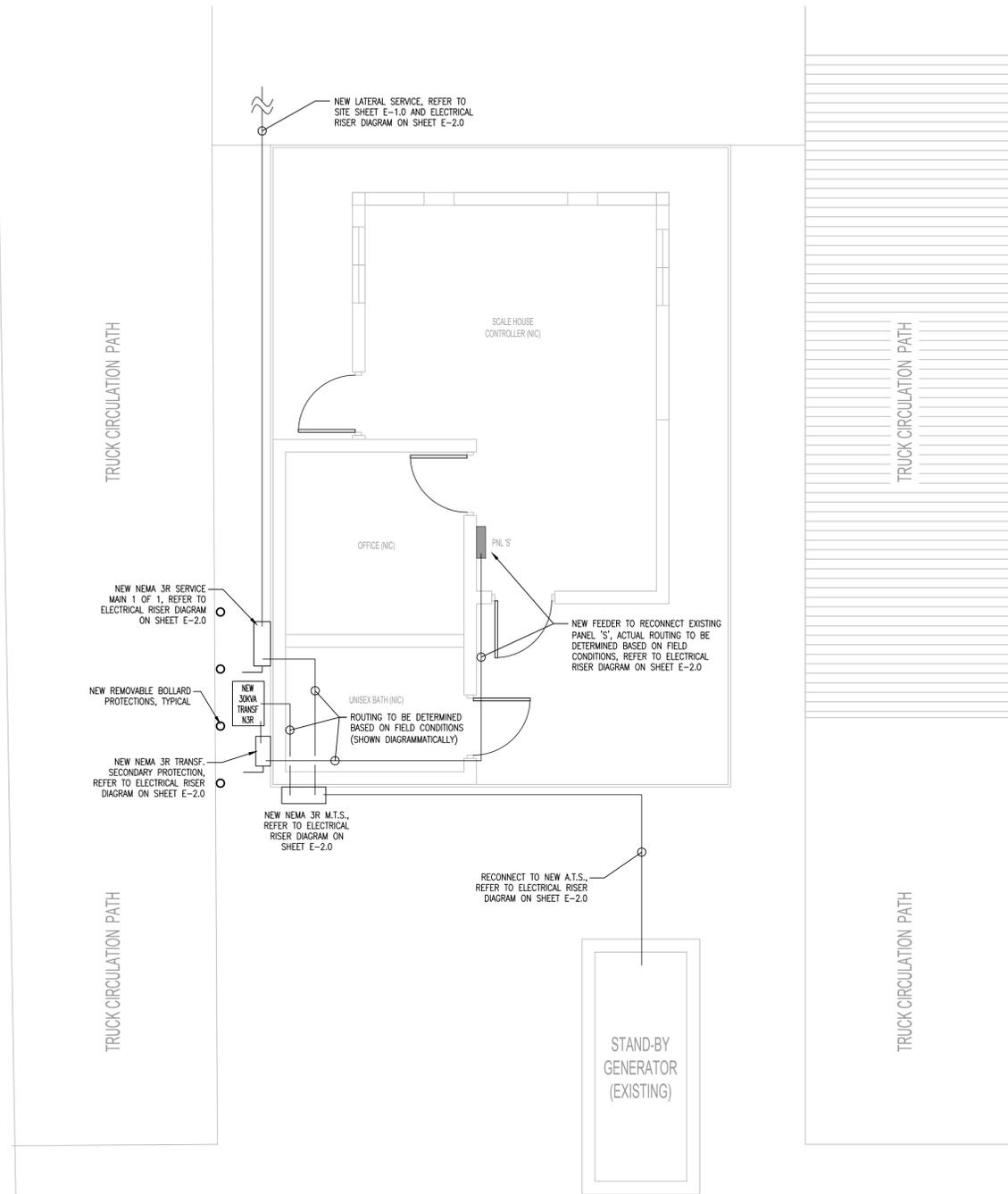
SHEET TITLE
LIFT STATION BLDG 938
ELECTRICAL ENLARGED DETAIL
SHEET NO.
E-1.3



EXISTING EXTERIOR WALL PICTURE 2
SCALE: N.T.S. E-1.4

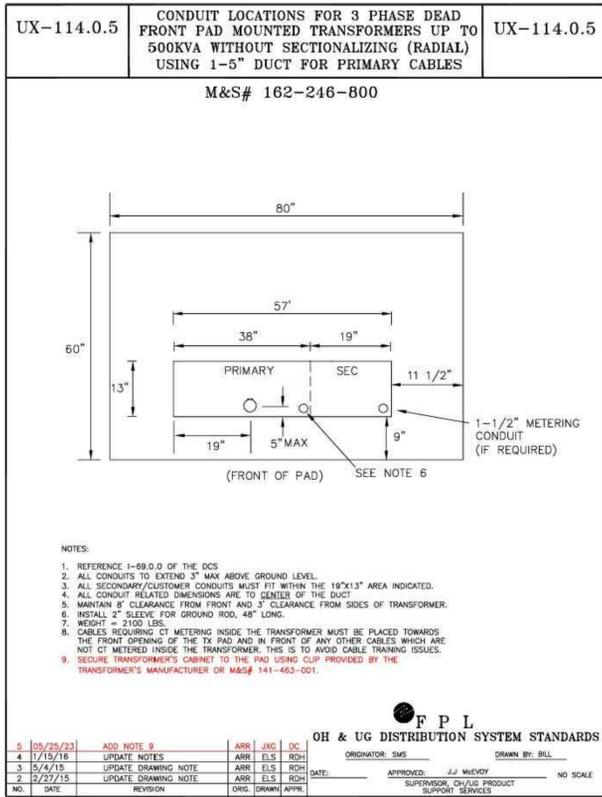


EXISTING ELECT PANEL PICTURE 3
SCALE: N.T.S. E-1.4

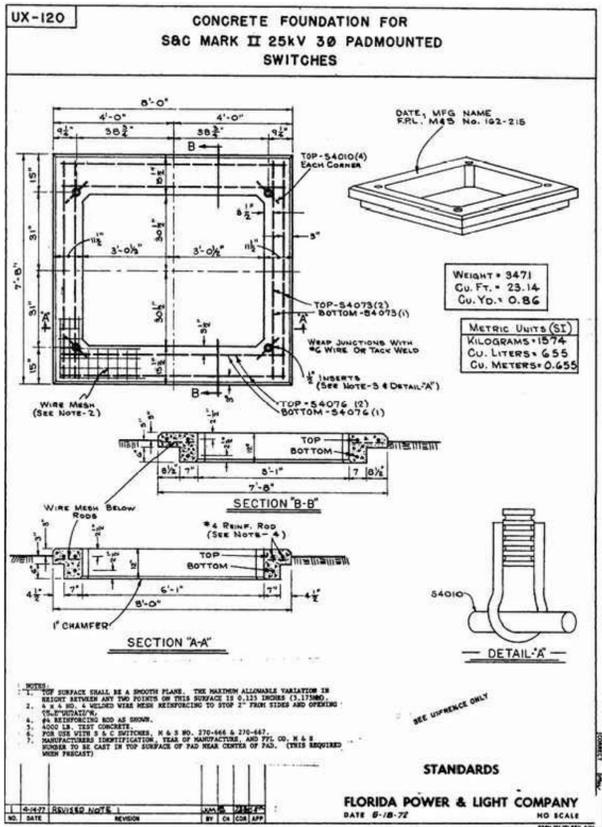


EXISTING SCALE HOUSE ELECTRICAL ENLARGED DETAIL 1
SCALE: 1/4" = 1'-0"

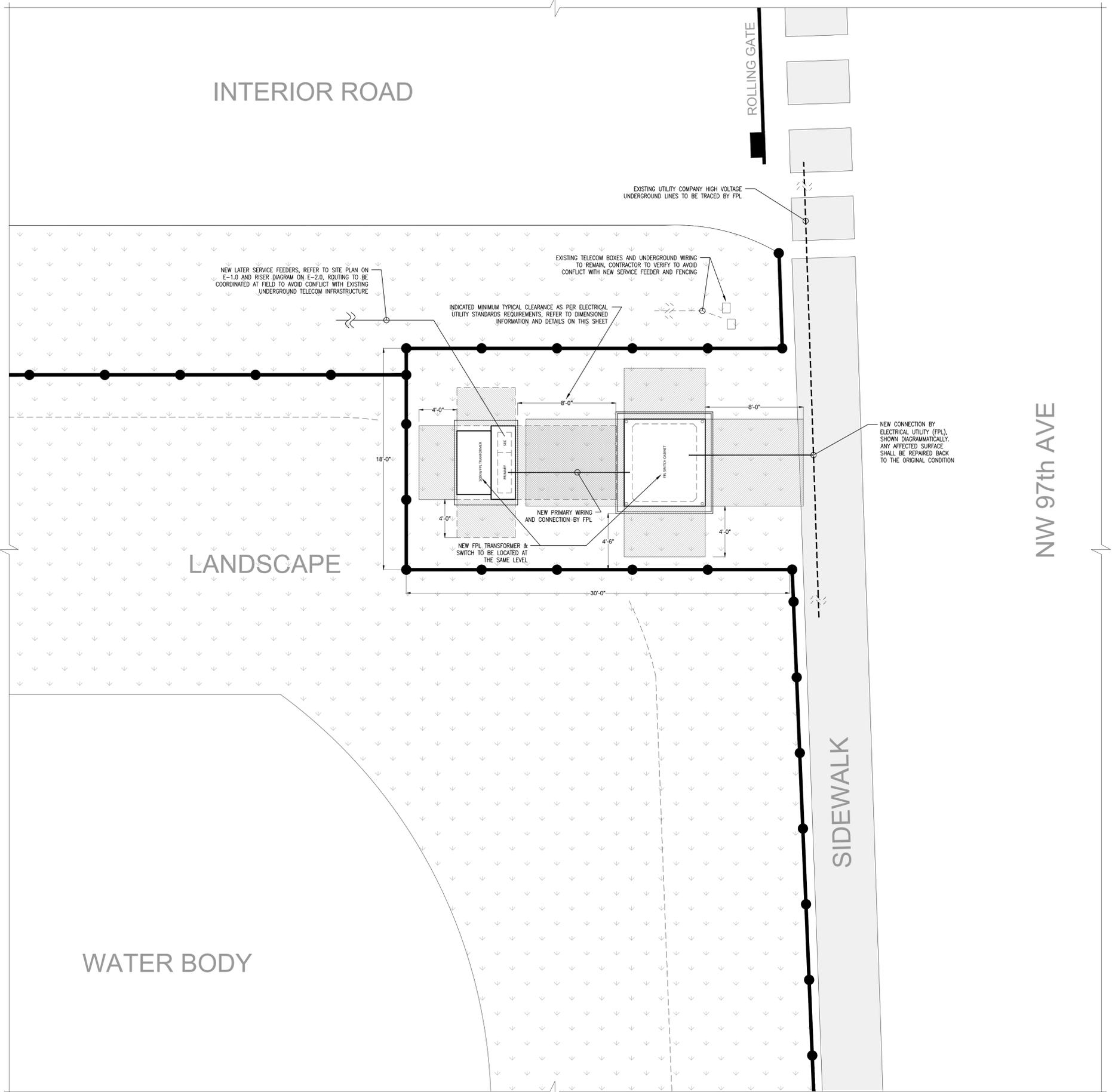
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500KW CONCRETE PAD DETAIL 2
PROVIDED AS COURTESY BY FPL SCALE: N.T.S. E-1.5



SWITCH CONCRETE PAD DETAIL 3
PROVIDED AS COURTESY BY FPL SCALE: N.T.S. E-1.5



NEW TRANSFORMER & SWITCH LOCATIONS ENLARGED DETAIL 1
SCALE: 1/4" = 1'-0"

MIAMI-DADE COUNTY

APPLICANT:
Miami-Dade County Public Works and Waste Management Department

6990 NW 97 ST
Doral, FL 33178

EDP PROJECT:
EDP-SW-18611-25

ELECTRICAL SERVICES DESIGN FOR SITE UTILITY RELOCATION AT RRF

ANTONIO NARANJO PE3564
TEL: 305-477-0060
10590 N.W. 27 ST. SUITE 101 MIAMI FL 33172

MEP MECHANICAL / ELECTRICAL ENGINEER
ELECTRICAL PLUMBING (#E30006115)
MEP ENGINEERING INC.

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FLORIDA LICENSE PE3564

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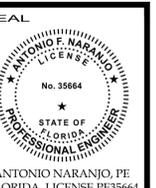
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SHEET TITLE
NEW TRANSFORMER & SWITCH CABINET LOCATIONS DETAIL

SHEET NO.
E-1.5



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SHEET TITLE
ELECTRICAL PANEL SCHEDULES

SHEET NO.
E-2.1

NEW SERVICE MAIN 1 OF 1 CALCULATED DEMAND FOR EXISTING SCALE HOUSE BLDG

TYPE: SQ-D PANELBOARD
VOLTAGE: 120/208V, 3PH, 4W
MAIN: 100A/3P/10K A.I.C. M.C.B.
AIC RATINGS: 10K A.I.C.

EXISTING PANEL "S"
(SHOWN FOR SERVICE CALCULATION ONLY)

ENCLOSURE: SURFACE, NEMA 1
MODIFICATION: GROUND BUS
LOCATION: SCALE HOUSE BLDG.
SEE FLOOR PLAN
FED FROM: NEW SERVICE MAIN VIA MTS/TRANSF. SEE RISER

| SERVING | WIRE AND COND SIZE | LOAD KVA | POLE TRIP | CIRC. No. | PHASE A B C | CIRC. No. | POLE TRIP | LOAD KVA | WIRE AND COND SIZE | SERVING |
|-------------------------------|--------------------|-----------------|-----------|-----------|-------------|-----------|-----------|----------|--------------------|--------------------------|
| PANEL MAIN CIRCUIT BREAKER | EXISTING | SEE CALCULATION | 3 | 1 | • | 2 | --- | --- | --- | SPACE |
| | | | | 3 | • | 4 | --- | --- | --- | SPACE |
| | | | | 5 | • | 6 | --- | --- | --- | SPACE |
| EXISTING RECEPTACLE | EXISTING | 0.36 | 1 | 20 | • | 8 | 1 | 0.10 | EXISTING | EXISTING BATH LIGHT |
| EXISTING CU-1 | EXISTING | 3.70 | 2 | 30 | • | 10 | 1 | 0.80 | EXISTING | EXISTING SCALE EQUIPM. |
| | | | | 11 | • | 12 | 1 | --- | --- | EXISTING SPARE |
| EXISTING AHU-1 | EXISTING | 2.08 | 2 | 30 | • | 14 | 2 | 0.60 | EXISTING | EXISTING LOAD |
| | | | | 15 | • | 16 | 2 | --- | --- | SPACE |
| EXISTING TIME CLOCK | EXISTING | 0.20 | 1 | 20 | • | 18 | 1 | 0.40 | EXISTING | EXISTING LOAD |
| EXISTING LOAD | EXISTING | 0.30 | 1 | 20 | • | 20 | 1 | 0.40 | EXISTING | EXISTING LOAD |
| EXISTING SUBPANEL | EXISTING | 5.00 | 2 | 20 | • | 22 | 1 | 1.50 | EXISTING | EXISTING BATH HAND DRYER |
| | | | | 23 | • | 24 | --- | --- | --- | SPACE |
| EXISTING SPARE | --- | --- | 2 | 20 | • | 26 | 2 | --- | --- | SPACE |
| | | | | 27 | • | 28 | 2 | --- | --- | SPACE |
| EXISTING TRANSPOUNDER CONTROL | EXISTING | 0.25 | 1 | 20 | • | 30 | --- | --- | --- | SPACE |
| EXISTING TRANSPOUNDER CONTROL | EXISTING | 0.25 | 1 | 20 | • | 32 | 1 | --- | --- | SPACE |
| EXISTING SPARE | --- | --- | 1 | 20 | • | 34 | 1 | --- | --- | SPACE |
| EXISTING SPARE | --- | --- | 1 | 20 | • | 36 | 1 | --- | --- | SPACE |
| EXISTING SPARE | --- | --- | 1 | 20 | • | 38 | 1 | --- | --- | SPACE |
| EXISTING SPARE | --- | --- | 1 | 20 | • | 40 | 2 | 2.04 | EXISTING | EXISTING SUMP PUMP |
| EXISTING SPARE | --- | --- | 1 | 20 | • | 42 | 2 | --- | --- | SPACE |

CONNECTED LOAD: 18,280VA

EXISTING LARGEST MOTOR: 1HP

PANEL DEMAND LOAD CALCULATION:
NON CONTINUOUS LOAD @ 100% = 15,580VA
CONTINUOUS LOAD @ 125% = 3,375VA
LARGEST MOTOR @ 25% = 0,832VA
CALCULATED DEMAND = 19,687VA (55A)

NEW SERVICE MAIN 1 OF 1 CALCULATED DEMAND FOR EXISTING MAINTENANCE BLDG

TYPE: SIEMENS PANELBOARD
VOLTAGE: 480/277V, 3PH, 4W
MAIN: 250A/3P/42K A.I.C. M.C.B.
AIC RATINGS: 42K A.I.C.

EXISTING PANEL "H"
(SHOWN FOR SERVICE CALCULATION ONLY)

ENCLOSURE: SURFACE, NEMA 1
MODIFICATION: GROUND BUS
LOCATION: MAINTENANCE BLDG.
SEE FLOOR PLAN
FED FROM: NEW SERVICE MAIN SEE RISER

| SERVING | WIRE AND COND SIZE | LOAD KVA | POLE TRIP | CIRC. No. | PHASE A B C | CIRC. No. | POLE TRIP | LOAD KVA | WIRE AND COND SIZE | SERVING |
|-------------------------|--------------------|----------|-----------|-----------|-------------|-----------|-----------|----------|--------------------|--------------------------------------|
| EXISTING AHU-1 | EXISTING | 23.0 | 3 | 3 | • | 2 | 3 | 7.00 | EXISTING | EXISTING RTU (WEST) |
| | | | | 4 | • | 4 | --- | --- | --- | SPACE |
| | | | | 5 | • | 6 | --- | --- | --- | SPACE |
| EXISTING RTU (EAST) | EXISTING | 7.00 | 3 | 50 | • | 8 | 3 | 7.00 | EXISTING | EXISTING RTU (NORTH) |
| | | | | 9 | • | 10 | --- | --- | --- | SPACE |
| EXISTING AIR COMPRESSOR | EXISTING | 6.00 | 3 | 20 | • | 12 | 3 | 10.0 | EXISTING | EXISTING CU-1 |
| | | | | 13 | • | 14 | 3 | --- | --- | SPACE |
| | | | | 15 | • | 16 | --- | --- | --- | SPACE |
| EXISTING SUBPANEL | EXISTING | 15.0 | 3 | 20 | • | 18 | 3 | 12.0 | EXISTING | EXISTING LOAD |
| | | | | 19 | • | 20 | 3 | --- | --- | SPACE |
| EXISTING LOAD | EXISTING | 6.00 | 3 | 60 | • | 22 | 3 | 32.0 | EXISTING | EXISTING PANEL "L" VIA 45KVA TRANSF. |
| | | | | 23 | • | 24 | --- | --- | --- | SPACE |
| | | | | 25 | • | 26 | 3 | --- | --- | SPACE |
| | | | | 27 | • | 28 | --- | --- | --- | SPACE |
| | | | | 29 | • | 30 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 31 | • | 32 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 33 | • | 34 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 35 | • | 36 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 37 | • | 38 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 39 | • | 40 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 41 | • | 42 | --- | --- | --- | SPACE |

CONNECTED LOAD: 125,000VA

EXISTING LARGEST MOTOR: 5HP

PANEL DEMAND LOAD CALCULATION:
NON CONTINUOUS LOAD @ 100% = 125,000VA
CONTINUOUS LOAD @ 125% = 0,000VA
LARGEST MOTOR @ 25% = 1,500VA
CALCULATED DEMAND = 126,500VA (152A)

NEW SERVICE MAIN 1 OF 1 CALCULATED DEMAND FOR EXISTING MODULAR TRAILERS

TYPE: SD-D PANELBOARD
VOLTAGE: 480/277V, 3PH, 4W
MAIN: 400A/3P/25K A.I.C. M.C.B.
AIC RATINGS: 25K A.I.C.

EXISTING PANEL "TH"
(SHOWN FOR SERVICE CALCULATION ONLY)

ENCLOSURE: SURFACE, NEMA 3R
MODIFICATION: GROUND BUS
LOCATION: MODULAR SERVICE RACK
SEE FLOOR PLAN
FED FROM: NEW SERVICE MAIN, SEE RISER

| SERVING | WIRE AND COND SIZE | LOAD KVA | POLE TRIP | CIRC. No. | PHASE A B C | CIRC. No. | POLE TRIP | LOAD KVA | WIRE AND COND SIZE | SERVING |
|--------------------------------------|--------------------|----------|-----------|-----------|-------------|-----------|-----------|----------|--------------------|-------------------------------|
| EXISTING MODULAR TRAILER PANEL | EXISTING | 56.0 | 3 | 3 | • | 2 | 3 | 6.00 | EXISTING | EXISTING CONTAINER #3 |
| | | | | 4 | • | 4 | --- | --- | --- | SPACE |
| | | | | 5 | • | 6 | --- | --- | --- | SPACE |
| EXISTING MODULAR TRAILER PANEL | EXISTING | 41.8 | 3 | 125 | • | 8 | 3 | 24.0 | EXISTING | EXISTING CONTAINER #1 AND #2 |
| | | | | 9 | • | 10 | --- | --- | --- | SPACE |
| | | | | 11 | • | 12 | --- | --- | --- | SPACE |
| EXISTING PANEL "L" VIA 45KVA TRANSF. | EXISTING | 45.0 | 3 | 100 | • | 14 | 3 | --- | --- | EXISTING SPARE BREAKER |
| | | | | 15 | • | 16 | --- | --- | --- | SPACE |
| | | | | 17 | • | 18 | --- | --- | --- | SPACE |
| EXISTING CONTAINER #3 | EXISTING | 12.0 | 3 | 70 | • | 20 | 1 | 0.20 | EXISTING | EXISTING SERV. RACK GFCI REC. |
| | | | | 21 | • | 22 | --- | --- | --- | SPACE |
| | | | | 23 | • | 24 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 25 | • | 26 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 27 | • | 28 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 29 | • | 30 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 31 | • | 32 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 33 | • | 34 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 35 | • | 36 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 37 | • | 38 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 39 | • | 40 | --- | --- | --- | SPACE |
| SPACE | --- | --- | --- | 41 | • | 42 | --- | --- | --- | SPACE |

CONNECTED LOAD: 185,000VA

EXISTING LARGEST MOTOR: 3HP

PANEL DEMAND LOAD CALCULATION:
NON CONTINUOUS LOAD @ 100% = 185,000VA
CONTINUOUS LOAD @ 125% = 0,000VA
LARGEST MOTOR @ 25% = 1,000VA
CALCULATED DEMAND = 186,000VA (224A)

NEW SERVICE MAIN 1 OF 1 CALCULATED DEMAND FOR EXISTING LIFT STATION BLDG

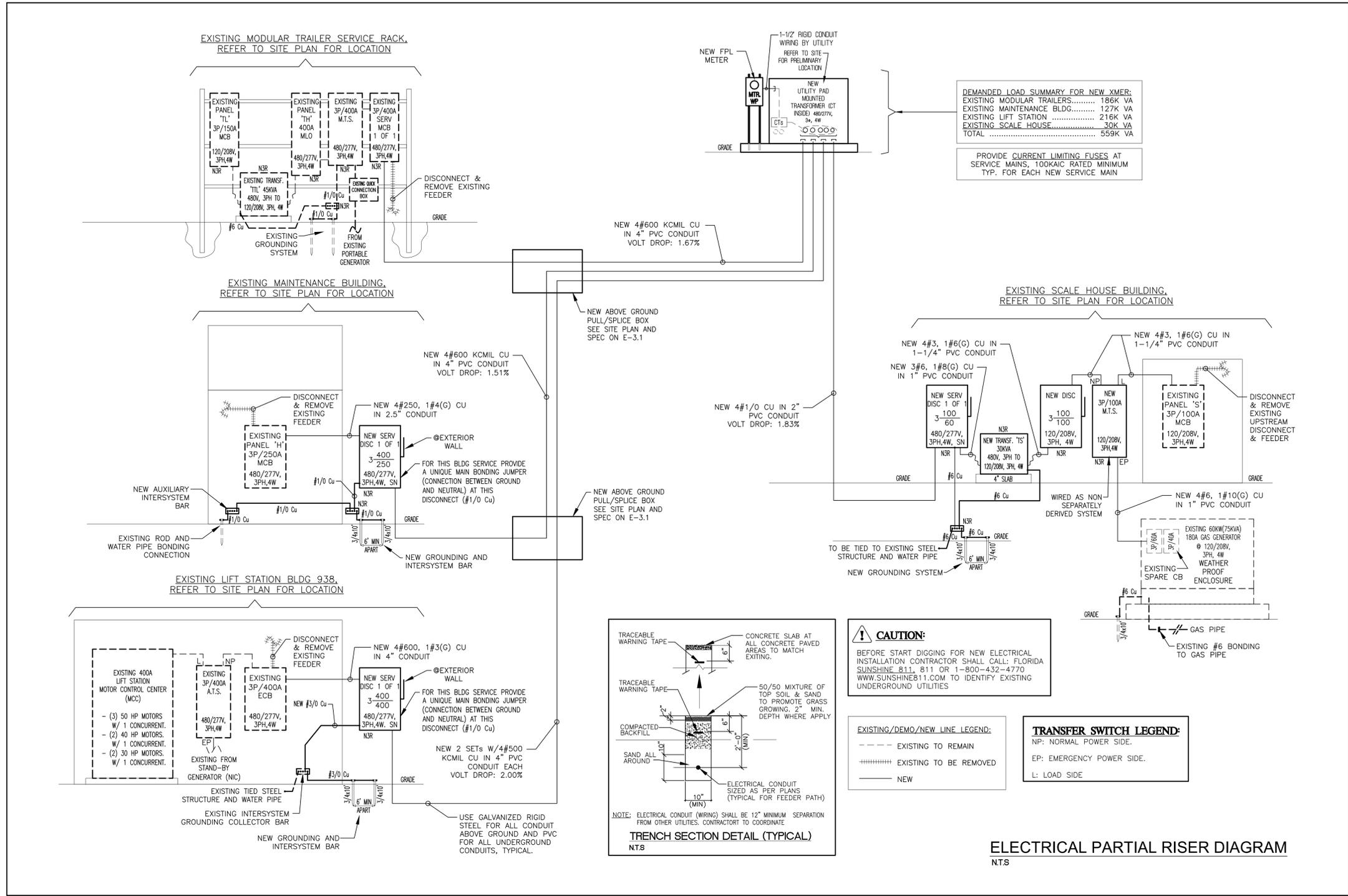
TYPE: SIEMENS MOTOR CONTROL CENTER
VOLTAGE: 480/277, 3PH, 4W
MAINS: 400A/3P M.C.B.
AIC RATINGS: 22K A.I.C.

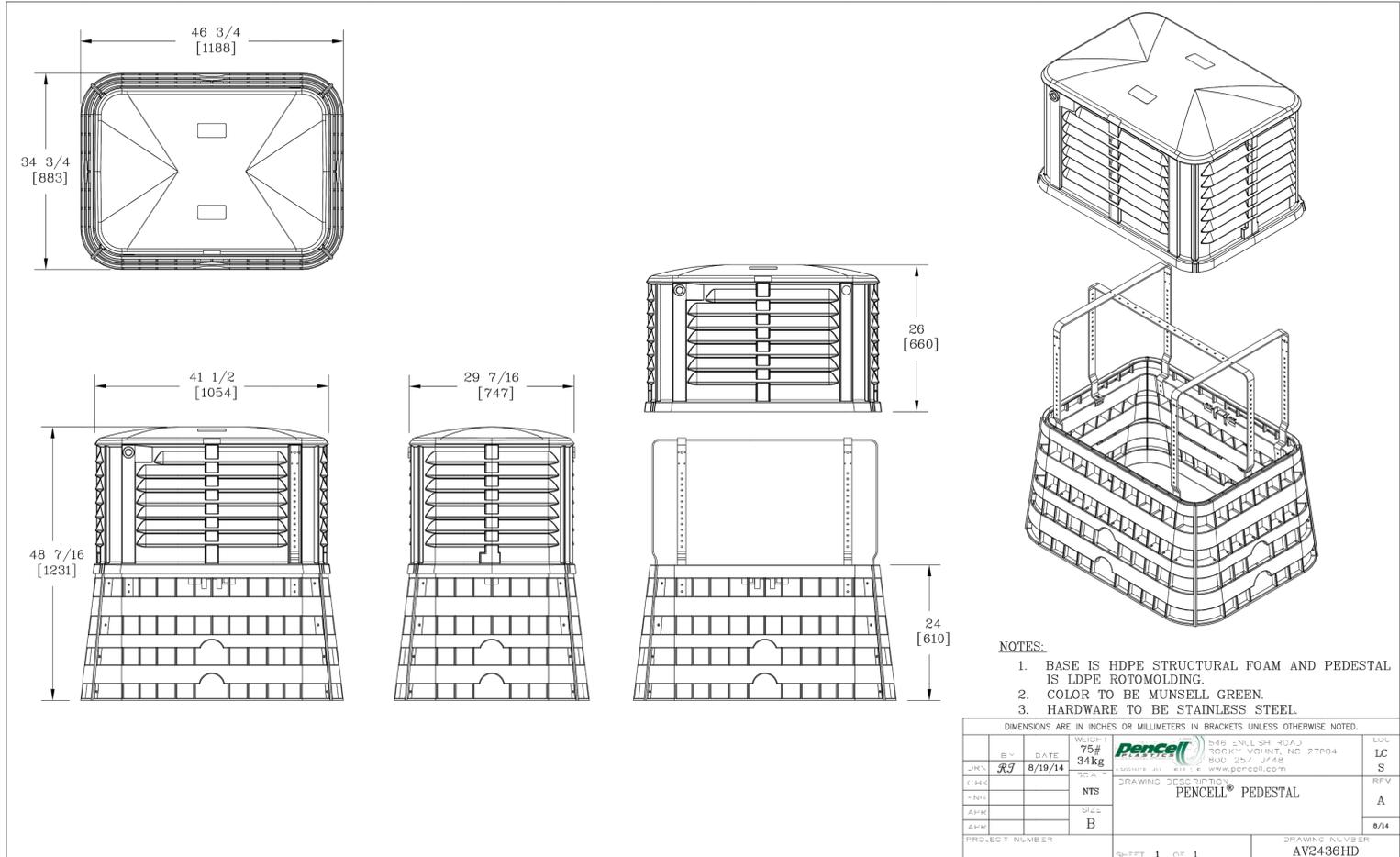
EXISTING PANEL "MCC" LIFT STATION
(SHOWN FOR SERVICE CALCULATION ONLY)

ENCLOSURE: STANDING, NEMA 1
MODIFICATION: GROUND BUS
LOCATION: ELECT RM, SEE PLANS
FED FROM: NEW SERVICE MAIN, VIA EXISTING ATS, SEE RISER

| CKT. | SERVING | DEMAND | | PROTECTION | | CONDUIT AND WIRING | REMARKS |
|------|---|--------|------|------------|-----|--|------------------------|
| | | KVA | AMP | POLES | CB | | |
| 1 | EXISTING CTRL PNL #2 (2)30HP PUMPS | 68.2 | 82 | 3 | 150 | EXISTING WIRING TO CONTROL PANEL #2 REMAIN (NIC) | ONLY ONE IS CONCURRENT |
| 2 | EXISTING SUB-PNL #P (VIA 30KVA TRANSF.) | 30.0 | 36 | 3 | 60 | EXISTING WIRING TO REMAIN (NIC) | |
| 3 | EXISTING CTRL PNL #1 (2)40HP PUMPS | 90.1 | 110 | 3 | 200 | EXISTING WIRING TO CONTROL PANEL #1 REMAIN (NIC) | ONLY ONE IS CONCURRENT |
| 5 | EXISTING INFLOW PUMP #1 (1)50HP PUMP | 49.1 | 29.1 | 3 | 100 | EXISTING WIRING TO CONTROL PANEL #1 REMAIN (NIC) | |
| 6 | EXISTING INFLOW PUMP #2 (1)50HP PUMP | 49.1 | 29.1 | 3 | 100 | EXISTING WIRING TO CONTROL PANEL #1 REMAIN (NIC) | NON CONCURRENT |
| 7 | EXISTING INFLOW PUMP #3 (1)50HP PUMP | 49.1 | 29.1 | 3 | 100 | EXISTING WIRING TO CONTROL PANEL #1 REMAIN (NIC) | NON CONCURRENT |
| 8 | EXISTING SCADA CONTROLS | 5.00 | 6.0 | 3 | 20 | EXISTING WIRING TO REMAIN (NIC) | |
| 9 | EXISTING SPACE | --- | --- | --- | --- | | |

PANEL DEMAND LOAD CALCULATION:
NON CONTINUOUS LOAD @ 100% = 161,980VA
CONTINUOUS LOAD @ 125% = 0,000VA
LARGEST MOTOR @ 25% = 12,299VA
MCC CAPACITY SPARE = 41,721VA
CALCULATED DEMAND = 216,000VA (260A)





- NOTES:
1. BASE IS HDPE STRUCTURAL FOAM AND PEDESTAL IS LDPE ROTOMOLDING.
 2. COLOR TO BE MUNSSELL GREEN.
 3. HARDWARE TO BE STAINLESS STEEL.

DIMENSIONS ARE IN INCHES OR MILLIMETERS IN BRACKETS UNLESS OTHERWISE NOTED.

| | | | | |
|-----|---------|-------------|----|-----|
| REV | DATE | DESCRIPTION | BY | CHK |
| REF | 8/19/14 | NTS | | |
| | | B | | |

PROJECT NUMBER: SHEET 1 OF 1 DRAWING NUMBER: AV2436HD

HUBBELL Power Systems

AV2436, Secondary Pedestal Assembly, LDPE

By Pencil
Catalog # AV2436HD

AV2436, Secondary Pedestal Assembly, LDPE Plastic Base and Dome



*Representative Image

- Features**
- Meets requirements of typical Electric and Communications applications
 - Made of high density polyethylene structural foam
 - Various domes (Covers) available
 - Non-Ferrous hardware, including captive securing bolt
 - excellent environmental resistance
 - available with or without connectors

Dimensions

| | |
|------------|-----------------------------------|
| Dimensions | 41.5 in x 29.4375 in x 42.4375 in |
| Height | 42.4375 in |
| Length | 41.5 in |
| Weight | 68 lb |
| Width | 29.4375 in |

- General**
- | | |
|----------------|--------------|
| Catalog Number | AV2436HD |
| Insulated? | No |
| Material | LDPE Plastic |

Product Assets

Catalogs - Above Ground Enclosures - Pad Mounted Equipment Solutions
Sales Drawings - PEDESTAL
Specifications - AV2436HD



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PEN-AV2436HD-SPEC-EN | REV 7/2025

This item has been digitally signed and sealed by Antonio Naranjo, PE, on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

REVISIONS

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| | |

DRAWN BY: MG/MCDVIG
SCALE: AS SHOWN
DATE: 09-09-2025

SHEET TITLE: ELECTRICAL PULL BOX SPECIFICATION

SHEET NO.: E-3.1

The information on this sheet was downloaded from the Hubbell Power System Website