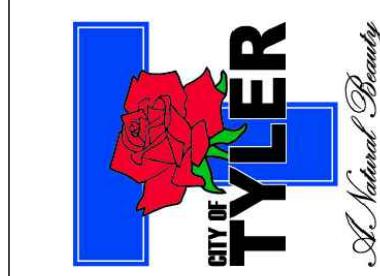
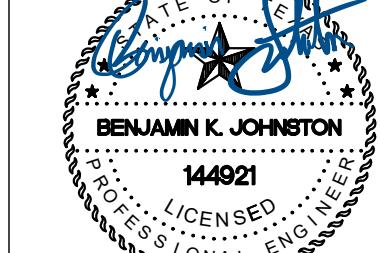


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120 NORTH RIVER ROAD
RICHARDSON, TX 75081-2275
(214) 348-6200



08-10-2023

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TEPSI ENGINEERING FIRM #12

| PANELBOARD SCHEDULE - "SR" SOUTH RESTROOM ELECTRICAL PANEL (EXISTING) | | | | | | | | | | |
|---|--------------|---------------|---------|-------|------|------|------|---------------|--------------|------------------------------|
| DESIGNATION | POLES & AMPS | LOAD, VA LTC. | RECEPT. | OTHER | C K | P K | C K | LOAD, VA LTC. | POLES & AMPS | DESIGNATION |
| EXISTING LIGHTS AND RECEPTACLE | 1/20 | 500 | 500 | | 1 | A | 2 | 1500 | 1/20 | EXISTING HAND DRYER WOMENS |
| EXISTING EXTERIOR LIGHT | 1/20 | 500 | | | 3 | C | 4 | 1500 | 1/20 | EXISTING HAND DRYER MENS |
| EXISTING WATER HEATER | 2/30 | | | 1500 | 5 | A | 6 | 500 | 2600 | 2/50 EXISTING NORTH RESTROOM |
| - | | | | 1500 | 7 | C | 8 | 500 | 2600 | - |
| TRAIL LIGHTING | 2/20 | 470 | | | 9 | A | 10 | | | SPACE |
| - | | 470 | | | 11 | C | 12 | | | SPACE |
| TRAIL LIGHTING | 2/20 | 505 | | | 13 | A | 14 | | | SPACE |
| - | | 505 | | | 15 | C | 16 | | | SPACE |
| LIGHTING CONTROLS | 1/20 | 200 | | | 17 | A | 18 | | | SPACE |
| SPACE | | | | 19 | C | 20 | | | | SPACE |
| SPACE | | | | 21 | A | 22 | | | | SPACE |
| SPACE | | | | 23 | C | 24 | | | | SPACE |
| SPACE | | | | 25 | A | 26 | | | | SPACE |
| SPACE | | | | 27 | C | 28 | | | | SPACE |
| SPACE | | | | 29 | A | 30 | | | | SPACE |
| SPACE | | | | 31 | C | 32 | | | | SPACE |
| SECTION SUB-TOTALS | | 3150 | 500 | 3000 | | 1000 | 1000 | 8200 | | SECTION SUB-TOTALS |
| CATEGORY | CONN. LOAD | DESIGN LOAD | | | | | | | | |
| | KVA | AMPS | DIV. | KVA | AMPS | | | | | |
| LIGHTING: | 4.2 | 17.3 | 1.25 | 5.2 | 21.6 | | | | | |
| RECEPTACLE: | 1.5 | 6.3 | 1.00 | 1.5 | 6.3 | | | | | |
| MOTORS: | 11.2 | 46.7 | 1.00 | 11.2 | 46.7 | | | | | |
| SPECIAL LOADS: | 0.0 | 0.0 | 1.00 | 0.0 | 0.0 | | | | | |
| ELECTRIC HEATING: | 0.0 | 0.0 | 1.00 | 0.0 | 0.0 | | | | | |
| WATER HEATING: | 0.0 | 0.0 | 1.00 | 0.0 | 0.0 | | | | | |
| TOTAL: | 16.9 | 70.2 | | 17.9 | 74.5 | | | | | |

| LIGHTING FIXTURE SCHEDULE | | | | | | | |
|---------------------------|--------------|-----------------------------------|-------|-----|--------|---------|--|
| TYPE | MANUFACTURER | MODEL NUMBER | LAMPS | VA | TEMP. | VOLTAGE | DESCRIPTION |
| A | LITHONIA | RADP TP4 35K PATH MVOLT PT4 DDBXD | LED | 70 | 3500 K | MVOLT | POLE MOUNTED LIGHTING FIXTURE, 10,000 LUMENS, PATH DISTRIBUTION, DARK BRONZE FINISH |
| | LITHONIA | RSS 14' 4B PT DDBXD | | | | | 4 IN ROUND POLE, 14' HEIGHT, BRONZE FINISH: LUMINAIRE ON TOP OF POLE |
| B | LITHONIA | RSX1 LED P4 40K R4 | LED | 101 | 4000 K | MVOLT | POLE MOUNTED LIGHTING FIXTURE, 17,000 LUMENS, TYPE 5 DISTRIBUTION, NON-DIMMING, DARK BRONZE FINISH |
| | LITHONIA | SSS 25 SCDM19A DDBXD | | | | | 4 IN SQUARE POLE, 25' HEIGHT, BRONZE FINISH: LUMINAIRE ON TOP OF POLE |

SPECIFICATIONS

SECTION 260000 - ELECTRICAL

PART 1 - GENERAL

1.1 BASIC REQUIREMENTS

- GENERAL: FURNISH AND INSTALL ALL LABOR MATERIAL, EQUIPMENT, TOOLS AND SERVICES NECESSARY TO PROVIDE THE FULLY COMPLETELY OPERATIONAL ELECTRICAL SYSTEMS DIAGRAMMATICALLY REPRESENTED ON THE PLANS AND DESCRIBED IN THESE SPECIFICATIONS.
- PROVIDE THE ELECTRICAL POWER DISTRIBUTION AND LIGHTING SHOWN ON THE DRAWINGS.
- CODE COMPLIANCE: COMPLY WITH ALL LOCAL, STATE, AND NATIONAL CODES RELATING TO PUBLIC SAFETY.
- PERMITS: SECURE AND PAY FOR ALL NECESSARY PERMITS, LICENSES AND INSPECTIONS REQUIRED BY LAW.
- SITE INVESTIGATION: EXAMINE THE SITE TO DETERMINE CONDITIONS THAT WILL AFFECT THE WORK AND INCLUDE ALL WORK RELATED TO SITE CONDITIONS IN THE BID PROPOSAL.
- MATERIALS: ALL MATERIALS SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL WHERE UL HAS A LABEL FOR THAT PARTICULAR TYPE OF EQUIPMENT.
- WORKMANSHIP: PERFORM THE WORK WITH COMPETENT MECHANICS, SKILLED IN THEIR TRADES, TIMELY PLACING ALL MATERIALS AS THE CONSTRUCTION PROGRESSES.
- SUBMITTALS: SUBMIT MANUFACTURER'S PRODUCT DATA ON ALL MATERIALS FOR THE PROJECT.
- TRENCHING: PROVIDE ALL EXCAVATION AND BACKFILL NECESSARY FOR THE INSTALLATION OF SPECIFIED WORK. CONDUIT COVER SHALL BE MINIMUM 24" UNDER PARKING AND DRIVE-INS IN ACCORDANCE WITH NEC TABLES 300-5 AND 30" IN ALL OTHER AREAS.
- COORDINATION: THE ELECTRICAL CONSTRUCTION SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES. STUDY THE COMPLETE CONTRACT DOCUMENTS TO DETERMINE THE FULL SCOPE OF WORK AND TO IDENTIFY WORK PERFORMED BY OTHER TRADES.
- TEMPORARY FACILITIES: PROVIDE TEMPORARY POWER AND LIGHTING, IF REQUIRED, DURING CONSTRUCTION.
- SUBSTITUTION: MATERIALS AND PRODUCTS OF MANUFACTURERS OTHER THAN THOSE SPECIFIED REQUIRE APPROVAL IN WRITING. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR APPROVAL.
- HANDLING: HANDLE ELECTRICAL EQUIPMENT, DEVICES, AND MATERIALS WITH CARE TO PREVENT DAMAGE TO FINISHES. DAMAGED EQUIPMENT SHALL BE REPLACED. TOUCH UP PAINT SHALL BE APPLIED TO SCRATCHES WHERE APPROVED BY THE ENGINEER.
- GUARANTEE: THE CONTRACTOR SHALL GUARANTEE THE CONSTRUCTION TO BE FREE FROM DEFECT OF MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. REPLACE OR REPAIR ALL DEFECTIVE MATERIAL AND WORKMANSHIP WITHOUT COST TO THE OWNER.

PART 2 - PRODUCTS

2.1 GROUNDING

- PROVIDE A GROUNDING CONDUCTOR IN EACH FEEDER AND BRANCH CIRCUIT.

2.2 RACEWAYS

- UNDERGROUND CONDUIT SHALL BE RIGID NONMETALLIC PVC, SCHEDULE 40 WITH PVC COUPLINGS OF THE SOLVENT CEMENT TYPE TO PROVIDE COMPLETE WATERTIGHT JOINTS. CONDUIT AND COUPLINGS SHALL BE UL LISTED AND LABELED FOR DIRECT BURIAL. PROVIDE GALVANIZED RIGID STEEL 90-DEGREE ELBOWS AND WATERTIGHT CONNECTIONS BETWEEN NONMETALLIC CONDUIT AND STEEL CONDUIT.
- EXPOSED CONDUIT SHALL BE RIGID STEEL GALVANIZED INSIDE AND OUT. COUPLINGS SHALL BE THREADED RIGID STEEL GALVANIZED. COAT ALL EXPOSED THREADS WITH ZINC CHROME.
- BEFORE CONDUCTORS ARE PULLED INTO A CONDUIT, THOROUGHLY SWAB THE CONDUIT TO REMOVE FOREIGN MATERIAL AND TO PERMIT THE WIRE TO BE PULLED INTO A CLEAN, DRY RACEWAY.
- PROVIDE CAST JUNCTION BOXES, PULL BOXES, OR CONDUITS AS REQUIRED TO COMPLETE THE RACEWAY SYSTEM.

2.3 CONDUCTORS

- PROVIDE CONDUCTORS OF STRANDED ANNEALED COPPER, 98% CONDUCTIVITY NEW BUILDING WIRE, INSULATED IN ACCORDANCE WITH NEC, #10 AND SMALLER TO BE SOLID, #8 AND LARGER TO BE STRANDED. CONDUCTORS SHALL BE RATED 600-VOLTS, THINNETHWN AND 75 DEGREES C FOR INSTALLATIONS OF 100 AMPS OR GREATER, 60 DEGREES C FOR INSTALLATIONS OF CONDUCTORS OF LESS THAN 100 AMPS. UL LISTED BOLTED PRESSURE OR SPRING CONNECTORS SHALL BE PROPERLY SIZED FOR CONDUCTOR SIZES.

2.4 CIRCUIT BREAKER

- CIRCUIT BREAKERS SHALL BE MOLDED CASE, THERMAL MAGNETIC TYPE EQUIPPED WITH INDIVIDUALLY INSULATED, BRACED AND PROTECTED CONNECTORS.
- BREAKERS SHALL HAVE THE MINIMUM INTERRUPTING CAPACITY THAT IS THE SAME AS PANEL.
- BREAKERS SHALL MATCH EXISTING BUILDING STANDARD.
- EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES IN ACCORDANCE WITH NEC.

2.5 RACEWAY AND CONDUCTOR IDENTIFICATION

- MARKER TAPES: VINYL OR VINYL-CLOTH, SELF ADHESIVE WRAPAROUND TYPE, WITH CIRCUIT IDENTIFICATION LEGEND MACHINE PRINTED AND LAMINATED WITH CLEAR, WEATHER AND CHEMICAL-RESISTANT COATING.

2.6 LUMINAIRES

- FIXTURES OF THE SAME TYPE MUST BE PROVIDED BY ONE MANUFACTURER.
- LUMINAIRES MUST BE LED LIGHT SOURCE. WATTAGE AND DISTRIBUTION TYPE SHOWN ARE SUGGESTED BUT OTHERS MAY BE USED IF PHOTOMETRIC REQUIREMENTS ARE MET.
- ALL HOUSING FINISHES MUST BE BAKED-ON ENAMEL, ANODIZED, OR POWDER-COATED.
- LUMINAIRE SHALL HAVE AN EXTERNAL LABEL PER ANSI C136.15.
- LUMINAIRE SHALL HAVE AN INTERNAL LABEL PER ANSI C136.22.
- LUMINAIRE SHALL COMPLY WITH UL 1598 AND BE LISTED FOR WET LOCATIONS.
- LUMINAIRE SHALL HAVE CRI MINIMUM OF 70, L70 LAMP LIFE OF 35,000 HOURS.
- LUMINAIRES SHALL MATCH EXISTING LUMINAIRES.

SPECIFICATIONS CONT.

PART 3 - EXECUTION

3.1 TESTING

- TEST ALL WIRING AND DEVICES AS SECTIONS OF CONSTRUCTION ARE COMPLETED AND REPLACE ANY DEFECTIVE EQUIPMENT, MATERIALS OR INSTALLATION.
- PROVIDE ALL EQUIPMENT AND PROPERLY CALIBRATED INSTRUMENTS NECESSARY TO TEST THE ELECTRICAL SYSTEM FOR SHORTS AND GROUNDS. MEGGER ALL WIRING FOR SHORTS BETWEEN CONDUCTORS AND FOR GROUNDED AND OPEN CIRCUITS. FAULTY WIRING SHALL BE REMOVED AND REPLACED.

END OF SECTION 260000

GENERAL DEMOLITION NOTES

- INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ENGINEER PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS.

- ALL DUST PRODUCTION, SMOKE PRODUCTION AND NOISE SHALL BE SUBJECT TO REAL TIME REVIEW BY THE ENGINEER. WORK SHALL BE SHUT DOWN DURING CRITICAL ACTIVITIES BY FORMAL REQUEST FROM THE DESIGNATED AUTHORITY OR CONTRACTING ENGINEER. WORK IN DUSTY AREAS SHALL BE CONTROLLED WITH TEMPORARY PARTITIONS. FLAME CUTTING SHALL BE MINIMIZED TO ELIMINATE SMOKE PRODUCTION. PROVIDE FIRE EXTINGUISHERS IN THE IMMEDIATE AREA.

- CONTRACTOR SHALL KEEP THE ENTIRE MEP DEMOLITION SITE CLEAN AT ALL TIMES.

- COORDINATION AMONG OTHER CONSTRUCTION DISCIPLINES PRIOR TO DEMOLITION IS MANDATORY.

- PRIOR TO REMOVAL OF ANY MEP ITEMS OF EQUIPMENT, CONTRACTOR SHALL VERIFY THE ORIGIN AND TERMINATION OF THOSE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE CONTRACT LIMITS).

- PROVIDE TYPE AND SIZE CONDUCTORS TO MATCH EXISTING FOR EXISTING CIRCUITS WHICH ARE EXTENDED TO SERVE NEW OR RELOCATED DEVICES OR FIXTURES.

- THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL MATERIALS AND LABOR REQUIRED FOR THE EXTENSIONS, RE-ROUTING AND RELOCATION OF EXISTING SYSTEM COMPONENTS, EQUIPMENT, WIRING, CONDUITS, AND CABLEING SO AS TO MAINTAIN OPERATION OF ALL SYSTEMS THROUGHOUT THE OCCUPIED AREAS OF THE BUILDING DURING DEMOLITION.

- MODIFY AND RECONNECT THE EXISTING ELECTRICAL EQUIPMENT AS REQUIRED TO REMAIN AND NOT AFFECTED BY THE NEW CONSTRUCTION, TO ENSURE THE FINAL SYSTEM WILL FUNCTION IN A SAFE MANNER ACCEPTABLE TO AUTHORITIES.

GENERAL NOTES

- PROVIDE LABOR, MATERIALS, EQUIPMENT, AND TRANSPORTATION TO RECEIVE, INSTALL, ADJUST, AND PUT INTO OPERATION COMPLETE ELECTRICAL SYSTEMS IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. PROVIDE PRODUCTS NOT MENTIONED BUT OBVIOUSLY NECESSARY AND INCIDENTAL TO THE COMPLETION OF THIS WORK.

- ALL WORK DONE SHALL BE PERFORMED BY QUALIFIED ELECTRICIANS, UNDER THE SUPERVISION AND DIRECTION OF A SUPERINTENDENT HAVING SUCCESSFUL EXPERIENCE INSTALLING AND SUPERVISING EQUIPMENT AND SYSTEMS OF SIMILAR TYPE AND SIZE AS INDICATED BY CONTRACT DOCUMENTS.

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT RULES, REGULATIONS, AND INDUSTRY STANDARDS OF THE NATIONAL ELECTRICAL CODE, UL, ICP, NEMA, NFPA, OSHA, NATIONAL ELECTRICAL SAFETY CODE, AND ANY LOCAL CODES, LAWS, OR ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

- EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE PROJECT AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND SCOPE OF WORK. ALL COSTS SUBMITTED SHALL BE BASED ON A THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

NOBLE E. YOUNG
PARK
TRAIL DESIGN PACKAGE
TYLER, TX

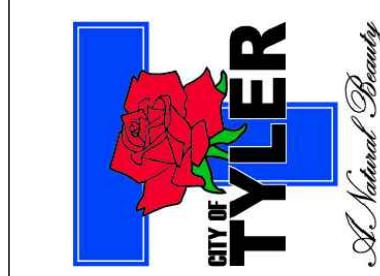
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120 NORTH RODGER ROAD
RICHARDSON, TX 75081-2200
(214) 348-6200

0 80 160 240 feet
1" = 80'

LEGEND

■ SINGLE HEAD LIGHT POLE AND FIXTURE
REFER TO E0.01 FOR FIXTURE
SCHEDULE AND ADDITIONAL DETAILS.

○ SINGLE HEAD LIGHT POLE AND FIXTURE
REFER TO E0.01 FOR FIXTURE
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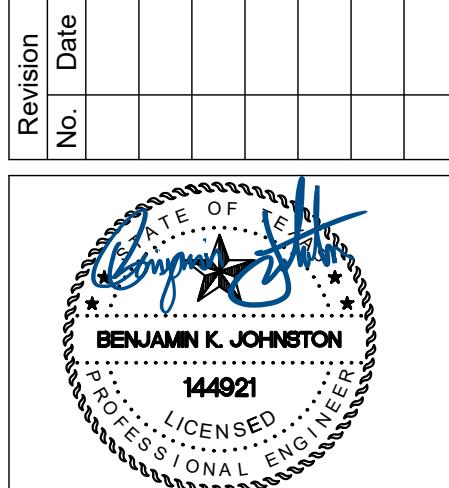


GENERAL NOTES:

- A. REFER TO E0.01 FOR SPECS AND GENERAL INFORMATION.
- B. INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
- C. PROVIDE A MINIMUM OF 5' OF SEPARATION BETWEEN ELECTRICAL CONDUIT AND TREES.

KEYNOTES BY SYMBOL:

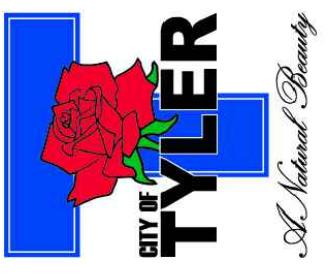
- ① ORIENT PATHWAY LIGHTING DISTRIBUTION PERPENDICULAR NEAREST EDGE OF WALKWAY. PROVIDE POLE BASE 5 FEET FROM EDGE OF WALKWAY TO EDGE OF POLE BASE.
- ② EXISTING PANELBOARD "SR". REFER TO DETAIL 02/E500.



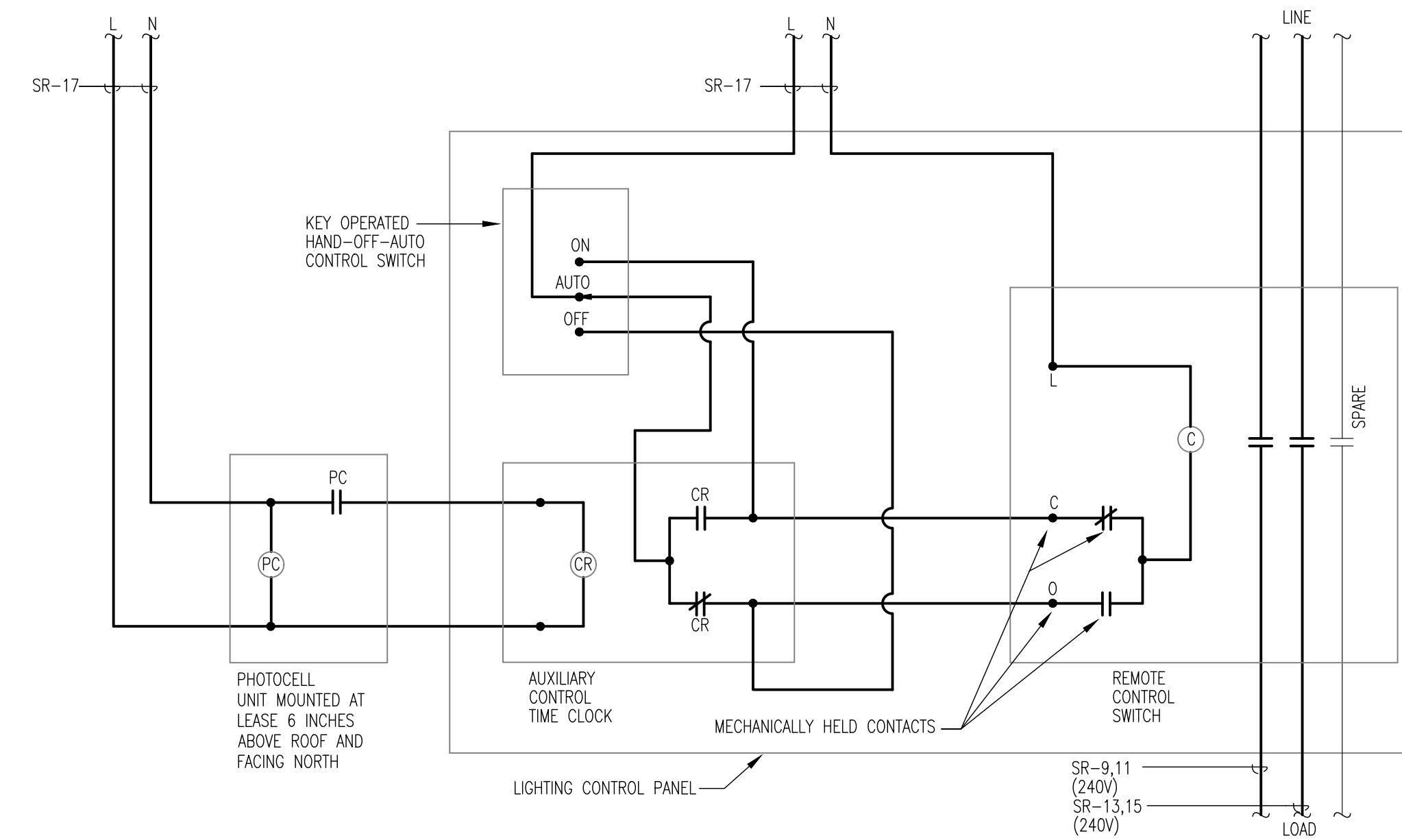
BY BENJAMIN K. JOHNSTON, PE #14921
ON 08-10-2023
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Project No.: 46646.002
Issued: 08/10/2023
Drawn By: ARR
Checked By: BKJ
Sheet Title
ELECTRICAL
SITE PLAN
Sheet Number Project Page Number
E1.00

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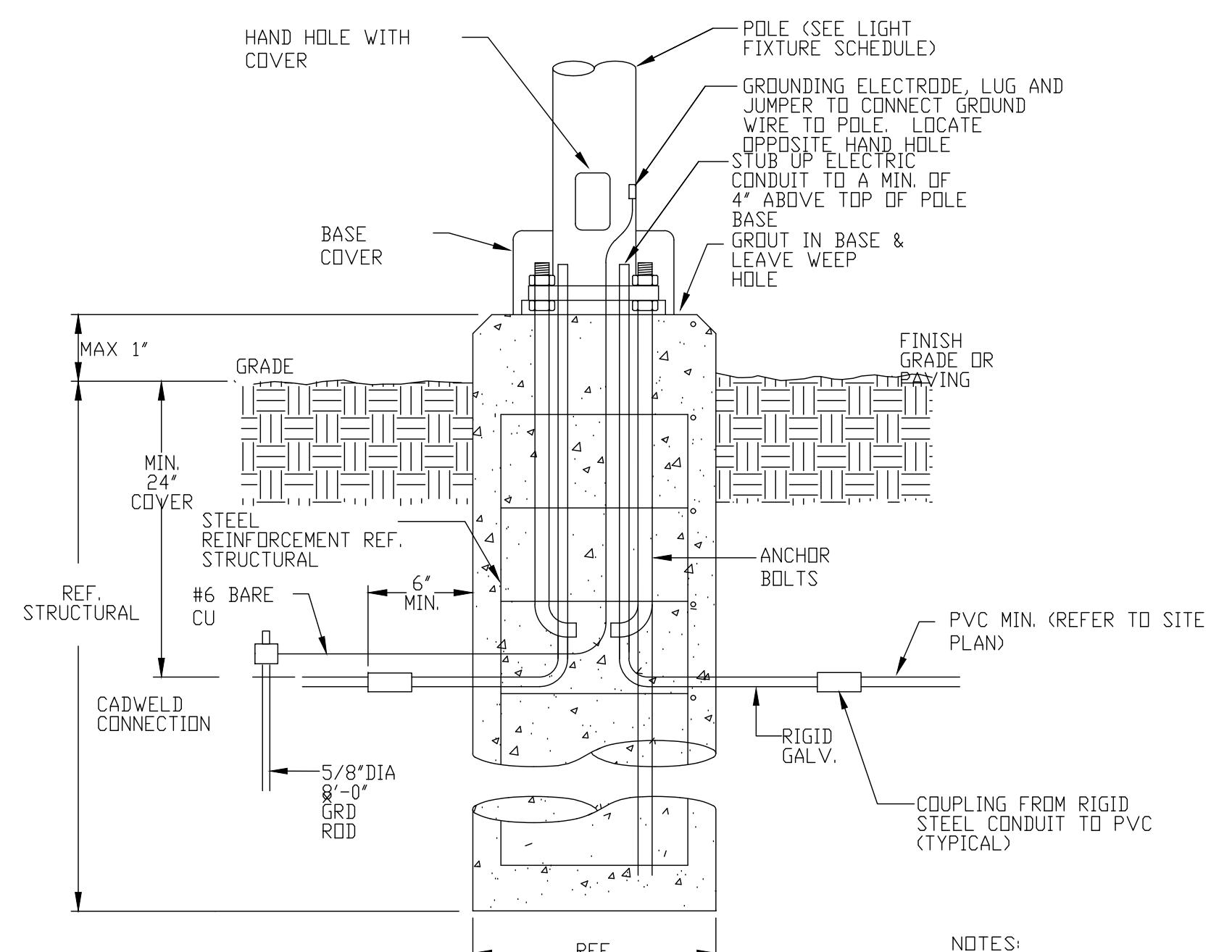
The logo for half consists of the lowercase letters 'half' in a bold, black, sans-serif font. To the right of the logo, the address '1201 NORTH BOWSER ROAD' is written in a smaller, black, sans-serif font. Below that, 'RICHARDSON, TX 75081-2275' is written in a slightly smaller font. At the bottom right, the phone number '(214) 246-6200' is listed in a very small, black, sans-serif font.



02 ELECTRICAL RISER DIAGRAM

NOT TO SCALE

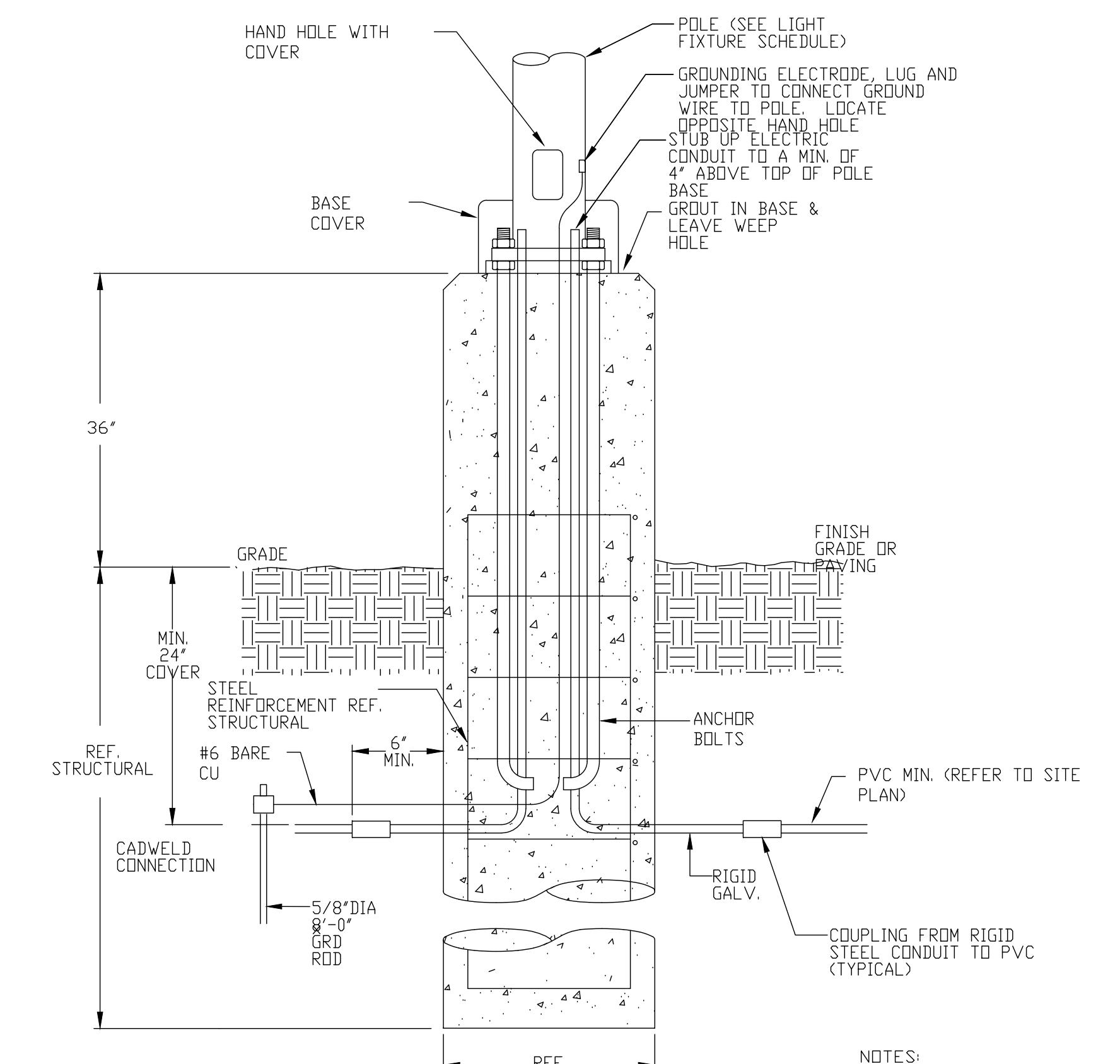
2) NOT TO SCALE



03 ELECTRICAL POLE MOUNTING DETAIL - TRAIL

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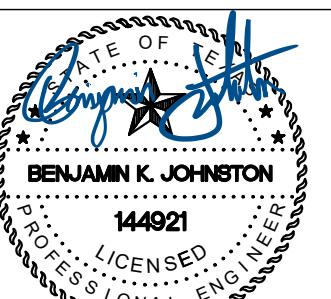
03) NOT TO SCALE



01 ELECTRICAL POLE MOUNTING DETAIL

NOT TO SCALE

NOT TO SCALE



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11. *What is the primary purpose of the following statement?*

Project No.: 46646.002
Issued: 08/10/2023

Issued: 08/10/2023
Drawn By: ARR

Checked By: BKJ
Sheet Title

ELECTRICAL DETAILS

AND SCHEDULES

| | |
|--------------|---------------------|
| Sheet Number | Project Page Number |
| E5 00 | |

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