

CITY OF GREENVILLE
GREENVILLE, NORTH CAROLINA

PUBLIC WORKS SITE LIGHTING
PHASE 2

ITB 24-25-16
TEG PROJECT NO. 20240196

ISSUE FOR BID
OCTOBER 4, 2024

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PROJECT NOTES

3. THIS PROJECT REQUIRES THE INSTALLATION OF:
 - CONCRETE FOUNDATION & POLE MOUNTED AREA LIGHTING FIXTURES
 - UNDERGROUND CONDUITS VIA OPEN CUT TRENCH
 - UNDERGROUND CONDUITS VIA DIRECTIONAL BORING
 - GROUND MOUNTED PULL BOXES
 - 208VAC CIRCUITING FROM A NEARBY BUILDING'S POWER PANEL TO OUTSIDE LIGHT POLE LOCATION
 - CONCRETE PAVEMENT REMOVABLE AND REPLACEMENT
 - LANDSCAPE REMOVABLE AND REPLACEMENT
2. CONTRACTOR SHALL PROVIDE POLE FOUNDATIONS, LIGHT FIXTURES, LIGHT POLES, PULL BOXES, ELECTRICAL POWER CIRCUITING, ETC. AS CALLED OUT IN THIS DRAWING PACKAGE FOR THE INSTALLATION OF THE SITE LIGHTING.
4. PROJECT REQUIRES THE INSTALLATION OF UNDERGROUND CONDUITS VIA DIRECTIONAL BORING AT LOCATIONS INDICATED ON THE DRAWINGS. CUTTING ASPHALT OR CONCRETE IN ANY AREA IS NOT PERMITTED. TRENCHING IS ALLOWED IN ALL OTHER AREAS.
6. AT EACH GROUND MOUNTED PULL BOX, PROVIDE MINIMUM OF 1'-0" DEPTH OF #57 STONE BELOW BOTTOM OF GROUND MOUNTED PULL BOX. EXTEND STONE MINIMUM OF 1'-0" BEYOND ALL SIDES OF PULL BOX.
7. PROVIDE AND INSTALLED CONDUIT SEALS AT ALL GROUND MOUNTED PULL BOXES. SEE MISCELLANEOUS EQUIPMENT SCHEDULE.
8. ALL WIRING SPLICES SHALL BE WITHIN EACH LIGHTING FIXTURE HAND HOLE. WIRE SPLICING INSIDE GROUND MOUNTED PULL BOX IS NOT ALLOWED. PROVIDE MINIMUM 2'-0" OF UNSPLICED WIRE LOOPED IN GROUND MOUNTED PULL BOX.
9. EC SHALL ROUTE WIRE AND CONDUIT OF INDICATED SIZE TO THE BASE OF EACH LIGHTING FIXTURE POLE AS INDICATED. EC SHALL ROUTE 2 #10, 1 #10 GND FROM THE BASE OF THE POLE TO EACH POLE MOUNTED LIGHT FIXTURE. EC SHALL PROVIDE AND INSTALLED FUSE HOLDERS AND 5A TIME DELAY FUSE IN EACH UNGROUND CONDUCTOR AND WITHIN HAND HOLE FOR EACH POLE MOUNTED FIXTURE. KEEP SPLICES TO A MINIMUM AND ACCESSIBLE TO THE HAND HOLE. PROVIDE TWO NEW SPARE FUSES PER INSTALLED LIGHT FIXTURE AND TURN OVER TO OWNER.
10. AT A MINIMUM, THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL:
 - A. PANELBOARD, CIRCUIT BREAKERS, ENCLOSURE, ETC.
 - B. CONDUITS: RMC/IMC/EMT/PVC/CONDUITS, FITTINGS, GLUE ETC.
 - C. DIRECTIONAL BORE CONDUIT, INNER DUCT, PULL STRING, ETC.
 - D. OUTLET DEVICES: BOXES, RECEPTACLES, SWITCHES, COVER PLATES, ETC.
 - E. LIGHTING FIXTURES, MOTION DETECTOR, CONTROL DEVICES, POLE, PHOTOCELL, ETC.
 - F. WIRE
 - G. PULL/JUNCTION BOX, ETC
 - H. PULL STRING, TRACER WIRE, WARNING TAPE, ETC.
 - I. MOUNTING SUPPORTS, UNISTRUT SUPPORTS, ETC.
 - J. GROUND MOUNTED PULL BOX
 - J. LANDSCAPING: PLANTS/SEED/SOD/MULCH
 - K. PAINT
 - R. CONCRETE MIX
 - S. REBAR
 - T. GROUND ROD
 - U. FUSE HOLDER, FUSES, ETC.
 - V. MISC., ETC.

ELECTRICAL GENERAL NOTES

1. EC SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXISTENCE AND NATURE OF THE WORK REQUIRED. ANY DIFFICULTIES IN COMPLYING WITH THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER PRIOR TO SUBMITTING A BID.
2. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT, AND PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF COMPLETE ELECTRICAL WORK WITHIN THE INTENT OF, AND AS INDICATED ON, THE DRAWINGS AND AS HEREIN SPECIFIED.
3. CONTRACTOR'S QUALIFICATIONS: IT IS ASSUMED THE CONTRACTOR HAS HAD SUFFICIENT GENERAL KNOWLEDGE AND EXPERIENCE TO ANTICIPATE THE NEEDS OF CONSTRUCTION OF THIS NATURE. THE CONTRACTOR SHALL PROVIDE ALL ITEMS REQUIRED TO COMPLETE THE CONSTRUCTION IN ACCORDANCE WITH REASONABLE INTERPRETATION OF THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
4. THE DESIGN CONTAINED IN THE CONTRACT DOCUMENTS IS BASED ON EQUIPMENT BY SPECIFIC MANUFACTURERS. SUBSTITUTION REQUESTS BY THE EC MAY ONLY BE MADE PRIOR TO SUBMITTING A BID AND WILL BE REVIEWED AT THE DISCRETION OF THE ENGINEER. WHEN ANY EQUIPMENT IS PROVIDED BY MANUFACTURERS OTHER THAN THOSE SPECIFIED, THE EC SHALL BE RESPONSIBLE FOR VERIFYING THAT SUCH EQUIPMENT WILL MEET THE DESIGN INTENT (DIMENSIONS, CAPACITIES, ELECTRICAL REQUIREMENTS, ETC.). ANY ADDITIONAL COSTS ASSOCIATED WITH PROVIDING SUCH EQUIPMENT, INCLUDING BUT NOT LIMITED TO INCREASING THE CAPACITY OF ELECTRICAL SERVICES (DISCONNECTS, BREAKERS, WIRING, CONDUIT, ETC.), INCREASING HOUSEKEEPING PAD SIZES, PROVIDING ADDITIONAL STRUCTURAL SUPPORT OR INSTALLATION OF EQUIPMENT IN DIFFERENT LOCATIONS THAN INDICATED ON THE DRAWINGS SHALL BE INCLUDED IN THE EC'S BID.
5. EC SHALL OBTAIN FOR ALL PERMITS, INSPECTIONS, TESTS, ETC. AS REQUIRED FOR PROPER EXECUTION AND COMPLETION OF THE WORK. PERMITS WILL BE AT NO COST FROM THE CITY.
6. EC SHALL COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES. NO ALLOWANCES WILL BE MADE ON THE EC'S BEHALF FOR FAILURE TO COORDINATE WITH OTHER TRADES. ANY COORDINATION CONFLICTS WHICH ARISE SHALL BE IMMEDIATELY REPORTED TO THE GC AND OWNER'S REPRESENTATIVE.
7. EC SHALL BE RESPONSIBLE FOR ALL SAW-CUTS, CORE-DRILLS, AND PENETRATIONS. EC SHALL PATCH FLOORS, WALLS, PARTITIONS, CEILINGS, ROOFS, AND OTHER SURFACES AS REQUIRED TO RESTORE TO INITIAL CONDITIONS FOR CONDUIT OR OTHER INSTALLATIONS.
8. EC SHALL SEAL ALL PENETRATIONS THROUGH NEW AND EXISTING WALLS, FLOORS, ROOFS, CHASES, ETC. DUE TO ANY DEMOLITION OR NEW WORK IN ORDER TO MAINTAIN THE INTEGRITY OF THE SYSTEM (SMOKE RATED, SMOKE PARTITIONS, FIRE RATED, ETC.).
9. WHERE AN EXISTING DEVICE IS TO BE REMOVED: EC SHALL PATCH AND PAINT WALLS, CEILING, FLOOR, ETC. TO MATCH ADJACENT SURFACE AND TEXTURE. REPLACE CEILING TILE WITH NEW TO MATCH EXISTING.
10. EC SHALL PROVIDE APPROPRIATE SEALING WITH APPROVED MATERIAL WHERE RACEWAY PASSES FROM INTERIOR TO EXTERIOR OF A BUILDING.
11. EC SHALL PROVIDE AND INSTALL ALL PHENOLIC NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT & DEVICES. LABEL SHALL INDICATE PANEL AND CIRCUIT NUMBER SUPPLYING POWER TO THE DEVICE. EC SHALL PROVIDE REQUIRED SIGNS FOR PANELS, SWITCHGEAR, STARTERS, VFDs, AND ETC. NAMEPLATES TO BE MECHANICALLY SECURED WITH NON-FERROUS FASTENERS.
12. ALL AFF DIMENSIONS ARE REFERENCED TO CENTER OF EQUIPMENT/DEVICE UNO.
13. UPON MODIFICATION OR CONNECTION TO EXISTING SYSTEMS, POWER AND/OR SECONDARY SYSTEMS SHALL NOT BE INTERRUPTED WITHOUT PRIOR CONSENT OF OWNER AND A DEFINITE UNDERSTANDING OF THE DURATION OF THE OUTAGE.
14. ALL CONDUCTORS SHALL BE INSULATED COPPER UNLESS NOTED OTHERWISE. CONDUCTORS #10 AND SMALLER SHALL BE SOLID; CONDUCTOR #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS SHALL BE THWN-2 OR XHHW-2, 90° C RATED.
15. ALL 208Y/120V POWER WIRING INSULATION SHALL BE COLOR CODED (NO EXCEPTIONS). PHASE A-BLACK; PHASE B-RED; PHASE C-BLUE, NEUTRAL-WHITE; TRAVELERS-PURPLE; AND GROUNDING CONDUCTORS-GREEN. COLOR CODED TAPE NOT ALLOWED.
16. ALL 480Y/277V POWER WIRING INSULATION SHALL BE COLOR CODED (NO EXCEPTIONS). PHASE A-BROWN; PHASE B-ORANGE; PHASE C-YELLOW; NEUTRAL-GRAY; TRAVELERS-PURPLE; AND GROUNDING CONDUCTORS-GREEN. COLOR CODED TAPE NOT ALLOWED.
17. INSIDE CONDUITS SHALL BE EMT, IMC, OR RMC. CONNECTIONS TO VIBRATING EQUIPMENT SHALL BE LFMC.
18. OUTSIDE ABOVE GROUND CONDUITS SHALL BE RMC. CONNECTIONS TO VIBRATING EQUIPMENT SHALL BE LFMC.
19. CONDUITS MOUNTED 8'-0" AFF OR LESS. WHERE SUBJECT TO PHYSICAL DAMAGE, THE PORTION OF CONDUIT MOUNTED BELOW 8'-0" AFF SHALL BE RMC.

ELECTRICAL GENERAL NOTES – CONTINUED

3. UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 ONLY.
21. UNDERGROUND DIRECTIONAL BORING CONDUIT (POWER): UNDERGROUND DIRECTIONAL BORING CONDUIT SHALL BE HDPE, GRAY IN COLOR. 2 INCH IN DIAMETER AND SMALLER SHALL BE SCHEDULE 40. LARGER THAN 2 INCH IN DIAMETER SHALL BE SCHEDULE 80. DIRECTION BORE SHALL BE 8' TO 10' BELOW GRADE TO PASS BENEATH ALL EXISTING UTILITIES. MAINTAIN A MINIMUM OF 3'-0" CLEARANCE BELOW EXISTING UTILITIES.
22. UNDERGROUND PVC CONDUITS SHALL BE INSTALLED AT A MINIMUM OF 36" BELOW FINISHED GRADE WITH DETECTABLE BURIAL TAPE. CHANGE FROM PVC TO RIGID GALVANIZED STEEL CONDUIT WITHIN 1'-6" FROM TURNED UP AT ANY LOCATION. ALL EXCAVATION (DIGGING, TRENCHING, BACK FILLING, ETC.) SHALL BE PROVIDED BY CONTRACTOR. BOND RIGID GALVANIZED STEEL CONDUIT TO GROUND.
23. WHERE CONDITIONS ALLOW, ALL UNDERGROUND CONDUITS AND UTILITIES SHALL HAVE METALIZED WARNING TAPE INSTALLED ABOVE THE CONDUIT THAT IDENTIFIES THE SPECIFIC SYSTEM BURIED BELOW. TAPE SHALL CONSIST OF A MINIMUM 3.5 MIL SOLID FOIL CORE ENCASED IN A PROTECTIVE PLASTIC JACKET (TOTAL THICKNESS 5.5 MILS) AND BE 6" WIDE WITH BLACK LETTERING IMPRINTED ON A COLOR CODED BACKGROUND THAT CONFORMS TO APWA COLOR CODE SPECIFICATIONS. WARNING TAPE SHALL BE INSTALLED 18" ABOVE THE PIPE AND IN NO CASE LESS THAN 6" BELOW GRADE.
24. ALL NON-METALLIC CONDUIT INSTALLED UNDERGROUND SHALL HAVE A TRACER WIRE INSTALLED INSIDE EACH CONDUIT. THE TRACER WIRE SHALL BE #12 COPPER-CLAD STEEL REINFORCED SINGLE CONDUCTOR WIRE INSULATED WITH ORANGE COLORED HDPE INSULATION (30 MILS) EQUAL TO COPPERHEAD INDUSTRIES BRAND. THE TRACER WIRE SHALL BE CONTINUOUS ALONG THE ENTIRE LENGTH OF THE CONDUIT AND SHALL TERMINATE WITH WATERPROOF CONNECTORS. PROVIDE 48" OF EXCESS TRACER WIRE IN EACH PULL BOX OR CONDUIT END.
25. ELECTRICAL CONTRACTOR SHALL LOCATE ELECTRICAL CONDUITS OUTSIDE THE DRIP LINE OF EXISTING TREES TO THE GREATEST EXTEND POSSIBLE.
26. EMT CONDUIT COUPLINGS, CONNECTORS, AND FITTINGS SHALL BE STEEL HEXAGONAL COMPRESSION TYPE ONLY. SET SCREW COUPLINGS, CONNECTORS, AND FITTINGS SHALL NOT BE ALLOWED.
27. WHERE INSTALLING CONDUITS, BOXES, EQUIPMENT, ETC., IN WET OR DAMP LOCATIONS, INSTALL CONDUITS, BOXES, EQUIPMENT, ETC. AT A MINIMUM OF 1/4-INCH FROM THE MOUNTING SURFACE WITH CLAMP BACKS OR STUTTS.
28. EXISTING CONDITIONS THAT ARE NOT INDICATED TO BE DEMOLISHED, BUT ARE DAMAGED AS A RESULT OF THE WORK SHALL BE REPAIRED OR REPLACED BY THE EC TO MATCH EXISTING ADJACENT CONDITIONS.
29. THE EC SHALL KEEP THE CONSTRUCTION AREA AND SURROUNDING AREAS FREE FROM THE ACCUMULATION OF WASTE MATERIALS AND DEBRIS CAUSED BY THE WORK.
30. EC SHALL VERIFY EXISTING CONDITIONS PRIOR TO EXECUTION OF THE WORK. SOME OR ALL INFORMATION ABOUT EXISTING CONDITIONS SHOWN ON THE DRAWINGS MAY BE BASED SOLELY ON EXISTING RECORD DRAWINGS AND MAY OR MAY NOT HAVE BEEN VERIFIED BY THE ARCHITECT OR ENGINEER.
31. UNLESS NOTED OTHERWISE, DEMOLISH AND REMOVE FROM THE PROJECT SITE ALL EQUIPMENT, DUCTWORK, PIPING, CONDUIT, ETC. AS INDICATED ON THE DEMOLITION DRAWINGS OR OTHER DRAWINGS. ALL SYSTEMS SHALL BE DEMOLISHED BACK TO THE SOURCE AND CAPPED APPROPRIATELY.
32. EXISTING EQUIPMENT OR DEVICES THAT ARE INDICATED TO BE REMOVED AND TURNED OVER TO OWNER SHALL BE REMOVED WITH DUE CARE AND DILIGENCE, CLEANED AND TURNED OVER TO THE OWNER.
33. ALL MATERIALS SHALL BE NEW AND SHALL BEAR THE 3RD PARTY LISTED APPROVAL FOR THEIR INSTALLED APPLICATION.
34. FOR ALL ELECTRICAL CIRCUITS, EC SHALL IDENTIFY THE CIRCUIT NUMBER IN THE DESIGNATED PANEL, SHALL MARK THE CIRCUIT NUMBER ON THE DRAWINGS, AND SHALL TURN OVER THE MARKED UP DRAWINGS TO OWNER. EC SHALL UPDATE THE PANEL SCHEDULES UPON COMPLETION OF CONSTRUCTION. IN THE EVENT THE PANEL(S) DO NOT HAVE ADEQUATE SPARE CIRCUITS OR CAPACITY, EC SHALL NOTIFY OWNER FOR RESOLUTION OF ISSUE.
35. NEW AND EXISTING PANEL SCHEDULES SHALL BE UPDATED (TYPED-ONLY) UPON COMPLETION OF THE WORK TO ACCURATELY INDICATE INSTALLED CONDITIONS.
36. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL COORDINATE LOCATING EXISTING UNDERGROUND UTILITIES WITH OWNER, OWNER'S ON-SITE ENGINEER, AND NO ONE CALL. (811) PRIOR TO ANY WORK.
37. EC SHALL BE LICENSED IN NC, AND SHALL INSTALL ALL ELECTRICAL EQUIPMENT, WIRING, DEVICES, ETC. AS PER NEC, AND OTHER APPLICABLE STATE AND LOCAL CODES.
38. PRIOR TO CONTACTING THE LOCAL INSPECTOR, IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO CONTACT THE DESIGNER REPRESENTATIVE TO SCHEDULE THE REQUIRED ROUGH-IN AND FINAL INSPECTIONS. NO WORK WILL BE COVERED UP UNTIL AFTER THE INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE DESIGN FIRM REPRESENTATIVE AND OWNER REPRESENTATIVE.
39. CONTRACTOR IS RESPONSIBLE FOR ALL SITE WORK. THIS SHALL INCLUDE BUT NOT LIMITED TO ALL SITE DEMO, BUSH AND TREE REMOVAL, TRENCHING, CONCRETE PAD DEMO AND INSTALLATION, FINAL GRADING AND GRASS RESEEDING/RESEEDING, BUSH AND TREE REPLANTING.
40. CONTRACTOR SHALL RETURN TO THE SITE AT 10 MONTHS AFTER FINAL COMPLETION TO INSPECT & FILL IN & RESEED ANY VOIDS.
41. CONTRACTOR SHALL DOCUMENT THE DEPTHS OF ALL DIRECTIONAL DRILLS CONDUITS AT A MAXIMUM OF 20 FEET INTERVALS & MAINTAIN A COMPREHENSIVE (DEPTH AND HORIZONTAL LOCATIONS) FIELD "AS-BUILTS" FOR ALL INSTALLATIONS AND SUBMIT TO THE ENGINEER.
42. CONTRACTOR SHALL PROVIDE CIRCUIT IDENTIFICATION LABELS AT EACH POLE MOUNTED LIGHTING FIXTURE POLE LOCATION & AT EACH GROUND MOUNTED PULL BOX LOCATION. LABELS SHALL BE INSTALLED ON THE OUTSIDE OF EACH LIGHT FIXTURE POLE, INSIDE EACH LIGHT FIXTURE POLE BASE AT THE HAND HOLE, & INSIDE EACH PULL BOX. WHERE MORE THAN ONE SET OF CIRCUITS ARE SHARED IN A CONDUIT/PULLBOX, SEPARATE EACH CIRCUIT SET & PROVIDE A SEPARATE LABELS FOR EACH CIRCUIT SET. LABEL & ATTACHMENT SHALL BE SUITABLE FOR THE ENVIRONMENT INSTALLED. LABEL INFORMATION SHALL INCLUDE 1) BUILDING FED FROM, 2) PANEL ID, 3) CIRCUIT NUMBER(S), & 4) LOAD DESCRIPTION. FOR EXAMPLE:
LINE 1: FED FROM BUILDING "F"
LINE 2: PANEL CS
LINE 3: CIRCUIT 6,8
LINE 4: AREA POLE LIGHT (WEST)


ABBREVIATIONS


2/C	2 CONDUCTOR
A	AMPS
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BKR	BREAKER
BOC	BOTTOM OF CONDUIT
C	CONDUIT
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TO REMAIN
EX	EXISTING
FMC	FLEXIBLE METAL CONDUIT
FT	FEET
GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSE POWER
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
IN	INCHES
IU	IN USE
ISO GND	ISOLATED GROUND
LFMC	LIQUID FLEXIBLE METAL CONDUIT
LTS	LIGHTS
N	NEUTRAL
NTS	NOT TO SCALE
PH	PHASE
RL	RELOCATED
RMC	RIGID METAL CONDUIT
TWSH	TWISTED SHIELDED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VA	VOLT AMPS
VAC	VOLTS AC
WP	WEATHER PROOF


ALTERNATES


1. ADD ALTERNATE #1:
 - DEMO OF FIXTURE. INSTALLATION OF TWO LIGHT FIXTURES, POLES, FOUNDATIONS, & CIRCUITING FOR AREA NORTH OF BUILDING A. INSTALLATION OF CONDUIT UNDER DRIVEWAY. INSTALLATION OF WALL MOUNTED FIXTURES ON BUILDING A1.
2. ADD ALTERNATE #2:
 - INSTALLATION LIGHTING FIXTURE BOLLARDS, FOUNDATIONS, & CIRCUITING FOR SIDEWALK IN FRONT OF BUILDING A.
3. ADD ALTERNATE #3:
 - DEMO OF TWO FIXTURES. INSTALLATION OF TWO LIGHT FIXTURES, POLES, FOUNDATIONS, & CIRCUITING FOR AREA EAST OF BUILDING A.


LEGEND



 JUNCTION BOX/DEVICE BOX WITH COVER. LOCATE AS
 REQUIRED FOR EQUIPMENT SERVED.



 DEVICE AS INDICATED.



 AREA POLE MOUNTED LIGHT FIXTURE. "XX" INDICATES
 FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.



 WALL MOUNTED LIGHT FIXTURE ON NORMAL CIRCUIT. "XX"
 INDICATES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.


 BOLLARD LIGHT FIXTURE. "XX" INDICATES FIXTURE TYPE.
 SEE LIGHTING FIXTURE SCHEDULE.


 ELECTRICAL PANEL, SURFACE MOUNTED, TOP OF PANEL 72"
 AFF UNO. "XXXX" INDICATES PANEL TAG.


 ELECTRICAL PANEL, FLUSH MOUNTED, TOP OF PANEL 72"
 AFF UNO. "XXXX" INDICATES PANEL TAG.


 REFERENCE TO ENLARGED PLAN, ELEVATION, SECTION OR
 DETAIL TOP SECTION INDICATES ENLARGED PLAN, ELEVATION,
 SECTION OR DETAIL NUMBER. BOTTOM SECTION INDICATES
 DRAWING ON WHICH ENLARGED PLAN, ELEVATION, SECTION OR
 DETAIL APPEARS.


 NOTE NUMBER, WHERE "F" INDICATES NOTE NUMBER.

ELECTRICAL LOAD SUMMARY

BUILDING 'F' - PANEL 'CS' - (E2.1)

<u>ELECTRICAL:</u>	<u>VA LOAD</u>
CONNECTED LOAD - ADDED	1,560 VA
CONNECTED LOAD - EXISTING TO BE DEMOLISHED	0 VA
NET BUILDING LOAD: NEW MINUS DEMO	1,560 VA

ELECTRICAL LOAD SUMMARY

BUILDING 'A1' - PANEL 'A' - (E2.2)

<u>ELECTRICAL:</u>	<u>VA LOAD</u>
CONNECTED LOAD - ADDED	342 VA
CONNECTED LOAD - EXISTING TO BE DEMOLISHED	0 VA
NET BUILDING LOAD: NEW MINUS DEMO	342 VA

ADD ALTERNATE #1

ELECTRICAL LOAD SUMMARY

BUILDING 'A1' - PANEL 'A' - (E2.2)

<u>ELECTRICAL:</u>	<u>VA LOAD</u>
CONNECTED LOAD – ADDED	564 VA
CONNECTED LOAD – EXISTING TO BE DEMOLISHED	0 VA
NET BUILDING LOAD: NEW MINUS DEMO	564 VA

ADD ALTERNATES #1 & #3

ELECTRICAL LOAD SUMMARY

BUILDING 'A' - PANEL 'MP' - (E2.2)

<u>ELECTRICAL:</u>	<u>VA LOAD</u>
CONNECTED LOAD – ADDED	132 VA
CONNECTED LOAD – EXISTING TO BE DEMOLISHED	0 VA
NET BUILDING LOAD: NEW MINUS DEMO	132 VA

ADD ALTERNATE #2

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER / CATALOG NUMBER	VOLTS	QTY.	TYPE	WATTS	COLOR	REMARKS
A1	POLE MOUNTED AREA LIGHT, LED, 4000K, R4 DISTRIBUTION, 208VAC, DOUBLE FUSE, PHOTOCELL, DARK BRONZE FINISH. PROVIDED WITH ROUND TAPERED STEEL POLE, 39'-0" HEIGHT, MINIMUM 11 GA WALL THINNESS, 9 INCH BUTT, DARK BRONZE FINISH WITH ACCESS COVER.	LITHONIA - RSX3-LED-P4-40K-R4-208-RPA-DF-PE-DOBXD (FIXTURE) WITH RTS-39-B-90-4-BM-D190 (POLE) (1 FIXTURE PER POLE. EC TO COMPLETE PART NUMBER.)	208	-	LED	312	4000K	BOTTOM OF FIXTURE MOUNTED APPROXIMATELY 43'-0" AFG. SEE 1/E4.1 FOR POLE FOUNDATION DETAIL.
F1	POLE MOUNTED AREA LIGHT, LED, 4000K, DUAL FUSE, PHOTOCELL, DARK BRONZE FINISH. PROVIDED WITH 5 INCH, STRAIGHT SQUARE STEEL POLE, 25'-0" HEIGHT, MINIMUM 0.1793 INCH WALL THINNESS, DARK BRONZE FINISH WITH ACCESS COVER.	LITHONIA - RSX2-LED-P3-40K-R4-208-SPA-DF-PE-DOBXD (FIXTURE) WITH SSS-25-5G-DM19AS-DOB (POLE) (1 FIXTURE PER POLE. EC TO COMPLETE PART NUMBER.)	208	-	LED	111	4000K	BOTTOM OF FIXTURE MOUNTED APPROXIMATELY 25'-6" AFG. SEE 2/E4.1 FOR POLE FOUNDATION DETAIL.
W1	WALL PACK, LED, 5000K, PHOTOCELL, DARK BRONZE FINISH.	TAMLITE LIGHTING - W2LED-60-5K-PC OR EQUAL TO MATCH EXISTING	120	-	LED	60	5000K	MOUNT TOP OF FIXTURE 1'-6" BELOW TOP EDGE OF BUILDING ROOF
Z1	BOLLARD, LED, ASYMMETRIC, 4000K, DUAL FUSE, PHOTOCELL, DARK BRONZE FINISH.	LITHONIA - DSXB-LED-12C-700-40K-ASY-208-PE-DF-DOBXD	208	-	LED	22	4000K	SEE 3/E4.1 FOR FOUNDATION DETAIL.



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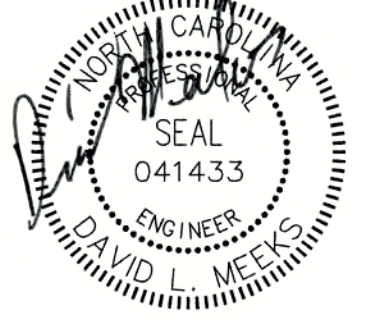
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SEAL

SEAL



10-3-2024

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TEG PROJECT NO. 20240196

CLIENT PROJECT NO. ITR 24-25-16

PROJECT TITLE

CITY OF GREEN
PUBLIC WORK
SITE LIGHTING
(PHASE 2)

DRAWING TITLE

ELECTRICAL
LEAD SHEET

DRAWING NO.

E0.1



PLAN NORTH

1
E1.1 **ENLARGED DEMOLITION PLAN**
1/16"=1'-0" - BUILDING 'A' EAST



KEY PLAN

NTS

NOTES

- ① **ALTERNATE 1:** DEMO POLE AREA LIGHTING FIXTURE, POLE FOUNDATION AND CIRCUITING BACK TO SOURCE. LIGHTING FIXTURE FED FROM **PANEL "D" CIRCUIT 5.7 IN BUILDING "B"**. BACK FILL HOLE & RESEAL TO RESTORE BACK TO ADJACENT AREA. PROVIDE IN GROUND JUNCTION BOX FOR RECONNECTION OF CIRCUIT TO REMAINING DOWN STREAM LOADS.
- ② **ALTERNATE 3:** DEMO POLE AREA LIGHTING FIXTURE, POLE FOUNDATION AND CIRCUITING BACK TO SOURCE. LIGHTING FIXTURE FED FROM **PANEL "D" CIRCUIT 5.7 IN BUILDING "B"**. BACK FILL HOLE & RESEAL TO RESTORE BACK TO ADJACENT AREA. SHOWN HERE FOR REFERENCE ONLY.
- ③ **ALTERNATE 3:** DEMO POLE AREA LIGHTING FIXTURE, POLE FOUNDATION AND CIRCUITING BACK TO SOURCE. LIGHTING FIXTURE FED FROM **PANEL "D" CIRCUIT 5.7 IN BUILDING "B"**. BACK FILL HOLE & RESEAL TO RESTORE BACK TO ADJACENT AREA. SHOWN HERE FOR REFERENCE ONLY.

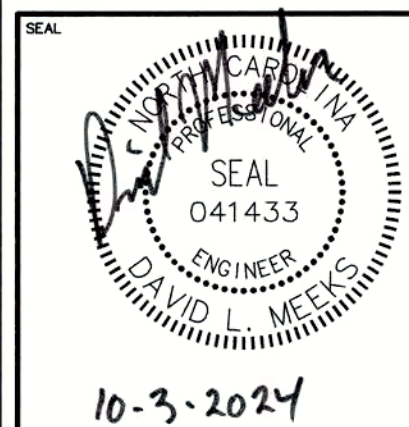


■ *Engineering* ■ *Architecture*
■ *Surveying* ■ *Technology*

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NC Architectural License No. 50213
NC Landscape Architectural License
No. C-427



REV	DATE	DESCRIPTION	BY	CHECKED
A	09-18-24	ISSUE FOR OWNER REVIEW	DLM	
B	09-27-24	ISSUE FOR OWNER REVIEW	DLM	
C	10-04-24	ISSUE FOR BID	DLM	

TEO PROJECT NO. 20240196

CLIENT PROJECT NO. ITB 24-25-16

PROJECT TITLE

CITY OF GREENVILLE
PUBLIC WORKS
SITE LIGHTING
(PHASE 2)

DRAWING TITLE

ELECTRICAL
DEMOLITION PLAN
BUILDING 'A'

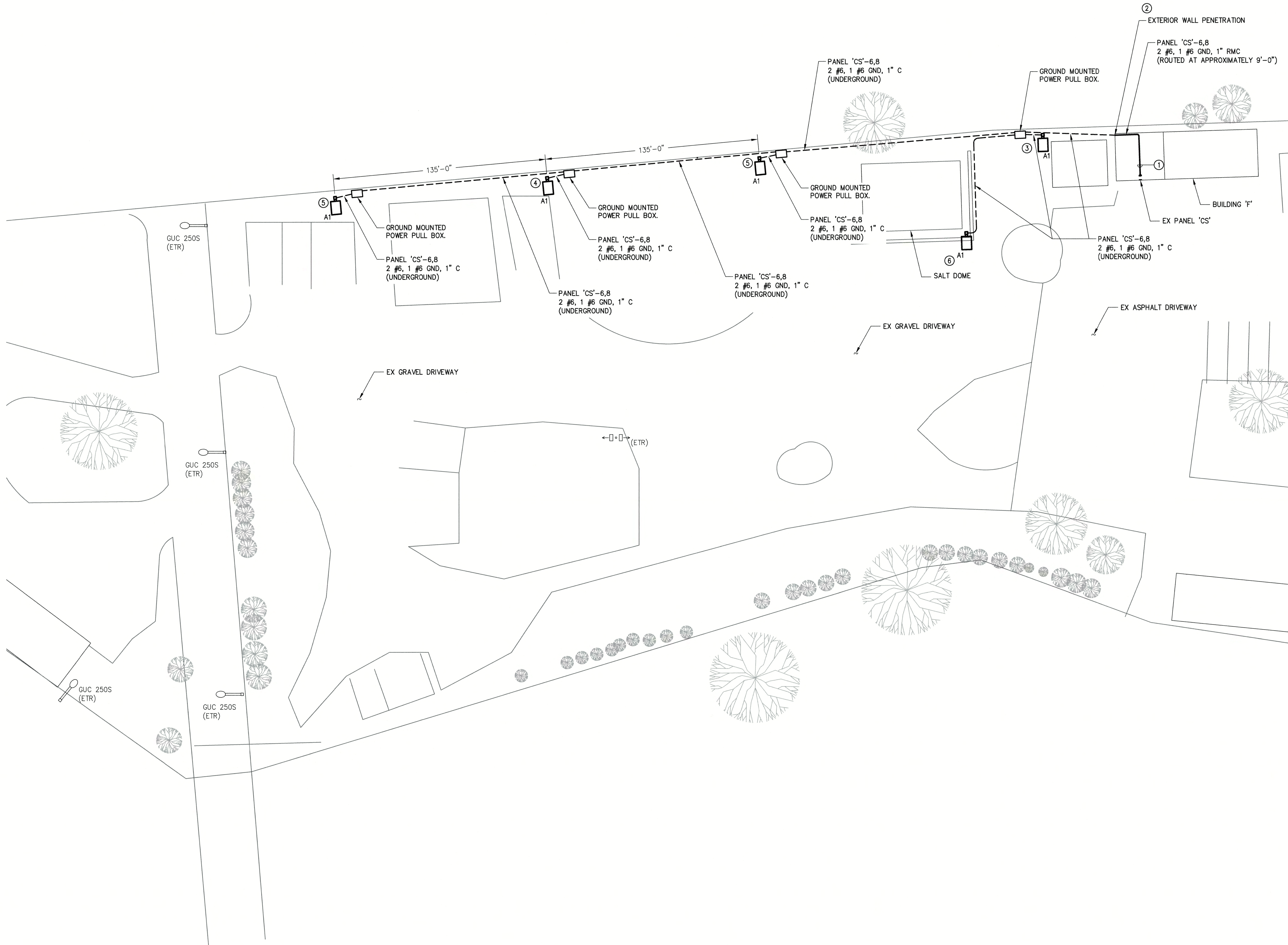
DRAFTING NO.

E1.1

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PLAN NORTH



NOTES

- ① OPEN CEILING AREA, WHERE CONDITIONS ALLOW, ROUTE CONDUIT TIGHT TO BOTTOM SIDE OF THE ROOF DECKING SUPPORT STRUCTURE.
- ② PENETRATE & EXTEND CONDUIT THRU EXTERIOR WALL. EXTEND CONDUIT DOWN EXTERIOR WALL TO BELOW GROUND.
- ③ LOCATE POLE BASE CENTERED BETWEEN THE SALT DOME RETAINING WALL & BUILDING 'F' WALL. LOCATE POLE BASE CENTERED APPROXIMATELY 4'-0" FROM CHAIN LINKED FENCE.
- ④ LOCATE POLE BASE CENTERED BETWEEN THE SALT DOME RETAINING WALL & ROADWAY BACK OF CURB. LOCATE POLE BASE CENTERED APPROXIMATELY 4'-0" FROM CHAIN LINKED FENCE.
- ⑤ LOCATE POLE BASE CENTERED APPROXIMATELY 4'-0" FROM CHAIN LINKED FENCE.
- ⑥ LOCATE POLE BASE CENTERED BETWEEN THE OUTSIDE EDGE OF THE SALT BUILDING WALL AND THE INSIDE EDGE OF THE OUTER RETAINING WALL. COORDINATE THE EXACT LOCATION WITH OWNER. LOCATE THE TOP OF THE POLE FOUNDATION 4'-0" ABOVE THE FINISHED GRADE THAT IS OUTSIDE OF THE RETAINING WALL AREA.



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■ Surveying ■ Technology

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■ NC Architectural License No. 50213
■ NC Landscape Architectural License
No. C-427

SEAL

SEAL



10-9-2024

REV	DATE	DESCRIPTION	BY / CHK			
			DLM	DLM	DLM	DLM
A	09-18-24	ISSUE FOR OWNER REVIEW				
B	09-27-24	ISSUE FOR OWNER REVIEW				
C	10-04-24	ISSUE FOR BID				

PROJECT NO. 20240196

CLIENT PROJECT NO. ITB 24-25-16

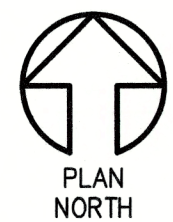
PROJECT TITLE
CITY OF GREENVILLE
PUBLIC WORKS
SITE LIGHTING
(PHASE 2)

DRAWING TITLE
ELECTRICAL
ENLARGED SITE
LIGHTING PLAN
BUILDING 'F' WEST

DRAWING NO.

E2.1

1 ENLARGED SITE LIGHTING PLAN
E2.1 3/32"=1'-0" - BUILDING 'F' WEST

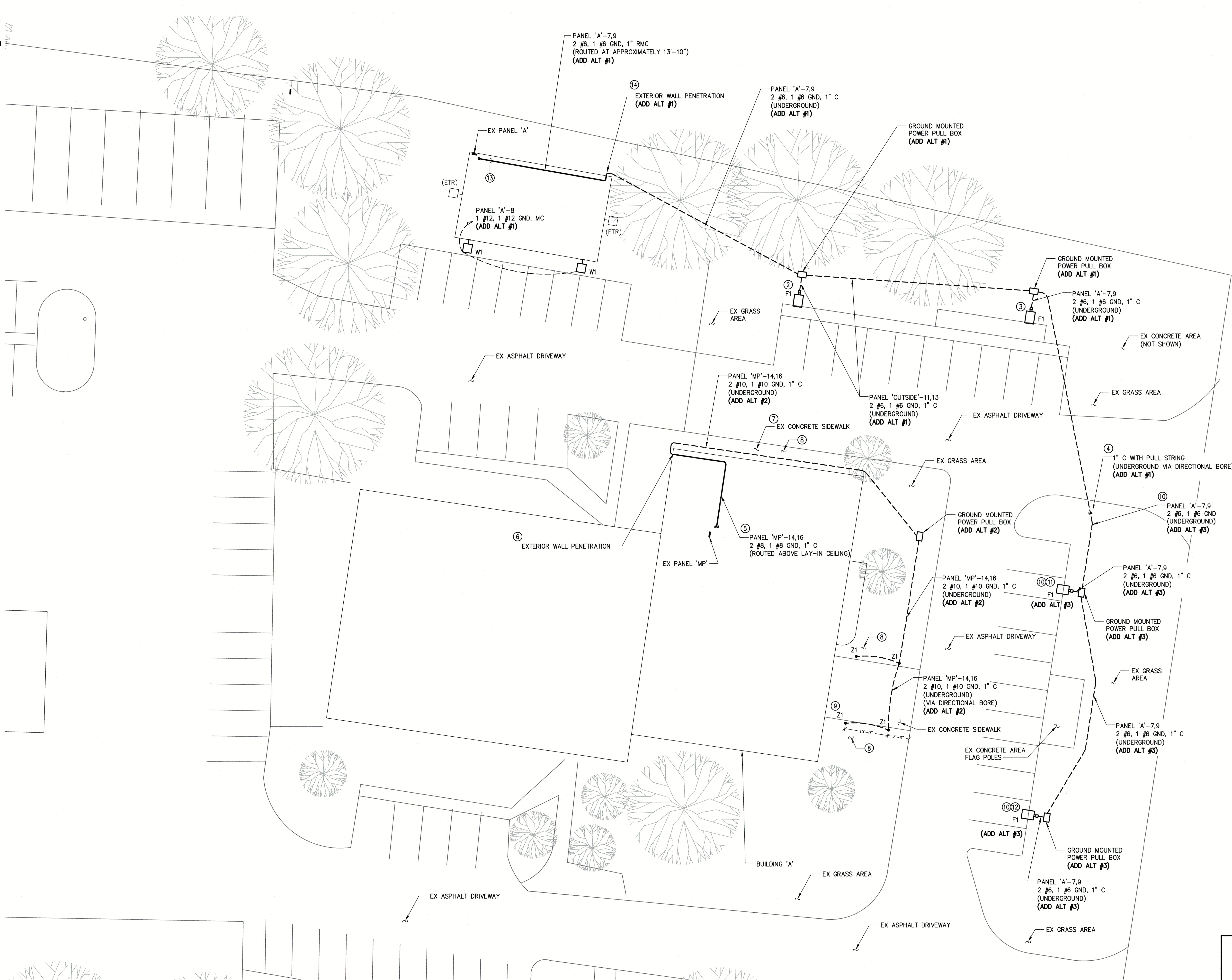


KEY PLAN

NTS



PLAN NORTH



NOTES

- ① **ADD ALTERNATE 1:** LOCATE POLE BASE CENTERED IN PARKING LOT & APPROXIMATELY 5'-0" FROM BACK OF CURB.
- ② **ADD ALTERNATE 1:** LOCATE POLE BASE CENTERED IN LAST PARKING SPACE & APPROXIMATELY 5'-0" FROM SIDEWALK.
- ③ **ADD ALTERNATE 1:** LOCATE POLE BASE CENTERED IN SECOND PARKING SPACE & APPROXIMATELY 5'-0" FROM SIDEWALK.
- ④ **ADD ALTERNATE 1:** INSTALL CONDUIT WITH PULL STRING FROM ADD ALTERNATE 1 PULL BOX & EXTEND CONDUIT UNDER DRIVEWAY TO 5'-0" PAST EDGE OF CURB IN GRASS AREA. CAP END & MAKE WATER TIGHT.
- ⑤ **ADD ALTERNATE 2:** ROUTE CONDUITS ABOVE LAY-IN CEILING. BOTTOM OF LAY-IN CEILING IS 9'-9" AFF. WHERE CONDITIONS ALLOW, KEEP CONDUITS MINIMUM OF 1'-0" ABOVE LAY-IN CEILING.
- ⑥ **ADD ALTERNATE 2:** PENETRATE & EXTEND CONDUIT THRU EXTERIOR WALL. EXTEND CONDUIT DOWN EXTERIOR WALL TO BELOW GROUND.
- ⑦ **ADD ALTERNATE 2:** ROUTE CONDUIT UNDER EXISTING CONCRETE SIDEWALK. WHERE THE EXISTING CONCRETE NEEDS TO BE REMOVED, REMOVE & REPLACE ENTIRE SECTION OF CONCRETE FROM JOINT TO JOINT. CUTTING & PATCHING A NARROW SECTION OF CONCRETE IS NOT ALLOWED.
- ⑧ **ADD ALTERNATE 2:** RESTORE PLANTING BACK TO EXISTING CONDITIONS.
- ⑨ **ADD ALTERNATE 2:** LOCATE BOLLARD APPROXIMATELY 1'-0" FROM SIDEWALK. PROVIDE 2 #8, 1 #8 GND, 1" C TO EACH Z1 FIXTURE.
- ⑩ **ADD ALTERNATE 3:** POLE BASE, POLE, FIXTURE, UNDERGROUND MOUNTED POWER PULL BOX, COUIT, WIRING SHALL BE FUTURE. SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- ⑪ **ADD ALTERNATE 3:** POLE BASE CENTERED IN PARKING SPACE WALKWAY & APPROXIMATELY 5'-0" FROM CONCRETE. SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- ⑫ **ADD ALTERNATE 3:** POLE BASE CENTERED IN 2ND PARKING PARKING SPACE & APPROXIMATELY 5'-0" FROM CONCRETE. SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- ⑬ **ADD ALTERNATE 1:** OPEN CEILING AREA. WHERE CONDITIONS ALLOW, ROUTE CONDUIT TIGHT TO BOTTOM SIDE OF THE ROOF DECKING SUPPORT STRUCTURE.
- ⑭ **ADD ALTERNATE 1:** PENETRATE & EXTEND CONDUIT THRU EXTERIOR WALL. EXTEND CONDUIT DOWN EXTERIOR WALL TO BELOW GROUND.



■ *Engineering* ■ *Architecture*
■ *Surveying* ■ *Technology*

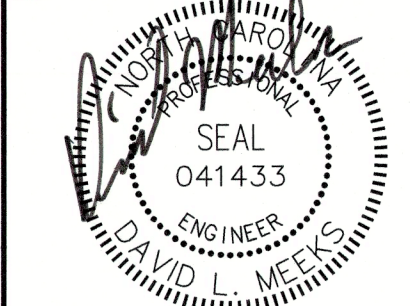
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No. C-427

SEA

SEA



10-3-2024

[illegible]

TEC PROJECT NO. 20240196

CLIENT PROJECT NO. ITB 24-25-16

PROJECT TITLE

CITY OF GREENVILLE
PUBLIC WORKS
SITE LIGHTING
(PHASE 2)

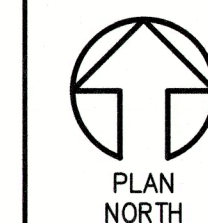
DRAWING TITLE

ELECTRICAL
ENLARGED SITE
LIGHTING PLAN
BUILDING 'A' EAST

DRAWING NO.

E2.2

1
E2.2 **ENLARGED SITE LIGHTING PLAN**
1/16"=1'-0" - BUILDING 'A'



KEY PLAN

NTS

E2.2

PANELBOARD		MP			VOLTAGE: <input checked="" type="checkbox"/> 208/120V, 3 PHASE, 4 WIRE <input type="checkbox"/> 480/277V, 3 PHASE, 4 WIRE		<input type="checkbox"/> 240V, 3 PHASE, 4 WIRE <input type="checkbox"/> V, 3 PHASE, _____ WIRE		
MOUNTING:	<input checked="" type="checkbox"/> FLUSH <input type="checkbox"/> SURFACE	MAIN:	<input type="checkbox"/> LUGS ONLY <input checked="" type="checkbox"/> MAIN BREAKER	BUS: <u>225 A</u> TRIP: <u>N/A</u>	FRAME: _____ A	<input checked="" type="checkbox"/> TOP <input type="checkbox"/> BOTTOM	NEUTRAL: <input type="checkbox"/> NONE	<input type="checkbox"/> 50% <input checked="" type="checkbox"/> 100%	
COVER:	<input checked="" type="checkbox"/> DOOR WITH LOCK <input type="checkbox"/> DOOR WITHOUT LOCK	<input type="checkbox"/> WITH HINGABLE COVER <input checked="" type="checkbox"/> WITHOUT HINGABLE COVER	ALL BRANCH BREAKERS 20A 1 POLE UNLESS NOTED OTHERWISE U/L LISTED BREAKER INTERRUPTING CAPACITY: _____ 10,000 A RMS. SYM. MIN.						
DESCRIPTION	LOAD	CKT NO.		CKT NO.	DESCRIPTION	LOAD	PHASE LOAD (AMPS)		
							L1	L2	L3
PANEL "A1" (SUB FEED BREAKER)									
GATE MOTOR BOX #3'		1		2	GATE MOTOR BOX #2'				
		3		4					
		5		6					
		7		8					
REC, GATE MOTOR BOX #3'		9		10	GATE MOTOR BOX #1'				
		11		12					
SPACE		13		14	SIDEWALK BOLLARDS ~	0.63			
SPACE		15		16	ADD ALTERNATE #2	0.63			
SPACE		17		18	SPACE				
SPACE		19		20	SPACE				
SPACE		21		22	SPACE				
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				

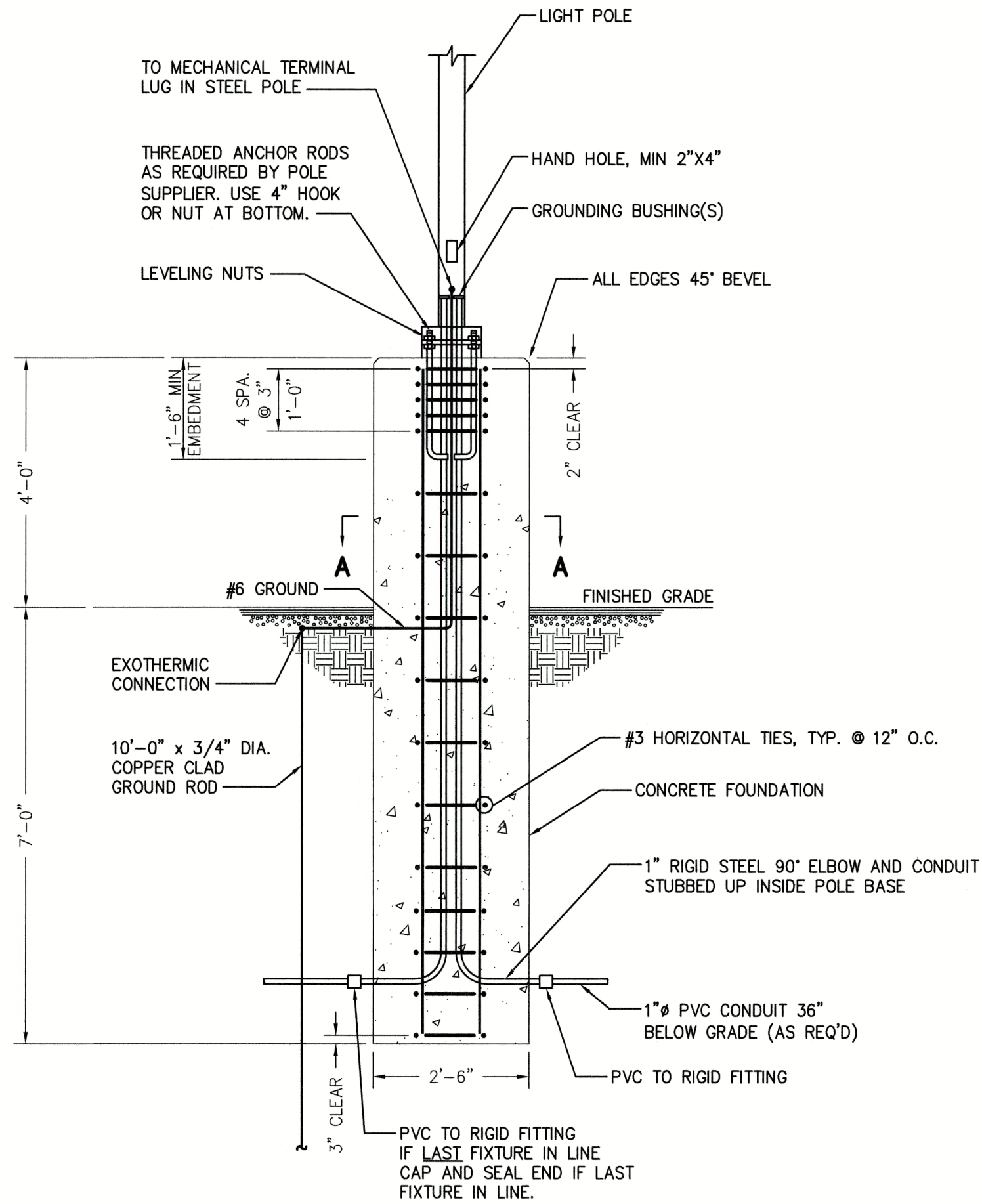
+ NEW LOAD ADDED TO EXISTING CIRCUIT BREAKER
* EXISTING SPARE CIRCUIT BREAKER TO BE USED
~ NEW CIRCUIT BREAKER IN EXISTING SPACE
^ NEW CIRCUIT BREAKER, EXISTING CIRCUIT BREAKER TO BE REMOVED

PANELBOARD BUILDING F: PANEL CS			VOLTAGE: <input checked="" type="checkbox"/> 208/120V., 3 PHASE, 4 WIRE											
MOUNTING: <input type="checkbox"/> FLUSH SURFACE		MAIN: <input checked="" type="checkbox"/> LUGS ONLY <input type="checkbox"/> MAIN BREAKER		BUS: 125 A TRIP: <input type="checkbox"/> NA A										
				<input checked="" type="checkbox"/> TOP <input type="checkbox"/> BOTTOM										
				NEUTRAL: <input type="checkbox"/> NONE <input type="checkbox"/> 50% <input type="checkbox"/> 100%										
COVER: <input checked="" type="checkbox"/> DOOR WITH LOCK <input type="checkbox"/> DOOR WITHOUT LOCK			<input type="checkbox"/> WITH HINGABLE COVER <input checked="" type="checkbox"/> WITHOUT HINGABLE COVER											
			ALL BRANCH BREAKERS 20A 1 POLE UNLESS NOTED OTHERWISE U/L LISTED BREAKER INTERRUPTING CAPACITY: 10,000 A RMS. SYM. MIN.											
DESCRIPTION	LOAD	CKT NO.		CKT NO.	DESCRIPTION	LOAD	PHASE LOAD (AMPS)							
							L1	L2	L3					
BLOCK HEATER		1		2	AREA POLE LIGHT (WEST) ~	3.0								
BLOCK HEATER		3		4		3.0								
BLOCK HEATER		5		6	AREA POLE LIGHT (WEST) ~	7.5								
BLOCK HEATER		7		8		7.5								
BLOCK HEATER		9		10	SPACE									
BLOCK HEATER		11		12	STORAGE LIGHT (?POLE LIGHT)									
BLOCK HEATER		13		14	HEATER FAN									
GARAGE LIGHT		15		16	SPACE									
GARAGE POWER		17		18	SPACE									
STORAGE POWER		19		20	SPACE									
EXTERIOR LIGHTS		21		22	SPACE									
SALT DOME		23		24	SPACE									
PANELBOARD LOCATION: BUILDING F				MANUFACTURER: GENERAL ELECTRIC										
				MODEL/CAT. NO.: AQF3241MTX										
				FEED: _____										
KEY: MULTIPOLE BREAKER				GFI BREAKER										
				LOCKOFF ATTACH										
				PADLOCK ATTACH										
				SWITCH DUTY										
				HACR										
				HID RATED										
				ARC FAULT										
				<table border="1"> <tr> <td>TOTAL</td> <td>L1</td> <td></td> </tr> <tr> <td>TOTAL</td> <td>L2</td> <td></td> </tr> <tr> <td>TOTAL</td> <td>L3</td> <td></td> </tr> </table>			TOTAL	L1		TOTAL	L2		TOTAL	L3
TOTAL	L1													
TOTAL	L2													
TOTAL	L3													

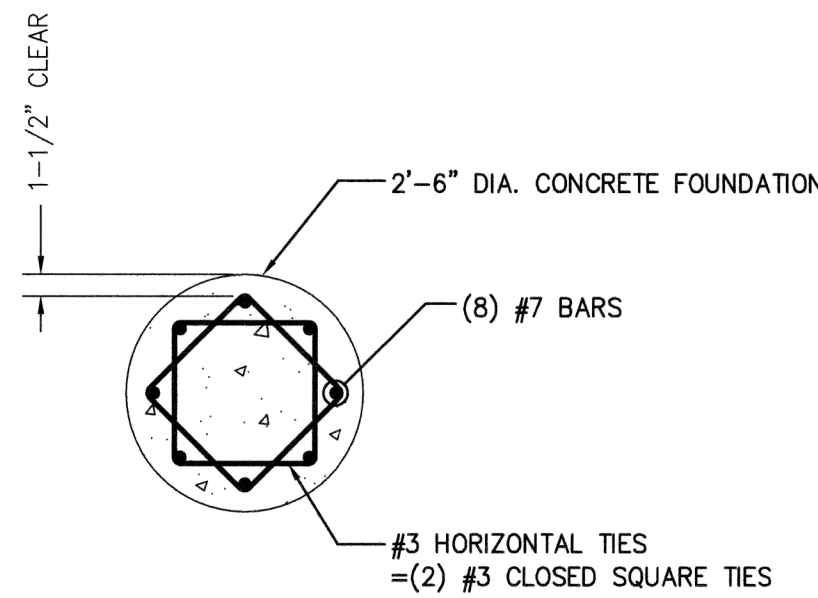
+ NEW LOAD ADDED TO EXISTING CIRCUIT BREAKER
* EXISTING SPARE CIRCUIT BREAKER TO BE USED
~ NEW CIRCUIT BREAKER IN EXISTING SPACE
^ NEW CIRCUIT BREAKER, EXISTING CIRCUIT BREAKER TO BE REMOVED

PANELBOARD <u>A</u>		VOLTAGE: <u>3</u> 240/120V, 1 PHASE, 3 WIRE						
MOUNTING:	<input type="checkbox"/> FLUSH SURFACE <input checked="" type="checkbox"/> SURFACE	MAIN:	<input type="checkbox"/> LUGS ONLY <input checked="" type="checkbox"/> MAIN BREAKER	BUS: <u>100</u> A TRIP: <u>100</u> A	FRAME: <u> </u> A <input type="checkbox"/> TOP <input checked="" type="checkbox"/> BOTTOM	NEUTRAL:	<input type="checkbox"/> NONE <input checked="" type="checkbox"/> 50% <input type="checkbox"/> 100%	
COVER:	<input checked="" type="checkbox"/> DOOR WITH LOCK <input type="checkbox"/> DOOR WITHOUT LOCK	<input type="checkbox"/> WITH HINGABLE COVER <input type="checkbox"/> WITHOUT HINGABLE COVER	ALL BRANCH BREAKERS 20A 1 POLE UNLESS NOTED OTHERWISE U/L LISTED BREAKER INTERRUPTING CAPACITY: <u>10,000</u> A RMS. SYM. MIN.					
DESCRIPTION	LOAD	CKT NO.		CKT NO.	DESCRIPTION	LOAD	PHASE LOAD (AMPS)	
							L1	L2
MAIN BREAKER		1		2	SPACE			
		3		4	SPACE			
EAST WALL (PANEL WALL) GFCI REC		5		6	WEST WALL GFCI REC			
AREA POLE LIGHT (EAST) ~		7		8	LIGHTS			
ADD ALTERNATE #1 & #3	1.85	9		10	SPACE			
SPACE		11		12	SPACE			
SPACE		13		14	SPACE			
SPACE		15		16	SPACE			
SPACE		17		18	SPACE			
SPACE		19		20	SPACE			
SPACE		21		22	SPACE			
SPACE		23		24	SPACE			
PANELBOARD LOCATION: BUILDING A1				MANUFACTURER: EATON CUTLER-HAMMER				
				MODEL/CAT. NO.: BR				
				FEED: _____				
KEY: MULTIPOLE BREAKER				GFI BREAKER				
PADLOCK ATTACH				LOCKOFF ATTACH				
				SWITCH DUTY				
				HID RATED				
				ARC FAULT				
						TOTAL L1 <table border="1" style="display: inline-table; width: 100px; height: 20px;"></table>		
						TOTAL L2 <table border="1" style="display: inline-table; width: 100px; height: 20px;"></table>		

+ NEW LOAD ADDED TO EXISTING CIRCUIT BREAKER
* EXISTING SPARE CIRCUIT BREAKER TO BE USED
~ NEW CIRCUIT BREAKER IN EXISTING SPACE
^ NEW CIRCUIT BREAKER, EXISTING CIRCUIT BREAKER TO BE REMOVED



ELEVATION VIEW



PLAN VIEW – SECTION A-A

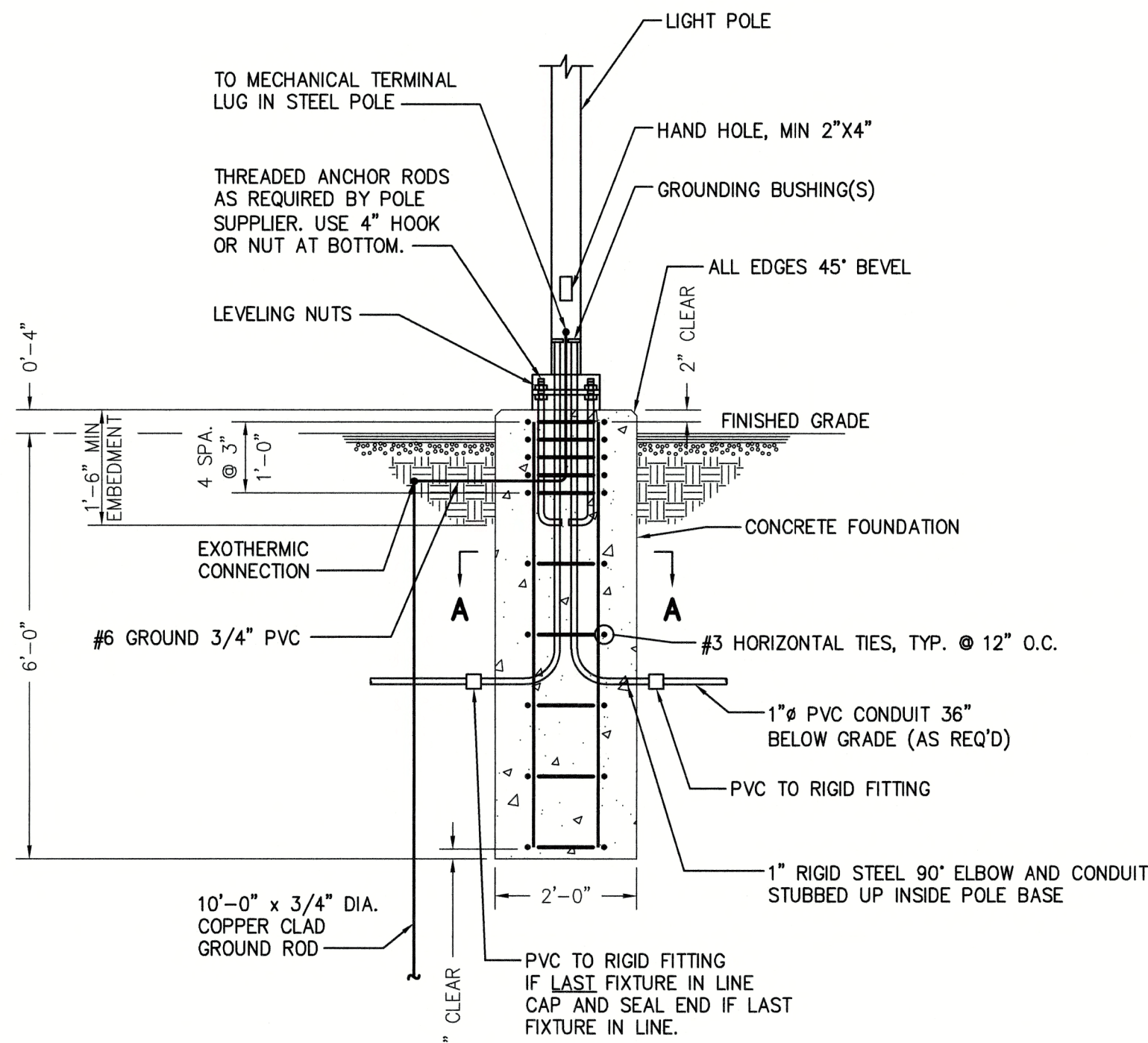
DETAIL STRUCTURAL NOTES:

1. ANCHOR RODS SHALL BE GALVANIZED ASTM F1554 GRADE 55.
2. REINFORCEMENTS BARS SHALL BE A615 GRADE 60.
3. CONCRETE SHALL HAVE 4000 PSI MINIMUM 28-DAY COMPRESSION STRENGTH.
4. AFTER THE FOUNDATION IS FORMED AND POURED, THE SOIL AROUND THE BASE SHALL BE BACKFILLED AND COMPACTED TO ACHIEVE 98% COMPACTION (STANDARD PROCTOR METHOD).
5. SEE PLAN DRAWINGS FOR LOCATIONS OF LIGHT POLE FOUNDATIONS.
6. FOUNDATIONS ARE DESIGNED FOR A MINIMUM ALLOWABLE NET SOIL BEARING PRESSURE OF 1,500 PSF. CONTRACTOR TO VERIFY PRIOR TO CONCRETE PLACEMENT.
7. FOR MINIMUM CONCRETE DURABILITY, CONCRETE SHALL BE AIR-ENTRAINED WITH AIR CONTENT OF 6% PLUS OR MINUS 1.5%.
8. MAXIMUM CONCRETE SLUMP SHALL BE (4) INCHES TYPICAL, UNLESS NOTED OTHERWISE.

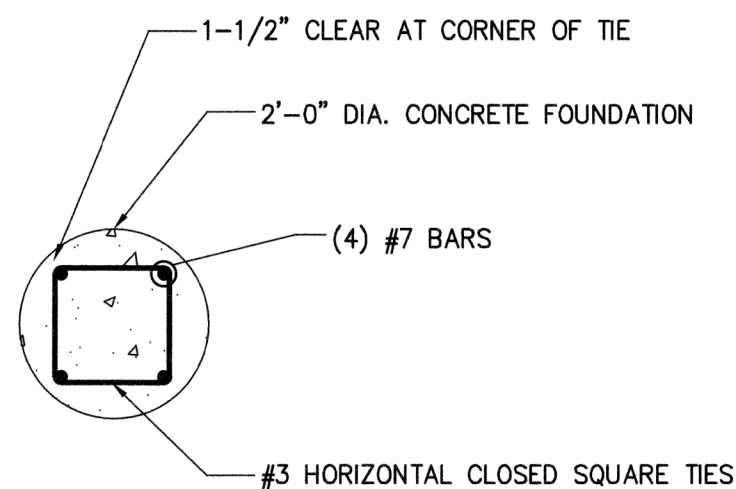
GENERAL DETAIL NOTES:

1. TOP OF GROUND ROD SHALL BE DRIVEN TO 2" BELOW FINISHED GRADE. CADWELD GROUNDING CONDUCTOR CONNECTIONS.
2. GROUT SHALL BE PACKED UNDER BASE OF POLE LIGHT TO ENSURE FULL CONTACT WITH FOUNDATION.
3. PROVIDE 2'-6" ROUND CONCRETE FIBER FORM ABOVE FINISHED GRADE.
4. POSITION HAND HOLE AWAY FROM WALKWAY.

1
E4.1 TYPICAL POLE MOUNTED FIXTURE FOUNDATION 'A1'
NTS



ELEVATION VIEW



PLAN VIEW – SECTION A-A

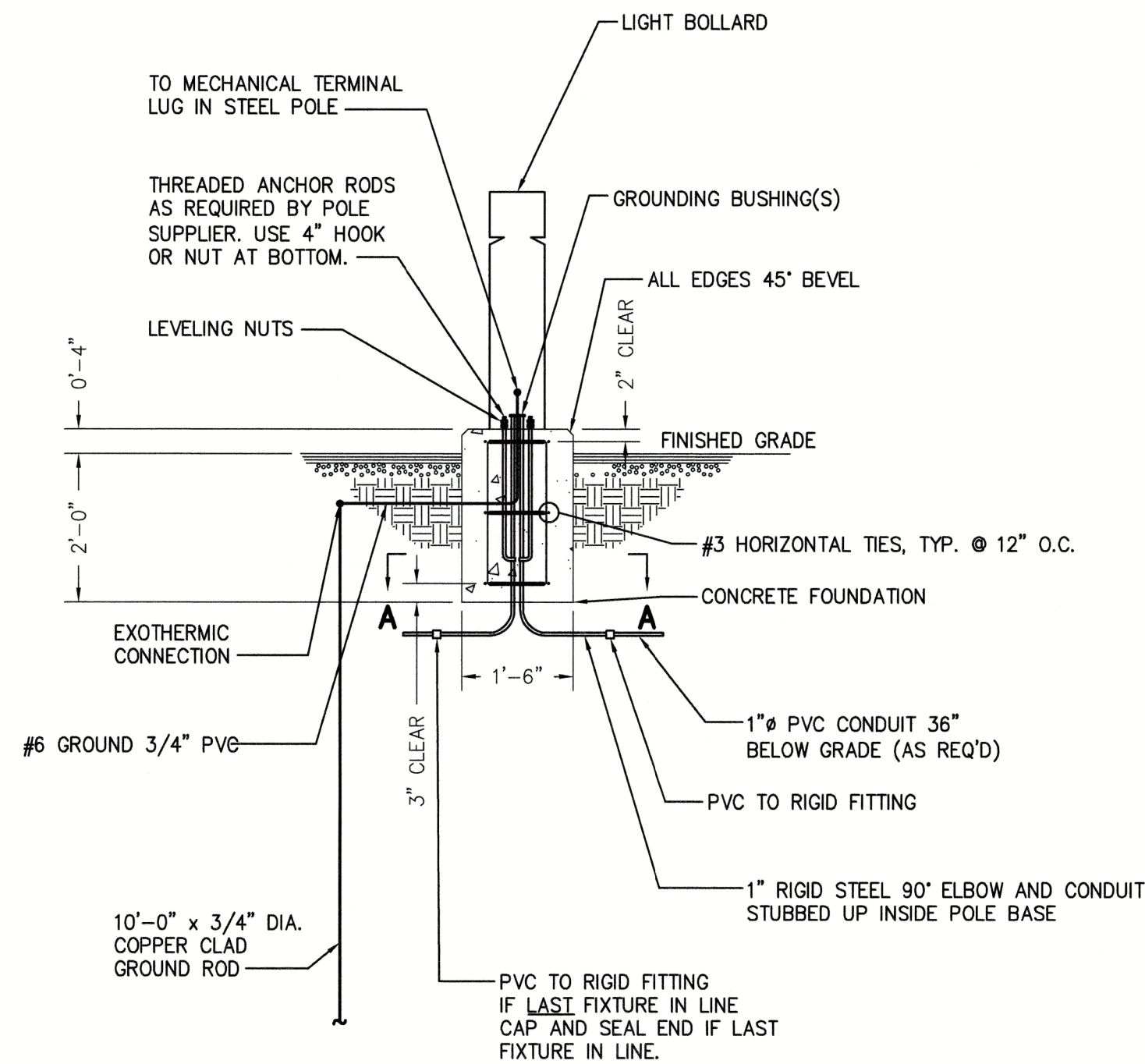
DETAIL STRUCTURAL NOTES:

1. ANCHOR RODS SHALL BE GALVANIZED ASTM F1554 GRADE 55.
2. REINFORCEMENTS BARS SHALL BE A615 GRADE 60.
3. CONCRETE SHALL HAVE 4000 PSI MINIMUM 28-DAY COMPRESSION STRENGTH.
4. AFTER THE FOUNDATION IS FORMED AND POURED, THE SOIL AROUND THE BASE SHALL BE BACKFILLED AND COMPACTED TO ACHIEVE 98% COMPACTION (STANDARD PROCTOR METHOD).
5. SEE PLAN DRAWINGS FOR LOCATIONS OF LIGHT POLE FOUNDATIONS.
6. FOUNDATIONS ARE DESIGNED FOR A MINIMUM ALLOWABLE NET SOIL BEARING PRESSURE OF 1,500 PSF. CONTRACTOR TO VERIFY PRIOR TO CONCRETE PLACEMENT.
7. FOR MINIMUM CONCRETE DURABILITY, CONCRETE SHALL BE AIR-ENTRAINED WITH AIR CONTENT OF 6% PLUS OR MINUS 1.5%.
8. MAXIMUM CONCRETE SLUMP SHALL BE (4) INCHES TYPICAL, UNLESS NOTED OTHERWISE.

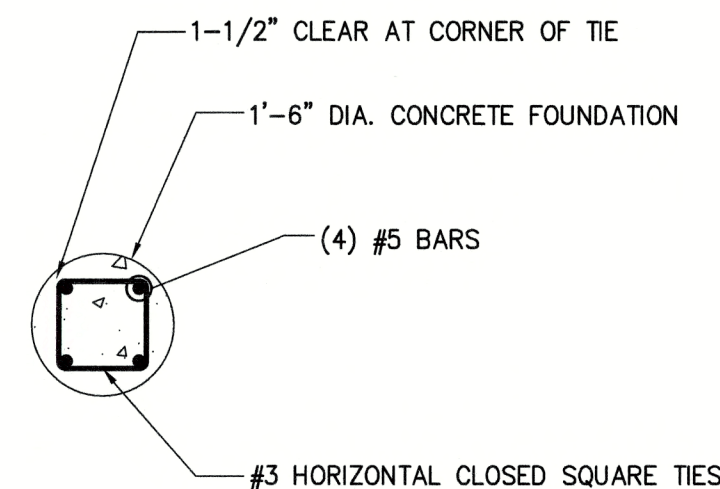
GENERAL DETAIL NOTES:

1. TOP OF GROUND ROD SHALL BE DRIVEN TO 2" BELOW FINISHED GRADE. CADWELD GROUNDING CONDUCTOR CONNECTIONS.
2. GROUT SHALL BE PACKED UNDER BASE OF POLE LIGHT TO ENSURE FULL CONTACT WITH FOUNDATION.
3. PROVIDE 2'-6" ROUND CONCRETE FIBER FORM ABOVE FINISHED GRADE.
4. POSITION HAND HOLE AWAY FROM WALKWAY.

2
E4.1 TYPICAL POLE MOUNTED FIXTURE FOUNDATION 'F1'
NTS



ELEVATION VIEW



PLAN VIEW – SECTION A-A

DETAIL STRUCTURAL NOTES:

1. ANCHOR RODS SHALL BE GALVANIZED ASTM F1554 GRADE 55.
2. REINFORCEMENTS BARS SHALL BE A615 GRADE 60.
3. CONCRETE SHALL HAVE 4000 PSI MINIMUM 28-DAY COMPRESSION STRENGTH.
4. AFTER THE FOUNDATION IS FORMED AND POURED, THE SOIL AROUND THE BASE SHALL BE BACKFILLED AND COMPACTED TO ACHIEVE 98% COMPACTION (STANDARD PROCTOR METHOD).
5. SEE PLAN DRAWINGS FOR LOCATIONS OF BOLLARD FOUNDATIONS.
6. FOUNDATIONS ARE DESIGNED FOR A MINIMUM ALLOWABLE NET SOIL BEARING PRESSURE OF 1,500 PSF. CONTRACTOR TO VERIFY PRIOR TO CONCRETE PLACEMENT.
7. FOR MINIMUM CONCRETE DURABILITY, CONCRETE SHALL BE AIR-ENTRAINED WITH AIR CONTENT OF 6% PLUS OR MINUS 1.5%.
8. MAXIMUM CONCRETE SLUMP SHALL BE (4) INCHES TYPICAL, UNLESS NOTED OTHERWISE.

GENERAL DETAIL NOTES:

1. TOP OF GROUND ROD SHALL BE DRIVEN TO 2" BELOW FINISHED GRADE. CADWELD GROUNDING CONDUCTOR CONNECTIONS.
2. GROUT SHALL BE PACKED UNDER BASE OF BOLLARD TO ENSURE FULL CONTACT WITH FOUNDATION.
3. PROVIDE 1'-6" ROUND CONCRETE FIBER FORM ABOVE FINISHED GRADE.

3
E4.1 TYPICAL BOLLARD FIXTURE FOUNDATION 'Z1'
NTS



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■ Surveying ■ Technology

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STRUCTURAL ONLY

ELECTRICAL ONLY

REV	DATE	DESCRIPTION	BY	CHK
A	09-18-24	ISSUE FOR OWNER REVIEW	DLM	
B	09-27-24	ISSUE FOR OWNER REVIEW	DLM	
C	10-04-24	ISSUE FOR BID	DLM	

TES PROJECT NO. 20240196

CLIENT PROJECT NO. 1TB 24-25-16

PROJECT TITLE

CITY OF GREENVILLE
PUBLIC WORKS
SITE LIGHTING
(PHASE 2)

DRAWING TITLE

ELECTRICAL
POLE FOUNDATION
DETAILS

DRAWING NO.

E4.1



NOTES:
1. MANUFACTURER INDICATED FOR LEVEL OF QUALITY, FEATURES, AND SIZE REQUIREMENTS. EQUAL PRODUCT BY OTHER MANUFACTURERS WILL BE ALLOWED PROVIDED PRODUCT MEETS OR EXCEEDS LEVEL OF QUALITY, FEATURES, AND SIZE REQUIREMENTS.

E4.2