Greenville
NORTH CAROLINA

THE EAST GROUP

THE EAST GROUP, P.A. CORPORATE SEAL N.C.

CITY OF GREENVILLE

GREENVILLE, NORTH CAROLINA

PUBLIC WORKS SITE LIGHTING
PHASE 2

ITB 22-23-37

TEG PROJECT NO. 20230032

ISSUE FOR BID

APRIL 5, 2023

DRAWING INDEX

PROJECT NOTES

1. THIS PROJECT REQUIRES THE INSTALLATION OF:
   - CONCRETE FOUNDATION & POLE MOUNTED AREA LIGHTING FIXTURES
   - UNDERGROUND CONDUITS VIA OPEN CUT TRENCH
   - UNDERGROUND CONDUITS VIA DIRECTIONAL BORE
   - 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 UNGROUNDED 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/JUCNTION 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 EXTENT 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-FEROUS 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

20. UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 80 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 TURNING 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 STRUT.
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 NC 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 RESODING/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

LEGEND

(J)	JUNCTION BOX/DEVICE BOX WITH COVER. LOCATE AS REQUIRED FOR EQUIPMENT SERVED.
	DEVICE AS INDICATED.
XX	AREA POLE MOUNTED LIGHT FIXTURE. "XX" INDICATES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.
XX	BOLLARD LIGHT FIXTURE. "XX" INDICATES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.
XXXX	ELECTRICAL PANEL, SURFACE MOUNTED, TOP OF PANEL 72" AFF UNO. "XXXX" INDICATES PANEL TAG.
XXXX	ELECTRICAL PANEL, FLUSH MOUNTED, TOP OF PANEL 72" AFF UNO. "XXXX" INDICATES PANEL TAG.
# E#.#	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 "#" INDICATES NOTE NUMBER.

ELECTRICAL LOAD SUMMARY
BUILDING 'F' – PANEL 'CS' – (E2.1)

ELECTRICAL:	VA LOAD
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
OUTSIDE – PANEL 'OUTSIDE' – (E2.2)

ELECTRICAL:	VA LOAD
CONNECTED LOAD – ADDED	976 VA
CONNECTED LOAD – EXISTING TO BE DEMOLISHED	0 VA
NET BUILDING LOAD: NEW MINUS DEMO	976 VA

ADD ALTERNATE #1

ELECTRICAL LOAD SUMMARY
BUILDING 'A' – PANEL 'MP' – (E2.2)

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

ADD ALTERNATE #2

ALTERNATES

1. ADD ALTERNATE #1:
   – DEMO OF FIXTURE. INSTALLATION OF THREE LIGHT FIXTURES, POLES, FOUNDATIONS, & CIRCUITING FOR AREA NORTH OF BUILDING A.
2. ADD ALTERNATE #2:
   – INSTALLATION LIGHTING FIXTURE BOLLARDS, FOUNDATIONS, & CIRCUITING FOR SIDEWALK IN FRONT OF BUILDING A.

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-DDBXD (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 – DSX0-LED-P7-40K-T4M-208-SPA-DF-PER-DDBXD (FIXTURE) WITH SSS-25'-5G-DM19AS-DDB (POLE) (1 FIXTURE PER POLE. EC TO COMPLETE PART NUMBER.)	208	–	LED	166	4000K	BOTTOM OF FIXTURE MOUNTED APPROXIMATELY 25'–6" AFG. SEE 2/E4.1 FOR POLE FOUNDATION DETAIL.
Z1	BOLLARD, LED, ASYMMETRIC, 4000K, DUAL FUSE, DARK BRONZE FINISH.	LITHONIA – DSXB-LED-12C-700-40K-ASY-208-PE-DF-DDBXD	208	–	LED	22	4000K	SEE 3/E4.1 FOR FOUNDATION DETAIL.

THE EAST GROUP
▪ Engineering ▪ Architecture
▪ Surveying ▪ Technology
▪ Corporate Office
324 Evans Street
Greenville, NC 27858
Tel 252.758.3746
Fax 252.830.3954
▪ Branch Office
4325 Lake Boone Trail, Suite 311
Raleigh, NC 27607
Tel 919.784.9330
Fax 252.830.3954
▪ NC Engineering License No. C-0206
NC Architectural License No. 50213
NC Landscape Architectural License No. C-427

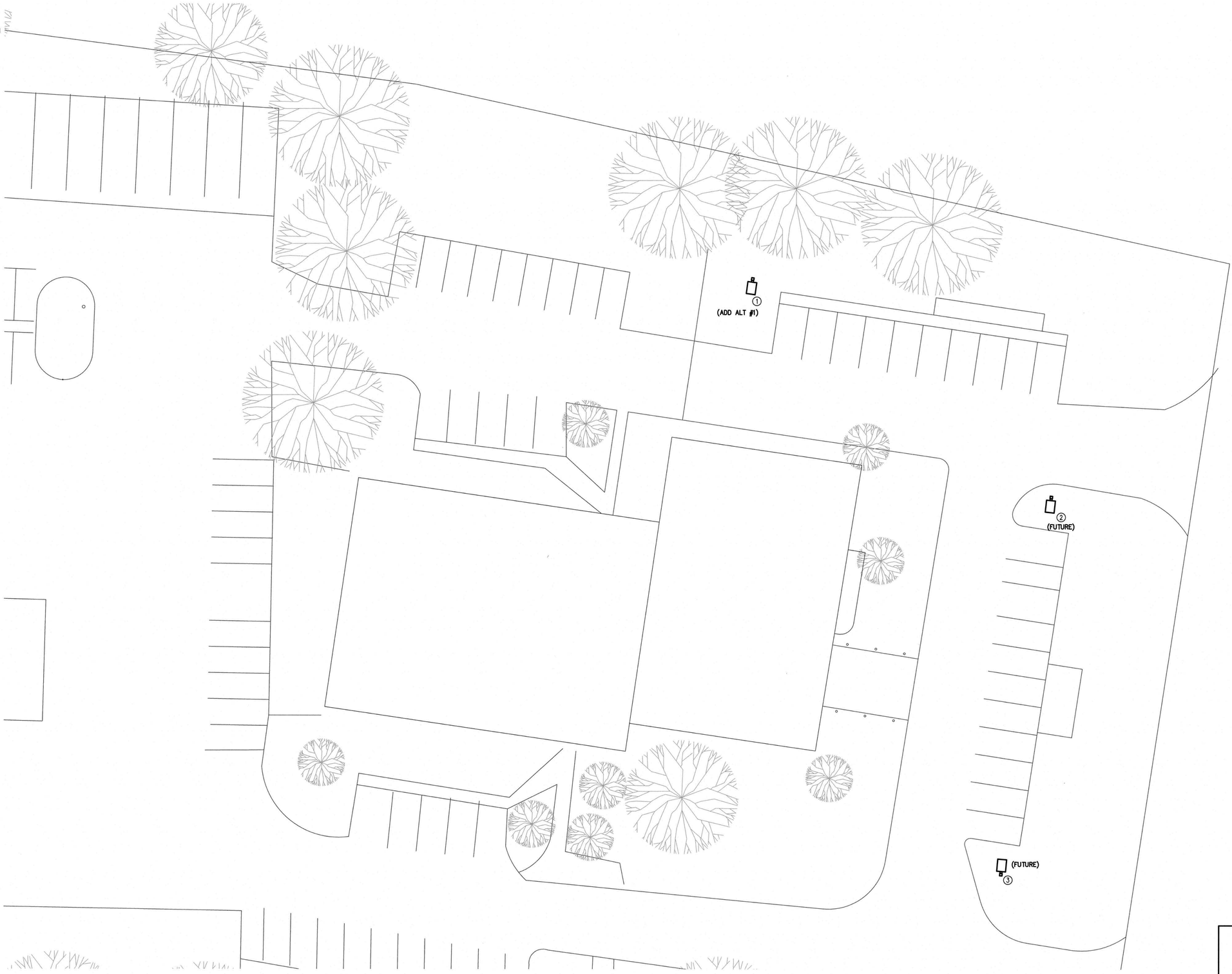
SEAL

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041433 DAVID L. MEEKS
4-5-2023

REV	DATE	DESCRIPTION	BY	CHK
A	03-27-23	ISSUE FOR OWNER REVIEW	DLM	
B	04-05-23	ISSUE FOR BID	DLM	

TEG PROJECT NO.
20230032
CLIENT PROJECT NO.
ITB 22-23-37
PROJECT TITLE
CITY OF GREENVILLE
PUBLIC WORKS
SITE LIGHTING
(PHASE 2)
DRAWING TITLE
ELECTRICAL
LEAD SHEET
DRAWING NO.
E0.1

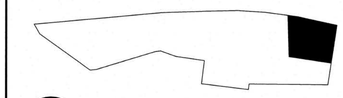
PLAN NORTH



NOTES

1. **ADD 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 & RESEED TO RESTORE BACK TO ADJACENT AREA. PROVIDE IN GROUND JUNCTION BOX FOR RECONNECTION OF CIRCUIT TO REMAINING DOWN STREAM LOADS.
2. **FUTURE:** 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 & RESEED TO RESTORE BACK TO ADJACENT AREA. SHOWN HERE FOR REFERENCE ONLY.
3. **FUTURE:** 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 & RESEED TO RESTORE BACK TO ADJACENT AREA. SHOWN HERE FOR REFERENCE ONLY.

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



PLAN NORTH

KEY PLAN
NTS

THE EAST GROUP
■ Engineering ■ Architecture
■ Surveying ■ Technology

- Corporate Office
  324 Evans Street
  Greenville, NC 27858
  Tel 252.758.3746
  Fax 252.830.3954
- Branch Office
  4325 Lake Boone Trail, Suite 311
  Raleigh, NC 27607
  Tel 919.784.9330
  Fax 919.784.9331
- NC Engineering License No. C-0206
  NC Architectural License No. 50213
  NC Landscape Architectural License No. C-427

SEAL

SEAL
NORTH CAROLINA PROFESSIONAL
SEAL 041433 ENGINEER
DAVID L. MEEKS
4-5-2023

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TEG PROJECT NO.
20230032

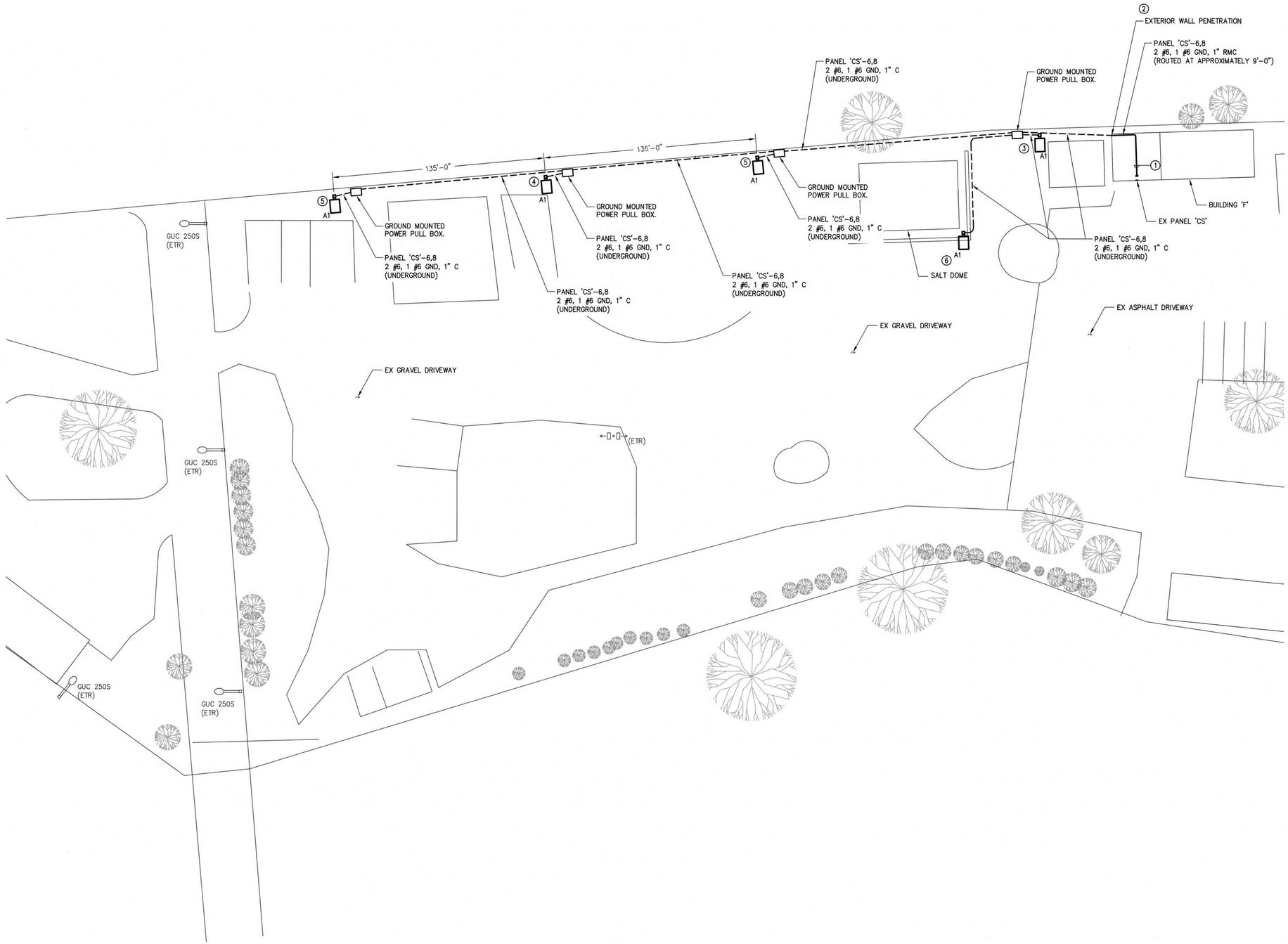
CLIENT PROJECT NO.
ITB 22-23-37

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

DRAWING TITLE
ELECTRICAL
DEMOLITION PLAN
BUILDING 'A'

DRAWING NO.
E1.1

PLAN NORTH



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

PLAN NORTH

KEY PLAN
NTS

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.

THE EAST GROUP
▪ Engineering ▪ Architecture
▪ Surveying ▪ Technology

▪ Corporate Office
324 Evans Street
Greenville, NC 27858
Tel 252.758.3746
Fax 252.830.3954

▪ Branch Office
4325 Lake Boone Trail, Suite 311
Raleigh, NC 27607
Tel 919.784.9330
Fax 919.784.9331

▪ NC Engineering License No. C-0206
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No. C-427

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NORTH CAROLINA
PROFESSIONAL
SEAL
041433
ENGINEER
DAVID L. MERRIS
4-5-2023

REV	DATE	DESCRIPTION	BY	CHK
A	03-27-23	ISSUE FOR OWNER REVIEW	DLM	
B	04-05-23	ISSUE FOR BID	DLM	

TEG PROJECT NO.
20230032

CLIENT PROJECT NO.
ITB 22-23-37

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

PLAN NORTH

EX PANEL 'OUTSIDE'

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(ADD ALT #1)

EX GRASS AREA

GROUND MOUNTED
POWER PULL BOX
(ADD ALT #1)

① A1

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(ADD ALT #1)

② F1

GROUND MOUNTED
POWER PULL BOX
(ADD ALT #1)

③ F1

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(ADD ALT #1)

EX CONCRETE AREA
(NOT SHOWN)

EX ASPHALT DRIVEWAY

PANEL 'MP'–14,16
2 #8, 1 #8 GND, 1" C
(UNDERGROUND)
(ADD ALT #2)

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(ADD ALT #1)

EX ASPHALT DRIVEWAY

EX GRASS AREA

⑥ EX CONCRETE SIDEWALK

⑦

EX GRASS AREA

⑨ PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND VIA DIRECTIONAL BORE)
(FUTURE)

EX ASPHALT DRIVEWAY

⑤ EXTERIOR WALL PENETRATION

④ PANEL 'MP'–14,16
2 #8, 1 #8 GND, 1" C
(ROUTED ABOVE LAY–IN CEILING)

EX PANEL 'MP'

GROUND MOUNTED
POWER PULL BOX
(ADD ALT #2)

EX GRASS AREA

PANEL 'MP'–14,16
2 #8, 1 #8 GND, 1" C
(UNDERGROUND)
(ADD ALT #2)

⑨⑩ F1
(FUTURE)

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(FUTURE)

GROUND MOUNTED
POWER PULL BOX
(FUTURE)

⑦ Z1

EX ASPHALT DRIVEWAY

PANEL 'MP'–14,16
2 #8, 1 #8 GND, 1" C
(UNDERGROUND)
(VIA DIRECTIONAL BORE)
(ADD ALT #2)

⑧ Z1

15'–0"

7'–6"

⑦

EX CONCRETE SIDEWALK

EX CONCRETE AREA
FLAG POLES

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(FUTURE)

⑨⑪ F1
(FUTURE)

GROUND MOUNTED
POWER PULL BOX
(FUTURE)

PANEL 'OUTSIDE'–11,13
2 #6, 1 #6 GND, 1" C
(UNDERGROUND)
(FUTURE)

BUILDING 'A'

EX GRASS AREA

EX ASPHALT DRIVEWAY

EX ASPHALT DRIVEWAY

EX GRASS AREA

1 / E2.2 ENLARGED SITE LIGHTING PLAN

1/16"=1'–0" – BUILDING 'A'

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 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.

⑤ **ADD ALTERNATE 2:** PENETRATE & EXTEND CONDUIT THRU EXTERIOR WALL. EXTEND CONDUIT DOWN EXTERIOR WALL TO BELOW GROUND.

⑥ **ADD ALTERNATE 2:** ROUTE CONDUIT UNDER EXISTING CONCRETE SIDEWALK. WHERE THE EXISTING CONCRETE NEEDS TO BE REMOVE, REMOVE & REPLACE ENTIRE SECTION OF CONCRETE FROM JOINT TO JOINT. CUTTING & PATCHING A NARROW SECTION OF CONCRETE IS NOT ALLOWED.

⑦ **ADD ALTERNATE 2:** RESTORE PLANTING BACK TO EXISTING CONDITIONS.

⑧ **ADD ALTERNATE 2:** LOCATE BOLLARD APPROXIMATELY 1'–0" FROM SIDEWALK. PROVIDE 2 #8, 1 #8 GND, 1" C TO EACH Z1 FIXTURE.

⑨ **FUTURE:** POLE BASE, POLE, FIXTURE, UNDERGROUND MOUNED POWER PULL BOX, CONDUIT, WRING SHALL BE FUTURE. SHOWN ON THIS DRAWING FOR REFERENCE ONLY.

⑩ **FUTURE:** POLE BASE CENTERED IN PARKING SPACE WALKWAY & APPROXIMATELY 5'–0" FROM CONCRETE. SHOWN ON THIS DRAWING FOR REFERENCE ONLY.

⑪ **FUTURE:** POLE BASE CENTERED IN 2ND PARKING SPACE & APPROXIMATELY 5'–0" FROM CONCRETE. SHOWN ON THIS DRAWING FOR REFERENCE ONLY.

KEY PLAN

PLAN NORTH

NTS

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▪ Engineering ▪ Architecture
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▪ Corporate Office
324 Evans Street
Greenville, NC 27858
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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

EXISTING – BUILDING "A"

PANELBOARD MP | VOLTAGE: ☒ 208/120V., 3 PHASE, 4 WIRE ☐ 480/277V., 3 PHASE, 4 WIRE ☐ 240V., 3 PHASE, 4 WIRE ☐ ___V., 3 PHASE, __ WIRE

MOUNTING: ☒ FLUSH ☐ SURFACE | MAIN: ☐ LUGS ONLY ☒ MAIN BREAKER | BUS: 225 A TRIP: NA A | FRAME: ___ A | ☒ TOP ☐ BOTTOM | NEUTRAL: ☐ NONE ☐ 50% ☒ 100%

COVER: ☒ DOOR WITH LOCK ☐ DOOR WITHOUT LOCK ☐ WITH HINGABLE COVER ☒ 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					
REC, GATE MOTOR BOX #3'		7	8	GATE MOTOR BOX #1'				
		9	10					
		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				

PANELBOARD LOCATION: BUILDING A
MANUFACTURER: GENERAL ELECTRIC
MODEL/CAT. NO.: AQF3422MTX
FEED: ___

TOTAL L1	
TOTAL L2	
TOTAL L3	

KEY: XX MULTIPOLE BREAKER | G GFI BREAKER | P PADLOCK ATTACH | L LOCKOFF ATTACH | H HACR | SW SWITCH DUTY | HD HID RATED | A ARC FAULT

(EXISTING PANELBOARD SHOWN FOR REFERENCE ONLY, CIRCUITS HAVE NOT BEEN FIELD VERIFIED)
+ 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

EXISTING – BUILDING 'F'

PANELBOARD BUILDING F: PANEL CS | VOLTAGE: ☒ 208/120V., 3 PHASE, 4 WIRE

MOUNTING: ☐ FLUSH ☒ SURFACE | MAIN: ☒ LUGS ONLY ☐ MAIN BREAKER | BUS: 125 A TRIP: NA A | FRAME: ___ A | ☒ TOP ☐ BOTTOM | NEUTRAL: ☐ NONE ☒ 50% ☐ 100%

COVER: ☒ DOOR WITH LOCK ☐ DOOR WITHOUT LOCK ☐ WITH HINGABLE COVER ☒ 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: ___

TOTAL L1	
TOTAL L2	
TOTAL L3	

KEY: XX MULTIPOLE BREAKER | G GFI BREAKER | P PADLOCK ATTACH | L LOCKOFF ATTACH | H HACR | SW SWITCH DUTY | HD HID RATED | A ARC FAULT

(EXISTING PANELBOARD SHOWN FOR REFERENCE ONLY, CIRCUITS HAVE NOT BEEN FIELD VERIFIED)
+ 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

EXISTING – 'OUTSIDE'

PANELBOARD ___ | VOLTAGE: ☒ 240/120V., 1 PHASE, 3 WIRE | NEMA 3R

MOUNTING: ☐ FLUSH ☒ SURFACE | MAIN: ☐ LUGS ONLY ☒ MAIN BREAKER | BUS: 200 A TRIP: 200 A | FRAME: ___ A | ☐ TOP ☒ BOTTOM | NEUTRAL: ☐ NONE ☒ 50% ☒ 100%

COVER: ☒ DOOR WITH LOCK ☐ DOOR WITHOUT LOCK ☐ WITH HINGABLE COVER ☒ WITHOUT HINGABLE COVER

ALL BRANCH BREAKERS 20A 1 POLE UNLESS NOTED OTHERWISE
U/L LISTED BREAKER INTERRUPTING CAPACITY: 25,000 A RMS. SYM. MIN.

DESCRIPTION	LOAD	CKT NO.	CKT NO.	DESCRIPTION	LOAD	PHASE LOAD (AMPS) L1	L2
REC A		1	2	REC F			
REC I		3	4	REC J			
REC G		5	6	REC D			
REC B		7	8	REC H			
REC C		9	10	REC E			
AREA POLE LIGHT (EAST) ~	4.7	11	12	SPACE			
ADD ALTERNATE #1	4.7	13	14	SPACE			
SPACE		15	16	SPACE			
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			

PANELBOARD LOCATION: ___
MANUFACTURER: EATON CUTLER-HAMMER
MODEL/CAT. NO.: ___
FEED: SEE ELECTRICAL ONE LINE DIAGRAM

TOTAL L1	
TOTAL L2	

KEY: XX MULTIPOLE BREAKER | G GFI BREAKER | P PADLOCK ATTACH | L LOCKOFF ATTACH | H HACR | SW SWITCH DUTY | HD HID RATED | A ARC FAULT

(EXISTING PANELBOARD SHOWN FOR REFERENCE ONLY, CIRCUITS HAVE NOT BEEN FIELD VERIFIED)
+ 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

THE EAST GROUP
▪ Engineering ▪ Architecture
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▪ Corporate Office
324 Evans Street
Greenville, NC 27858
Tel 252.758.3746
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4325 Lake Boone Trail, Suite 311
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Tel 919.784.9330
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SEAL

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NORTH CAROLINA PROFESSIONAL SEAL 041433 ENGINEER DAVID L. MEEKS
4-5-2023

REV	DATE	DESCRIPTION	BY	CHK
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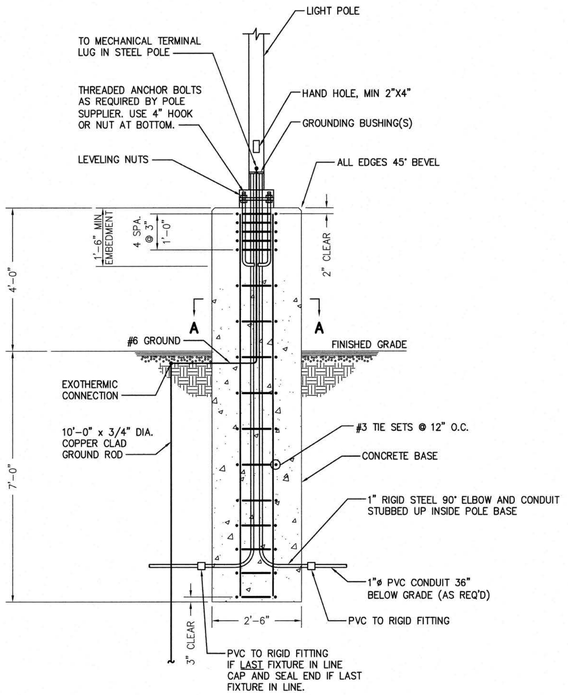
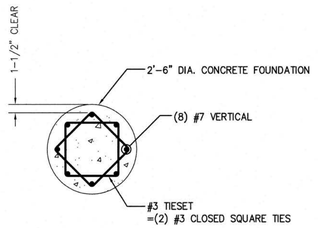
TEG PROJECT NO. 20230032
CLIENT PROJECT NO. ITB 22-23-37
PROJECT TITLE: CITY OF GREENVILLE PUBLIC WORKS SITE LIGHTING (PHASE 2)
DRAWING TITLE: ELECTRICAL PANEL SCHEDULES
DRAWING NO. **E3.1**



ELEVATION VIEW



PLAN VIEW – SECTION A–A

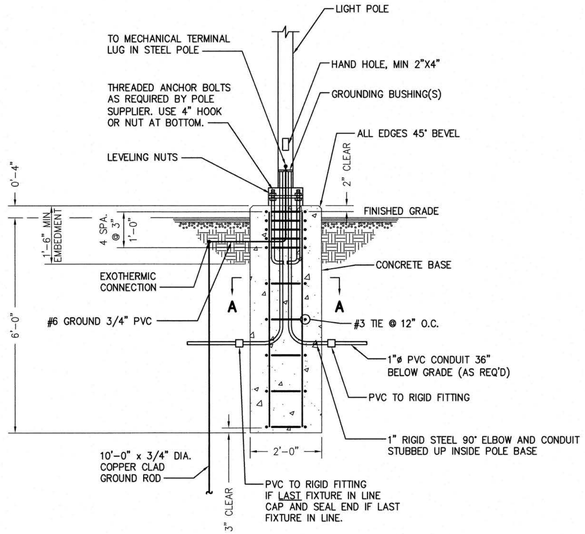
DETAIL STRUCTURAL NOTES:

1. ANCHOR BOLTS SHALL BE GALVANIZED ASTM F1554 GRADE 55.
2. REBAR SHALL BE A615 GRADE 60.
3. CONCRETE SHALL HAVE 3000 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 DWGS. FOR LOCATIONS OF LIGHT POLE BASES.

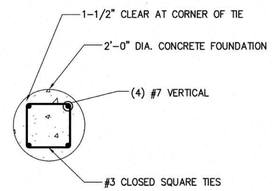
GENERAL DETAIL NOTES:

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 TO FINISHED GRADE AND 2'–6" ROUND FORMING ABOVE FINISHED GRADE.

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



ELEVATION VIEW



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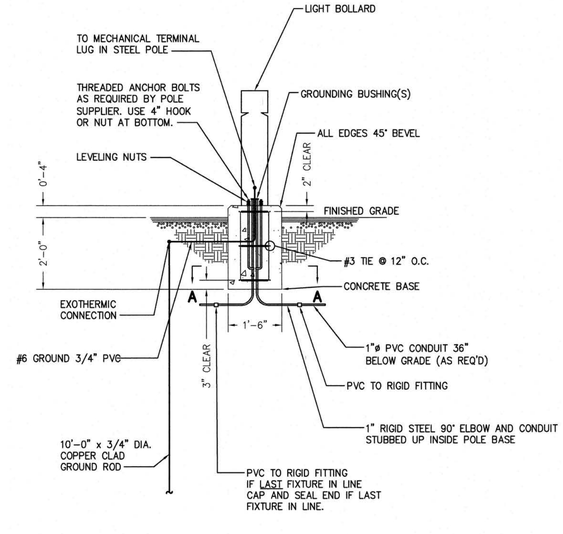
2. REBAR SHALL BE A615 GRADE 60.
3. CONCRETE SHALL HAVE 3000 PSI MINIMUM 28–DAY COMPRESSION STRENGTH.
4. AFTER THE FOUNDATION IS FORMED AND POURED, THE SOIL AROUND THE BASE SHALL BE BACKFILLED AND COMPACTED TO ACHIEVE 98% COMPACTION (STANDARD PROCTOR METHOD).
5. SEE PLAN DWGS. FOR LOCATIONS OF LIGHT POLE BASES.

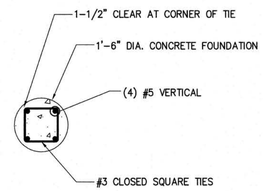
GENERAL DETAIL NOTES:

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 TO FINISHED GRADE AND 2'–6" ROUND FORMING ABOVE FINISHED GRADE.

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



ELEVATION VIEW



PLAN VIEW – SECTION A–A

DETAIL STRUCTURAL NOTES:

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2. REBAR SHALL BE A615 GRADE 60.
3. CONCRETE SHALL HAVE 3000 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 DWGS. FOR LOCATIONS OF BOLLARD BASES.

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'–0" ROUND CONCRETE FIBER FORM ABOVE FINISHED GRADE.

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

THE EAST GROUP
▪ Engineering ▪ Architecture
▪ Surveying ▪ Technology

▪ Corporate Office
324 Evans Street
Greenville, NC 27858
Tel 252.758.3746
Fax 252.830.3954

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▪ NC Engineering License No. C-0206
NC Architectural License No. 50213
NC Landscape Architectural License No. C-427

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 37886 ENGINEER JAN HERCO
3/29/23
STRUCTURAL ONLY

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 041433 ENGINEER DAVID L. MEEKS
4-5-2023
ELECTRICAL ONLY

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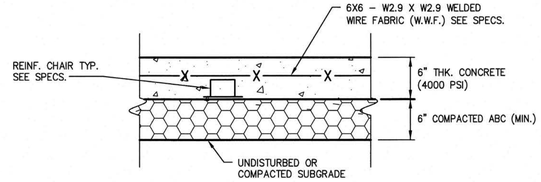
TEG PROJECT NO.
20230032

CLIENT PROJECT NO.
ITB 22-23-37

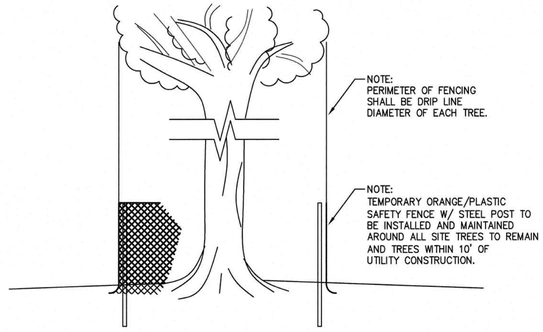
PROJECT TITLE
CITY OF GREENVILLE
PUBLIC WORKS
SITE LIGHTING
(PHASE 2)

DRAWING TITLE
ELECTRICAL
POLE FOUNDATION
DETAILS

DRAWING NO.
E4.1



1 E4.2 CONCRETE PAVEMENT DETAIL
NTS



NOTES:

1. ALL TREES LOCATED WITHIN 20 FEET OF CONSTRUCTION SHALL E PROTECTED PER THIS DETAIL.

2 E4.2 TEMPORARY TREE PROTECTION
NTS

MISCELLANEOUS EQUIPMENT SCHEDULE

DESCRIPTION	MANUFACTURER AND MODEL NUMBER
GROUND MOUNTED PULL BOX, MINIMUM OF 17" WIDE X 30" LONG X 24" DEEP (APPROX. DIMS), HIGH DENSITY POLYMER-CONCRETE, OPEN BOTTOM, ONE PIECE BOLTABLE LID. PULL BOX AND LID SHALL BE RATED FOR TIER 15 MINIMUM. ALL ELECTRICAL PULL BOXES SHALL HAVE THE WORD 'ELECTRIC' MOLDED IN THE LID. TOP OF PULL BOX SHALL BE INSTALLED TWO INCHES ABOVE FINISHED GRADE & GRADED TO PREVENT WATER FROM ENTERING PULL BOX. COORDINATE EXACT MOUNTING LOCATION OF PULL BOXES WITH OWNER PRIOR TO INSTALLATION.	QUAZITE – PG1730BA24 (BOX) OR EQUAL – PG1730HA0017 (COVER LID) OR EQUAL
DUCT SEAL, FOAM-IN-PLACE TWO-PART POLYURETHANE MATERIAL DESIGNED FOR SEALING CONDUITS AND INNERDUCTS, SHALL BE COMPATIBLE WITH CONDUIT MATERIALS AND FUTURE FIBER OPTIC CABLE JACKET MATERIALS, MECHANICAL ADHESIVES TO CONDUITS AND CABLES, WATER RESISTANCE	DURALINE – HYDRO-SEAL S60 OR EQUAL
DOUBLE-POLE, IN-LINE WATERTIGHT FUSE HOLDER, 600VAC, 30A, COPPER SET-SCREW #12 TO #8 SOLID WIRE, WITH INSULATING BOOTS..	LITTELFUSE LEX-JJ, WITH WPB1 OR EQUAL
FUSE, 5AMPS, 600VAC, TIME DELAY, CLASS CC	LITTELFUSE KLDR-5 OR EQUAL

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.

THE EAST GROUP
Engineering ▪ Architecture
Surveying ▪ Technology
• Corporate Office
324 Evans Street
Greenville, NC 27858
Tel 252.758.3746
Fax 252.830.3954
• Branch Office
4325 Lake Boone Trail, Suite 311
Raleigh, NC 27607
Tel 919.784.9330
Fax 252.830.3954
• NC Engineering License No. C-0206
NC Architectural License No. 50213
NC Landscape Architectural License No. C-427

SEAL

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 041433 ENGINEER DAVID L. MEEKS
4-5-2023

REV	DATE	DESCRIPTION	BY	CHK
A	03-27-23	ISSUE FOR OWNER REVIEW	DLM	
B	04-05-23	ISSUE FOR BID	DLM	

TEG PROJECT NO.
20230032

CLIENT PROJECT NO.
ITB 22-23-37

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

DRAWING TITLE
ELECTRICAL
MISCELLANEOUS DETAILS
& MISCELLANEOUS
EQUIPMENT SCHEUDULE

DRAWING NO.
E4.2