ELECTRICAL/MECHANICAL SPACES WITH EQUIPMENT, DUCTWORK AND PIPING. CIRCUIT BREAKER.

ELECTRICAL SYMBOLS AND ABBREVIATIONS

REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS OF ELECTRICAL CONSTRUCTION.

GENERAL NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES,
- REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS, WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS, FOR THE LOCATIONS OF ALL WALL MOUNTED
- COORDINATE EXACT LOCATION OF ALL LIGHTING FIXTURES IN
- ALL RECEPTACLE OUTLETS LOCATED WITHIN 6'-0" OF A WET BAR OR SINK SHALL BE GFI TYPE, ALL RECEPTACLE OUTLETS LOCATED OUTDOORS SHALL BE WP/GFI. ALL RECEPTACLES SERVING VENDING MACHINES SHALL BE GFI TYPE. ALL RECEPTACLES SERVING ELECTRIC WATER COOLERS SHALL BE GFI TYPE. ALL RECEPTACLES IN KITCHEN AREAS SHALL BE GFI TYPE.
- ALL CONDUIT PENETRATIONS THROUGH THE ROOF TO SERVE MECHANICAL EQUIPMENT SHALL BE WITHIN THE ASSOCIATED EQUIPMENT ROOF CURB. COORDINATE LOCATIONS OF PENETRATIONS WITH THE MECHANICAL CONTRACTOR.
- PROVIDE THE TYPE OF MOUNTING HARDWARE AND TRIM NECESSARY FOR THE PROPER INSTALLATION OF SPECIFIED LIGHTING FIXTURES IN THE TYPE OF CEILING WHERE INSTALLED.
- PROVIDE ACCESS DOORS IN WALLS AND CEILINGS WHERE ACCESS TO CONCEALED ELECTRICAL BOXES AND DEVICES IS REQUIRED.
- EACH BRANCH AND FEEDER CIRCUIT SHALL BE PROVIDED WITH A GROUND CONDUCTOR SIZED PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NFPA 70). WHERE A CONDUIT CONTAINS MULTIPLE BRANCH CIRCUITS, PROVIDE A SINGLE GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
- 10. CONDUIT, LIGHT FIXTURES, AND OTHER COMPONENTS MAY BE SHOWN LARGER THAN ACTUAL SIZE. CONDUIT ROUTING IS SHOWN WITH AN EXAGGERATED SPACING FOR CLARITY. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL CONTRACTORS TO ENSURE CONDUIT PLACEMENT DOES NOT CONFLICT WITH LOCATION SENSITIVE COMPONENTS SUCH AS LIGHT FIXTURES.
- I.INTEGRATED EQUIPMENT RATINGS SHOWN ARE MINIMUMS. CONTRACTOR SHALL PROVIDE MANUFACTURER'S EQUAL OR NEXT HIGHER STANDARD RATINGS.
- 12. ALL PULL CORD/WIRE PROVIDED FOR EMPTY RACEWAY/CONDUIT SYSTEMS SHALL HAVE A MINIMUM STRENGTH OF 200 LBS TENSILE STRENGTH. ALL EMPTY CONDUITS SHALL HAVE A PULL CORD.
- 13. PROVIDE LUGS AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO ACCEPT THE SIZE AND NUMBER OF CONDUCTORS SHOWN IN THESE DOCUMENTS.
- 14. THE LIGHTING PLANS INDICATE SWITCHING AND BRANCH CIRCUIT NUMBERS FOR ALL LIGHTING FIXTURES. LOWER CASE LETTERS AT SWITCHES AND LIGHTING FIXTURES INDICATE SWITCHING WHERE THE CONTROL PATTERN IS NOT OBVIOUS. INSTALL BRANCH CIRCUIT WIRING IN RACEWAY TO ALL RIGIDLY ATTACHED LIGHTING FIXTURES, AND TO JUNCTION BOXES FOR ALL LAY-IN LIGHTING FIXTURES. AS REQUIRED TO PROVIDE SWITCHING AND CIRCUITING AS SHOWN ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 15. ALL LAY-IN LIGHTING FIXTURES SHALL BE CONNECTED TO A BRANCH CIRCUIT JUNCTION BOX WITH A FLEXIBLE FIXTURE TAIL. A MAXIMUM OF FOUR FIXTURE TAILS SHALL BE CONNECTED TO A SINGLE JUNCTION BOX, FIXTURE TO FIXTURE WIRING OF LAY-IN LIGHTING FIXTURES IS NOT PERMITTED, EXCEPT WHERE MASTER/SLAVE FIXTURE PAIRS ARE INDICATED OR SPECIFIED.
- 16. THERE SHALL BE NO SPLICES OF WIRING INSIDE PANELBOARDS OR DISCONNECT SWITCHES. ONLY ONE WIRE SHALL BE TERMINATED TO ANY SINGLE LUG ON A
- 17. ALL WIRING AND CONDUIT SIZES SHALL BE BASED ON THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE UNLESS OTHERWISE NOTED SPECIFICALLY.
- 18. UNLESS OTHERWISE NOTED, FOR LIGHTING AND RECEPTACLE HOMERUNS HAVING A TOTAL LENGTH OF 100' TO 200', USE #10 CONDUCTORS; FOR HOMERUNS HAVING A TOTAL LENGTH OF 200' OR GREATER, USE #8 CONDUCTORS.
- 19. COORDINATE THE REQUIREMENTS FOR OVERCURRENT PROTECTIVE DEVICE SIZE, DISCONNECT SWITCH SIZE, AND CONDUCTOR AND CONDUIT SIZES WITH THE REQUIREMENTS OF THE MECHANICAL EQUIPMENT THAT IS ACTUALLY TO BE INSTALLED AND PROVIDE AND INSTALL ALL ELECTRICAL COMPONENTS AS REQUIRED. THE ELECTRICAL COMPONENT SIZING SHOWN ON THESE DRAWINGS IS BASED UPON THE REQUIREMENTS FOR THE SPECIFIED MECHANICAL EQUIPMENT AVAILABLE AT THE TIME OF DESIGN. VARIATIONS IN REQUIREMENTS MAY OCCUR AS A RESULT OF THE PROVISION OF OTHER MANUFACTURER'S EQUIPMENT OR IN CHANGES TO THE SPECIFIED EQUIPMENT. SUCH REVISED REQUIREMENTS ARE A PART OF THIS CONTRACT AND SHALL BE ACCOMMODATED WITHOUT ADDITIONAL CHARGE.
- 20. FOR COORDINATION PURPOSES, LIGHTING FIXTURES AND DEVICES MAY BE MOVED A MAXIMUM DISTANCE OF FIVE FEET, PRIOR TO INSTALLATION, AT NO COST TO THE OWNER, UPON INSTRUCTION BY THE ARCHITECT OR ENGINEER.
- 21. COORDINATE THE EXACT LOCATION OF ALL THERMOSTATS, STARTERS, DISCONNECTS, ETC. AND COORDINATE ALL REQUIREMENTS FOR CONTROL AND POWER WIRING WITH THE MECHANICAL CONTRACTOR OR THE TRADE PROVIDING THE EQUIPMENT.
- 22. WHERE RECEPTACLES ARE SHOWN BACK-TO-BACK ON A COMMON WALL, OFFSET THE TWO BOXES AT LEAST SIX INCHES.
- 23. ALL CONDUCTORS SHALL BE THWN/THHN UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE RATED FOR 75 DEGREES C. TERMINATIONS SHALL BE RATED FOR 75 DEGREES C. DEVIATIONS SHALL COMPLY WITH NEC ARTICLE 110-14(c) FOR EXACT EQUIPMENT BEING PROVIDED.
- 24. VERIFY DEVICE PLATE COLORS WITH ARCHITECT.
- 25. COORDINATE WITH AND PAY ALL FEES ASSOCIATED WITH OBTAINING SERVICE FORM ANY OF THE FOLLOWING UTILITIES RELATED TO THIS PROJECT: POWER COMPANY TELEPHONE COMPANY CABLE/INTERNET SERVICE PROVIDER
- 26. ALL CIRCUITS FEEDING LOADS FROM VFD CONTROLLERS SHALL UTILIZE BELDEN VFD RATED CABLE SIZED AS RECOMMENDED BY THE MANUFACTURER BUT NOT LESS THAN THE RATING OF THE FEEDER SERVING THE VFD. RACEWAY SIZES FOR THE BELDEN CABLE SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL VERIFY MOTOR BEING SERVED IS NEMA MG-31 RATED PRIOR TO FINAL TERMINATIONS AND NOTIFY A/E IF DISCREPANCIES ARE FOUND.
- 27. CONTRACTOR IS RESPONSIBLE FOR COORDINATING NEW ELECTRIC SERVICE VOLTAGE AND AMP REQUIREMENTS WITH ELECTRIC UTILITY. COORDINATION PERFORMED BY ENGINEER EARLY IN DESIGN PROCESS IS PRELIMINARY IN NATURE AND THEREFORE SUBJECT TO CHANGE, CONTRACTOR IS RESPONSIBLE FOR COORDINATING FINAL SERVICE REQUIREMENTS INCLUDING METERING REQUIREMENTS, VOLTAGE AND AMPACITY.

ELECTRICAL EQUIPMENT

- SWITCHBOARD OR DISTRIBUTION PANEL PANELBOARD - FLUSH OR SURFACE MOUNT AS INDICATED ON PLAN SCHEDULE
- PLYWOOD TERMINAL BOARD, FOR TELEPHONE SYSTEM UNLESS NOTED, 4' X 8' X 3/4" UNLESS OTHERWISE NOTED

POWER DEVICE SCHEDULE

- WIRING DEVICES, DISCONNECT SWITCHES AND MOTOR CONTROL
- 20A DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE TP 20A DUPLEX RECEPTACLE, TAMPER-PROOF, 18" AFF UNLESS NOTED OTHERWISE - 20A SIMPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
- 20A QUADDRAPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE 20A DUPLEX RECEPTACLE ABOVE COUNTER/ COUNTER BACK SPLASH
- USB OUTLET FLOOR RECEPTACLE
- FLOOR RECEPTACLE WITH DATA. FOR TELEPHONE OR DATA, PROVIDE 1"C WITH PULL STRING UP TO 6" ABOVE ACCESSIBLE CEILING LOCATION FOR WIRING BY OTHERS □ F□ JUNCTION BOX FOR DIRECT CONNECTION AS NOTED IN PLAN VIEWS PUSH BUTTON CONTROL AS NOTED IN PLAN VIEW. PROVIDE A SINGLE GANG JUNCTION

BOX WITH 3/4"C WITH PULL STRING UP TO 6" ABOVE CEILING FOR WIRING BY OTHERS

- MOTOR LOCATION AS NOTED IN PLAN VIEWS DISCONNECT SWITCH - (200/3/150) DENOTES (AMPS/POLE/FUSE); "NF" DENOTES NON-FUSED. NEMA 1 ENCLOSURE UNLESS NOTED OTHERWISE
- COMBINATION STARTER DISCONNECT SWITCH (200/3/150) DENOTES (AMPS/POLE/FUSE); "NF" DENOTES NON-FUSED, NEMA 1 ENCLOSURE <u>ÙNLESS NOTED OTHERWISE, NEMA STARTER AS INDICATED IN PLAN VIEW</u> SM MOTOR RATED SWITCH, MANUAL MOTOR STARTER WITH THERMAL OVERLOAD

GENERAL NOTES APPLY TO ALL DEVICES:

ALL DEVICES USED TO SUPPORT SPECIFIC EQUIPMENT PROVIDED BY OTHERS ARE TO BE COORDINATED WITH PROVIDER OF EQUIPMENT FOR NEMA PLUG CONFIGURATION AND WIRING.

MOUNTING HEIGHTS

TOGGLE AND DIMMER SWITCHES: - 48" AFF TO CENTER OF SWITCH

RECEPTACLES: - FINISHED AREAS-18" AFF TO CENTER OF RECEPTACLE

- UNFINISHED AREAS-48" AFF TO CENTER OF RECEPTACLE - WATER COOLERS-DIRECTLY BEHIND COOLER - COORDINATE ELEVATION. COOLER TO BE INSTALLED PRIOR TO ROUGH-IN
- ABOVE COUNTER-6" ABOVE COUNTER/BACKSPLASH TO CENTER OF RECEPTACLE DATA OUTLETS: FINISHED AREAS—18" AFF TO CENTER OF OUTLET

UNFINISHED AREAS-48" AFF TO CENTER OF OUTLET ABOVE COUNTER-6" ABOVE COUNTER/BACKSPLASH TO CENTER OF OUTLET

- TELEPHONE OUTLETS: FINISHED AREAS—18" AFF TO CENTER OF OUTLET
- UNFINISHED AREAS-48" AFF TO CENTER OF OUTLET
- WALL MOUNTED TELEPHONES-48" AFF TO CENTER OF OUTLET - ABOVE COUNTER-6" ABOVE COUNTER/BACKSPLASH TO CENTER OF OUTLET
- WALL MOUNTED EMERGENCY LIGHTING FIXTURES:
- 84" AFF TO CENTER OF FIXTURE - CENTERED 3" ABOVE TOP OF DOOR FRAME TO BOTTOM OF FIXTURE WHERE MOUNTED ABOVE DOOR

MISCELLANEOUS

- DRAWING NOTE REFERENCE (I.E. NOTES BY SYMBOL)
- CONNECTION INTO EXISTING
- JUNCTION BOX. A RECESSED SINGLE GANG BOX, BLANK COVERPLATE, WITH 3/4" C. STUBBED UP TO 4" ABOVE CEILING.
- TELEPHONE OR DATA OUTLET (SINGLE PORT) A RECESSED SINGLE GANG JUNCTION BOX, BLANK COVERPLATE, WITH 1" C. STUBBED UP TO 4" ABOVE CEILING.
- DATA OUTLET (MULTI PORT) ADJACENT NUMBER INDICATES QUANTITIES .A SINGLE OR DOUBLE GANG JUNCTION BOX AS APPROPRIATE FOR NUMBER OF PORTS, BLANK COVERPLATE, MULTIPLE 1" C.'S STUBBED UP TO 4" ABOVE CEILING.
- EXISTING SINGLE DATA OUTLET TO REMAIN. NUBER ADJACENT INDICATES NUMBER OF PORTS WHERE KNOW. EC INDICATES BLANK COVERPLATE.
- CARD READER. A SINGLE GANG JUNCTION BOX, BLANK COVERPLATE, WITH 3/4" C. STUBBED UP TO 4" ABOVE CEILING.

FIRE ALARM EXPANSION

THE CONTRACTOR SHALL EMPLOY A FIRE ALARM PLANNING SUPERINTENDENT, CERTIFIED BY THE STATE FIRE MARSHAL'S OFFICE, TO DESIGN AND INSTALL A FIRE ALARM SYSTEM.

THE FIRE ALARM PLANNING SUPERINTENDENT SHALL PREPARE PERMIT DOCUMENTS, USING EXACT DEVICES TO BE PROVIDED BY THE MANUFACTURER, AND SHALL BE RESPONSIBLE TO INSURE THAT THE DESIGN MEETS ALL OF THE REQUIREMENTS OF NFPA, ADA, NEC, ALL LOCAL CODES AND AMENDMENTS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

MODIFICATION TO THE EXISTING FIRE ALARM TO ACCOMMODATE THE NEW FACILITY AND THE RENOVATED AREAS WITHIN THE EXISTING FACILITY. FIRE ALARM PLANNING SUPERINTENDENT TO INCLUDE A FIRE ALARM SYSTEM

ACCORDING TO STORM SHELTER SECTION 106.2.6.

NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

LENGTH

POUNDS

LIGHTING

MAXIMUM

MINIMUM

METAL HALIDE

MAIN LUGS ONLY

NOT APPLICABLE

ASSOCIATION

ON CENTER

ADMINISTRATION

POWER FACTOR

FURNISH AND INSTALL

POLYVINYL CHLORIDE

RUNNING LOAD AMPS

SINGLE POLE DOUBLE THROW

SINGLE POLE SINGLE THROW

UNDERWRITERS LABORATORIES, INC.

UNINTERRUPTIBLE POWER SUPPLY

WEATHERPROOF DEVICE. RECEPTACLES

SHALL BE WEATHER-RESISTANT TYPE GF

RECEPTACLES IN WEATHERPROOF WHILE

UNLESS OTHERWISE NOTED

VOLTS ALTERNATING CURRENT

REFERENCE, REFER

THROUGH

UNDERFLOOR

UNDERSLAB

UNDERGROUND

VOLT-AMPERE

WATT, WIDTH

IN-USE BOX.

WITHOUT

XFMR TRANSFORMER

TYPICAL

NUMBER

LOCKED ROTOR AMPS

MINIMUM CIRCUIT AMPACITY

NATIONAL ELECTRICAL CODE

NATIONAL FIRE PROTECTION

N/O,N/C NORMALLY OPEN, NORMALLY CLOSED

POWER DISTRIBUTION UNIT

MANUFACTURER'S ASSOCIATION

OCCUPATIONAL SAFETY AND HEALTH

NATIONAL ELECTRICAL

MAIN CIRCUIT BREAKER

DRAWING/DETAIL REFERENCE

L SHEET NUMBER

ABBREVIATIONS

---- DRAWING/DETAIL NUMBER

MCA

MCB

NEMA

OSHA

PROVIDE

SPDT

SPST

U.O.N.

UPS

BASIS OF ELECTRICAL DESIGN

2021 INTERNATIONAL FIRE CODE (WITH CITY AMENDMENTS).

STANDARDS (TAS); TEXAS DEPARTMENT OF LICENSING AND REGULATION

ELECTRICAL: 2020 NATIONAL ELECTRIC CODE (WITH CITY AMENDMENTS).

ENERGY: 2015 INTERNATIONAL ENERGY CODE (WITH CITY AMENDMENTS).

BUILDING: 2021 INTERNATIONAL BUILDING CODE (WITH CITY AMENDMENTS).

ACCESSIBILITY: AMERICAN'S WITH DISABILITIES ACT (ADA); TEXAS ACCESSIBILITY

----- REFER TO

RE: 2/E1.1

ABOVE COUNTERTOP

ATS

A₩G

BKR

BLDG

FACP

FVNR

GFR

GND

GRS

HPS

HVAC

J-B0X

kcmil

kV

kVAR

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

AMERICAN WIRE GAUGE

BRFAKFR

BUILDING

CONDUIT

CEILING

DEPTH

DEGREES

DISCONNECT

FIRE ALARM

FOOT, FEET

INTERRUPTER

HORSEPOWER

CONDITIONING

INCH. INCHES

JUNCTION BOX

KILOVOLT-AMPS

KILOWATT-HOUR

KILOVOLT

KILOWATT

PRIMARY CODES:

ISOLATED GROUND

1000 CIRCULAR MILS

KILOVOLT-AMPS REACTIVE

(TDLR)

GROUND

FULL LOAD AMPS

AMPERE INTERRUPTING CURRENT

DOUBLE-POLE, DOUBLE-THROW

DOUBLE-POLE, SINGLE-THROW

EMERGENCY POWER OFF

ELECTRIC WATER COOLER

GROUND FAULT CIRCUIT

GROUND FAULT RELAY

GALVANIZED RIGID STEEL

HAND-OFF-AUTOMATIC

HIGH PRESSURE SODIUM

HEATING, VENTILATING AND AIR

INTEGRATED EQUIPMENT RATING

HIGH INTENSITY DISCHARGE

FIRE ALARM CONTROL PANEL

FULL-VOLTAGE, NON-REVERSING

AUTOMATIC TRANSFER SWITCH

ARCHITECTURE SCOTT MARTSOLF - ARCHITECT

> 815 W. Daggett Ave. Fort Worth, Texas 76104 Phone: (817) 820-0005

SAINT TERESA OF CALCUTTA CATHOLIC CHURCH

PARISH

13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION **DOCUMENTS**

ELECTRICAL LEGEND

08/05/2024

Sheet No.

Project No.

Drawing Title:

PARTIAL ENERGY CODE REQUIREMENTS

GENERAL ENERGY CODE REQUIREMENTS:

ALL AREAS LISTED BELOW ARE TO HAVE OCCUPANCY SENSOR CONTROLS:

LOUNGES. LUNCH OR BREAK ROOMS. PRIVATE OFFICE. RESTROOMS.

STORAGE ROOMS.

JANITOR ROOMS. OTHER ROOMS WITH 300 SQ. FT. OR LESS. WAREHOUSES (WAREHOUSE TO BE SENSORED BY AISLEWAY).

ALL SENSORS TO FUNCTION MANUAL ON AUTOMATIC OFF. AUTOMATIC ON MAY BE USED IF ON LEVEL IS LESS THAN 50% OF THE LIGHTING AUTOMATIC ON TO 100% IS ALLOWED FOR PUBLIC CORRIDORS. LOBBIES AND SIMILAR PUBLIC USE ONLY AREAS.

AREAS NOT EXEMPTED FROM THE BASE CONTROLS SHALL HAVE REDUCTION CONTROLS LOCATED IN THE SPACE FOR MINIMUM 50% REDUCTION BY OCCUPANCY. LIGHTING REDUCTION IS NOT REQUIRED FOR ROOMS WITH ONLY ONE LIGHT FIXTURE, ROOMS LESS THAN .6 W/SQ. FT. CORRIDORS, EQUIPMENT ROOM, PUBLIC LOBBIES.

AREAS THAT HAVE SPECIAL EXEMPTIONS THAT MUST BE EVALUATED ON A CASE BY CASE BASIS.

EXTERIOR LIGHTING ENERGY CODE REQUIREMENTS:

ALL EXTERIOR LIGHTING SHALL BE CONTROLLED AS A FUNCTION OF AVAILABLE LIGHT. LIGHTING SHALL BE REDUCED BY A MINIMUM OF 30% AFTER MIDNIGHT AT THE LATEST TO 6AM OR 1-HOUR AFTER CLOSING AND 1-HOUR BEFORE BUSINESS OPENING OR ANYTIME OF INACTIVITY OF MORE THE 15 MINUTES.

EXCEPTIONS TO EXTERIOR LIGHTING: EMERGENCY EGRESS LIGHTING.

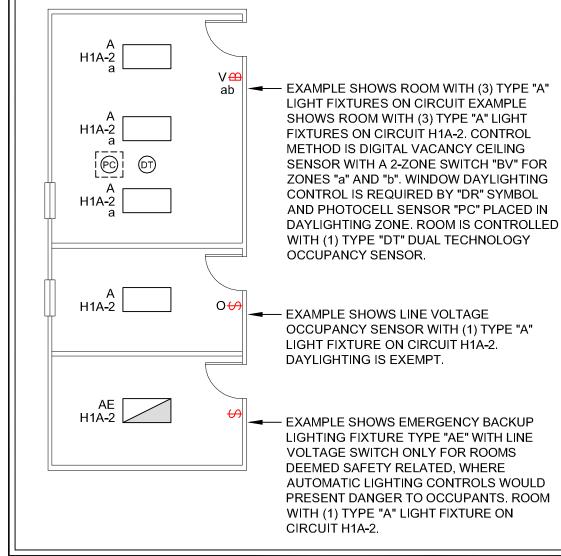
COVERED VEHICLE ENTRANCES TO PARKING STRUCTURES. BUILDING FACADE (AFFECT LIGHTING) OR LANDSCAPE LIGHTING MAY BE PHOTOCELL ONLY.

GENERAL LIGHTING CONTROLS NOTE NOTES AND EXAMPLES

LIGHTING CONTROL GENERAL NOTES:

- SENSOR LOCATIONS ARE MINIMUMS. CONTRACTOR SHALL PROVIDE FOR A MINIMUM OF 10% ADDITIONAL DEVICES TO COVER DARK SPOTS DISCOVERED DURING CONSTRUCTION FROM FIELD INSTALLED OBSTRUCTIONS. CONTRACTOR SHALL ALSO ALLOW FOR A MOVE OF UP TO 5'-0" IN ANY DIRECTION FOR ALL SENSORS. AT NO ADDITIONAL COST TO THE OWNER. TO ALLOW FOR FIELD ADJUSTMENT OF SENSOR PLACEMENTS TO ACHIEVE OPTIMUM PERFORMANCE.
- INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF (2) SITE VISITS BY FACTORY TRAINED PERSONNEL TO ADJUST SENSORS AND TRAIN THE OWNER ON USE AND MAINTENANCE OF LIGHTING CONTROL COMPONENTS.
- AFTER COMMISSIONING LIGHTING CONTROLS. CONTRACTOR SHALL PROVIDE A WRITTEN TEST REPORT INDICATING THAT ALL LIGHTING CONTROL SYSTEMS HAVE BEEN COMMISSIONED, TESTED AND FOUND TO BE FUNCTIONING IN ACCORDANCE WITH CONTRACT DOCUMENT AND CODE REQUIREMENTS. CONTRACTOR SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED. ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, MANUFACTURER'S INSTRUCTIONS AND CODE REQUIREMENTS, FUNCTIONAL TESTING SHALL BE IN ACCORDANCE WITH IECC SECTIONS C408.3.1.1/2 FOR THE APPLICABLE CONTROL

GENERAL LIGHTING EXAMPLES:



LIGHTING CONTROL DEVICE SCHEDULE

\$ LINE VOLTAGE TOGGLE SWITCH

- \$3 LINE VOLTAGE 3-WAY TOGGLE SWITCH \$4 LINE VOLTAGE 4-WAY TOGGLE SWITCH
- \$D LINE VOLTAGE SLIDE DIMMER SWITCH WITH "ON/OFF" BUTTON
- \$T LINE VOLTAGE TIMER SWITCH WALL MOUNTED LINE VOLTAGE OCCUPANCY SENSOR, 3 BUTTON (ON/OFF. RAISE/LOWER) DIMMING SENSOR, PROGRAM TO AUTOMATIC 50% "ON". AUTOMATIC "OFF" AFTER 30 MINUTES, DUAL TECHNOLOGY UNLESS OTHERWISE
- WALL MOUNTED LINE VOLTAGE VACANCY SENSOR (ON/OFF). PROGRAM TO \$ AUTOMATIC 100% "ON", AUTOMATIC "OFF" AFTER 30 MINUTES, DUAL TECHNOLOGY UNLESS OTHERWISE NOTED.
- WALL MOUNTED LINE VOLTAGE VACANCY SENSOR PER ZONE (ON/OFF) SENSOR. PROGRAM TO AUTOMATIC 100% "ON", AUTOMATIC "OFF" AFTER 30 MINUTES, DUAL TECHNOLOGY UNLESS OTHERWISE NOTED.
- WALL MOUNTED LOW VOLTAGE DIGITAL BUTTON, 3-BUTTON PER ZONE (ON/OFF RAISE/LOWER). PROGRAM TO AUTOMATIC 50% "ON", AUTOMATIC "OFF" AFTER 30 MINUTES, DUAL TECHNOLOGY OCCUPANCY SENSORS AS SHOWN IN PLAN VIEW. LOWER CASE LETTERS ADJACENT TO SWITCH INDICATED ZONE.
- WALL MOUNTED LOW VOLTAGE DIGITAL BUTTON PER ZONE (ON/OFF). PROGRAM TO AUTOMATIC 50% "ON", AUTOMATIC "OFF" AFTER 30 MINUTES, DUAL TECHNOLOGY VACANCY SENSORS AS SHOWN IN PLAN VIEW. LOWER CASE LETTERS ADJACENT TO SWITCH INDICATED ZONE.
- WALL MOUNTED LOW VOLTAGE DIGITAL BUTTON PER ZONE (ON/OFF). PROGRAM TO AUTOMATIC 100% "ON". AUTOMATIC "OFF" AFTER 30 MINUTES. DUAL TECHNOLOGY VACANCY SENSORS AS SHOWN IN PLAN VIEW. LOWER CASE LETTERS ADJACENT TO SWITCH INDICATED ZONE.
- NETWORK TIME BASED DIGITAL CONTROL. SCHEDULE PROGRAMMING PER OWNERS DIRECTIVE. WALL MOUNTED LOW VOLTAGE DIGITAL BUTTON PER B ZONE (ON/OFF), ALL BUTTONS TO FUNCTION DURING OPERATIONAL TIME AS "ON/OFF". AFTER HOURS BUTTONS ARE TO PROVIDE SAME FUNCTION BUT BE LIMITED TO 2-HOUR MAXIMUM "ON".
- CEILING MOUNTED DIGITAL OCCUPANCY SENSOR CAMPATIBLE WITH DIGITAL
- BUTTON CONTROL SHOWN. "DT" = DUAL TECHNOLOGY "PI" = PASSIVE INFRARED "US" = ULTRASONIC
- WALL MOUNTED DIGITAL OCCUPANCY SENSOR CAMPATIBLE WITH DIGITAL BUTTON CONTROL SHOWN.
- "DT" = DUAL TECHNOLOGY "PI" = PASSIVE INFRARED "US" = ULTRASONIC
- CEILING MOUNTED DIGITAL DAY-LIGHTING SENSOR. SENSOR TO AUTOMATICALLY DIM FIXTURES LOCATED WITHIN ZONE SHOWN IN RESPONSE TO AMBIENT LIGHT LEVELS. EXEMPT ZONES LESS THAN 150W PER SPACE ARE
- NOT SHOWN IN PLAN.
- TIME CLOCK EXTERIOR CONTROLS. LOWER CASE LETTER INDICATES ASSOCIATED ZONE. EACH ZONE TO GET DEDICATED TIME CLOCK CONTROL. TIME CLOCKS MAY BE COMBINED INTO SINGLE DEVICE WITH INDEPENDENT SCHEDULES. COMBINED DEVICES SHALL PROVIDE A MINIMUM 20% SPARES.

LIGHTING CONTROLS — ANY DIGITAL -ANY DIGITAL - ANY DIGITAL WALL SWITCH WALL SENSOR **CEILING SENSOR** WHEN SHOWN WHEN SHOWN WHEN SHOWN IN IN PLAN VIEW. IN PLAN VIEW. PLAN VIEW. - ALL WIRING TO BE PER CHOSEN MANUFACTURER RECOMMENDATIONS. – POWER PACK OR DIGITALLY ENABLED FIXTURE. DIMMING CONTROLS J WHERE DIRECT TO DAY-LIGHTING FIXTURES NETWORK TIME PER CHOSEN **CLOCK WHEN** MANUFACTURER DAY-LIGHTING · REQUIRED FOR RECOMMENDATIONS. **PHOTOCELL** TIME BASED WHEN SHOWN CONTROLS. IN PLAN VIEW.

GENERAL NOTES APPLY TO ALL:

MULLTIZONE POWER PACKS.

SENSOR LOCATIONS ARE MINIMUMS, CONTRACTOR TO PROVIDE FOR A MINIMUM OF 10% ADDITIONAL DEVICES TO COVER DARK SPOTS DISCOVERED DURING CONSTRUCTION FROM FIELD INSTALLED OBSTRUCTIONS. CONTRACTOR SHALL ALSO ALLOW FOR A MOVE OF UP TO 5'-0" IN ANY DIRECTION FOR ALL SENSORS AT NO ADDITIONAL COST TO THE OWNER. TO ALLOW FIELD ADJUSTMENTS OD SENSOR PLACEMENTS TO ACHIEVE OPTIMUM PERFORMANCE.

CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 SITE VISITS BY FACTORY TRAINED PERSONNEL TO ADJUST AND TRAIN THE OWNER ON USE AND MAINTENANCE OF ALL LIGHTING CONTROL COMPONENTS.

ALL POWER PACKS TO BE MOUNTED ABOVE CEILING NEAREST THE FIRST WALL SWITCH SERVING THE ASSOCIATED ROOM. PLAN VIEW SHOWS QUANTITIES OF ZONES REQUIRED. MANUFACTURER MAY COMBINE POWER PACK WHERE POSSIBLE INTO

ALL EMERGENCY BATTERY PACK FIXTURES ARE TO TURN "ON/OFF" WITH ASSOCIATED ROOM, BUT OVERRIDE TO "ON" POSITION OF POWER IS LOST.

ALL EXIT LIGHTING AND BATTERY PACK ONLY FIXTURES ARE TO BE WIRED TO UN-SWITCHED LEG OF BRANCH CIRCUITS SHOWN FOR CONSTANT POWER.

SENSOR SHALL TURN LIGHTS "OFF" IF ROOM IS VACANT FOR MORE THAN 30 MINUTES.

SENSOR WILL TURN LIGHTS "ON" WHEN WALL SWITCH IS ACTIVATED. EACH ZONE INDICATED REQUIRES 1 1BUTTON FOR "ON/OFF" CONTROLS.

EMERGENCY LIGHTING SHOWN SHALL OPERATE WITH NORMAL LIGHTING IN THE AREA AND BE FORCED ON IN THE EVENT OF A POWER LOSS.

DETAILS IS GENERIC IN NATURE. PLAN VIEWS WILL INDICATE NUMBER OF ZONES WITH NUMBER / TYPE OF POWER PACK ZONES REQUIRED. PLAN VIEW WILL INDICATE LOCATION OF DIGITAL WALL SWITCHES WITH THE NUMBER OF BUTTONS REQUIRED. EACH MANUFACTURER IS DIFFERENT IN DEVICES AVAILABLE AND WIRING. ACCEPTABLE MANUFACTURERS ARE WATT STOPPER, LUTON AND ACUITY. OTHER WILL BE CONSIDERED WITH PRE-APPROVAL PRIOR TO BIDDING.

SUPPLEMENTARY CONDITIONS FOR ELECTRICAL WORK

- A. CODES AND REGULATIONS CONFORM TO ALL APPLICABLE CODES AND REGULATIONS INCLUDING NATIONAL ELECTRICAL CODE. OBTAIN PERMITS AND PAY FEES AND INSPECTION COSTS.
- 2. CONFORM TO ALL RULES AND REGULATIONS OF OSHA AS APPLIED TO CONSTRUCTION PROJECT.
- 3. OBTAIN, BECOME FAMILIAR WITH AND COMPLY WITH ALL LANDLORD SPECIFICATIONS.
- INCLUDE ALL LABOR, EQUIPMENT, TOOLS AND MATERIALS FOR ELECTRIC DISTRIBUTION, AS SHOWN ON DRAWINGS.
 - 2. EXTEND NEW POWER SERVICE TO THE BUILDING DISTRIBUTION AS SHOWN ON DRAWINGS.
- 3. ALL ELECTRICAL WORK, INCLUDING POWER WIRING FROM PANEL IN BUILDING AND WIRING OF OTHER ITEMS INDICATED.
- 4. FURNISH AND INSTALL NEW LIGHTING AS INDICATED ON DRAWINGS. 5. ANY INSTALLATION COSTS ASSESSED BY UTILITY COMPANIES FOR INCOMING SERVICE INSTALLATION SHALL BE INCLUDED IN BID AND

PAID FOR BY THE ELECTRICAL CONTRACTOR.

- C. SHOP DRAWINGS SUBMITTALS THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS. THE SHOP DRAWINGS OF THE FOLLOWING EQUIPMENT USING THE INDICATED NUMBERING SYSTEM AND TITLES. SHALL BE SUBMITTED THROUGH THE ARCHITECT TO THE ENGINEER AND THEN RESUBMITTED FOR FINAL APPROVAL IF NECESSARY. SHOP DRAWINGS SHALL BE
 - SUBMITTED FOR THE FOLLOWING ITEMS: PANELBOARDS, SWITCHBOARDS AND SAFETY SWITCHES

CONTACTORS, TIME SWITCHES AND PHOTOCELL

- LIGHTING FIXTURES 2. ALL SUBMITTED SHOP DRAWINGS (MANUFACTURERS' EQUIPMENT DESCRIPTIVE SHEETS OR VENDORS' PREPARED DRAWINGS) SHALL HAVE THE GENERAL CONTRACTOR'S OR SUBCONTRACTOR'S "STAMP OF APPROVAL" INDICATING THAT THE ITEM SUBMITTED IS AS CALLED FOR ON THE PLANS AND SPECIFICATIONS, IS APPROVED BY THE GENERAL CONTRACTOR OR SUBCONTRACTOR, THE DATE OF APPROVAL AND INITIALED BY THE PERSON APPROVING THE SUBMITTAL AND
- APPROVAL. 3. SUBMIT BOUND BROCHURES COMPLETE WITH A TABLE OF CONTENTS. LOOSE OR STAPLED TOGETHER SHEETS ARE NOT ACCEPTABLE. ANY SUBMITTALS NOT IN BROCHURE FORM OR NOT AS SPECIFIED SHALL BE RETURNED AT THE CONTRACTORS EXPENSE FOR RESUBMITTAL.

THE NAME OF THE COMPANY SUBMITTING SAID EQUIPMENT FOR

- 4. ALL DESCRIPTIVE LITERATURE SHALL BE SUBMITTED IN A THREE HOLE BROCHURE WITH A COVER IDENTIFYING THE FOLLOWING:
- A. NAME OF THE JOB. LOCATION OF THE JOB, ADDRESS, CITY AND STATE. NAME AND ADDRESS OF THE COMPANY SUBMITTING THE BROCHURES. DATE OF THE SUBMITTAL,
- 5. EVERY EFFORT SHALL BE MADE IN CHECKING THE SHOP DRAWINGS TO DETECT AND CORRECT ALL ERRORS, OMISSIONS AND NACCURACIES. FAILURE TO DO THIS WILL NOT RELIEVE 1 CONTRACTOR OF THE RESPONSIBILITY FOR THE PROPER AND COMPLETE INSTALLATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

INJURY OR STRAIN. CONDUIT SHALL BE PROPERLY SUPPORTED.

2. ALL CONDUITS TO BE CONCEALED IN BUILDING NEW CONSTRUCTION

- D. CONDUIT INSTALLATION 1. ALL WIRING TO BE INSTALLED IN CONDUIT IN ACCORDANCE WITH THE N.E.C. SO THE REQUIRED CONDUCTORS MAY BE PULLED WITHOUT
- WHERE AVAILABLE.
- 3. EXPOSED CONDUIT MAY BE RUN ON EXISTING MASONRY WALLS IN WORKROOMS. VERIFY ALL LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
- 4. INTERIOR WIRING TO BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) WITH SET SCREW TYPE COUPLINGS AND CONNECTORS. EMT IS NOT APPROVED FOR INSTALLATION IN CONCRETE SLABS OR
- 5. CONDUIT ON BUILDING EXTERIOR SHALL BE RIGID ALUMINUM OR GALVANIZED STEEL WITH WEATHER-TIGHT FITTINGS AND DEVICES.
- 6. BURIED CONDUIT SHALL BE RIGID SCHEDULE 40 PVC WITH SOLVENT WELD FITTINGS. INSTALL CODE SIZED GROUND CONDUCTOR IN ALL PVC CONDUIT. PENETRATIONS OF FLOOR SLABS SHALL BE MADE WITH RIGID GALVANIZED STEEL. IN EQUIPMENT ROOMS OR WET LOCATIONS, THREE INCH HIGH CONCRETE CURBS SHALL ENCASE CONDUITS TO SURFACE PANELS OR DEVICES AT THE FLOOR LINE.
- 7. NO CONDUIT TO BE RUN EXPOSED ON EXTERIOR OF BUILDING WALLS OR ON THE FLOORS WITHOUT THE WRITTEN CONSENT OF THE
- 8. PROVIDE ALL PULL BOXES AND FITTINGS WHEREVER NECESSARY OR SHOWN. ALL STRAIGHT CONDUIT RUNS SHALL NOT EXCEED 100 FEET WITHOUT PULL BOX. NOT OVER 75 FEET FOR RUN WITH ONE RIGHT ANGLE BEND AND NOT OVER 50 FEET FOR RUN WITH TWO RIGHT ANGLES.
- 9. ALL CONDUIT SHALL BE PROPERLY SUPPORTED IN ACCORDANCE WITH THE N.E.C. CONDUIT SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE AND NOT FROM DUCTWORK, CEILING HANGERS OR CEILING SUPPORT WIRES.
- 10. FINAL CONNECTION TO LIGHT FIXTURES AND EQUIPMENT SHALL BE MADE WITH FLEXIBLE STEEL CONDUIT ("GREENFIELD" - 6' MAXIMUM LENGTH) IN DRY AREAS AND LIQUID TIGHT FLEXIBLE METALLIC CONDUIT ("SEALTITE") IN DAMP OR WET AREAS.
- 11. ALL EMPTY CONDUITS ARE TO BE PROVIDED WITH PULL WIRES AND NYLON BUSHINGS AT BOTH ENDS.

ELECTRICAL SPECIFICATIONS

OUTLET BOXES

- E. 1. SUPPORT ALL BOXES FROM BUILDING STRUCTURE INDEPENDENT OF THE CONDUIT SYSTEM.
- 2. FLUSH DEVICE BOXES IN MASONRY WALLS SHALL BE DESIGNED FOR THE PURPOSE WITH RAISED COVER.
- 3. WIRING DEVICE BOXES FOR SURFACE CONDUIT WORK SHALL BE FS SERIES CAST BOXES.
- 4. DEVICES ON BUILDING EXTERIOR SHALL BE WEATHERPROOF NEMA 3R.
- F. TESTING AND PLACING IN SERVICE 1. ANY MATERIAL OR EQUIPMENT FAILING A TEST SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- 2. TESTS SHALL INCLUDE THE FOLLOWING:
- A. MEASURE THE LOAD ON EACH PHASE OF THE MAIN SERVICE AND EACH PHASE OF EVERY FEEDER UNDER FULL LOAD CONDITIONS,
- B. MEASURE THE NO-LOOD AND FULL-LOAD VOLTAGES (PHASE TO PHASE, PHASE TO NEUTRAL AND PHASE TO GROUND FOR EACH PHASE OF EACH SERVICE, OF EACH SEPARATELY DERIVED SYSTEM AND AT EACH PANELBOARD OR TRANSFORMER).
- C. MEASURE THE GROUND RESISTANCE OF THE MAIN SERVICE GROUNDING ELECTRODE AND THE GROUND RESISTANCE OF EACH SEPARATELY DERIVED SYSTEM'S GROUNDING ELECTRODE. ALL GROUNDS SHALL BE MEASURED TO BE 10 OHMS OR LESS.
- D. MAKE INSULATION RESISTANCE TESTS ON ALL DRY TYPE TRANSFORMERS AND MOTORS.

G. QUALITY ASSURANCE

- . ALL PRODUCTS SHALL BE NEW AND OF THE TYPE AND QUALITY SPECIFIED. WHERE MATERIALS, EQUIPMENT, APPARATUS OR OTHER PRODUCTS ARE SPECIFIED BY MANUFACTURER, BRAND NAME, TYPE OF CATALOG NUMBER, SUCH DESIGNATION SHALL ESTABLISH THE STANDARDS OF THE DESIRED QUALITY AND STYLE. IT IS THE INTENT OF THESE SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY OF MATERIALS AND EQUIPMENT INSTALLED.
- WIRE & CABLE SHALL BE AS FOLLOWS: A. #12 AWG AND #10 AWG SOLID OR STRANDED CONDUCTOR COPPER,
- 600 VOLT, TYPE THWN, XHHW, OR THW (75 DEGREES C). B. #8 AWG TO AND INCLUDING #600 KCMIL AWG, STRANDED CONDUCTOR, COPPER, 600 VOLT, TYPE THWN, XHHW OR THW (75 DEGREES C).
- C. #14 AWG MAY BE USED FOR LOW VOLTAGE CONTROL WIRING
- COLOR CODING SHALL BE USED FOR ALL WIRE AND CABLES IN ACCORDANCE WITH N.E.C. CODING STANDARDS. CONTROL CONDUCTORS SHALL BE CONTINUOUSLY COLOR CODED. GROUND CONDUCTOR SHALL BE
- 3. JOINTS IN #10 AWG AND SMALLER WIRE SHALL BE MADE WITH "SCOTCH LOCKS" (OR EQUAL) AND BE INSULATED WITH SCOTCH #33 ELECTRICAL
- 4. JOINTS IN #8 AWG AND LARGER SHALL BE MADE WITH PRESSURE TYPE MECHANICAL CONNECTOR AND INSULATED WITH ELECTRICAL TAPE TO 150
- PERCENT OF THE INSULATING VALUE OF THE CONDUCTOR. 5. ALL BELOW GRADE LEVEL JOINTS SHALL BE MADE WITH BURNDY TYPE YSG COMPRESSION CONNECTORS AND SHRINK WRAP INSULATED.
- 6. COLOR CODE CONDUCTORS (EXCEPT CONTROL AND INSTRUMENTATION CONDUCTORS) AS FOLLOWS: 120/208 VOLT SYSTEM

BLUE PHASE (NFUTRAL GROUND GREEN

- A. #12 AND #10 CONDUCTORS SHALL HAVE CONTINUOUS INSULATION
- COLOR AS LISTED ABOVE. B. COLOR CODE CONDUCTORS LARGER THAN ABOVE. WHICH DO NOT HAVE CONTINUOUS INSULATION COLOR BY APPLICATION OF AT LEAST TWO LAPS OF COLORED TAPE ON EACH CONDUCTOR AT ALL POINTS OF ACCESS INCLUDING JUNCTION BOXES. COLOR TAPE SHALL BE THE EQUAL OF 3M PRODUCTS SCOTCH #35.
- C. CONDUCTORS SHALL BE SOFT ANNEALED COPPER INSULATED FOR 600 VOLTS UNLESS SPECIFICALLY INDICATED OTHERWISE. ALUMINUM CONDUCTORS ARE NOT ALLOWED ON THIS PROJECT.
- INSULATION TYPE SHALL BE TYPE THHN OR THWN. THHN SHALL NOT BE USED IN WET OR DAMP LOCATIONS. 8. FLEXIBLE CORD SHALL BE HEAVY DUTY TYPE SO WITH AN
- EQUIPMENT GROUND CONDUCTOR IN ADDITION TO THE CURRENT CARRYING CONDUCTORS.
- 9. INSULATE SPLICING CONNECTORS TO AT LEAST 200 % OF THE WIRE INSULATION. USE PRE-STRETCHED TUBING CONNECTOR INSULATORS, 3M PST FOR #2 AND LARGER CONDUCTORS.
- 10. FORM AND TIE ALL WIRING IN PANELBOARDS.
- 11. THERE SHALL BE NO WIRENUT JOINTS OR SPLICES MADE INSIDE SWITCHBOARDS/PANELBOARDS OR DISCONNECT SWITCHES.
- 12. BRANCH CIRCUIT WIRE SIZES (AND CONDUITS) SHALL BE INCREASED FROM THOSE INDICATED ON THE PLANS TO PREVENT EXCESSIVE VOLTAGE DROP. BRANCH CIRCUITS SHALL BE INSTALLED WITH WIRES OF SUFFICIENT SIZE SO THAT VOLTAGE DROP BETWEEN THE PANEL AND THE LOADS DOES NOT EXCEED LIMIT OF 2.5%

- I. LIGHTING AND POWER PANELBOARDS PROVIDE DEAD-FRONT SAFETY TYPE LIGHTING AND POWER PANELBOARDS AS INDICATED. WITH SWITCHING AND PROTECTIVE DEVICES IN QUANTITIES, RATINGS, TYPES AND ARRANGEMENT AS SHOWN. EQUIPPED WITH COPPER BUS BARS, FULL-SIZED NEUTRAL BAR, WITH BOLT-IN TYPE MOLDED CASE BRANCH CIRCUIT BREAKERS FOR EACH CIRCUIT, WITH TOGGLE HANDLES THAT INDICATE A TRIPPED POSITION. PROVIDE TYPED DIRECTORY.
- 2. PROVIDE ENGRAVED NAMEPLATE FOR EACH PANELBOARD

INDICATING VOLTAGE, PHASE, PANEL NAME, AND FEEDER ORIGIN.

- 1. ENTIRE POWER SYSTEM SHALL BE EFFECTIVELY GROUNDED, INCLUDING ALL EXPOSED NON- CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT IN FULL ACCORDANCE WITH N.E.C. ARTICLE
- 2. A GREEN PIGTAIL SHALL BE INSTALLED FROM GROUNDING SLOTS WHERE RECEPTACLE ATTACHMENT BAR IS NOT IN DIRECT CONTACT WITH THE OUTLET BOX.
- 3. PROVIDE GROUND RODS AND CAD WELD GROUNDING CONDUCTOR TO BUILDING STEEL WHERE INDICATED ON PLANS,
- 5. WIRING IN PATIENT CARE AREAS SHALL COMPLY WITH NEC ARTICLE 517.13.
- 1. FURNISH AND INSTALL LIGHTING FIXTURES AS SHOWN AND SCHEDULED ON THE DRAWINGS.

4. EXTEND GROUND TO DOMESTIC WATER MAIN.

- 2. ALL FIXTURES TO INCLUDE LUMINAIRES.
- 3. COORDINATE FIXTURE TYPE, TRIM AND BASEPLATES WITH WALL FINISHES UPON WHICH THE LIGHT FIXTURE IS INSTALLED UPON. CONSTRUCTION.
- TEMPORARY SERVICE . THIS CONTRACTOR TO PROVIDE ALL TEMPORARY LIGHTING AND
- POWER AS REQUIRED FOR ALL TRADES. 2. ALL TEMPORARY WIRING INSTALLED SHALL BE REMOVED BY THIS
- CONTRACTOR. M. AS-BUILT DRAWINGS
- SUBMIT TO THE ARCHITECT ONE SET OF REPRODUCIBLE (MYLAR) ELECTRICAL DRAWINGS SHOWING THE AS BUILT CONDITION'S.
- N. NAMEPLATES 1. GENERAL: FURNISH AND MOUNT ON EACH PANELBOARD, SWITCHBOARD (INCLUDING BRANCH SWITCHES), LARGE JUNCTION BOX SAFETY SWITCH, STARTER, REMOTE CONTROL, PUSH BUTTON STATION AND ALL SIMILAR CONTROLS, A NAMEPLATE DESCRIPTIVE OF THE
- EQUIPMENT OR EQUIPMENT CONTROLLED. PROVIDE BLACK AND WHITE NAMEPLATES CONSTRUCTED FROM LAMINATED PHENOLIC WITH A BLACK CENTER CORE. LETTERS SHALL BE ENGRAVED IN THE PHENOLIC TO FORM BLACK LETTERS 3/8" HIGH ON A WHITE BACKGROUND. FASTEN THE NAMEPLATES WITH SCREWS AND AN ADHESIVE TYPE FASTENER.

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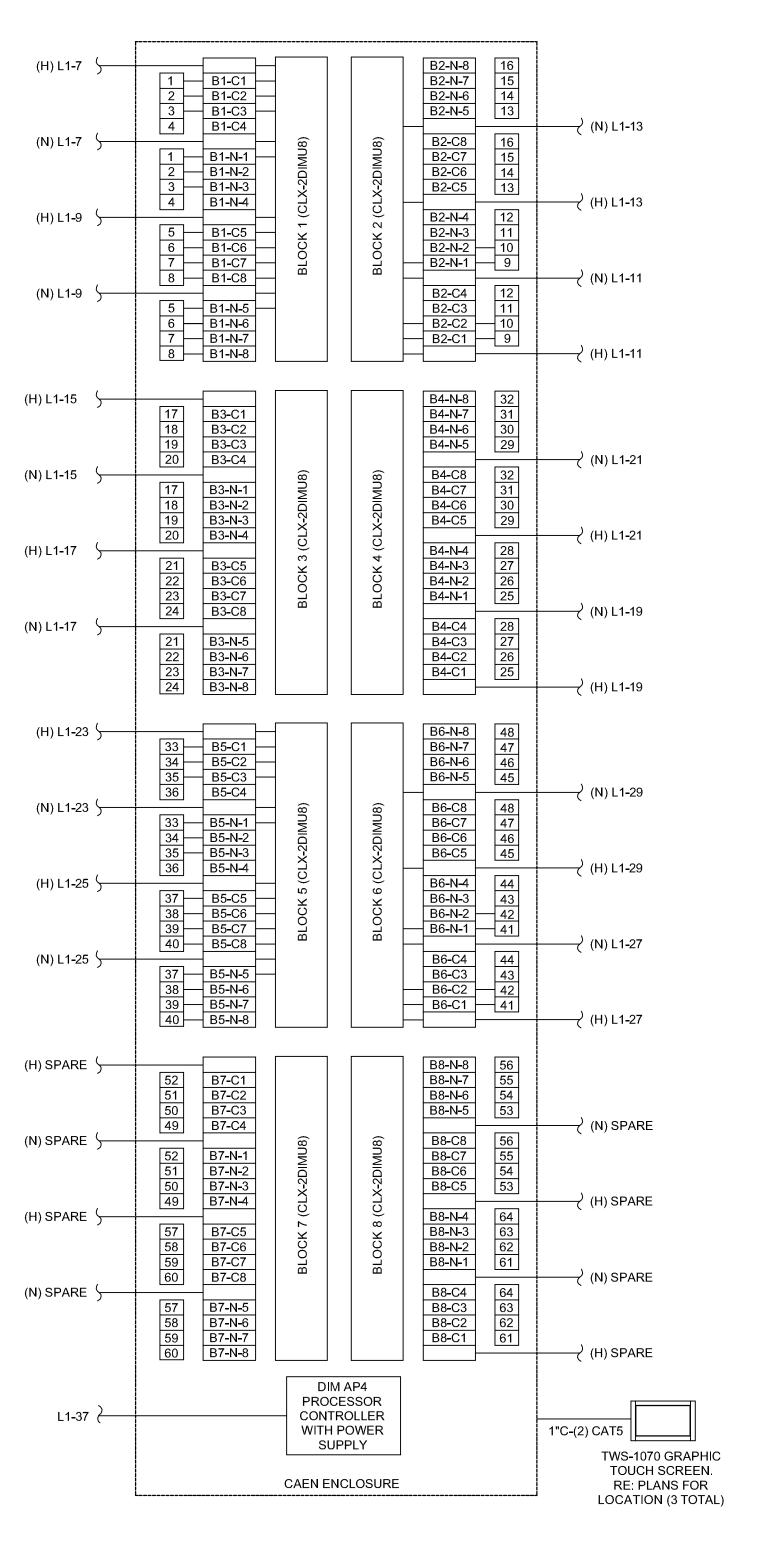
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CONSTRUCTION DOCUMENTS

Drawing Title: **ELECTRICAL SPECIFICATIONS** Project No. 08/05/2024 Sheet No.



	CRES	TRON CONTROL SCHEDUL		RELA'	Y
NO.	LIGHT FIXTURE TYPE	DESCRIPTION	HOT TERMINAL	NEUTRAL TERMINAL	CIR
1	F - FE	NAVE - DOWNLIGHTS	B1-C1	B1-N-1	L
2	F - FE	NAVE - DOWNLIGHTS	B1-C2	B1-N-2	L
3	F - FE	NAVE - DOWNLIGHTS	B1-C3	B1-N-3	L
4	F - FE	NAVE - DOWNLIGHTS	B1-C4	B1-N-4	L
5	F - FE	NAVE - DOWNLIGHTS	B1-C5	B1-N-5	L
6	F - FE	NAVE - DOWNLIGHTS	B1-C6	B1-N-6	L
7	F - FE	NAVE - DOWNLIGHTS	B1-C7	B1-N-7	L
8 9	F - FE	NAVE - DOWNLIGHTS NAVE - DOWNLIGHTS	B1-C8 B2-C1	B1-N-8 B2-N-1	L L
10	F-FE	NAVE - DOWNLIGHTS	B2-C1	B2-N-2	L'
11	F-FE	NAVE - DOWNLIGHTS	B2-C2 B2-C3	B2-N-3	L'
12	F-FE	NAVE - DOWNLIGHTS	B2-C3	B2-N-3 B2-N-4	L.
13	F-FE	NAVE - DOWNLIGHTS	B2-C4 B2-C5	B2-N-5	L.
14	F-FE	NAVE - DOWNLIGHTS	B2-C5 B2-C6	B2-N-6	L,
15	F-FE	NAVE - DOWNLIGHTS	B2-C0	B2-N-7	L'
16	F-FE	NAVE - DOWNLIGHTS NAVE - DOWNLIGHTS	B2-C7 B2-C8	B2-N-8	L'
17	F-FE	NAVE - DOWNLIGHTS NAVE - DOWNLIGHTS	B2-C8 B3-C1	B2-N-8 B3-N-1	L.
18	F-FE	NAVE - DOWNLIGHTS NAVE - DOWNLIGHTS	B3-C1	B3-N-1 B3-N-2	L'
19	F-FE	NAVE - DOWNLIGHTS	B3-C2	B3-N-3	L.
20	F-FE	NAVE - DOWNLIGHTS	B3-C3	B3-N-4	L'
21	F-FE	NAVE - DOWNLIGHTS NAVE - DOWNLIGHTS	B3-C5	B3-N-5	L'
22	F-FE	NAVE - DOWNLIGHTS	B3-C5	B3-N-6	L,
23	F-FE	NAVE - DOWNLIGHTS	B3-C7	B3-N-7	L,
24	F-FE	NAVE - DOWNLIGHTS	B3-C8	B3-N-8	L'
25	K K	NAVE - TRACK LIGHTING	B4-C1	B4-N-1	L'
26	K	NAVE - TRACK LIGHTING	B4-C1	B4-N-2	L'
27	K	NAVE - TRACK LIGHTING	B4-C2	B4-N-3	L'
28	-	SPARE	B4-C3	B4-N-4	
29	K	NAVE - TRACK LIGHTING	B4-C5	B4-N-5	L
30	K	NAVE - TRACK LIGHTING	B4-C6	B4-N-6	L'
31	K	NAVE - TRACK LIGHTING	B4-C7	B4-N-7	L,
32	-	SPARE	B4-C8	B4-N-8	
33	J	NAVE - CHANDELIER	B5-C1	B5-N-1	L
34	J	NAVE - CHANDELIER	B5-C2	B5-N-2	L,
35	J	NAVE - CHANDELIER	B5-C3	B5-N-3	L.
36	J	NAVE - CHANDELIER	B5-C4	B5-N-4	L'
37	F - FE	NAVE - DOWNLIGHTS	B5-C5	B5-N-5	L,
38	F - FE	NAVE - DOWNLIGHTS	B5-C6	B5-N-6	L.
39	F - FE	NAVE - DOWNLIGHTS	B5-C7	B5-N-7	L.
40	F - FE	NAVE - DOWNLIGHTS	B5-C8	B5-N-8	L,
41	F - FE	SANCTUARY - DOWNLIGHTS	B6-C1	B6-N-1	L.
42	F-FE	SANCTUARY - DOWNLIGHTS	B6-C2	B6-N-2	L'
43	F - FE	ALTER - DOWNLIGHTS	B6-C3	B6-N-3	L
44	F - FE	ALTER - DOWNLIGHTS	B6-C4	B6-N-4	L'
45	-	SPARE	B6-C5	B6-N-5	<u> </u>
46	-	SPARE	B6-C6	B6-N-6	
47	-	SPARE	B6-C7	B6-N-7	
48	_	SPARE	B6-C8	B6-N-8	
49	-	SPARE	B7-C1	B7-N-1	
50	-	SPARE	B7-C2	B7-N-2	
51	-	SPARE	B7-C3	B7-N-3	
52	_	SPARE	B7-C4	B7-N-4	
53	-	SPARE	B7-C5	B7-N-5	
54	-	SPARE	B7-C6	B7-N-6	
55	-	SPARE	B7-C7	B7-N-7	
56	_	SPARE	B7-C8	B7-N-8	
57	-	SPARE	B8-C1	B8-N-1	
58	_	SPARE	B8-C2	B8-N-2	
59	_	SPARE	B8-C3	B8-N-3	
60	_	SPARE	B8-C4	B8-N-4	
61	_	SPARE	B8-C5	B8-N-5	
62	<u>-</u>	SPARE	B8-C6	B8-N-6	
63	<u>-</u>	SPARE	B8-C7	B8-N-7	
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CRESTRON LIGHTING CONTROL PANEL NOTES

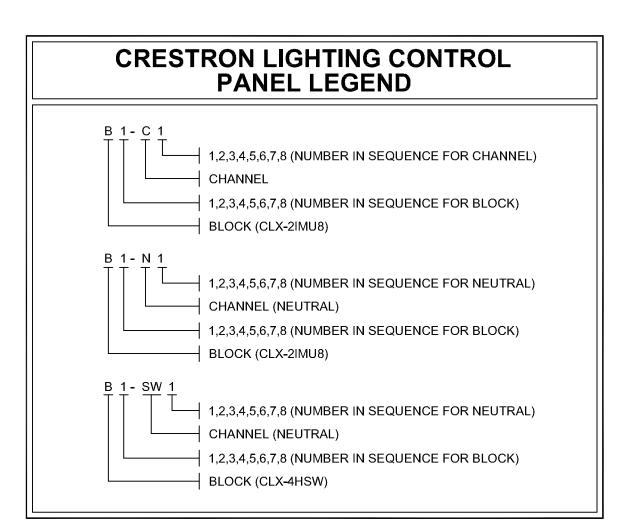
- LIGHTING CONTROLS FOR THE PROJECT ARE DESIGNED WITH THE INTENTION OF UTILIZING CRESTON CAEN ENCLOSURE WITH PAC2M MINI AUTOMATION CONTROL
- 2. THE CAEN ENCLOSURE IS DESIGNED TO BE FLUSH MOUNTED IN A 6" DEEP WALL COORDINATE WITH G.C. AND SHALL BE LARGEST SIZE ENCLOSURE MODEL "CAEN-7X2 TO ALLOW 14 MODULES WITH (SIZE OF 62.75" H x 27.25" W x 4.32" D). FRONT COVER SHALL BE VENTILATED.
 - INCLUDE THE PAC2M MINI AUTOMATION CONTROLLER THAT HAS AN ASTRONOMICAL TIMECLOCK AND WILL MEET ALL REQUIREMENTS OF THE ENERGY CODES. INCLUDE POWER SUPPLY AS NECESSARY FOR 120V CONTROL AND WILL PROVIDE NECESSARY 24VDC OUTPUT.
 - THIS SYSTEM WILL WORK AS BOTH A DIMMING PANEL AND ALSO AN AUTOMATIC LIGHTING CONTROL SYSTEM FOR TIME CONTROLLED FUNCTIONS AS REQUIRED
- 5. DIMMING AND SWITCHING MODULES SHALL BE SUPPLIED WITHIN THE CAEN ENCLOSURE TO MEET WHAT IS SHOWN IN THE DIMMER PANEL SCHEDULE. FOR EACH DIMMING AND SWITCHING MODULE A MATCHING TERMINAL BLOCK SHALL BE INCLUDED FOR THE MODULE.
- 6. PROVIDE DIMMER MODULAR AND TERMINAL BLOCKS.

BY THE IECC.

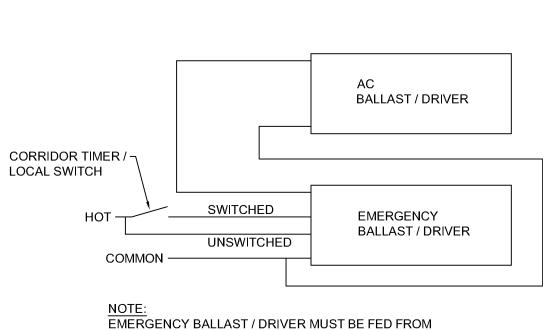
- PROVIDE SWITCHING MODULAR FOR NON-DIMMING LOADS AND TERMINAL BLOCKS.
- 8. PRIOR TO PURCHASE OF MODULES, CONFIRM THE COMPATIBILITY OF THE TYPE OF LAMP THAT THE DIMMER MODULE IS CONTROLLING.
- 9. A 6-BUTTON LOW VOLTAGE SWITCH SHALL BE PROVIDE FOR SCENE CONTROLS, IN ADDITION, A 2-BUTTON LOW VOLTAGE SWITCH SHALL BE PROVIDED TO ALLOW AFTER HOURS OVERRIDE OF LIGHTING FOR A 1-1/2" HOUR PERIOD OF TIME.
- SUPPLIER OF THE SYSTEM SHALL INCLUDE TIME TO COMMISSION AND PROGRAM THE SYSTEM TO MEET TENANT / OWNER REQUIREMENTS AND ALL REQUIREMENTS OF THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE. INCLUDE PROGRAMMING TO SHUTDOWN ALL INTERIOR LIGHT FIXTURES AT THE END OF BUSINESS OPERATIONS AND ALLOW LIGHTS TO TURN ON AT THE BEGINNING OF BUSINESS OPERATIONS TO BE DETERMINED BY THE TENANT. INCLUDE PROGRAMMING TO TURN ON ALL EXTERIOR LIGHT FIXTURES AND BUILDING SIGNS AT NIGHT TIME BASED ON ASTRONOMICAL TIMECLOCK AND TURN OFF 1 HOUR AFTER CLOSE OF BUSINESS. PROGRAM INPUT OF MANUAL OVERRIDE SWITCH TO ALLOW LIGHTS TO BE TURNED ON FOR A MAXIMUM OF 2 HOURS IF IT
- IS DURING CLOSE OF BUSINESS.11. ELECTRICAL CONTRACTOR SHALL INSTALL AND TERMINATE ALL WIRES ON
- 12. ELECTRICAL CONTRACTOR SHALL INSTALL ALL COMMUNICATION WIRING BETWEEN THE LIGHTING CONTROLS SYSTEM AND THE A/V GRAPHIC TOUCHSCREEN CONTROLLER AND ALL LOW VOLTAGE SWITCHES.

DIMMER MODULAR / TERMINAL BLOCKS.

13. COMPONENTS INDICATED WITHIN THE ENCLOSURE ARE FOR REFERENCE ONLY. COORDINATE WITH CRESTON FOR COMPONENTS TYPES AND QUANTITIES REQUIRED BASED ON THE CRESTON CONTROL PANEL RELAY SCHEDULE PRIOR TO PURCHASING.

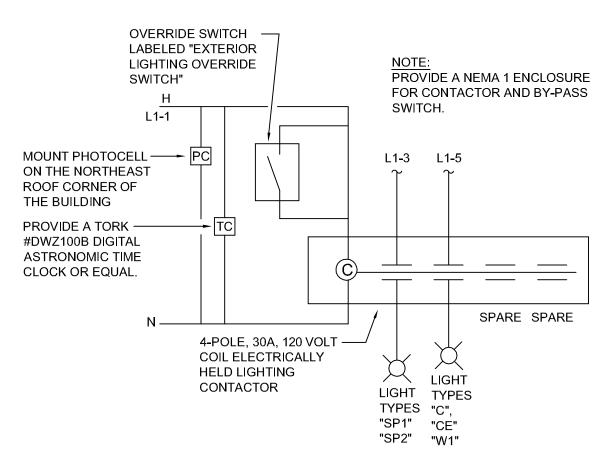


1 CRESTRON LIGHTING CONTROL DETAILS NOT TO SCALE



EMERGENCY BALLAST / DRIVER MUST BE FED FROM SAME BRANCH CIRCUIT AS AC BALLAST / DRIVER.

2 EMERGENCY DRIVER WIRING DETAIL NOT TO SCALE



EXTERIOR LIGHTING
CONTACTOR WIRING DETAIL
NOT TO SCALE



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CONSTRUCTION DOCUMENTS

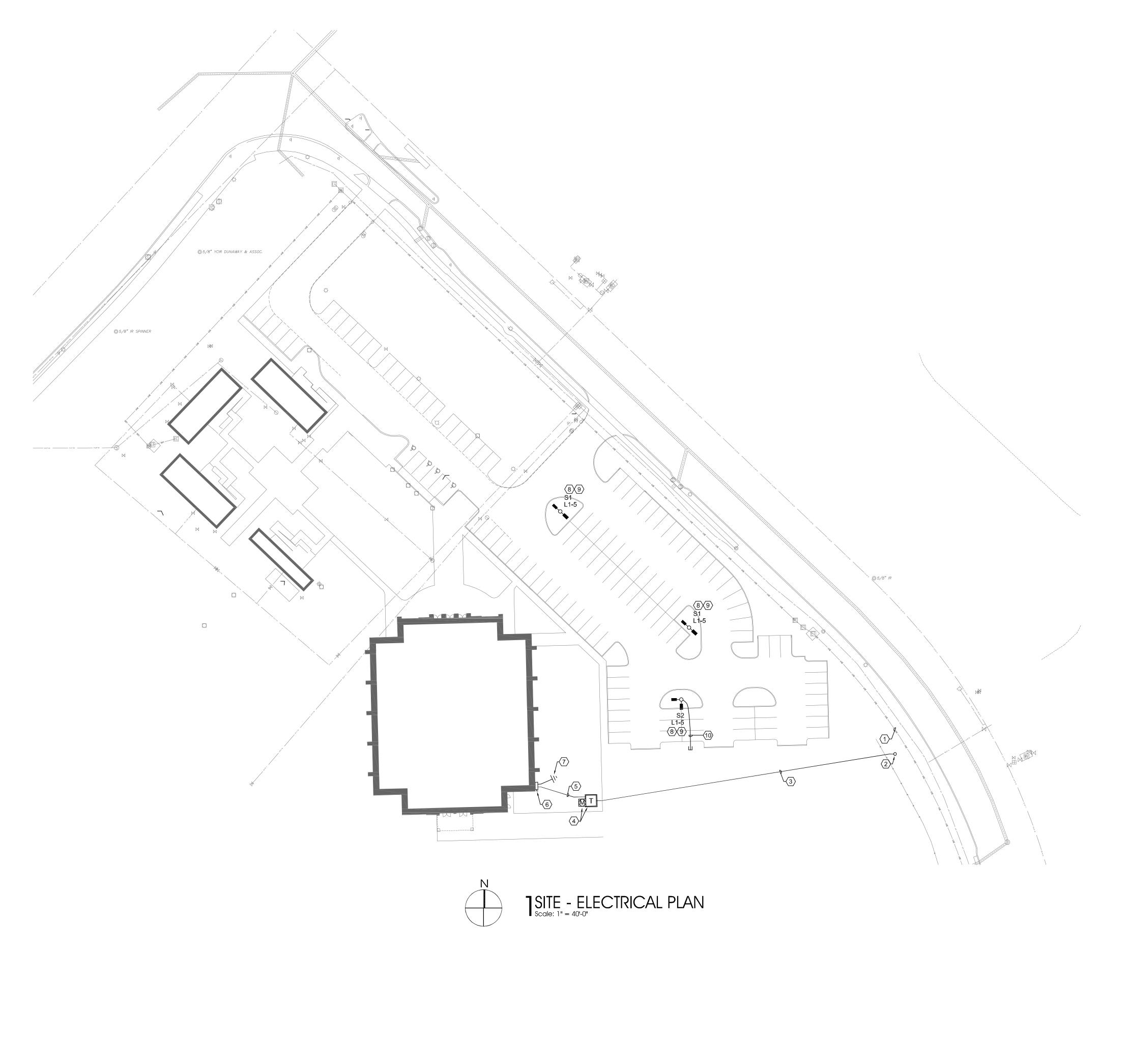
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Date:
08/05/2024

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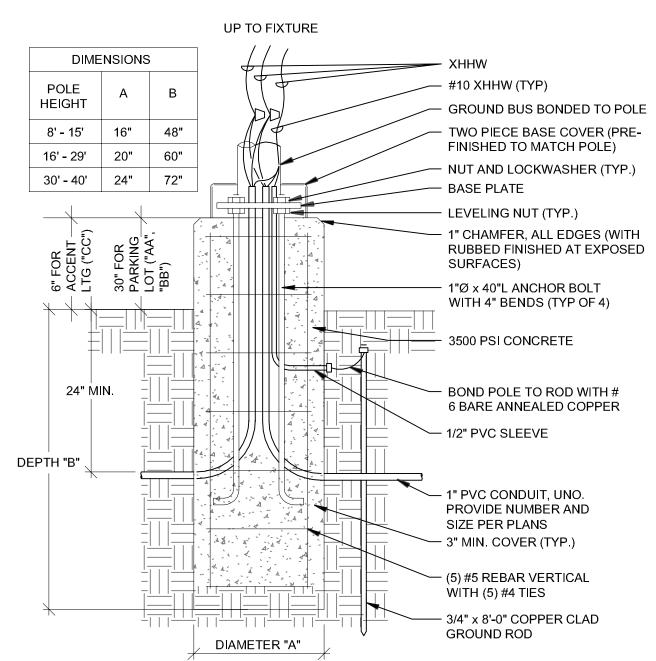
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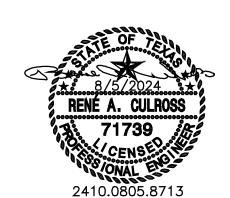
- . RE: E0.1 FOR ELECTRICAL SYMBOLS, ADDITIONAL GENERAL NOTES, AND ABBREVIATIONS.
- 2. RE: E0.2 FOR ELECTRICAL SPECIFICATIONS.
- 3. RE: E0.2 AND E0.3 FOR LIGHTING CONTROL DETAILS
- 4. RE: E4.1 FOR BRANCH WIRING SCHEDULE FOR WIRE SIZES.
- 5. RE: E4.1 FOR PANELBOARD SCHEDULES.
- 6. RE: E5.1 FOR LIGHT FIXTURE SCHEDULES.
- RE: E5.1 FOR MECHANICAL / ELECTRICAL EQUIPMENT SCHEDULES.
- 8. RE: ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS.
- IF CONFLICTS ARISES ON THE DRAWINGS PROVIDED BY THE ARCHITECT OR ENGINEER. THE ARCHITECTS DRAWINGS WILL OVERRIDE THE OTHER DRAWINGS.
- 10. RE: ARCHITECTURAL ELEVATION AND REFLECTED CEILING PLANS PRIOR TO INSTALLING ELECTRICAL DEVICES.

NOTES BY SYMBOL "# "

- (1) EXISTING UNDERGROUND ELECTRICAL CONDUCTORS. COORDINATE WITH THE UTILITY COMPANY FOR NEW ELECTRICAL SERVICE. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- (2) COORDINATE WITH THE UTILITY COMPANY FOR PROPOSED NEW MANHOLE FOR THE NEW ELECTRICAL SERVICE. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- PROPOSED UTILITY COMPANY PRIMARY FEEDER. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- PROPOSED UTILITY COMPANY TRANSFORMER AND METER. PROVIDE A CONCRETE HOUSEKEEPING PAD PER UTILITY STANDARDS. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- PROPOSED UTILITY COMPANY SECONDARY FEEDER. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- 6 PROPOSED NEMA 3R SERVICE RATED DISCONNECT SWITCH. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- BUILDING SERVICE ENTRANCE GROUNDING. RE: 2/E4.1 BUILDING SERVICE ENTRANCE GROUNDING DIAGRAM FOR ADDITIONAL INFORMATION.
- 8 ROUTE LIGHTING BRANCH CIRCUITING THRU THE EXTERIOR LIGHTING CONTACTOR. RE: 2/E0.3 EXTERIOR LIGHTING CONTACTOR WIRING DETAIL FOR ADDITIONAL INFORMATION.
- 9 RE: 2/E0.3 LIGHT POLE BASE DETAIL FOR ADDITIONAL INFORMATION.
- \$\left(\frac{10}{10}\right)\$ STUBBED 1" CONDUIT OUT BEYOND "BASE BID" CONCRETE PARKING LOT AS



2 LIGHT POLE DETAIL



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13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION DOCUMENTS

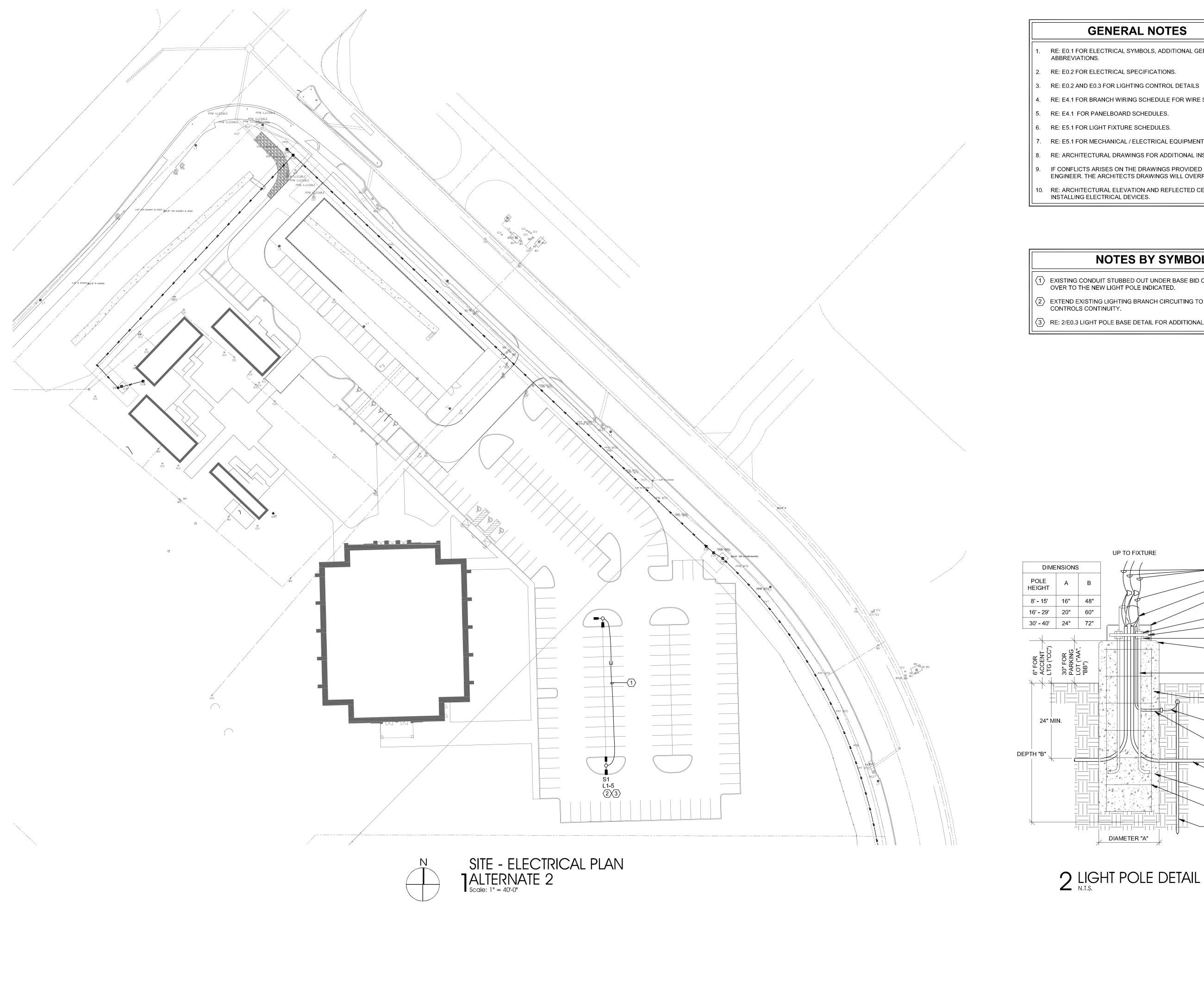
Project No.

2403

Date:
08/05/2024

Sheet No.

Elicon



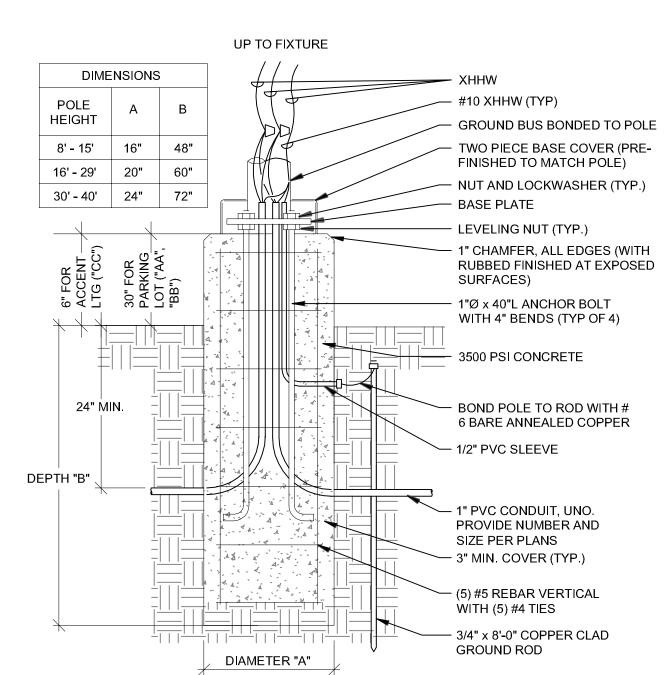


- RE: E0.1 FOR ELECTRICAL SYMBOLS, ADDITIONAL GENERAL NOTES, AND

- 4. RE: E4.1 FOR BRANCH WIRING SCHEDULE FOR WIRE SIZES.
- 5. RE: E4.1 FOR PANELBOARD SCHEDULES.
- RE: E5.1 FOR MECHANICAL / ELECTRICAL EQUIPMENT SCHEDULES.
- RE: ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS.
- IF CONFLICTS ARISES ON THE DRAWINGS PROVIDED BY THE ARCHITECT OR ENGINEER. THE ARCHITECTS DRAWINGS WILL OVERRIDE THE OTHER DRAWINGS.
- 10. RE: ARCHITECTURAL ELEVATION AND REFLECTED CEILING PLANS PRIOR TO INSTALLING ELECTRICAL DEVICES.

NOTES BY SYMBOL "# "

- (1) EXISTING CONDUIT STUBBED OUT UNDER BASE BID CONTRACT TO BE EXTENDED OVER TO THE NEW LIGHT POLE INDICATED.
- (2) EXTEND EXISTING LIGHTING BRANCH CIRCUITING TO MAINTAIN POWER AND CONTROLS CONTINUITY.
- $\langle 3 \rangle$ RE: 2/E0.3 LIGHT POLE BASE DETAIL FOR ADDITIONAL INFORMATION.



2 LIGHT POLE DETAIL

CONSTRUCTION **DOCUMENTS**

ARCHITECTURE

SCOTT MARTSOLF - ARCHITECT

SAINT TERESA

OF CALCUTTA

CATHOLIC

CHURCH

PARISH

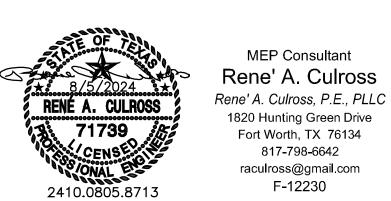
13517 ALTA VISTA ROAD

FORT WORTH, TX 76262

815 W. Daggett Ave. Fort Worth, Texas 76104

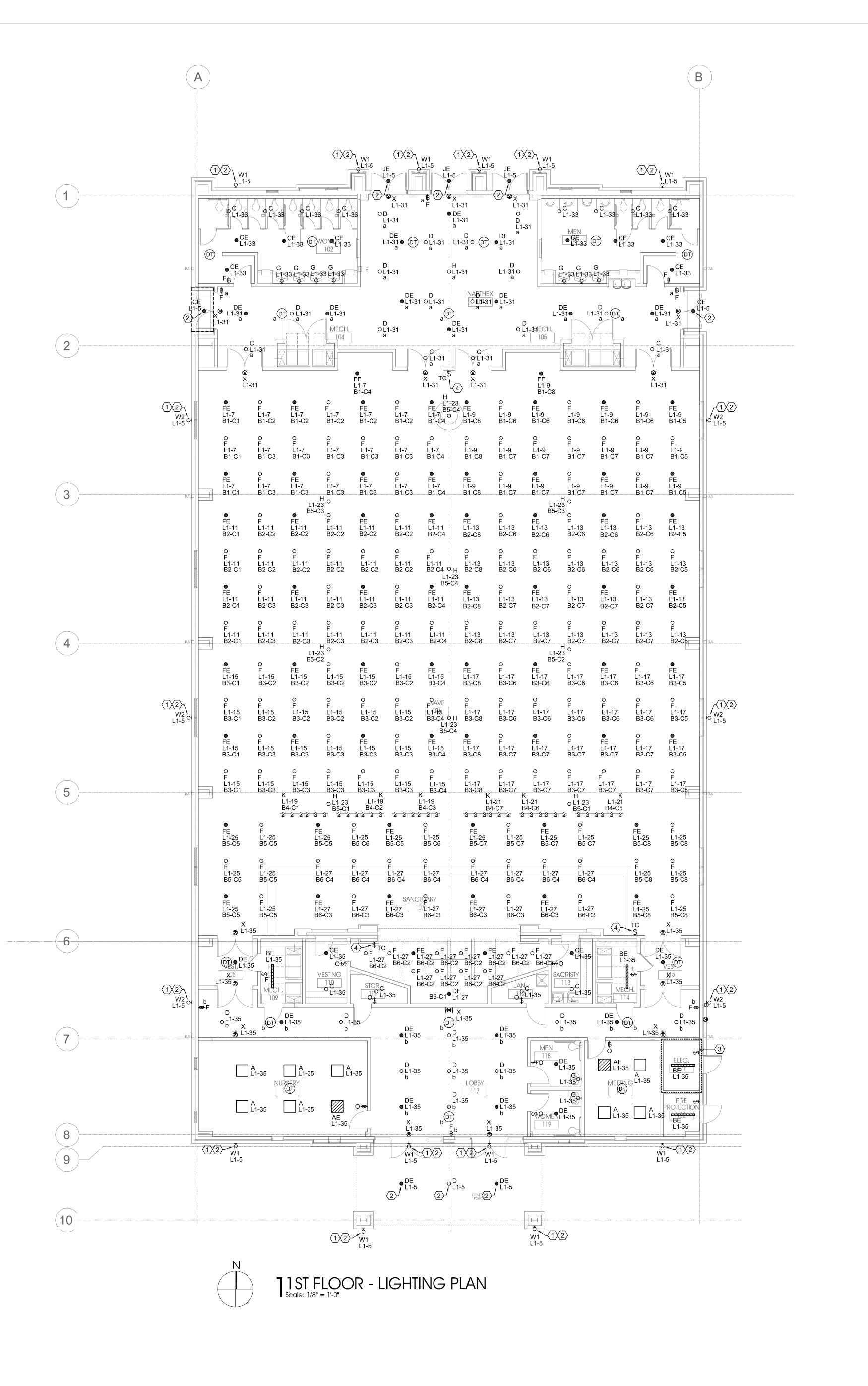
Phone: (817) 820-0005

Drawing Title: SITE - ELECTFICAL PLAN ALTERNATE 2 Project No 08/05/2024 2403 Sheet No.



MEP Consultant

1820 Hunting Green Drive Fort Worth, TX 76134 817-798-6642 raculross@gmail.com F-12230



- 1. RE: E0.1 FOR ELECTRICAL SYMBOLS, ADDITIONAL GENERAL NOTES, AND ABBREVIATIONS.
- 2. RE: E0.2 FOR ELECTRICAL SPECIFICATIONS.
- . RE: E0.2 AND E0.3 FOR LIGHTING CONTROL DETAILS
- RE: E4.1 FOR BRANCH WIRING SCHEDULE FOR WIRE SIZES.
- 5. RE: E4.1 FOR PANELBOARD SCHEDULES.
- 6. RE: E5.1 FOR LIGHT FIXTURE SCHEDULES.
- 7. RE: E5.1 FOR MECHANICAL / ELECTRICAL EQUIPMENT SCHEDULES.
- RE: ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS.
- IF CONFLICTS ARISES ON THE DRAWINGS PROVIDED BY THE ARCHITECT OR ENGINEER. THE ARCHITECTS DRAWINGS WILL OVERRIDE THE OTHER DRAWINGS.
- 10. RE: ARCHITECTURAL ELEVATION AND REFLECTED CEILING PLANS PRIOR TO INSTALLING ELECTRICAL DEVICES.

NOTES BY SYMBOL " # "

- COORDINATE EXACT MOUNT HEIGHT OF LIGHT FIXTURE TYPE "W1" WITH THE ARCHITECTS PRIOR TO INSTALLATION.
- ROUTE LIGHT FIXTURE TYPES "CE" AND "W1" LIGHTING BRANCH CIRCUITING THRU THE EXTERIOR LIGHTING CONTACTOR. RE: 2/E0.2 EXTERIOR LIGHTING CONTACTOR WIRING DIAGRAM FOR ADDITIONAL INFORMATION.
- (3) RE: 2/E3.1 FIRST FLOOR ENLARGED ELECTRICAL ROOM POWER PLAN FOR ADDITIONAL INFORMATION.
- (4) CRESTON LIGHTING CONTROL PANEL FOR SANCTUARY / NAVE. RE: 1/E0.3 CRESTRON LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION.

ARCHITECTURE
SCOTT MARTSOLF - ARCHITECT

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SAINT TERESA
OF CALCUTTA
CATHOLIC
CHURCH

PARISH HALL

13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION

DOCUMENTS

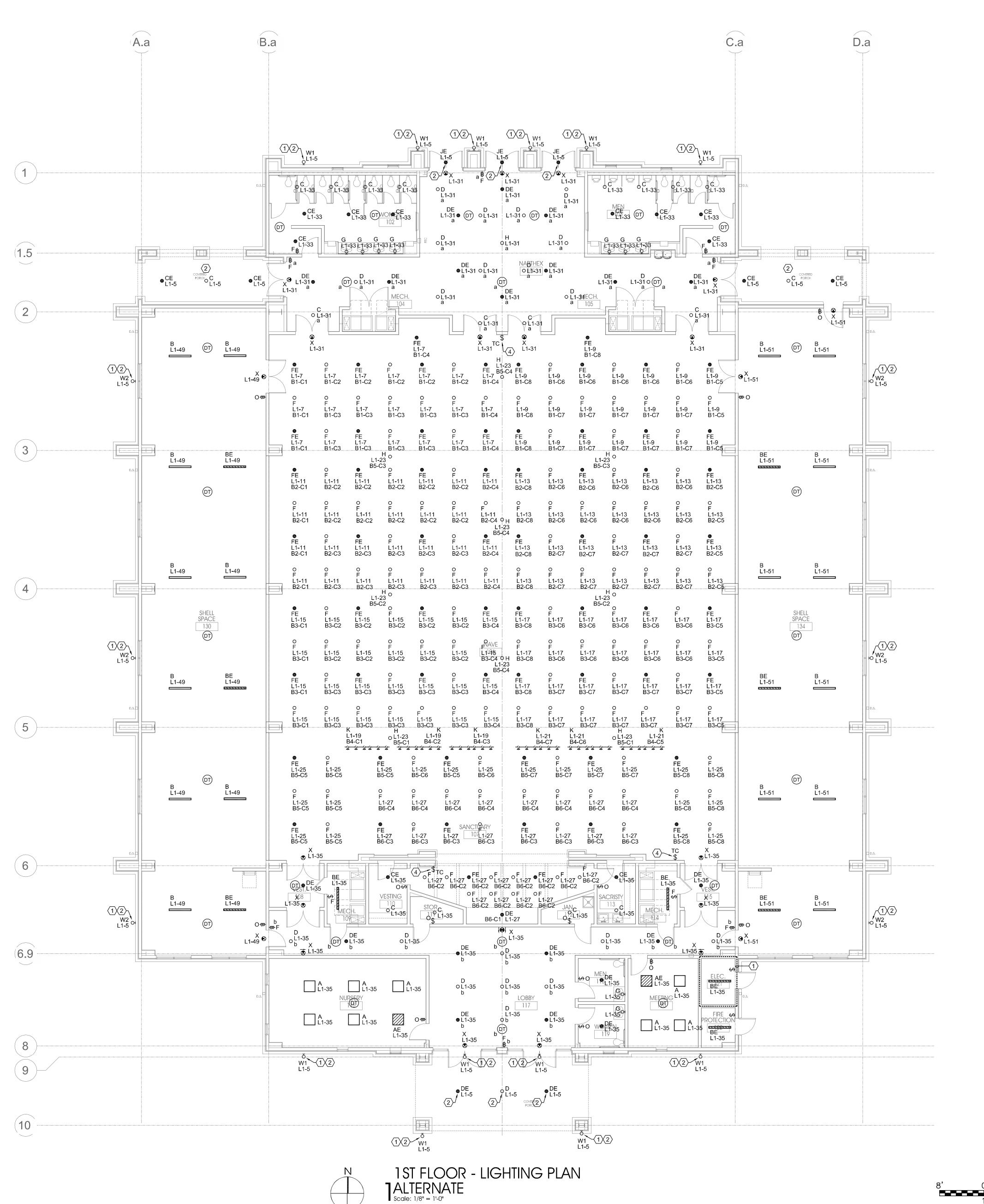
Drawing Title:	
1 ST FLOOR - LIGHT	IING PLAN
Project No.	Date:
2403	08/05/2024
	Sheet No.
	E2.1

0 8' 16' 71739 71/8"=1'-0"

MEP Consultant
Rene' A. Culross

Rene' A. Culross, P.E., PLLC 1820 Hunting Green Drive Fort Worth, TX 76134

817-798-6642 raculross@gmail.com F-12230



- RE: E0.1 FOR ELECTRICAL SYMBOLS, ADDITIONAL GENERAL NOTES, AND ABBREVIATIONS.
- 2. RE: E0.2 FOR ELECTRICAL SPECIFICATIONS.
- RE: E0.2 AND E0.3 FOR LIGHTING CONTROL DETAILS
- 4. RE: E4.1 FOR BRANCH WIRING SCHEDULE FOR WIRE SIZES.
- 5. RE: E4.1A FOR PANELBOARD SCHEDULES.
- 6. RE: E5.1 FOR LIGHT FIXTURE SCHEDULES.
- RE: E5.1 FOR MECHANICAL / ELECTRICAL EQUIPMENT SCHEDULES.
- RE: ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS.
- IF CONFLICTS ARISES ON THE DRAWINGS PROVIDED BY THE ARCHITECT OR ENGINEER. THE ARCHITECTS DRAWINGS WILL OVERRIDE THE OTHER DRAWINGS.
- 10. RE: ARCHITECTURAL ELEVATION AND REFLECTED CEILING PLANS PRIOR TO INSTALLING ELECTRICAL DEVICES.

NOTES BY SYMBOL " # "

- COORDINATE EXACT MOUNT HEIGHT OF LIGHT FIXTURE TYPE "W1" WITH THE ARCHITECTS PRIOR TO INSTALLATION.
- (2) ROUTE LIGHT FIXTURE TYPES "CE" AND "W1" LIGHTING BRANCH CIRCUITING THRU THE EXTERIOR LIGHTING CONTACTOR. RE: 2/E0.2 EXTERIOR LIGHTING CONTACTOR WIRING DIAGRAM FOR ADDITIONAL INFORMATION.
- (3) RE: 2/E3.1 FIRST FLOOR ENLARGED ELECTRICAL ROOM POWER PLAN FOR ADDITIONAL INFORMATION.
- CRESTON LIGHTING CONTROL PANEL FOR SANCTUARY / NAVE. RE: 1/E0.3 CRESTRON LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION.

ARCHITECTURE SCOTT MARTSOLF - ARCHITECT

815 W. Daggett Ave. Fort Worth, Texas 76104 Phone: (817) 820-0005

> SAINT TERESA OF CALCUTTA

> > CATHOLIC

CHURCH

PARISH HALL

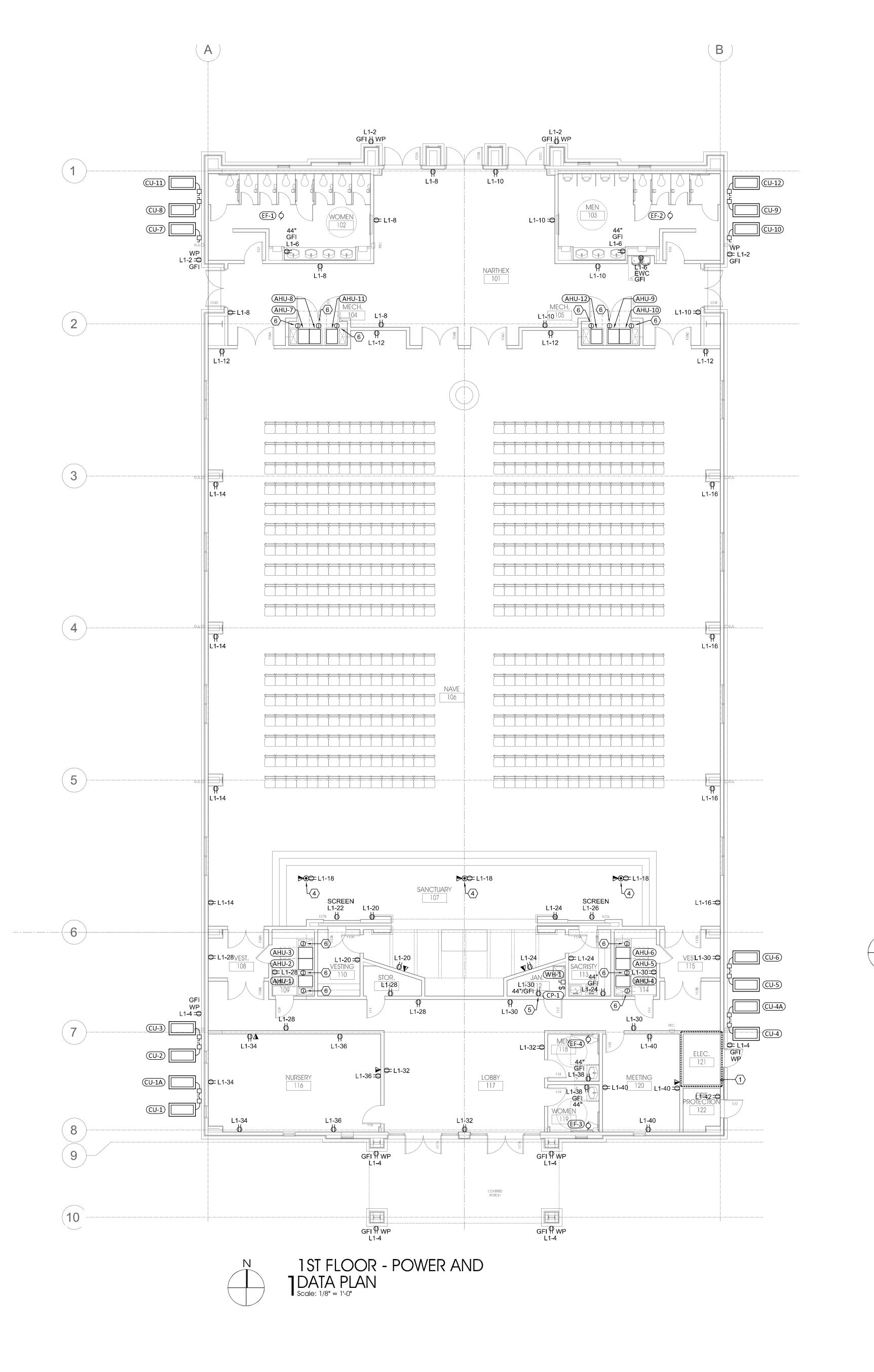
13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION **DOCUMENTS**

Drawing Title: 1ST FLOOR - LIGHTING PLAN ALTERNATE Project No. 08/05/2024 2403 Sheet No.

MEP Consultant Rene' A. Culross

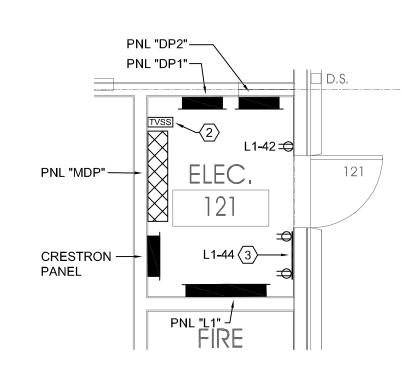
Rene' A. Culross, P.E., PLLC 1820 Hunting Green Drive Fort Worth, TX 76134 817-798-6642 raculross@gmail.com F-12230



- RE: E0.1 FOR ELECTRICAL SYMBOLS, ADDITIONAL GENERAL NOTES, AND ABBREVIATIONS.
- 2. RE: E0.2 FOR ELECTRICAL SPECIFICATIONS.
- 3. RE: E0.2 AND E0.3 FOR LIGHTING CONTROL DETAILS
- 4. RE: E4.1 FOR BRANCH WIRING SCHEDULE FOR WIRE SIZES.
- 5. RE: E4.1 FOR PANELBOARD SCHEDULES.
- 6. RE: E5.1 FOR LIGHT FIXTURE SCHEDULES.
- 7. RE: E5.1 FOR MECHANICAL / ELECTRICAL EQUIPMENT SCHEDULES.
- 8. RE: ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTRUCTIONS.
- 9. IF CONFLICTS ARISES ON THE DRAWINGS PROVIDED BY THE ARCHITECT OR ENGINEER. THE ARCHITECTS DRAWINGS WILL OVERRIDE THE OTHER DRAWINGS.
- 10. RE: ARCHITECTURAL ELEVATION PRIOR TO INSTALLING ELECTRICAL DEVICES.11. ALL RECEPTACLES MOUNTED AT 64" AND BELOW ARE TO BE TAMPER PROOF.

NOTES BY SYMBOL " # "

- RE: 2/E3.1 FIRST FLOOR ENLARGED ELECTRICAL ROOM POWER PLAN FOR ADDITIONAL INFORMATION.
- PROVIDE A SURGE PROTECTIVE DEVICE. RE: 1/E4.1 ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE A 36" x 36" PLYWOOD TELEPHONE BACKBOARD. MOUNT TWO RECEPTACLES IN THE LOWER CORNER OF THE PLYWOOD. RE: 2/E4.1 BUILDING SERVICE ENTRANCE GROUNDING DETAIL FOR ADDITIONAL INFORMATION.
- PROVIDE A LEGRAND WIREMOLD # RC7ATCAB POKE -THRU ASSEMBLED UNIT. COORDINATE EXACT LOCATION WITH THE OWNER / ARCHITECT PRIOR TO INSTALLATION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- MOUNT RECEPTACLES ADJACENT TO THE TIME CLOCK PROVIDED BY DIVISION 22. COORDINATE EXACT LOCATION OF TIME CLOCK PRIOR TO INSTALLATION.
- UTILIZE AIR HANDLER UNIT 1 (OR AHU-1A, AHU-2, AHU-3, AHU-4, AHU-4A, AHU-5, AHU-6, AHU-7, AHU-9, AHU-10, AHU-11 OR AHU-12) POWER TO PROVIDE 120V POWER TO MOTORIZED DAMPER ASSOCIATED TO EACH AIR HANDLER. PULL A NEUTRAL TO EACH MOTORIZED DAMPER (120V). COORDINATE EXACT LOCATION AND CONNECTION WITH DIVISION 23 PRIOR TO INSTALLATION,



1ST FLOOR - ELEARGED ELECTRICAL 2 ROOM - POWER PLAN

ARCHITECTURE SCOTT MARTSOLF - ARCHITECT

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SAINT TERESA
OF CALCUTTA
CATHOLIC
CHURCH

PARISH HALL

13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION DOCUMENTS

Drawing Title:

1ST FLOOR - POWER AND DATA PLAN

Project No.

2403

Date:

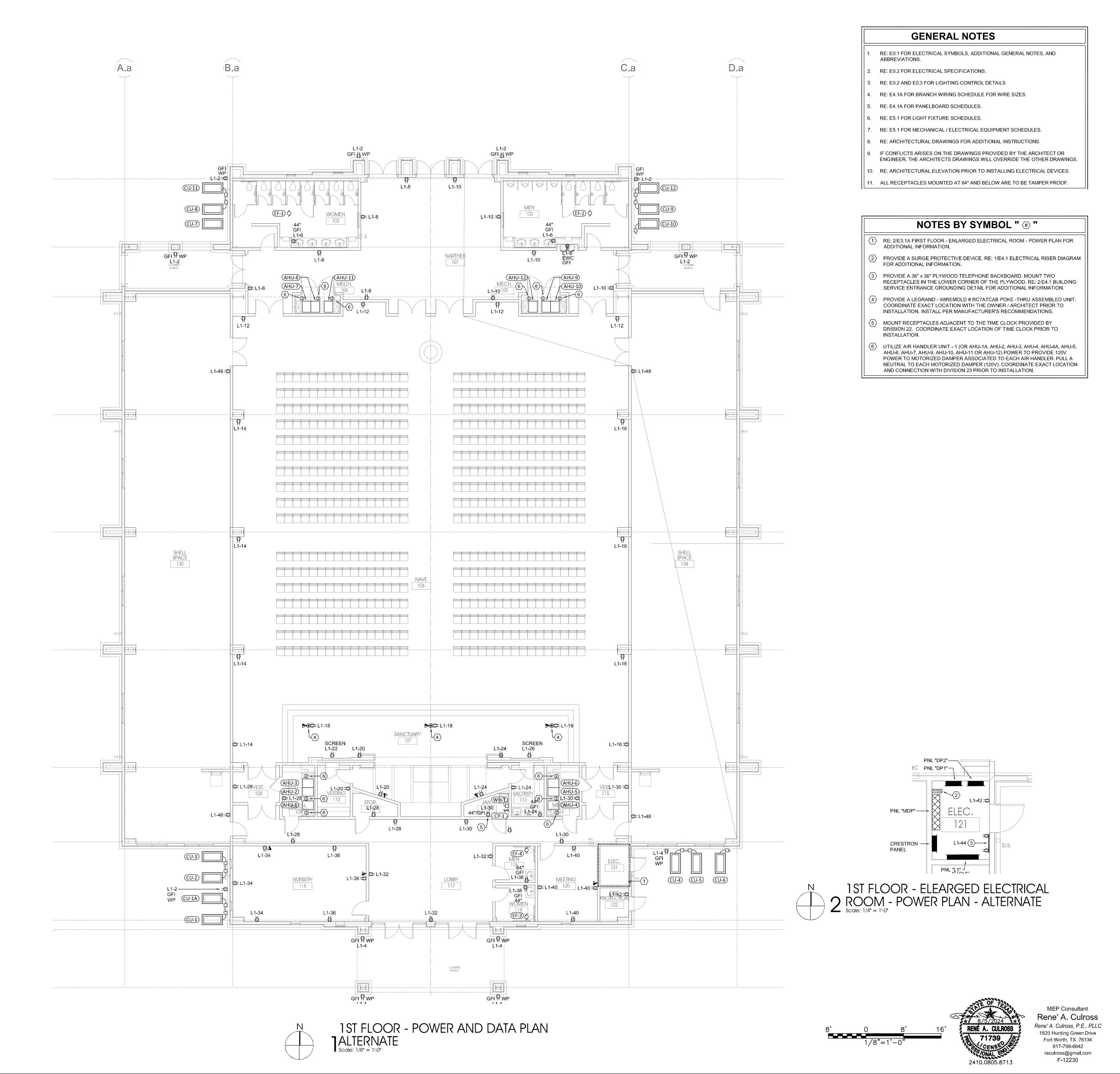
08/05/2024

Sheet No.

E3.1

0 8' 16' RENE A. CULROSS

1/8"=1'-0"



ARCHITECTURE
SCOTT MARTSOLF - ARCHITECT

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SAINT TERESA
OF CALCUTTA
CATHOLIC
CHURCH

PARISH HALL

13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION DOCUMENTS

Drawing Title:

1ST FLOOR - POWER AND DATA PLAN - ALTERNATE

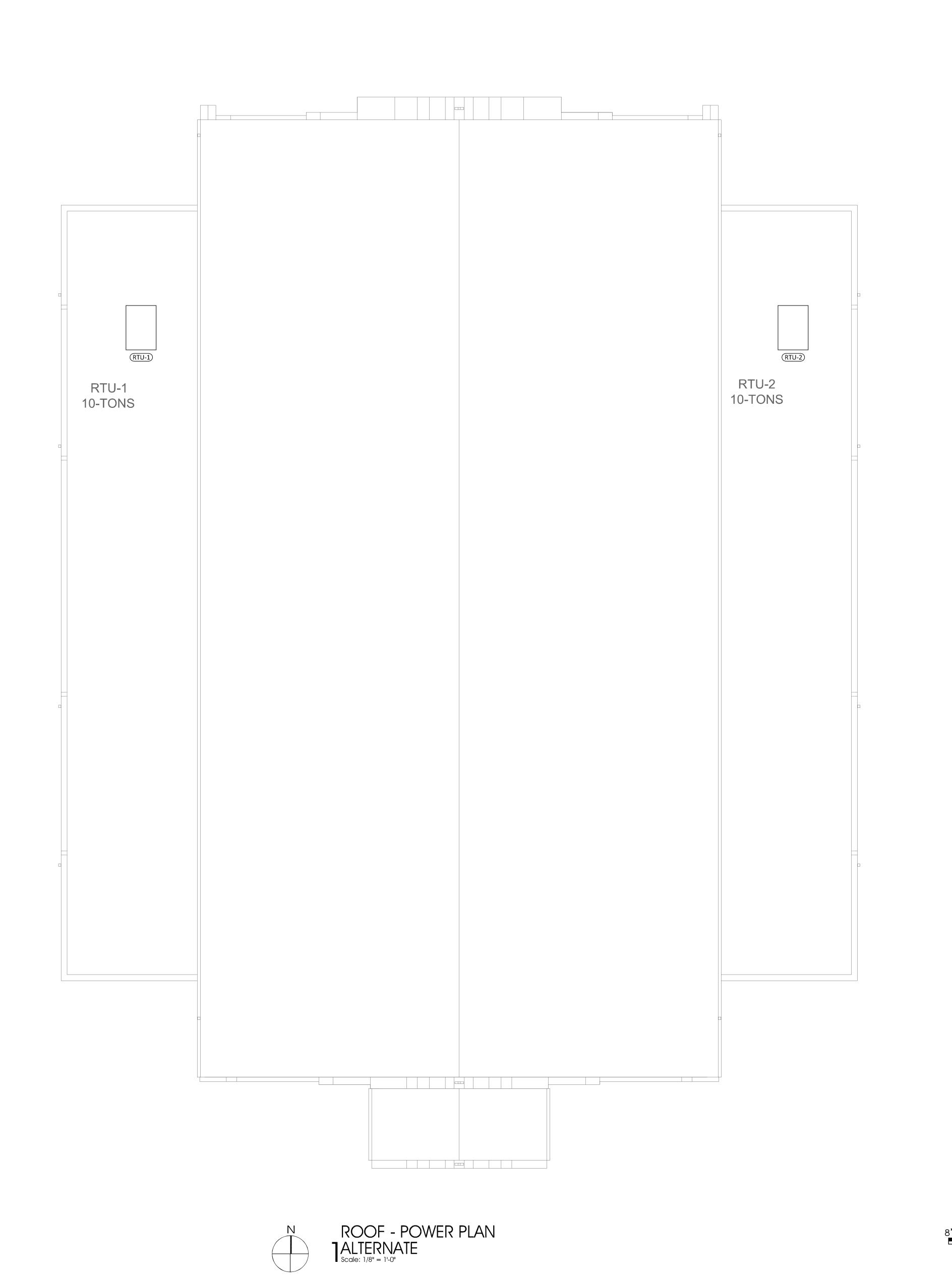
Project No.

2403

Date:

08/05/2024

Sheet No.





- I. RE: E0.1 FOR ELECTRICAL SYMBOLS, ADDITIONAL GENERAL NOTES, AND ABBREVIATIONS.
- 2. RE: E0.2 FOR ELECTRICAL SPECIFICATIONS.
- 3. RE: E0.2 AND E0.3 FOR LIGHTING CONTROL DETAILS
- 4. RE: E4.1A FOR BRANCH WIRING SCHEDULE FOR WIRE SIZES.
- 5. RE: E4.1A FOR PANELBOARD SCHEDULES.
- 6. RE: E5.1 FOR LIGHT FIXTURE SCHEDULES.
- 7. RE: E5.1 FOR MECHANICAL / ELECTRICAL EQUIPMENT SCHEDULES.
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- 10. RE: ARCHITECTURAL ELEVATION PRIOR TO INSTALLING ELECTRICAL DEVICES.
- 11. ALL RECEPTACLES MOUNTED AT 64" AND BELOW ARE TO BE TAMPER PROOF.

ARCHITECTURE SCOTT MARTSOLF - ARCHITECT

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SAINT TERESA
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CONSTRUCTION DOCUMENTS

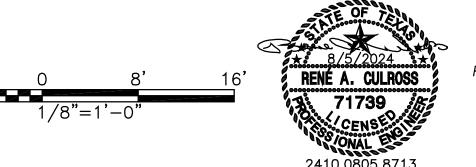
Drawing Title:

ROOF - POWER PLAN
ALTERNATE

Project No. Date:

2403 08/05/2024

Sheet No.

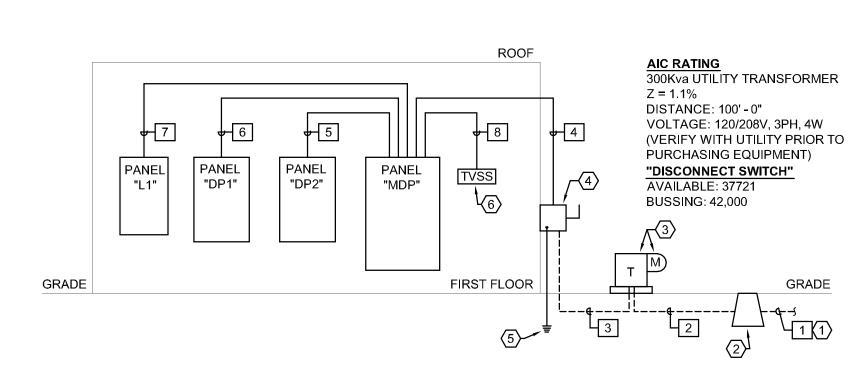


		RICAL ROOM 'Y		CE TYPE: BRE AMILY: BOLT			N	NOUNTI	URE: NE NG: SUR E: 208/1	FACE		•): 800 MLO 3-PHASE 4-WIRE	CONTINU BUS SC R FAULT CL	ATING(A)	
OC AMPS P	NOTES	DESCRIPTION		DEMAND CODE	VA	СКТ	PHASE A	LOAD: B	S VA C	СКТ	VA	DEMAND CODE	DESCRIPTION		NOTES	OC AMPS P
400 3	-	PANEL "DP1"		HEAT	33332	1	55157			2	21825	HEAT	PANEL "DP2"		=	225 3
-	-	-		-	26984	3		48809		4	21825	-	-		_	-
-	-	-		-	26984	5			49998	6	23014	-	-		-	-
200 3	-	PANEL "L1"		GEN	13140	7	13140			8	0	GEN	SPARE		-	200 3
-	-	-		-	14680	9		14680		10	-	-	-		-	-
-	-	-		-	14580	11			14580	12	-	-	-		-	-
200 3	-	SPARE		SPR	0	13	0			14	0	BLANK	SPARE		-	200 3
-	-	=		-	-	15		0		16	-	-	=		-	-
-	-	-		-	-	17			0	18	-	-	-		-	-
200 3	-	SPARE		SPR	0	19	0			20	0	BLANK	BLANK		-	- 3
-	-	-		-	_	21		0		22	-	-	=		-	-
-	-	-		-	_	23			0	24	-	-	=		-	-
- 3	-	BLANK		BLANK	9	25	0			26	0	BLANK	BLANK		-	- 3
-	-	=		-	-	27		0		28	-	-	=		-	-
_	-	-		_	_	29			0	30	-	-	-		-	-
ALL CONNI	 ECTED	KVA	MAX AMPS	,	* PHA	SE TO	TALS	VA		AMP	S			BUS T	OTALS	KVA
OTAL CO		193.4	537.1		* A-N			68297.0)	569.					ECTED	193.4
OTAL DE	MAND	193.4	537.1		* B-N			63489.0		529.				DEMA	ND	193.4
OTAL DES	SIGN	193.4	537.1		* C-N			64578.0		538.				DESIG		193.4

	DP2" N: STORA M: PANEL			CE TYPE: BRE FAMILY: BOLT			ſ	MOUNT	SURE: NE ING: SUF GE: 208/1	RFACE		•	a): 200 MLO 3-PHASE 4-WIRE	CONTINUOUS(A): BUS SC RATING(A FAULT CURRENT(,
OC AMPS P	NOTES	DESCRIPTION		DEMAND CODE	VA	СКТ	PHASE A	LOAI B	OS VA C	CKT	VA	DEMAND CODE	DESCRIPTION	NOTES	OC AMPS F
70 2	-	AHU - 7		HEAT	10317	1	5159			2	0	COOL	CU - 7	-	35 3
_	-	-		_	-	3		5159		4	_	-	-	_	-
70 2	_	AHU - 8		HEAT	10317	5			5159	6	_	-	-	_	-
_	-	-		_	-	7	5159			8	0	COOL	CU - 8	-	35 3
70 2	-	AHU - 9		HEAT	10317	9		5159		10	-	-	_	-	-
_	-	-		_	-	11			5159	12	_	_	_	-	-
70 2	-	AHU - 10		HEAT	10317	13	5159			14	0	COOL	CU - 9	-	35 3
_	-	_		_	-	15		5159		16	=	_	_	-	-
80 2	-	AHU - 11		HEAT	12696	17			6348	18	=	_	_	_	-
_	-	_		_	-	19	6348			20	=	COOL	CU - 10	_	35 3
80 2	_	AHU - 12		HEAT	12696	21		6348		22	0	-	_	_	=
_	-	_		_	-	23			6348	24	0	_	_	-	-
20 1	_	SPARE		SPR	0	25	0			26	0	COOL	CU - 11	-	30 3
20 1	-	SPARE		SPR	0	27		0		28	0	-	_	-	-
20 1	-	SPARE		SPR	0	29			0	30	0	-	_	-	-
20 1	-	SPARE		SPR	0	31	0			32	0	COOL	CU - 12	-	30 3
20 1	-	SPARE		SPR	0	33		0		34	0	-	_	-	-
20 1	-	SPARE		SPR	0	35			0	36	0	-	_	-	-
20 1	-	SPARE		SPR	0	37	0			38	0	SPR	SPARE	-	20 1
20 1	-	SPARE		SPR	0	39		0		40	0	SPR	SPARE	-	20 1
20 1	-	SPARE		SPR	0	41			0	42	0	SPR	SPARE	-	20 1
ALL CONNE	ECTED	KVA	MAX AMPS		* PHA	SE TO	TALS	VA		AMP	'S	1		BUS TOTALS	KVA
TOTAL CO		66.7	185.3		* A-N			21825		181.				CONNECTED	66.7
TOTAL DEN		66.7	185.2		* B-N			21825		181				DEMAND	66.7
TOTAL DES		66.7	185.2		* C-N			23014		191				DESIGN	66.7

	DP1" DN: STORA DM: PANEL			CE TYPE: BRE AMILY: BOLT			1	MOUNTI	SURE: NE NG: SUF SE: 208/	RFACE		,): 400 MLO 3-PHASE 4-WIRE	CONTINUO BUS SC RA FAULT CUF	TING(A)	
OC AMPS P	NOTES	DESCRIPTION		DEMAND CODE	VA	CKT	PHASE A	LOAD B	S VA C	CKT	VA	DEMAND CODE	DESCRIPTION	1	NOTES	OC AMPS I
80 2	-	AHU - 1		HEAT	12696	1	6348			2	0	COOL	CU - 1	-		20 3
=	-	-		-	-	3		6348		4	-	-	-	-		-
70 2	-	AHU - 1A		HEAT	10317	5			5159	6	-	-	-	-		-
-	-	-		-	-	7	5159			8	0	COOL	CU - 1A	-		35 3
70 2	-	AHU - 2		HEAT	10317	9		5159		10	-	-	-	-		-
=	-	-		-	-	11			5159	12	=	-	-	-		-
70 2	-	AHU - 3		HEAT	10317	13	5159			14	0	COOL	CU - 2	-		35 3
_	-	=		-	=	15		5159		16	-	-	=	-		-
80 2	-	AHU - 4		HEAT	12696	17			6348	18	-	-	=	=		<u>-</u>
-	-	=		-	-	19	6348			20	0	COOL	CU - 3	-		35 3
70 2	-	AHU - 4A		HEAT	10317	21		5159		22	-	-	-	-		-
-	-	-		-	-	23			5159	24	-	-	-	-		<u>-</u>
70 2	-	AHU - 5		HEAT	10317	25	5159			26	0	COOL	CU - 4	-		35 3
-	-	-		-	-	27		5159		28	-	-	-	-		-
70 2	-	AHU - 6		HEAT	10317	29			5159	30	-	-	-	-		- -
-	-	-		-	-	31	5159	_		32	0	COOL	CU - 4A	-	•	20 3
35 3	-	CU - 6		COOL	0	33		0		34	-	-	-	-	•	<u>-</u>
-	-	-		-	-	35	•		0	36	-	-	-	-	•	-
-	-	-		-	-	37	0	0		38	0	COOL	CU - 5	-	•	35 3
20 1 20 1	-	SPARE SPARE		SPR SPR	0 0	39 41		0	0	40 42	-	-	=	-		<u>-</u>
	-	SPARE		SPR					0	42	-	-	-	-		<u>-</u>
ALL CONN		KVA	MAX AMPS			ASE TO	ΓALS	VA		AMP				BUS TO		KVA
	NNECTED	87.3	242.5		* A-N			33332.		277.				CONNEC		87.3
TOTAL DEI	· · · · · · · · · · · · · · · · · · ·	87.3	242.5		* B-N			26984.		224.				DEMAN		87.3
TOTAL DE	SIGN	87.3	242.5		* C-N			26984.	.0	224.	.9			DESIGN		87.3

		RICAL ROOM DEVICE FA	E TYPE: BRE AMILY: BOLT				моинт	SURE: NE ING: SUF GE: 480/2	RFACE		•	3-PHASE 4-WIRE BUS SC	IUOUS(A): RATING(A) CURRENT(A	
OC AMPS P	NOTES	DESCRIPTION	DEMAND CODE	VA	СКТ	PHASE A	E LOAI B	OS VA C	СКТ	VA	DEMAND CODE	DESCRIPTION	NOTES	OC AMPS
20 1	-	EXTERIOR LTG CONTACTOR	LTG	500	1	1220			2	720	REC	EXTERIOR RECEPTACLES	-	20
20 1	-	EXTERIOR SITE LIGHTING	LTG	1200	3		2280		4	1080	REC	EXTERIOR RECEPTACLES	-	20
20 1	-	EXTERIOR BLDG LIGHTING	LTG	1200	5			2200	6	1000	REC	INTERIOR RECEPT - EWC	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	7	1900			8	900	REC	INTERIOR RECEPTACLES	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	9		1900		10	900	REC	INTERIOR RECEPTACLES	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	11			1720	12	720	REC	INTERIOR RECEPTACLES	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	13	1720			14	720	REC	INTERIOR RECEPTACLES	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	15		1720		16	720	REC	INTERIOR RECEPTACLES	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	17			2080	18	1080	REC	INTERIOR RECEPTACLES	_	20
20 1	-	INTERIOR LTG - NAVE	LTG	1200	19	1920			20	720	REC	INTERIOR RECEPTACLES	<u>-</u>	20
20 1	-	INTERIOR LTG - NAVE	LTG	1200	21		1920		22	720	REC	INTERIOR RECEPTACLES	-	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	23			1720	24	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	INTERIOR LTG - NAVE	LTG	1000	25	1720			26	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	INTERIOR LTG - SANC/ALTER	LTG	1000	27		1720		28	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	SPARE	_	0	29			720	30	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	INTERIOR LIGHTING	LTG	1000	31	1720			32	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	INTERIOR LTG - EF-1 / EF-2	LTG	1000	33		1720		34	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	INTERIOR LTG - EF-3 / EF-4	LTG	1000	35			1720	36	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	CRESTRON LTG CONT PNL	LTG	500	37	1220			38	720	REC	INTERIOR RECEPTACLES	_	20
25 2	_	WH - 1	REC	3000	39	1220	1920		40	720	REC	INTERIOR RECEPTACLES	_	20
_	_		_	-	41		1020	1920	42	720	REC	INTERIOR RECEPTACLES	_	20
20 1	_	CP - 1 - TIME CLOCK	REC	720	43	1720		1020	44	1000	REC	INTERIOR RECEPTACLES	<u>-</u>	20
25 2	_	UH - 1	GEN	3000	45	1720	1500		46	0	SPR	SPARE	<u>-</u>	20
	_		-	-	47		1300	1500	48	0	SPR	SPARE		20
20 1	_	SPARE	REC	0	49	0		1000	50	0	SPR	SPARE		20
20 1	_	SPARE	REC	0	51	J	0		52	0	SPR	SPARE	_	20
20 1	_	SPARE	REC	0	53		U	0	54	0	SPR	SPARE		20
20 1	-	SPARE	SPR	0	55	0		U	56	0	SPR	SPARE		20
20 1	_	SPARE	SPR	0	57	J	0		58	0	SPR	SPARE		20
20 1	_	SPARE	SPR	0	59		U	0	60	0	SPR	SPARE		20
20 1	-	SPARE	SPR	0	61	0		U	62	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	63	U	0		64	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	65		0	0	66	0	SPR	SPARE	-	20
ALL CONNE	CTED					TAL C	1/4						TOTAL C	
		KVA MAX AMPS			ASE TO	IALO	VA		AMP				STOTALS	KVA
TOTAL CON		41.4 115.0		* A-N			13140		109.				NECTED	41.4
TOTAL DEN TOTAL DES		41.4 115.0 41.4 115.0		* B-N * C-N			14680 13580		122. 113.				MAND SIGN	41.4 41.4



TELECTRICAL RISER DIAGRAM

VELECTRICAL PANEL / WORKSPACE AS DEFINED BY THE

NÀTIONAL ELECTRIC

3'-0" TO 4'-0" MIN. SEE

MECHANICAL / ELECTRICAL
3 COORDINATION DETAIL
Not To Scale

N.E.C. 110-16(a)

— STRUCTURAL OVERHEAD

OR SWITCHGEAR

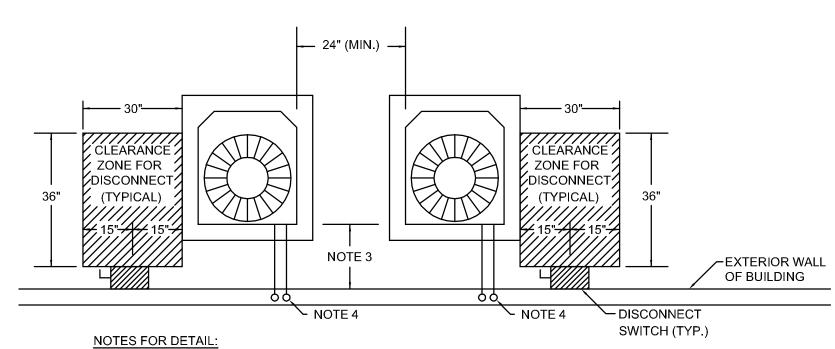
PANEL WORKSPACE

—— ELECTRICAL PANEL

NO PIPING OR DUCTWORK SHALL BE

NO PIPING OR DUCTWORK SHALL BE
INSTALLED WITH-IN THE ELECTRICAL

INSTALLED WITH-IN THE SPACE DIRECTLY ABOVE ELECTRICAL PANEL



DISCONNECT SWITCH

CONCRETE ENCASED

ELECTRODE(UFER)

2/0 (20'-0" MIN)

GROUNDING ELECTRODE POINT -

BUILDING SERVICE ENTRANCE
2 GROUNDING DIAGRAM
Not To Scale

#2/0 /

3/4"X10' GROUND —

ROD SPACED

TELEPHONE BACKBOARD

CONCRETE

FOOTING

METALLIC WATER

- NOTES FOR DETAIL:

 1. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST FIVE (5) FEET ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT.
- 2. UNIT SHOULD BE UNOBSTRUCTED FOR 12" (MIN.) ON ANY SIDE AND IN FRONT.
- 3. 12" (MIN) FOR DISCONNECT SWITCH ON THE SIDE OF UNIT. DISCONNECT SWITCH MAY BE PLACED BEHIND UNIT, IN THIS CASE THIS DIMENSION FROM THE FRONT OF THE DISCONNECT SWITCH TO THE BACK OF THE UNIT CAN BE NO SMALLER THAN
- 4. REFRIGERANT PIPING TO RUN IN WALL UP TO MECHANICAL SPACE AND TO AIR HANDLER UNIT. SEAL WALL PENETRATION WEATHER TIGHT.

DIAGRAMS.

CONDENSATE DISCONNECT SWITCH 4 WORKING CLEARANCE DETAIL

	ANCH CIRO	
BRANCH SIZE	COPPER WIRE SIZE	CONDUIT SIZE
20 AMP	2 #12, 1#12G.	1/2"
25 AMP	2 #10, 1#10G.	1/2"
30 AMP	2 #10, 1#10G.	1/2"
35 AMP	2 #8, 1#10G.	3/4"
40 AMP	2 #8, 1#10G.	3/4"
45 AMP	2 #6, 1#10G.	1"
50 AMP	2 #6, 1#10G.	1"
60 AMP	2 #4, 1#10G.	1"
70 AMP	2 #4, 1#8G.	1"
80 AMP	2 #3, 1#8G.	1-1/4"
90 AMP	2 #2, 1#8G.	1-1/4"
100 AMP	2 #1, 1#8G.	1-1/4"

- WIRE SIZES ARE BASED ON N.E.C. TABLE 310-16, 60
 DEGREE C COLUMN.
- CONDUIT SHALL BE USED AS REQUIRED BY LOCAL CODE.
- 3. PROVIDE 3 CONDUCTOR WIRE WITH GROUND WHERE REQUIRED FOR APPLIANCES. ADJUST CONDUIT SIZE AS REQUIRED BY CODE.

	NOTES BY SYMBOL "# "
1	EXISTING UNDERGROUND ELECTRICAL CONDUCTORS. COORDINATE WITH THE UTILITY COMPANY FOR NEW ELECTRICAL SERVICE. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.
2	COORDINATE WITH THE UTILITY COMPANY FOR PROPOSED NEW MANHOLE FOR THE NEW ELECTRICAL SERVICE. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.
3	PROPOSED UTILITY COMPANY TRANSFORMER AND METER. PROVIDE A CONCRETE HOUSEKEEPING PAD PER UTILITY STANDARDS. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.
4	PROPOSED NEMA 800 AMP, 3 POLE, NEMA 3R SERVICE RATED DISCONNECT SWITCH WITH THREE (3) 800 AMP FUSES. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR

- ADDITIONAL INFORMATION.

 5 BUILDING SERVICE ENTRANCE GROUNDING. RE: 2/E4.1 BUILDING SERVICE ENTRANCE GROUNDING DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE A EMERSON 208 VOLT, 3PH, 4W SURGE PROTECTIVE DEVISE OR EQUIVALENT. PROVIDE A LIEBERT ACG SERIES HIGH-PERFORMANCE INTERCONNECTION ASSEMBLY AND WIRE PER MANUFACTURER'S WIRING

		PANEL	FEEDER SCHED	ULE	
NO.	SERVES	SERVICE SIZE	CONDUCTORS	CONDUIT SIZE	NOTES
1	MANHOLE	800 AMP	-	(2) 4"	-
2	UTIL TRANS	800 AMP	-	(2) 4"	-
3	DISC. SW.	800 AMP	(3 SETS) 4 # 300KCMIL	(3) 3"	1
4	PANEL "MDP"	800 AMP	(3 SETS) 4 # 300KCMIL, 1 # 1/0G	(3) 3"	1
5	PANEL "DP1"	400 AMP	(2 SETS) 4 # 3/0, 1 # 3G	(2) 2"	1
6	PANEL "DP2"	225 AMP	4 # 4/0, 1 # 4G	2-1/2"	1
7	PANEL "L1"	200 AMP	4 # 3/0, 1 # 6G	2"	1
8	TVSS	30 AMP	3 # 10, 1 # 10G	3/4"	1



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SAINT TERESA
OF CALCUTTA
CATHOLIC
CHURCH

PARISH HALL

13517 ALTA VISTA ROAD FORT WORTH, TX 76262

CONSTRUCTION DOCUMENTS

Drawing Title:

ELECTRICAL RISER DIAGRAM
SCHEDULES AND
DETAILS

Project No.

2403

Date:

08/05/2024

Sheet No.

E4.1

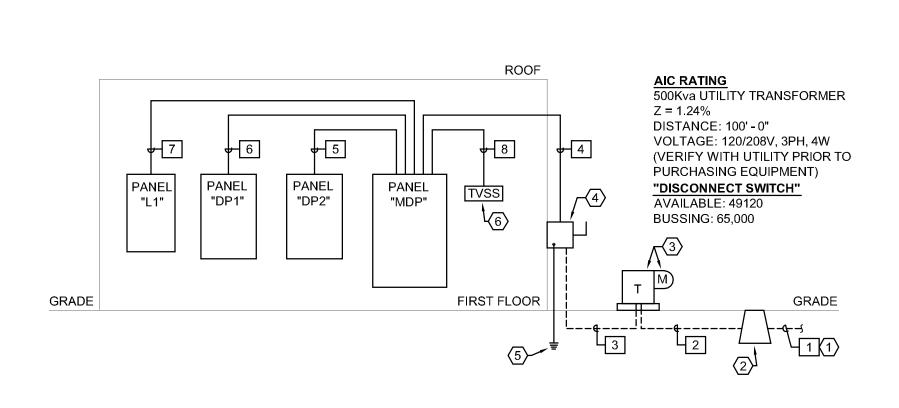
\Projects\24-10 St leresa\Elec\2410-E41.dwg U8/U5/24 U4;2U;5/ Kene s ASUS

		RICAL ROOM Y		CE TYPE: BRE FAMILY: BOLT			N	ENCLOSU MOUNTIN /OLTAGE	G: SUR	FACE): 1000 MLO 3-PHASE 4-WIRE	CONTINUOUS(A): BUS SC RATING(A FAULT CURRENT	A) 42000
OC AMPS P	NOTES	DESCRIPTION		DEMAND CODE	VA	СКТ	PHASE A	LOADS B	C VA	СКТ	VA	DEMAND CODE	DESCRIPTION	NOTES	OC AMPS P
400 3	-	PANEL "DP1"		GEN	33332	1	55157			2	21825	GEN	PANEL "DP2"	-	225 3
-	-	-		-	26984	3		48809		4	21825	-	-	-	-
-	-	-		-	26984	5		4	49998	6	23014	-	-	-	-
200 3	-	PANEL "L1"		GEN	13812	7	27924			8	42336	HEAT	RTU - 1	-	150 3
-	-	-		-	15712	9		29824		10	-	-	-	-	-
-	-	-		_	14940	11		2	29052	12	-	-	-	-	-
150 3	-	RTU - 2		HRAT	42336	13	14112			14	0	BLANK	SPARE	-	200 3
=	-	-		-	-	15		14112		16	-	-	-	-	-
-	-	-		-	_	17			14112	18	_	-	-	-	-
200 3	-	SPARE		SPR	0	19	0			20	0	BLANK	BLANK	-	- 3
-	-	-		-	_	21		0		22	_	-	-	-	-
-	-	-		-	_	23		(0	24	_	-	-	-	-
- 3	-	BLANK		BLANK	9	25	0			26	0	BLANK	BLANK	-	- 3
-	-	-		-	_	27		0		28	_	-	-	-	-
-	-	-		-	-	29		(0	30	-	-	-	-	-
ALL CONNI	ECTED	KVA	MAX AMPS		* PHA	SE TO	TALS	VA		AMP	S			BUS TOTALS	KVA
OTAL CO	NNECTED	283.1	786.4		* A-N			97193.0		809.	9			CONNECTED	283.1
OTAL DE	MAND	283.1	786.4		* B-N			92745.0		772.	9			DEMAND	283.1
OTAL DES	SIGN	283.1	786.4		* C-N			93162.0		776	4			DESIGN	283.1

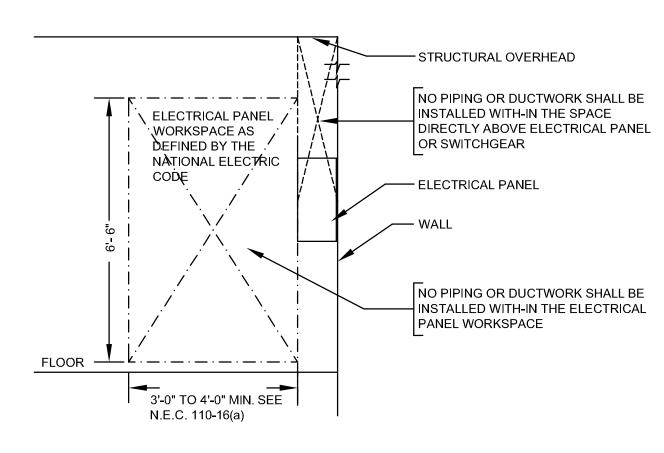
	DP2" DN: STORA DM: PANEL			E TYPE: BRE AMILY: BOLT			N	NOUNTII	URE: NE NG: SUR E: 208/1	RFACE		•	.): 200 MLO 3-PHASE 4-WIRE	CONTINUOUS(A) BUS SC RATING(FAULT CURREN	A) 4200
OC AMPS P	NOTES	DESCRIPTION		DEMAND CODE	VA	СКТ	PHASE A	LOAD B	S VA C	СКТ	VA	DEMAND CODE	DESCRIPTION	NOTES	OC AMPS F
70 2	-	AHU - 7		HEAT	10317	1	5159			2	0	COOL	CU - 7	-	35 3
_	-	-		-	-	3		5159		4	-	-	-	_	-
70 2	-	AHU - 8		HEAT	10317	5			5159	6	-	-	-	-	_
-	-	-		-	-	7	5159			8	0	COOL	CU - 8	-	35 3
70 2	-	AHU - 9		HEAT	10317	9		5159		10	-	-	-	-	-
-	-	-		_	-	11			5159	12	-	-	-	-	-
70 2	-	AHU - 10		HEAT	10317	13	5159			14	0	COOL	CU - 9	-	35 3
-	-	-		_	-	15		5159		16	-	-	_	-	-
80 2	-	AHU - 11		HEAT	12696	17			6348	18	-	-	-	-	-
-	-	-		-	-	19	6348			20	-	COOL	CU - 10	-	35 3
80 2	-	AHU - 12		HEAT	12696	21		6348		22	0	-	-	-	-
-	-	-		-	-	23			6348	24	0	-	-	-	-
20 1	-	SPARE		SPR	0	25	0			26	0	COOL	CU - 11	-	30 3
20 1	-	SPARE		SPR	0	27		0		28	0	-	-	-	-
20 1	-	SPARE		SPR	0	29			0	30	0	-	-	-	-
20 1	-	SPARE		SPR	0	31	0			32	0	COOL	CU - 12	-	30 3
20 1	-	SPARE		SPR	0	33		0		34	0	-	-	-	-
20 1	-	SPARE		SPR	0	35	_		0	36	0	-	_	-	-
20 1	-	SPARE		SPR	0	37	0			38	0	SPR	SPARE	-	20 1
20 1	-	SPARE		SPR	0	39		0	_	40	0	SPR	SPARE	-	20 1
20 1	-	SPARE		SPR	0	41			0	42	0	SPR	SPARE	-	20 1
ALL CONNI	ECTED	KVA	MAX AMPS		* PHA	SE TO	ΓALS	VA		AMP	S			BUS TOTALS	KVA
TOTAL CO		66.7	185.3		* A-N			21825.	0	181.				CONNECTED	66.7
TOTAL DE		66.7	185.2		* B-N			21825		181,				DEMAND	66.7
TOTAL DES		66.7	185.2		* C-N			23014.		191.				DESIGN	66.7

	DP1" DN: STORA DM: PANEL			E TYPE: BRE AMILY: BOLT			1	MOUNT	SURE: NE ING: SUR SE: 208/1	RFACE): 400 MLO 3-PHASE 4-WIRE	CONTINUOUS(A): BUS SC RATING(A) FAULT CURRENT(A):	
OC AMPS P	NOTES	DESCRIPTION		DEMAND CODE	VA	СКТ	PHASE A	LOAE B	OS VA C	СКТ	VA	DEMAND CODE	DESCRIPTION	NOTES	OC AMPS F
80 2	-	AHU - 1		HEAT	12696	1	6348			2	0	COOL	CU - 1	-	20 3
-	-	-		-	-	3		6348		4	-	-	-	-	-
70 2	-	AHU - 1A		HEAT	10317	5			5159	6	-	-	-	-	-
-	-	=		-	-	7	5159			8	0	COOL	CU - 1A	-	35 3
70 2	-	AHU - 2		HEAT	10317	9		5159		10	-	-	-	-	-
-	-	-		-	-	11			5159	12	-	-	=	-	-
70 2	-	AHU - 3		HEAT	10317	13	5159			14	0	COOL	CU - 2	-	35 3
-	-	-		-	-	15		5159		16	-	-	=	-	-
80 2	-	AHU - 4		HEAT	12696	17			6348	18	-	-	=	-	-
-	-	-		-	-	19	6348			20	0	COOL	CU - 3	-	35 3
70 2	-	AHU - 4A		HEAT	10317	21		5159		22	-	-	-	-	-
_	-	-		-	-	23			5159	24	_	-	_	-	-
70 2	-	AHU - 5		HEAT	10317	25	5159			26	0	COOL	CU - 4	-	35 3
-	-	-		-	-	27		5159		28	-	-	-	-	-
70 2	-	AHU - 6		HEAT	10317	29			5159	30	-	-	-	-	-
-	-	-		-	-	31	5159			32	0	COOL	CU - 4A	-	20 3
35 3	-	CU - 6		COOL	0	33		0		34	-	-	_	-	-
-	-	-		-	-	35			0	36	-	-	-	-	-
-	-	-		-	-	37	0			38	0	COOL	CU - 5	-	35 3
20 1	-	SPARE		SPR	0	39		0		40	-	-	_	-	-
20 1	-	SPARE		SPR	0	41			0	42	-	-	-	-	-
ALL CONNI	 ECTED	KVA	MAX AMPS		* PHA	SE TOT	ALS	VA		AMP	'S	•		BUS TOTALS	KVA
TOTAL COI	NNECTED	87.3	242.5		* A-N			33332	.0	277.	.7			CONNECTED	87.3
TOTAL DE		87.3	242.5		* B-N			26984		224.				DEMAND	87.3
TOTAL DES	SIGN	87.3	242.5		* C-N			26984	.0	224.	.9			DESIGN	87.3

PANEL "L1" OC DEVICE TYPE: BREAKER LOCATION: ELECTRICAL ROOM FED FROM: PANEL "MDP" DEVICE FAMILY: BOLT ON					ENCLOSURE: NEMA 1 MOUNTING: SURFACE VOLTAGE: 480/277						3-PHASE 4-WIRE BU	NTINUOUS(A): S SC RATING(A) JLT CURRENT(A	,	
OC AMPS P	NOTES	DESCRIPTION	DEMAND CODE	VA	СКТ	PHASE A	E LOAI B	OS VA C	СКТ	VA	DEMAND CODE	DESCRIPTION	NOTES	OC AMPS
20 1	-	EXTERIOR LTG CONTACTOR	LTG	500	1	1220			2	720	REC	EXTERIOR RECEPTACLE	S -	20
20 1	-	EXTERIOR SITE LIGHTING	LTG	1200	3		2280		4	1080	REC	EXTERIOR RECEPTACLE	S -	20
20 1	-	EXTERIOR BLDG LIGHTING	LTG	1200	5			2200	6	1000	REC	INTERIOR RECEPT - EW	C -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	7	1900			8	900	REC	INTERIOR RECEPTACLE	S -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	9		1900		10	900	REC	INTERIOR RECEPTACLE	S -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	11			1720	12	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	13	1720			14	720	REC	INTERIOR RECEPTACLE	S -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	15		1720		16	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	17			2080	18	1080	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1200	19	1920			20	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1200	21		1920		22	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	23			1720	24	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - NAVE	LTG	1000	25	1720			26	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - SANC/ALTER	LTG	1000	27		1720		28	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	SPARE	LTG	0	29			720	30	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LIGHTING	LTG	1000	31	1720			32	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - EF-1 / EF-2	LTG	1000	33		1720		34	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	INTERIOR LTG - EF-3 / EF-4	LTG	1000	35			1720	36	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	-	CRESTRON LTG CONT PNL	LTG	500	37	1220			38	720	REC	INTERIOR RECEPTACLE	s -	20
25 2	-	WH - 1	REC	3000	39		1920		40	720	REC	INTERIOR RECEPTACLE	s -	20
_	_	-	=	_	41			1920	42	720	REC	INTERIOR RECEPTACLE	s -	20
20 1	_	CP - 1 - TIME CLOCK	REC	720	43	1720			44	1000	REC	INTERIOR RECEPTACLE	s -	20
25 2	-	UH - 1	GEN	3000	45		1860		46	360	REC	INTERIOR RECEPTACLE	s -	20
_	_	_	_	_	47			1860	48	360	REC	INTERIOR RECEPTACLE	l l	20
20 1	_	INTERIOR LIGHTING	LTG	672	49	672			50	0	SPR	SPARE	-	20
20 1	-	INTERIOR LIGHTING	LTG	673	51		672		52	0	SPR	SPARE	-	20
20 1	-	SPARE	REC	0	53			0	54	0	SPR	SPARE	-	20
20 1	_	SPARE	SPR	0	55	0			56	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	57		0		58	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	59			0	60	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	61	0			62	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	63		0		64	0	SPR	SPARE	-	20
20 1	-	SPARE	SPR	0	65			0	66	0	SPR	SPARE	-	20
ALL CONNI	ECTED	KVA MAX AMPS	<u> </u>	* PH <i>A</i>	ASE TO	 ΓALS	VA		AMP	S	1		BUS TOTALS	KVA
TOTAL COI		43.5 120.8		* A-N			13812		115.				CONNECTED	43.5
TOTAL DEN		43.5 120.8		* B-N			15712		130.				DEMAND	43.5
TOTAL DES		43.5 120.8		* C-N			13940		116.				DESIGN	43.5



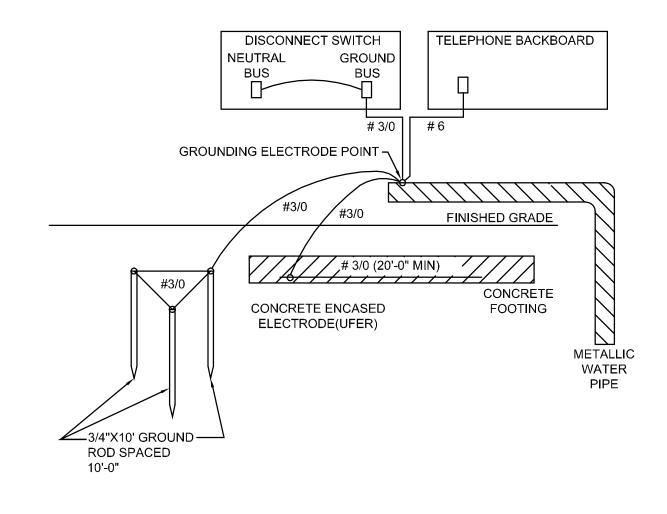
TELECTRICAL RISER DIAGRAM



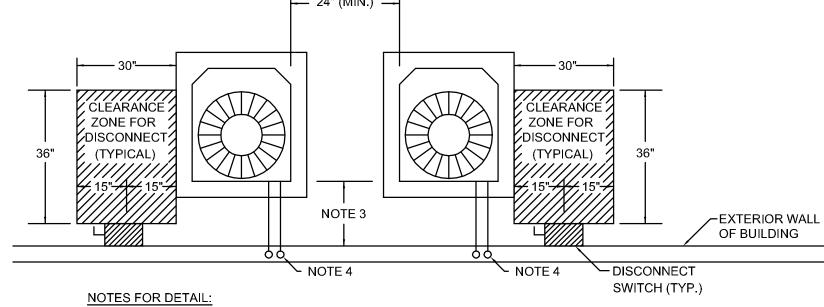
MECHANICAL / ELECTRICAL

3 COORDINATION DETAIL

Not To Scale



BUILDING SERVICE ENTRANCE 2 GROUNDING DIAGRAM



- TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST FIVE (5) FEET ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT.
- 2. UNIT SHOULD BE UNOBSTRUCTED FOR 12" (MIN.) ON ANY SIDE AND IN FRONT.
- 3. 12" (MIN) FOR DISCONNECT SWITCH ON THE SIDE OF UNIT. DISCONNECT SWITCH MAY BE PLACED BEHIND UNIT, IN THIS CASE THIS DIMENSION FROM THE FRONT OF THE DISCONNECT SWITCH TO THE BACK OF THE UNIT CAN BE NO SMALLER THAN 26" FOR 209 V
- 4. REFRIGERANT PIPING TO RUN IN WALL UP TO MECHANICAL SPACE AND TO AIR HANDLER UNIT. SEAL WALL PENETRATION WEATHER TIGHT.

DIAGRAMS.

CONDENSATE DISCONNECT SWITCH 4 WORKING CLEARANCE DETAIL

	BRANCH CIRCUIT WIRE SCHEDULE									
BRANCH SIZE	COPPER WIRE SIZE	CONDUIT SIZE								
20 AMP	2 #12, 1#12G.	1/2"								
25 AMP	2 #10, 1#10G.	1/2"								
30 AMP	2 #10, 1#10G.	1/2"								
35 AMP	2 #8, 1#10G.	3/4"								
40 AMP	2 #8, 1#10G.	3/4"								
45 AMP	2 #6, 1#10G.	1"								
50 AMP	2 #6, 1#10G.	1"								
60 AMP	2 #4, 1#10G.	1"								
70 AMP	2 #4, 1#8G.	1"								
80 AMP	2 #3, 1#8G.	1-1/4"								
90 AMP	2 #2, 1#8G.	1-1/4"								
100 AMP	2 #1, 1#8G.	1-1/4"								

- WIRE SIZES ARE BASED ON N.E.C. TABLE 310-16, 60
 DEGREE C COLUMN.
- CONDUIT SHALL BE USED AS REQUIRED BY LOCAL CODE.
- 3. PROVIDE 3 CONDUCTOR WIRE WITH GROUND WHERE REQUIRED FOR APPLIANCES. ADJUST CONDUIT SIZE AS REQUIRED BY CODE.

	NOTES BY SYMBOL "# "
1	EXISTING UNDERGROUND ELECTRICAL CONDUCTORS. COORDINATE WITH THE UTILITY COMPANY FOR NEW ELECTRICAL SERVICE. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.
2	COORDINATE WITH THE UTILITY COMPANY FOR PROPOSED NEW MANHOLE FOR THE NEW ELECTRICAL SERVICE. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.
3	PROPOSED UTILITY COMPANY TRANSFORMER AND METER. PROVIDE A CONCRETE HOUSEKEEPING PAD PER UTILITY STANDARDS. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.
4	PROPOSED NEMA 1000 AMP, 3 POLE, NEMA 3R SERVICE RATED DISCONNECT

- SWITCH WITH THREE (3) 1000 AMP FUSES. RE: 1/E1.0 SITE ELECTRICAL PLAN FOR ADDITIONAL INFORMATION.

 BUILDING SERVICE ENTRANCE GROUNDING. RE: 2/E4.1 BUILDING SERVICE ENTRANCE GROUNDING DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE A EMERSON 208 VOLT, 3PH, 4W SURGE PROTECTIVE DEVISE OR EQUIVALENT. PROVIDE A LIEBERT ACG SERIES HIGH-PERFORMANCE INTERCONNECTION ASSEMBLY AND WIRE PER MANUFACTURER'S WIRING

	PANEL FEEDER SCHEDULE												
NO.	SERVES	SERVICE SIZE	CONDUCTORS	CONDUIT SIZE	NOTES								
1	MANHOLE	1000 AMP	-	(2) 4"	-								
2	UTIL TRANS	1000 AMP	-	(2) 4"	-								
3	DISC. SW.	1000 AMP	(3 SETS) 4 # 400KCMIL	(3) 3"	1								
4	PANEL "MDP"	1000 AMP	(3 SETS) 4 # 400KCMIL, 1 # 2/0G	(3) 3"	1								
5	PANEL "DP1"	400 AMP	(2 SETS) 4 # 3/0, 1 # 3G	(2) 2"	1								
6	PANEL "DP2"	225 AMP	4 # 4/0, 1 # 4G	2-1/2"	1								
7	PANEL "L1"	200 AMP	4 # 3/0, 1 # 6G	2"	1								
8	TVSS	30 AMP	3 # 10, 1 # 10G	3/4"	1								



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CONSTRUCTION DOCUMENTS

Drawing Title:
ELECTRICAL RISER DIAGRAM
SCHEDULES AND
DETAILS

Project No.

2403

Date:

08/05/2024

Sheet No.

E411A

NO.			LOAD					DISCONNEC	CT AT UNIT	CIRCUIT		
	DESCRIPTION	UNIT SERVES	MCA	MOCP	kW OR HP	FLA	VOLTS/PH	TYPE	MOUNTING	NUMBER	WIRE SIZE	NOTE
(AHU-1)	AIR HANDLER UNIT - 1	LOBBY	76.3	80A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-1,3	1-1/4"C-3#3, 1#8G	1,2
AHU-1A)	AIR HANDLER UNIT - 1A	LOBBY	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-5,7	1-1/4"C-3#4, 1#8G	1,2
AHU-2)	AIR HANDLER UNIT - 2	NAVE / SANCTUARY	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-9,11	1-1/4"C-3#4, 1#8G	1,2
AHU-3)	AIR HANDLER UNIT - 3	NAVE / SANCTUARY	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-13,15	1-1/4"C-3#4, 1#8G	1,2
AHU-4)	AIR HANDLER UNIT - 4	LOBBY	76.3	80A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-17,19	1-1/4"C-3#3, 1#8G	1,2
AHU-4A)	AIR HANDLER UNIT - 4A	LOBBY	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-21,23	1-1/4"C-3#4, 1#8G	1,2
AHU-5)	AIR HANDLER UNIT - 5	NAVE / SANCTUARY	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-25,27	1-1/4"C-3#4, 1#8G	1,2
AHU-6	AIR HANDLER UNIT - 6	NAVE / SANCTUARY	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP1-29,31	1-1/4"C-3#4, 1#8G	1,2
AHU-7	AIR HANDLER UNIT - 7	NAVE	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP2-1,3	1-1/4"C-3#4, 1#8G	1,2
AHU-8	AIR HANDLER UNIT - 8	NAVE	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP2-5,7	1-1/4"C-3#4, 1#8G	1,2
AHU-9	AIR HANDLER UNIT - 9	NAVE	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP2-9,11	1-1/4"C-3#4, 1#8G	1,2
AHU-10	AIR HANDLER UNIT - 10	NAVE	62.0	70A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP2-13,15	1-1/4"C-3#4, 1#8G	1,2
AHU-11	AIR HANDLER UNIT - 11	NARTHEX / WOMENS	76.3	80A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP217,19	1-1/4"C-3#3, 1#8G	1,2
AHU-12	AIR HANDLER UNIT - 12	NARTHEX / MENS	76.3	80A	-	-	208 / 1	100A/NF/NEMA 1	ADJACENT TO UNIT	DP2-21,23	1-1/4"C-3#3, 1#8G	1,2
CU-1	CONDENSATE UNIT - 1	AHU-1	21.4	30A	-	-	208 / 3	30A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-2,4,6	3/4"C-3#10, 1#10G	1
CU-1A	CONDENSATE UNIT - 1A	AHU-1A	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-8,10,12	1"C-3#8, 1#10G	1
CU-2	CONDENSATE UNIT - 2	AHU-2	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-14,16,18	1"C-3#8, 1#10G	1
CU-3	CONDENSATE UNIT - 3	AHU-3	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-20,22,24	1"C-3#8, 1#10G	1
CU-4)	CONDENSATE UNIT - 4	AHU-4	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-26,28,30	1"C-3#8, 1#10G	1
CU-4A	CONDENSATE UNIT - 4A	AHU-4A	21.4	30A	-	-	208 / 3	30A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-32,34,36	3/4"C-3#10, 1#10G	1
CU-5	CONDENSATE UNIT - 5	AHU-5	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-38,40,42	1"C-3#8, 1#10G	1
CU-6	CONDENSATE UNIT - 6	AHU-6	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP1-33,35,37	1"C-3#8, 1#10G	1
CU-7	CONDENSATE UNIT - 7	AHU-7	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP2-2,4,6	1"C-3#8, 1#10G	1
CU-8	CONDENSATE UNIT - 8	AHU-8	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP2-8,10,12	1"C-3#8, 1#10G	1
CU-9	CONDENSATE UNIT - 9	AHU-9	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP2-14,16,18	1"C-3#8, 1#10G	1
CU-10	CONDENSATE UNIT - 10	AHU-11	21.4	35A	-	-	208 / 3	60A/NF/NEMA 3R	ADJACENT TO UNIT	DP2-20.22.24	1"C-3#8, 1#10G	1
CU-11	CONDENSATE UNIT - 11	AHU-11	18.3	30A	-	-	208 / 3	30A/NF/NEMA 3R	ADJACENT TO UNIT	DP2-26,28,30	3/4"C-3#10, 1#10G	1
CU-12	CONDENSATE UNIT - 12	AHU-12	18.3	30A	-	-	208 / 3	30A/NF/NEMA 3R	ADJACENT TO UNIT	DP2-32,34,36	3/4"C-3#10, 1#10G	1
EF-1	EXHAUST FAN - 1	WOMENS	-	20A	1/3 HP	-	120 / 1	BY DIVISION 23	ADJACENT TO UNIT	L1-33	3/4"C-2#12, 1#12G	1,3
EF-2	EXHAUST FAN - 2	MENS	-	20A	1/3 HP	-	120 / 1	BY DIVISION 23	ADJACENT TO UNIT	L1-33	3/4"C-2#12, 1#12G	1,:
EF-3	EXHAUST FAN - 3	WOMENS	-	20A	1/3 HP	-	120 / 1	BY DIVISION 23	ADJACENT TO UNIT	L1-35	3/4"C-2#12, 1#12G	1,
EF-4	EXHAUST FAN - 4	MENS	-	20A	1/3 HP	-	120 / 1	BY DIVISION 23	ADJACENT TO UNIT	L1-35	3/4"C-2#12, 1#12G	1,3
UH-1)	ELECTRIC UNIT HEATER - 1	FIRE PROTECTION	-	25A	3 KW	-	208 / 1	BY DIVISION 23	ADJACENT TO UNIT	L1-45,47	3/4"C-2#10,1#10G	1,
WH-1)	WATER HEATER - 1	TOILETS	-	25A	3 KW	-	208 / 1	30A/NF/NEMA 1	ADJACENT TO UNIT	L1-39,41	3/4"C-2#10,1#10G	1
(CP-1)	CIRCULATION PUMP - 1	WH-1	-	20A	FRACTION	_	115 / 1	MOTOR RATED SWITCH	ADJACENT TO UNIT	L1-43	3/4"C-2#12.1#12G	1

ш	VERTI I MOOTI ITO TEGOTI CONTINUES IN METT ITO I TELETA
П	VERIFY ACTUAL EQUIPMENT LOADS AND CONNECTION REQUIREMENTS WITH EQUIPMENT BEING INSTALLED.
П	99 AMPS AND LESS TO UTILIZE 60 DEGREES C TEMPERATURE RATING.

100 AMPS AND MORE TO UTILIZE 75 DEGREES C TEMPERATURE RATING. NOTES:

1. PROVIDE CONDUIT WHERE REQUIRED BY NEC OR LOCAL AHJ.
2. PROVIDE A NEUTRAL WITH THE BRANCH CIRCUITING INDICATED TO ALLOW 120 VOLT POWER TO MOTORIZED DAMPER. COORDINATE WITH DIVISION 23.
3. CONNECT EXHAUST FAN TO THE LIGHTING CIRCUIT SERVING THAT AREA.

	ALTERN	ATE - MECH	ANIC	AL E	QUIPN	/IEN	T / ELE	CTRICAL SC	HEDULE BY	SYMBOI		
NO. DESCRIPTION		UNIT SERVES	MCA	MOCP	LOAD	FLA	VOLTS/PH	DISCONNEC	CT AT UNIT MOUNTING	CI NUMBER	RCUIT WIRE SIZE	NOTES
RTU-1	ROOT TOP UNIT - 1	FUTURE SHELL SPACE	147.0	150A	-	-	208 / 3	200A/NF/NEMA 3R	ADJACENT TO UNIT	MDP-	1"C-2#4, 1#10G	1
RTU-2	ROOF TOP UNIT - 2	FUTURE SHELL SPACE	147.0	150A	-	-	208 / 3	200A/NF/NEMA 3R	ADJACENT TO UNIT	MDP-	1"C-2#4, 1#10G	1

GENERAL NOTES APPLY TO ALL:

VERIFY MOUNTING REQUIREMENTS WITH EQUIPMENT INSTALLER.

VERIFY ACTUAL EQUIPMENT LOADS AND CONNECTION REQUIREMENTS WITH EQUIPMENT BEING INSTALLED.

99 AMPS AND LESS TO UTILIZE 60 DEGREES C TEMPERATURE RATING. 100 AMPS AND MORE TO UTILIZE 75 DEGREES C TEMPERATURE RATING.

NOTES:

1. PROVIDE CONDUIT WHERE REQUIRED BY NEC OR LOCAL AHJ.

		LIGHT FIX	TURE SCH	EDULE				
MARK	TYPE OF LUMINAIRE	MANUFACTURE / CATALOG NUMBER	QTY-TYPE OF LAMP	MAXIMUM INPUT WATTS	INPUT VOLTAGE	ALLOCATED FIXTURE LOAD(VA)	MOUNTING	NOT
А	2' X 2' RECESSED LIGHT	LITHONIA LIGHTING # CPANL 2X2 24LM 35K M4	LED	28	120	28	RECESSED	1
AE	2' X 2' RECESSED LIGHT	LITHONIA LIGHTING # CPANL 2X2 24LM 35K M4 PS1055CP PMC	LED	28	120	28	RECESSED	1
В	4'-0" LED STRIPLIGHT	LITHONIA LIGHTING # ZLIN L48 ASR 6000LM MDD 120 30K 80 CRI WH HC36M12	LED	56	120	56	SUSPENDED	1
BE	4'-0" LED STRIPLIGHT	LITHONIA LIGHTING # ZLIN L48 ASR 6000LM MDD 120 30K 80 CRI E10WLCP WH HC36M12	LED	56	120	56	SUSPENDED	1,2
С	6" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN6 30LM 35K L06 AR LSS TRW 120 GZ1	LED	28	120	28	RECESSED	1
CE	6" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN6 30LM 30K L06 AR LSS TRW 120 GZ1 E10WCP	LED	28	120	28	RECESSED	1,2
D	6" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN6 30LM 30K L06 AR LSS TRW 120 GZ1	LED	35	120	35	RECESSED	1
DE	6" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN6 30LM 30K L06 AR LSS TRW 120 GZ1 E10WCP	LED	35	120	35	RECESSED	1,2
F	6" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN6 30 30 L06 AR LSS TRW 120 GZ1 SCA6 ????????SPEC SLOPE	LED	26	120	26	RECESSED	1,3
FE	6" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN6 30 30 L06 AR LSS TRW 120 GZ1 E10WCP SCA6 ????????SPEC SLOPE	LED	26	120	26	RECESSED	1,2,
G	VANITY LIGHT	WAC LIGHTING # WS-77624-35-BK	LED	20.5	120	20.5	WALL	1
Н	LED CHANDELIER	OWNER FURNISHED (TBD)	LED	50	120	50	PENDANT	1
JE	4" APERATURE DOWNLIGHT	LITHONIA LIGHTING # LDN4 25LM 30K L04 AR LSS TRW 120 GZ1 E10WCP	LED	32	120	32	RECESSED	1,2
К	8'-0" TRACK	JUNO TRACK # R4BL TRAC-MASTER LIMITER SWITCH # TCLF11BL TRACK HEAD # T259L G2 35K 80CRI PDIM BL	LED	60W PER HEAD (6 TOTAL)	120	360	SURFACE	1,4,
L	LED CHANDELIER	TO BE DETERMINE COORDINATE WITH ARCHITECT / OWNER	LED	50	120	50	PENDANT	1
W1	WALL PACK	CRENSHAW COORDINATE WITH ARCHITECT / OWNER	LED	25	120	25	WALL	1
W2	WALL PACK	TEXAS LIGHTING SOLUTIONS # FWPR/2 025 40 SILVER FINISH	LED	25	120	25	WALL	1
S1	SITE POLE LIGHT (TWO HEAD)	COOPER LIGHTING # PFPRV 2 C40 T3 25 0 POLE # SSS5A25SFM4	LED	131W PER HEAD (2 TOTAL)	120	262	POLE	1,6
S2	SITE POLE LIGHT (TWO HEAD)	COOPER LIGHTING # PFPRV 2 C40 T3 25 0 POLE # SSS5A25SFM4	LED	131W PER HEAD (2 TOTAL)	120	262	POLE	1,
Х	EXIT SIGN	CHLORIDE SIGNIFY CLX-N-RW	LED	2.2	120	2.2	UNIVERSAL	1

GENERAL NOTES APPLY TO ALL FIXTURES:

- PROVIDE ALL REQUIRED MOUNTING HARDWARE AND TRIM.

 RE: 2/E0.3 EMERGENCY BALLAST/DRIVER SWITCHING DETAIL FOR ADDITIONAL INFORMATION,

 COORDINATE WITH THE ARCHITECT FOR ANGLE OF THE ROOF AND REQUIRED LENGTH OF THE 3/8" STEM PRIOR TO SUBMITTALS.
- PROVIDE A 400 WATT LIMITER SWITCH. ONE (1) PER TRACK.

 COORDINATE EXACT LOCATION WITH THE ARCHITECT RCP PLAN PRIOR TO INSTALLATION.

 RE: 1/E1.0 SITE ELECTRICAL PLAN FOR LIGHT FIXTURE HEAD MOUNTING (180 OR 90 DEGREES) AND PROVIDE PROPER MOUNTING BRACKETS.

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CONSTRUCTION **DOCUMENTS**

Drawing Title: ELECTRICAL SCHEDULES Project No. 08/05/2024 2403 Sheet No.