

| PANEL SCHEDULE LIST |                         |                   |
|---------------------|-------------------------|-------------------|
| NEW EQUIPMENT NAME  | PANEL SCHEDULE SHEET NO | PANEL PREFIX NAME |
| DPH-LLA             | E4-01                   | N/A               |
| DPH-LLB             | E4-01                   | N/A               |
| DPH-LLC             | E4-01                   | N/A               |
| DPH-LLD             | E4-01                   | N/A               |
| SB-DPH-ELEV-LLA     | E4-08                   | N/A               |
| EM-DPH-LLA          | E4-08                   | N/A               |
| EM-LP-1C            | E4-09                   | EX                |
| EM-LP-2A            | E4-09                   | EL                |
| EM-LP-2B            | E4-09                   | EM                |
| EM-LP-3A            | E4-09                   | EN                |
| EM-LP-3B            | E4-09                   | EP                |
| EM-LP-4A            | E4-09                   | EQ                |
| EM-LP-4B            | E4-09                   | ER                |
| EM-LPH-1C           | E4-08                   | EB                |
| EM-LPH-2A           | E4-08                   | EC                |
| EM-LPH-2B           | E4-08                   | ED                |
| EM-LPH-3A           | E4-08                   | EE                |
| EM-LPH-3B           | E4-08                   | EF                |
| EM-LPH-4A           | E4-08                   | EG                |
| EM-LPH-4B           | E4-08                   | EH                |
| EM-LPH-LLA          | E4-08                   | EJ                |
| GEN-EM-DPH-LLA      | E4-08                   | N/A               |
| LP-1A               | E4-04                   | AB                |
| LP-1B               | E4-04                   | AH                |
| LP-1C               | E4-06                   | AC                |
| LP-1D               | E4-04                   | AN                |
| LP-1E               | E4-04                   | BC                |
| LP-1F               | E4-04                   | AY                |
| LP-1G1              | E4-04                   | AQ                |
| LP-1G2              | E4-06                   | AR                |
| LP-1H1              | E4-04                   | BA                |
| LP-1H2              | E4-06                   | BB                |
| LP-1J               | E4-04                   | AZ                |
| LP-1K               | E4-05                   | AP                |
| LP-1L               | E4-04                   | AM                |
| LP-2A               | E4-05                   | AD                |
| LP-2B               | E4-05                   | AJ                |
| LP-3A               | E4-05                   | AF                |
| LP-3B               | E4-05                   | AK                |
| LP-3B(2)            | E4-05                   | AK2               |
| LP-3C               | E4-06                   | AS                |
| LP-3D               | E4-06                   |                   |
| LP-3E               | E4-06                   | AW                |
| LP-4A               | E4-05                   | AG                |
| LP-4B               | E4-05                   | AI                |
| LP-4B(2)            | E4-05                   | AI2               |
| LP-4C               | E4-06                   | AP                |
| LP-4D               | E4-07                   | AV                |
| LP-4D(2)            | E4-07                   | AV2               |
| LPH-1C              | E4-03                   | B                 |
| LPH-1D              | E4-01                   | L                 |
| LPH-1E              | E4-01                   | T                 |
| LPH-1F              | E4-01                   | Q                 |
| LPH-1H              | E4-02                   | N                 |
| LPH-1J              | E4-02                   | S                 |
| LPH-1I              | E4-02                   | R                 |
| LPH-1K              | E4-02                   | M                 |
| LPH-1L              | E4-01                   | K                 |
| LPH-2A              | E4-02                   | C                 |
| LPH-2B              | E4-03                   | P                 |
| LPH-2C              | E4-03                   | P                 |
| LPH-2A              | E4-02                   | D                 |
| LPH-2B              | E4-02                   | H                 |
| LPH-4A              | E4-02                   | F                 |
| LPH-4B              | E4-03                   | J                 |
| LPH-LLA             | E4-03                   | A                 |
| LPH-LLB             | E4-03                   | U                 |
| LPH-LLC             | E4-03                   | V                 |
| LPH-LLD             | E4-03                   | W                 |
| LP-LA               | E4-06                   | AA                |
| LP-LB               | E4-06                   | BD                |
| LP-LC               | E4-05                   | BF                |
| LP-LD               | E4-05                   | BG                |
| MSB-1A              | E4-01                   | N/A               |
| SB-DPH-LLA          | E4-10                   | N/A               |
| SB-LP-1C            | E4-11                   | SK                |
| SB-LP-2A            | E4-11                   | SL                |
| SB-LP-2B            | E4-11                   | SM                |
| SB-LP-3A            | E4-11                   | SN                |
| SB-LP-3B            | E4-11                   | SP                |
| SB-LP-4A            | E4-11                   | SQ                |
| SB-LP-4B            | E4-11                   | SR                |
| SB-LPH-1C           | E4-10                   | SB                |
| SB-LPH-2A           | E4-10                   | SC                |
| SB-LPH-2B           | E4-10                   | SD                |
| SB-LPH-3A           | E4-10                   | SE                |
| SB-LPH-3B           | E4-10                   | SF                |
| SB-LPH-4A           | E4-10                   | SG                |
| SB-LPH-4B           | E4-10                   | SH                |
| SB-LPH-LLA          | E4-10                   | SA                |
| SB-LP-LLA           | E4-11                   | SJ                |
| LP-2A-S1            | E4-07                   | AX                |
| LP-2A-S1            | E4-07                   | AE                |
| LP-2B-S1            | E4-07                   | AO                |
| LP-2B-S2            | E4-07                   | JH                |
| LP-FS1              | E4-07                   | KH                |
| LP-FS2              | E4-07                   | KU                |
| LP-FS3              | E4-07                   | HM                |

- GENERAL NOTES
1. THE WORK TO BE DONE UNDER THESE SPECIFICATIONS AND THE DRAWINGS CONSISTS OF PROVIDING ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES AND PERFORMING ALL OPERATIONS TO COMPLETE THE CONSTRUCTION WORK FOR THIS PROJECT. ANY WORK NOT SPECIFICALLY COVERED BY THESE SPECIFICATIONS OR INDICATED ON THE CONTRACT DRAWINGS, BUT NECESSARY TO COMPLETE OR PERFECT ANY PART OF THIS INSTALLATION IN A SUBSTANTIAL MANNER, SHALL BE PROVIDED WITHOUT EXTRA COST TO THE OWNER.

2. THE WORK SHALL CONFORM TO THE MORE STRINGENT OF ALL APPLICABLE CODES & REGULATIONS, UL AND FM GUIDELINES, LEED REQUIREMENTS, MANUFACTURERS LITERATURE AND RECOMMENDATIONS, BUILDING OPERATOR'S REQUIREMENTS, AND TO THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL REGULATORY AGENCIES AND AUTHORITIES HAVING JURISDICTION.

3. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE EXTENT, GENERAL CHARACTER, LOCATION AND ARRANGEMENT OF THE WORK UNDER THIS CONTRACT. EXACT LOCATIONS OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD AND BY THE ACTUAL BUILDING CONDITIONS. WHERE JOB CONDITIONS REQUIRE MINOR CHANGES OR ADJUSTMENTS IN THE INDICATED LOCATIONS OR ARRANGEMENT OF THE WORK, SUCH CHANGES SHALL BE PROVIDED WITHOUT EXTRA COST. THE CONTRACTOR SHALL RE-INSTALL EQUIPMENT THAT HAS INADEQUATE OR UNSAFE ACCESSIBILITY.

4. INSTALLATION OF WORK SHALL PROVIDE REASONABLE ACCESSIBILITY FOR OPERATION, INSPECTION AND MAINTENANCE OF EQUIPMENT AND ACCESSORIES. PROVIDE CLEARANCES REQUIRED BY MANUFACTURERS AND APPLICABLE CODES. ALL CEILING MOUNTED EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER THAT LIGHTS, PIPING, AND DUCTWORK DO NOT BLOCK ACCESS TO EQUIPMENT AND RELATED ACCESSORIES.

5. THE TERM "FURNISH" SHALL MEAN TO OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" SHALL MEAN TO FIX IN POSITION AND CONNECT FOR USE. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL. THE TERM "MECHANICAL WORK," "ELECTRICAL WORK," "PLUMBING WORK," ETC. SHALL MEAN ALL LABOR, MATERIAL, EQUIPMENT, SCAFFOLDING, RIGGING, TOOLS, SUPERVISION, SERVICES AND OTHER INCIDENTALS NECESSARY FOR COMPLETE AND OPERABLE INSTALLATION.

6. THE CM/AGS SHALL MAKE SETS OF THE BID DOCUMENTS CONSISTING OF COMPLETE SETS OF DRAWINGS AND SPECIFICATIONS AND ISSUE THEM TO EACH OF THE PRIME AND SUB-CONTRACTORS. EVERY PRIME AND SUB-CONTRACTOR ON EACH BIDDING TEAM SHALL RESERVE COMPLETE SETS OF DRAWINGS AND SPECIFICATIONS. THERE ARE NOTES AND CROSS REFERENCES FOR VARIOUS TRADE CONTRACTORS IN MULTIPLE TRADE OR DISCIPLINE DRAWINGS AND SPECIFICATIONS. THIS, EACH CONTRACTOR IS TO RECEIVE COMPLETE SETS OF THE BID DOCUMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN THESE DRAWINGS FROM CM/AGS. EACH CONTRACTOR IS RESPONSIBLE FOR THEIR WORK. AS NOTED ON THE OTHER DISCIPLINE DOCUMENTS, BIDDERS ARE RESPONSIBLE FOR ALL COSTS FOR EACH SET OF BID DOCUMENTS REQUESTED.

7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A FULL COORDINATION EFFORT IN ORDER TO CREATE A FINALIZED COORDINATED LAYOUT OF ALL EQUIPMENT, SYSTEMS, DUCTWORK, PIPING AND ALL OTHER ITEMS WITHIN THEIR RESPECTIVE SCOPE. THE CONTRACTORS COORDINATION EFFORT SHALL INCLUDE COORDINATED INFORMATION FROM ALL OTHER TRADE CONTRACTORS INVOLVED IN THE PROJECT SCOPE IN ORDER TO PROVIDE COORDINATION BETWEEN TRADES AND ALL EXISTING CONDITIONS. ALL CHANGES MADE AS A RESULT OF A LACK OF COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND CORRECTED AT NO ADDITIONAL COST TO THE PROJECT. MINOR RELOCATIONS AND SHIFTS OF EQUIPMENT, DUCTWORK, AND PIPING WHICH DO NOT CHANGE THE DESIGN INTENT INDICATED ON THE CONTRACT DOCUMENTS, REQUIRED TO ACCOMMODATE FIELD CONDITIONS ARE AT THE CONTRACTORS DISCRETION AND DO NOT REQUIRE ENGINEER APPROVAL.

8. CONTRACTOR SHALL ARRANGE AND OBTAIN ALL PERMITS, INSPECTIONS AND APPROVALS, AND PAY ALL RELATED FEES.

9. THE DRAWINGS INDICATE APPROXIMATE LOCATIONS BASED UPON INFORMATION OBTAINED WITHOUT REMOVING CEILING TILES OR WALLS. THEREFORE, THE CONTRACTOR SHALL INCLUDE IN THEIR BID CONTINGENCY COSTS TO ADDRESS CONFLICTS BETWEEN DESIGN AND EXISTING CONDITIONS. ANY CHANGES AND/OR MODIFICATIONS MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND/OR OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION.

10. FOR ANY DISCREPANCY BETWEEN DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL BASE THEIR BID UPON THE MOST STRINGENT REQUIREMENT (QUALITY, QUANTITY, SIZE, ETC.). THE CONTRACTOR SHALL IDENTIFY DISCREPANCIES AS PART OF THEIR BID.

11. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL LOG ALL EXISTING EQUIPMENT AND TRACE ELECTRICAL, FIRE ALARM, AND CONTROL CIRCUITS THAT SERVE SUCH EQUIPMENT.

12. ALL SERVICES TO EXISTING BUILDINGS SHALL BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL COORDINATE ALL SYSTEM SHUT DOWNS AND TIMING WITH OWNER.

13. THE CONTRACTOR SHALL EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT FROM ENVIRONMENTAL AND PHYSICAL DAMAGE UNTIL FINAL ACCEPTANCE. GLOBE AND PROTECT ALL OPENINGS DURING CONSTRUCTION. PROVIDE NEW MATERIALS AND EQUIPMENT TO REPLACE ITEMS DAMAGED.

14. EXISTING EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENT SHALL BE REMOVED, REINSTALLED, RELOCATED, REROUTED, EXTENDED OR ABANDONED AS REQUIRED, TO SUIT THE NEW ARRANGEMENT.

15. WHERE BEAMS ARE INDICATED TO BE PENETRATED WITH DUCTWORK AND/OR PIPING, CAREFULLY COORDINATE SIZES AND LOCATIONS OF THE ELEMENTS BEFORE FABRICATION. COORDINATE WITH FINAL LOCATION OF BEAM PENETRATIONS AND SHEAR WALL PENETRATIONS.

16. CONTRACTOR SHALL COORDINATE LOCATION OF ALL WALL, FLOOR AND ROOF OPENINGS WITH STRUCTURAL AND OTHER TRADES.

17. PROVIDE CUTTING AND PATCHING AS REQUIRED AND WHERE NECESSARY TO ACCOMMODATE NEW WORK AND THE REPAIR OF EXISTING WORK.

18. WHEN WORK INVOLVES CONTACT WITH MATERIALS CONTAINING ASBESTOS, PCB, OR OTHER TOXIC MATERIALS, NOTIFY OWNER, WHO WILL ESTABLISH PROCEDURES FOR REMEDIATION AND REMOVAL.

19. CONTRACTOR SHALL SCHEDULE THE WORK UNDER THIS CONTRACT WITH WORK OF OTHER TRADES AS NOT TO DELAY THE OVERALL PROGRESS OF THE PROJECT.

20. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO PURCHASING EQUIPMENT AND PRIOR TO CUTTING OPENINGS.

21. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS PER SPECIFICATIONS PRIOR TO PURCHASING OR INSTALLING EQUIPMENT AND SYSTEMS INDICATED ON CONTRACT DOCUMENTS. PRIOR TO SUBMITTAL, CONTRACTOR SHALL VERIFY THAT ADEQUATE SPACE EXISTS FOR THE SUBMITTED EQUIPMENT. SHOP DRAWINGS MUST BE REVIEWED BY ARCHITECT/ENGINEER.

22. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY OTHER TRADES DUE TO SUBSTITUTION OF OTHER THAN SCHEDULED EQUIPMENT. WHEN EQUIPMENT FURNISHED IS DIFFERENT THAN INDICATED, THE COST OF ADDITIONAL, ELECTRICAL SERVICE, STRUCTURAL AND RELATED WORK SHALL BE PAID BY THIS CONTRACTOR.

23. ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE DONE IN ACCORDANCE WITH GOOD TRADE PRACTICE AND IN CONFORMANCE WITH APPLICABLE MANUFACTURERS' RECOMMENDATIONS.

24. CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS AND DEMOLITION MATERIAL FROM PREMISES AT THE END OF EACH DAY.

25. RESTORE ALL SURFACES (WALLS, CEILINGS, FLOORS AND ROOFS) THAT ARE DAMAGED BY THE WORK OF THIS CONTRACT TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER.

26. PRIOR TO EQUIPMENT STARTUP, CONTRACTOR SHALL PERFORM THE SPECIFIED STARTUP AND COMMISSIONING PROCEDURES.

27. IN THE ABSENCE OF OTHER SPECIFIC INSTRUCTIONS, ALL WORK AND MATERIALS SUPPLIED SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF THEIR ACCEPTANCE BY THE OWNER.

28. BALA CONSULTING ENGINEERS, INC. (BALA) WILL PROVIDE CONTRACTOR WITH ELECTRONIC CAD FILES OF THE ENGINEERING DESIGNS FOR THE SOLE USE IN EXPEDITING SHOP DRAWINGS. BALA'S FILES SHALL NOT BE DIRECTLY COPIED AND ISSUED AS SHOP DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD COORDINATION, DIMENSIONING AND ADHERENCE TO THE SHOP DRAWING REQUIREMENTS AS NOTED IN THE SPECIFICATIONS. SHOULD THE SHOP DRAWINGS SUBMITTED PROVE TO BE A DIRECT COPY OF OUR FILES WITHOUT THE NECESSARY FIELD COORDINATION, DIMENSIONING AND ADHERENCE TO THE SHOP DRAWING REQUIREMENTS AS NOTED IN THE SPECIFICATIONS, THESE SHOP DRAWINGS WILL BE RETURNED AS REJECTED. BALA'S ELECTRONIC FILES ARE SAVED IN VERSION REV01 AND ARE COMPATIBLE WITH ALL VERSIONS AFTER THAT. BALA MAKES NO REPRESENTATION AS TO THE COMPATIBILITY OF THESE FILES WITH THE CONTRACTORS' HARDWARE OR THEIR SOFTWARE. DATA CONTAINED ON THESE ELECTRONIC FILES ARE PART OF BALA'S "INSTRUMENTS OF SERVICE" AND ARE COPYRIGHTED. CONTRACTORS USE OF FILES IS FOR THE SOLE PURPOSE AS A CONVENIENCE IN THE PREPARATION OF DRAWINGS FOR THE REFERENCED PROJECT. ANY OTHER USE OR REUSE BY CONTRACTOR IS UNLAWFUL.
- ELECTRICAL GENERAL NOTES

1. ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM WITH THE CURRENTLY ADOPTED NATIONAL ELECTRICAL CODE, WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS AND REGULATORY BODIES HAVING JURISDICTION OVER THIS WORK.

2. EC SHALL PROVIDE FIRE STOPPING, WHERE EQUIPMENT AND CONDUITS PENETRATE FIRE AND SMOKE BARRIERS INCLUDING WALLS, PARTITIONS, FLOORS, AND CEILINGS, INSTALL FIRE STOPPING AT PENETRATIONS AFTER CABLES ARE INSTALLED.

3. WHERE CONDUITS ARE REMOVED FROM EXISTING WALLS, THE ELECTRICAL CONTRACTOR SHALL PATCH WALL AND/OR INSTALL PROPER UL FIRE STOPPING PER RATING OF THE EXISTING WALL. THE ELECTRICAL CONTRACTOR SHALL CONFORM THE LOCATIONS OF ALL UTILITIES. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES AND TO THE BUILDING, EXISTING EQUIPMENT, BUILDING AREA OR SURFACE DAMAGED SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED.

4. UNLESS OTHERWISE NOTED ALL INDOOR ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH, AND HOUSED IN, A NEMA 1 ENCLOSURE.

5. UNLESS OTHERWISE NOTED ALL SINGLE PHASE BRANCH CIRCUIT WIRING SHALL BE A MINIMUM 2#12-1#12S, 34°C FOR 20 AMP CIRCUITS FOR RUNS UP TO 100 FEET AT 120V AND 200 FEET AT 277V. FOR CIRCUIT RUNS EXCEEDING 100 FEET AT 120V AND 200 FEET AT 277V, BRANCH WIRING SHALL BE MINIMUM 2#10-1#10S, 34°C. ALL THREE PHASE BRANCH CIRCUIT WIRING SHALL BE A MINIMUM 3#12-1#12S, 34°C. FOR 20 AMP CIRCUITS FOR RUNS UP TO 200 FEET AT 480V, AND 3#10-1#10S, 34°C. FOR RUNS OVER 200 FEET.

6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE BACK BOXES AND CONDUITS WITH PULL STRINGS TO 8" ABOVE CEILING FOR TELECOMMUNICATION, DATA, AUDIO/VIDEO AND SECURITY DEVICES. COORDINATE WITH RESPECTIVE TRADES FOR LOCATIONS AND CONDUIT REQUIREMENTS.

7. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL MOUNTING HEIGHTS, LOCATIONS AND ARCHITECTURAL/SPATIAL REQUIREMENTS PER THE ARCHITECTURAL DRAWINGS AND RELATED SPECIFICATIONS.

8. AFTER HOURS SHUTDOWN WORK SHALL BE AT SUCH TIME AND IN SUCH MANNER AS DIRECTED BY THE OWNER. PROVIDE A MINIMUM ONE (1) WEEK NOTICE. IN-HIRE SHUTDOWN PERIODS CANNOT BE OF DURATION TO ACCOMMODATE THE NEW WORK. THE ELECTRICAL CONTRACTOR SHALL PERFORM THE WORK IN A SERIES OF PRE PLANNED STAGES OF MINIMAL, ALLOWABLE SHUTDOWN PERIODS. PROVIDE TEMPORARY FACILITIES TO ALLOW RE-ENERGIZING OF SERVICE BETWEEN WORKING STAGES.

9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY POWER, LIGHTING, AND FIRE DETECTION FOR ALL WORK AREAS AND TRADES UNDER THIS CONTRACT AS REQUIRED FOR CONSTRUCTION OR AS REQUIRED TO MAINTAIN NORMAL OPERATIONS OF THE SITE AND/OR BUILDING'S ACTIVITIES. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, MAKING ALL ARRANGEMENTS WITH THE UTILITY CO. WHERE ADEQUATE, EXISTING SERVICES MAY BE USED.

10. EXISTING ELECTRICAL EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENT SHALL BE REMOVED, REINSTALLED, RELOCATED, REROUTED, EXTENDED OR ABANDONED AS REQUIRED, TO SUIT THE NEW ARRANGEMENT. EXISTING ELECTRICAL EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENT SHALL BE REMOVED, REINSTALLED, RELOCATED, REROUTED, EXTENDED OR ABANDONED AS REQUIRED, TO SUIT THE NEW ARRANGEMENT.

11. "DIVISION 2P" AND "EC" ARE USED INTERCHANGEABLY AND SHALL INDICATE WORK INCLUDED UNDER THE ELECTRICAL CONTRACTORS SCOPE.
- |                           |                                                      | REVISION LEGEND                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|---------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                           |                                                      |    | NEW ISSUE                                                                             |    | REVISED ISSUE                                                                         |                                                                                       |                                                                                       |                                                                                       |
|                           |                                                      |    | REMOVED FROM DRAWING SET                                                              |    | ISSUED, NOT REVISED                                                                   |                                                                                       |                                                                                       |                                                                                       |
| DRAWING LIST - ELECTRICAL |                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
| DRAWING NUMBER            | DRAWING TITLE                                        | 05-16-2021 SCHEMATIC DESIGN                                                           | 06-25-2021 DESIGN DEVELOPMENT COST ESTIMATE SET                                       | 08-04-2021 MSBA 90% CD SUBMISSION                                                     | 11-16-2022 MSBA 90% CD SUBMISSION                                                     | 01-13-2023 MSBA 90% CD SUBMISSION                                                     | 03-29-2023 90% CD COST ESTIMATE                                                       | 05-15-2023 MSBA 90% CD CONSTRUCTION DOCUMENT SUBMITTAL                                |
| E00-1                     | ELECTRICAL TITLE SHEET (NOTES & DWG LIST)            |   |   |   |   |   |   |   |
| E00-2                     | ELECTRICAL LEGENDS AND ABBREVIATIONS                 |  |  |  |  |  |  |  |
| E00-3                     | ELECTRICAL SCOPE OF WORK                             |  |  |  |  |  |  |  |
| E00-11                    | ELECTRICAL SITE PLAN                                 |  |  |  |  |  |  |  |
| E00-12                    | ELECTRICAL SITE PLAN                                 |  |  |  |  |  |  |  |
| E00-13                    | ELECTRICAL SITE PLAN                                 |  |  |  |  |  |  |  |
| E00-14                    | SITE DETAILS                                         |  |  |  |  |  |  |  |
| E00-15                    | SITE DETAILS                                         |  |  |  |  |  |  |  |
| E00-16                    | TYPICAL SPORTS LIGHTING DETAILS                      |  |  |  |  |  |  |  |
| E00-17                    | TYPICAL EYE DETAILS                                  |  |  |  |  |  |  |  |
| E1-1-0                    | ELECTRICAL LOWER LEVEL FLOOR PLAN - OVERALL PLAN     |  |  |  |  |  |  |  |
| E1-1-0C                   | ELECTRICAL POWER LOWER LEVEL FLOOR PLAN - AREA C     |  |  |  |  |  |  |  |
| E1-1-0D                   | ELECTRICAL POWER LOWER LEVEL FLOOR PLAN - AREA D     |  |  |  |  |  |  |  |
| E1-1-0M                   | ELECTRICAL POWER LOWER LEVEL FLOOR PLAN - MEZZANINES |  |  |  |  |  |  |  |
| E1-1-1                    | ELECTRICAL FIRST FLOOR PLAN - OVERALL PLAN           |  |  |  |  |  |  |  |
| E1-1-1A                   | ELECTRICAL POWER FIRST FLOOR PLAN - AREA A           |  |  |  |  |  |  |  |
| E1-1-1B                   | ELECTRICAL POWER FIRST FLOOR PLAN - AREA B           |  |  |  |  |  |  |  |
| E1-1-1C                   | ELECTRICAL POWER FIRST FLOOR PLAN - AREA C           |  |  |  |  |  |  |  |
| E1-1-1D                   | ELECTRICAL POWER FIRST FLOOR PLAN - AREA D           |  |  |  |  |  |  |  |
| E1-1-1MA                  | ELECTRICAL POWER FIRST FLOOR MEZZANINE PLAN - AREA A |  |  |  |  |  |  |  |
| E1-1-1MB                  | ELECTRICAL POWER FIRST FLOOR MEZZANINE PLAN - AREA B |  |  |  |  |  |  |  |
| E1-1-2                    | ELECTRICAL SECOND FLOOR PLAN - OVERALL PLAN          |  |  |  |  |  |  |  |
| E1-1-2A                   | ELECTRICAL POWER SECOND FLOOR PLAN - AREA A          |  |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |

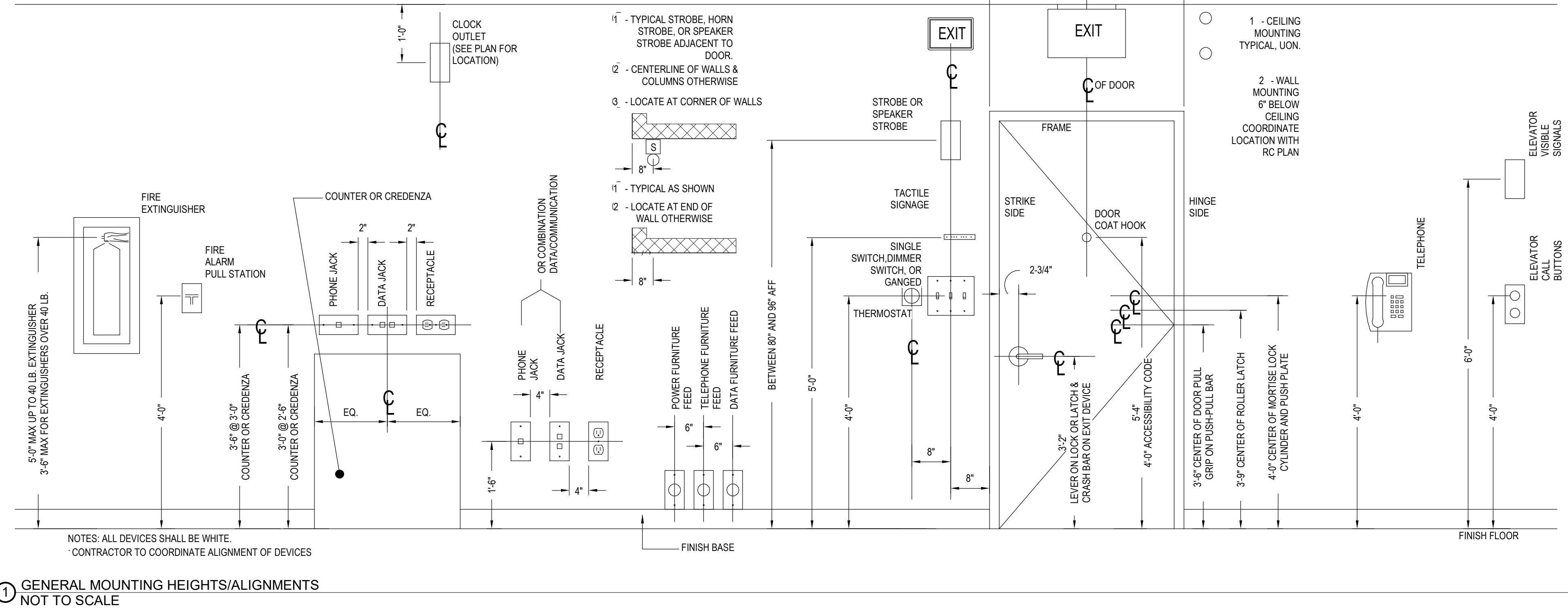


| ABBREVIATIONS |                                                                    |
|---------------|--------------------------------------------------------------------|
| (B)           | EXISTING TO BE BLANKED                                             |
| (E)           | EXISTING DEVICE OR EQUIPMENT                                       |
| (ER)          | EXISTING TO BE REMOVED                                             |
| (F)           | FUTURE DEVICE OR EQUIPMENT                                         |
| (N)           | NEW DEVICE OR EQUIPMENT                                            |
| (PL)          | OUTLET BLANKED WITH PLATE ONLY                                     |
| (RL)          | EXISTING SHOWN RELOCATED                                           |
| A             | AMP, AMPERE                                                        |
| AC            | AIR CONDITIONING                                                   |
| AF AT         | AMP FRAME / AMP TRIP                                               |
| AFJ           | ABOVE FINISHED FLOOR                                               |
| AHJ           | AUTHORITY HAVING JURISDICTION                                      |
| AC            | AMPS INTERRUPTING CURRENT                                          |
| AL            | ALUMINUM                                                           |
| ARF           | ABOVE RAISED FLOOR                                                 |
| AS / I        | AMP SWITCH / AMP FUSE                                              |
| ATS           | AUTOMATIC TRANSFER SWITCH                                          |
| AV, AV        | AUDIO VISUAL                                                       |
| AWG           | AMERICAN WIRE GAUGE                                                |
| BLDG          | BUILDING                                                           |
| C             | CONDUIT                                                            |
| CAB           | CABINET                                                            |
| CB            | CIRCUIT BREAKER                                                    |
| CNT           | CIRCUIT                                                            |
| CL            | CENTER LINE                                                        |
| CLF           | CURRENT LIMITING FUSE                                              |
| CLD           | CLOCK                                                              |
| CONTR         | CONTRACTOR                                                         |
| CONV          | CONVENIENCE                                                        |
| CT            | CURRENT TRANSFORMER                                                |
| CJ            | COPPER                                                             |
| DO            | DRAWOUT                                                            |
| DC            | DOOR CONTACT                                                       |
| DISC          | DISCONNECT                                                         |
| DIST          | DISTRIBUTION                                                       |
| DW            | DISHWASHER                                                         |
| DWG           | DRAWING                                                            |
| EC            | ELECTRICAL CONTRACTOR                                              |
| EF            | EXHAUST FAN                                                        |
| ELEC          | ELECTRICAL                                                         |
| EM            | EMERGENCY                                                          |
| EMER          | EMERGENCY NIGHT LIGHT                                              |
| EML           | ELECTRIC METALLIC TUBING                                           |
| ENCL          | ENCLOSURE                                                          |
| EPD           | EMERGENCY POWER OFF                                                |
| EQUIP         | EQUIPMENT                                                          |
| EW            | ELECTRIC WATER COOLER                                              |
| EW            | ELECTRIC WATER HEATER                                              |
| FA            | FIRE ALARM                                                         |
| FDR           | FEEDER                                                             |
| FMT           | FUTURE                                                             |
| FL            | FLOOR                                                              |
| FP            | FIRE PROTECTION                                                    |
| G AND         | GROUND                                                             |
| GEN           | GENERATOR                                                          |
| GF            | GROUND FAULT                                                       |
| GFI           | GROUND FAULT INTERRUPTOR                                           |
| HOA           | HAND OFF AUTOMATIC SWITCH                                          |
| HP            | HORSE POWER                                                        |
| HVAC          | HEATING VENTILATION AND AIR CONDITIONING                           |
| HHW           | HOT WATER HEATER                                                   |
| HZ            | HERTZ                                                              |
| IG            | ISOLATED GROUND                                                    |
| KAC           | KILO AMPERE INTERRUPTING CURRENT                                   |
| KMILS         | THOUSAND CIRCULAR MILS                                             |
| KVA           | KILOVOLT AMPS                                                      |
| KW            | KILOWATTS                                                          |
| L             | LIGHTING CONTROLLER                                                |
| LCP           | LIGHTING CONTROL OR RELAY PANEL                                    |
| LSIG          | LONG, SHORT, INSTANTANEOUS AND GROUND FAULT TRIP FUNCTION LIGHTING |
| MAX           | MAXIMUM                                                            |
| MB            | MOTORIZED BACKBOARD                                                |
| MC            | METAL CLAD                                                         |
| MCB           | MAIN CIRCUIT BREAKER                                               |
| MCC           | MOTOR CONTROL CENTER                                               |
| MFG           | MANUFACTURER                                                       |
| MH            | MOUNTING HEIGHT                                                    |
| MI            | MINERAL INSULATED                                                  |
| MLO           | MAIN LUGS ONLY                                                     |
| MOD           | MOTORIZED OVERHEAD DOOR                                            |
| MP            | MOTORIZED PARTITION                                                |
| MPS           | MOTORIZED PROJECTION SCREEN                                        |
| MS            | MOTORIZED SHADES                                                   |
| MTD           | MOUNTED                                                            |
| MW            | MICROWAVE                                                          |
| N             | NEUTRAL                                                            |
| NC            | NORMALLY CLOSED                                                    |
| NC            | NOT IN CONTRACT                                                    |
| NL            | NIGHT LIGHT                                                        |
| NO            | NORMALLY OPEN                                                      |
| NO            | NUMBER                                                             |
| NFS           | NOT TO SCALE                                                       |
| OTS           | OWNER FURNISHED EQUIPMENT                                          |
| P             | POLES                                                              |
| PB            | PULL BOX                                                           |
| PC            | PULMING CONTRACTOR                                                 |
| PH            | PHASE                                                              |
| PNL           | PANEL                                                              |
| PPE           | PRE-PURCHASED EQUIPMENT                                            |
| PR            | PRIMARY                                                            |
| PRT           | PRINTER                                                            |
| PT            | POTENTIAL TRANSFORMER                                              |
| PVC           | POLYVINYL CHLORIDE                                                 |
| POWER         | POWER                                                              |
| QUAD          | QUADRUPLUX RECEPTACLE                                              |
| REC           | RECESSED                                                           |
| RECEPT        | RECEPTACLE                                                         |
| REF           | REFRIGERATOR                                                       |
| RF            | RETURN FAN                                                         |
| RGS           | RIGID GALVANIZED STEEL                                             |
| RM            | ROOM                                                               |
| SB            | SCORE BOARD                                                        |
| SEC           | SECONDARY                                                          |
| SF            | SUPPLY FAN                                                         |
| SRU           | SOLENOID KEY RELEASE UNIT                                          |
| SPD           | SURGE PROTECTION DEVICE                                            |
| SSCAP         | SHORT CIRCUIT COORDINATION ARC FLASH                               |
| ST            | SHUNT TRIP                                                         |
| SW            | SWITCH                                                             |
| SWBD          | SWITCHBOARD                                                        |
| SWGR          | SWITCHGEAR                                                         |
| TC            | TELECOM TELECOMMUNICATIONS                                         |
| TDR           | TIME DELAY RELAY                                                   |
| TEL           | TELEPHONE                                                          |
| TF            | TRANSFER FAN                                                       |
| TP            | TAMPER PROOF                                                       |
| TYP           | TWISTED PAIR SHIELDED                                              |
| UC            | UNDERCOUNTER                                                       |
| UCR           | UNDER COUNTER REFRIGERATOR                                         |
| UF            | UNDER FLOOR                                                        |
| UH            | UNIT HEATER                                                        |
| UN            | UNLESS OTHERWISE NOTED                                             |
| V             | VOLTS                                                              |
| VA            | VOLT AMPS                                                          |
| W             | WATTS                                                              |
| WP            | WEATHER PROOF                                                      |
| XTMR          | TRANSFORMER                                                        |

| POWER DISTRIBUTION                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                | MOTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                | MANUAL MOTOR SWITCH WITH THERMAL OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                | NON FUSED DISCONNECT SWITCH (AMPERE RATING SHOWN)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                | FUSED DISCONNECT SWITCH (AMPERE RATING SHOWN)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                | ENCLOSED CIRCUIT BREAKER (AMPERE RATING SHOWN)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                | MAGNETIC MOTOR STARTER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                | COMBINATION MAGNETIC MOTOR STARTER DISCONNECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                | VARIABLE FREQUENCY DRIVE (COORDINATE FURNISHED EQUIPMENT WITH MECHANICAL SCHEDULES)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                | JUNCTION BOX OR DIRECT CONNECTION POINT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                | EMERGENCY POWER OFF STATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                | INDICATES CONDUIT UP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                | INDICATES CONDUIT DOWN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                | CONCEALED CONDUIT / WIRING IN OR UNDER FLOOR SLAB OR RAISED FLOOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                | HOME RUN TO PANEL "LH", CIRCUITS 1 AND 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                | SURFACE MOUNTED 208 / 120V PANEL BOARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                | SURFACE MOUNTED 480 / 277V PANEL BOARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                | FLUSH MOUNTED 208 / 120V PANEL BOARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                | FLUSH MOUNTED 480 / 277V PANEL BOARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                | TRANSFORMER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ELECTRICAL OUTLETS                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CENTERLINE 18" AFF EXCEPT AS NOTED. REFER TO SPECIFICATIONS FOR MANUFACTURER AND CATALOG NUMBER. NUMERAL INDICATES BRANCH CIRCUIT DESIGNATION. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                | OUTLET DESIGNATION <ul style="list-style-type: none"><li>RECEPTACLE MOUNTED HIGHER THAN STANDARD 18" AFF</li><li>RECEPTACLE PROTECTED WITH GROUND FAULT CIRCUIT BREAKER</li><li>ISOLATED GROUND</li><li>RECEPTACLE WITH SURGE PROTECTION</li><li>RECEPTACLE, TAMPER RESISTANT</li><li>RECEPTACLE, EXPLOSION PROOF</li><li>RECEPTACLE, PORTABLE MOUNTED</li><li>RECEPTACLE, WEATHER RESISTANT TYPE IN WEATHER PROOF IN-USE ENCLOSURE</li><li>RECEPTACLE, UNDER FLOOR</li><li>CEILING MOUNTED RECEPTACLE</li><li>FLUSH FLOOR BOX WITH DUPLEX RECEPTACLE</li><li>FLUSH FLOOR BOX WITH QUADRUPLUX RECEPTACLE</li><li>STANDARD DUPLEX RECEPTACLE</li><li>STANDARD QUADRUPLUX RECEPTACLE</li><li>GFCI DUPLEX RECEPTACLE</li><li>GFCI QUADRUPLUX RECEPTACLE</li><li>DUPLEX RECEPTACLE WITH INTEGRAL USB</li><li>DUPLEX RECEPTACLE - ONE OUTLET SWITCHED</li><li>DUPLEX RECEPTACLE - ALL OUTLETS SWITCHED</li><li>QUAD RECEPTACLE - ONE DUPLEX SWITCHED</li><li>QUAD RECEPTACLE - ALL OUTLETS SWITCHED</li><li>SIMPLEX SINGLE RECEPTACLE</li><li>USB ONLY RECEPTACLE</li><li>RECESSED CLOCK RECEPTACLE</li><li>HEAVY DUTY NEMA STRAIGHT BLADE RECEPTACLE, SEE SCHEDULE FOR TYPES</li><li>HEAVY DUTY NEMA TWIST LOCK RECEPTACLE, SEE SCHEDULE FOR TYPES</li><li>AV FLAT PANEL DISPLAY WALL BOX WITH POWER, TELECOM AND/OR AV CONNECTIVITY</li><li>FLUSH WALL MOUNTED JUNCTION BOX WITH CONDUIT OPENINGS FOR FURNITURE FEED, WIRE, POWER AND TELECOM</li></ul> |
|                                                                                                                                                | SINGLE POINT OUTLET: "D" DATA OUTLET, "T" TELEPHONE OUTLET, "F" FIRE FIGHTERS CALL STATION, "CATV" CABLE TV OUTLET, "AV" AV OUTLET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                | CONDUIT BACKBOX REQUIREMENTS (UNLESS OTHERWISE NOTED) <ul style="list-style-type: none"><li>"1" 1" CONDUIT, 1-GANG BACKBOX</li><li>"2" 1" CONDUIT, 1-GANG BACKBOX</li><li>"CATV" 1-1/4" CONDUIT, 2-GANG BACKBOX WITH 1-GANG REDUCER</li><li>"AV" COORDINATE WITH AV CONTRACTOR REQUIREMENTS</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                | DATA OUTLET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                | TELEPHONE OUTLET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                | FIRE FIGHTERS CALL STATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                | CABLE TV OUTLET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                | AV OUTLET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                | OVERHEAD POWER CONNECTION RECEPTACLE AND EXTENSION ARM, HUBBELL HB-4012800 EXTENSION CORD REL. 40 FEET 1/2 GAUGE NEMA 5-0 RECEPTACLE OR APPROVED EQUAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                | CEILING MOUNTED OR ABOVE CEILING MOUNTED MONITOR DISPLAY OR PROJECTOR BOX WITH POWER, TELECOM AND/OR AV CONNECTIVITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                | FLUSH FLOOR BOX ASSEMBLY WITH CONDUIT OPENINGS FOR FURNITURE FEEDS (POWER, TELECOM AND AV) COORDINATE COLOR WITH ARCHITECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                | FLUSH FLOOR BOX WITH QUAD RECEPTACLE, PROVISIONS FOR TELCOM OUTLETS COORDINATE COLOR WITH ARCHITECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                | FLUSH FLOOR BOX WITH QUAD RECEPTACLE, PROVISIONS FOR VOICE / DATA AND AV OUTLETS COORDINATE COLOR WITH ARCHITECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                | CONDUIT STUBUPS INTO TABLE LEG FOR POWER, VOICE/DATA AND AV. DATA AND AV CONDUIT SHALL RUN IN CEILING SPACE OF FLOOR BELOW TO BEHIND WALL MOUNTED DISPLAY. POWER SHALL RUN TO NEAREST WALL AND EXTEND TO JUNCTION BOX OR PANELBOARD NOTED. PROVIDE 3/4" CONDUIT FOR POWER, 1-1/2" CONDUIT FOR VOICE/DATA AND 1-1/2" CONDUIT FOR AV. SIZE OF HOLE SHALL BE BASED ON FIREPROOF MANUFACTURERS INSTRUCTIONS AND U.L. GUIDELINES. PROVIDE PROTECTIVE BURNING AT EACH END OF CONDUIT AND INTERIOR FIREPROOFING MATERIAL AT THE TOP OF CONDUITS ABOVE PENETRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                | 4" FLUSH POKE THRU ASSEMBLY WITH CONDUIT OPENINGS FOR FURNITURE FEEDS (POWER, TELECOM AND AV) COORDINATE COLOR WITH ARCHITECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                | 4" FLUSH POKE THRU ASSEMBLY WITH SURFACE MOUNTED QUAD RECEPTACLE AND PROVISIONS FOR TELCOM CONNECTIVITY (COORDINATE COLOR WITH ARCHITECT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                | 4" FLUSH POKE THRU ASSEMBLY WITH RECESSED RECEPTACLE, AND PROVISIONS FOR TELCOM CONNECTIVITY (COORDINATE COLOR WITH ARCHITECT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                | 6" LARGE CAPACITY FLUSH POKE THRU ASSEMBLY WITH CONDUIT OPENINGS FOR FURNITURE FEEDS (POWER, TELECOM AND AV) COORDINATE COLOR WITH ARCHITECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                | 6" LARGE CAPACITY FLUSH POKE THRU ASSEMBLY WITH QUAD RECEPTACLE AND PROVISIONS FOR TELCOM CONNECTIVITY (COORDINATE COLOR WITH ARCHITECT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                | 8" LARGE CAPACITY FLUSH POKE THRU ASSEMBLY WITH QUAD RECEPTACLE AND PROVISIONS FOR VOICE / DATA AND AV CONNECTIVITY (COORDINATE COLOR WITH ARCHITECT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MULTI-OUTLET ASSEMBLIES                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND MANUFACTURER DETAILS. VERIFY MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS.              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                | MULTI-OUTLET ASSEMBLY AS SPECIFIED ON ELECTRICAL PLAN DRAWINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                | MULTI-OUTLET ASSEMBLY WITH 20A-125V SINGLE OUTLETS MOUNTED 6" ON CENTER, ALTERNATELY WIRED, (EQUIVALENT TO WIREMOLD 2000 SERIES).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                | MULTI-OUTLET ASSEMBLY WITH DUPLEX RECEPTACLES MOUNTED 3" ON CENTER (MINIMUM), (EQUIVALENT TO WIREMOLD 2000 SERIES).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                | MULTI-OUTLET ASSEMBLY BARRIERED WITH DUPLEX RECEPTACLES MOUNTED 3" ON CENTER (MINIMUM), (EQUIVALENT TO WIREMOLD 4000 SERIES).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                | MULTI-OUTLET ASSEMBLY BARRIERED WITH DUPLEX RECEPTACLES MOUNTED 3" ON CENTER (MINIMUM), (EQUIVALENT TO WIREMOLD 8000 SERIES).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| LUMINAIRES          |                                                                                                                           |
|---------------------|---------------------------------------------------------------------------------------------------------------------------|
|                     | 1X4 RECESSED TROFFER                                                                                                      |
|                     | 2X4 RECESSED TROFFER                                                                                                      |
|                     | 2X2 RECESSED TROFFER                                                                                                      |
|                     | 1X4 INDUSTRIAL STRIP LIGHT LUMINAIRE                                                                                      |
|                     | RECESSED OR PENDANT DOWN LIGHT                                                                                            |
|                     | RECESSED WALL WASH LUMINAIRE                                                                                              |
|                     | WALL MOUNTED LUMINAIRE                                                                                                    |
|                     | PENDANT LUMINAIRE                                                                                                         |
|                     | TRACK LIGHTING                                                                                                            |
|                     | ELU REMOTE BATTERY BACK UP                                                                                                |
|                     | BATTERY BACK UP ELU                                                                                                       |
|                     | REMOTE BATTERY BACK UP ELU                                                                                                |
|                     | WALL MOUNTED EXIT SIGN<br>ARROW DESIGNATES DIRECTION                                                                      |
|                     | CEILING MOUNTED EXIT SIGN<br>ARROW DESIGNATES DIRECTION                                                                   |
| SINGLE LINE DIAGRAM |                                                                                                                           |
|                     | GENERATOR                                                                                                                 |
|                     | TRANSFORMER                                                                                                               |
|                     | CIRCUIT BREAKER: <ul style="list-style-type: none"><li>1P SINGLE POLE</li><li>2P TWO POLE</li><li>3P THREE POLE</li></ul> |
|                     | CIRCUIT BREAKER WITH SHUNT TRIP                                                                                           |
|                     | ENCLOSED CIRCUIT BREAKER                                                                                                  |
|                     | TRANSFER SWITCH                                                                                                           |
|                     | DISCONNECT DEVICE FOR DRAWOUT EQUIPMENT                                                                                   |
|                     | FUSED SWITCH OR FUSED DISCONNECT                                                                                          |
|                     | LIGHTNING ARRESTOR                                                                                                        |
|                     | CURRENT TRANSFORMER                                                                                                       |
|                     | POTENTIAL TRANSFORMER WITH FUSE                                                                                           |
|                     | DELTA CONNECTION                                                                                                          |
|                     | GROUNDING WYE CONNECTION                                                                                                  |
|                     | OVERLOAD RELAY                                                                                                            |
|                     | RELAY                                                                                                                     |
|                     | ELECTRICALLY OPERATED                                                                                                     |
|                     | SOLENOID KEY OPERATED RELEASE UNIT                                                                                        |
|                     | POWER FACTOR CORRECTION CAPACITOR                                                                                         |
|                     | SURGE PROTECTION DEVICE                                                                                                   |
|                     | INDICATING LAMP                                                                                                           |
|                     | CONDUIT FEEDER IDENTIFICATION                                                                                             |
|                     | DIGITAL MULTI-PURPOSE METER                                                                                               |
|                     | AMMETER                                                                                                                   |
|                     | AMMETER SWITCH                                                                                                            |
|                     | VOLTMETER                                                                                                                 |
|                     | VOLTMETER SWITCH                                                                                                          |
|                     | KIRK KEY INTERLOCK                                                                                                        |
|                     | WATT-HOUR METER                                                                                                           |
|                     | STOP BUTTON MOMENTARY CONTACT                                                                                             |
|                     | START BUTTON MOMENTARY CONTACT                                                                                            |
|                     | GROUND CONNECTION                                                                                                         |
|                     | NORMALLY OPEN CONTACT                                                                                                     |
|                     | NORMALLY CLOSED CONTACT                                                                                                   |

| LIGHTING CONTROLS                                             |                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REFER TO SPECIFICATIONS FOR MANUFACTURER AND CATALOG NUMBERS. |                                                                                                                                                                                                                                                                                                                                   |
|                                                               | SINGLE POLE SWITCH, LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.                                                                                                                                                                                                                                                            |
|                                                               | TWO POLE SWITCH, LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.                                                                                                                                                                                                                                                               |
|                                                               | THREE WAY SWITCH, LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.                                                                                                                                                                                                                                                              |
|                                                               | FOUR WAY SWITCH, LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.                                                                                                                                                                                                                                                               |
|                                                               | KEY OPERATED SWITCH                                                                                                                                                                                                                                                                                                               |
|                                                               | LOW VOLTAGE LIGHTING CONTROL SWITCH                                                                                                                                                                                                                                                                                               |
|                                                               | WALL MTD. LIGHTING CONTROL SWITCH FOR LIGHTING CONTROL ZONE OVERRIDE.                                                                                                                                                                                                                                                             |
|                                                               | WALL MTD. OCCUPANCY SENSOR WITH PASSIVE INFRARED MOTION SENSOR, 1-POLE, 277/120V                                                                                                                                                                                                                                                  |
|                                                               | WALL MTD. OCCUPANCY SENSOR WITH PASSIVE INFRARED MOTION SENSOR, 2-POLE, 277/120V                                                                                                                                                                                                                                                  |
|                                                               | WALL MTD. OCCUPANCY SENSOR WITH PASSIVE INFRARED MOTION SENSOR, 1-POLE, 277/120V, 0-10 DIMMING                                                                                                                                                                                                                                    |
|                                                               | PHOTO CONTROL SWITCH, WEATHER PROOF, 277/120V                                                                                                                                                                                                                                                                                     |
|                                                               | WALL SWITCH WITH PILOT LIGHT                                                                                                                                                                                                                                                                                                      |
|                                                               | WALL MTD. LOW VOLTAGE LIGHTING CONTROL SWITCH FOR SCENE SELECTION, PROVIDE WITH FIVE (5) SCENE SELECTIONS AND RAISE / LOWER                                                                                                                                                                                                       |
|                                                               | TIME SWITCH (WITH DIGITAL COUNTDOWN AND VISUAL WARNING) 277/120V                                                                                                                                                                                                                                                                  |
|                                                               | WALL MTD. VACANCY SENSOR WITH PASSIVE INFRARED MOTION SENSOR, 1-POLE, 277/120V                                                                                                                                                                                                                                                    |
|                                                               | WALL MTD. VACANCY SENSOR WITH PASSIVE INFRARED MOTION SENSOR, 2-POLE, 277/120V                                                                                                                                                                                                                                                    |
|                                                               | LIGHTING CONTROL SEQUENCE OF OPERATION TYPE                                                                                                                                                                                                                                                                                       |
|                                                               | MULTI-ZONE PRESET SCENE CONTROLLER / DIMMER WITH USER PROGRAMMABLE ZONE AND SCENE NAMES, TEMPORARY LOCK OVERRIDES, INDIVIDUAL RAISE / LOWER BUTTONS TO ALLOW ZONES TO BE ADJUSTED WITHOUT ALTERING SCENE VALUES STORED IN MEMORY                                                                                                  |
|                                                               | LIGHTING CONTROL PANEL, WITH PROGRAMMABLE SWITCHING AND DIMMING FOR LIGHTING CIRCUITS, INTEGRAL TIME CLOCK, SYSTEM INPUTS FOR REMOTE ACTUATION AND SCHEDULE OVERRIDES, CAPABLE OF CONTROLLING RECEPTACLE LOADS, OPTIONAL BAS INTEGRATION, CAN BE PART OF A DISTRIBUTED CONTROL STRATEGY                                           |
|                                                               | CEILING MTD. DAYLIGHT SENSOR                                                                                                                                                                                                                                                                                                      |
|                                                               | CEILING MTD. OCCUPANCY SENSOR (OS) VACANCY SENSOR (VS) (MANUAL ON) WITH PASSIVE INFRARED (PIR) MOTION SENSOR TO COVER RANGE OF 48X300 SQ.FT., 277 / 120V POWER PACK                                                                                                                                                               |
|                                                               | CEILING MTD. OCCUPANCY SENSOR (OS) VACANCY SENSOR (VS) (MANUAL ON) WITH PASSIVE INFRARED (PIR) MOTION SENSOR TO COVER RANGE OF 180X300 SQ.FT., 277 / 120V POWER PACK                                                                                                                                                              |
|                                                               | CEILING MTD. OCCUPANCY SENSOR (OS) VACANCY SENSOR (VS) (MANUAL ON) WITH DUAL TECHNOLOGY INFRARED (PIR AND ULTRASONIC) MOTION SENSOR TO COVER 180 DEGREE RANGE (SHADED OUTER CIRCLE NOTES COVERAGE DIRECTION), UP TO 400 SQ.FT. WITH INTEGRAL CONTRACT CLOSURE FOR INTEGRATION WITH HVAC OR SECURITY SYSTEM, 277 / 120V POWER PACK |
|                                                               | CEILING MTD. OCCUPANCY SENSOR (OS) VACANCY SENSOR (VS) (MANUAL ON) WITH DUAL TECHNOLOGY INFRARED (PIR AND ULTRASONIC) MOTION SENSOR TO COVER 360 DEGREE RANGE (SHADED OUTER CIRCLE NOTES COVERAGE DIRECTION), UP TO 400 SQ.FT. WITH INTEGRAL CONTRACT CLOSURE FOR INTEGRATION WITH HVAC OR SECURITY SYSTEM, 277 / 120V POWER PACK |
|                                                               | WALL MTD. OCCUPANCY SENSOR (OS) VACANCY SENSOR (VS) (MANUAL ON) WITH PASSIVE INFRARED TECHNOLOGY (PIR) MOTION SENSOR TO COVER RANGE UP TO 1600 SQ.FT. WITH INTEGRAL CONTRACT CLOSURE FOR INTEGRATION WITH HVAC OR SECURITY SYSTEM, 277 / 120V POWER PACK                                                                          |
| SECURITY/PAGING                                               |                                                                                                                                                                                                                                                                                                                                   |
|                                                               | CARD READER, SHALL BE FAIL SAFE OPEN IN EMERGENCY                                                                                                                                                                                                                                                                                 |
|                                                               | DRESS BUTTON                                                                                                                                                                                                                                                                                                                      |
|                                                               | DOOR CONTACT                                                                                                                                                                                                                                                                                                                      |
|                                                               | DOUBLE MAGNETIC LOCK                                                                                                                                                                                                                                                                                                              |
|                                                               | DOOR RELEASE BUTTON (REMOTE)                                                                                                                                                                                                                                                                                                      |
|                                                               | EXIT BUTTON                                                                                                                                                                                                                                                                                                                       |
|                                                               | ELECTRIC HANDSET                                                                                                                                                                                                                                                                                                                  |
|                                                               | ELECTRIC LOCKSET                                                                                                                                                                                                                                                                                                                  |
|                                                               | OVERHEAD DOOR CONTACT                                                                                                                                                                                                                                                                                                             |
|                                                               | MOTION DETECTOR                                                                                                                                                                                                                                                                                                                   |
|                                                               | REQUEST TO EXIT                                                                                                                                                                                                                                                                                                                   |
|                                                               | SOUNDER (DOOR ALARM)                                                                                                                                                                                                                                                                                                              |
|                                                               | SINGLE MAGNETIC LOCK                                                                                                                                                                                                                                                                                                              |
|                                                               | SECURITY CAMERA                                                                                                                                                                                                                                                                                                                   |
|                                                               | SPEAKER                                                                                                                                                                                                                                                                                                                           |
|                                                               | SPEAKER VOLUME CONTROL                                                                                                                                                                                                                                                                                                            |



| NEMA RECEPTACLE SCHEDULE - TWIST-LOCK |         |                                     |         |             |
|---------------------------------------|---------|-------------------------------------|---------|-------------|
| TYPE                                  | NEMA ID | NEMA CONFIGURATION                  | VOLTAGE | CB          |
| 1                                     | L5-30R  | 30A, 125V, 1-POLE, 3-WIRE GROUNDING | 125V    | 30A, 1-POLE |
| 2                                     | L5-30R  | 30A, 125V, 1-POLE, 3-WIRE GROUNDING | 125V    | 30A, 1-POLE |
| 3                                     | L5-30R  | 30A, 125V, 2-POLE, 3-WIRE GROUNDING | 125V    | 30A, 1-POLE |
| 4                                     | L5-30R  | 30A, 250V, 2-POLE, 3-WIRE GROUNDING | 250V    | 30A, 2-POLE |
| 5                                     | L6-30R  | 30A, 208V, 2-POLE, 3-WIRE GROUNDING | 208V    | 30A, 2-POLE |

| NEMA RECEPTACLE SCHEDULE - STRAIGHT BLADE |         |                                     |         |             |
|-------------------------------------------|---------|-------------------------------------|---------|-------------|
| TYPE                                      | NEMA ID | NEMA CONFIGURATION                  | VOLTAGE | CB          |
| 1                                         | 5-20R   | 20A, 125V, 2-POLE, 3-WIRE GROUNDING | 125V    | 20A, 1-POLE |
| 3                                         | 5-20R   | 20A, 125V, 2-POLE, 3-WIRE GROUNDING | 125V    | 20A, 1-POLE |
| 4                                         | 6-20R   | 20A, 250V, 2-POLE, 3-WIRE GROUNDING | 250V    | 20A, 2-POLE |
| 5                                         | 6-30R   | 30A, 250V, 2-POLE, 3-WIRE GROUNDING | 250V    | 30A, 2-POLE |

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PROJECT NORTH

MAGNETIC NORTH

ELECTRICAL  
LEGENDS AND  
ABBREVIATIONS

Scale: NOT TO  
Job No. <sup>SC</sup>60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

E0-0-2



| ELECTRICAL SCOPE OF WORK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SCOPE OF WORK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | ADDITIONAL SCOPE OF WORK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <p><b>GENERAL-</b><br/>DESIGN AND INSTALLATION OF THE ELECTRICAL SYSTEMS SHALL BE GOVERNED BY AND COMPLY WITH THE REQUIREMENTS OF THE MASSACHUSETTS STATE BUILDING CODE 9TH EDITION, 2020 NATIONAL ELECTRIC CODE (NEC) NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, 2020 MASSACHUSETTS ENERGY CODE, NFPA 72 2013, MASSACHUSETTS COMPREHENSIVE FIRE SAFETY CODE, LEED RATING SYSTEM, AMERICANS WITH DISABILITIES ACT (ADA), AND ALL LOCAL LAWS HAVING JURISDICTION. REFER TO ARCHITECTURAL DRAWING'S CODE COMPLIANCE SHEETS FOR ALL APPLICABLE CODES.</p> <p><b>ELECTRIC SERVICE:</b><br/>1. THERE ARE TWO (2) NEW UNDERGROUND UTILITY ELECTRIC SERVICES BEING PROVIDED THAT WILL SUPPLY POWER TO FOUR (4) SEPARATE EXTERIOR, PAD-MOUNTED UTILITY TRANSFORMERS, WHICH WILL SUPPLY NORMAL AND BACKUP POWER TO THE ATHLETIC BUILDING AND THE NEW SCHOOL AT 480VOLTS, 3-PHASE, 4-WIRE. THE ELECTRIC SERVICE ROOM IS FED NORMAL POWER BY TWO (2) PAD MOUNTED TRANSFORMERS INSTALLED JUST OUTSIDE THE MAIN ELECTRIC SERVICE ROOM, AND BACKUP POWER IS SUPPLIED BY THE THIRD PAD-MOUNTED TRANSFORMER, WHICH FEEDS INTO THE GENERATOR PANELBOARD ROOM. THE ATHLETIC BUILDING IS SUPPLIED POWER FROM ITS OWN PAD-MOUNTED TRANSFORMER.</p> <p>2. THE TWO (2) NORMAL POWER UTILITY TAKEOFFS TERMINATE AT EITHER END OF A DOUBLE-ENDED SERVICE SWITCHBOARD. THE BACKUP POWER UTILITY TAKEOFF SHALL TERMINATE IN A GENERATOR DISTRIBUTION PANELBOARD.</p> <p>3. EACH EXISTING SERVICE SWITCHBOARD OR PANELBOARD IS DEAD-FRONT ASSEMBLY AND SHALL HAVE AN INDIVIDUALLY MOUNTED POWER CIRCUIT BREAKER MAIN AND DISTRIBUTION SECTIONS CONSISTING OF FIXED, GROUP-MOUNTED MOLDED CASE CIRCUIT BREAKERS TO FEED CONDUIT AND WIRE RISERS, MECHANICAL EQUIPMENT, DISTRIBUTION PANELBOARDS, AND BRANCH CIRCUIT PANELBOARDS.</p> <p>4. FOUR (4) NEW UTILITY METERS ARE TO BE PROVIDED - ONE FOR EACH UTILITY TAKEOFF - TO METER ELECTRIC SERVICE TO THE BUILDING.</p> |  | 1. CONTRACTOR SHALL PROVIDE (3) 4" CONDUITS FROM PV DISCONNECT ON LOWER LEVEL TO ROOF FOR PLANNED PHOTOVOLTAIC SYSTEM.                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <p><b>ELECTRIC DISTRIBUTION SYSTEM:</b><br/>1. NEW DISTRIBUTION THROUGH THE BUILDING WILL BE VIA WIRE IN CONDUIT TO DISTRIBUTION AND BRANCH CIRCUIT PANELBOARDS, ETC. LOCATED IN ELECTRICAL CLOSETS AND MECHANICAL ROOMS.</p> <p>2. OVERCURRENT PROTECTION FOR DISTRIBUTION PANELBOARDS WILL BE VIA CIRCUIT BREAKERS PER THE CONTRACT DOCUMENTS. ALL EQUIPMENT WILL BE OF NEMA 1 CONSTRUCTION, FREE STANDING AND TOTALLY FRONT ACCESSIBLE REQUIRING NO REAR ACCESS.</p> <p>3. LIFE SAFETY PANELS TO SERVE BUILDING EGRESS LIGHTING AND FIRE ALARM POWER WILL BE PROVIDED IN 2HR-RATED LIFE SAFETY ELECTRIC ROOMS, DISTRIBUTED AS PER THE RISER DIAGRAM.</p> <p>4. FEEDERS TO ELECTRIC PANELS WILL BE VIA COPPER WIRE IN CONDUITS UNLESS OTHERWISE NOTED. THESE FEEDERS WILL SERVE ALL THE POWER NEEDS OF THE BUILDING.</p> <p>5. DISTRIBUTION FEEDERS WILL BE RATED 480/277V WITH GREEN EQUIPMENT GROUND CONDUCTORS. ALL NEW FEEDERS WILL BE SIZED TO OVERCOME VOLTAGE DROP. FEEDERS WILL BE RIGID STEEL CONDUITS IN AREAS SUBJECT TO DAMAGE, SUCH AS EXTERNALLY OR IN MECHANICAL ROOMS. ELECTRIC METALLIC TUBING TO BE PROVIDED IN OTHER AREAS OF THE BUILDING.</p> <p>6. GENERALLY, ALL MOTORS LESS THAN 1/2HP WILL BE SINGLE-PHASE, 120 VOLT, AND ALL MOTORS 1/2HP AND ABOVE WILL BE 480 VOLT, 3-PHASE.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | 1. A SEPARATE 480/277V ELECTRIC SERVICE SHALL BE PROVIDED NEAR THE SCHOOL'S MAIN LED BOARD DISPLAY TO DISTRIBUTE POWER TO THE BOARD AND NEARBY LIGHT POLES. CONTRACTOR SHALL PROVIDE AN ELECTRICAL PEDESTAL CABINET ADJACENT TO THE BOARD AS INDICATED ON SITE PLAN. <p>2. CONTRACTOR SHALL PROVIDE ALUMINUM FEEDERS FOR ALL FEEDERS 100AMPS AND GREATER, EXCEPT FOR THE INCOMING SERVICE CONDUCTORS ON THE SECONDARY SIDE OF THE UTILITY TRANSFORMERS AND ANY FEEDERS INDICATED TO BE SUPPLIED USING MINERAL INSULATED CABLE.</p> |  |
| <p><b>GENERAL ELECTRICAL DISTRIBUTION AND BRANCH CIRCUITS:</b><br/>1. BRANCH CIRCUIT PANELBOARDS SHALL HAVE COPPER BUS WITH MOLDED CASE, QUICK MAKE, QUICK BREAK THERMAL MAGNETIC BOLT-ON CIRCUIT BREAKERS. DOOR-IN-DOOR ENCLOSURES WILL BE PROVIDED. CIRCUIT BREAKERS 225A AND LARGER SHALL HAVE INTERCHANGEABLE TRIP UNIT MODULES.</p> <p>2. BRANCH CIRCUIT WIRING, IN EMT CONDUIT, SHALL BE USED IN GENERAL AREAS WHERE PERMITTED BY CODE. PROVIDE SET SCREW TYPE FOR 2-1/2-INCH DIAMETER CONDUITS AND LARGER. FOR 2-INCH DIAMETER CONDUIT AND SMALLER, PROVIDE STEEL COMPRESSION GLAND-TYPE CONNECTION.</p> <p>3. OUTLET BOXES SHALL BE GALVANIZED STEEL AND AT LEAST 1 1/2" DEEP AND OF SUFFICIENT SIZE TO ACCOMMODATE WIRING AND DEVICE FOR WHICH THEY ARE PROVIDED. FLUSH MOUNTED OUTLET BOXES FOR SWITCHES, RECEPTACLES, AND TELEPHONES SHALL BE 4" RECTANGULAR OR SQUARE AS APPROPRIATE FOR ARRANGEMENT WITH RAISED COVERS. BOXES FOR LIGHT FIXTURES SHALL BE 4" OCTAGONAL BOXES WITH STUD SUPPORTS AND ATTACHMENTS TO SUPPORT LIGHT FITTINGS.</p> <p>4. WIRING DEVICES SHALL BE SPECIFICATION GRADE OF TYPE REQUIRED FOR DUTY. COVER PLATES SHALL BE RAISED NYLON TYPE IN COLOR TO MATCH DEVICE. SWITCHES SHALL BE QUIET TYPE, RATED FOR 20A, 120V. CONVENIENCE RECEPTACLE OUTLETS SHALL BE GROUNDED TYPE RATED FOR 20A, 120V.</p> <p>5. DISTRIBUTION PANELS SHALL BE 3 PHASE TYPE EITHER FREE STANDING OR WALL MOUNTED CONSTRUCTION WITH FACTORY ASSEMBLED, BOLTED ON, MOLDED CASE CIRCUIT BREAKERS OF THE CURRENT RATING REQUIRED AND A MINIMUM AIC OF 65k AMPERES SYMMETRICAL U.O.N. OR AS REQUIRED BY THE SHORT CIRCUIT STUDY.</p> <p>6. PROVIDE ALL DEVICES, RECEPTACLES, SWITCHES AND WEATHER PROOF RECEPTACLES ON BUILDING EXTERIOR WITH GFCI PROTECTION. PROVIDE GFCI PROTECTOR RECEPTACLES, DISCONNECT SWITCHES, SPECIAL RECEPTACLES, AND WEATHER PROOF DISCONNECT SWITCHES RATED NEMA 4X IN ALL WET AREAS.</p>                 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <p><b>MECHANICAL AND PLUMBING POWER:</b><br/>1. PROVIDE WIRING CONNECTIONS FOR MECHANICAL AND PLUMBING EQUIPMENT WHICH REQUIRES POWER VIA VARIABLE FREQUENCY DRIVES (VFDs), MOTOR STARTERS, AND/OR ASSOCIATED DISCONNECT SWITCHES.</p> <p>2. PROVIDE THE FOLLOWING:<br/>a) POWER TO PRIMARY AND CONDENSER WATER PUMPS, EXHAUST FANS, ELEVATOR EMRs, HOT WATER PUMPS, AND AHU UNITS.<br/>b) POWER FOR ALL DISTRIBUTED MECHANICAL LOADS SUCH AS UNIT HEATERS, FANS, FCU, VAV BOXES, CONTROLS, DAMPERS, ETC.<br/>c) POWER FOR ALL PLUMBING AND FIRE PROTECTION EQUIPMENT INCLUDING DOMESTIC HOT WATER HEATERS, ELECTRIC HEAT TRACE, ETC.<br/>d) EXACT LOCATIONS AND LOADS OF MECHANICAL, PLUMBING, AND FIRE PROTECTION EQUIPMENT SHALL BE VERIFIED WITH MECHANICAL, PLUMBING, OR FIRE PROTECTION DRAWINGS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <p><b>EMERGENCY LIFE SAFETY AND STANDBY POWER:</b><br/>1. THE BACKUP POWER UTILITY FEED WILL PROVIDE BACKUP POWER IN THE EVENT OF A UTILITY NORMAL POWER FAILURE OR A LOCAL FAILURE OF THE INTERIOR NORMAL POWER DISTRIBUTION EQUIPMENT. POWER IS SUPPLIED TO EMERGENCY AND SELECTIVE STANDBY LOADS VIA THE UTILITY PAD-MOUNTED TRANSFORMER. UPON AN EXTENDED POWER OUTAGE, THE ENTIRE BUILDING WILL BE BACKED UP BY UTILITY GENERATOR POWER, UPON WHICH THE BUILDING'S TRANSFER SWITCHES WILL RETURN TO "NORMAL" POWER.</p> <p>2. REQUIRED EMERGENCY LOADS WILL BE SUPPLIED/MAINTAINED VIA AUTOMATIC TRANSFER SWITCHES (ATS) TO PROVIDE EMERGENCY POWER WITHIN 10 SECONDS OF NORMAL POWER LOSS TO SATISFY CODE REQUIREMENTS. THE LOADS ARE AS FOLLOWS:<br/>a) ALL EXIT SIGNS<br/>b) REQUIRED EMERGENCY EGRESS LIGHTING<br/>c) LIFE SAFETY/FIRE ALARM SYSTEM<br/>d) FIRE SUPPRESSION SYSTEMS AIR, AND FIRE-SMOKE DAMPERS.<br/>e) FIRE PUMP</p> <p>3. THE STANDBY LOADS WILL BE SUPPLIED/MAINTAINED VIA STANDBY ATSs AND WILL HAVE A LOWER PRIORITY THAN EMERGENCY LOADS. THE FOLLOWING LOADS WILL BE SUPPLIED WHERE CAPACITY IS AVAILABLE:<br/>a) RACK-MOUNTED UNINTERRUPTIBLE POWER SUPPLY SYSTEMS SERVING IT ROOMS AND THE MAIN DISTRIBUTION FRAME ROOM.<br/>b) ELEVATORS - SELECTIVELY SWITCHED VIA THE ELEVATOR CONTROLLERS FOR USE BY FIRE FIGHTERS.<br/>c) ELEVATOR SUMP PUMPS<br/>d) SEWAGE EJECTOR PUMPS</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <p><b>ELEVATOR POWER:</b><br/>1. FURNISH AND INSTALL MAINLINE POWER DISCONNECT SWITCHES FOR ELEVATORS AND FOR CAB LIGHTING. ELEVATOR ASSOCIATED EQUIPMENT SUCH AS CONTROLLERS, ETC SHALL BE PROVIDED BY ELEVATOR DRAWINGS.</p> <p>2. ALL WIRING SHALL BE AS PER APPROVED ELEVATOR SHOP DRAWINGS.</p> <p>3. ELEVATOR SUMP PUMPS AND CONTROLLERS SHALL BE INSTALLED AS PER ELECTRICAL AND PLUMBING DRAWINGS.</p> <p>4. PROVIDE THE FOLLOWING:<br/>a) POWER TO ALL ELEVATOR MOTORS<br/>b) DISCONNECT SWITCHES, (1) GFCI RECEPTACLE AND LIGHTING IN EACH ELEVATOR CONTROL ROOM<br/>c) GFCI RECEPTACLE, LIGHTING AND POWER TO SUMP PUMP IN EACH ELEVATOR PIT<br/>d) LIGHTING AND GFI RECEPTACLE IN EACH ELEVATOR SHAFT OVERRUN<br/>e) 2" CONDUIT FROM EACH ELEVATOR CONTROL ROOM TO ELEVATOR CONTROL PANEL ADJACENT TO MAIN FIRE ALARM CONTROL PANEL.<br/>f) PROVIDE POWER FOR ELEVATOR CONTROL ROOM HVAC SYSTEMS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |

| SCOPE OF WORK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | ADDITIONAL SCOPE OF WORK |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------|--|
| <p><b>LIGHTING:</b><br/>1. EMERGENCY LIGHTING<br/>a) EMERGENCY EGRESS LIGHTING: TO PROVIDE FOR SAFELY ALLOWING OCCUPANTS TO MOVE FROM PUBLIC AREAS WITHIN THE BUILDING TO DESIGNATED BUILDING EXITS. SUCH EGRESS LIGHTING IS CONNECTED TO THE EMERGENCY SYSTEM. INCLUDED ARE EXTERIOR WALKWAYS TO PROVIDE SAFE EGRESS.<br/>b) ILLUMINATED EXIT SIGNS: ALL LIGHTING REQUIRED TO DIRECT OCCUPANTS TO BUILDING EXITS, AS WELL AS ALL ILLUMINATED EXIT SIGNS LED TYPE ARE MAINTAINED AND CONNECTED TO THE EMERGENCY SYSTEM DURING AN ELECTRICAL OUTAGE.<br/>c) STAIRWELL LIGHTING FIXTURES ARE CIRCUITED TO LOCAL LIFE SAFETY PANELBOARDS AND FURNISHED WITH INTEGRAL BACKUP BATTERIES. BATTERY POWER SHALL PROVIDE POWER FOR NOT LESS THAN 90 MINUTES UPON LOSS OF NORMAL POWER.</p> |  |                          |  |
| <p><b>LIGHTING CONTROLS:</b><br/>1. THE LIGHTING CONTROL SYSTEM SHALL CONSIST OF A NETWORK OF LOW VOLTAGE SWITCHES, DAYLIGHT SENSORS AND OCCUPANCY SENSORS, DAYLIGHT DIMMING AND PROGRAMMABLE LIGHTING CONTROL PANELS. LIGHTING PANELS SHALL BE LOCATED IN ELECTRICAL CLOSETS, AS REQUIRED.<br/>2. THE HOUSE LIGHTING CONTROL SYSTEM AT A MINIMUM SHALL COMPLY WITH THE MANDATORY PROVISIONS OF ASHRAE 90.1-2010.<br/>3. UL 324 BYPASS RELAYS SHALL BE PROVIDED FOR ALL EMERGENCY LIGHTING TO OVERRIDE LIGHTING CONTROLS AND TO TURN EM LIGHTING ON TO FULL BRIGHTNESS IN CASE OF LOSS OF NORMAL POWER.</p>                                                                                                                                                                       |  |                          |  |
| <p><b>LIGHTNING PROTECTION:</b><br/>1. FURNISH, INSTALL, TEST LIGHTNING PROTECTION SYSTEM AND COMPONENTS ACCORDING TO NFPA 780, RESULTING IN A UL MASTER "C" LABEL. THE SYSTEM WILL CONSIST OF AIR TERMINALS, CONDUCTORS, CONNECTIONS, AND GROUND RODS. THE LIGHTNING PROTECTION SYSTEM WILL BE INTERCONNECTED WITH THE BUILDING'S EQUIPMENT GROUNDING SYSTEM.<br/>2. PROVIDE SURGE PROTECTION SYSTEM AS REQUIRED FOR THE SYSTEMS MASTER "C" LABEL. SURGE PROTECTION SHALL BE PROVIDED ON ELECTRICAL SERVICE EQUIPMENT AND COPPER COMMUNICATIONS WIRING TO PROTECT ELECTRONIC EQUIPMENT FROM TRANSIENTS.</p>                                                                                                                                                                      |  |                          |  |
| <p><b>POWER CONNECTIONS BY EC FOR EQUIPMENT FURNISHED BY OTHER DIVISIONS INCLUDE, BUT ARE NOT LIMITED TO, AS SHOWN ON THE DRAWINGS:</b><br/>1) PROVIDE POWER WIRING FOR:<br/>a) MOTORIZED ROLL UP DOORS, MOTORIZED SHADES, AND ADA DOORS.<br/>b) FIRE ALARM SYSTEM<br/>c) SECURITY SYSTEM<br/>d) BMS SYSTEM<br/>e) HVAC EQUIPMENT<br/>f) FRONT OF HOUSE LIGHT FIXTURES<br/>g) HEAT TRACING, INCLUDING FOR PIPES, ETC<br/>h) PLUMBING EQUIPMENT<br/>i) ELEVATORS</p>                                                                                                                                                                                                                                                                                                               |  |                          |  |
| <p><b>GROUNDING SYSTEM:</b><br/>1. PROVIDE AN EQUIPMENT GROUNDING SYSTEM AS PER THE FOLLOWING:<br/>A. SEPARATE GROUNDING CONDUCTOR PROVIDED IN ALL RACEWAYS.<br/>B. THE SERVICE SYSTEM AND TRANSFORMERS TO BE GROUNDED PER CODE.<br/>2. PROVIDE EQUIPMENT GROUNDING CONDUCTORS FOR EACH FEEDER AND FOR EACH CIRCUIT AS PER NEC REQUIREMENTS. GREEN EQUIPMENT GROUNDING CONDUCTORS SHALL BE COPPER WITH GREEN INSULATION.</p>                                                                                                                                                                                                                                                                                                                                                      |  |                          |  |
| <p><b>UNINTERRUPTIBLE POWER SYSTEMS (UPS):</b><br/>1. LOCAL UPSs, IF REQUIRED, SHALL BE SPECIFIED BY THE LOW VOLTAGE CONSULTANTS. PROVIDE NORMAL POWER TO EACH OF THE UPSs AS REQUIRED.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                          |  |
| <p><b>MISCELLANEOUS:</b><br/>1. 50% OF RECEPTACLES IN PRIVATE OFFICES, OPEN OFFICES, AND COMPUTER CLASSROOMS SHALL BE AUTOMATICALLY DE-ENERGIZED OUTSIDE OF BUSINESS HOURS TO COMPLY WITH ASHRAE 90.1-2010 / LEED REQUIREMENTS. THESE REQS WILL BE ACHIEVED RELAY CONTROL PANELS INTEGRATED WITH THE LIGHTING CONTROL SYSTEM. CONTRACTOR SHALL PROVIDE A PERMANENTLY FIXED LABEL "CONTROLLED" AT ALL RECEPTACLES THAT ARE CONTROLLED BY A RELAY CONTROL PANEL. RECEPTACLES TO BE CONTROLLED HAVE BEEN SHOWN ON THE PLANS AS "SWITCHED".<br/>2. CONDUITS SHALL BE FURNISHED WITH EXPANSION FITTING OR FLEXIBLE CONNECTIONS, AS APPLICABLE, PER THE BUILDING JOINTS SHOWN ON THE STRUCTURAL DRAWINGS.</p>                                                                           |  |                          |  |
| <p><b>PERFORMANCE AUDIO &amp; VIDEO SYSTEMS:</b><br/>1. CONTRACTOR SHALL PROVIDE POWER TO ANY AUDIO AND VIDEO SYSTEMS, AS PER TECHNOLOGY CONSULTANT'S REQUIREMENTS.<br/>2. CONTRACTOR SHALL PROVIDE POWER TO ANY THEATRICAL LIGHTING, LIGHTING CONTROL, AV SYSTEMS, AS PER THEATER CONSULTANT'S REQUIREMENTS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                          |  |

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MSBA 90% CD Construction Document Submittal

May 12th, 2023

PROJECT NORTH

MAGNETIC NORTH

ELECTRICAL SCOPE OF WORK

Scale: 1/2" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

E0-0-3

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GENERAL NOTES:

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO E0-1.4, 5, 6, AND 7 FOR ADDITIONAL SITE DETAILS. REFER TO E0-1.5 FOR DUCTBANK SECTIONS.
4. ALL UNDERGROUND CONDUITS SHALL BE IN CONCRETE ENCASED DUCTBANKS UNLESS OTHERWISE NOTED.
5. REFER TO DIVISION 0 AND 1 SPECIFICATIONS FOR ADDITIONAL DETAIL ON ADD ALTERNATES.
6. REFER TO TELECOM/SECURITY DRAWINGS FOR LOCATION OF CCTV DEVICES AND TYPE AND QUANTITY OF CABLES TO BE INSTALLED BY ELECTRICAL CONTRACTOR.
7. ALL EQUIPMENT LOCATIONS AND DUCTBANK ROUTING SHOWN ARE DIAGRAMMATIC. ELECTRICAL AND GENERAL CONTRACTOR SHALL FIELD COORDINATE EXACT LOCATION OF EQUIPMENT AND ROUTING OF DUCTBANKS.
8. UNLESS OTHERWISE NOTED, ALL LINework SHOWN ON THIS SHEET BETWEEN EQUIPMENT DEPRCTS UNDERGROUND ELECTRICAL DUCTBANKS.
9. DUCTBANK SECTION CONTENTS ARE SHOWN ON SHEET E0-1.5. IF THE DUCTBANK SECTION IS NOT INDICATED ON THE SITE PLAN, PROVIDE SECTION "A" AS SHOWN ON E0-1.5.

SITE LIGHTING NOTES:

1. REFER TO E0-1.5 FOR SITE LIGHTING FIXTURE SCHEDULE. PROVIDE POLE FOR LIGHTING FIXTURE, WITH HEIGHT TO MATCH FIXTURE MOUNTING HEIGHT SHOWN ON LIGHTING FIXTURE SCHEDULE.
2. UNLESS OTHERWISE NOTED, ALL SITE LIGHTING SHALL BE EQUIPPED WITH INTEGRAL PHOTOCELLS.
3. POWER WIRING FOR ALL SITE LIGHTING CIRCUITS SHALL BE MINIMUM #6 AWG.
4. PROVIDE A SEPARATE HANDHOLE FOR EACH SITE LIGHTING POLE. REFER TO DETAILS FOR SIZE REQUIREMENTS AND MINIMUM CONDUIT REQUIREMENTS BETWEEN HANDHOLE AND POLE.
5. FOR CLARITY, CONDUITS FROM HANDHOLE TO ITS ASSOCIATED LIGHT POLE AREA NOT SHOWN ON THIS SITE PLAN. REFER TO E0-1.5 FOR DETAIL ON CONDUITS REQUIRED BETWEEN EACH LIGHTING/SPORTS LIGHTING POLE AND ITS ASSOCIATED HANDHOLE.
6. SITE LIGHTING POLES ARE REPRESENTED BY VARIOUS SYMBOLS. REFER TO SITE LIGHTING FIXTURE SCHEDULE FOR FIXTURE IDS AND PROVIDE SITE LIGHTING POLE AND FIXTURE WHERE FIXTURE ID IS SHOWN ON THIS SITE PLAN.

ADD ALTERNATES:

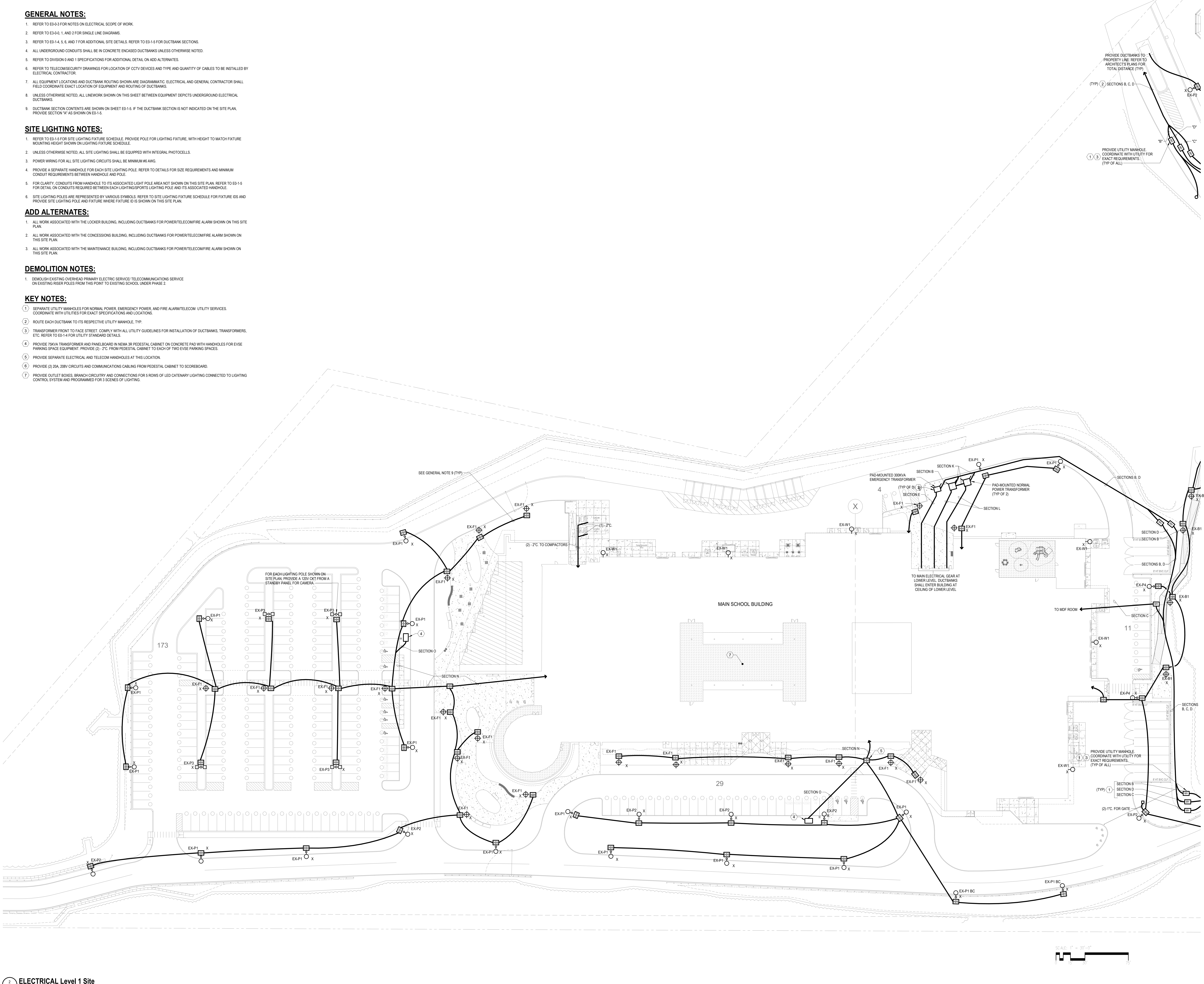
1. ALL WORK ASSOCIATED WITH THE LOCKER BUILDING, INCLUDING DUCTBANKS FOR POWER/TELECOM/FIRE ALARM SHOWN ON THIS SITE PLAN.
2. ALL WORK ASSOCIATED WITH THE CONCESSIONS BUILDING, INCLUDING DUCTBANKS FOR POWER/TELECOM/FIRE ALARM SHOWN ON THIS SITE PLAN.
3. ALL WORK ASSOCIATED WITH THE MAINTENANCE BUILDING, INCLUDING DUCTBANKS FOR POWER/TELECOM/FIRE ALARM SHOWN ON THIS SITE PLAN.

DEMOLITION NOTES:

1. DEMOLISH EXISTING OVERHEAD PRIMARY ELECTRIC SERVICE/ TELECOMMUNICATIONS SERVICE ON EXISTING RISER POLES FROM THIS POINT TO EXISTING SCHOOL UNDER PHASE 2.

KEY NOTES:

1. SEPARATE UTILITY MANHOLES FOR NORMAL POWER, EMERGENCY POWER, AND FIRE ALARM/TELECOM UTILITY SERVICES. COORDINATE WITH UTILITIES FOR EXACT SPECIFICATIONS AND LOCATIONS.
2. ROUTE EACH DUCTBANK TO ITS RESPECTIVE UTILITY MANHOLE, TYP.
3. TRANSFORMER FRONT TO FACE STREET. COMPLY WITH ALL UTILITY GUIDELINES FOR INSTALLATION OF DUCTBANKS, TRANSFORMERS, ETC. REFER TO E0-1.4 FOR UTILITY STANDARD DETAILS.
4. PROVIDE 750VA TRANSFORMER AND PANELBOARD IN NEMA 3R PEDESTAL CABINET ON CONCRETE PAD WITH HANDHOLES FOR EVSE PARKING SPACE EQUIPMENT. PROVIDE (2) 1"-2" CONDUIT FROM PEDESTAL CABINET TO EACH OF TWO EVSE PARKING SPACES.
5. PROVIDE SEPARATE ELECTRICAL AND TELECOM HANDHOLES AT THIS LOCATION.
6. PROVIDE (2) 20A, 208V CIRCUITS AND COMMUNICATIONS CABLEING FROM PEDESTAL CABINET TO SCOREBOARD.
7. PROVIDE OUTLET BOXES, BRANCH CIRCUITRY AND CONNECTIONS FOR 5 ROWS OF LED CATENARY LIGHTING CONNECTED TO LIGHTING CONTROL SYSTEM AND PROGRAMMED FOR 3 SCENES OF LIGHTING.



DRA

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MSBA 90% CD  
Construction Document  
Submittal  
May 12th, 2023

PROJECT NORTH  
MAGNETIC NORTH

ELECTRICAL  
SITE PLAN

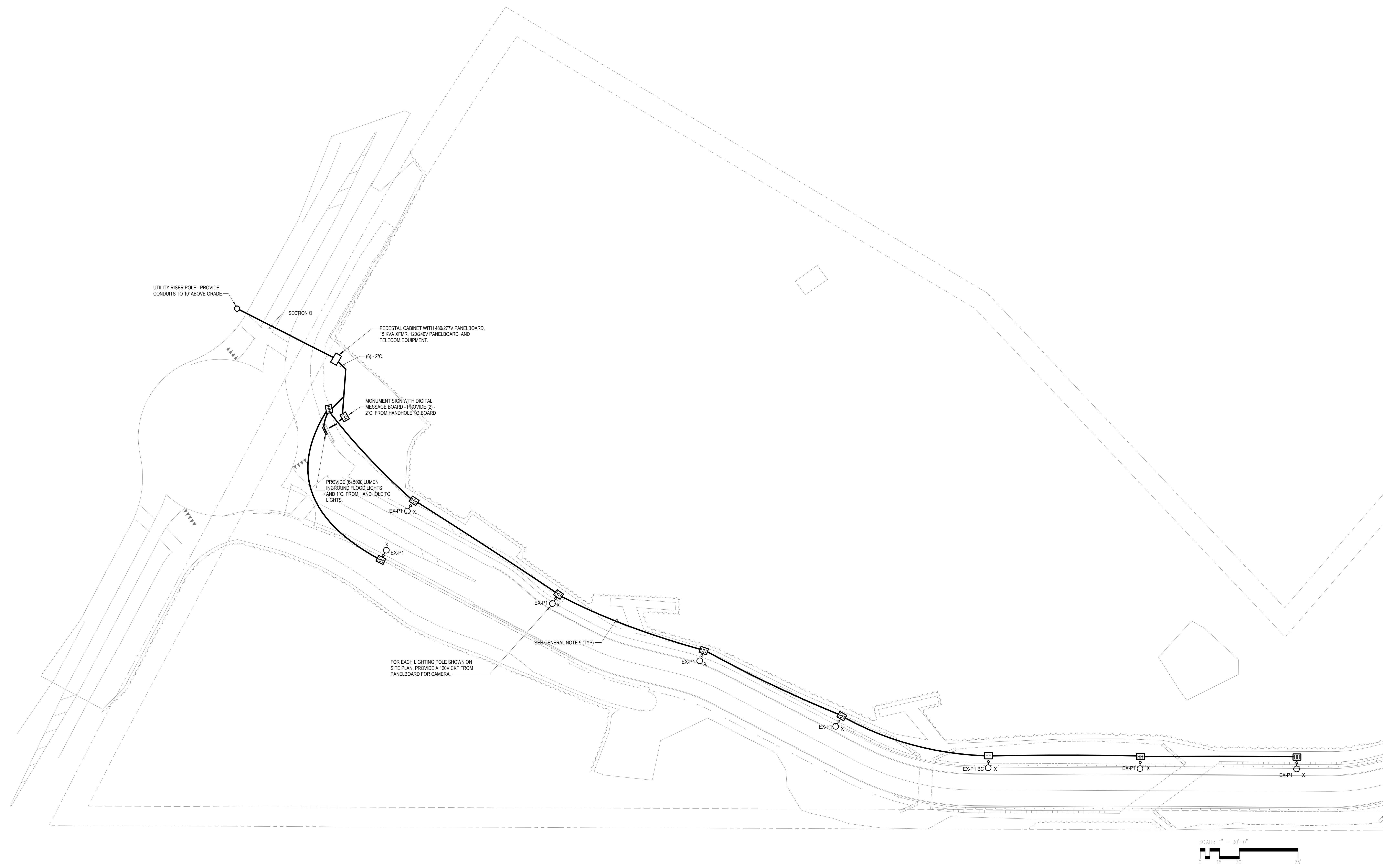
Scale: 1" = 30'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

E0-1-1



1. REFER TO E0-3 FOR NOTES ON ELECTRICAL SCOPES OF WORK.
2. REFER TO E0-3.0, 1. AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO E0-14.5, 6. AND 7 FOR ADDITIONAL SITE DETAILS. REFER TO E0-15 FOR DUCTBANK SECTIONS.
4. ALL UNDERGROUND CONDUITS SHALL BE IN CONCRETE ENCASED DUCTBANKS UNLESS OTHERWISE NOTED.
5. REFER TO DIVISION 8 AND 1 SPECIFICATIONS FOR ADDITIONAL DETAIL ON AND ALTERNATES.
6. REFER TO TELECOMMUNICATIONS DRAWINGS FOR LOCATION OF CCTV DEVICES AND TYPE AND QUANTITY OF CABLES TO BE INSTALLED BY ELECTRICAL CONTRACTOR.
7. ALL EQUIPMENT LOCATIONS AND DUCTBANK ROUTING SHOWN ARE DIAGRAMMATIC. ELECTRICAL AND GENERAL CONTRACTOR SHALL FIELD COORDINATE EXACT LOCATION OF EQUIPMENT AND ROUTING OF DUCTBANKS.
8. UNLESS OTHERWISE NOTED, ALL LINEWORK SHOWN ON THIS SHEET BETWEEN EQUIPMENT DEPICTS UNDERGROUND ELECTRICAL DUCTBANKS.
9. DUCTBANK SECTION CANNOTS ARE SHOWN ON SHEET E0-15. IF THE DUCTBANK SECTION IS NOT INDICATED ON THE SITE PLAN, PROVIDE SECTION "A" AS DISPLAYED ON E0-15.

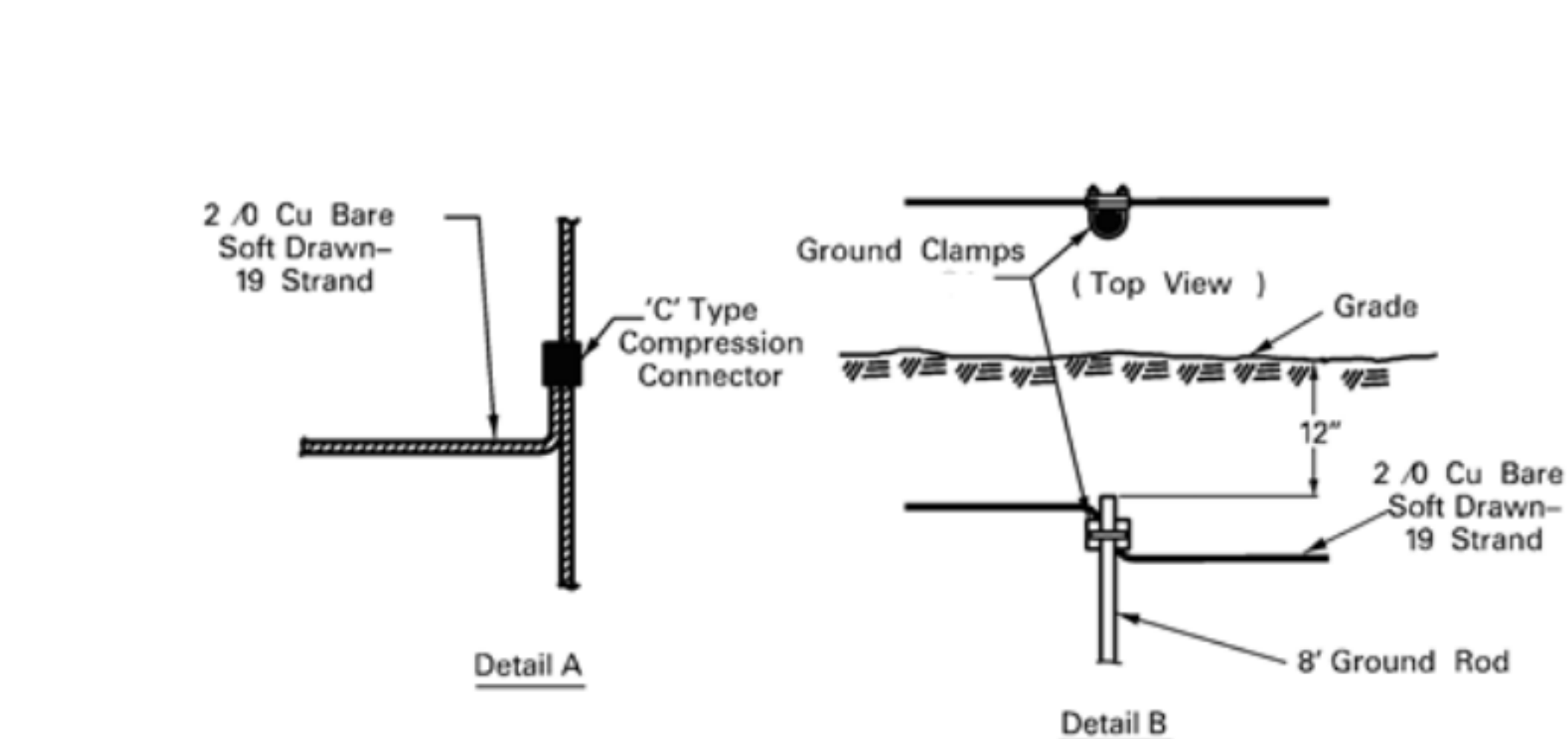
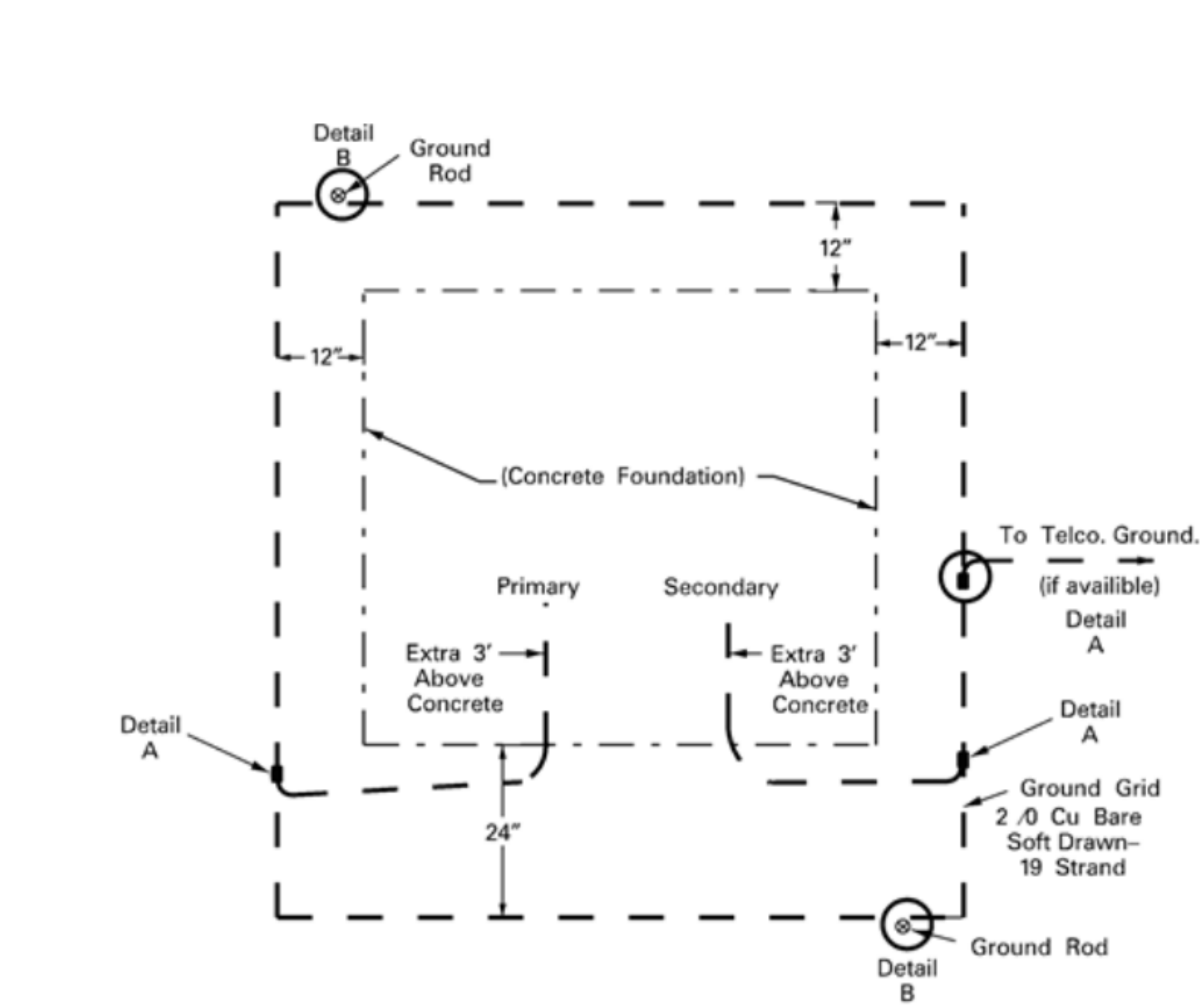
1. REFER TO E0-1.5 FOR SITE LIGHTING FIXTURE SCHEDULE. PROVIDE POLE FOR LIGHTING FIXTURE, WITH HEIGHT TO MATCH FIXTURE MOUNTING HEIGHT SHOWN ON LIGHTING FIXTURE SCHEDULE.
2. UNLESS OTHERWISE NOTED, ALL SITE LIGHTING SHALL BE EQUIPPED WITH INTEGRAL PHOTOCELLS.
3. POWER WIRING FOR ALL SITE LIGHTING CIRCUITS SHALL BE MINIMUM #6 AWG.
4. PROVIDE A SEPARATE HANDHOLE FOR EACH SITE LIGHTING POLE. REFER TO DETAIL FOR SIZE REQUIREMENTS.
5. FOR CLARITY, CONDITIONS FROM HANDHOLE TO ITS ASSOCIATED LIGHTING POLE AREA NOT SHOWN ON THIS SITE PLAN. REFER TO E0-1.5 FOR DETAIL ON CONDITIONS REQUIRED BETWEEN EACH LIGHTING/SPORTS LIGHTING POLE AND ITS ASSOCIATED HANDHOLE.
6. SITE LIGHTING POLES ARE REPRESENTED BY VARIOUS SYMBOLS. REFER TO SITE LIGHTING FIXTURE SCHEDULE FOR FIXTURE IDS AND PROVIDE SITE LIGHTING POLE AND FIXTURE WHERE FIXTURE ID IS SHOWN ON THIS SITE PLAN.



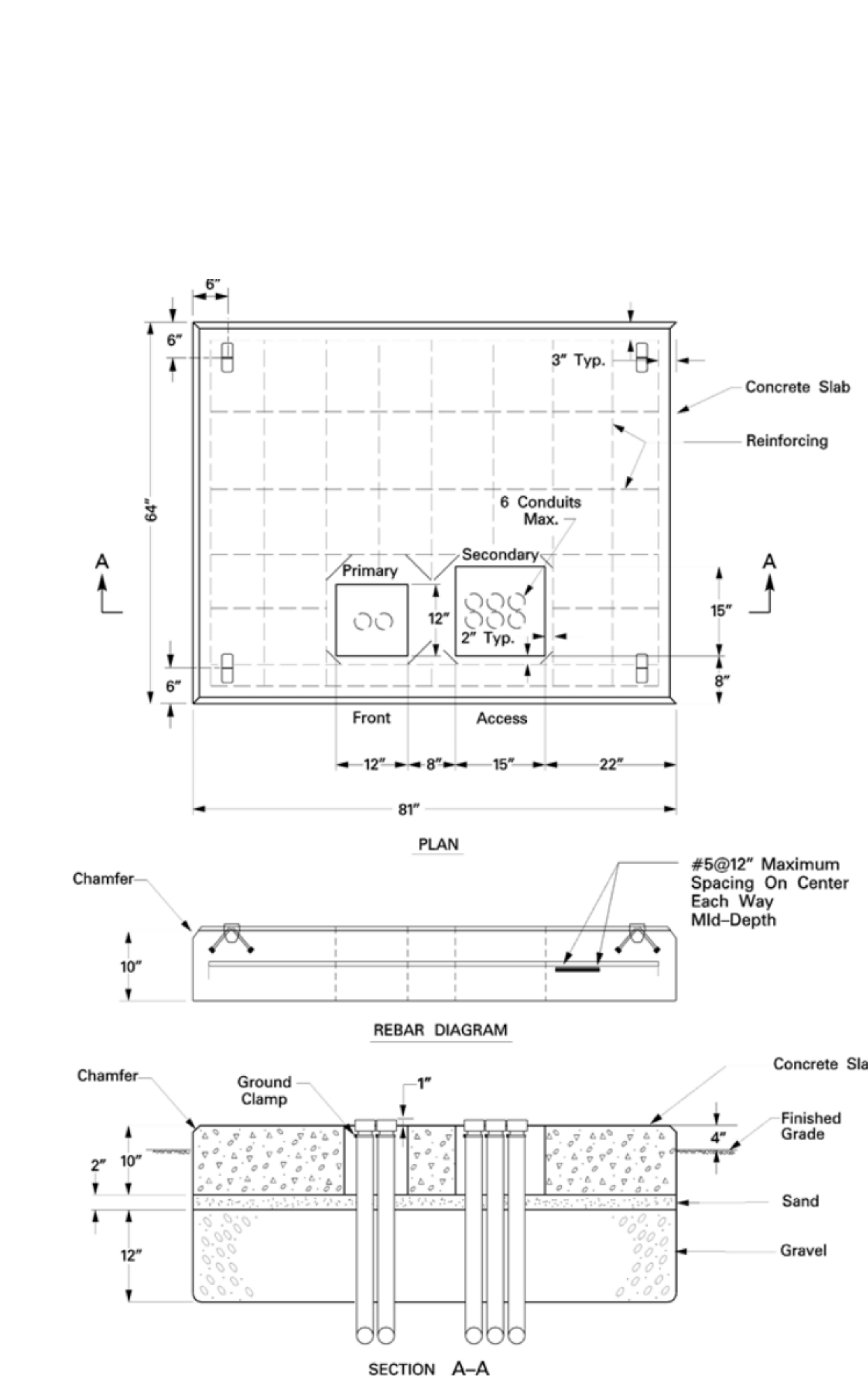




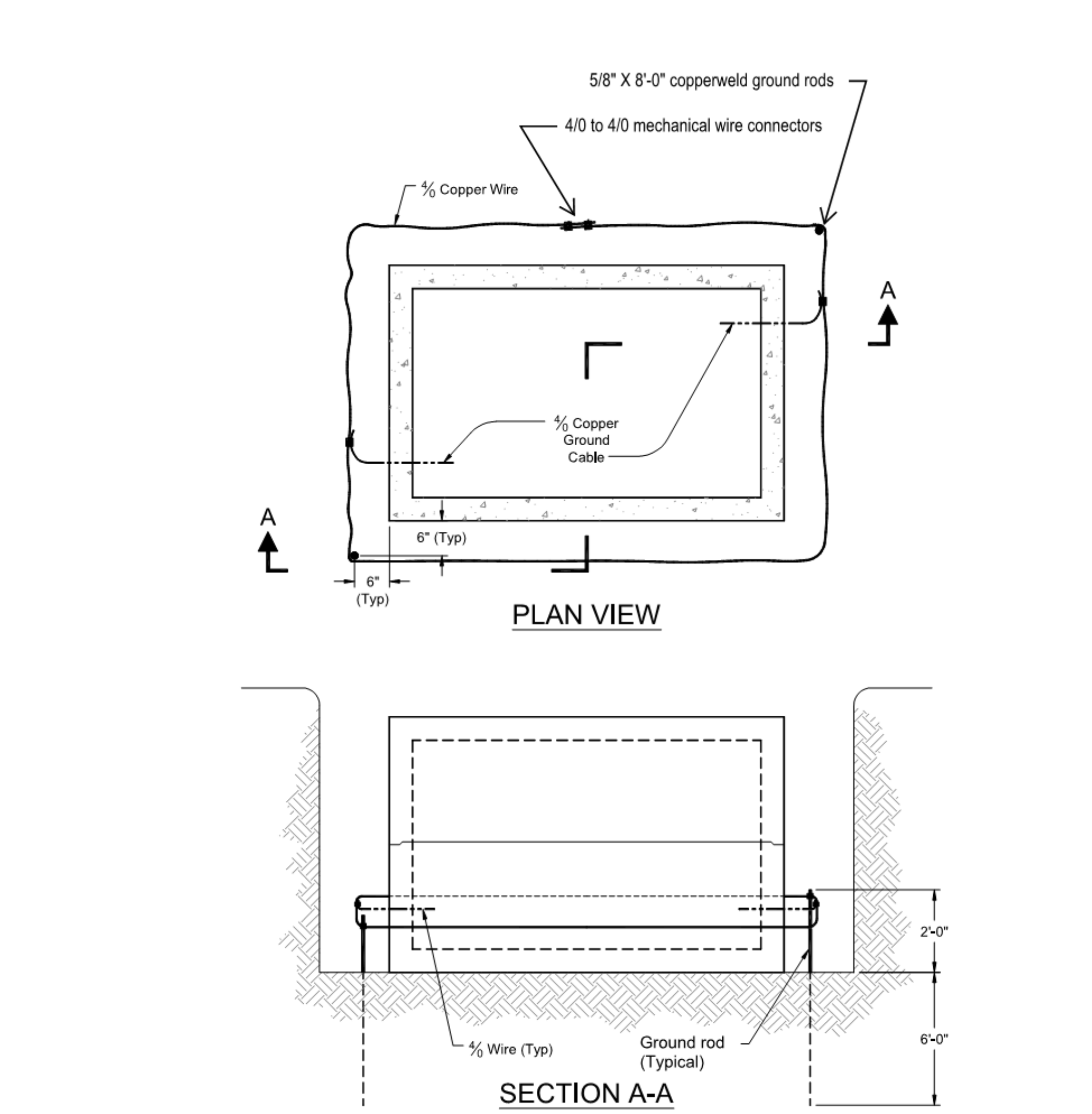
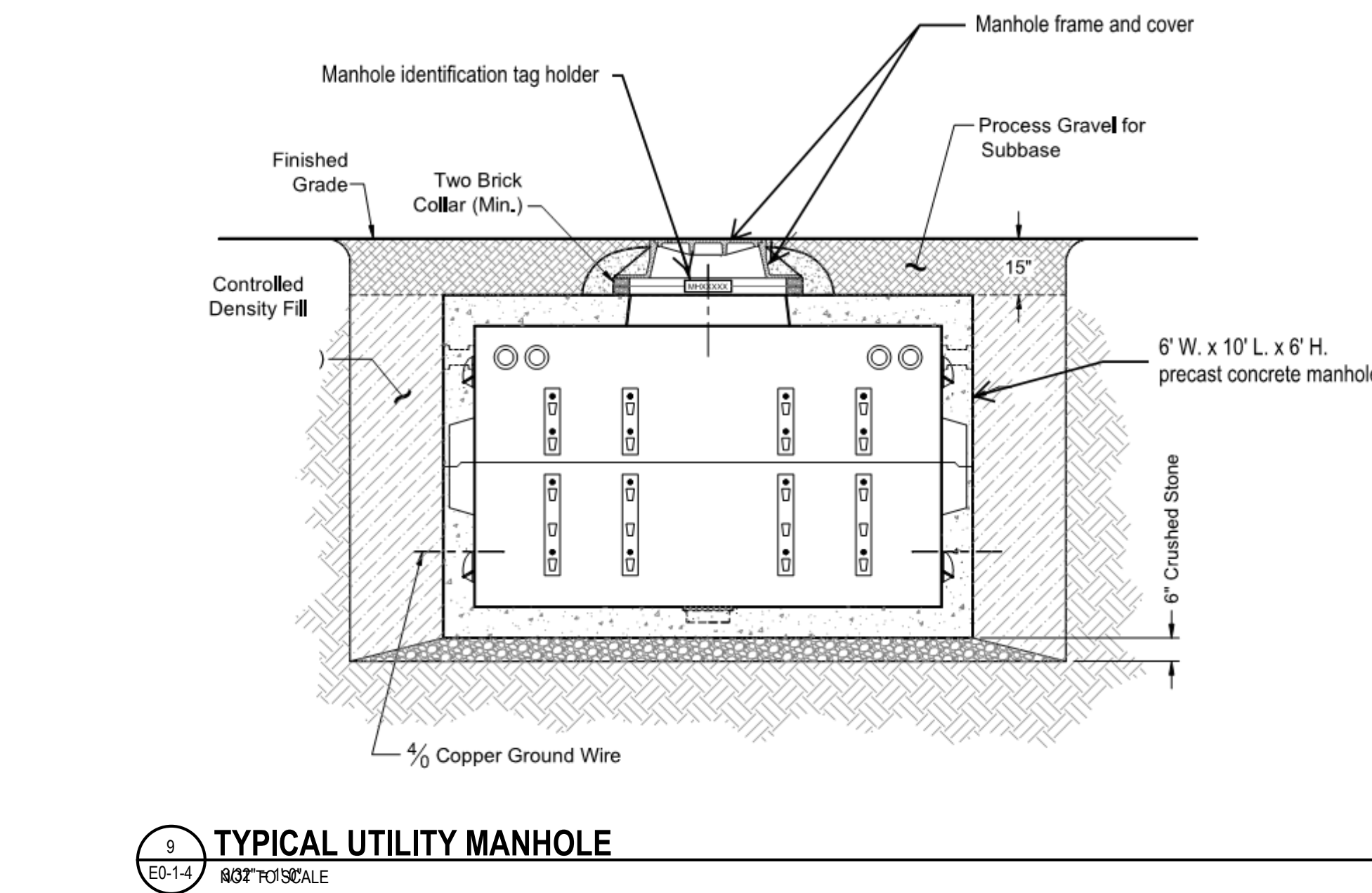




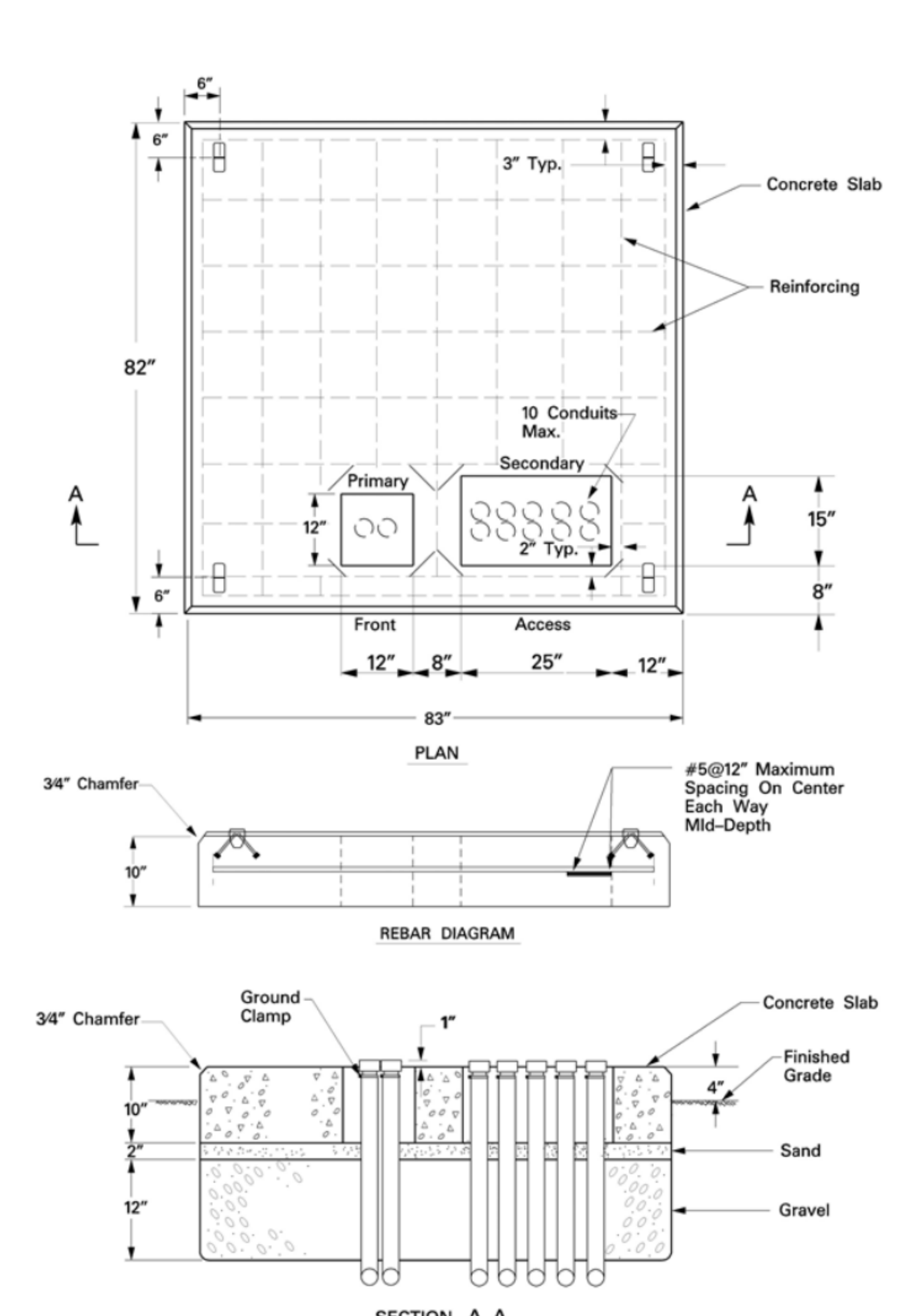
1 WMLD XFMR GROUND GRID DETAIL  
1/8" = 1'-0"



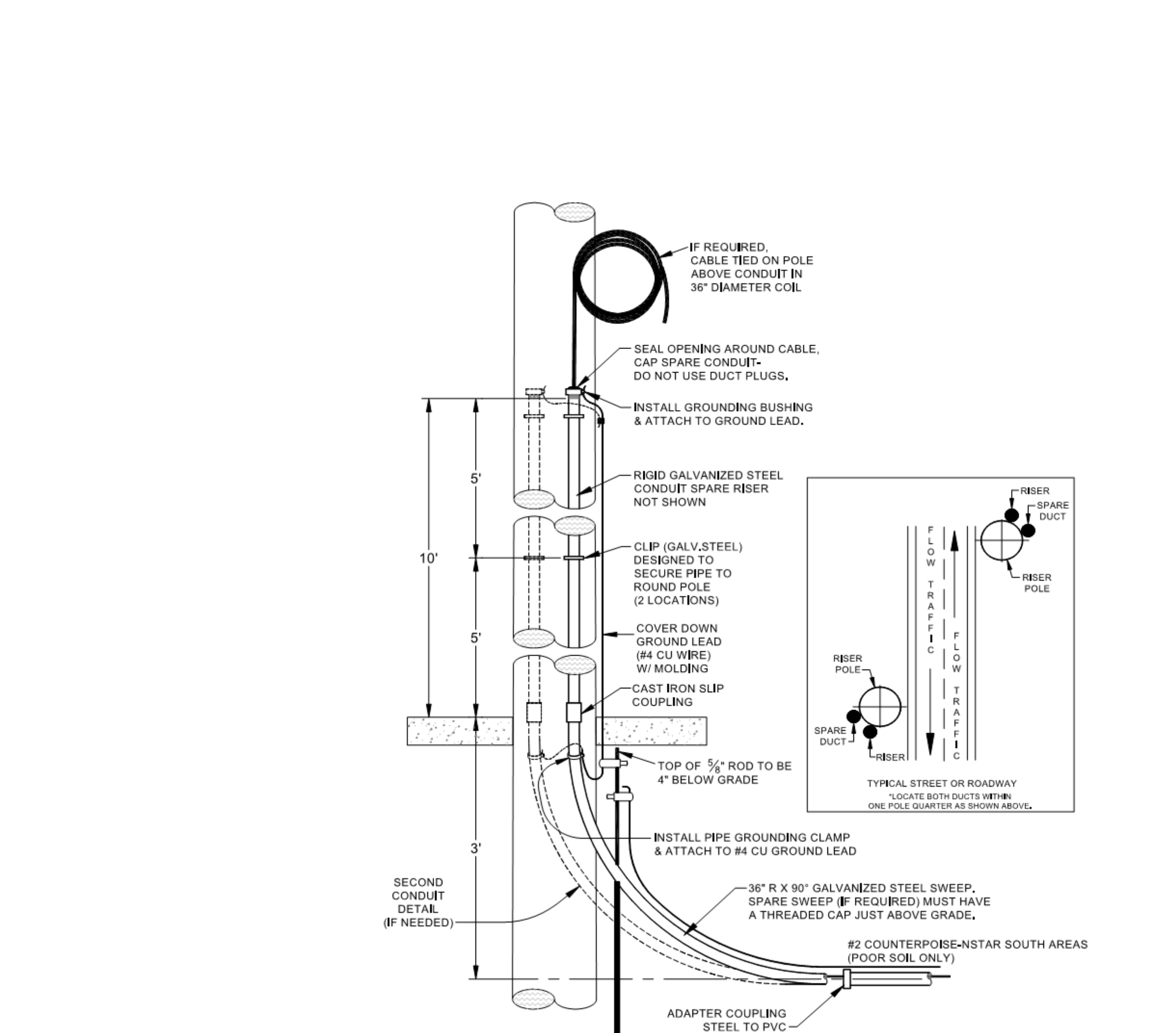
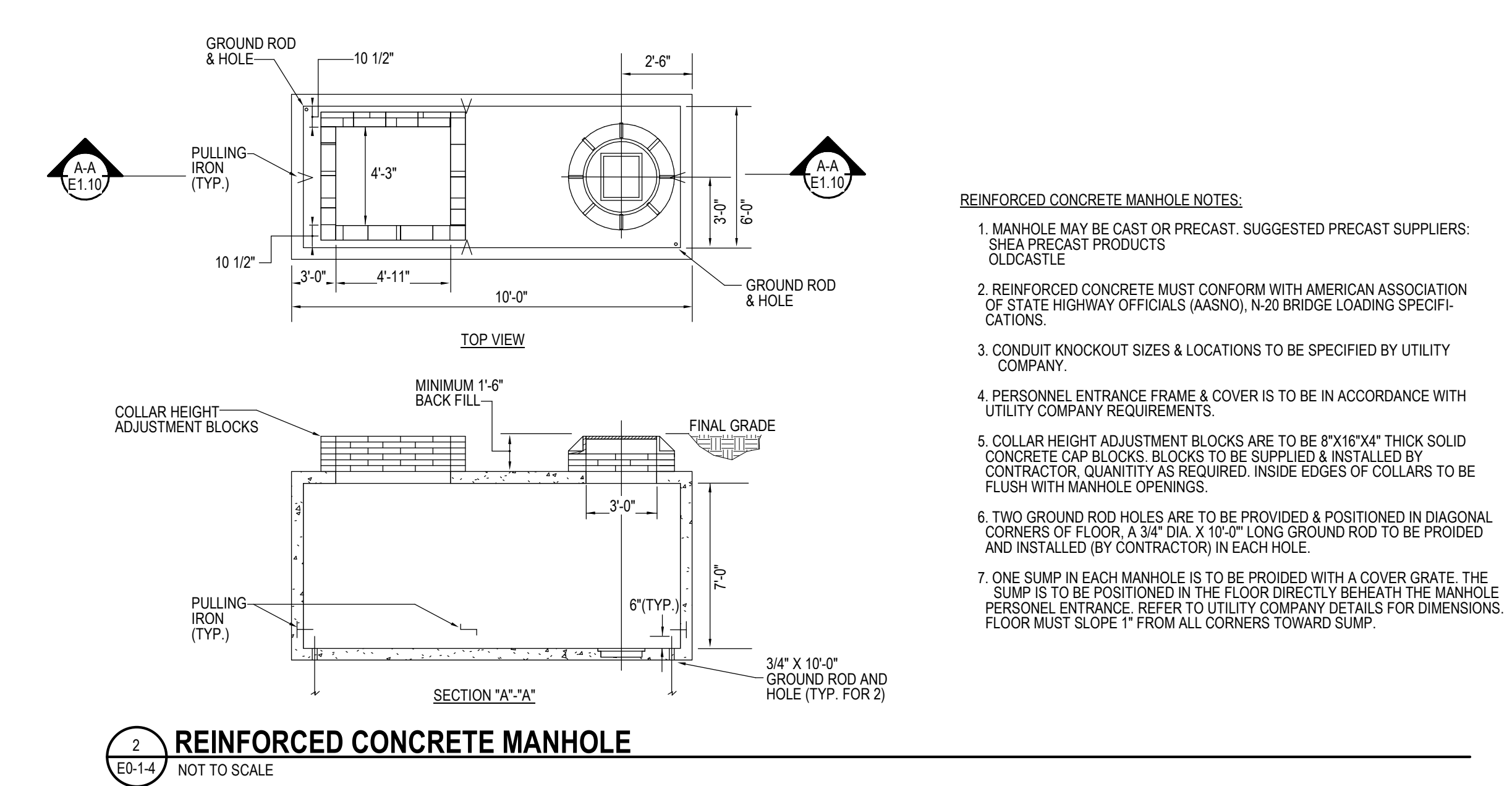
3 WMLD 15KV 75-500KVA TRANSFORMER PAD DETAIL  
1/8" = 1'-0"



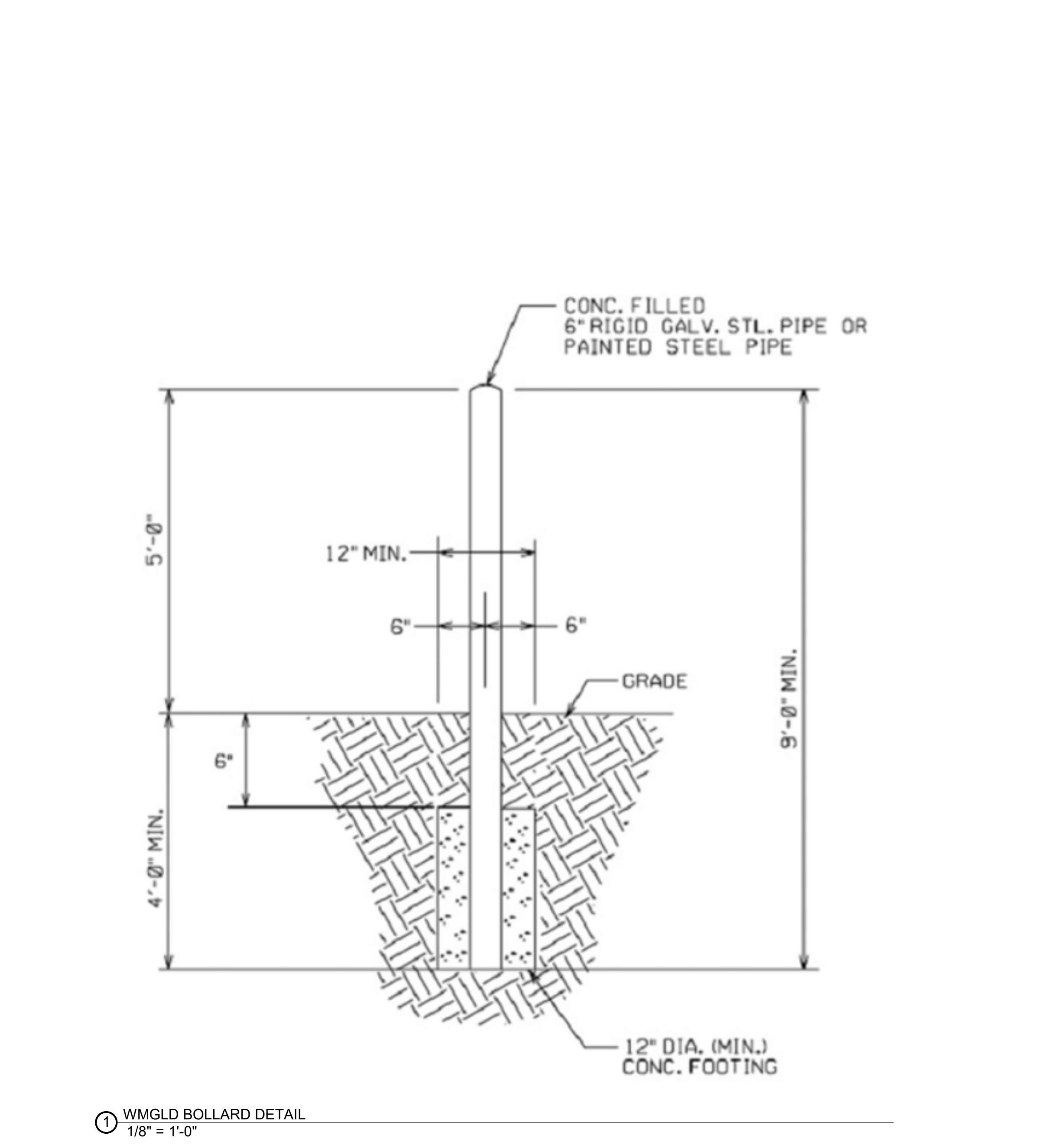
5 WMLD 15KV 750-2500KVA TRANSFORMER PAD DETAIL  
1/8" = 1'-0"



6 WMLD 15KV 750-2500KVA TRANSFORMER PAD DETAIL  
1/8" = 1'-0"



8 WMLD BOLLARD DETAIL  
1/8" = 1'-0"



9 WMLD BOLLARD DETAIL  
1/8" = 1'-0"

# DRA

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MSBA 90% CD Construction Document Submittal  
May 12th, 2023

PROJECT NORTH

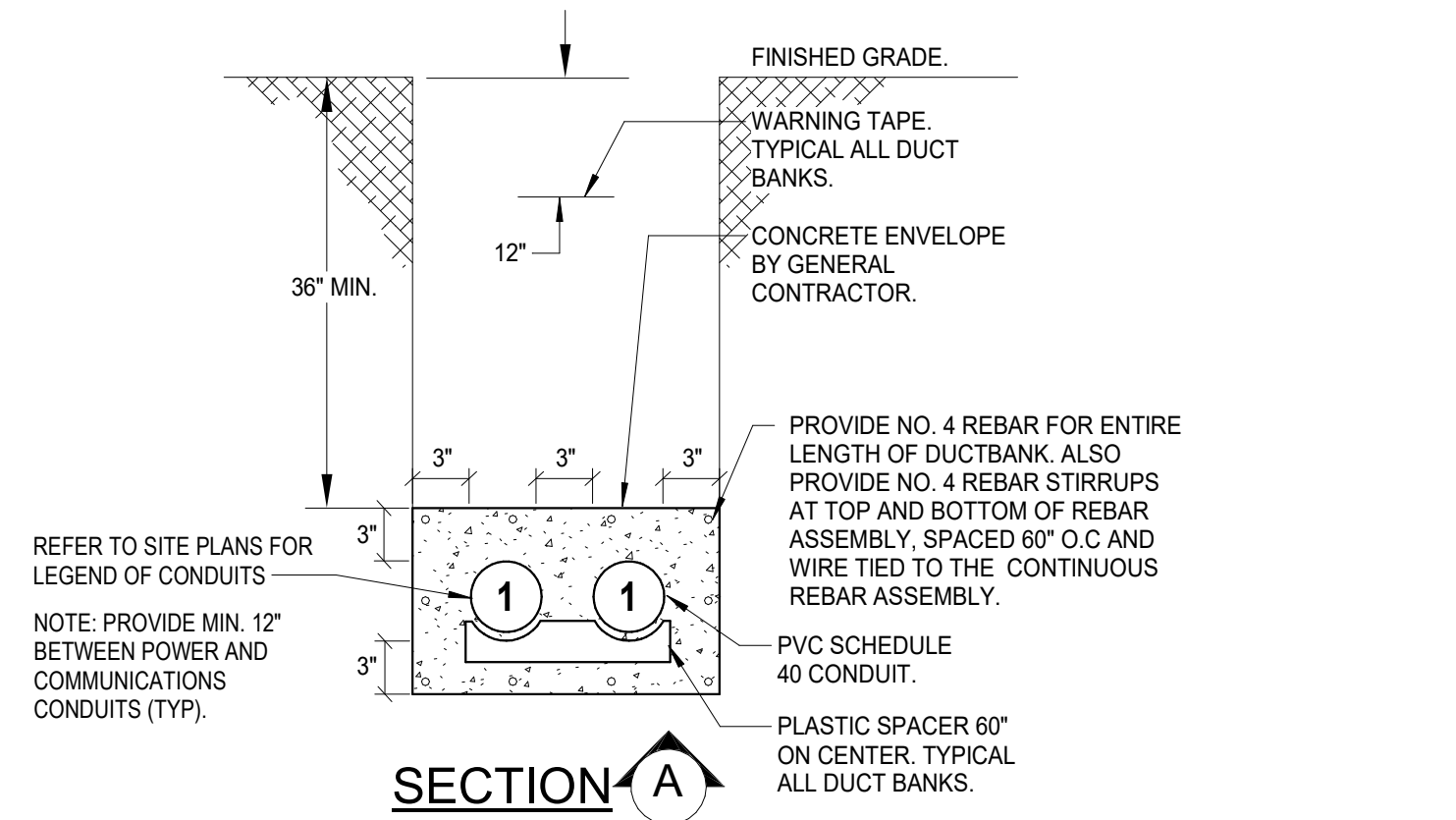
MAGNETIC NORTH

### SITE DETAILS

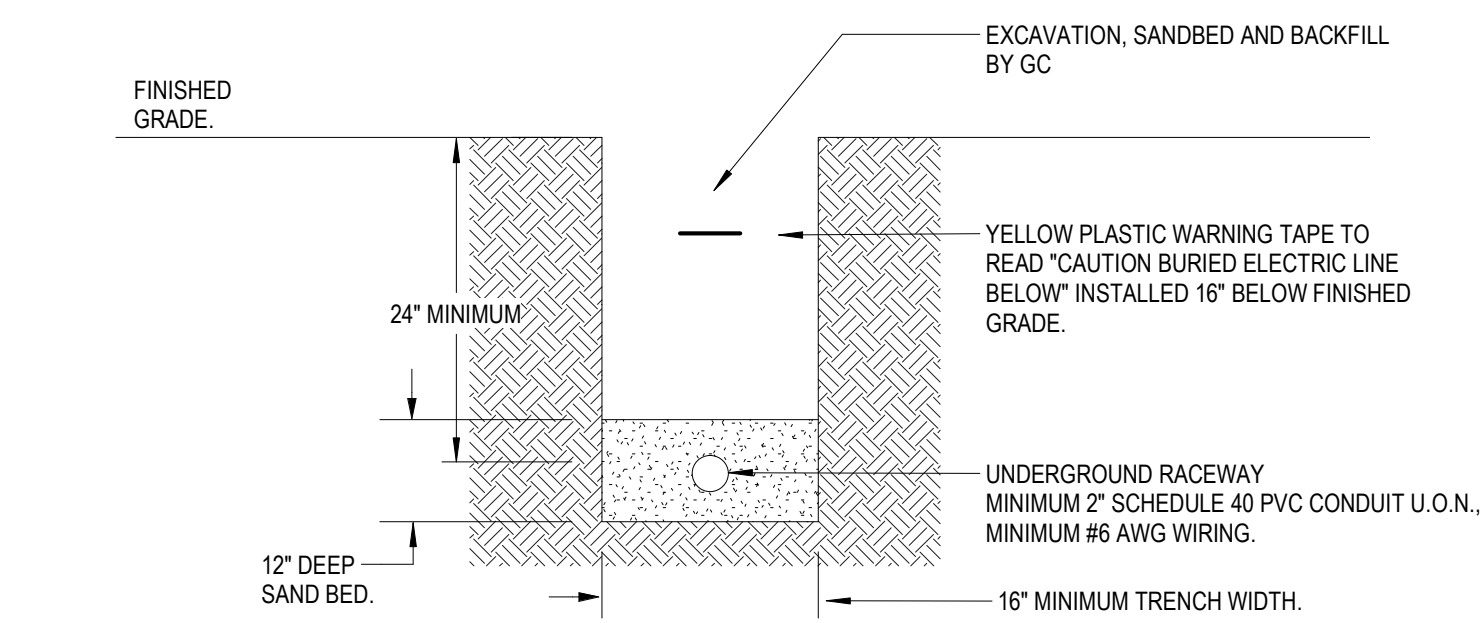
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Job No: INK60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

**E0-1-4**

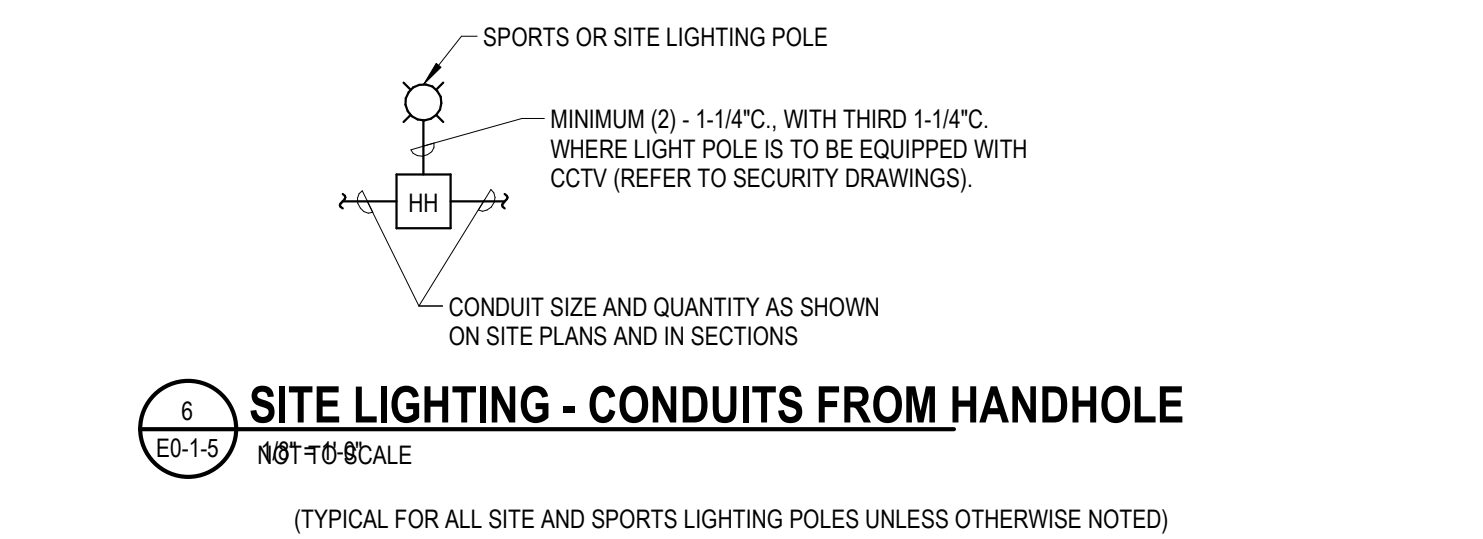




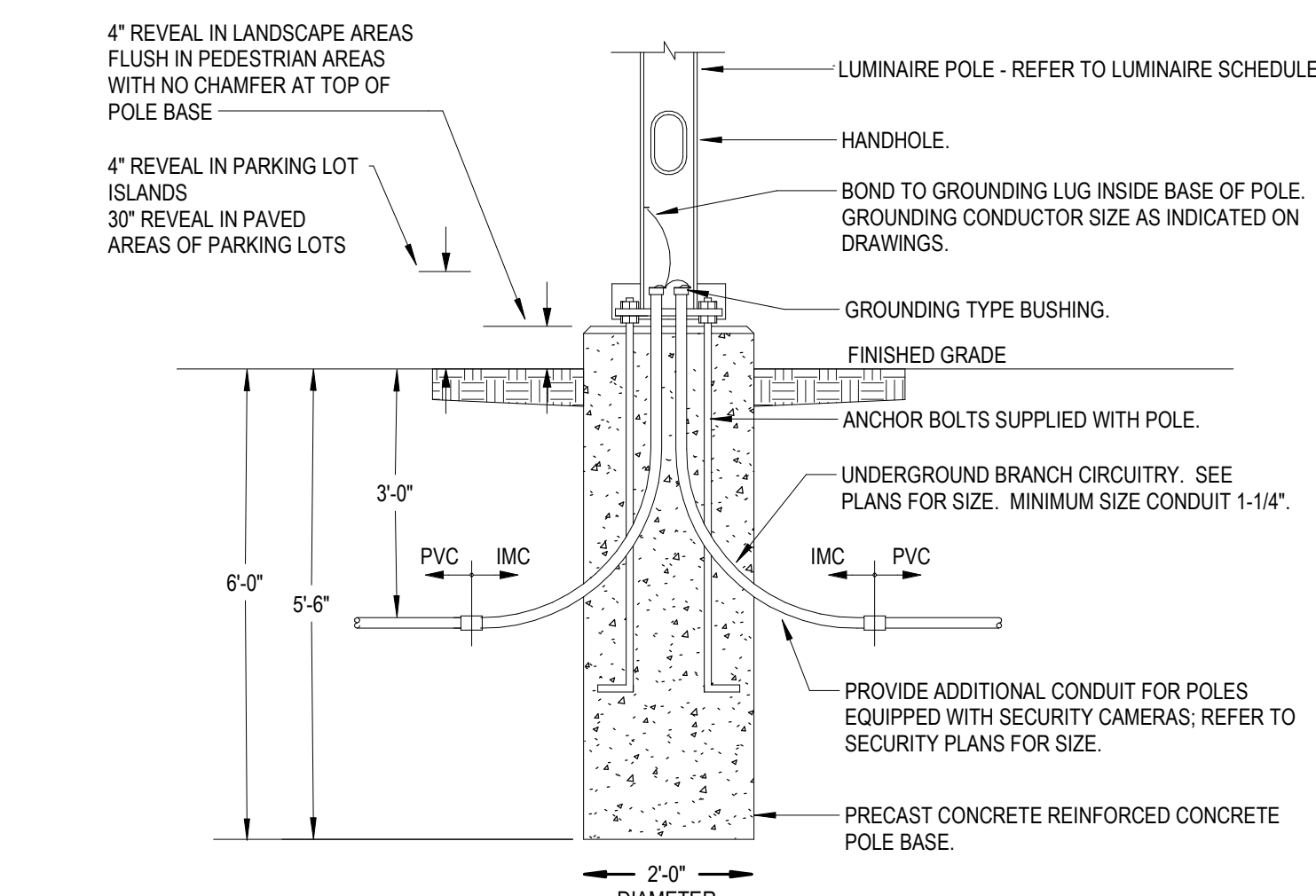
1  
REV 1.5  
TYPICAL CONCRETE ENCASED DUCTBANK DETAIL  
NBT #0 SCALE



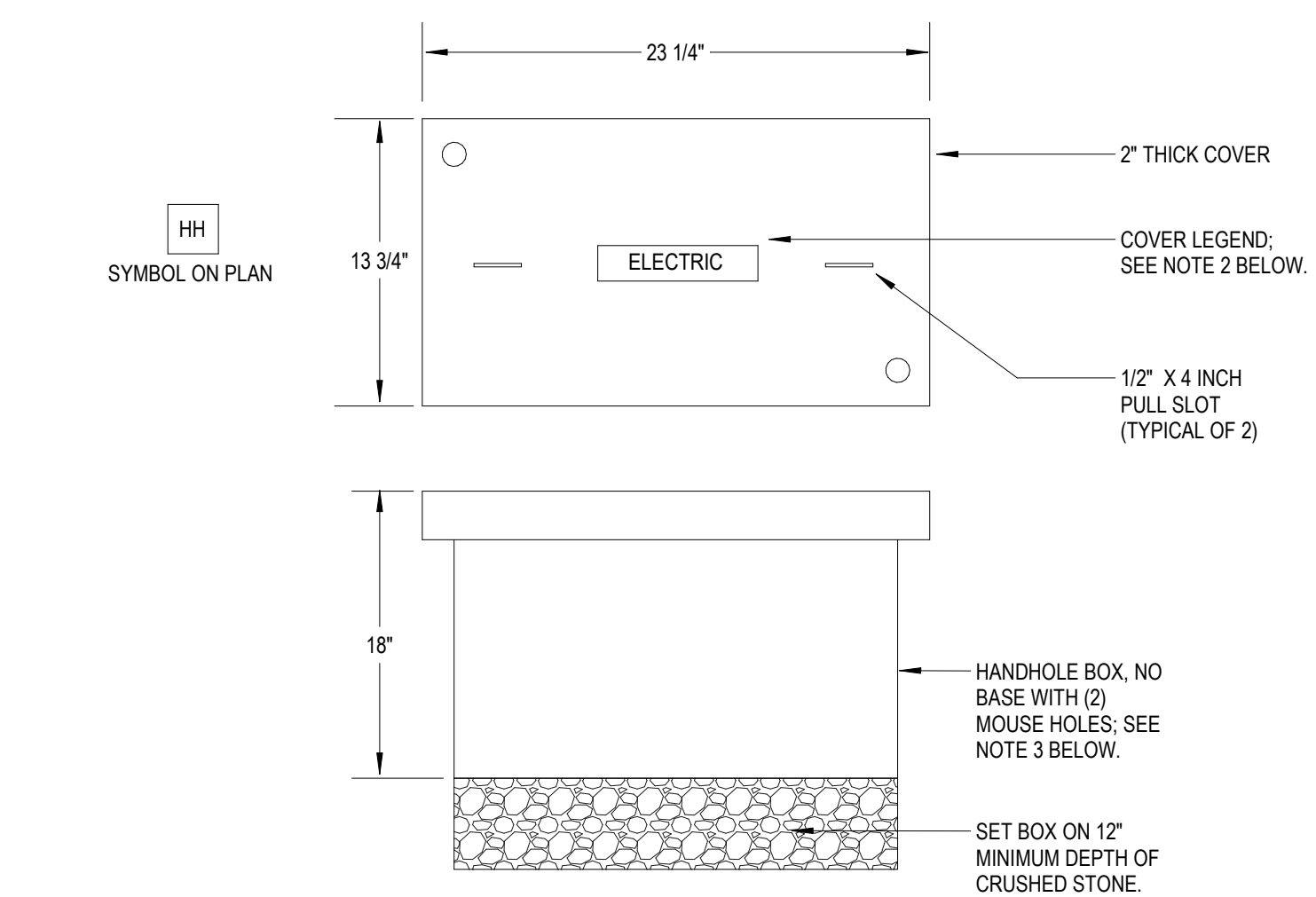
3  
REV 1.5  
TYPICAL DIRECT BURIED RACEWAY DETAIL  
NBT #0 SCALE



6  
REV 1.5  
SITE LIGHTING - CONDUITS FROM HANDHOLE  
NBT #0 SCALE

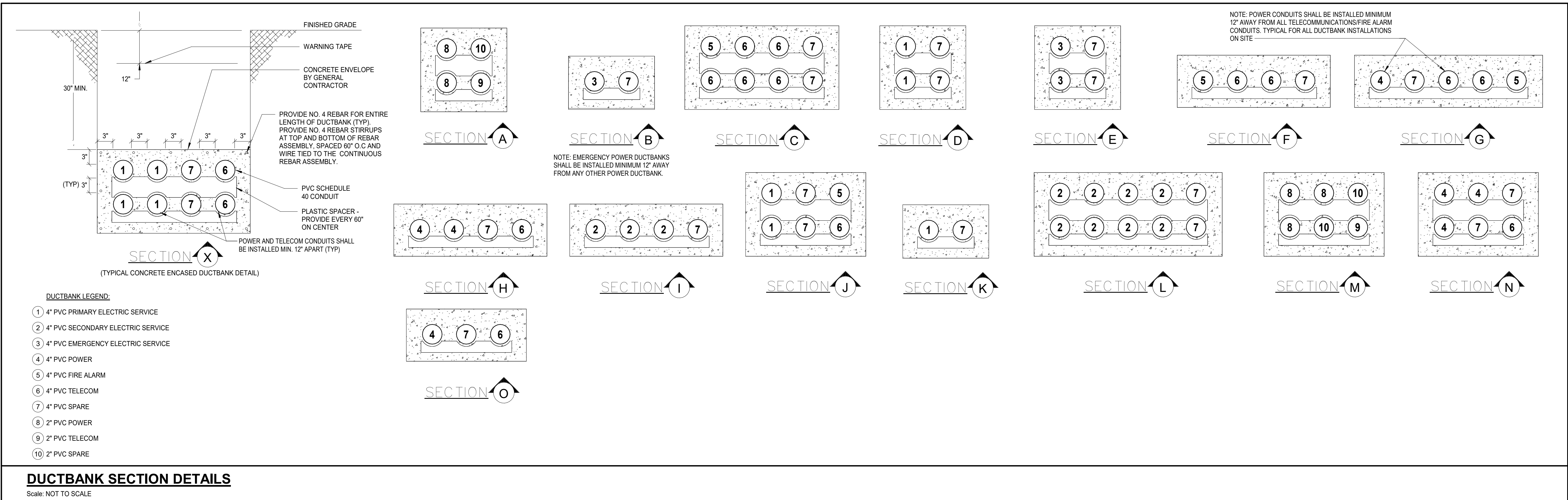


4  
REV 1.5  
PRECAST CONCRETE POLE BASE DETAIL  
NBT #0 SCALE



2  
REV 1.5  
TYPICAL STACKABLE HANDHOLE DETAIL  
NBT #0 SCALE

| NORTHEAST METROTECH SITE LIGHTING FIXTURE SCHEDULE |              |                                           |                      |            |           |         |       |           |                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------|--------------|-------------------------------------------|----------------------|------------|-----------|---------|-------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TYPE                                               | MANUFACTURER | CATALOG NUMBER                            | MOUNTING HEIGHT (FT) | DIST. TYPE | VOLTS     | LUMENS  | WATTS | CCT       | PRODUCT LINKS                                                                                                                                                                                                                                                                                                                                                   |
| EX-B1                                              | STERNBERG    | PT16-RT403-26L30T2-MDL05-SV2-FINISH       | 16                   | TYPE 2     | 120V-277V | 3440lm  | 49W   | 3000K LED | <a href="https://www.sternberglighting.com/files/view-file/supportfiles/2bfe6fb155b3e1b63aa18a17e567dbb9/504/locale_file/rt403-rialta-spec-sheet.pdf">https://www.sternberglighting.com/files/view-file/supportfiles/2bfe6fb155b3e1b63aa18a17e567dbb9/504/locale_file/rt403-rialta-spec-sheet.pdf</a>                                                           |
| EX-F1                                              | STERNBERG    | 1A-FL530-1L30T5-MDL07-SV2-FO1S-FINISH     | 14                   | TYPE 5     | 120V-277V | 4280lm  | 41W   | 3000K LED | <a href="https://www.sternberglighting.com/files/view-file/supportfiles/d7a8e9cff7d1e0518af05ae81b2a13ee/16/locale_file/fl530-cob-flight-series.pdf">https://www.sternberglighting.com/files/view-file/supportfiles/d7a8e9cff7d1e0518af05ae81b2a13ee/16/locale_file/fl530-cob-flight-series.pdf</a>                                                             |
| EX-F1                                              | STERNBERG    | RSS14F400-D1-SL900-4-FINISH               | 14                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://www.sternberglighting.com/files/view-file/supportfiles/b3c3cbcddeb2a3ce920929055718fa5c/483/locale_file/rss-urban-line-round-straight-steel-poles-spec-sheet.pdf">https://www.sternberglighting.com/files/view-file/supportfiles/b3c3cbcddeb2a3ce920929055718fa5c/483/locale_file/rss-urban-line-round-straight-steel-poles-spec-sheet.pdf</a> |
| EX-P1                                              | BEACON       | VP-1-160L-100-3K7-2-UNV-A4-FINISH         | 24                   | TYPE 2     | 120V-277V | 12500lm | 98W   | 3000K LED | <a href="https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf">https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf</a>                                                                                                                                                                                                                 |
| EX-P1                                              | BEACON       | RSS-B-24-50-B-1-B3-FINISH-RBC             | 24                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf">https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf</a>                                                                                                                                                                                       |
| EX-P1 BC                                           | BEACON       | VP-1-160L-100-3K7-2-UNV-A4-FINISH-BC      | 24                   | TYPE 2     | 120V-277V | 5892lm  | 98W   | 3000K LED | <a href="https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf">https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf</a>                                                                                                                                                                                                                 |
| EX-P1 BC                                           | BEACON       | RSS-B-24-50-B-1-B3-FINISH-RBC             | 24                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf">https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf</a>                                                                                                                                                                                       |
| EX-P2                                              | BEACON       | VP-1-160L-100-3K7-4W-UNV-A4-FINISH        | 24                   | TYPE 4W    | 120V-277V | 12500lm | 98W   | 3000K LED | <a href="https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf">https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf</a>                                                                                                                                                                                                                 |
| EX-P2                                              | BEACON       | RSS-B-24-50-B-1-B3-FINISH-RBC             | 24                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf">https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf</a>                                                                                                                                                                                       |
| EX-P3                                              | BEACON       | VP-1-160L-100-3K7-4W-UNV-A4-FINISH        | 24                   | TYPE 4W    | 120V-277V | 12500lm | 98W   | 3000K LED | <a href="https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf">https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf</a>                                                                                                                                                                                                                 |
| EX-P3                                              | BEACON       | RSS-B-24-50-B-2-B3-FINISH-RBC             | 24                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf">https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf</a>                                                                                                                                                                                       |
| EX-P4                                              | BEACON       | VP-1-160L-100-3K7-5QW-UNV-A4-FINISH       | 24                   | TYPE 5QW   | 120V-277V | 12500lm | 98W   | 3000K LED | <a href="https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf">https://cdn.currentlighting.com/site/specsheet/BEA_VIPERSPEC.pdf</a>                                                                                                                                                                                                                 |
| EX-P4                                              | BEACON       | RSS-B-24-50-B-1-B3-FINISH-RBC             | 24                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf">https://cdn.currentlighting.com/site/specsheet/spec_sheet_rss_pole_beacon.pdf</a>                                                                                                                                                                                       |
| EX-W1                                              | CREE         | OSQ-M-B-16L-30K7-4M-UL-OSQ-ML-B-DA-FINISH | 25                   | TYPE 4M    | 120V-277V | 16000lm | 104W  | 3000K LED | <a href="https://cree.widen.net/s/nv688mlj6n/osq-series-version-b-spec-sheet">https://cree.widen.net/s/nv688mlj6n/osq-series-version-b-spec-sheet</a>                                                                                                                                                                                                           |
| EX-W1                                              | CREE         | WM-DM-FINISH                              | 25                   | N/A        | N/A       | N/A     | N/A   | N/A       | <a href="https://cree.widen.net/s/h58g7wg9bp/bracket-and-tenon-spec-sheet-for-pole-and-wall-mount">https://cree.widen.net/s/h58g7wg9bp/bracket-and-tenon-spec-sheet-for-pole-and-wall-mount</a>                                                                                                                                                                 |



DUCTBANK SECTION DETAILS  
Scale: NOT TO SCALE

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Wakefield, MA 01880

**BALA ENGINEERS**

MSBA 90% CD Construction Document Submittal  
May 12th, 2023

PROJECT NORTH

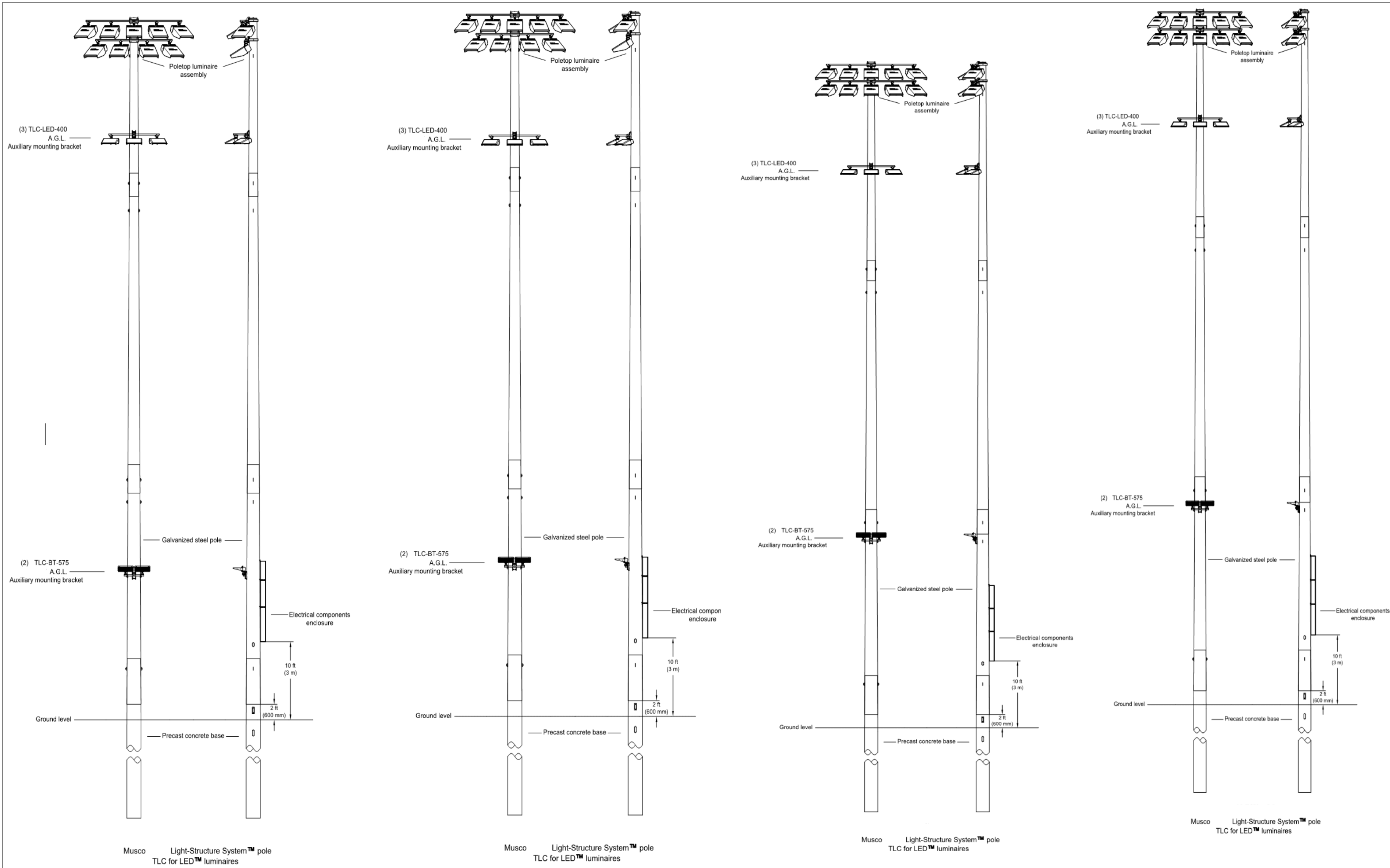
MAGNETIC NORTH

**SITE DETAILS**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

**E0-1-5**

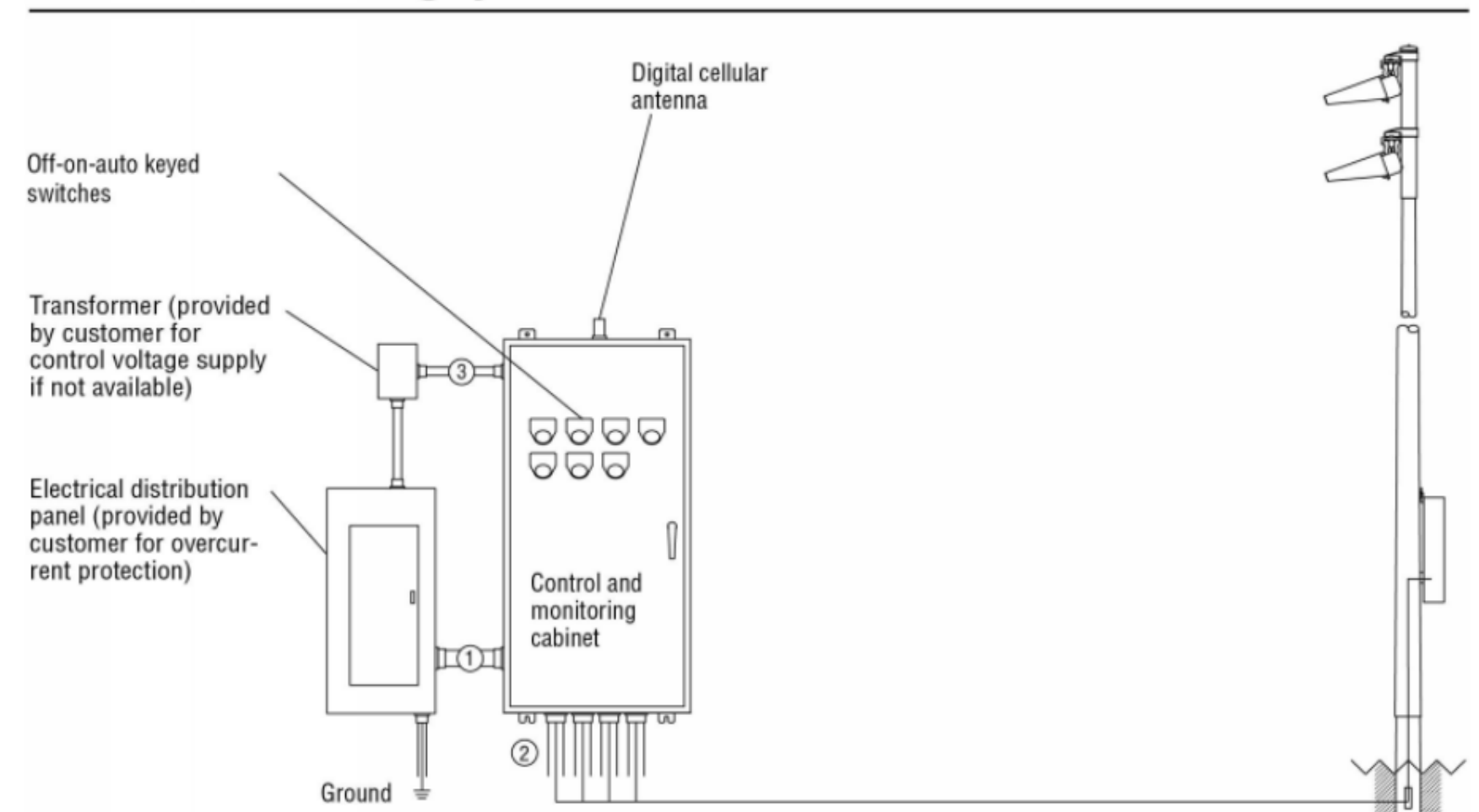




## LIGHTING SYSTEM DETAILS

NOT TO SCALE

## Control-Link. Control and Monitoring System

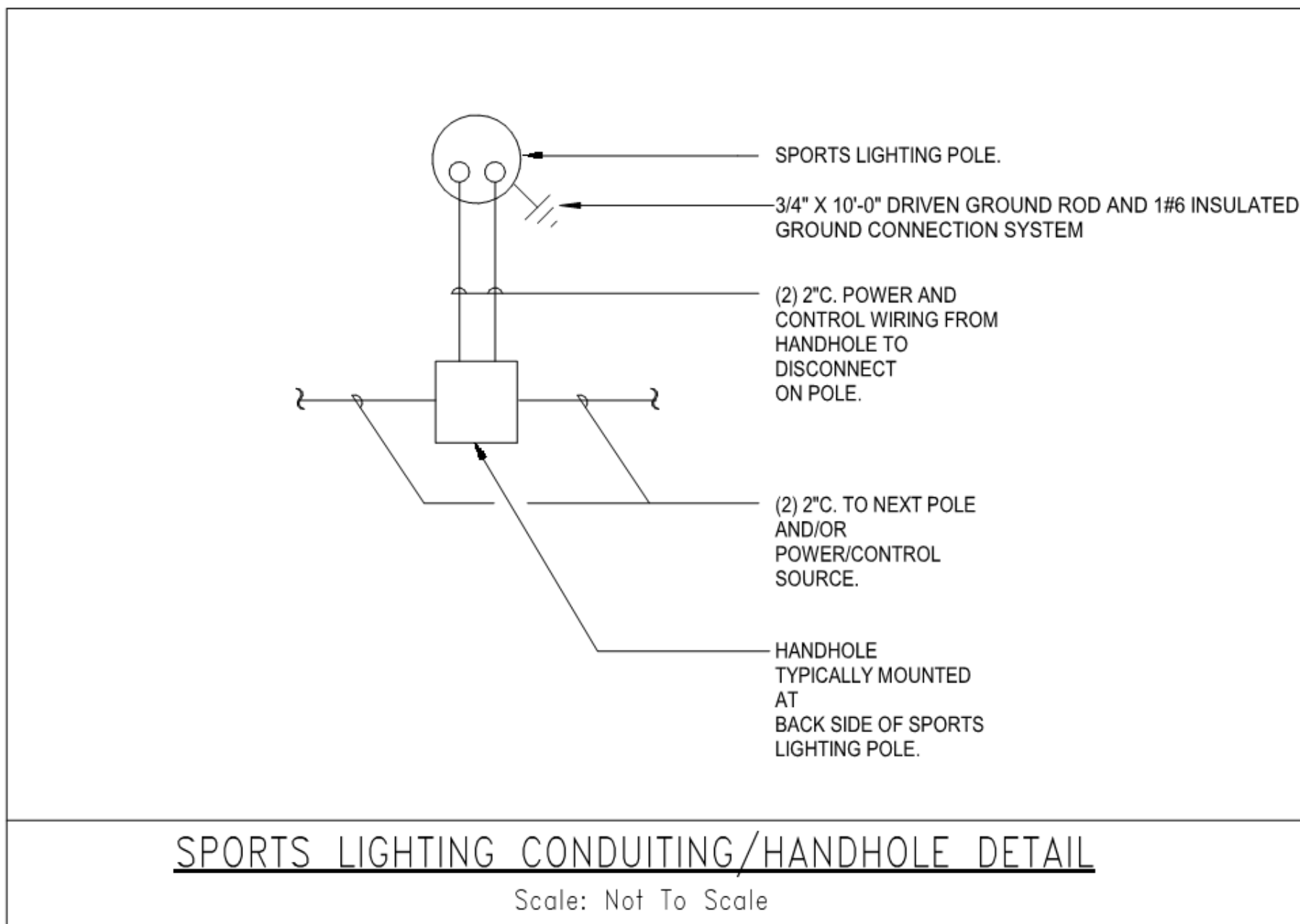


| Conduit # | Description                                                        | # of Wires | Wire Size (AWG) | Conduit Size (in) | Max. Wire Length (ft) | WEGCO Supplied | Notes |
|-----------|--------------------------------------------------------------------|------------|-----------------|-------------------|-----------------------|----------------|-------|
| 1         | Line power to contactors, and equipment grounding conductor        | *A         | *B              | *C                | N/A                   | No             | A-E   |
| 2         | Power-line Communication Connection (dedicated, 20A)               | *A         | 12              | *C                | N/A                   | No             | A-E   |
| 3         | Load power to lighting circuits, and equipment grounding conductor | *A         | *B              | *C                | N/A                   | No             | A-E   |
| 4         | Control power (dedicated, 20A)                                     | 3          | 12              | *C                | N/A                   | No             | C,E   |

\* Notes:  
A. See voltage and phasing per the notes on cover page.  
B. Calculate per load and voltage drop.  
C. All conduit diameters should be per code unless otherwise specified to allow for connector size.  
D. Equipment grounding conductor and any splices must be insulated.  
E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.

IMPORTANT: Control wires (3) must be in separate conduit from line and load power wires (1, 2).

## CONTROL AND MONITORING SYSTEM DETAIL



### SPORTS LIGHTING CONDUITING/HANDHOLE DETAIL

Scale: Not To Scale

| Panel: HSP        |                     |       |            |       |                            |        |      |       |        |                |                     |           |    |  |
|-------------------|---------------------|-------|------------|-------|----------------------------|--------|------|-------|--------|----------------|---------------------|-----------|----|--|
| Location:         |                     |       |            |       | Volts: 480/277 Wye         |        |      |       |        | A.I.C. Rating: |                     |           |    |  |
| Enclosure: Type 1 |                     |       |            |       | MCB Rating: 250 A          |        |      |       |        |                |                     |           |    |  |
| CKT               | Circuit Description | Type  | Trip       | Poles | A                          | B      | C    | Poles | Trip   | Type           | Circuit Description | CKT       |    |  |
| 1                 |                     |       |            |       | 553...                     | 0 VA   |      |       |        |                |                     | 2         |    |  |
| 3                 | CONTACTOR           |       | 30 A       | 3     |                            | 553... | 0 VA |       |        | 3              | 30 A                | CONTACTOR | 4  |  |
| 5                 |                     |       |            |       |                            |        |      |       |        |                |                     | 6         |    |  |
| 7                 |                     |       |            |       | 0 VA                       | 0 VA   |      |       | 553... | 0 VA           |                     | 8         |    |  |
| 9                 | CONTACTOR           |       | 30 A       | 3     |                            |        | 0 VA | 0 VA  |        | 3              | 30 A                | CONTACTOR | 10 |  |
| 11                |                     |       |            |       |                            |        |      |       | 0 VA   | 0 VA           |                     | 12        |    |  |
| 13                |                     |       |            |       | 0 VA                       | 0 VA   |      |       | 0 VA   | 0 VA           |                     | 14        |    |  |
| 15                | CONTACTOR           |       | 30 A       | 3     |                            | 0 VA   | 0 VA |       |        | 3              | 30 A                | CONTACTOR | 16 |  |
| 17                |                     |       |            |       |                            |        |      |       | 0 VA   | 0 VA           |                     | 18        |    |  |
| 19                |                     |       |            |       | 0 VA                       | 0 VA   |      |       |        |                |                     | 20        |    |  |
| 21                | CONTACTOR           |       | 30 A       | 3     |                            | 0 VA   | 0 VA |       |        | 3              | 30 A                | CONTACTOR | 22 |  |
| 23                |                     |       |            |       |                            |        |      |       | 0 VA   | 0 VA           |                     | 24        |    |  |
| 25                |                     |       |            |       | 0 VA                       | 0 VA   |      |       |        |                |                     | 26        |    |  |
| 27                | SPARE               |       | 30 A       | 3     |                            | 0 VA   | 0 VA |       |        | 3              | 60 A                | SPARE     | 28 |  |
| 29                |                     |       |            |       |                            |        |      |       | 0 VA   | 0 VA           |                     | 30        |    |  |
| 31                | SPACE AND HARDWARE  | --    | --         | --    | 0 VA                       | 0 VA   |      |       | --     | --             | SPACE AND HARDWARE  | 32        |    |  |
| 33                | SPACE AND HARDWARE  | --    | --         | --    |                            | 0 VA   | 0 VA |       | --     | --             | SPACE AND HARDWARE  | 34        |    |  |
| 35                | SPACE AND HARDWARE  | --    | --         | --    |                            |        |      |       | 0 VA   | 0 VA           | --                  | 36        |    |  |
| 37                | SPACE AND HARDWARE  | --    | --         | --    | 0 VA                       | 0 VA   |      |       | --     | --             | SPACE AND HARDWARE  | 38        |    |  |
| 39                | SPACE AND HARDWARE  | --    | --         | --    |                            | 0 VA   | 0 VA |       | --     | --             | SPACE AND HARDWARE  | 40        |    |  |
| 41                | SPACE AND HARDWARE  | --    | --         | --    |                            |        |      |       | 0 VA   | 0 VA           | --                  | 42        |    |  |
|                   |                     |       |            |       |                            |        |      |       |        |                | Panel Totals        |           |    |  |
| Legend:           |                     |       |            |       |                            |        |      |       |        |                |                     |           |    |  |
| AF                | Arc Fault           | ST    | Shunt Trip |       |                            |        |      |       |        |                |                     |           |    |  |
| GF                | Ground Fault        | Blank | Standard   |       | Total Conn. Current: 200 A |        |      |       |        |                |                     |           |    |  |

## CONTROL SYSTEM SUMMARY

NOT TO SCALE

| PANEL SUMMARY |                         |              |                     |                |                                   |                                      |
|---------------|-------------------------|--------------|---------------------|----------------|-----------------------------------|--------------------------------------|
| CABINET #     | CONTROL MODULE LOCATION | CONTACTOR ID | CIRCUIT DESCRIPTION | FULL LOAD AMPS | DISTRIBUTION PANEL ID (BY OTHERS) | CIRCUIT BREAKER POSITION (BY OTHERS) |
| 1             | 1                       | C1           | Pole S1             | 21.74          |                                   |                                      |
| 1             | 1                       | C2           | Pole S2             | 21.74          |                                   |                                      |
| 1             | 1                       | C3           | Pole S3             | 23.69          |                                   |                                      |
| 1             | 1                       | C4           | Pole S4             | 23.69          |                                   |                                      |
| 1             | 1                       | C5           | Pole S1             | 2.60           |                                   |                                      |
| 1             | 1                       | C6           | Pole S2             | 2.60           |                                   |                                      |
| 1             | 1                       | C7           | Pole S3             | 2.60           |                                   |                                      |
| 1             | 1                       | C8           | Pole S4             | 2.60           |                                   |                                      |

| ZONE SCHEDULE |                 |                  |                      |                      |
|---------------|-----------------|------------------|----------------------|----------------------|
| ZONE          | SELECTOR SWITCH | ZONE DESCRIPTION | POLE ID              | CONTACTOR ID         |
| Zone 1        | 1               | Soccer/Football  | S1<br>S2<br>S3<br>S4 | C1<br>C2<br>C3<br>C4 |
| Zone 2        | 2               | Track            | S1<br>S2<br>S3<br>S4 | C5<br>C6<br>C7<br>C8 |

### SWITCHING SCHEDULE

| Field/Zone Description | Zones |
|------------------------|-------|
| Soccer/Football        | 1     |
| Track                  | 2     |

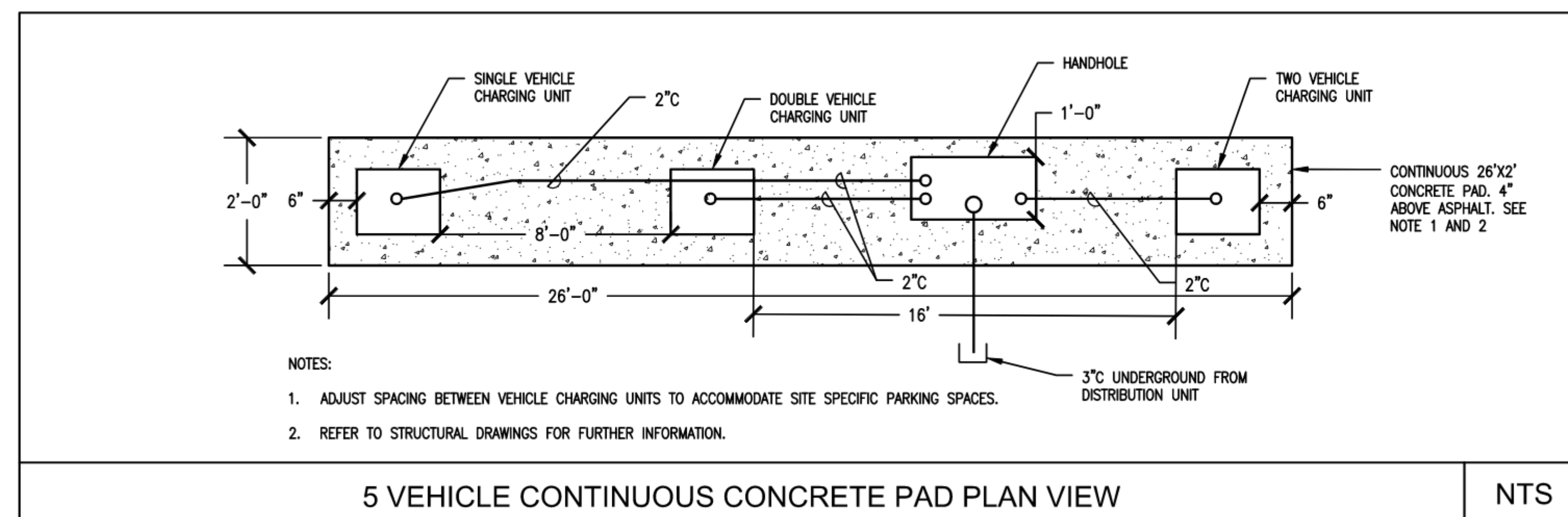
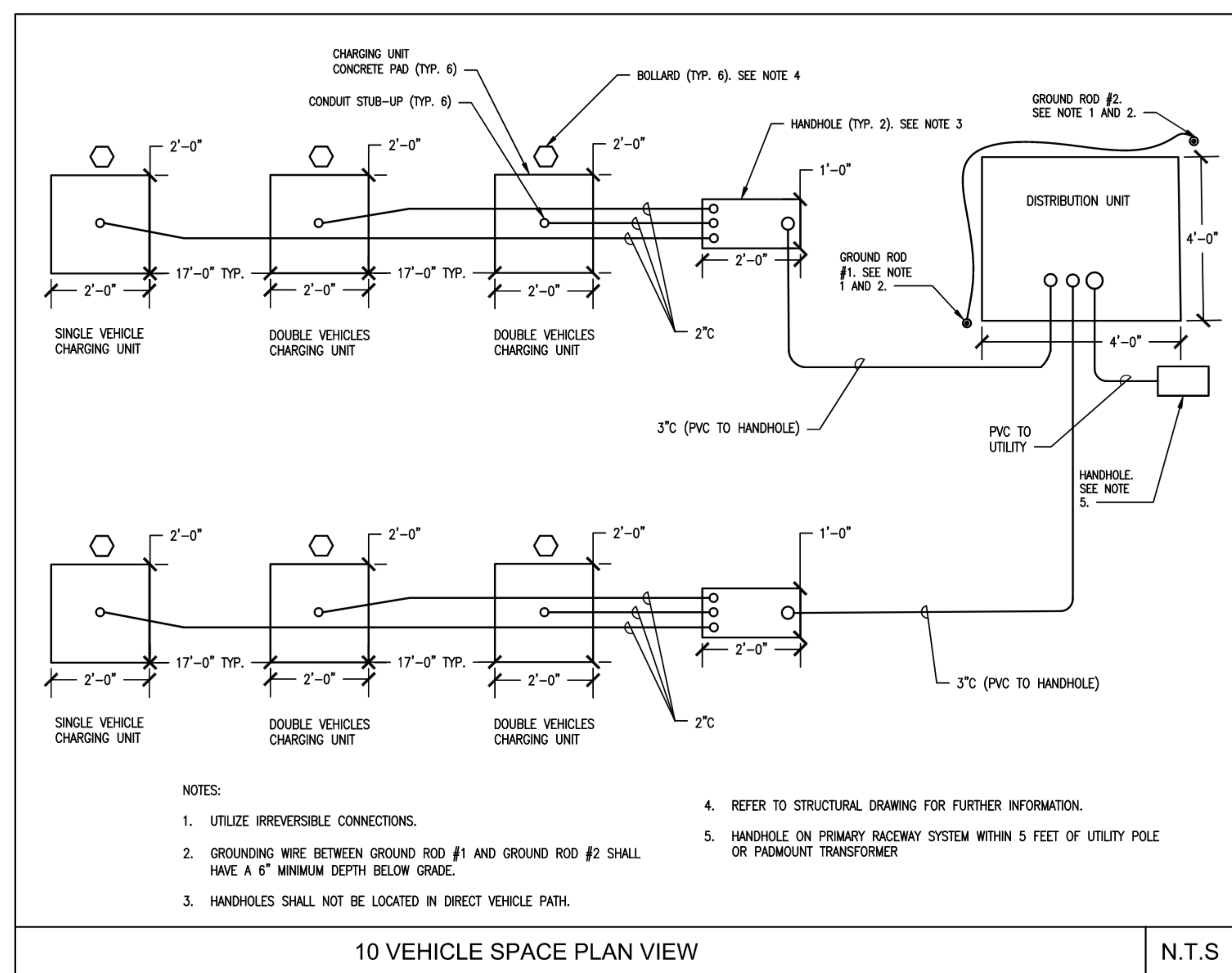
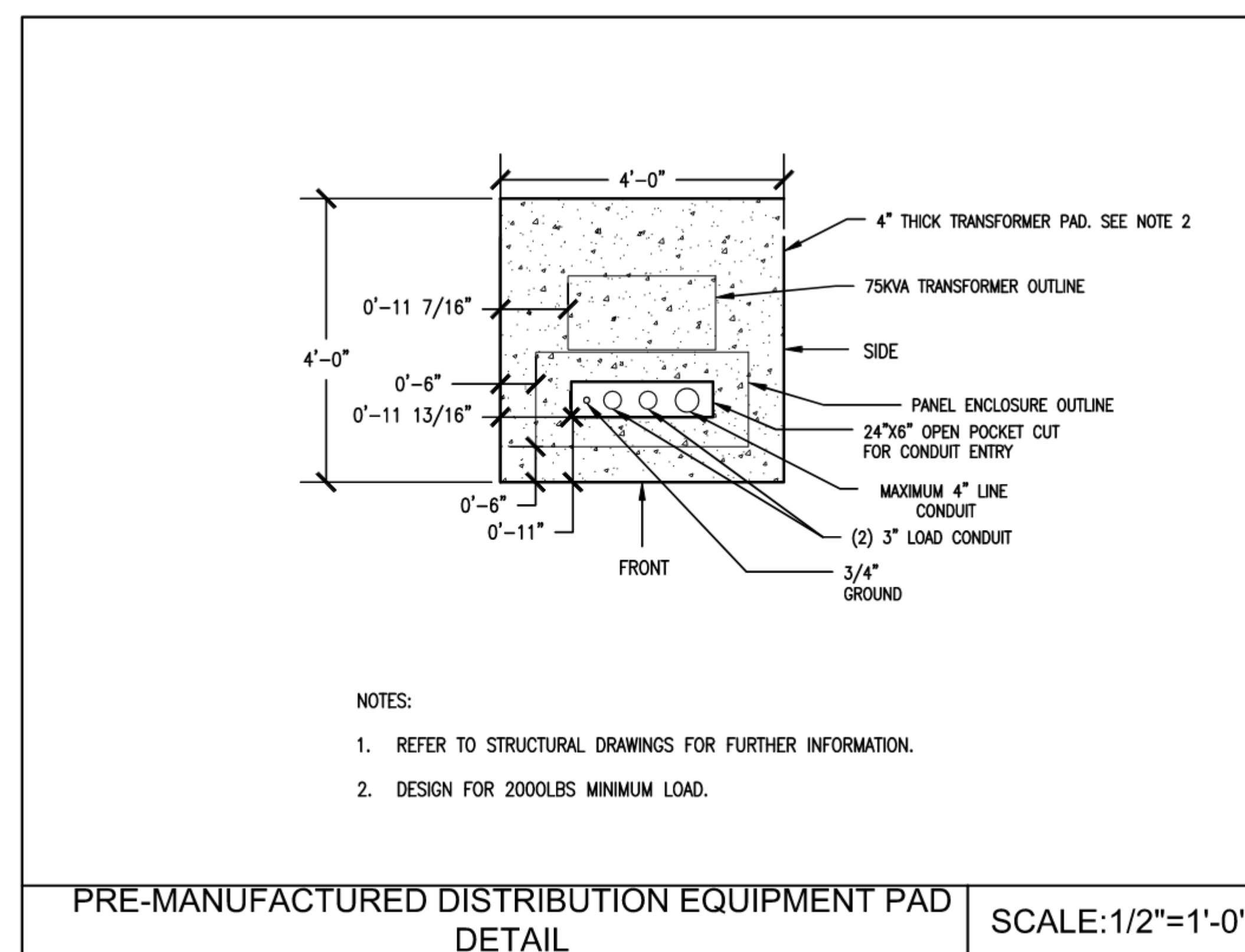
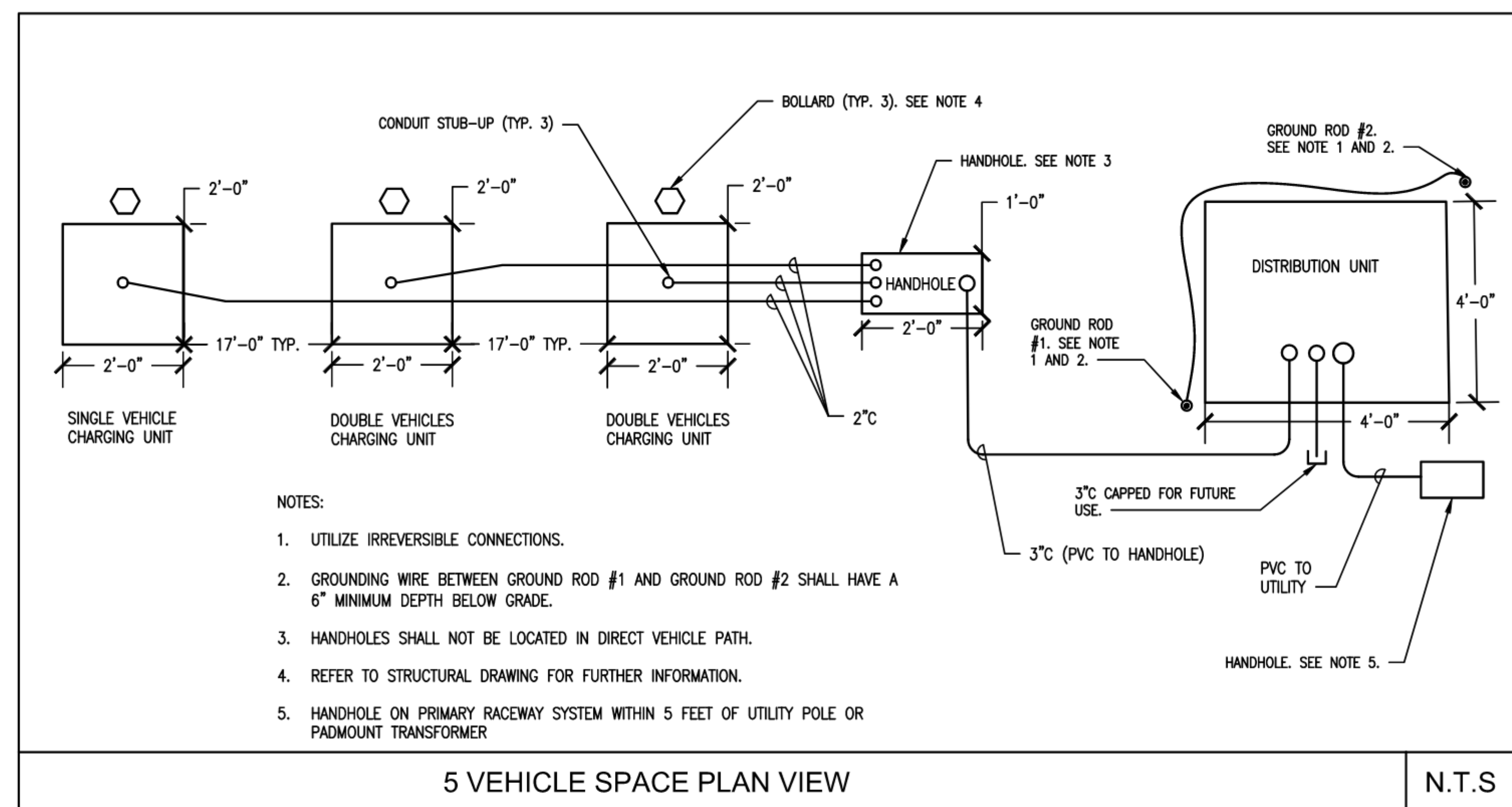
| CONTROL POWER CONSUMPTION              |                                 |
|----------------------------------------|---------------------------------|
| 120V Single Phase                      |                                 |
| VA loading of Musco Supplied Equipment | INRUSH: 2533.0<br>SEALED: 283.8 |

| CIRCUIT SUMMARY BY ZONE |                     |               |              |                |                       |              |
|-------------------------|---------------------|---------------|--------------|----------------|-----------------------|--------------|
| POLE                    | CIRCUIT DESCRIPTION | # OF FIXTURES | # OF DRIVERS | FULL LOAD AMPS | CONTACTOR SIZE (AMPS) | CONTACTOR ID |
| S1                      | Soccer/Football     | 11            | 11           | 21.7           | 30                    | C1           |
| S2                      | Soccer/Football     | 11            | 11           | 21.7           | 30                    | C2           |
| S3                      | Soccer/Football     | 12            | 12           | 23.7           | 30                    | C3           |
| S4                      | Soccer/Football     | 12            | 12           | 23.7           | 30                    | C4           |
| S1                      | Track               | 3             | 2            | 2.6            | 30                    | C5           |
| S2                      | Track               | 3             | 2            | 2.6            | 30                    | C6           |
| S3                      | Track               | 3             | 2            | 2.6            | 30                    | C7           |
| S4                      | Track               | 3             | 2            | 2.6            | 30                    | C8           |

\*Full Load Amps based on amps per driver.

TYPICAL INSTALLATION FOR SOCCER/FOOTBALL FIELD AND TRACK











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**POWER GENERAL NOTES:**

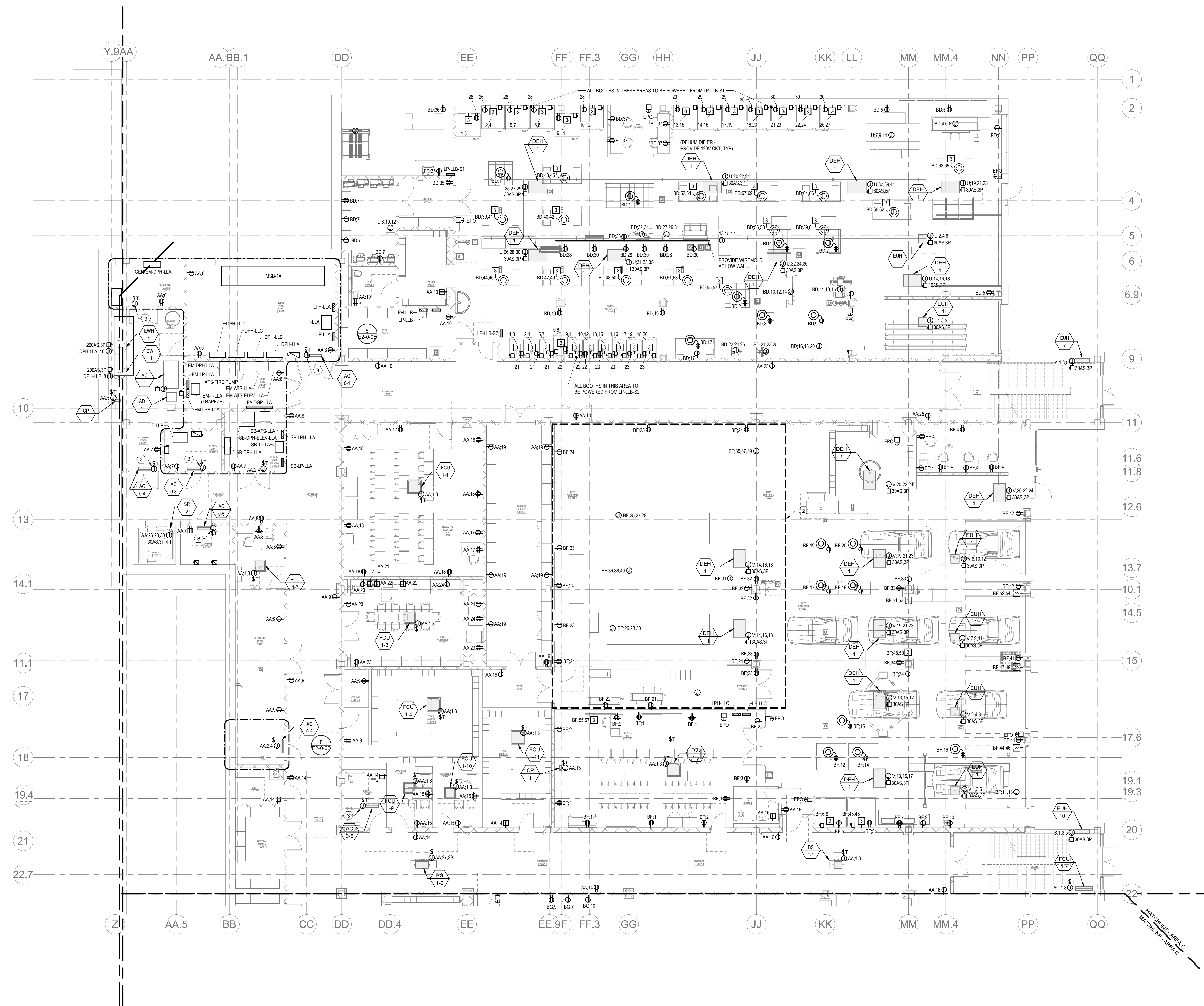
1. REFER TO E-04.3 FOR NOTES ON ELECTRICAL SCHE OF WORK
2. REFER TO E-04.6, 1 AND 2 FOR SINGLE LINE DIAGRAMS
3. REFER TO E-04.9, 1 AND 2 FOR PLUMBING PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND RELATED DEVICES. REFER TO E-04.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT AND/OR PLANS WITH THESE DEVICES.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH EQUIPMENT, PROVIDE A CONNECTION IDENTIFICATION NUMBER AND A CORROSION/ENVIRONMENT PROTECTION RATING AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**KEY NOTES:** 

- 1 PROVIDE 110/220V TYPE PULL DOWN RECEPTACLE.
- 2 PROVIDE EXPLOSION PROOF TYPE DEVICES AND FITTINGS WITHIN 10FT OF SPRAY BOOTHS.
- 3 INDOOR UNIT IS POWERED FROM OUTDOOR UNIT. DIV. 26 SHALL PROVIDE FEEDER FROM OUTDOOR UNIT TO INDOOR UNIT.

**CIRCUIT LEGEND:**

A; # - DENOTES BRANCH CIRCUIT PANELBOARD LP4-LLA; CIRCUIT #  
U; # - DENOTES BRANCH CIRCUIT PANELBOARD LP4-LB; CIRCUIT #  
V; # - DENOTES BRANCH CIRCUIT PANELBOARD LP4-LCC; CIRCUIT #  
AA; # - DENOTES BRANCH CIRCUIT PANELBOARD LP4-LB; CIRCUIT #  
BD; # - DENOTES BRANCH CIRCUIT PANELBOARD LP4-LB; CIRCUIT #  
BF; # - DENOTES BRANCH CIRCUIT PANELBOARD LP4-LCC; CIRCUIT #  
EJ; # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-LLA; CIRCUIT #  
SA; # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-LLA; CIRCUIT #  
SL; # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-LB; CIRCUIT #

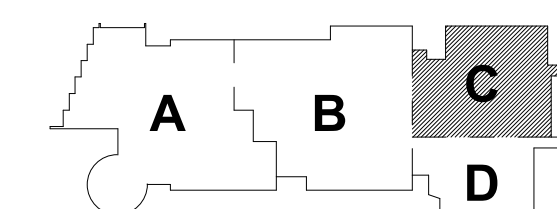


② ELECTRICAL POWER Level 0 Area C  
1/8" = 1'-0"

© CONVEYANCE AREA DELIVERY POINTS AND FROM INFO

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### KEY PLAN

PROJECT NORTH

MAGNETIC NORTH

**ELECTRICAL  
POWER LOWER  
LEVEL FLOOR  
PLAN - AREA C**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

**E1-1-0C**



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POWER GENERAL NOTES:

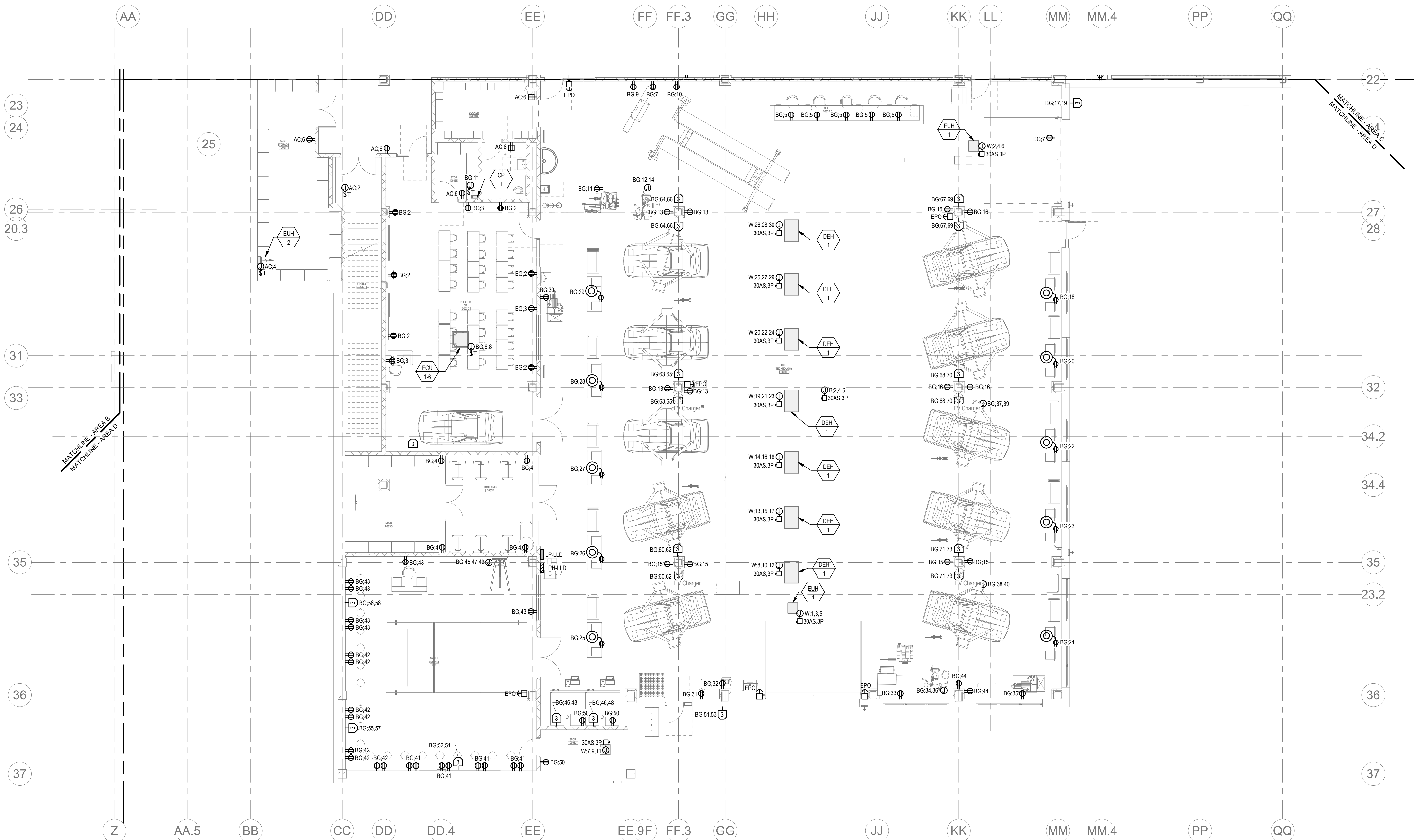
1. REFER TO ED-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO ED-3 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
3. REFER TO MECHANICAL FIRE PROTECTION AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
4. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
5. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

KEY NOTES: (X)

1. PROVIDE 110/220V TYPE PULL DOWN RECEPTACLE.
2. PROVIDE EXPLOSION PROOF TYPE DEVICES AND FITTINGS WITHIN 10FT OF SPRAY BOOTH.

CIRCUIT LEGEND:

- A: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-LIA, CIRCUIT #  
W: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-LID, CIRCUIT #  
AA: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-LIA, CIRCUIT #  
BG: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-LID, CIRCUIT #  
SA: # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-LIA, CIRCUIT #  
SJ: # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-LIA, CIRCUIT #

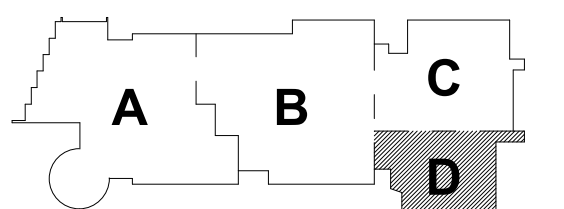


ELECTRICAL POWER Level 0 Area D  
1/8" = 1'-0"

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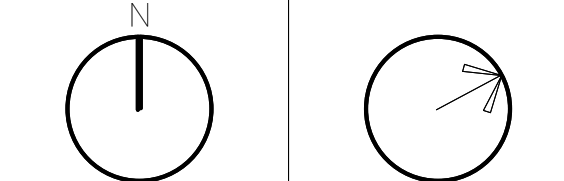
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KEY PLAN

PROJECT NORTH MAGNETIC NORTH

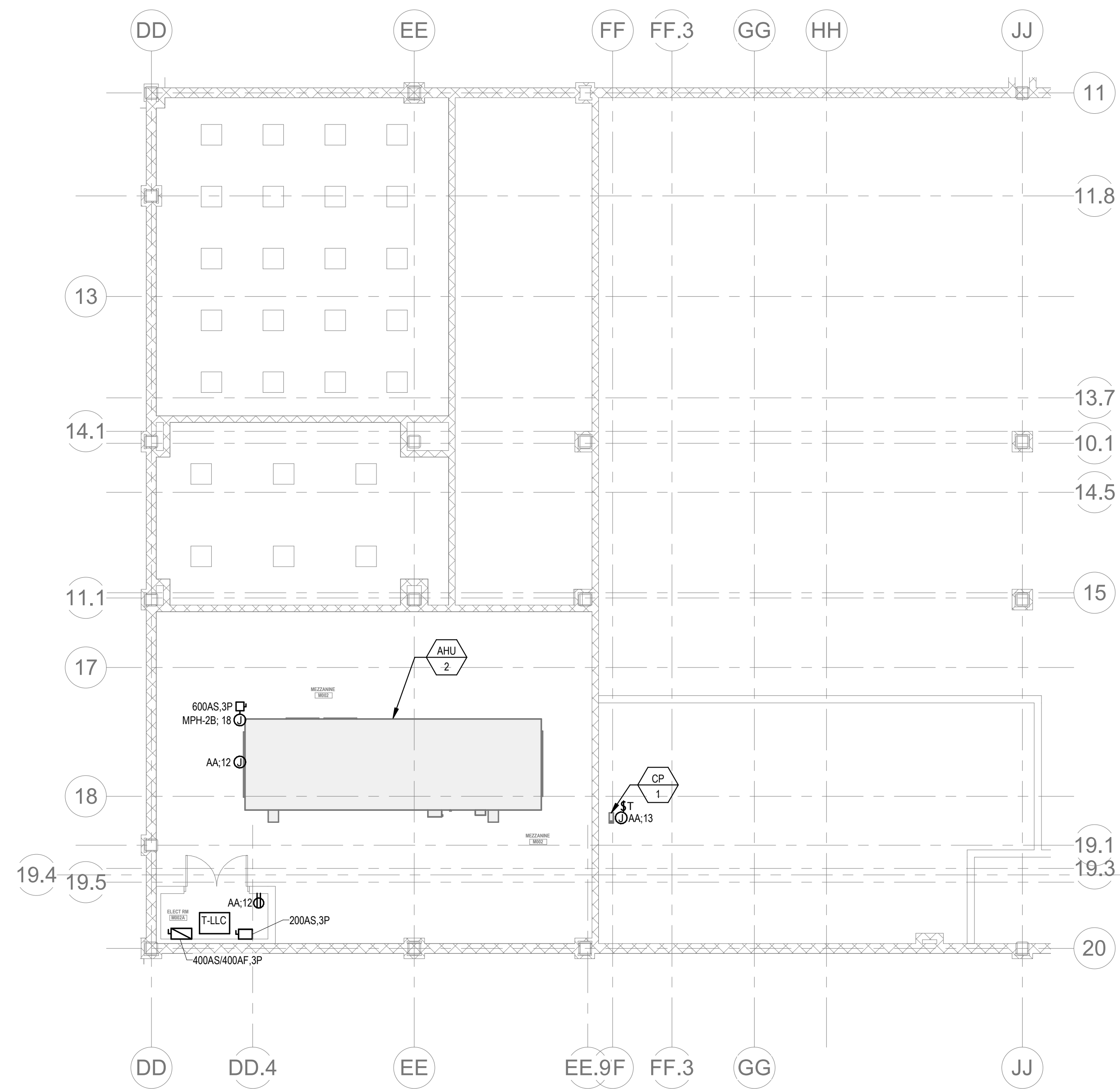


ELECTRICAL  
POWER LOWER  
LEVEL FLOOR  
PLAN - AREA D

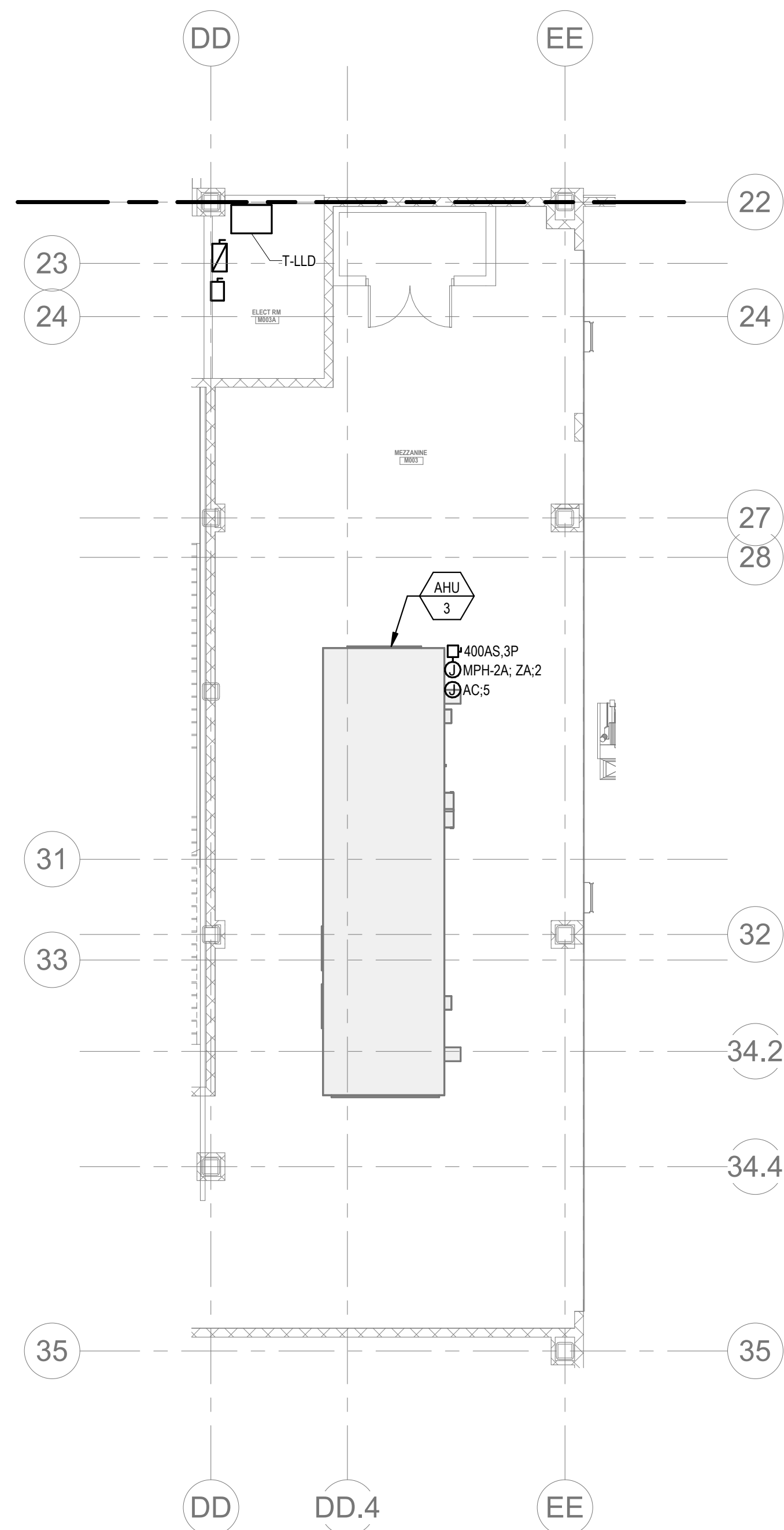
Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-1-0D

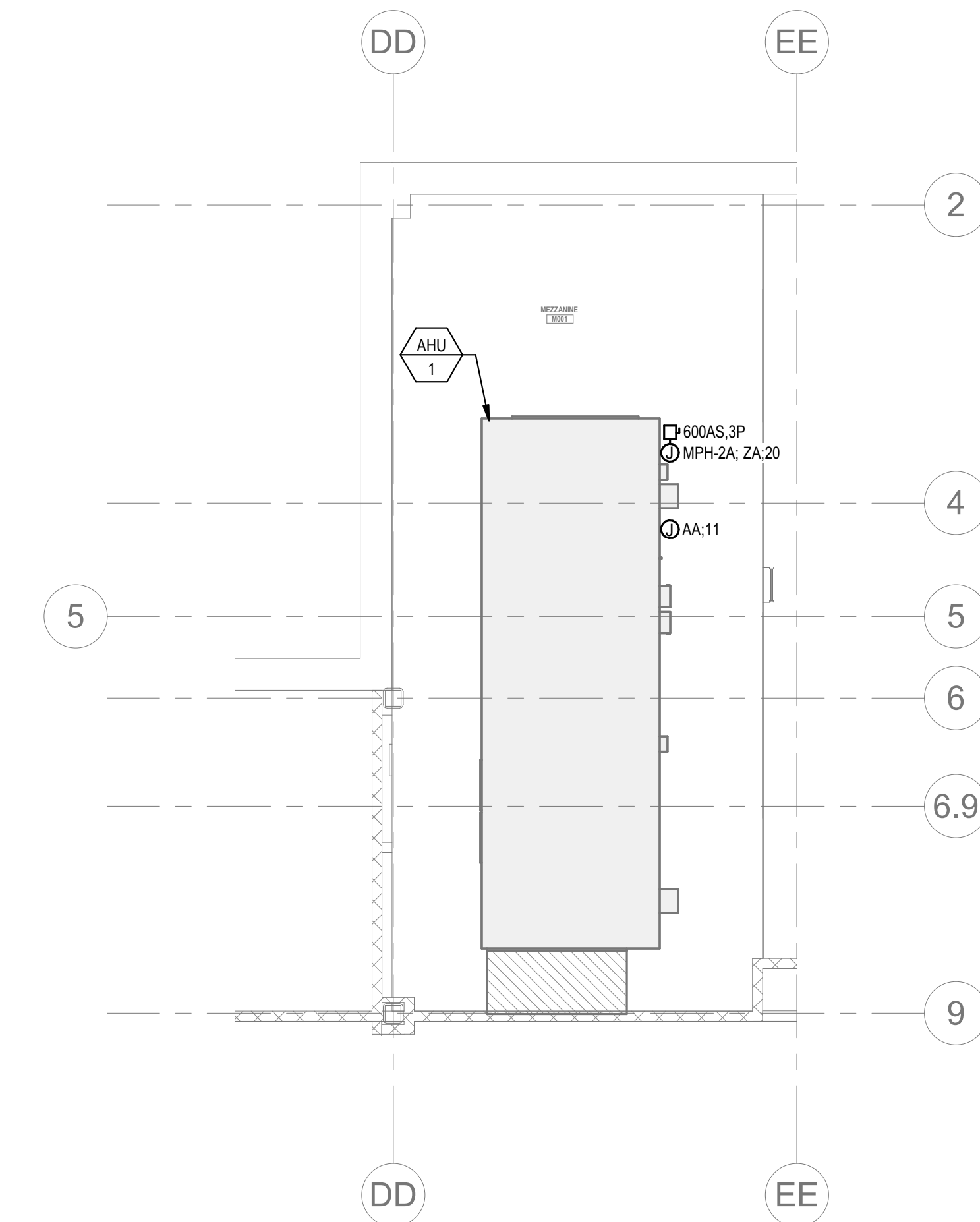




② ELECTRICAL POWER 0.5-Lower Level Mezzanine - Area C Partial 1  
1/8" = 1'-0"



③ ELECTRICAL POWER 0.5-Lower Level Mezzanine - Area D Partial  
1/8" = 1'-0"



① ELECTRICAL POWER 0.5-Lower Level Mezzanine - Area C Partial 2  
1/8" = 1'-0"



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Waltham, MA  
02453

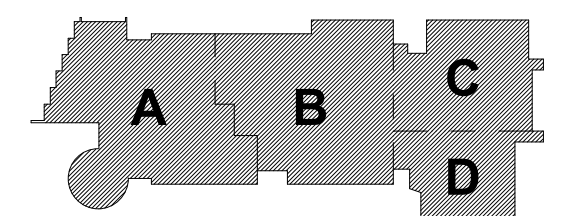
# Northeast Metropolitan Regional Vocational High School

Wakefield, MA 01880

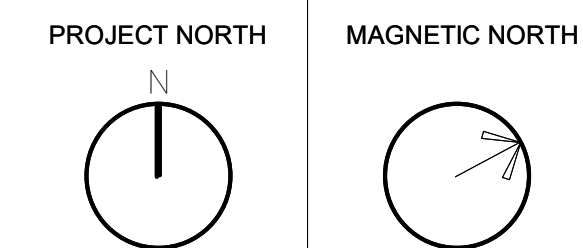
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KEY PLAN



## ELECTIRCAL POWER LOWER LEVEL FLOOR PLAN - MEZZANINES

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Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

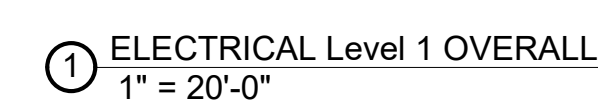
E1-1-0M



3. OVERALL ELECTRICAL FLOOR PLANS SHOW LOCATIONS OF MAJOR DISTRIBUTION EQUIPMENT - SWITCHBOARDS, TRANSFER SWITCHES, TRANSFORMERS, PANELBOARDS, AND CONDUIT RUNS FOR MAIN FEEDERS. REFER TO POWER AND LIGHTING AREA PLANS AND ENLARGED PLANS FOR LOCATIONS OF OTHER ELECTRICAL EQUIPMENT.

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www.draas.com

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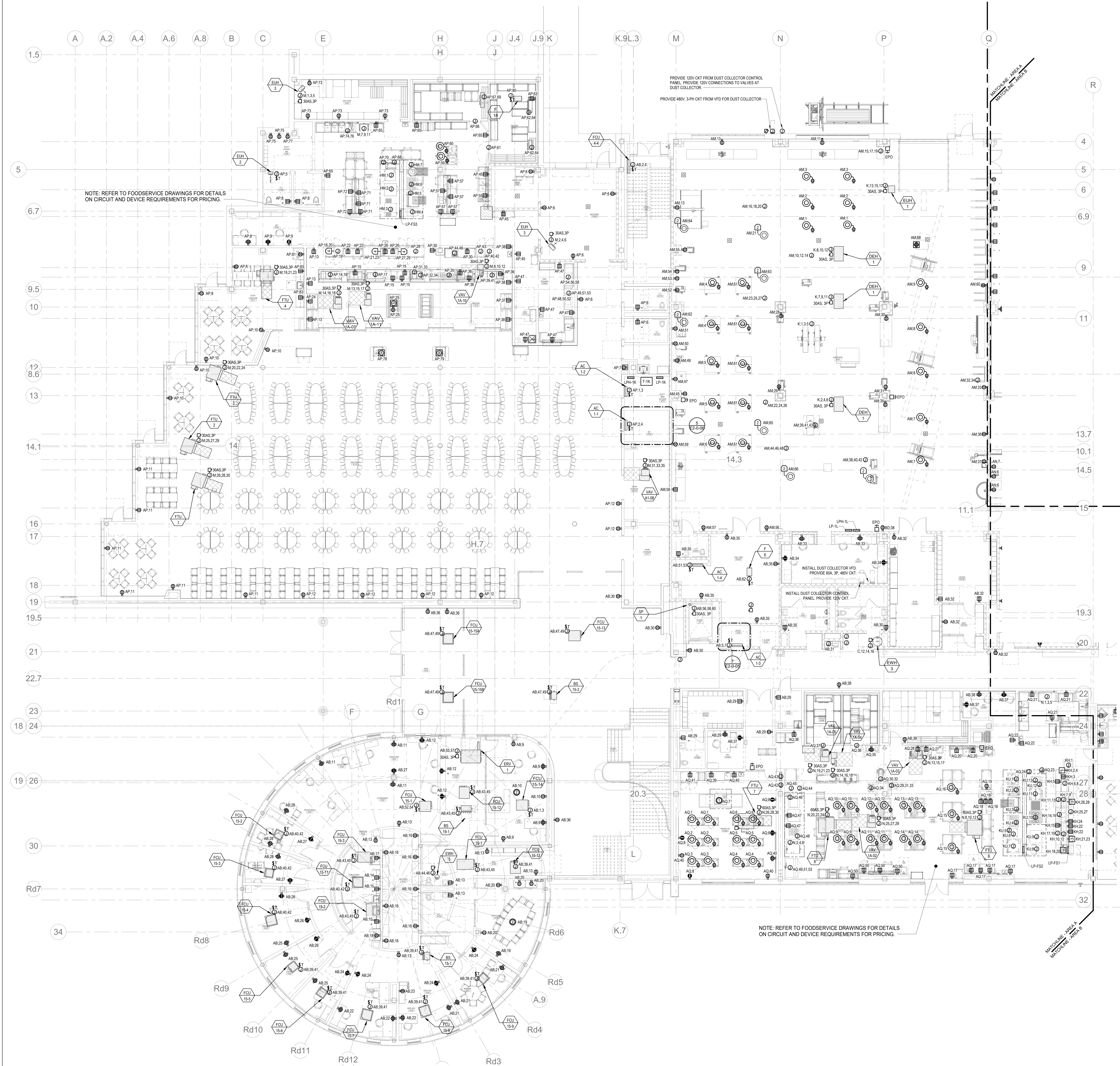


| PROJECT NORTH | MAGNETIC NORTH |
|---------------|----------------|
| 100           | 100            |
| 90            | 90             |
| 80            | 80             |
| 70            | 70             |
| 60            | 60             |
| 50            | 50             |
| 40            | 40             |
| 30            | 30             |
| 20            | 20             |
| 10            | 10             |
| 0             | 0              |
| 10            | 10             |
| 20            | 20             |
| 30            | 30             |
| 40            | 40             |
| 50            | 50             |
| 60            | 60             |
| 70            | 70             |
| 80            | 80             |
| 90            | 90             |
| 100           | 100            |



**E1-1-1**











1. REFER TO E-02.0 FOR NOTES ON ELECTRICAL CODE OF WORK.
2. REFER TO E-03.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AIR RELATED DEVICES. REFER TO E-02.0 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. INCLUDE ELECTRICAL CHARACTERISTICS OF EQUIPMENT INDICATED ON P-05 WITH HEX TAGS.
5. REFER TO A RELEVANT CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT. NOTED AS P-05 WITH HEX TAGS FOR EACH PIECE OF EQUIPMENT. PROVIDE A FUSE-BREAKER SWITCH WITH FUSES FOR OVERCURRENT PROTECTION. RATED IN ACCORDANCE WITH MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKSPLASHES AND CONDENSATE FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

[illegible]

|                                                              |                                                          |
|--------------------------------------------------------------|----------------------------------------------------------|
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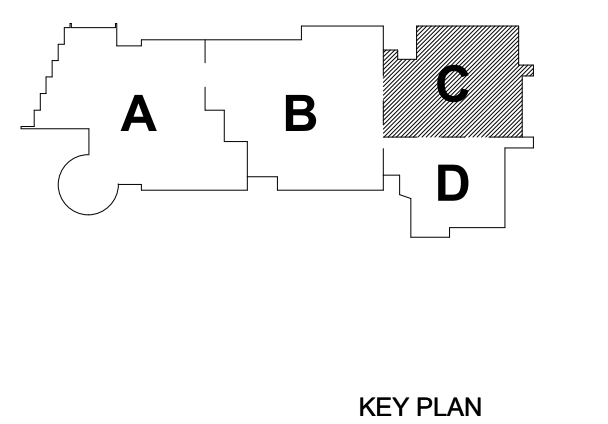
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**ELECTRICAL  
POWER FIRST  
FLOOR PLAN -  
AREA C**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023



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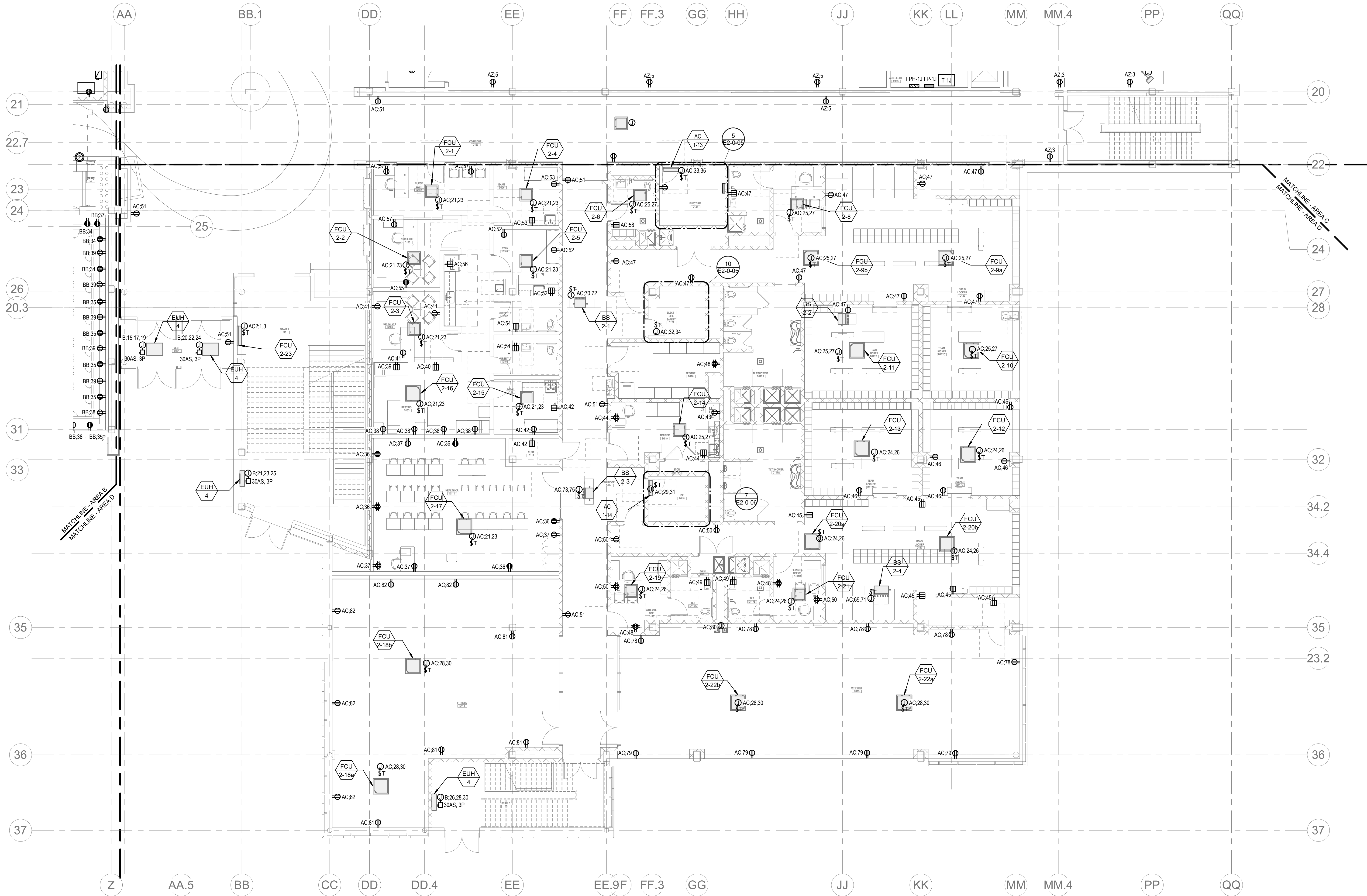
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POWER GENERAL NOTES:

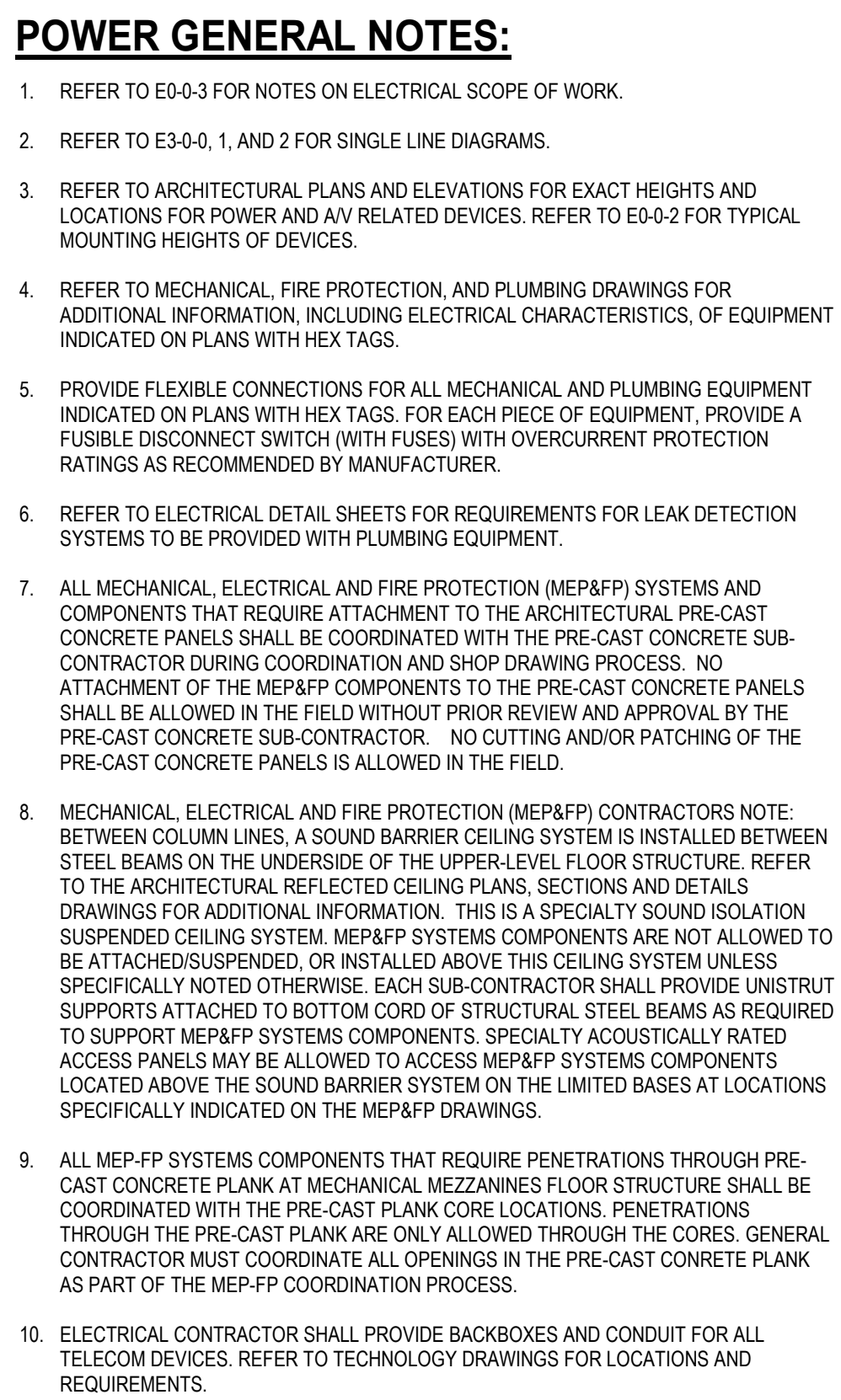
1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
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7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

CIRCUIT LEGEND:

- C: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2A, CIRCUIT #  
G: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B, CIRCUIT #  
K: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1L, CIRCUIT #  
L: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1D, CIRCUIT #  
M: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1K, CIRCUIT #  
N: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1G, CIRCUIT #  
AB: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1A, CIRCUIT #  
AH: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1B, CIRCUIT #  
AM: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1L, CIRCUIT #  
AN: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1D, CIRCUIT #  
AP: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1K, CIRCUIT #  
AQ: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1G, CIRCUIT #  
AR: # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1G2, CIRCUIT #  
EL: # - DENOTES BRANCH CIRCUIT PANELBOARD EM-1P-2A, CIRCUIT #  
EM: # - DENOTES BRANCH CIRCUIT PANELBOARD EM-1P-2B, CIRCUIT #  
SC: # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2A, CIRCUIT #  
SD: # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2B, CIRCUIT #  
SL: # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2A, CIRCUIT #  
SM: # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2B, CIRCUIT #







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Wakefield, MA 01880

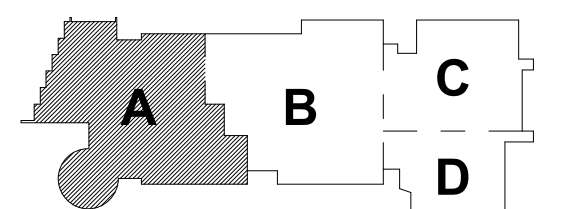
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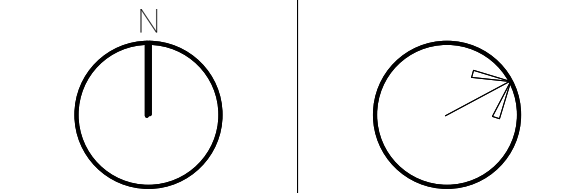
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May 12th, 2023



### KEY PLAN

| PROJECT NORTH | MAGNETIC NORTH |
|---------------|----------------|
|---------------|----------------|



**ELECTRICAL  
POWER FIRST  
FLOOR  
MEZZANINE  
PLAN - AREA A**

Scale: 1/8" = 1'-0"  
 Job No.: 60-20-409  
 Drawn By: QAA  
 Date: May 12th, 2023

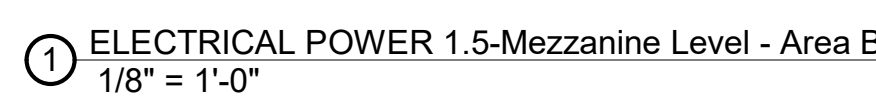
**E1-1-1M**

**E1-1-1MA**



2. REFER TO E300-1 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
3. REFER TO E300-1, 1 AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ALL RELATED DEVICES. REFER TO E300-2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT TO BE INSTALLED WITHIN THE MEPPAF SYSTEM.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A CONNECTION TO THE MEPPAF SYSTEM WITH AN OVERCURRENT PROTECTION RATING AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ALL MECHANICAL, ELECTRICAL AND FIRE PROTECTION MEPPAF SYSTEMS AND COMPONENTS THAT REQUIRE ATTACHMENT TO THE ARCHITECTURAL, PRE-CAST CONCRETE PLANK SHALL BE INSTALLED TO THE PRE-CAST CONCRETE PLANK SUB-CONTRACTOR DURING COORDINATION AND SHOP DRAWING PROCESS. NO PART OF THE MEPPAF SYSTEM SHALL BE INSTALLED TO THE PRE-CAST CONCRETE PLANKS SHALL BE ALLOWED IN THE FIELD WITHOUT PRIOR REVIEW AND APPROVAL BY THE PRE-CAST CONCRETE SUB-CONTRACTOR. NO CUTTING AND/OR PATCHING OF THE PRE-CAST CONCRETE PLANKS.
8. MECHANICAL, ELECTRICAL AND FIRE PROTECTION MEPPAF CONTRACTORS NOTE: BETWEEN COLUMN LINES, A SOUND BARRIER CEILING SYSTEM IS INSTALLED BETWEEN STEEL BEAMS ON THE UNDERSIDE OF THE UPPER LEVEL FLOOR STRUCTURE. REFER TO MEPPAF SYSTEM DETAIL DRAWINGS FOR THE MEPPAF SYSTEM. REFER TO THE MEPPAF DRAWINGS FOR ADDITIONAL INFORMATION. THIS IS A SPECIALTY SOUND ISOLATION SYSTEM. THE MEPPAF SYSTEM IS NOT TO BE USED FOR ANY OTHER PURPOSES. IT IS NOT TO BE ATTACHED/SPUNNED, OR INSTALLED ABOVE THIS CEILING SYSTEM UNLESS SPECIFICALLY NOTED OTHERWISE. EACH SUB-CONTRACTOR SHALL PROVIDE INSTRUMENTED AND TESTED MEPPAF SYSTEMS TO ACCESS MEPPAF SYSTEM COMPONENTS TO SUPPORT MEPPAF SYSTEMS COMPONENTS. SPECIALLY TACONICALLY RATED MEPPAF SYSTEMS SHALL BE USED TO ACCESS MEPPAF SYSTEM COMPONENTS LOCATED ABOVE THE SOUND BARRIER SYSTEM ON THE UNITED STATES AT LOCATIONS SPECIFICALLY INDICATED ON THE MEPPAF DRAWINGS.
9. MEPPAF SYSTEMS COMPONENTS THAT REQUIRE PENETRATIONS THROUGH PRE-CAST CONCRETE PLANK AT THE MEPPAF SYSTEM DETAIL DRAWINGS SHALL BE COORDINATED WITH THE PRE-CAST PLANK CORE LOCATIONS. PENETRATIONS THROUGH THE PRE-CAST PLANK ARE ONLY ALLOWED THROUGH THE CORES. GENERAL PENETRATIONS THROUGH THE PLANKS ARE NOT ALLOWED. THE PRE-CAST CONCRETE PLANK AS PART OF THE MEPPAF COORDINATION PROCESS.
10. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND

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May 12th, 2023



Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023



GENERAL NOTES:

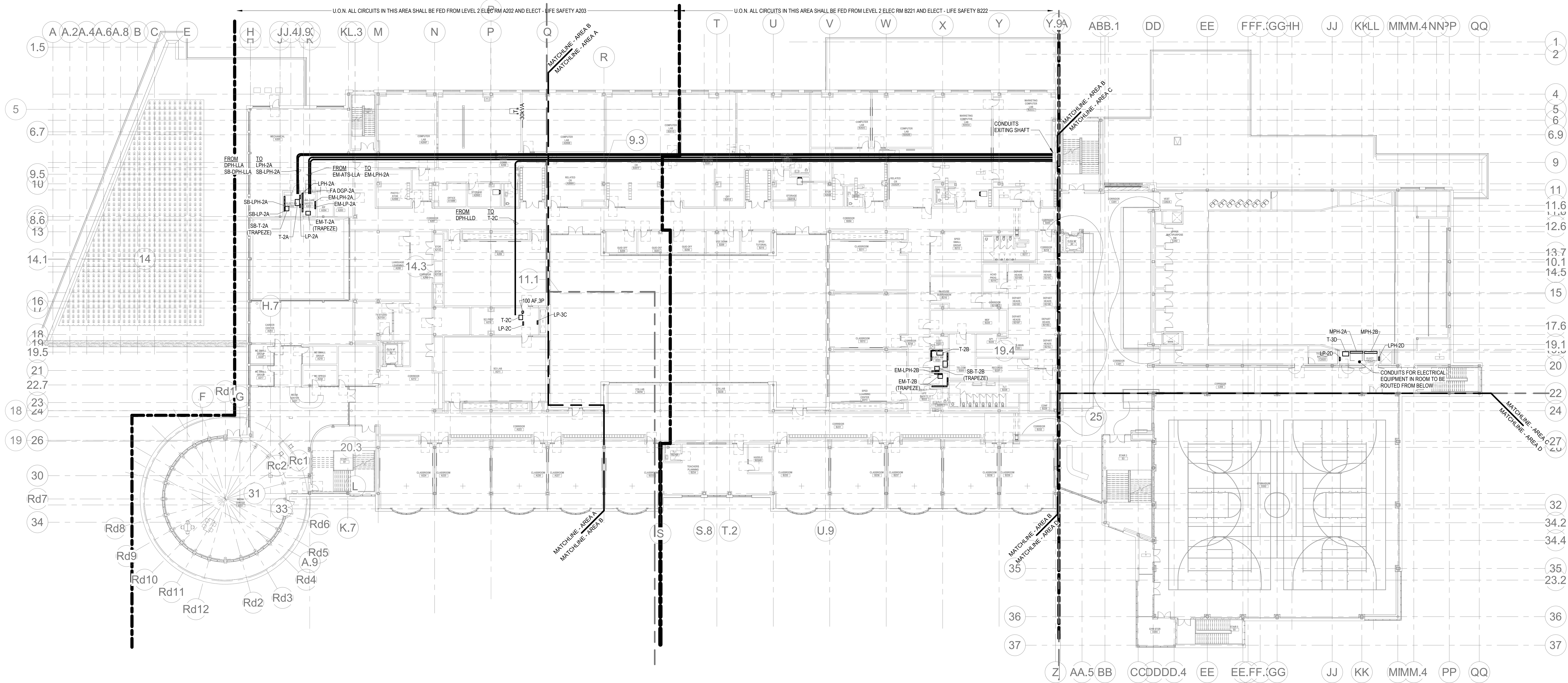
- REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
- REFER TO E0-0.0.1, AND 2 FOR SINGLE LINE DIAGRAMS.
- OVERALL ELECTRICAL FLOOR PLANS SHOW LOCATIONS OF MAJOR DISTRIBUTION EQUIPMENT - SWITCHBOARDS, TRANSFER SWITCHES, TRANSFORMERS, PANELBOARDS, AND CONDUIT RUNS FOR MAIN FEEDERS. REFER TO POWER AND LIGHTING AREA PLANS AND ENLARGED PLANS FOR LOCATIONS OF OTHER ELECTRICAL EQUIPMENT.

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Wakefield, MA 01880

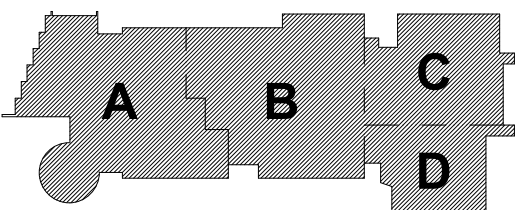


ELECTRICAL Level 2 OVERALL  
1" = 20'-0"

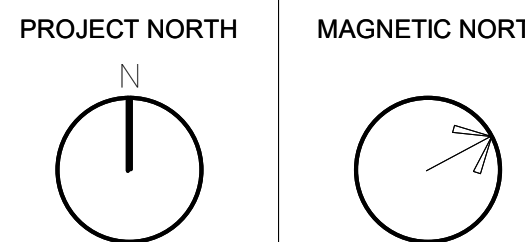
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May 12th, 2023



KEY PLAN

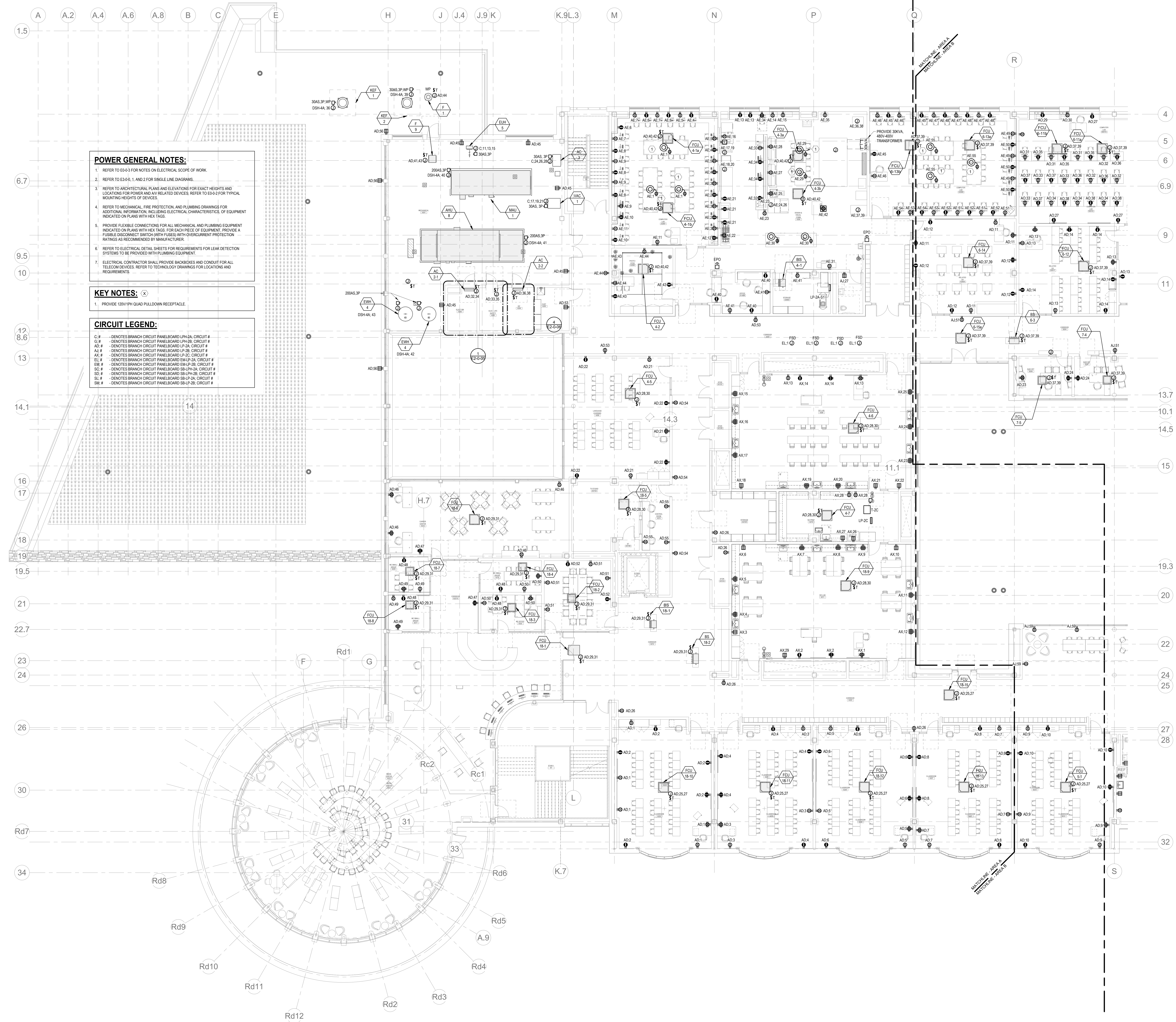


ELECTRICAL  
SECOND FLOOR  
PLAN - OVERALL  
PLAN

Scale: 1" = 20'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-1-2





- POWER GENERAL NOTES:**
1. REFER TO E0-03 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
  2. REFER TO E0-01, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
  3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AV RELATED DEVICES. REFER TO E0-02 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
  4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
  5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
  6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
  7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

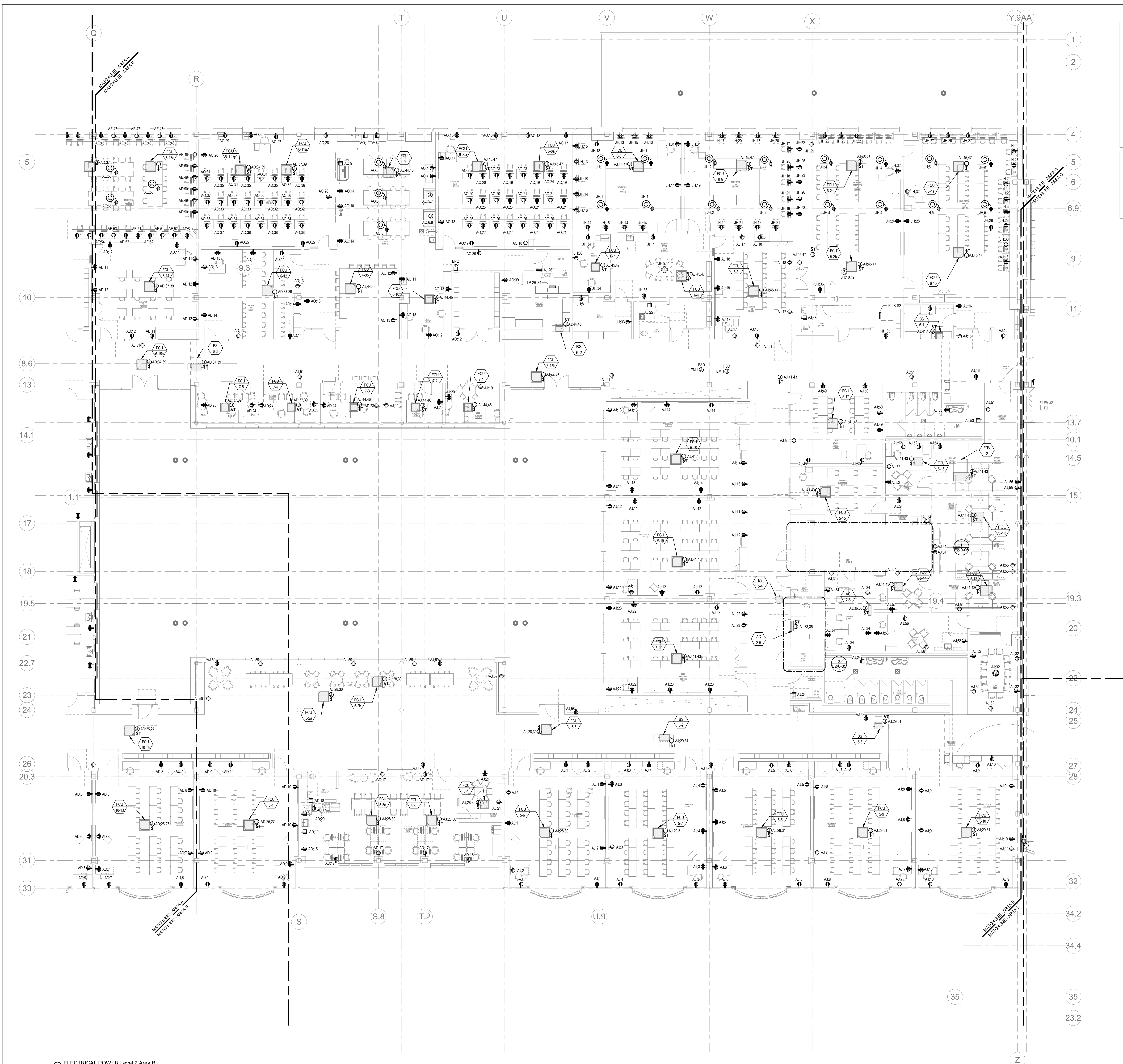
**KEY NOTES:**

1. PROVIDE 120V/1PH QUAD PULLDOWN RECEPTACLE.

**CIRCUIT LEGEND:**

- C-# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2A, CIRCUIT #  
G-# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B, CIRCUIT #  
AD-# - DENOTES BRANCH CIRCUIT PANELBOARD LP-2A, CIRCUIT #  
AJ-# - DENOTES BRANCH CIRCUIT PANELBOARD LP-2B, CIRCUIT #  
AX-# - DENOTES BRANCH CIRCUIT PANELBOARD LP-2C, CIRCUIT #  
EL-# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2A, CIRCUIT #  
EW-# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2B, CIRCUIT #  
SC-# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2A, CIRCUIT #  
SD-# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2B, CIRCUIT #  
SL-# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2A, CIRCUIT #  
SM-# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2B, CIRCUIT #





- POWER GENERAL NOTES:**
1. REFER TO E3-0.1 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
  2. REFER TO E3-0.1, AND 2 FOR SINGLE LINE DIAGRAMS.
  3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AIR RELATED DEVICES. REFER TO E3-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
  4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
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  7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.
- CIRCUIT LEGEND:**
- |      |                                                          |
|------|----------------------------------------------------------|
| C-#  | - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2A, CIRCUIT #    |
| G-#  | - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B, CIRCUIT #    |
| AD-# | - DENOTES BRANCH CIRCUIT PANELBOARD LP-2A, CIRCUIT #     |
| AJ-# | - DENOTES BRANCH CIRCUIT PANELBOARD LP-2B, CIRCUIT #     |
| EL-# | - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2A, CIRCUIT #  |
| EM-# | - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2B, CIRCUIT #  |
| SC-# | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2A, CIRCUIT # |
| SD-# | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2B, CIRCUIT # |
| SL-# | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2A, CIRCUIT #  |
| SM-# | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2B, CIRCUIT #  |

ELECTRICAL POWER Level 2 Area B  
1/8" = 1'-0"

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A

B

C

D

KEY PLAN

PROJECT NORTH

MAGNETIC NORTH

ELECTRICAL  
POWER SECOND  
FLOOR PLAN -  
AREA B

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-1-2B



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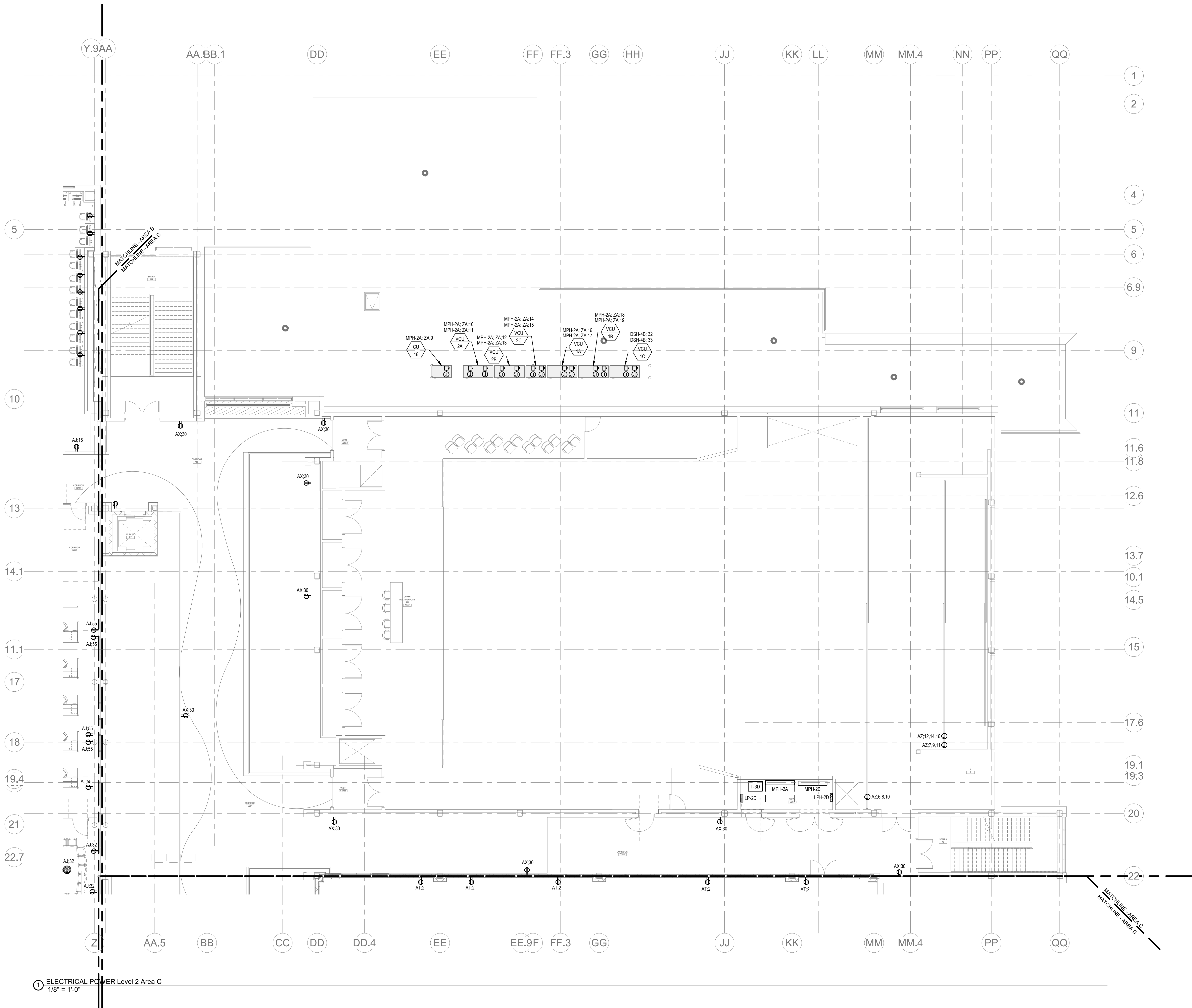
Wakefield, MA 01880

POWER GENERAL NOTES:

- REFER TO E3-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
- REFER TO E3-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
- REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E3-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
- REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
- PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
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- ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

CIRCUIT LEGEND:

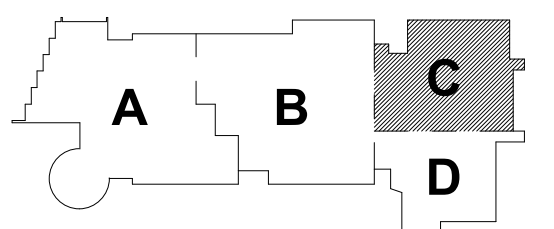
- C # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2A, CIRCUIT #  
G # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B, CIRCUIT #  
R # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1J, CIRCUIT #  
AD # - DENOTES BRANCH CIRCUIT PANELBOARD LP-2A, CIRCUIT #  
AJ # - DENOTES BRANCH CIRCUIT PANELBOARD LP-2B, CIRCUIT #  
AZ # - DENOTES BRANCH CIRCUIT PANELBOARD LP-1J, CIRCUIT #  
EL # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2A, CIRCUIT #  
EM # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2B, CIRCUIT #  
SC # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2A, CIRCUIT #  
SL # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2A, CIRCUIT #  
SM # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2B, CIRCUIT #



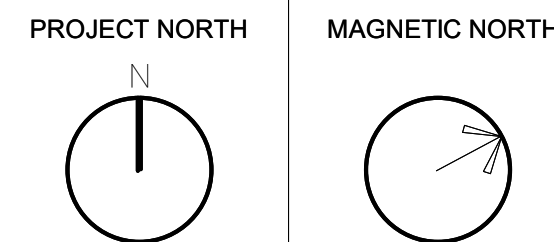
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May 12th, 2023



KEY PLAN



ELECTRICAL  
POWER SECOND  
FLOOR PLAN -  
AREA C

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023  
E1-1-2C



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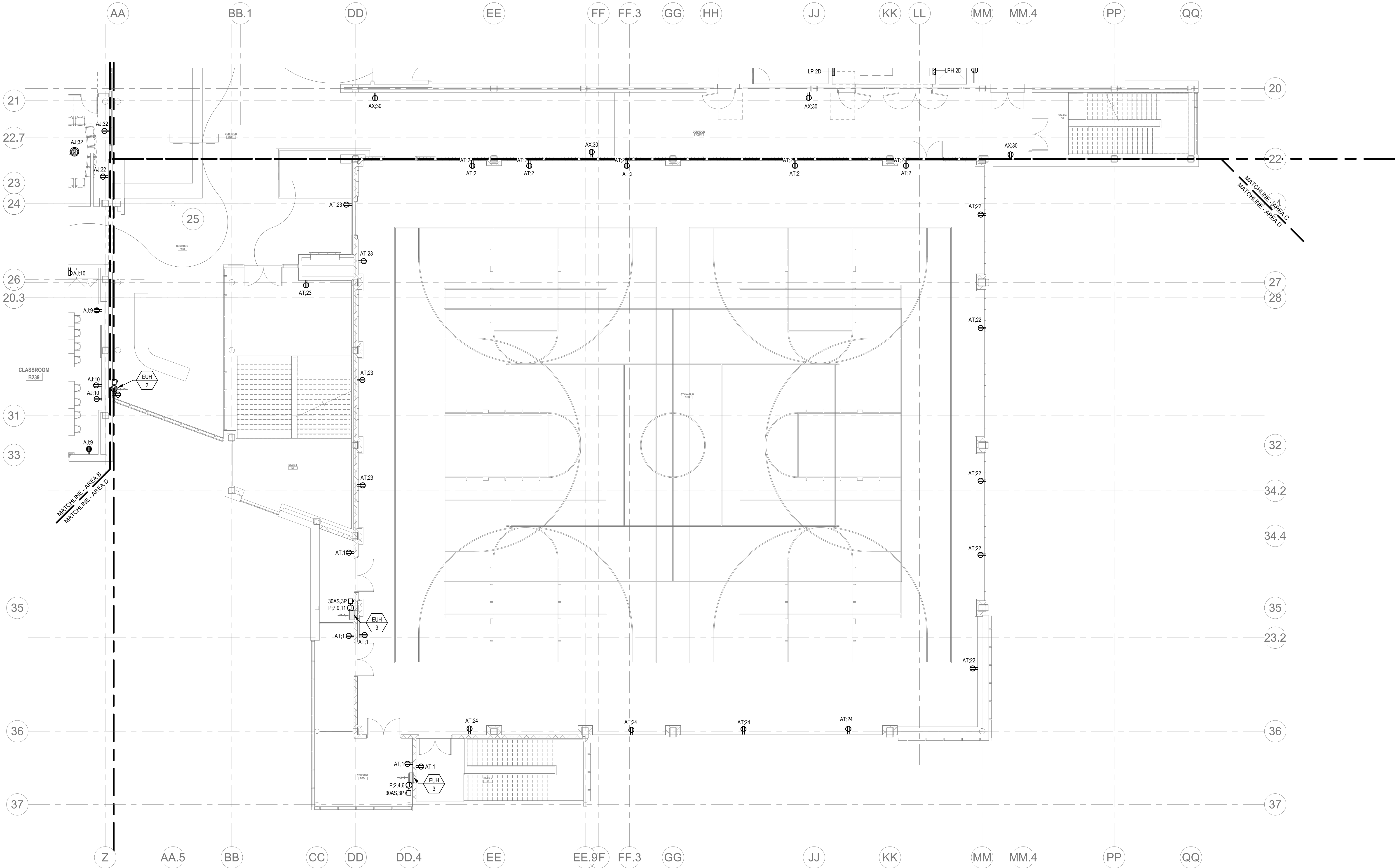
Wakefield, MA 01880

**POWER GENERAL NOTES:**

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.1, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**CIRCUIT LEGEND:**

C # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2A, CIRCUIT #  
G # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B, CIRCUIT #  
P # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2D, CIRCUIT #  
AD # - DENOTES BRANCH CIRCUIT PANELBOARD LP-2A, CIRCUIT #  
AJ # - DENOTES BRANCH CIRCUIT PANELBOARD LP-2B, CIRCUIT #  
AT # - DENOTES BRANCH CIRCUIT PANELBOARD LP-2D, CIRCUIT #  
EL # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2A, CIRCUIT #  
EM # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-2B, CIRCUIT #  
SC # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2A, CIRCUIT #  
SD # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-2B, CIRCUIT #  
SL # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2A, CIRCUIT #  
SM # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-2B, CIRCUIT #

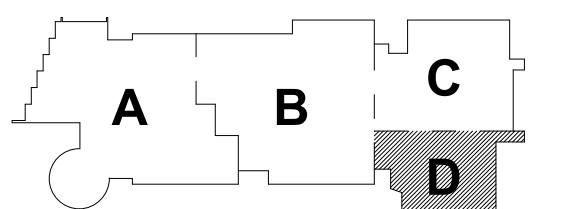


1 ELECTRICAL POWER Level 2 Area D  
1/8" = 1'-0"

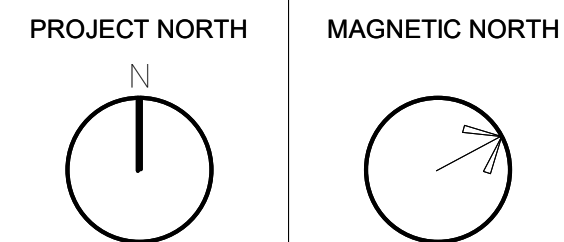
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May 12th, 2023



KEY PLAN



**ELECTRICAL  
POWER SECOND  
FLOOR PLAN -  
AREA D**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

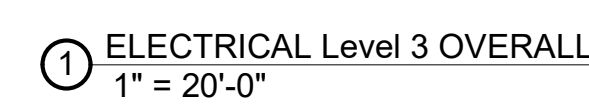
**E1-1-2D**



3. OVERALL ELECTRICAL FLOOR PLANS SHOW LOCATIONS OF MAJOR DISTRIBUTION EQUIPMENT - SWITCHBOARDS, TRANSFER SWITCHES, TRANSFORMERS, PANELBOARDS, AND CONDUIT RUNS FOR MAIN FEEDERS. REFER TO POWER AND LIGHTING AREA PLANS AND ENLARGED PLANS FOR LOCATIONS OF OTHER ELECTRICAL EQUIPMENT.

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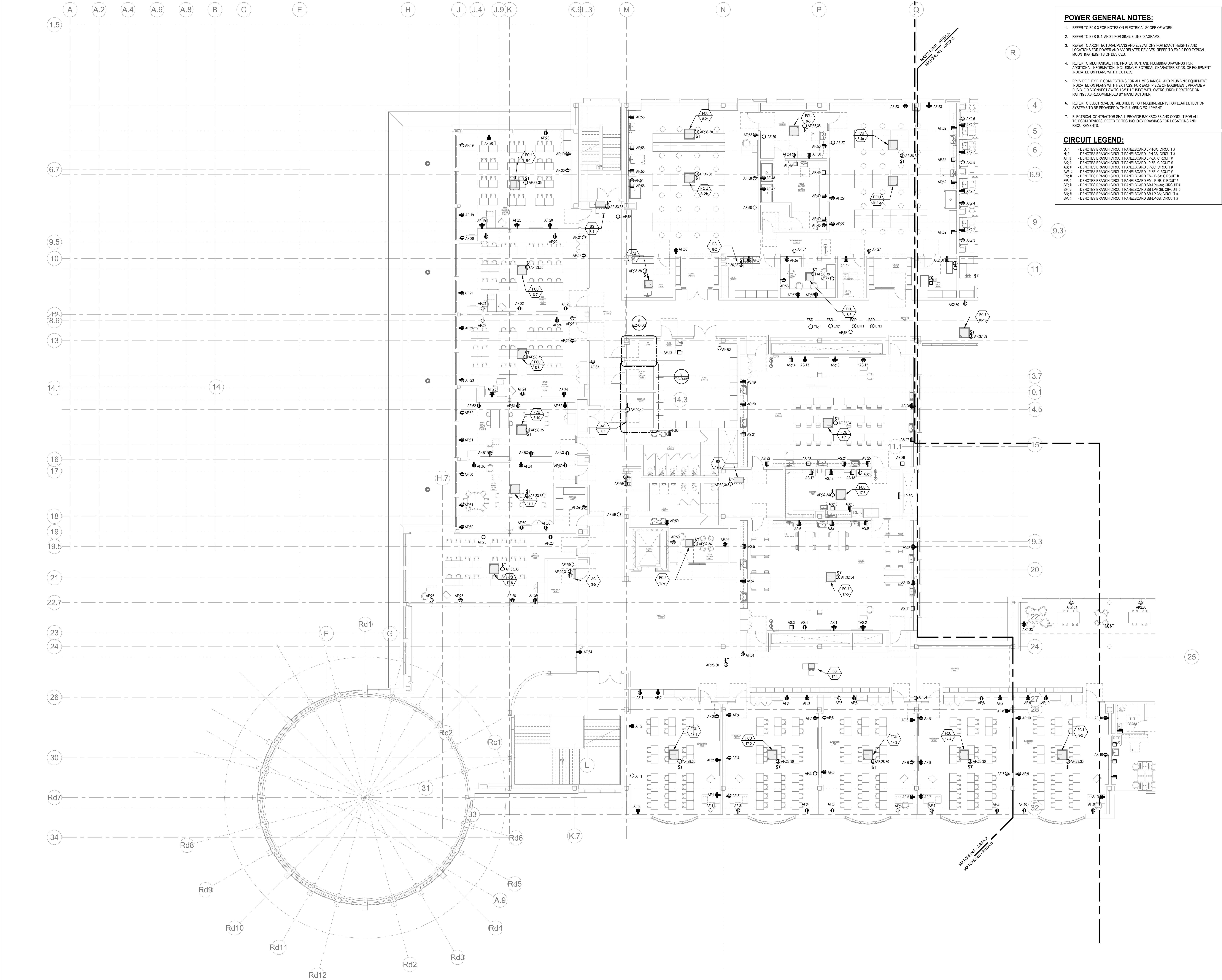


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**E1-1-3**





ELECTRICAL POWER Level 3 Area A  
1/8" = 1'-0"

**POWER GENERAL NOTES:**

- REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
- REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
- REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AIR RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
- REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
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- REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
- ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**CIRCUIT LEGEND:**

D # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3A, CIRCUIT #  
H # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3B, CIRCUIT #  
AF # - DENOTES BRANCH CIRCUIT PANELBOARD LP-3A, CIRCUIT #  
AK # - DENOTES BRANCH CIRCUIT PANELBOARD LP-3B, CIRCUIT #  
AS # - DENOTES BRANCH CIRCUIT PANELBOARD LP-3C, CIRCUIT #  
AW # - DENOTES BRANCH CIRCUIT PANELBOARD LP-3E, CIRCUIT #  
EN # - DENOTES BRANCH CIRCUIT PANELBOARD EMP-3A, CIRCUIT #  
EP # - DENOTES BRANCH CIRCUIT PANELBOARD EMP-3B, CIRCUIT #  
SE # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-3A, CIRCUIT #  
SF # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-3B, CIRCUIT #  
SN # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-3C, CIRCUIT #  
SP # - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3B, CIRCUIT #

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NEW HAMPSHIRE LICENSE NO. 0000000000  
VERMONT LICENSE NO. 0000000000

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Submittal  
May 12th, 2023

**KEY PLAN**

PROJECT NORTH  
MAGNETIC NORTH

**ELECTRICAL POWER THIRD FLOOR PLAN - AREA A**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

**E1-1-3A**

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POWER GENERAL NOTES:

1. REFER TO E3-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E3-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E3-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
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CIRCUIT LEGEND:

- D.# - DENOTES BRANCH CIRCUIT PANELBOARD LP#-3A, CIRCUIT #  
H.# - DENOTES BRANCH CIRCUIT PANELBOARD LP#-3B, CIRCUIT #  
AF.# - DENOTES BRANCH CIRCUIT PANELBOARD LP#-3A, CIRCUIT #  
AK.# - DENOTES BRANCH CIRCUIT PANELBOARD LP#-3B, CIRCUIT #  
AS.# - DENOTES BRANCH CIRCUIT PANELBOARD LP#-3C, CIRCUIT #  
AW.# - DENOTES BRANCH CIRCUIT PANELBOARD LP#-3C, CIRCUIT #  
EN.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-3A, CIRCUIT #  
SE.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3A, CIRCUIT #  
SF.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3B, CIRCUIT #  
SN.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3A, CIRCUIT #  
SP.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3B, CIRCUIT #

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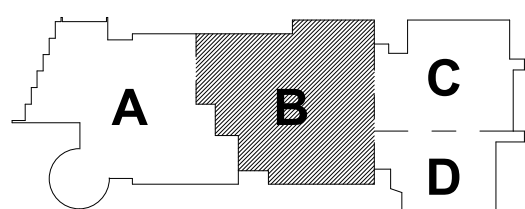
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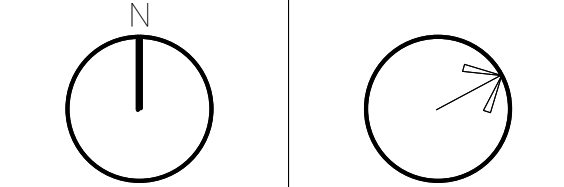
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KEY PLAN

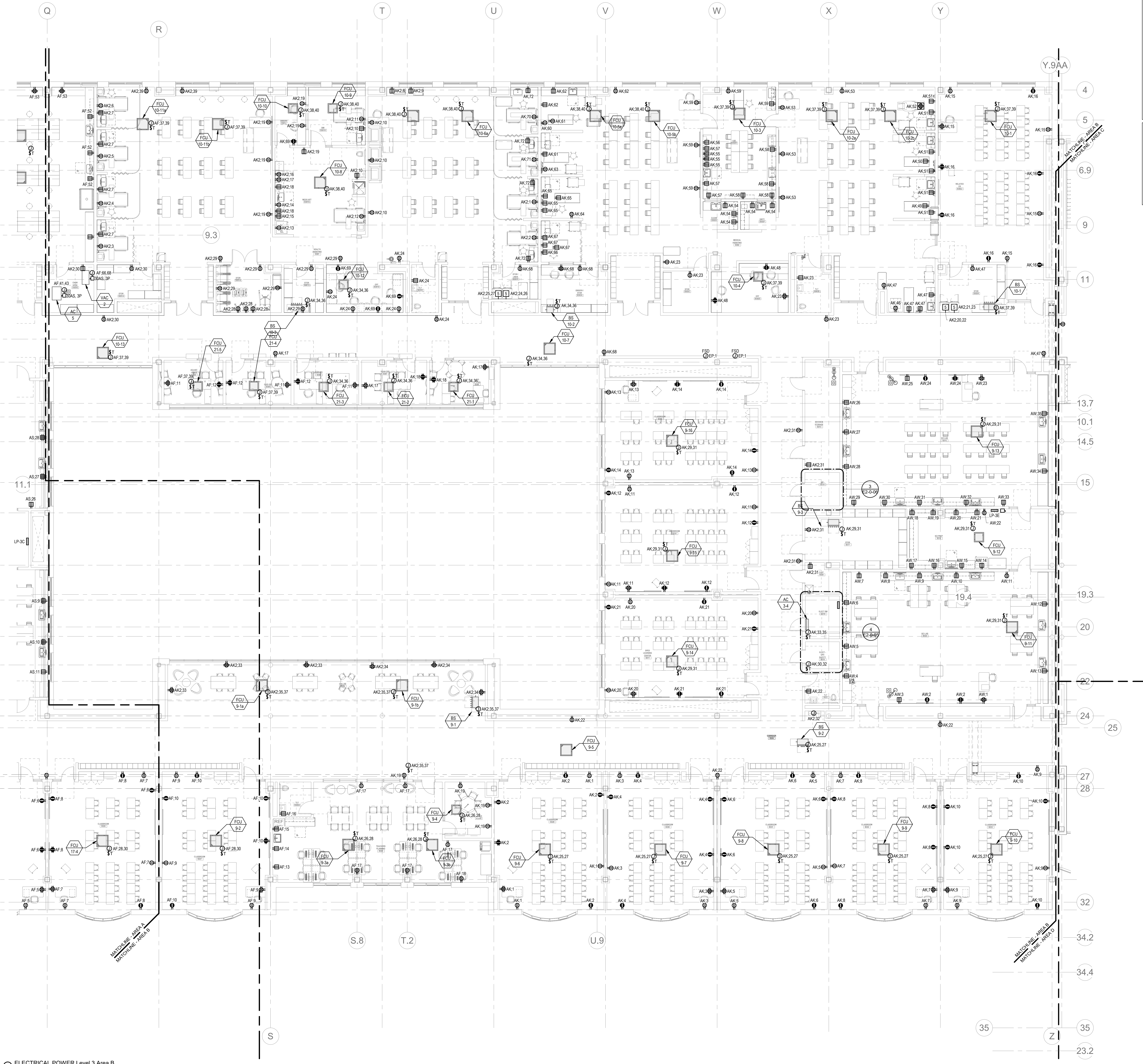
PROJECT NORTH MAGNETIC NORTH



ELECTRICAL  
POWER THIRD  
FLOOR PLAN -  
AREA B

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-1-3B



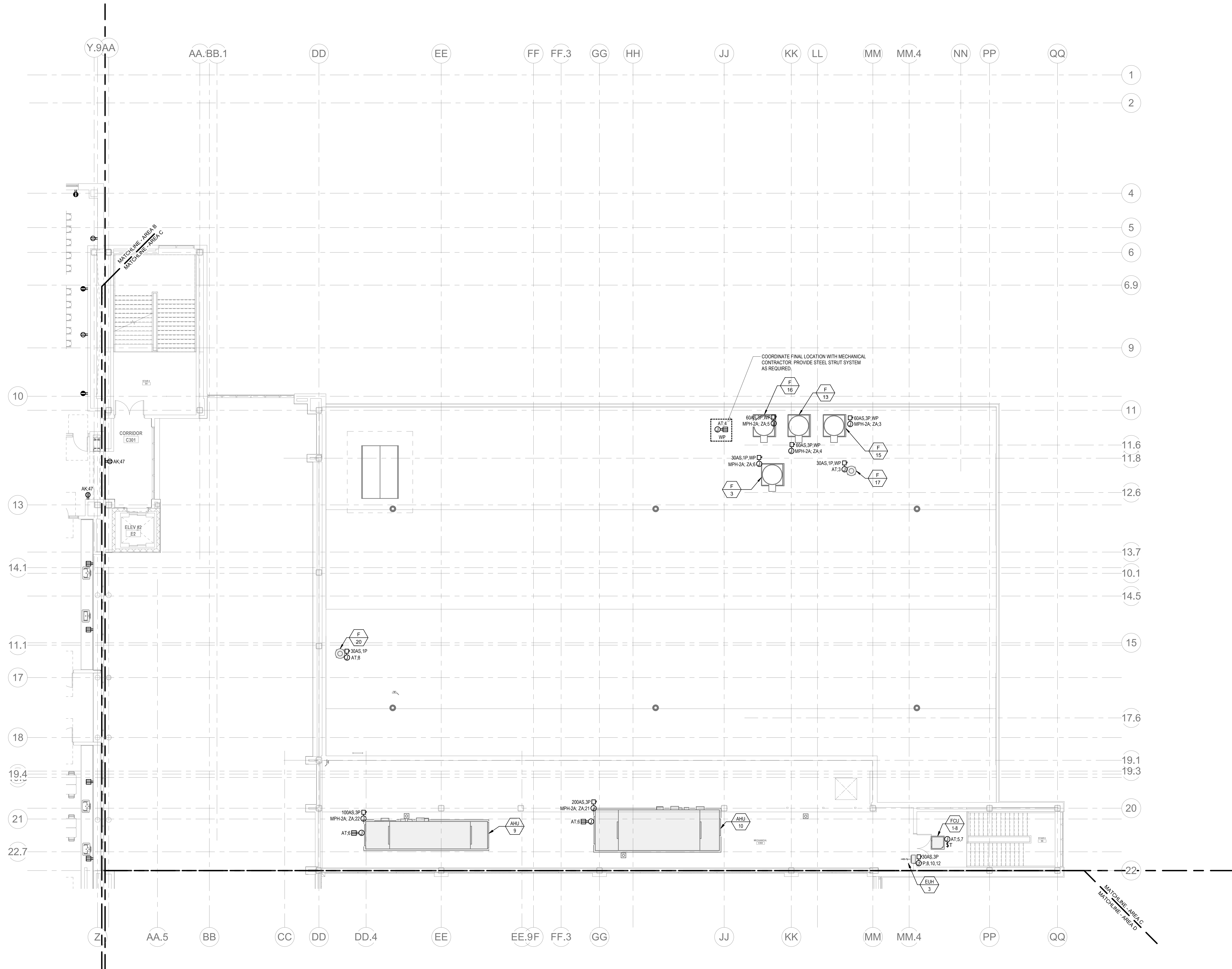


**POWER GENERAL NOTES:**

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**CIRCUIT LEGEND:**

- D.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3A, CIRCUIT #  
H.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3B, CIRCUIT #  
AF.# - DENOTES BRANCH CIRCUIT PANELBOARD LP-3A, CIRCUIT #  
AK.# - DENOTES BRANCH CIRCUIT PANELBOARD LP-3B, CIRCUIT #  
EN.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-3A, CIRCUIT #  
EP.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LP-3B, CIRCUIT #  
SE.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-3A, CIRCUIT #  
SF.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-3B, CIRCUIT #  
SN.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3A, CIRCUIT #  
SP.# - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-3B, CIRCUIT #





2. REFER TO E-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
3. REFER TO E-0.3-0.1, AND 2 FOR SINGLE LINE DIAGRAMS.
4. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E-0.4 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
5. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR DETAILED INFORMATION AND ELECTRICAL CHARACTERISTICS OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
6. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH TYPE OF EQUIPMENT, PROVIDE A MINIMUM OF TWO SWAY AND TWO OVERSIGHT PROTECTION RATING AS RECOMMENDED BY MANUFACTURER.
7. REFER TO ELECTRICAL, DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
8. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

|       |                                                          |
|-------|----------------------------------------------------------|
| H: #  | - DENOTES BRANCH CIRCUIT PANELBOARD LPH-34; CIRCUIT #    |
| H: #  | - DENOTES BRANCH CIRCUIT PANELBOARD LPH-38; CIRCUIT #    |
| AF: # | - DENOTES BRANCH CIRCUIT PANELBOARD LP-34; CIRCUIT #     |
| AK: # | - DENOTES BRANCH CIRCUIT PANELBOARD LP-38; CIRCUIT #     |
| EN: # | - DENOTES BRANCH CIRCUIT PANELBOARD EMLP-34; CIRCUIT #   |
| EP: # | - DENOTES BRANCH CIRCUIT PANELBOARD EMLP-38; CIRCUIT #   |
| SE: # | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-34; CIRCUIT # |
| SP: # | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LPH-38; CIRCUIT # |
| SN: # | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-34; CIRCUIT #  |
| SP: # | - DENOTES BRANCH CIRCUIT PANELBOARD SB-LP-38; CIRCUIT #  |



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Scale: 1/8" = 1'-0"  
 No.: 60-20-409  
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 Date: May 12th, 2023

**E1-1-3D**

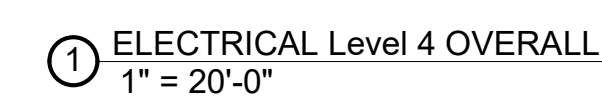
Scale: 1/8" = 1'-0"  
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**E1-1-3D**



3. OVERALL ELECTRICAL FLOOR PLANS SHOW LOCATIONS OF MAJOR DISTRIBUTION EQUIPMENT - SWITCHBOARDS, TRANSFER SWITCHES, TRANSFORMERS, PANELBOARDS, AND CONDUIT RUNS FOR MAIN FEEDERS. REFER TO POWER AND LIGHTING AREA PLANS AND ENLARGED PLANS FOR LOCATIONS OF OTHER ELECTRICAL EQUIPMENT.

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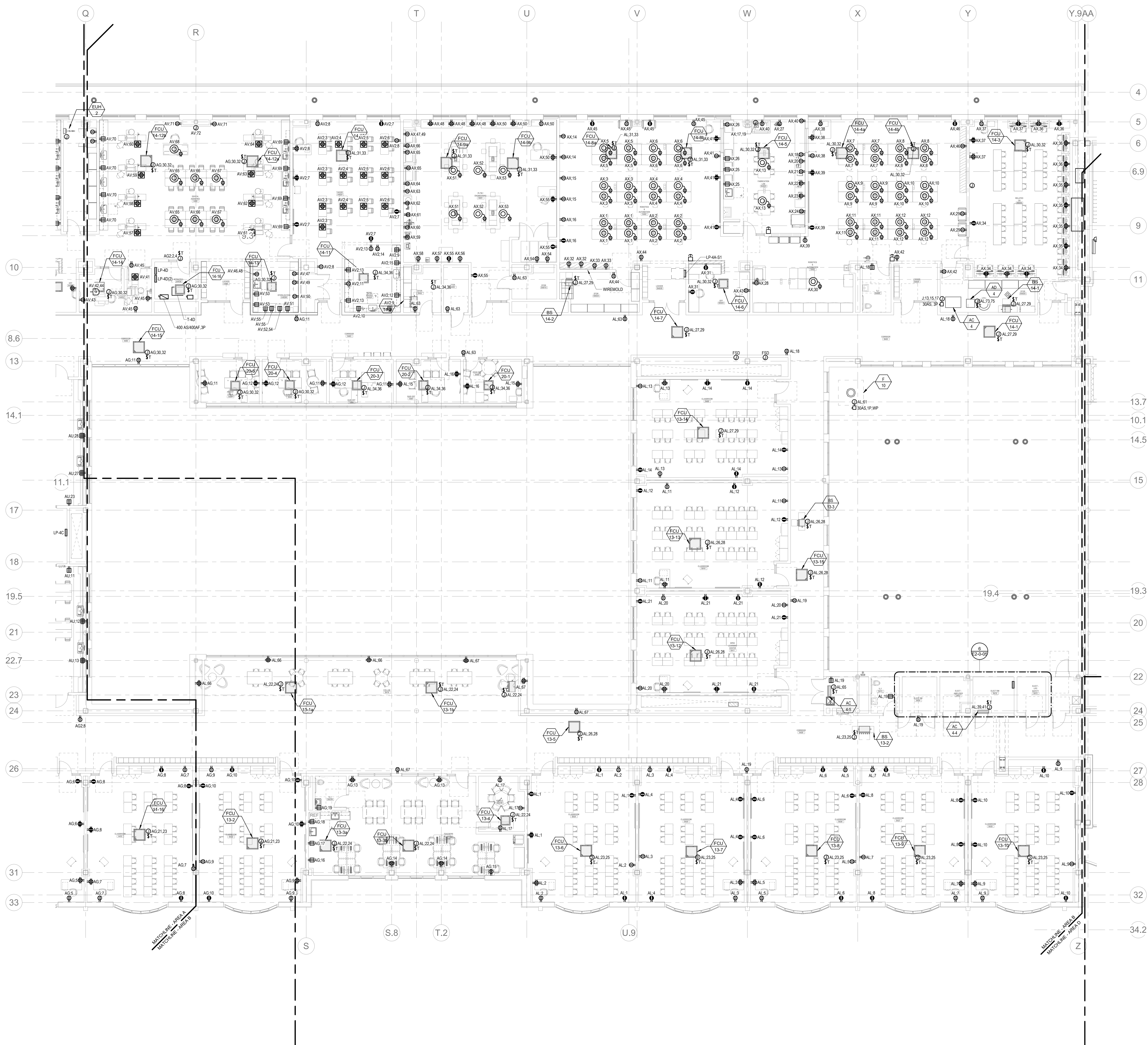
**E1-1-4**





**E1-1-4A**





**POWER GENERAL NOTES:**

1. REFER TO E0-0.1 AND 2 FOR SINGLE LINE DIAGRAMS.
2. REFER TO E0-0.1 AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AIR RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**CIRCUIT LEGEND:**

F.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4A, CIRCUIT #  
Z.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4B, CIRCUIT #  
AG.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4C, CIRCUIT #  
AL.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4D, CIRCUIT #  
AV.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4E, CIRCUIT #  
AX.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4F, CIRCUIT #  
BS.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4G, CIRCUIT #  
EQ.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4H, CIRCUIT #  
ER.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4I, CIRCUIT #  
SG.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4J, CIRCUIT #  
SH.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4K, CIRCUIT #  
SR.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4L, CIRCUIT #

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**KEY PLAN**

PROJECT NORTH  
MAGNETIC NORTH

**ELECTRICAL  
POWER FOURTH  
FLOOR PLAN -  
AREA B**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

**E1-1-4B**



3. OVERALL ELECTRICAL FLOOR PLANS SHOW LOCATIONS OF MAJOR DISTRIBUTION EQUIPMENT - SWITCHBOARDS, TRANSFER SWITCHES, TRANSFORMERS, PANELBOARDS, AND CONDUIT RUNS FOR MAIN FEEDERS. REFER TO POWER AND LIGHTING AREA PLANS AND ENLARGED PLANS FOR LOCATIONS OF OTHER ELECTRICAL EQUIPMENT.

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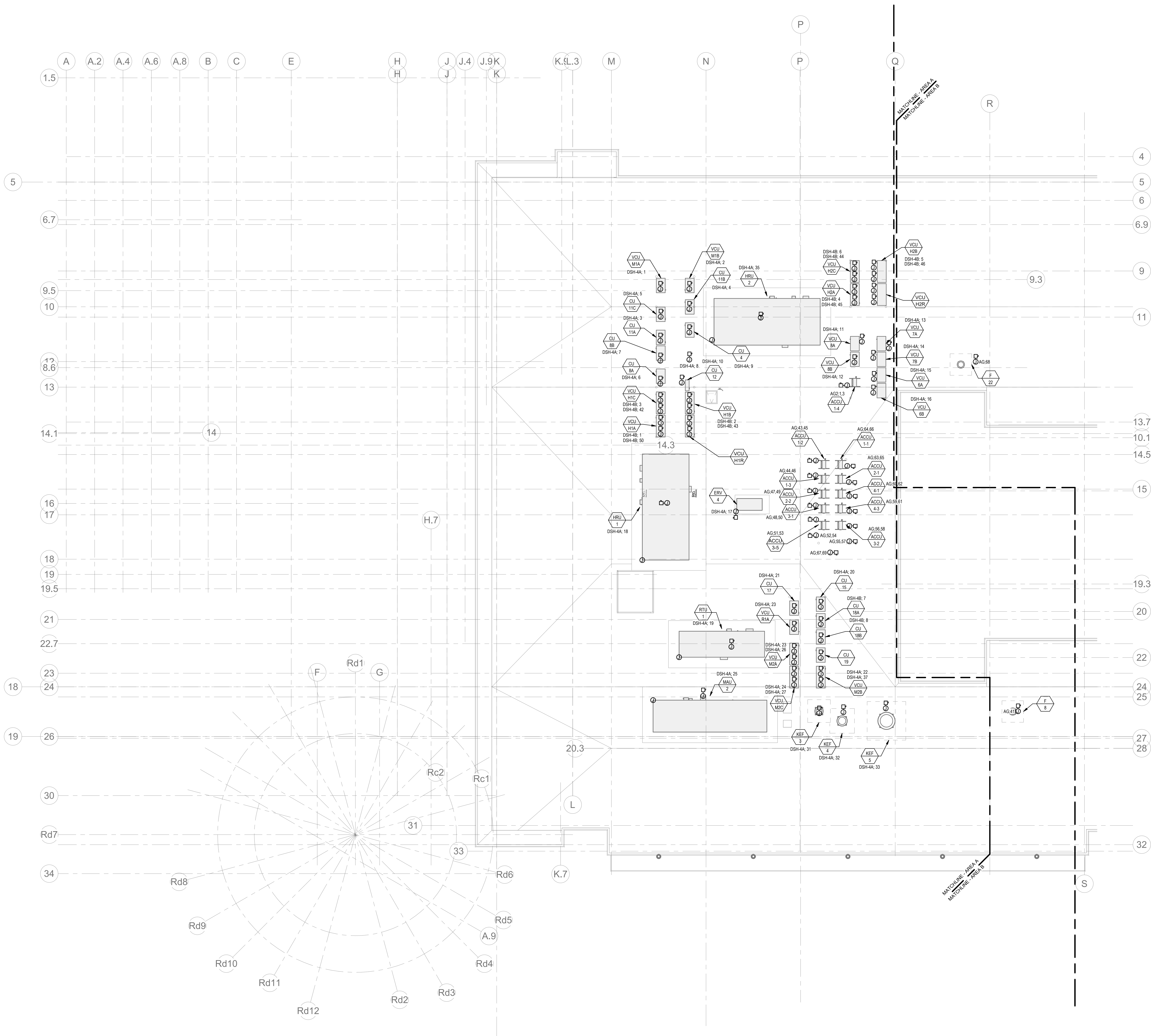
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**E1-2-1**





1 ELECTRICAL POWER Main Roof Area A  
1" = 10'-0"

- POWER GENERAL NOTES:**
1. REFER TO E0-0.1 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
  2. REFER TO E0-0.1, AND 2 FOR SINGLE LINE DIAGRAMS.
  3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
  4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
  5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
  6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
  7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**CIRCUIT LEGEND:**  
X, # - DENOTES BRANCH CIRCUIT PANEL/BOARD DSH-4A; CIRCUIT #

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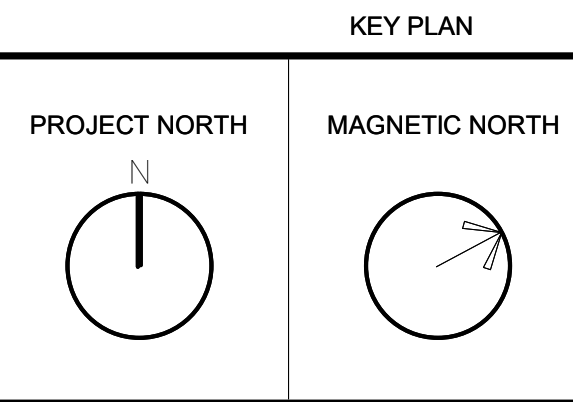
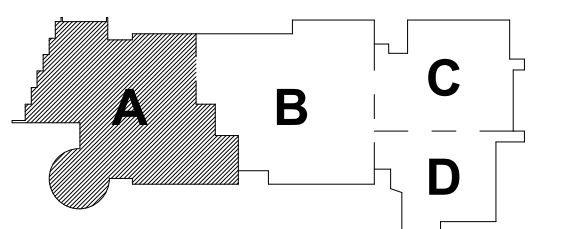
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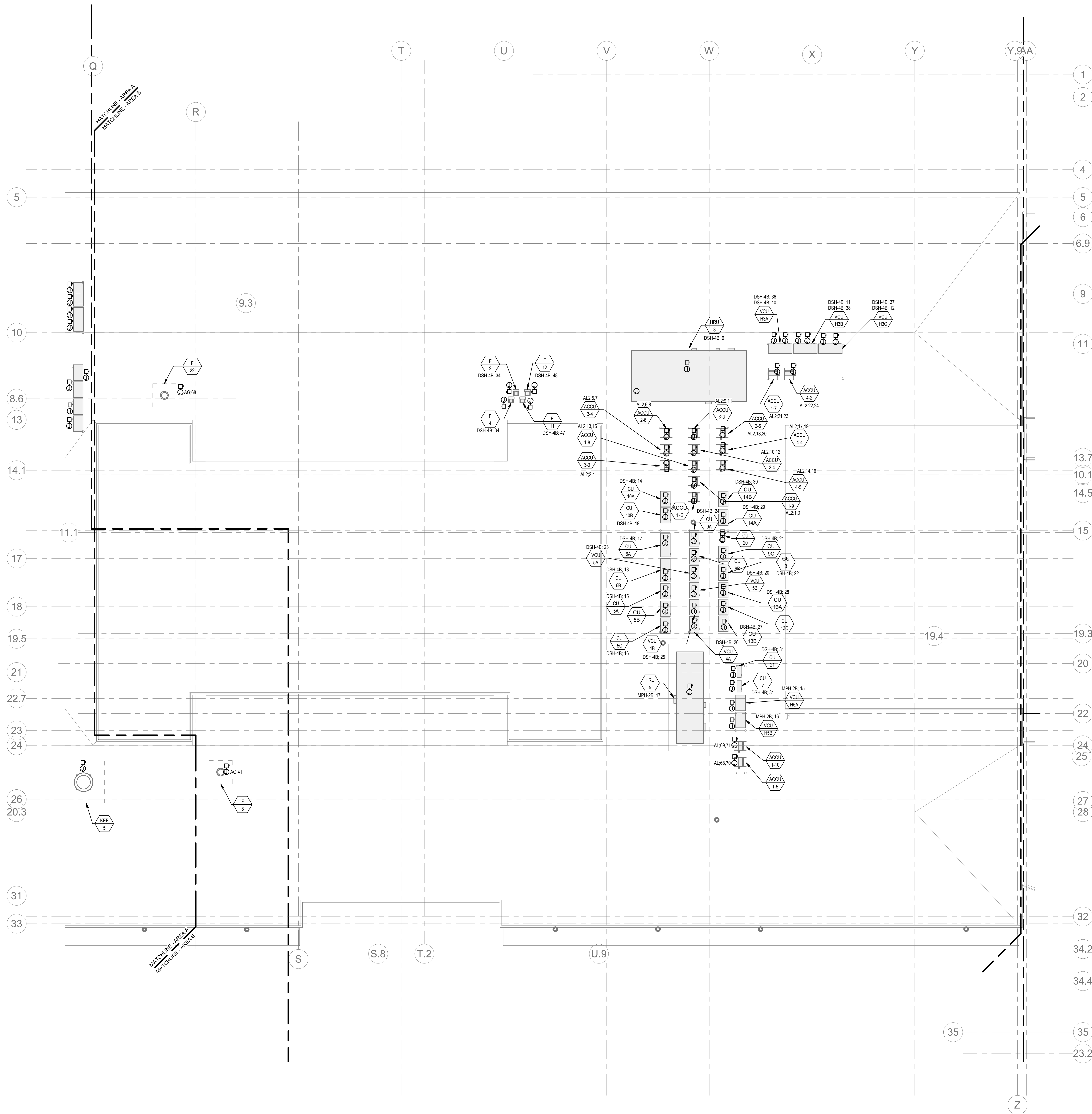


**ELECTRICAL  
POWER ROOF  
PLAN - AREA A**

Scale: 1" = 10'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

**E1-2-1A**





1 ELECTRICAL POWER Main Roof Area B  
1" = 10'-0"

**POWER GENERAL NOTES:**

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

**CIRCUIT LEGEND:**

Y.# - DENOTES BRANCH CIRCUIT PANELBOARD DSH-4B; CIRCUIT #

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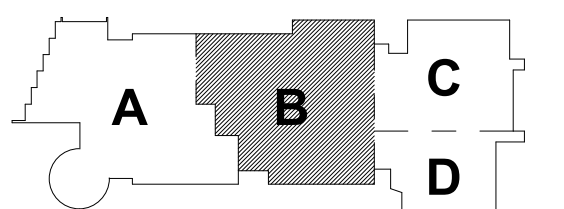
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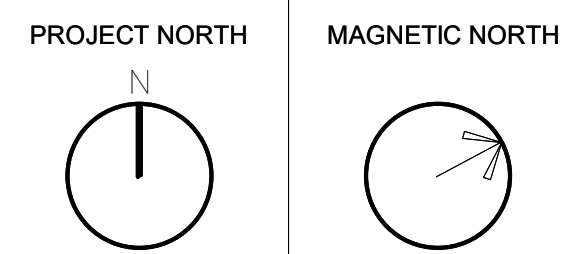
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May 12th, 2023



KEY PLAN



ELECTRICAL  
POWER ROOF  
PLAN - AREA B

Scale: 1" = 10'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-2-1B



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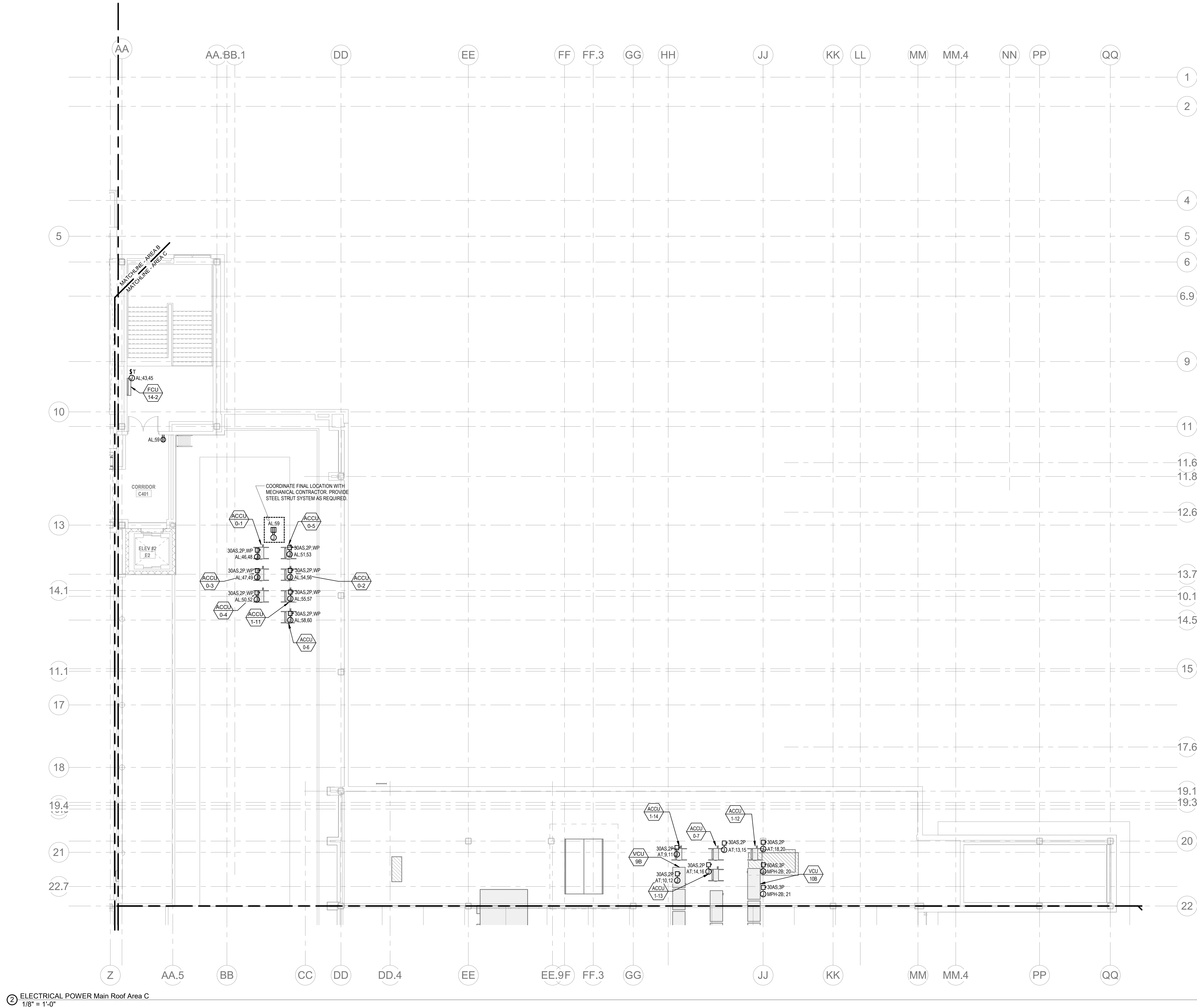
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POWER GENERAL NOTES:

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A FUSIBLE DISCONNECT SWITCH (WITH FUSES) WITH OVERCURRENT PROTECTION RATINGS AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

CIRCUIT LEGEND:

ZA: # - DENOTES BRANCH CIRCUIT PANELBOARD MPH-2A; CIRCUIT #  
ZB: # - DENOTES BRANCH CIRCUIT PANELBOARD MPH-2B; CIRCUIT #

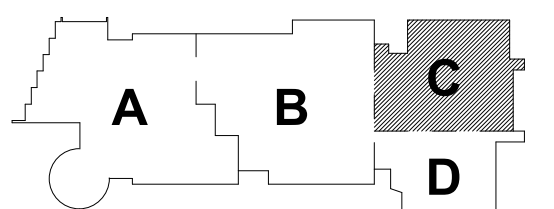


2 ELECTRICAL POWER Main Roof Area C  
1/8" = 1'-0"

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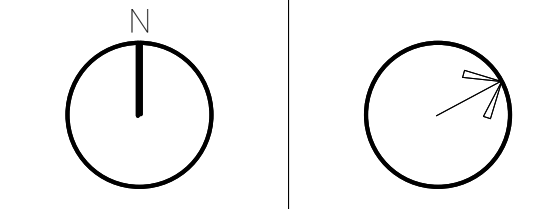
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KEY PLAN

PROJECT NORTH MAGNETIC NORTH



ELECTRICAL  
POWER ROOF  
PLAN - AREA C

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-2-1C



Wakefield, MA 01880



1. REFER TO E04-3 FOR NOTES ON ELECTRICAL SCHE OF WORK.
2. REFER TO E04-0.1, 2 AND 3 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AIR RELATED DEVICES. REFER TO E04-2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. INDICATING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
5. PROVIDE FLEXIBLE CONNECTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT INDICATED ON PLANS WITH HEX TAGS. FOR EACH PIECE OF EQUIPMENT, PROVIDE A 1/2" CONDUIT SWITCH WITH 1/2" CONDUIT. PROVIDE OVERCURRENT PROTECTION RATING AS RECOMMENDED BY MANUFACTURER.
6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM OUTLETS. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.

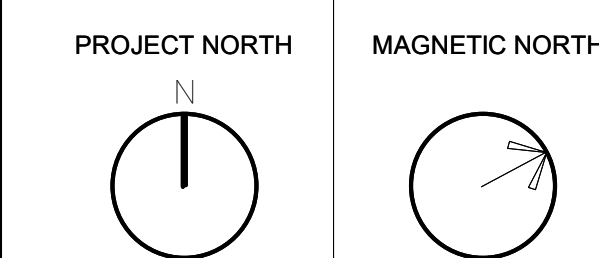
ZA; # - DENOTES BRANCH CIRCUIT PANELBOARD MPH-2A; CIRCUIT #  
ZB; # - DENOTES BRANCH CIRCUIT PANELBOARD MPH-2B; CIRCUIT #

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Scale: 1/8" = 1'-0"

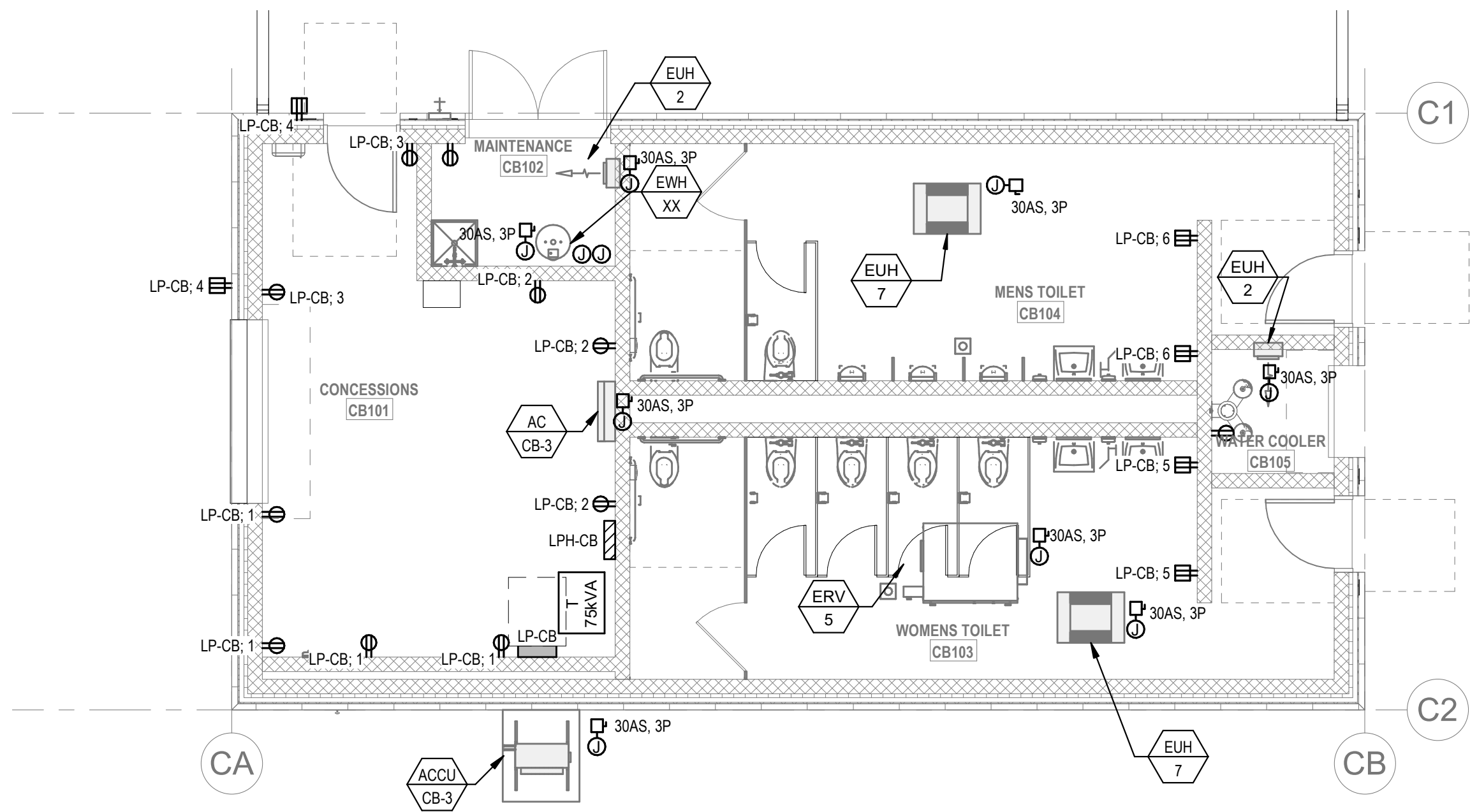
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023

**E1-2-1D**



POWER GENERAL NOTES:

1. REFER TO E3-0-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E3-0-0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AV RELATED DEVICES. REFER TO E3-0-2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS, OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
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6. REFER TO ELECTRICAL DETAIL SHEETS FOR REQUIREMENTS FOR LEAK DETECTION SYSTEMS TO BE PROVIDED WITH PLUMBING EQUIPMENT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.



1 ELECTRICAL - CONCESSIONS FLOOR LEVEL POWER PLAN (ADD ALTERNATE)  
1'-1'-0" 3/16" = 1'-0"

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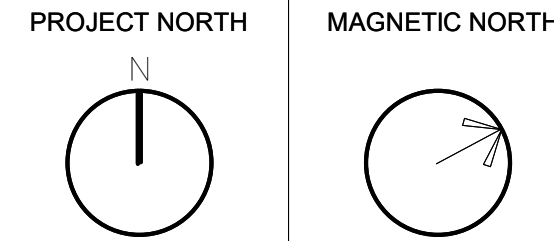
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ELECTRICAL  
POWER  
CONCESSIONS  
BUILDING PLAN

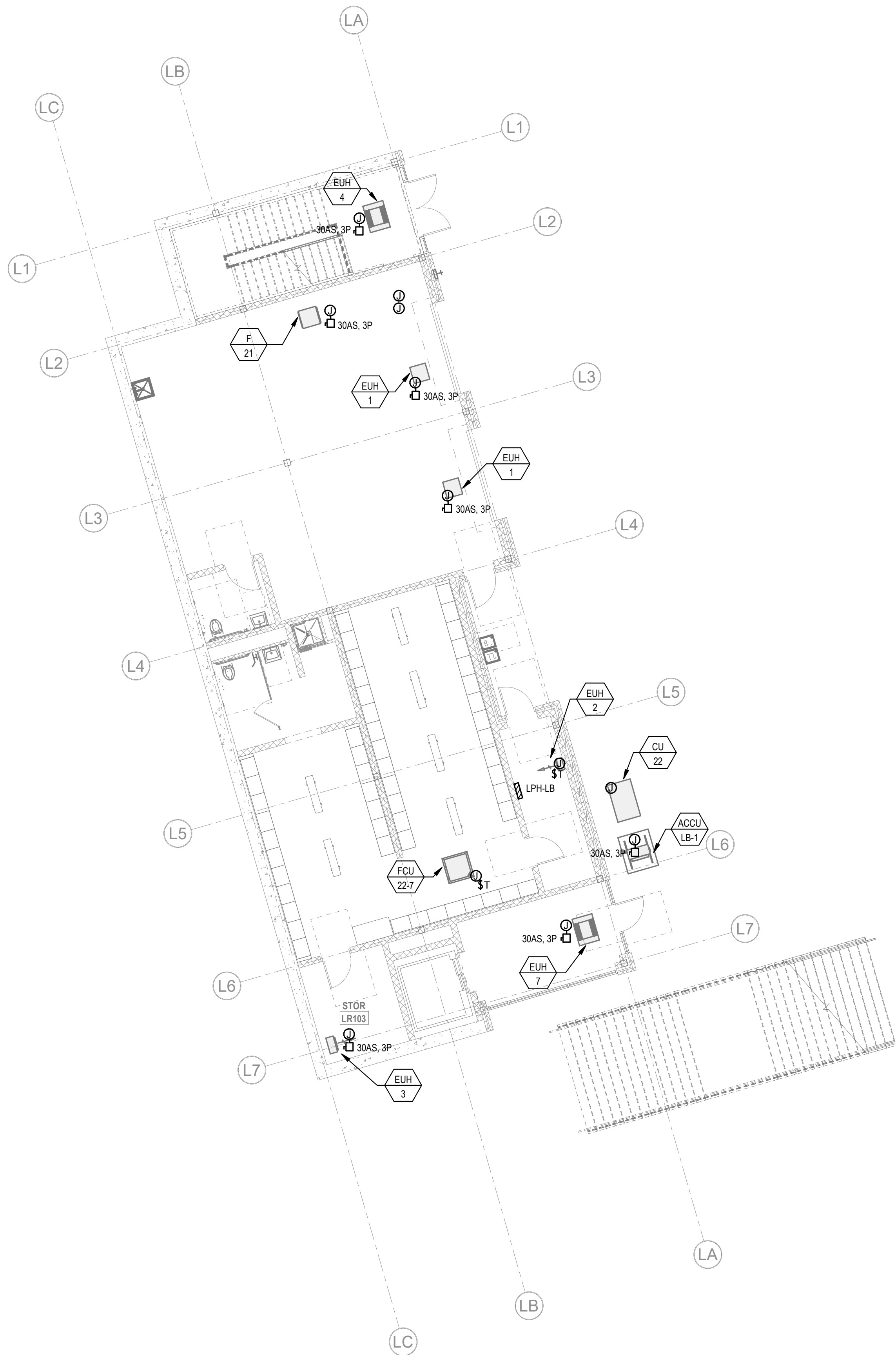
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Job No. 160-20-409  
Drawn By: QAA  
Date: May 12th, 2023

E1-1-CB

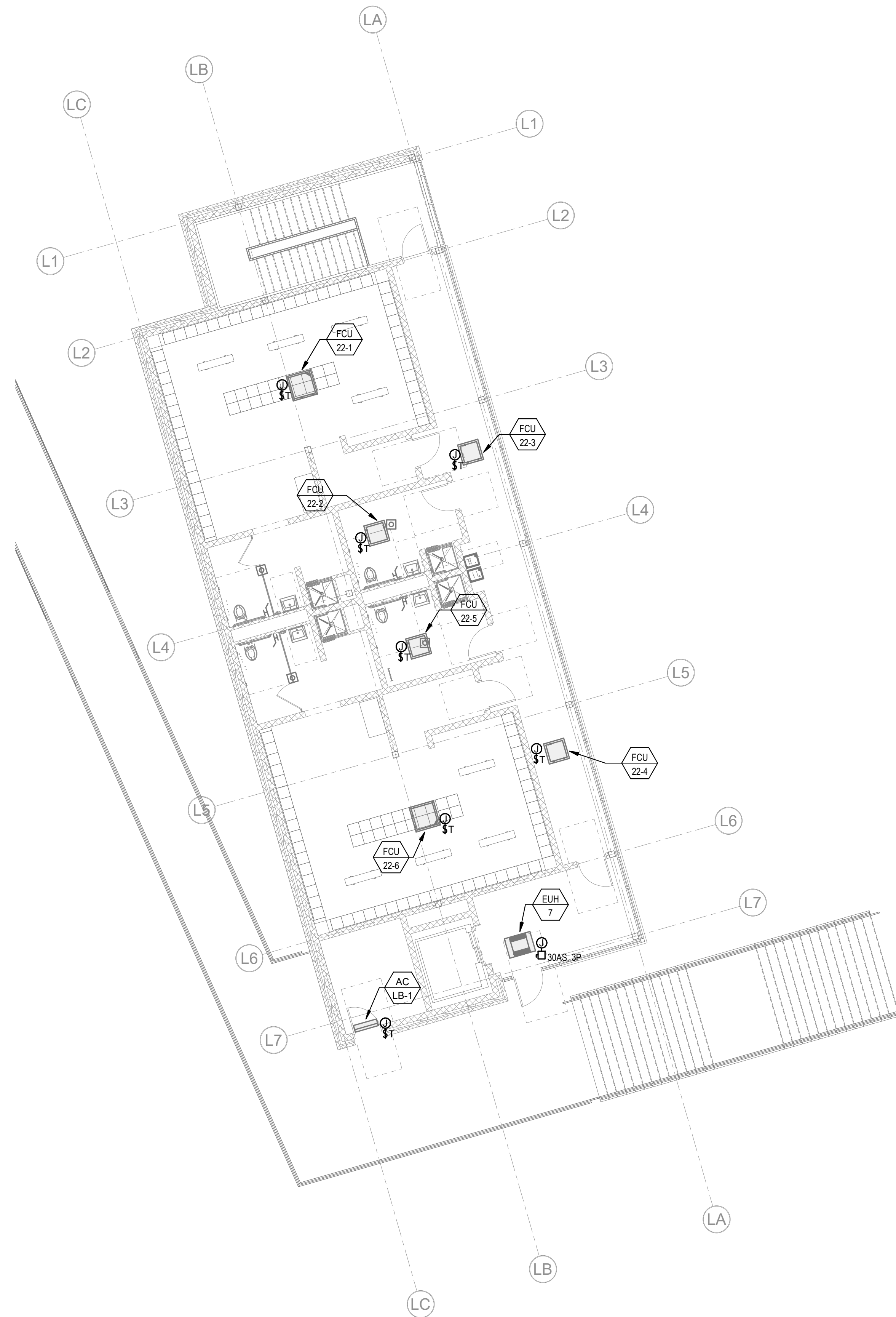


POWER GENERAL NOTES:

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E3-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAM.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
4. REFER TO MECHANICAL, FIRE PROTECTION, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION, INCLUDING ELECTRICAL CHARACTERISTICS OF EQUIPMENT INDICATED ON PLANS WITH HEX TAGS.
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7. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES AND CONDUIT FOR ALL TELECOM DEVICES. REFER TO TECHNOLOGY DRAWINGS FOR LOCATIONS AND REQUIREMENTS.



1 ELECTRICAL POWER Locker Building First Floor (ADD ALTERNATE)  
1/8" = 1'-0"



2 ELECTRICAL POWER Locker Building Second Level (ADD ALTERNATE)  
1/8" = 1'-0"

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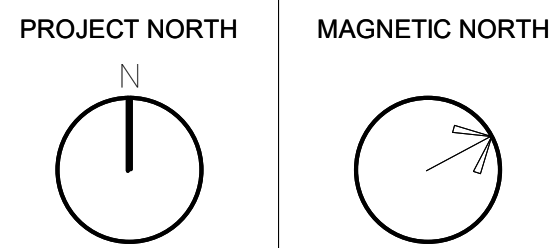
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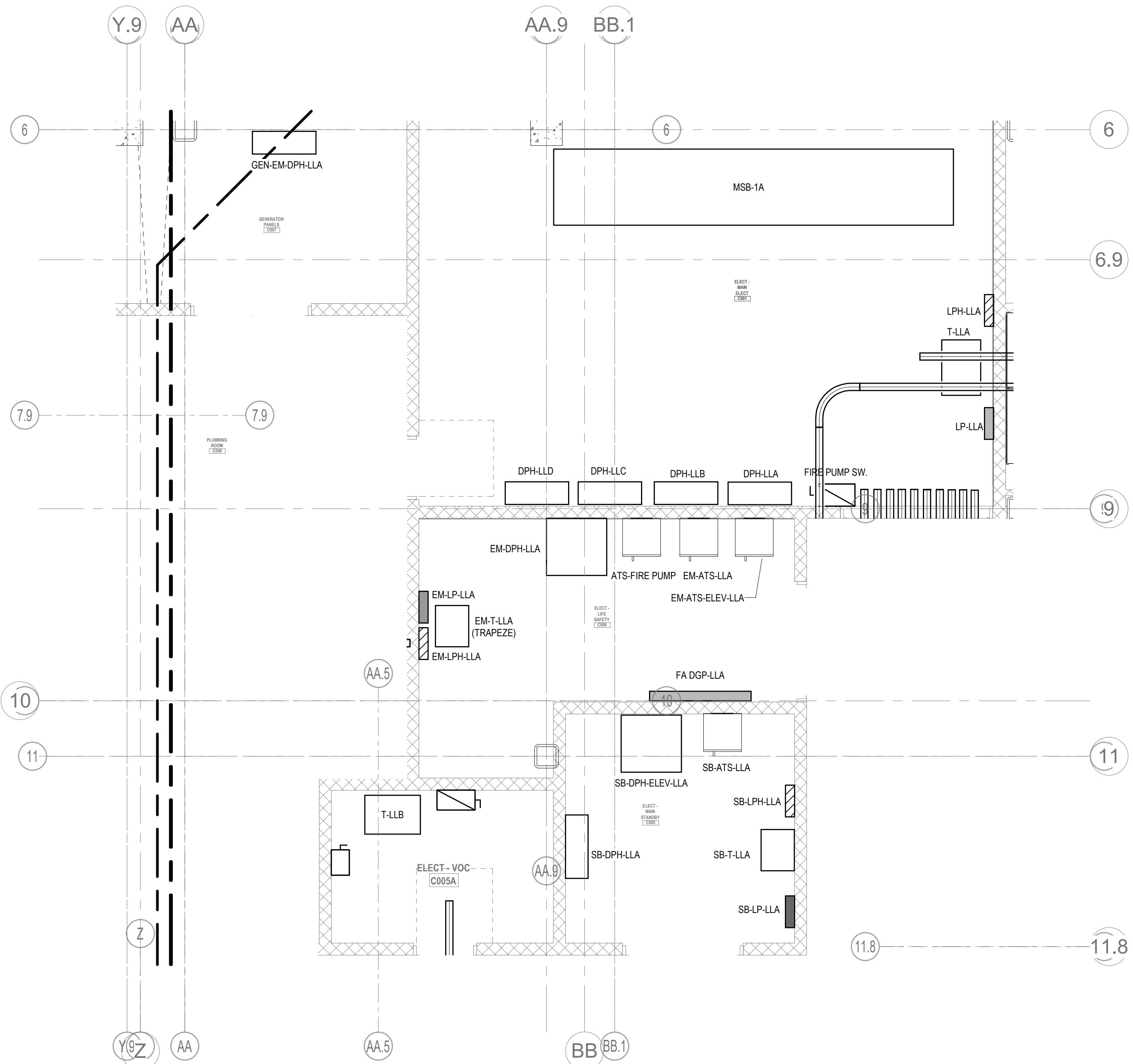
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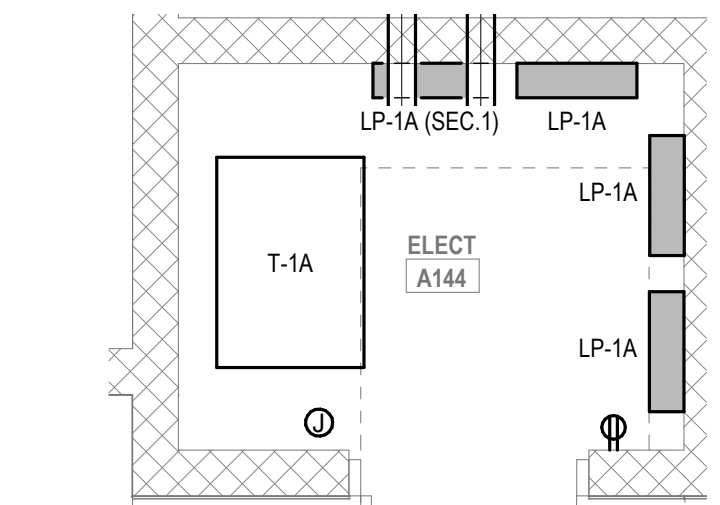
ELECTRICAL  
POWER LOCKER  
BUILDING PLAN

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: QAA  
Date: May 12th, 2023  
E1-1-LB

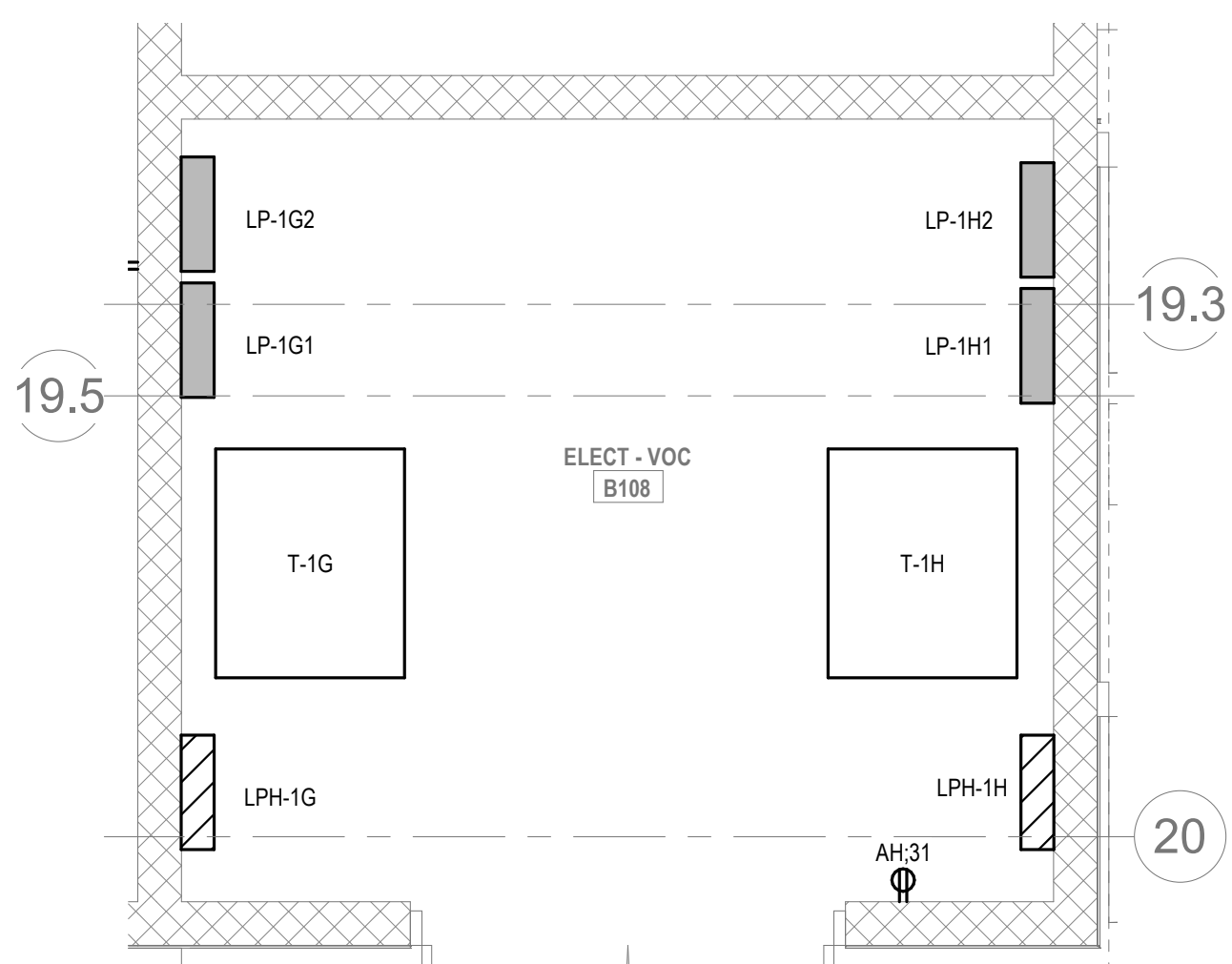




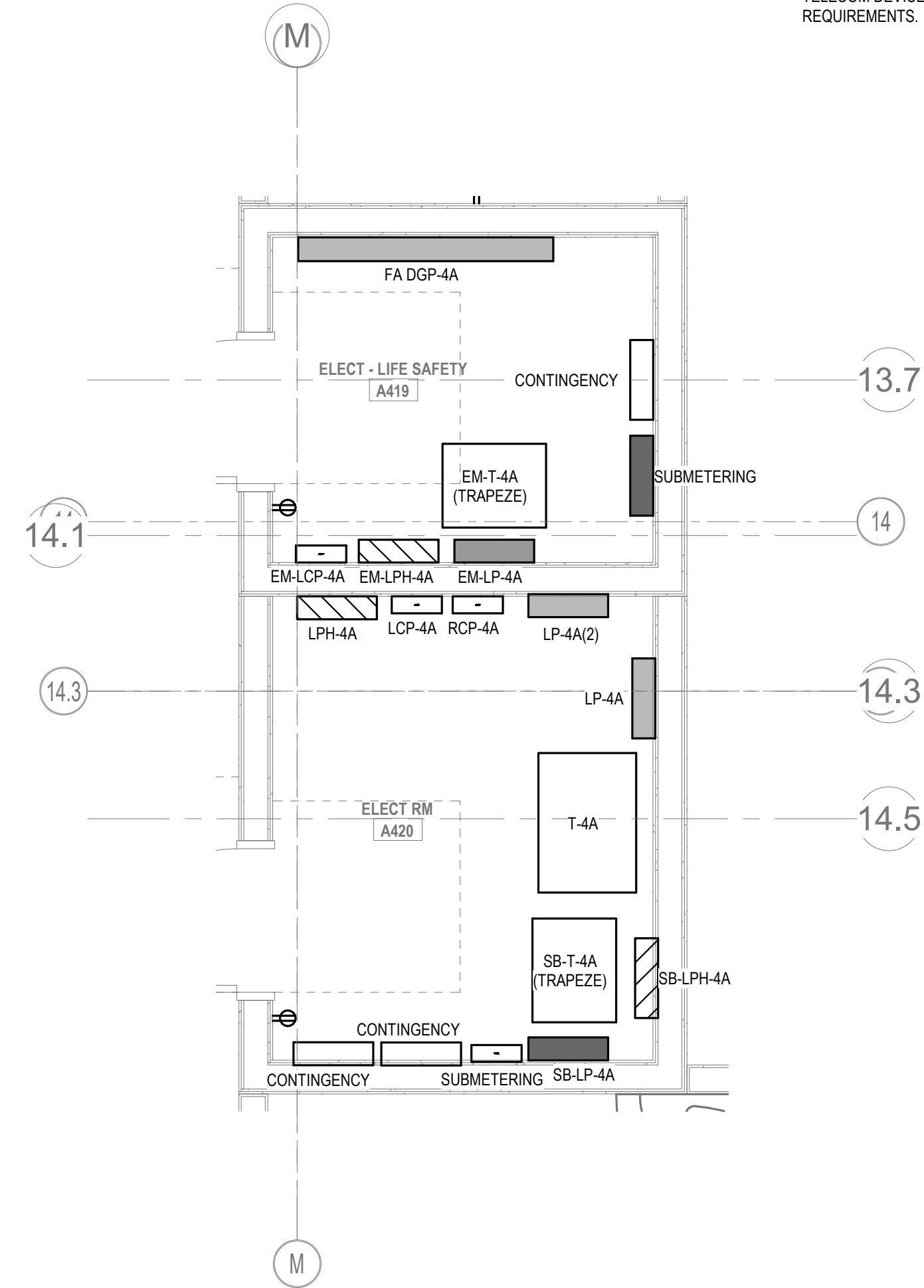
⑧ ELECTRICAL Level 0 OVERALL - MAIN ELECTRIC ROOM1  
1/4" = 1'-0"



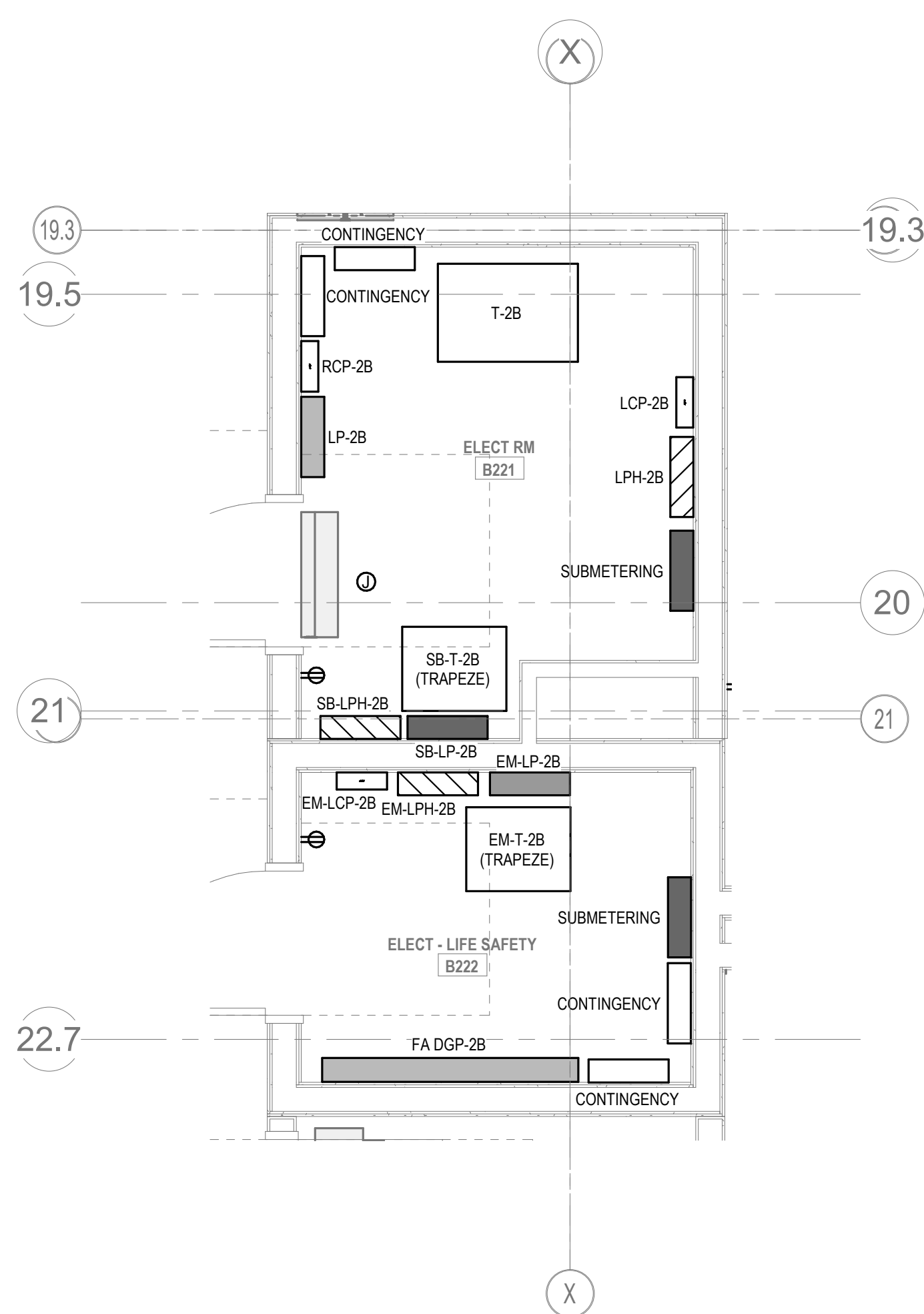
⑦ ELECTRICAL Level 1 - ELECTRICAL ROOMS PART PLAN - ELECT A144  
3/8" = 1'-0"



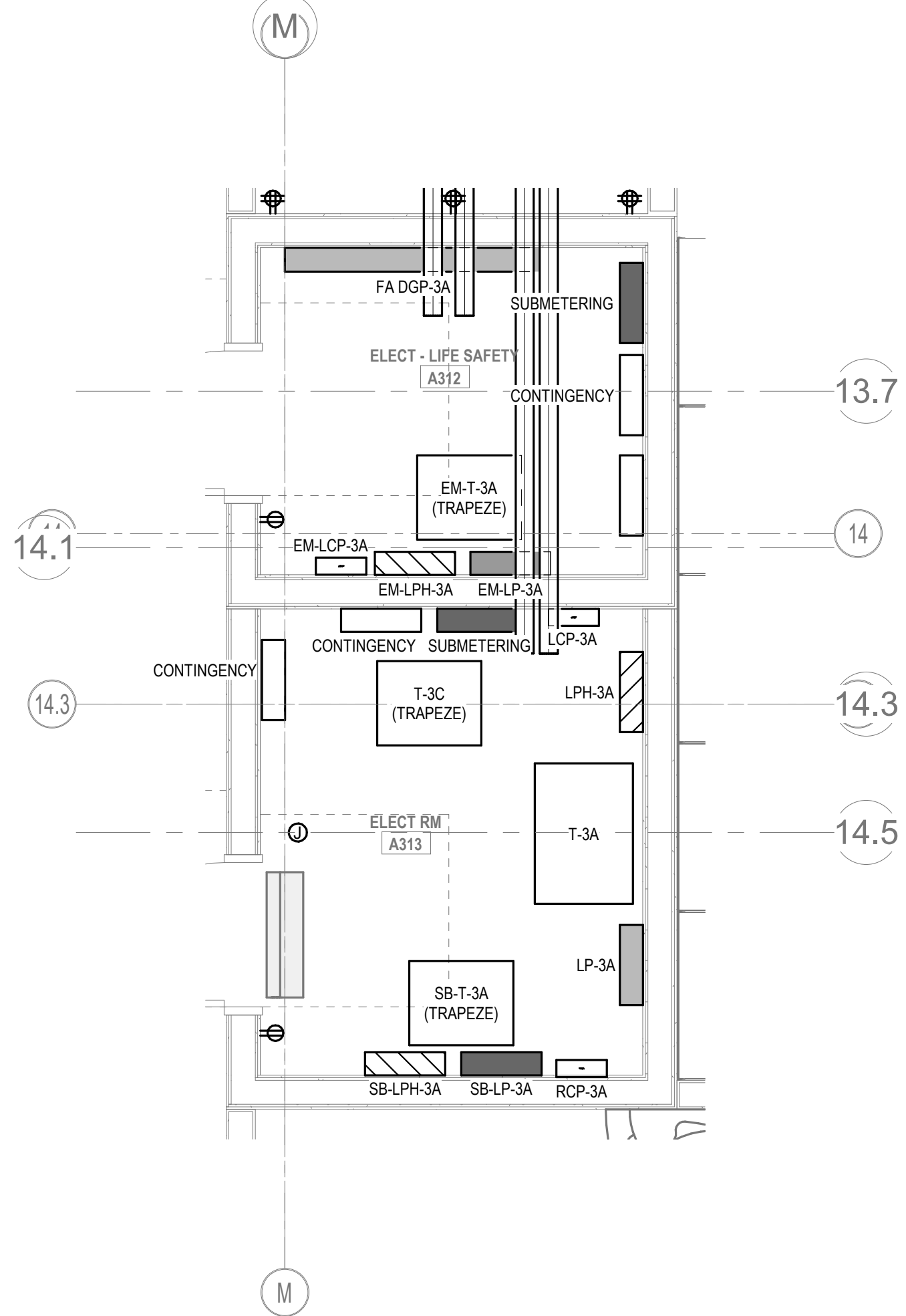
⑨ ELECTRICAL POWER Level 1 Area B - ELECT - VOC B108  
3/8" = 1'-0"



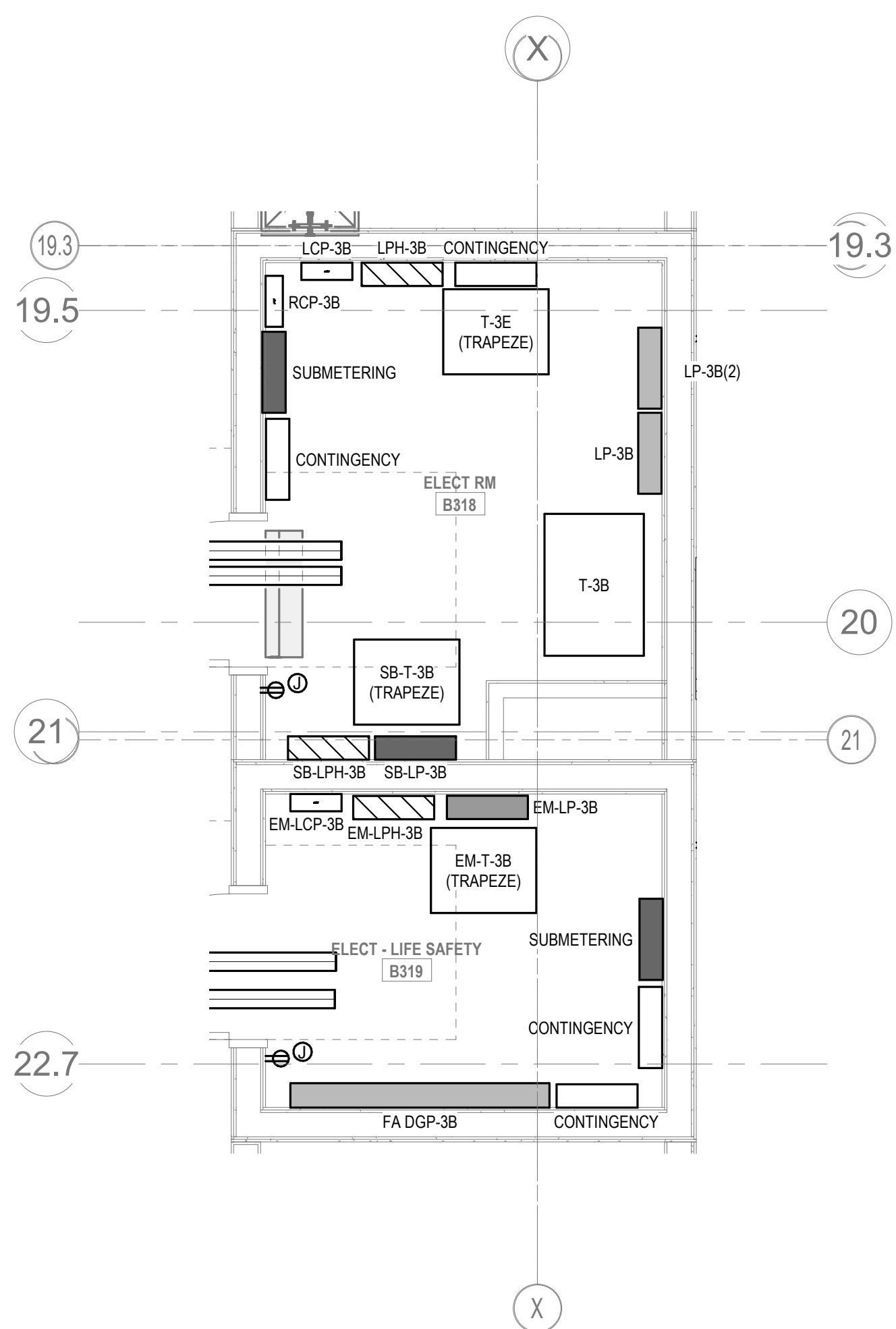
⑪ ELECTRICAL Level 4 - ELECTRICAL ROOMS PART PLAN - 4A  
3/8" = 1'-0"



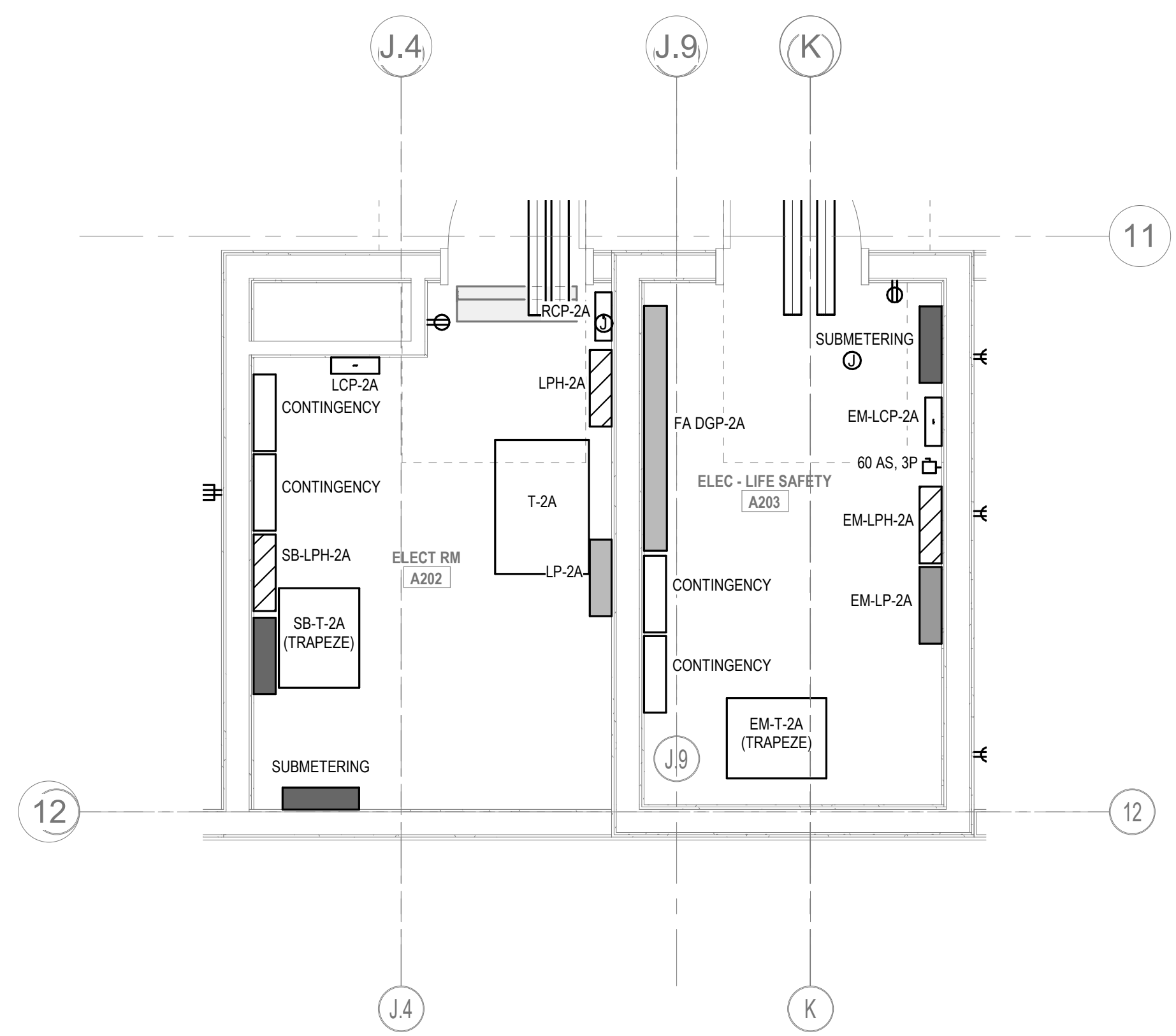
② ELECTRICAL Level 2 - ELECTRICAL ROOMS PART PLAN - 2B  
3/8" = 1'-0"



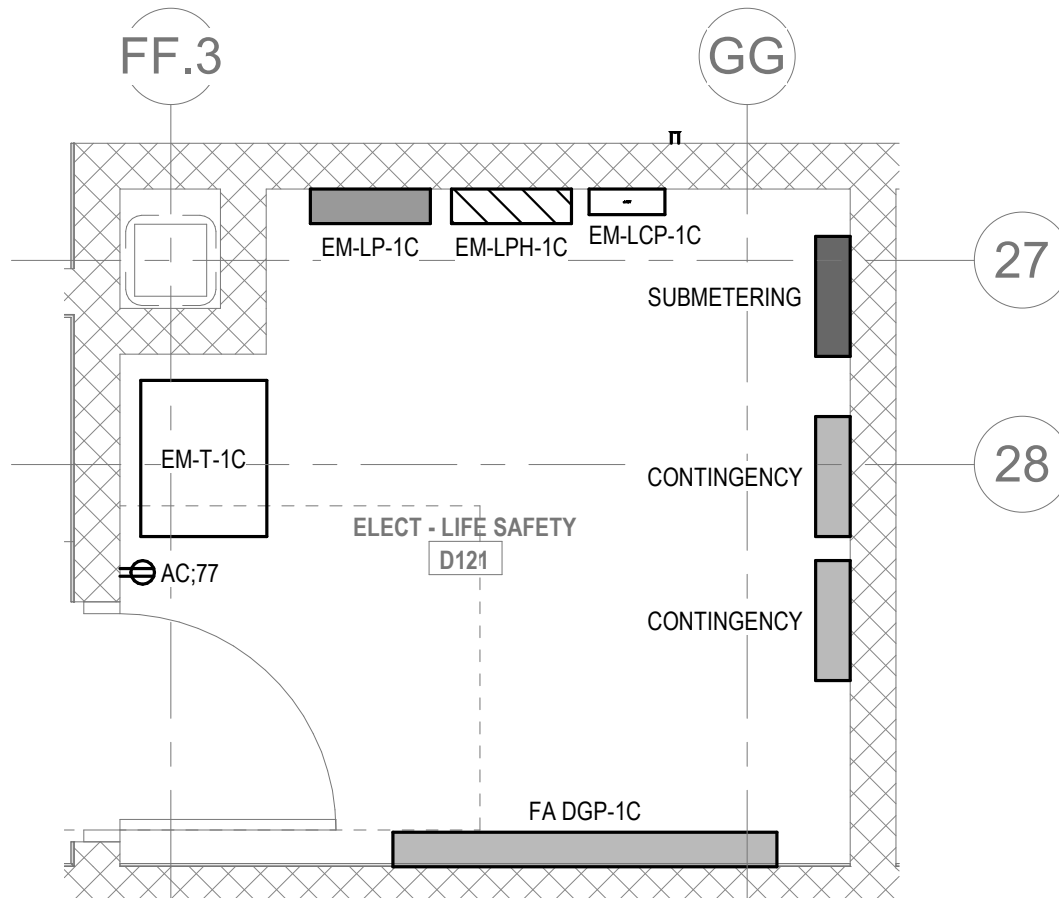
③ ELECTRICAL Level 3 - ELECTRICAL ROOMS PART PLAN - 3A  
3/8" = 1'-0"



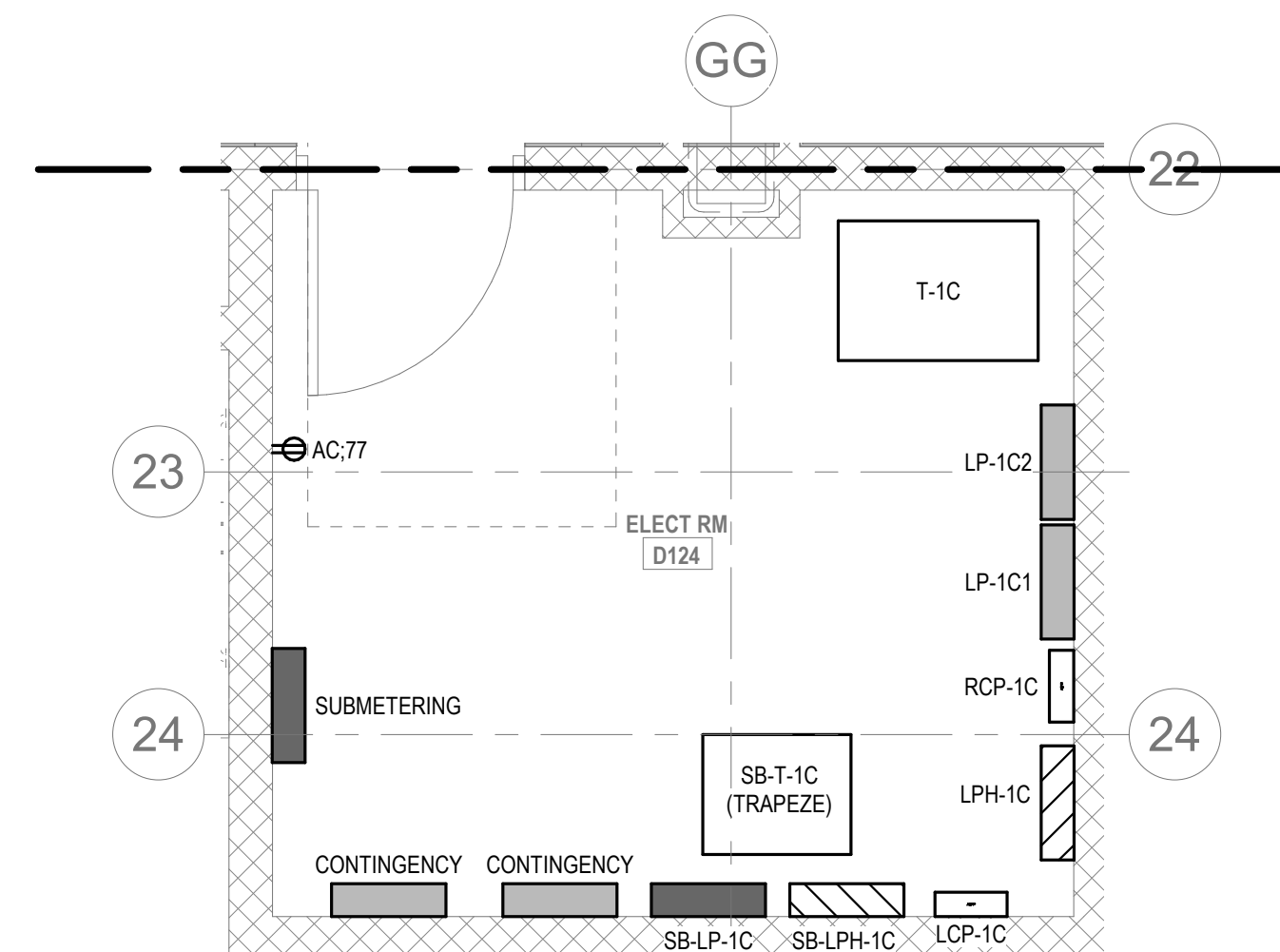
④ ELECTRICAL Level 3 - ELECTRICAL ROOMS PART PLAN - 3B  
3/8" = 1'-0"



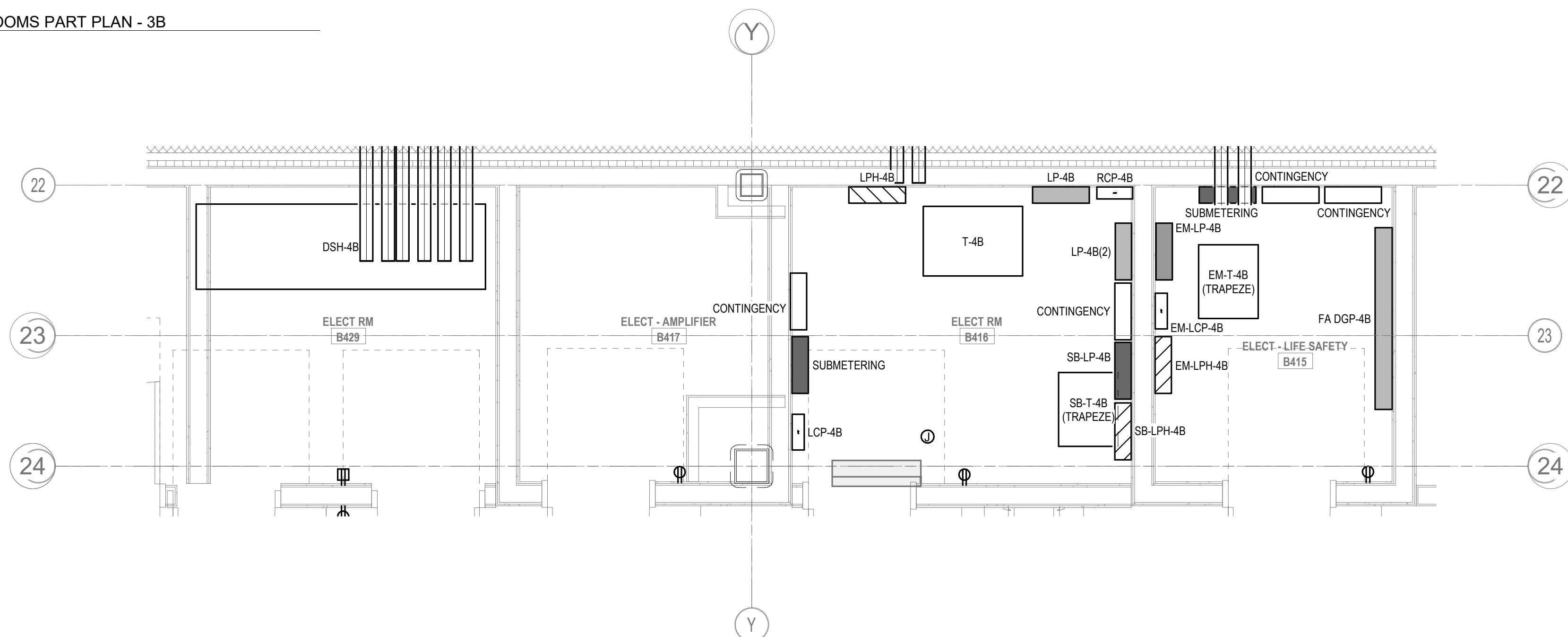
① ELECTRICAL Level 2 - ELECTRICAL ROOMS PART PLAN - 2A  
3/8" = 1'-0"



⑩ ELECTRICAL POWER Level 1 Area D - ELECT-LIFE SAFETY D121  
3/8" = 1'-0"



⑤ ELECTRICAL POWER Level 1 Area D - ELECT RM D124  
3/8" = 1'-0"



⑥ ELECTRICAL Level 4 - ELECTRICAL ROOMS PART PLAN - 4B  
3/8" = 1'-0"

# POWER GENERAL NOTES:

1. REFER TO E0-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND ANY RELATED DEVICES. REFER TO E0-2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
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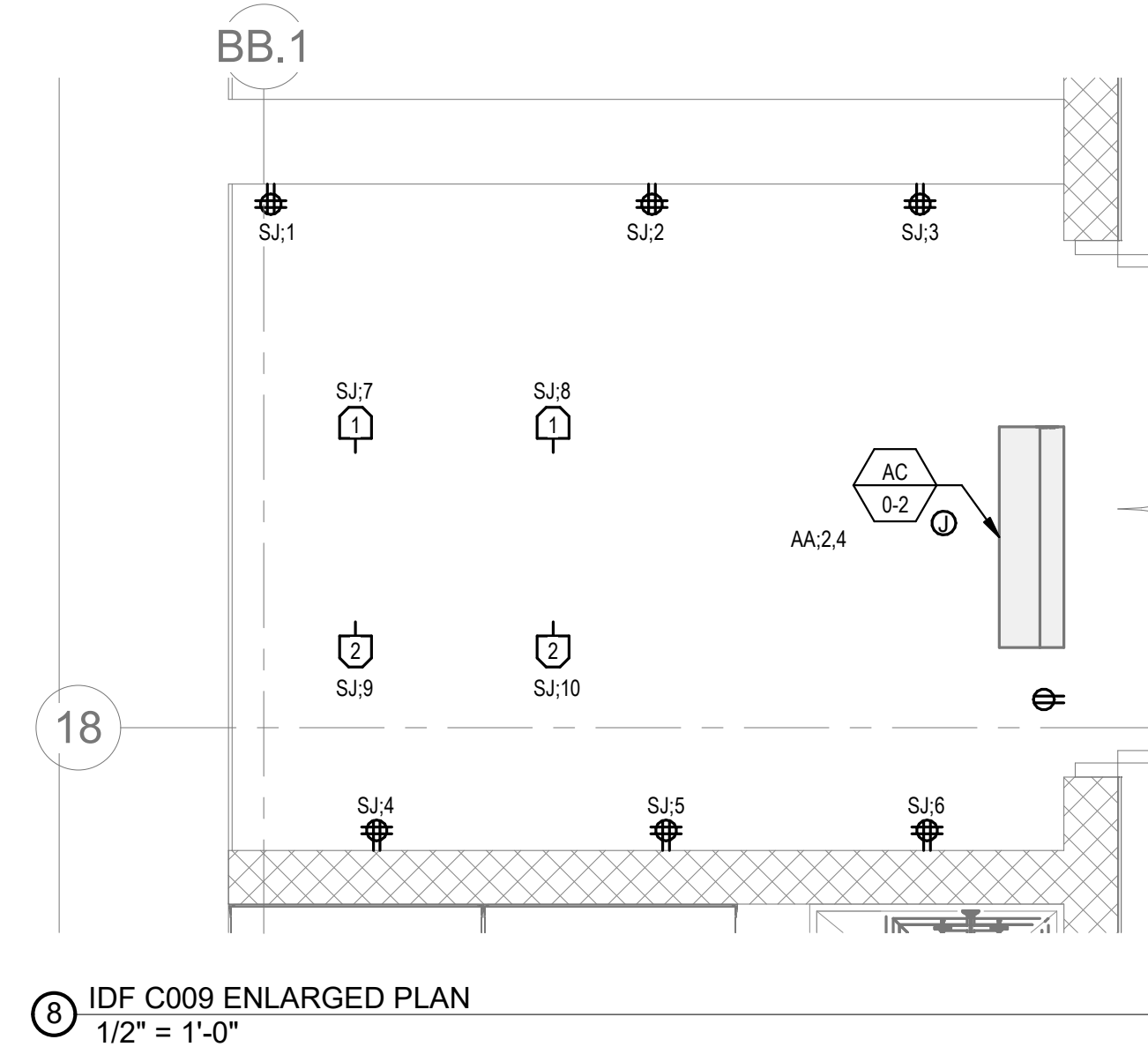
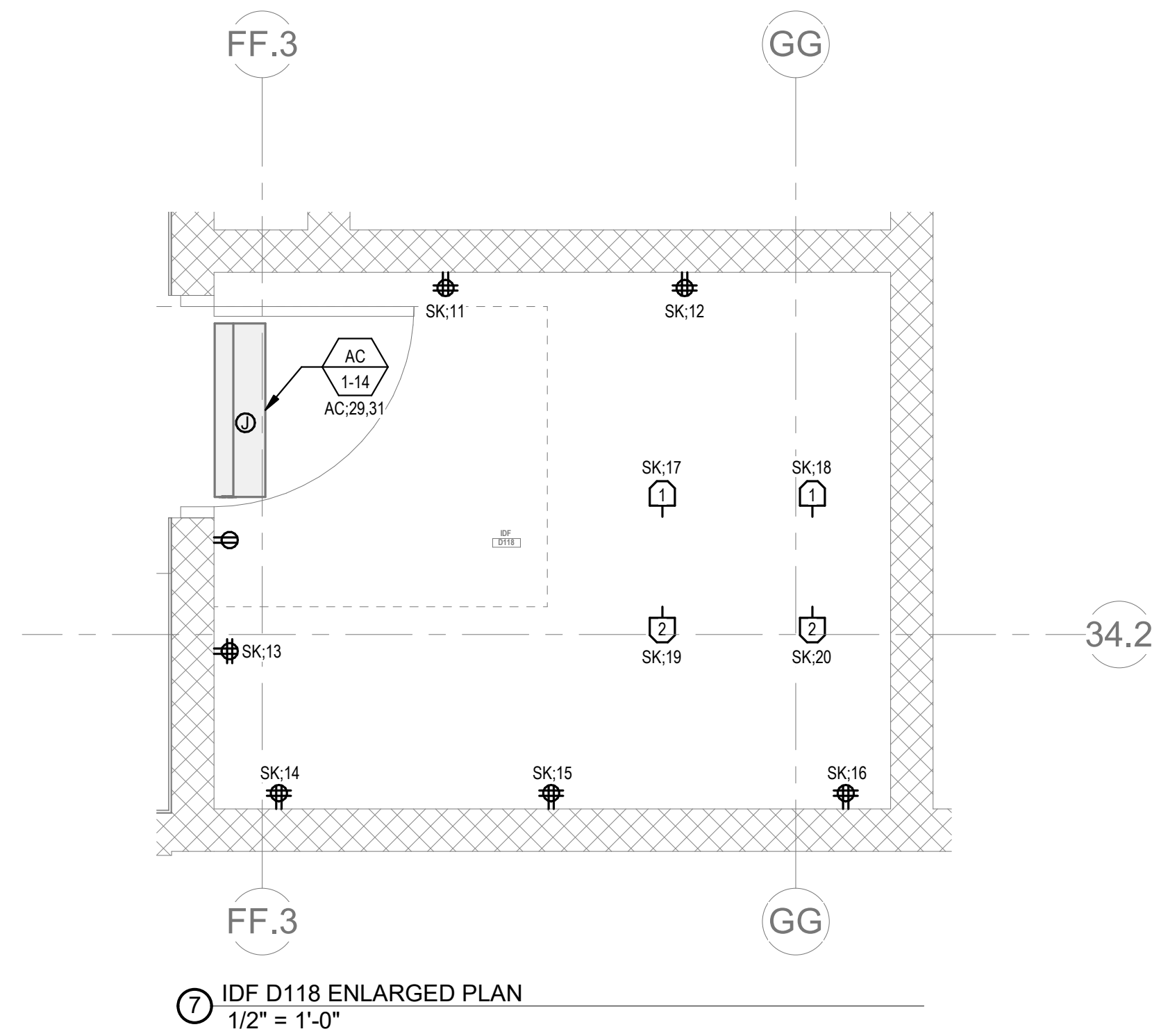
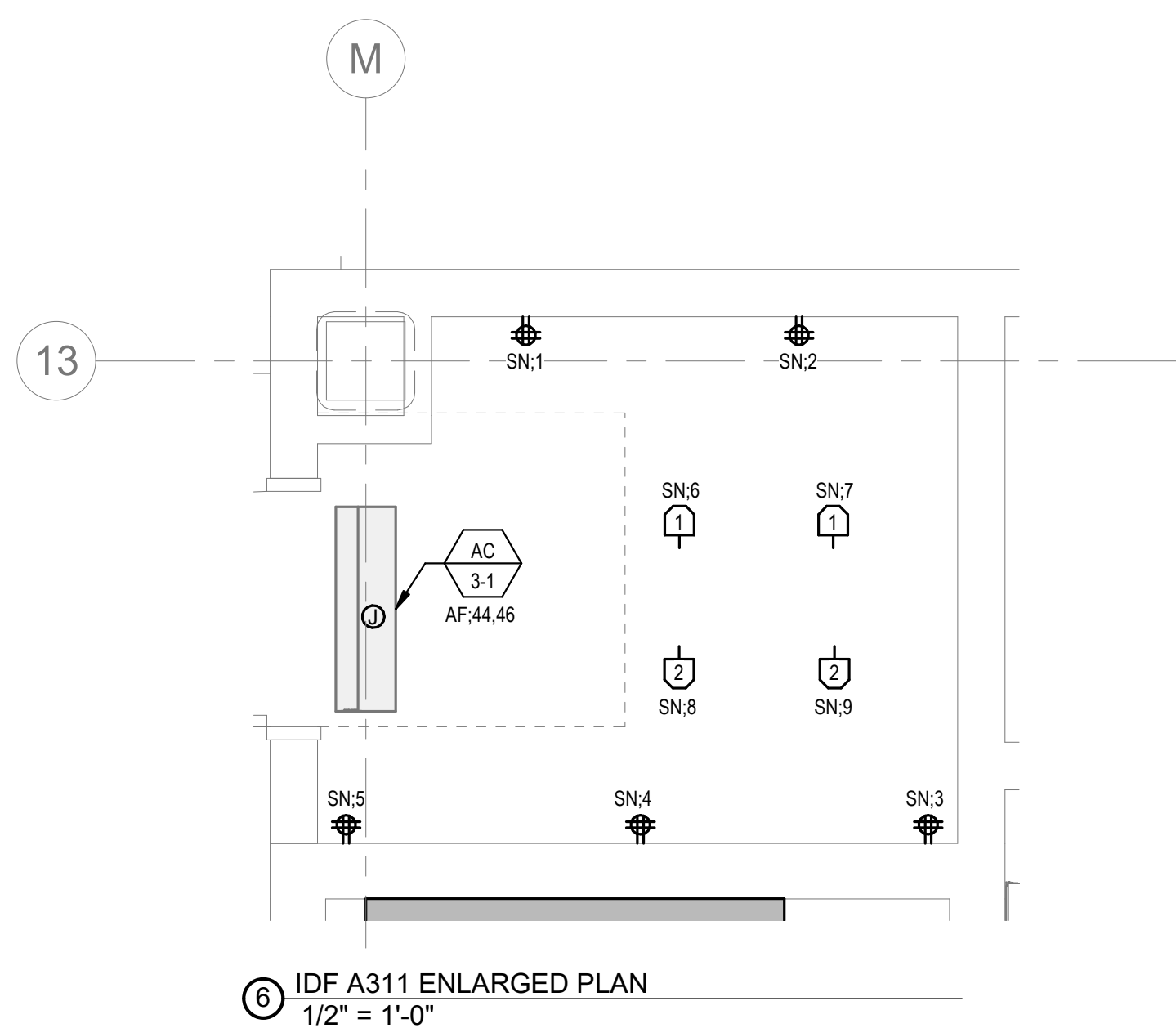
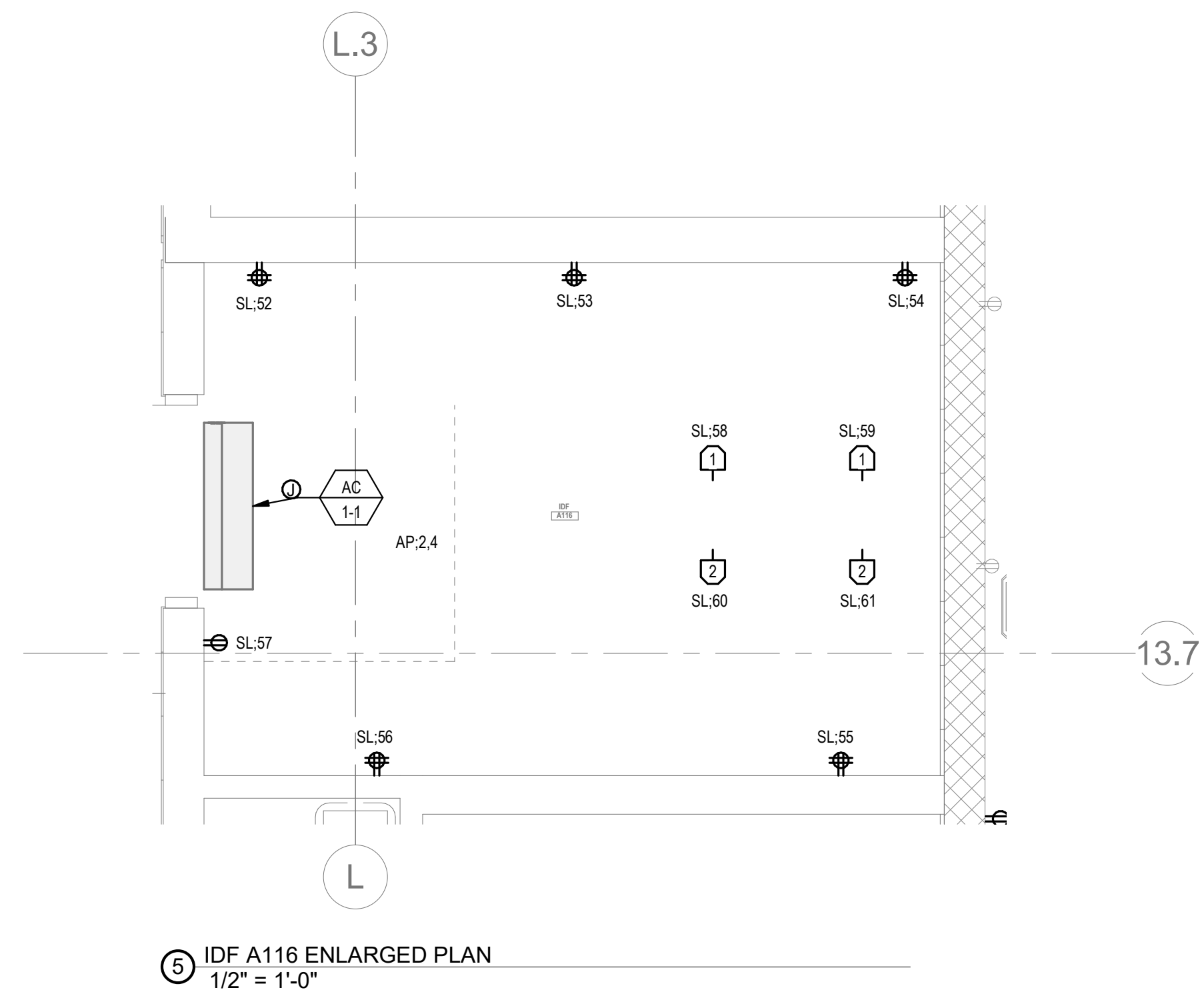
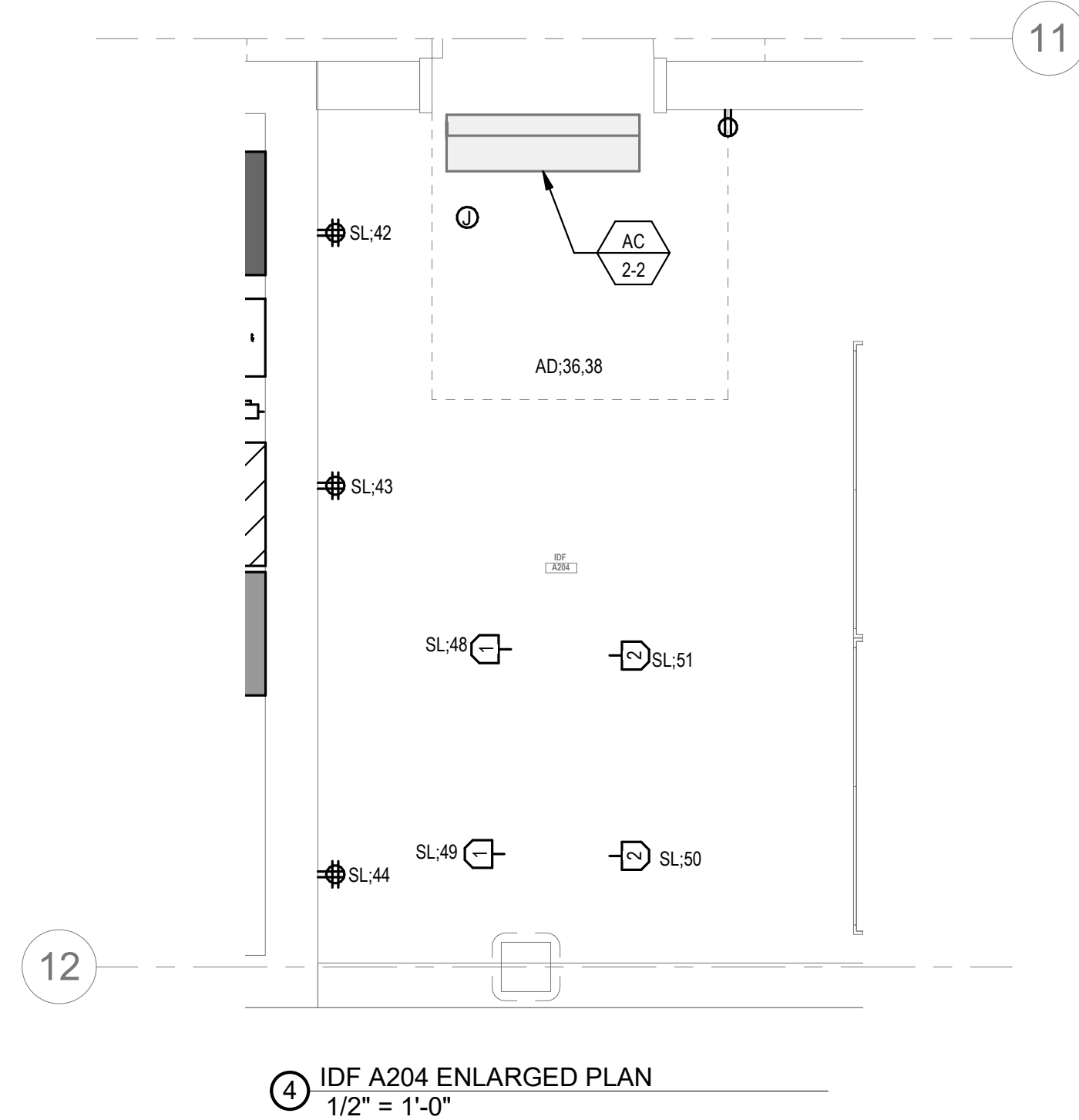
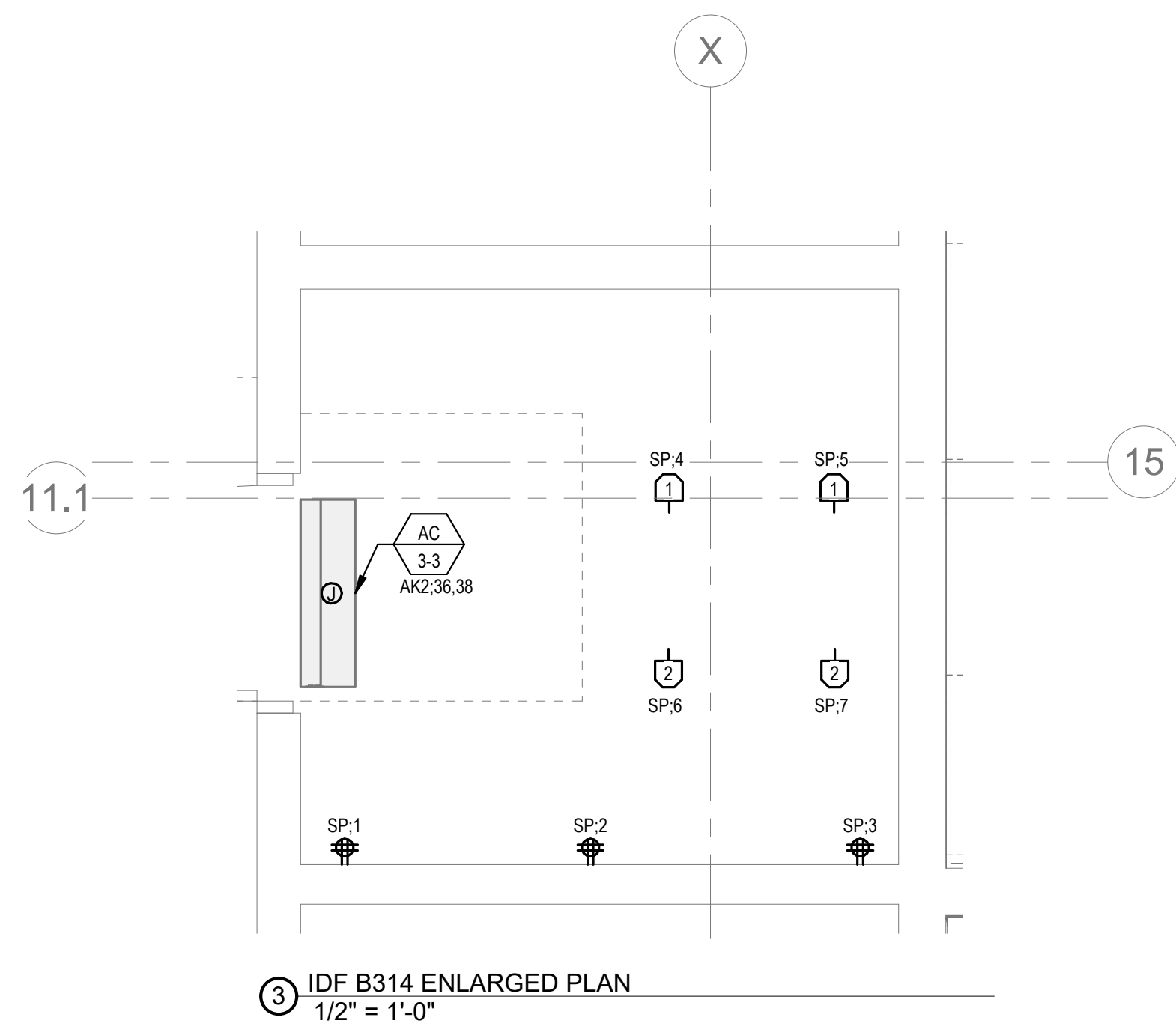
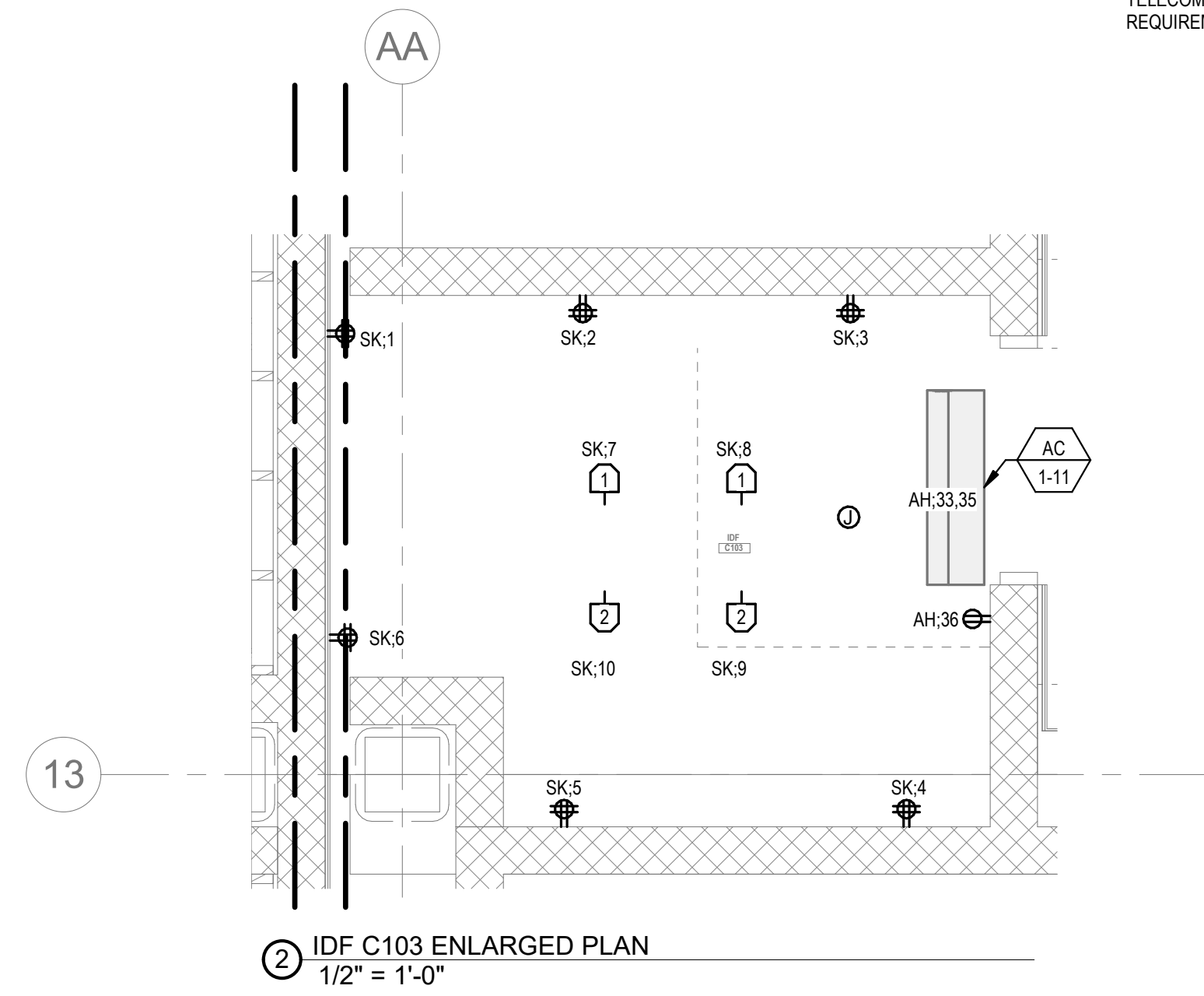
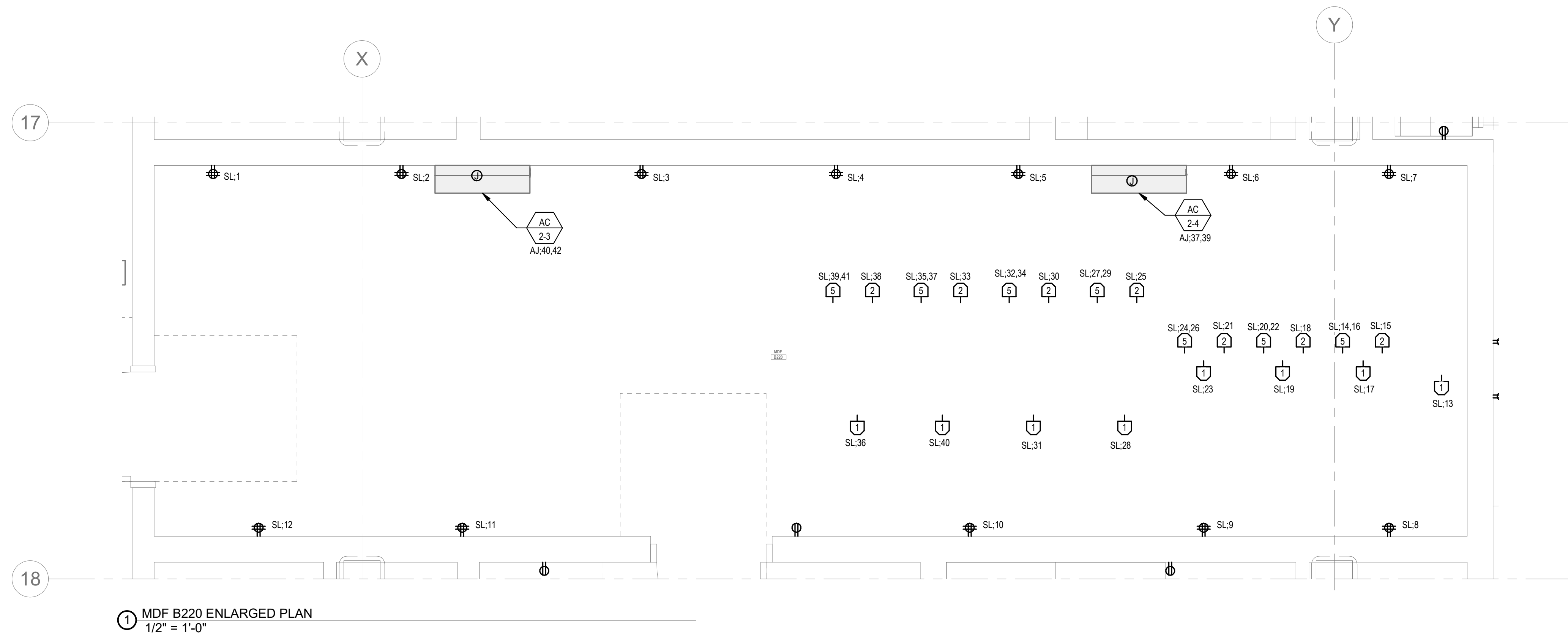
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May 12th, 2023

PROJECT NORTH  
MAGNETIC NORTH

**ELECTRICAL  
ROOMS POWER  
PART PLANS**

Scale: AS  
Job No: INK60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023  
**E2-0-05**





# POWER GENERAL NOTES:

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E0-0.0, 1, AND 2 FOR SINGLE LINE DIAGRAMS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT HEIGHTS AND LOCATIONS FOR POWER AND AV RELATED DEVICES. REFER TO E0-0.2 FOR TYPICAL MOUNTING HEIGHTS OF DEVICES.
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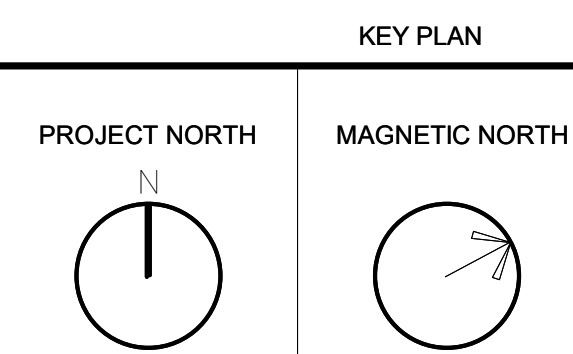
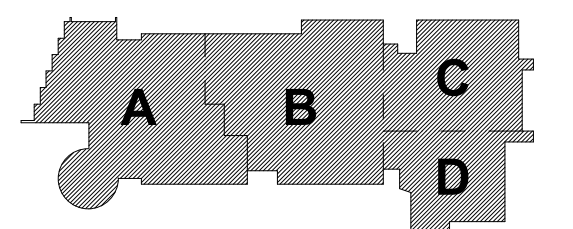
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IDF ROOMS  
POWER PART  
PLANS

Scale: 1/2" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

E2-0-06



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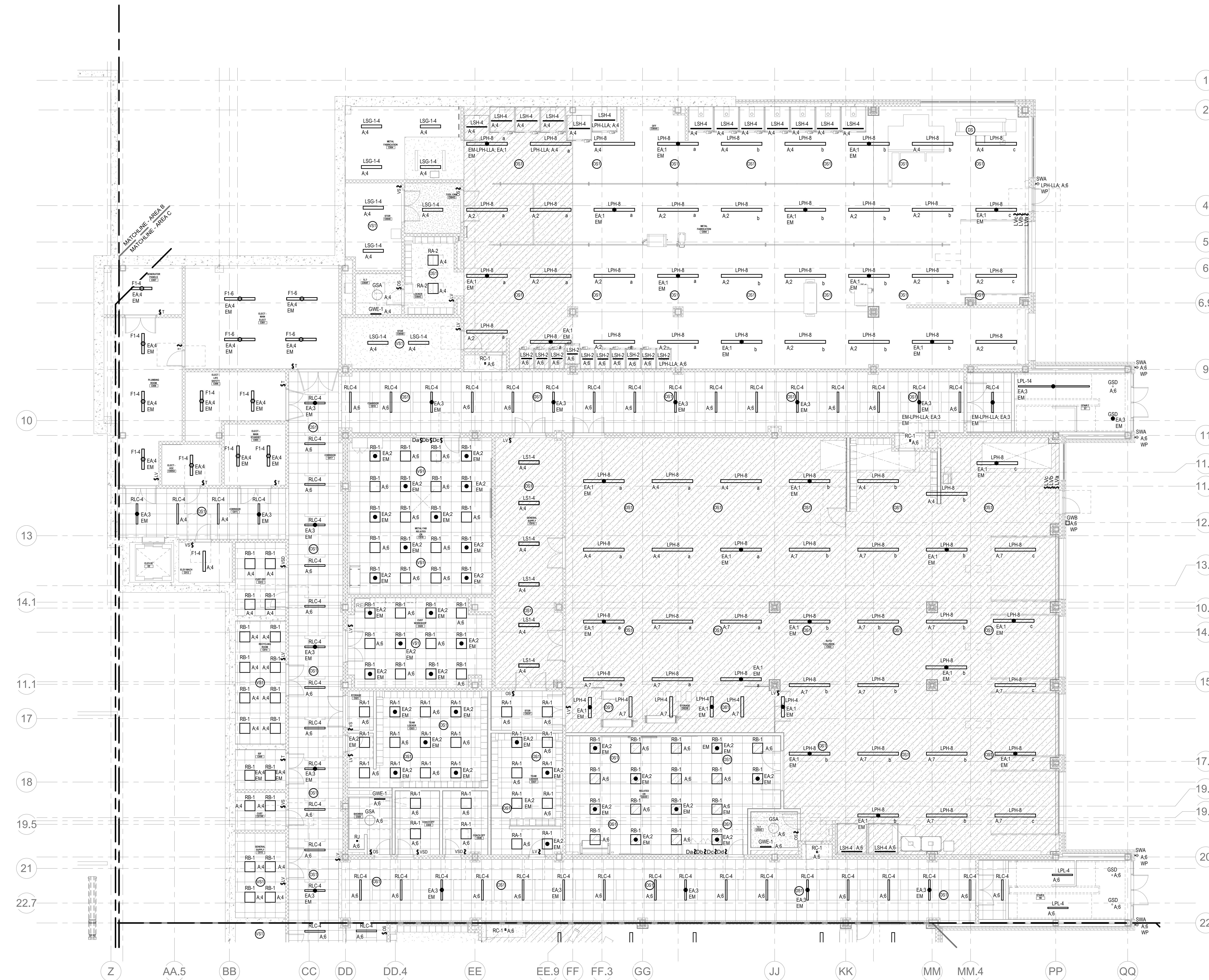
Wakefield, MA 01880

**LIGHTING GENERAL NOTES:**

1. REFER TO EA-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO EA-0.0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO EA-0.16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO EA-0.18 - EA-0.20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

EA # - DENOTES BRANCH CIRCUIT PANELBOARD EMPL-LIA, CIRCUIT #  
A # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-LIA, CIRCUIT #





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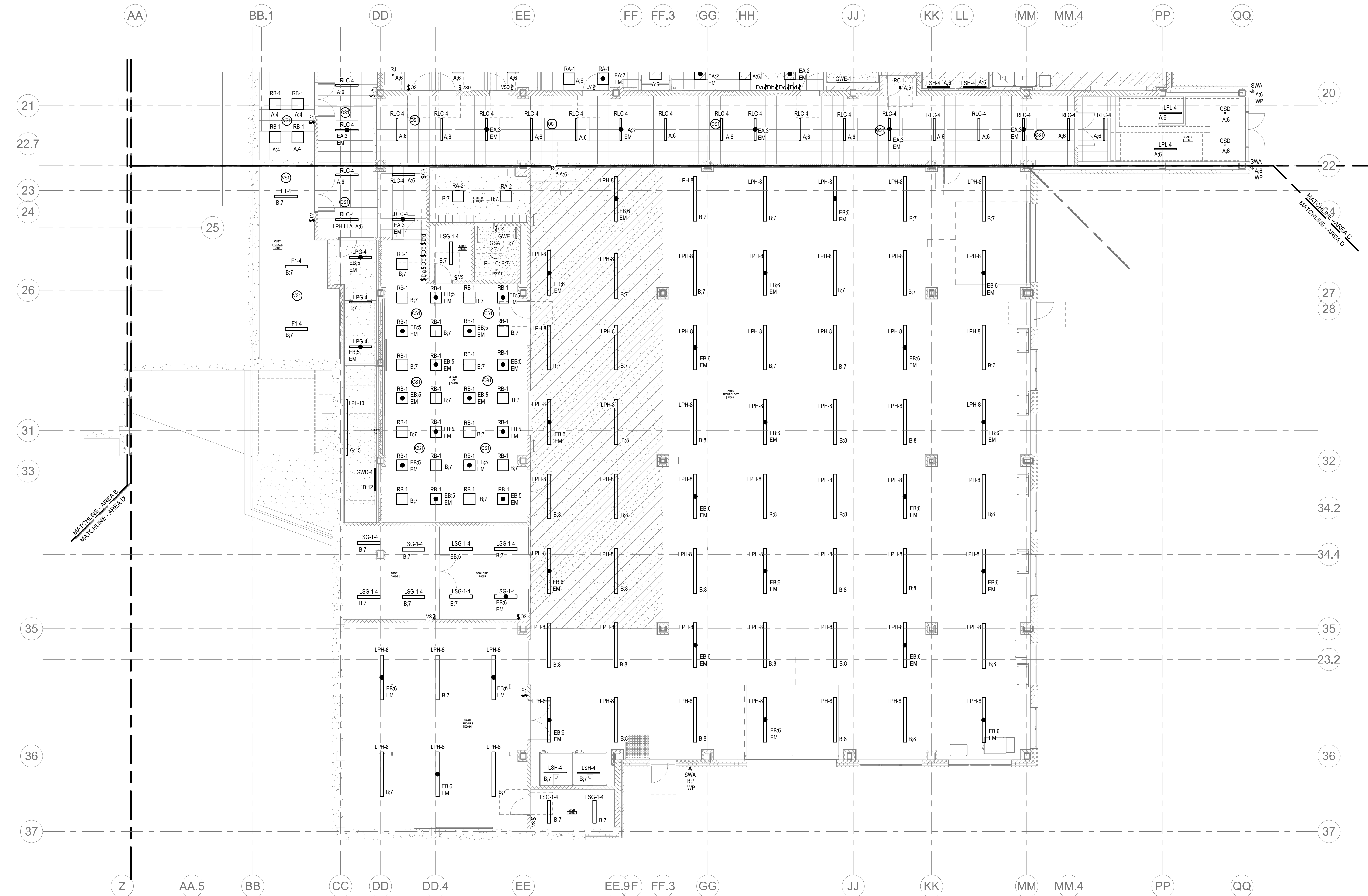
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**LIGHTING GENERAL NOTES:**

1. REFER TO E4-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0.0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0.16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0.18 - E4-0.20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

- A.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-LLA; CIRCUIT #  
EA.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-LLA; CIRCUIT #  
B.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-IC; CIRCUIT #  
EB.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-IC; CIRCUIT #

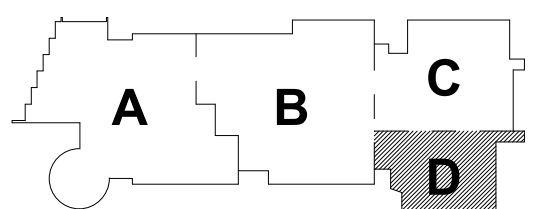


① Level 0 Area D RCP  
1/8" = 1'-0"

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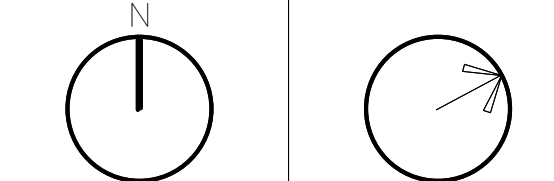
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May 12th, 2023



KEY PLAN

PROJECT NORTH  
MAGNETIC NORTH



**ELECTRICAL  
LIGHTING  
LOWER LEVEL  
FLOOR PLAN -  
AREA D**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-0D**



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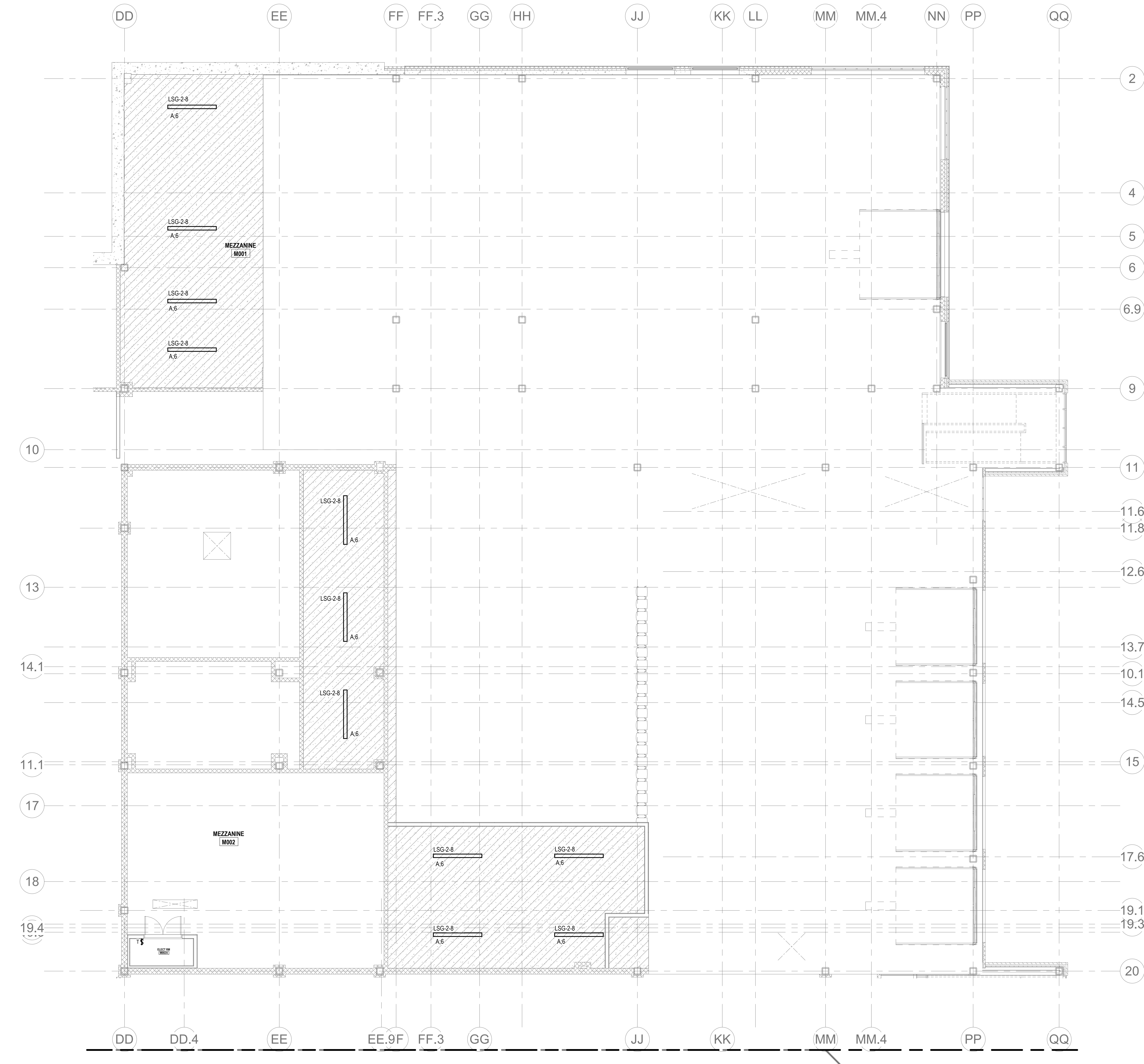
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**LIGHTING GENERAL NOTES:**

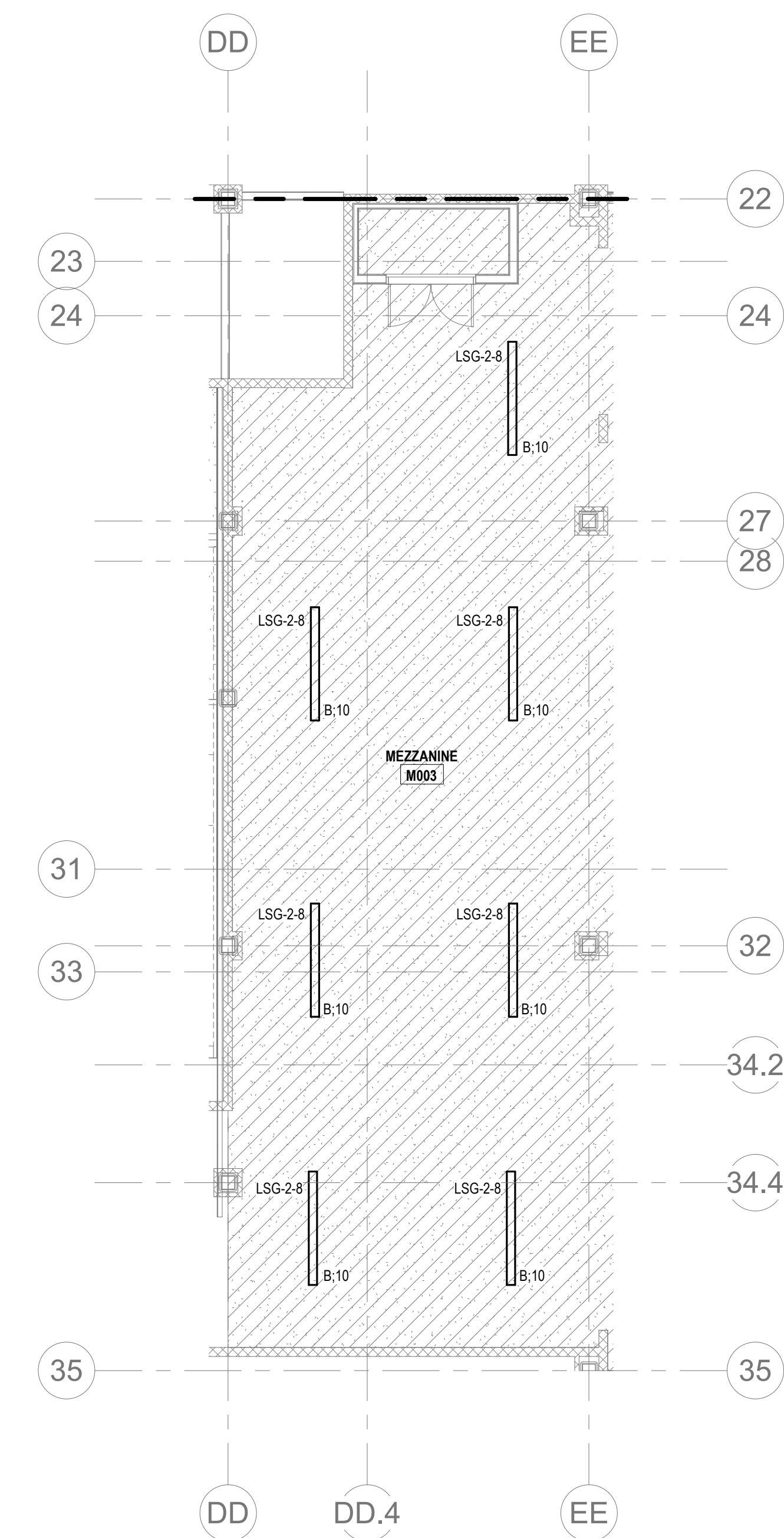
- REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
- REFER TO E4-0.0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0.16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0.18 - E4-0.20 FOR LIGHTING FIXTURE SCHEDULES.
- REFER TO ARCHITECTURAL ROPS FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
- ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
- PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.
- ALL MECHANICAL, ELECTRICAL AND FIRE PROTECTION (MEP&FP) SYSTEMS AND COMPONENTS THAT REQUIRE ATTACHMENT TO THE ARCHITECTURAL PRE-CAST CONCRETE PANELS SHALL BE COORDINATED WITH THE PRE-CAST CONCRETE SUB-CONTRACTOR DURING COORDINATION AND SHOP DRAWING PROCESS. NO ATTACHMENT OF THE MEP&FP COMPONENTS TO THE PRE-CAST CONCRETE PANELS SHALL BE ALLOWED IN THE FIELD WITHOUT PRIOR REVIEW AND APPROVAL BY THE PRE-CAST CONCRETE SUB-CONTRACTOR. NO CUTTING AND/OR PATCHING OF THE PRE-CAST CONCRETE PANELS IS ALLOWED IN THE FIELD.
- MECHANICAL, ELECTRICAL AND FIRE PROTECTION (MEP&FP) CONTRACTORS NOTE: BETWEEN COLUMN LINES, A SOUND BARRIER CEILING SYSTEM IS INSTALLED BETWEEN STEEL BEAMS ON THE UNDERSIDE OF THE UPPER LEVEL FLOOR STRUCTURE. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS, SECTIONS AND DETAILS DRAWINGS FOR ADDITIONAL INFORMATION. THIS IS A SPECIALLY SOUND ISOLATION SUSPENDED CEILING SYSTEM. MEP&FP SYSTEMS COMPONENTS ARE NOT ALLOWED TO BE ATTACHED/SUSPENDED, OR INSTALLED ABOVE THIS CEILING SYSTEM UNLESS SPECIFICALLY NOTED OTHERWISE. EACH SUB-CONTRACTOR SHALL PROVIDE UNISTRUT SUPPORTS ATTACHED TO BOTTOM CHORD OF STRUCTURAL STEEL BEAMS AS REQUIRED TO SUPPORT MEP&FP SYSTEMS COMPONENTS. SPECIALLY ACOUSTICALLY RATED ACCESS PANELS MAY BE ALLOWED TO ACCESS MEP&FP SYSTEMS COMPONENTS LOCATED ABOVE THE SOUND BARRIER SYSTEM ON THE LIMITED BASES AT LOCATIONS SPECIFICALLY INDICATED ON THE MEP&FP DRAWINGS.
- ALL MEP&FP SYSTEMS COMPONENTS THAT REQUIRE PENETRATIONS THROUGH PRE-CAST CONCRETE PLANK AT MEZZANINE FLOOR STRUCTURE SHALL BE COORDINATED WITH THE PRE-CAST PLANK CORE LOCATIONS. PENETRATIONS THROUGH THE PRE-CAST PLANK ARE ONLY ALLOWED THROUGH THE CORES. GENERAL CONTRACTOR MUST COORDINATE ALL OPENINGS IN THE PRE-CAST CONCRETE PLANK AS PART OF THE MEP&FP COORDINATION PROCESS.

**CIRCUIT LEGEND:**

A, # - DENOTES BRANCH CIRCUIT PANELBOARD (PH-LA), CIRCUIT #  
B, # - DENOTES BRANCH CIRCUIT PANELBOARD (PH-1C), CIRCUIT #



① ELECTRICAL LIGHTING 0.5-Lower Level Mezzanine - Area C - RCP  
1/8" = 1'-0"

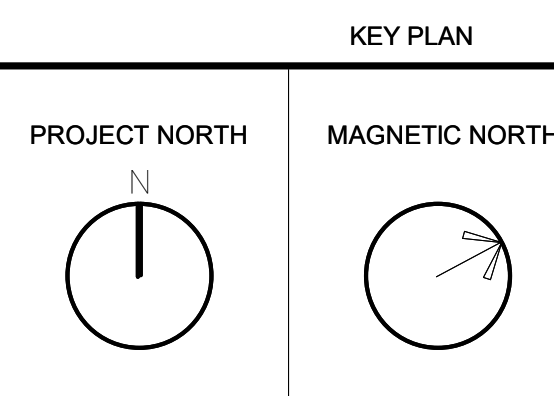
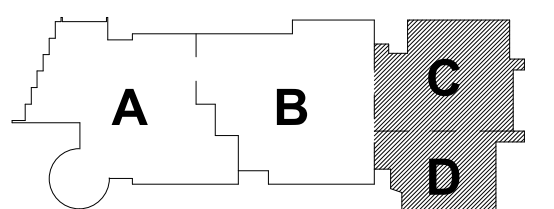


② ELECTRICAL LIGHTING 0.5-Lower Level Mezzanine - Area D - RCP  
1/8" = 1'-0"

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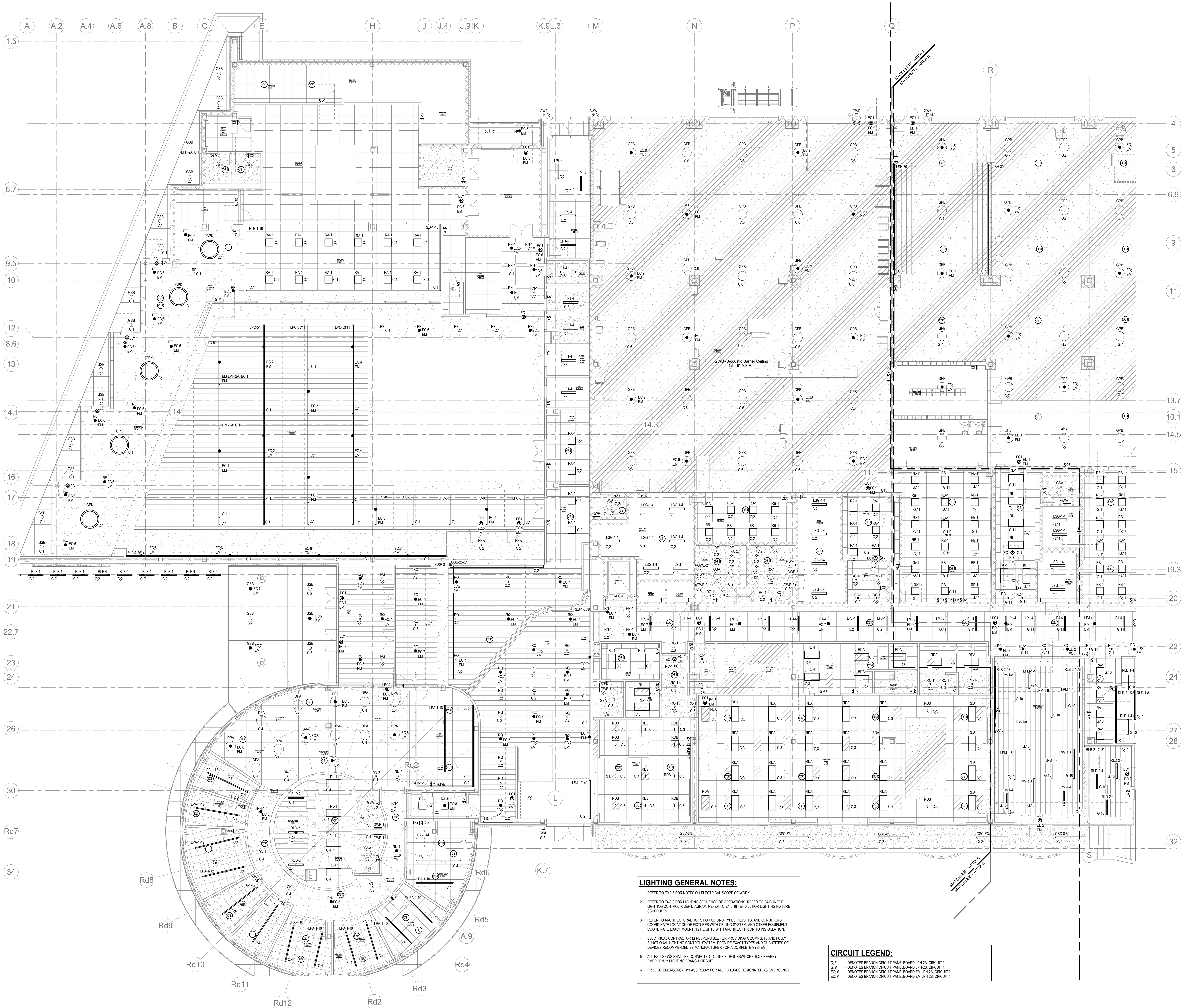


**ELECTRICAL  
LIGHTING  
LOWER LEVEL  
PLAN -  
MEZZANINES**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-0M**





**LIGHTING GENERAL NOTES:**

1. REFER TO E4-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-4 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-5 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-6 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIST SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

- C. # - DENOTES BRANCH CIRCUIT PANELBOARD LPA-2A; CIRCUIT #
- EC. # - DENOTES BRANCH CIRCUIT PANELBOARD LPA-2B; CIRCUIT #
- ED. # - DENOTES BRANCH CIRCUIT PANELBOARD EM LPA-2A; CIRCUIT #
- ED. # - DENOTES BRANCH CIRCUIT PANELBOARD EM LPA-2B; CIRCUIT #

Level 1 Area A RCP  
1/8" = 1'-0"

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A B C D

KEY PLAN

PROJECT NORTH  
MAGNETIC NORTH

ELECTRICAL  
LIGHTING FIRST  
FLOOR PLAN -  
AREA A

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-1-1A







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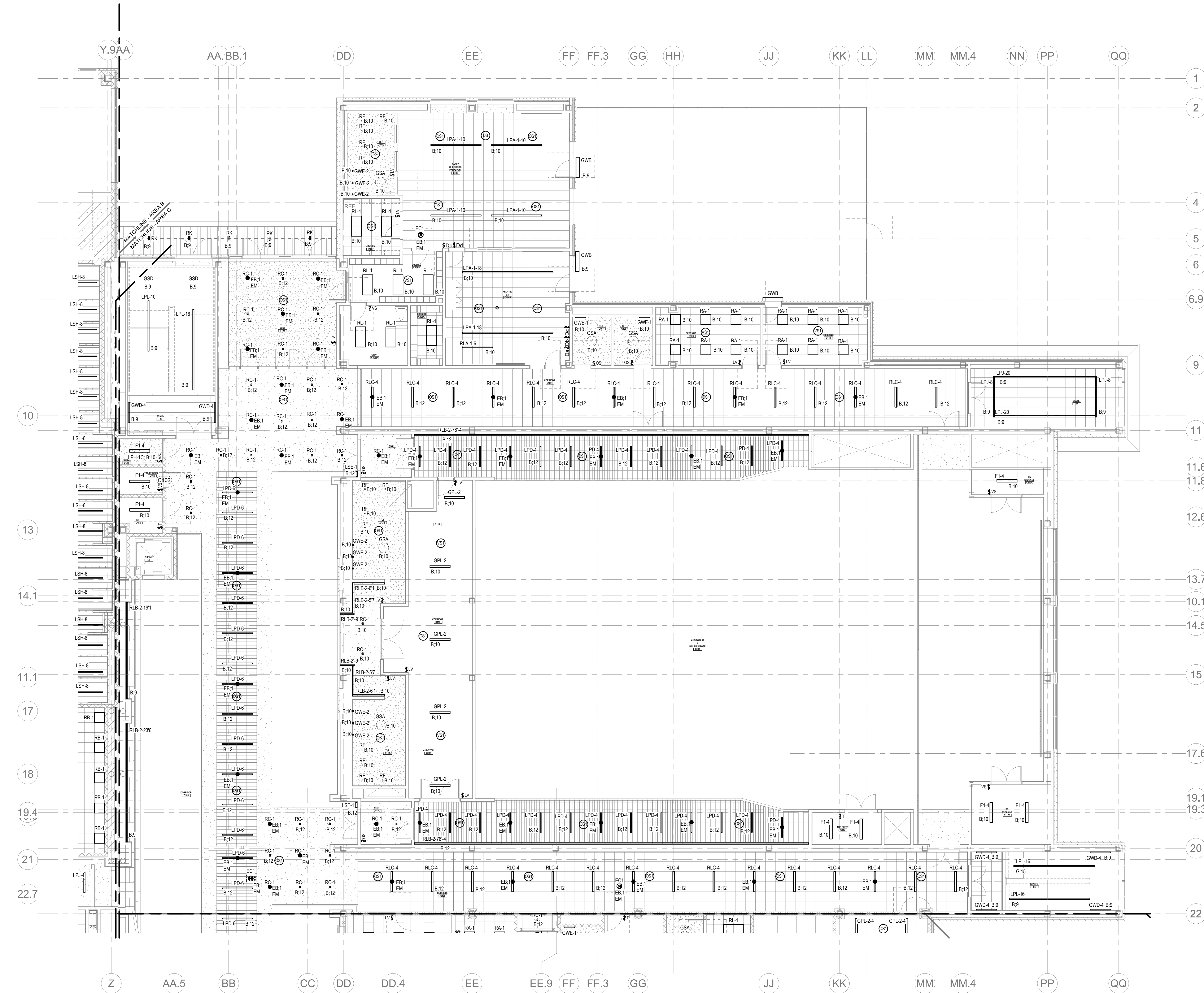
Wakefield, MA 01880

**LIGHTING GENERAL NOTES:**

1. REFER TO E4-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0-18 - E4-0-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL ROPS FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

- B.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1C; CIRCUIT #  
G.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B; CIRCUIT #  
EB.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-1C; CIRCUIT #

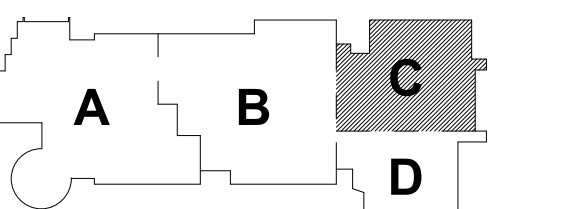


Level 1 Area C RCP  
1/8" = 1'-0"

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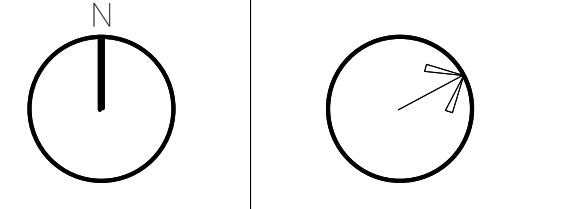
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May 12th, 2023



KEY PLAN

PROJECT NORTH  
MAGNETIC NORTH



ELECTRICAL  
LIGHTING FIRST  
FLOOR PLAN -  
AREA C

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-1-1C



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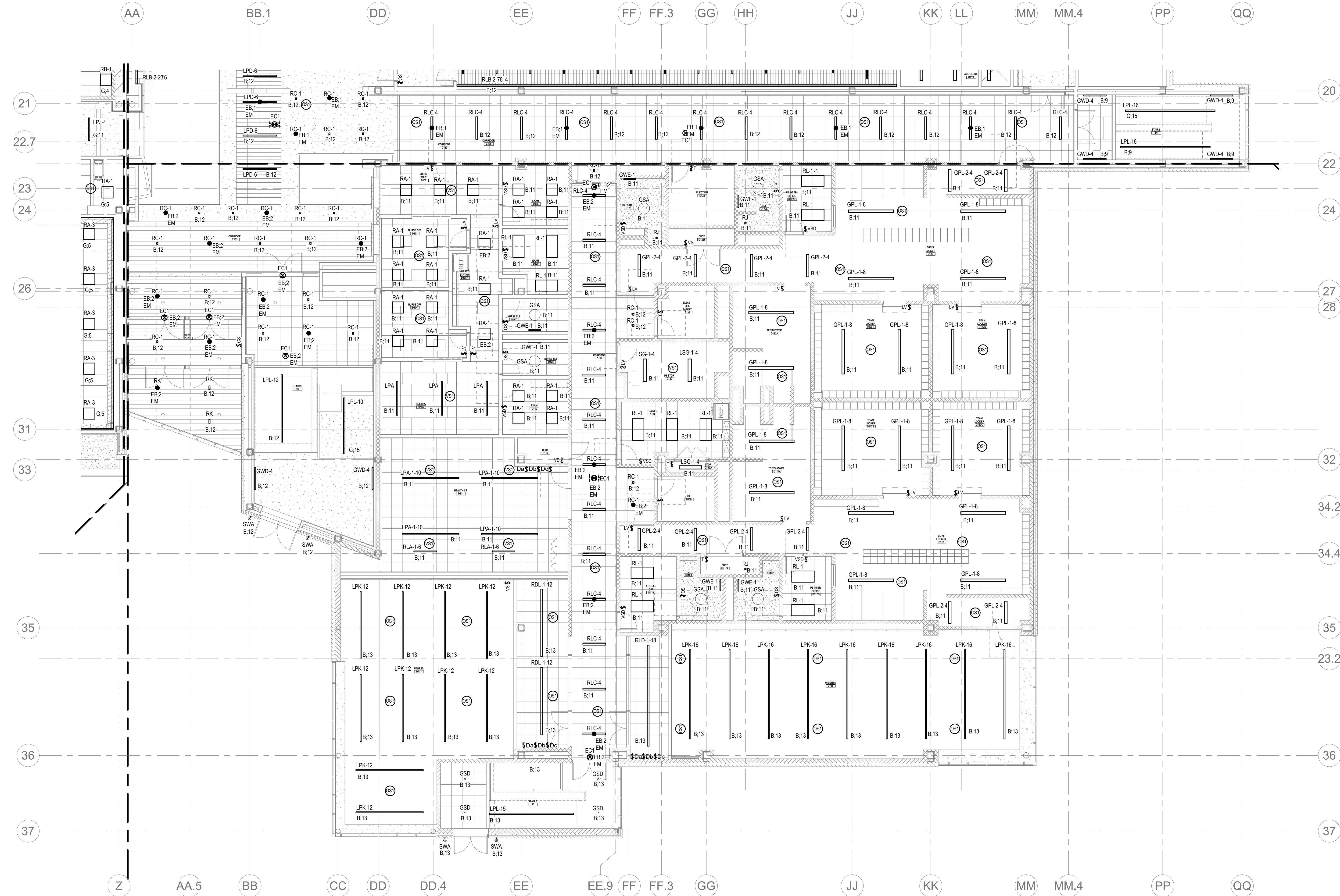
Wakefield, MA 01880

**LIGHTING GENERAL NOTES:**

1. REFER TO E4-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0-18 - E4-0-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

B.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-1C, CIRCUIT #  
G.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B, CIRCUIT #  
EB.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-1C, CIRCUIT #

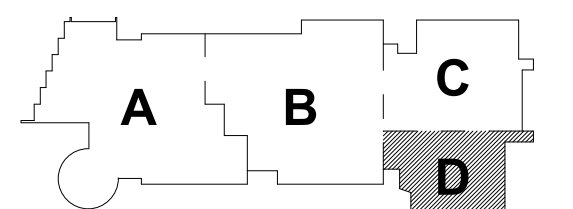


① Level 1 Area D RCP For Sheet  
1/8" = 1'-0"

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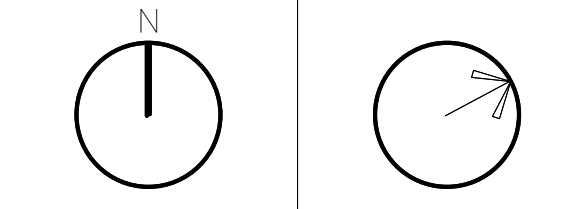
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KEY PLAN

PROJECT NORTH MAGNETIC NORTH



**ELECTRICAL  
LIGHTING FIRST  
FLOOR PLAN -  
AREA D**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-1D**



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**LIGHTING GENERAL NOTES:**

1. REFER TO E6-6.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-4.4 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-4.16 FOR LIGHTING CONTROL RISES DIAGRAM. REFER TO E4-4.18 - E4-4.20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCP'S FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.
7. ALL MECHANICAL, ELECTRICAL AND FIRE PROTECTION (MEP/FP) SYSTEMS AND COMPONENTS THAT REQUIRE ATTACHMENT TO THE ARCHITECTURAL PRE-CAST CONCRETE PANELS SHALL BE COORDINATED WITH THE PRE-CAST CONCRETE SUB-CONTRACTOR DURING COORDINATION AND SHOP DRAWING PROCESS. NO ATTACHMENT OF THE MEP/FP COMPONENTS TO THE PRE-CAST CONCRETE PANELS SHALL BE ALLOWED IN THE FIELD WITHOUT PRIOR REVIEW AND APPROVAL BY THE PRE-CAST CONCRETE SUB-CONTRACTOR. NO CUTTING AND/OR PATCHING OF THE PRE-CAST CONCRETE PANELS IS ALLOWED IN THE FIELD.
8. MECHANICAL, ELECTRICAL AND FIRE PROTECTION (MEP/FP) CONTRACTORS NOTE: BETWEEN COLUMN LINES, A SOUND BARRIER CEILING SYSTEM IS INSTALLED BETWEEN STEEL BEAMS ON THE UNDERSIDE OF THE UPPER LEVEL FLOOR STRUCTURE. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS, SECTIONS AND DETAILS DRAWINGS FOR ADDITIONAL INFORMATION. THIS IS A SPECIALTY SOUND ISOLATION SUSPENDED CEILING SYSTEM. MEP/FP SYSTEMS COMPONENTS ARE NOT ALLOWED TO BE ATTACHED, SUSPENDED, OR INSTALLED ABOVE THIS CEILING SYSTEM UNLESS SPECIFICALLY NOTED OTHERWISE. EACH SUB-CONTRACTOR SHALL PROVIDE UNSTRUT SUPPORTS ATTACHED TO BOTTOM CORNERS OF STRUCTURAL STEEL BEAMS AS REQUIRED TO SUPPORT MEP/FP SYSTEMS COMPONENTS. SPECIALTY ACOUSTICALLY RATED ACCESS PANELS MAY BE ALLOWED TO ACCESS MEP/FP SYSTEMS COMPONENTS LOCATED ABOVE THE SOUND BARRIER SYSTEM ON THE LIMITED BASES AT LOCATIONS SPECIFICALLY INDICATED ON THE MEP/FP DRAWINGS.
9. ALL MEP/FP SYSTEMS COMPONENTS THAT REQUIRE PENETRATIONS THROUGH PRE-CAST CONCRETE PLANK AT MECHANICAL MEZZANINES FLOOR STRUCTURE SHALL BE COORDINATED WITH THE PRE-CAST PLANK CORE LOCATIONS. PENETRATIONS THROUGH THE PRE-CAST PLANK ARE ONLY ALLOWED THROUGH THE CORES. GENERAL CONTRACTOR MUST COORDINATE ALL OPENINGS IN THE PRE-CAST CONCRETE PLANK AS PART OF THE MEP/FP COORDINATION PROCESS.

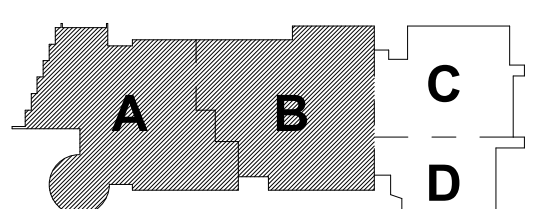
**CIRCUIT LEGEND:**

- B.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-10; CIRCUIT #  
G.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-26; CIRCUIT #  
ED.# - DENOTES BRANCH CIRCUIT PANELBOARD EM LPH-26; CIRCUIT #

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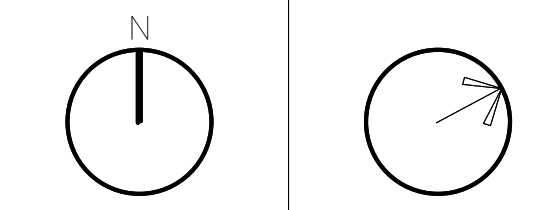
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KEY PLAN

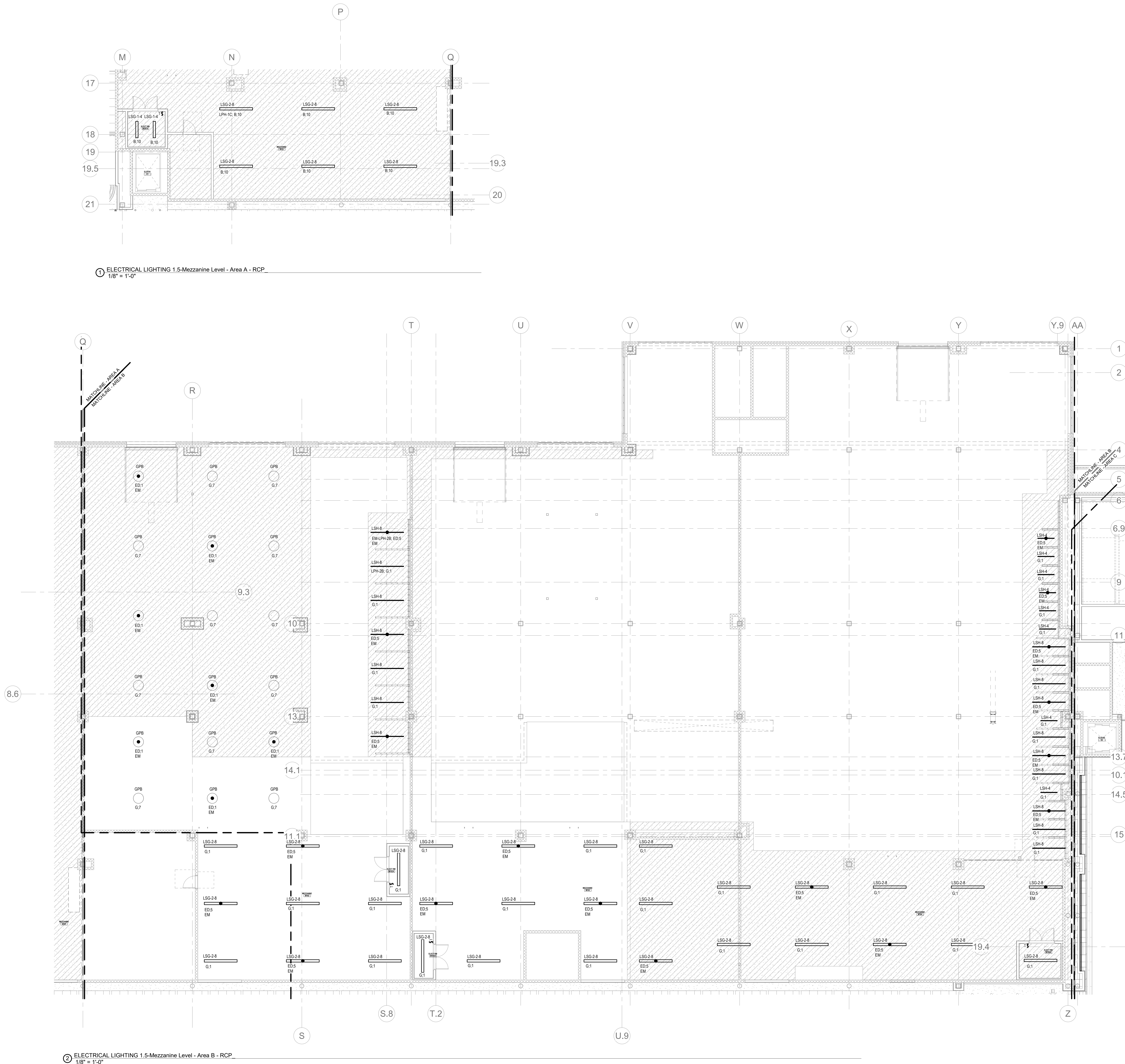
PROJECT NORTH MAGNETIC NORTH



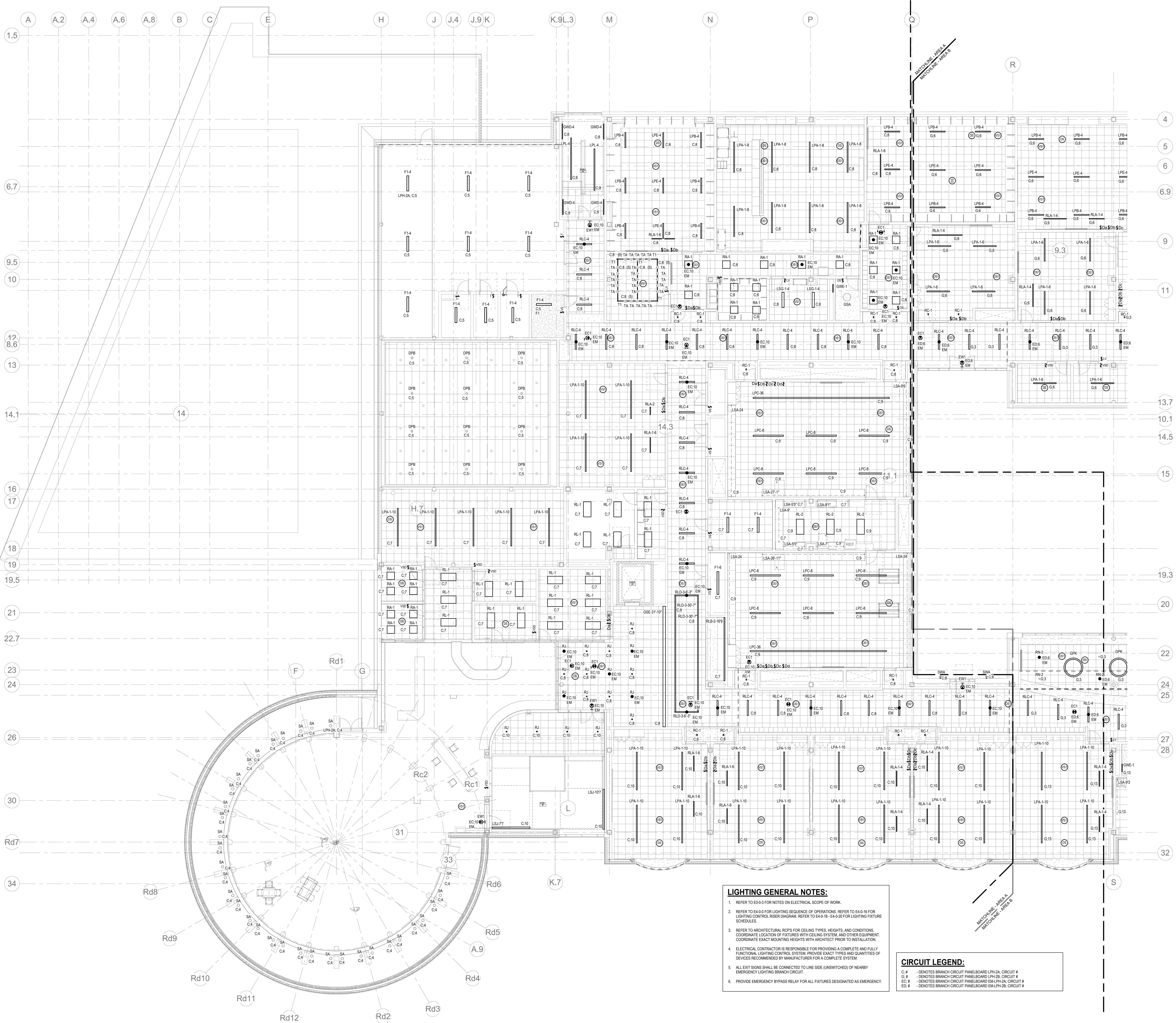
**ELECTRICAL  
LIGHTING FIRST  
FLOOR PLAN -  
MEZZANINES**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-1M**







- LIGHTING GENERAL NOTES:**
- REFER TO E04-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
  - REFER TO E04-0 FOR LIGHTING SEQUENCE OF OPERATIONS; REFER TO E04-16 FOR LIGHTING CONTROL RISER DIAGRAM; REFER TO E04-18 - E04-20 FOR LIGHTING FIXTURE SCHEDULES.
  - REFER TO ARCHITECTURAL ROPS FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
  - ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
  - ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
  - PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

C-# DENOTES BRANCH CIRCUIT PANELBOARD LPH-2A; CIRCUIT #  
C-# DENOTES BRANCH CIRCUIT PANELBOARD LPH-2B; CIRCUIT #  
EC-# DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-2A; CIRCUIT #  
ED-# DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-2B; CIRCUIT #

1 Level 2 Area A RCP For Sheet  
1/8" = 1'-0"

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May 12th, 2023

A B C D

KEY PLAN

PROJECT NORTH

MAGNETIC NORTH

ELECTRICAL LIGHTING SECOND FLOOR PLAN - AREA A

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-1-2A







|                                                              |                                                          |
|--------------------------------------------------------------|----------------------------------------------------------|
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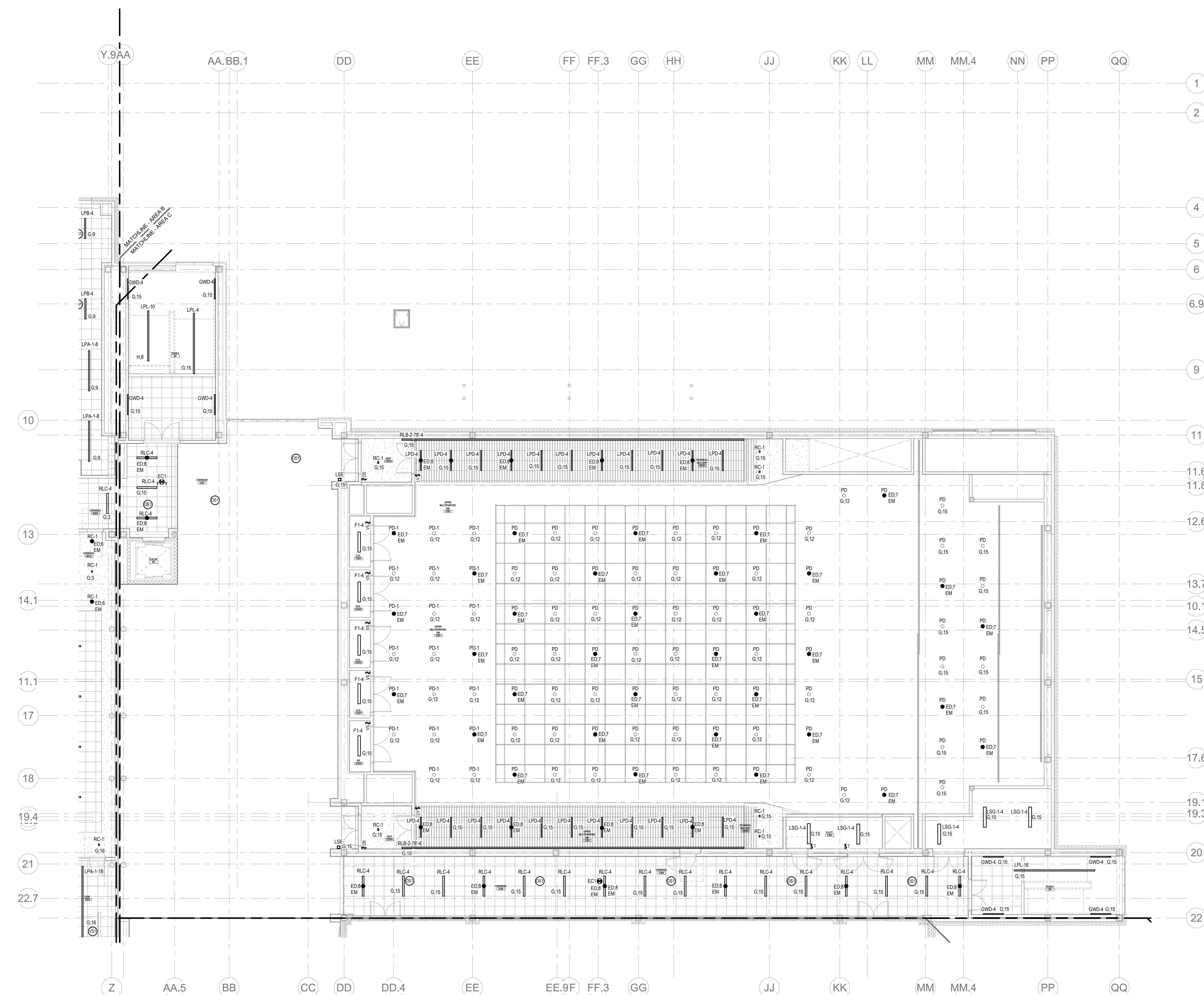
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1. REFER TO E40-4 FOR NOTES ON ELECTRICAL SCOPE OF WORK
2. REFER TO E44-6 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E44-6 FOR LIGHTING CONTROL, RISE/DIAGRAM. REFER TO E44-6-1, E44-6-2 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL NOTES FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE CEILING MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONING LIGHTING SYSTEM. PROVIDE EXACT FIXTURE TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIST SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RAY OUT FOR ALL FIXTURES DESIGNATED AS EMERGENCY

G: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-28; CIRCUIT #  
FD: # - DENOTES BRANCH CIRCUIT PANELBOARD FM-I PH-28; CIRCUIT #

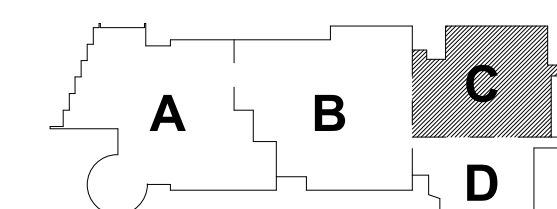


① Level 2 Area C RCP For Sheet  
1/8" = 1'-0"

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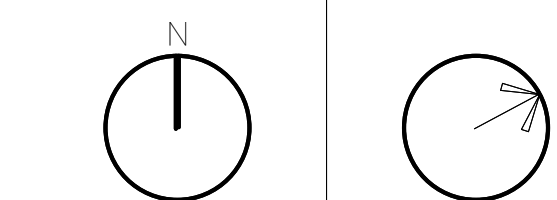
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### KEY PLAN

| PROJECT NORTH | MAGNETIC NORTH |
|---------------|----------------|
| 100°          | 100°           |
| 110°          | 110°           |
| 120°          | 120°           |
| 130°          | 130°           |
| 140°          | 140°           |
| 150°          | 150°           |
| 160°          | 160°           |
| 170°          | 170°           |
| 180°          | 180°           |
| 190°          | 190°           |
| 200°          | 200°           |
| 210°          | 210°           |
| 220°          | 220°           |
| 230°          | 230°           |
| 240°          | 240°           |
| 250°          | 250°           |
| 260°          | 260°           |
| 270°          | 270°           |
| 280°          | 280°           |
| 290°          | 290°           |
| 300°          | 300°           |
| 310°          | 310°           |
| 320°          | 320°           |
| 330°          | 330°           |
| 340°          | 340°           |
| 350°          | 350°           |
| 360°          | 360°           |



**ELECTRICAL  
LIGHTING  
SECOND FLOOR  
PLAN - AREA C**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-1-2C



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**LIGHTING GENERAL NOTES:**

1. REFER TO E4-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-3 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-3-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-3-18 - E4-3-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

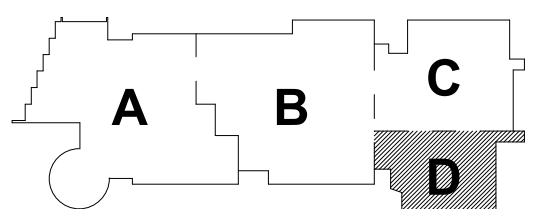
**CIRCUIT LEGEND:**

G.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-28; CIRCUIT #  
ED.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-28; CIRCUIT #

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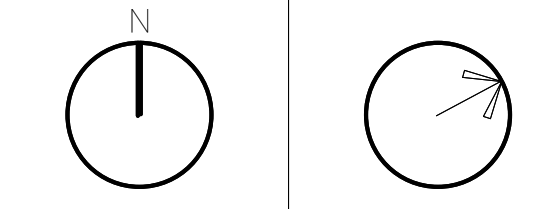
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**KEY PLAN**

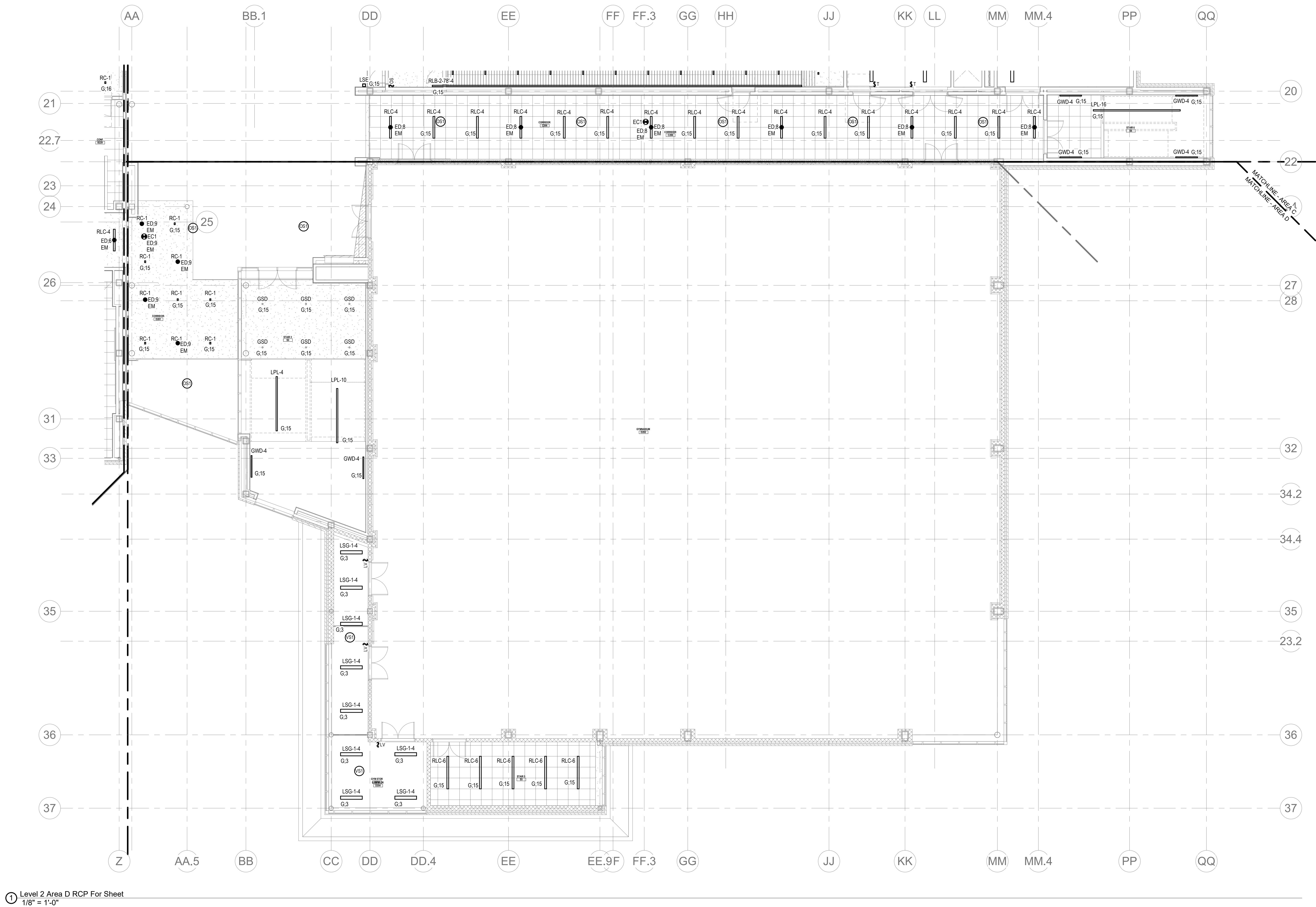
PROJECT NORTH  
MAGNETIC NORTH



**ELECTRICAL  
LIGHTING  
SECOND FLOOR  
PLAN - AREA D**

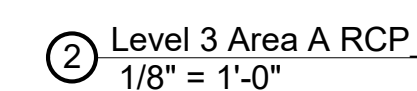
Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-2D**



① Level 2 Area D RCP For Sheet  
1/8" = 1'-0"





- CIRCUIT LEGEND:**
- D: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3A; CIRCUIT #  
H: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3B; CIRCUIT #  
EE: # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-3A; CIRCUIT #  
EF: # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-3B; CIRCUIT #

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Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023







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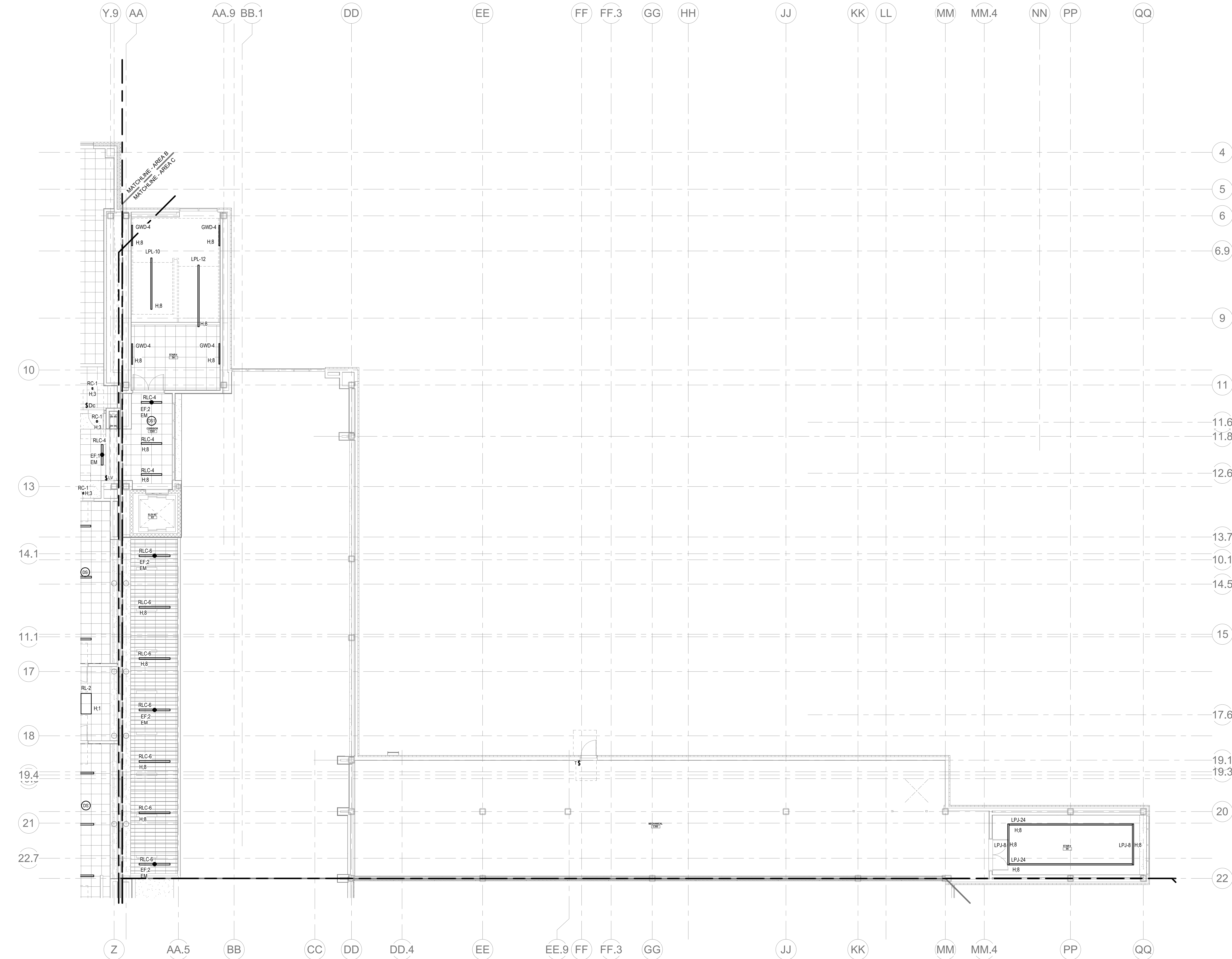
Wakefield, MA 01880

**LIGHTING GENERAL NOTES:**

1. REFER TO E4-0-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0-18 - E4-0-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

**CIRCUIT LEGEND:**

H.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3B; CIRCUIT #  
EF.# - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-3B; CIRCUIT #

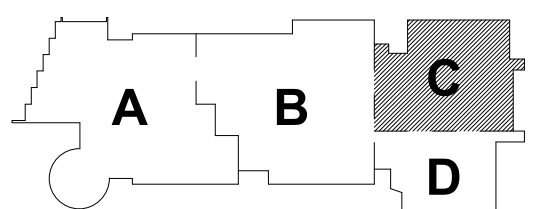


Level 3 Area C RCP  
1/8" = 1'-0"

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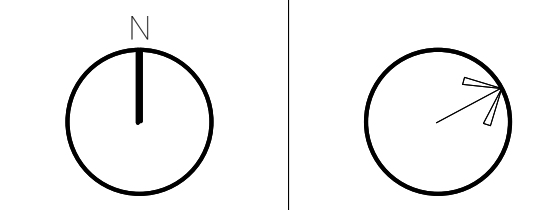
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Construction Document  
Submittal  
May 12th, 2023



KEY PLAN

PROJECT NORTH MAGNETIC NORTH



**ELECTRICAL  
LIGHTING THIRD  
FLOOR PLAN -  
AREA C**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-3C**



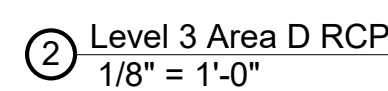
|                                                              |                                                          |
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| <b>Drummeys Rosane Anderson, Inc.</b>                        |                                                          |
| 225 Oakland Road<br>Studio 205<br>South Windsor, CT<br>06074 | 260 Charles Street<br>Studio 300<br>Waltham, MA<br>02453 |

Tel: 617.564.1700  
www.draas.com

Wakefield, MA 01880

2. REFER TO E-0.0-FOR NOTES ON ELECTRICAL, SOURCE OF WORK.
3. REFER TO E-4.0-FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E-4.0-16-FOR LIGHTING CONTROL, RISER DIAGRAM. REFER TO E-4.0-18, E-4.0-20-FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT.
4. PROVIDE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
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6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY

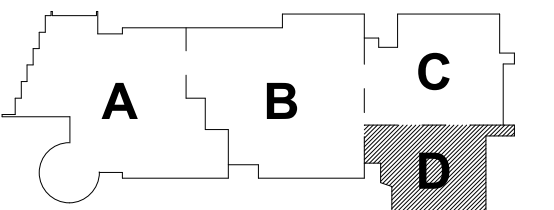
J; # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4B; CIRCUIT #  
H; # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-3B; CIRCUIT #  
EH; # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-4B; CIRCUIT #  
EF; # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-3B; CIRCUIT #



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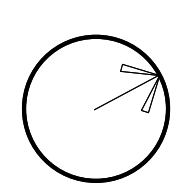
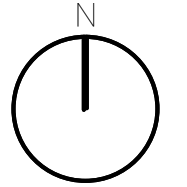
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May 12th, 2023



### KEY PLAN

PROJECT NORTH

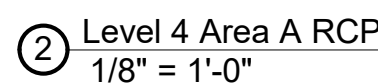
MAGNETIC NORTH



Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-3D**

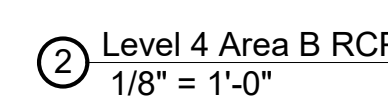






1. REFER TO E4-0 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-16 FOR LIGHTING CONTROL RISKING DIAGRAM. REFER TO E4-18 - E4-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE CEILING MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

F; # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4A; CIRCUIT #  
J; # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4B; CIRCUIT #  
EG; # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-4A; CIRCUIT #  
EH; # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-4B; CIRCUIT #





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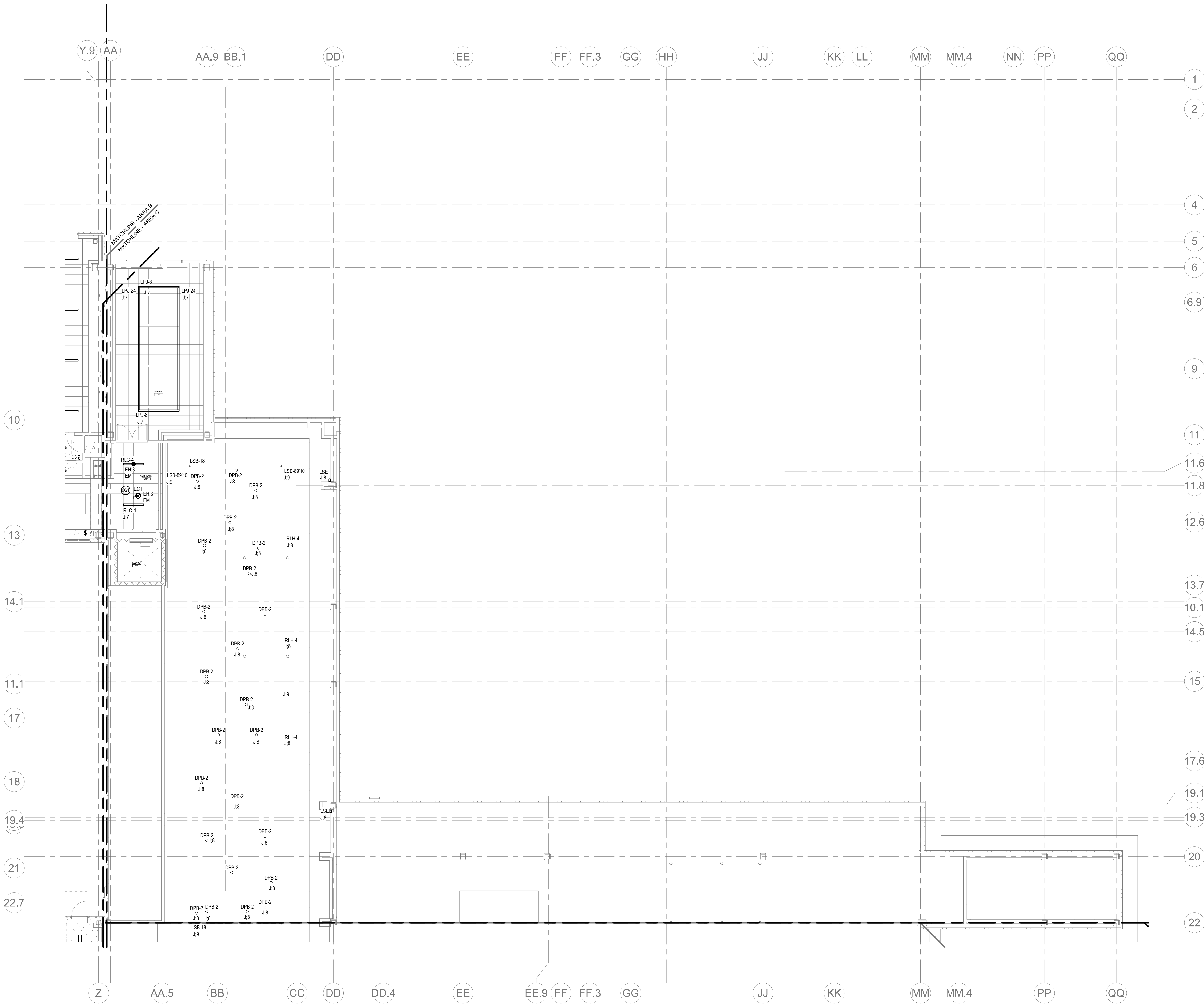
Wakefield, MA 01880

**LIGHTING GENERAL NOTES:**

1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0.0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0.16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0.18 - E4-0.20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL ROPS FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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**CIRCUIT LEGEND:**

J.# - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4B, CIRCUIT #  
EH.# - DENOTES BRANCH CIRCUIT PANELBOARD EMLPH-4B, CIRCUIT #

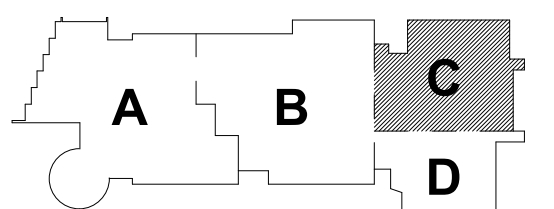


② Level 4 Area C RCP.  
1/8" = 1'-0"

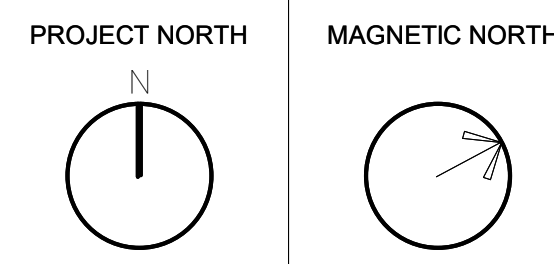
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Submittal  
May 12th, 2023



KEY PLAN



ELECTRICAL  
LIGHTING  
FOURTH FLOOR  
PLAN - AREA C

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-1-4C

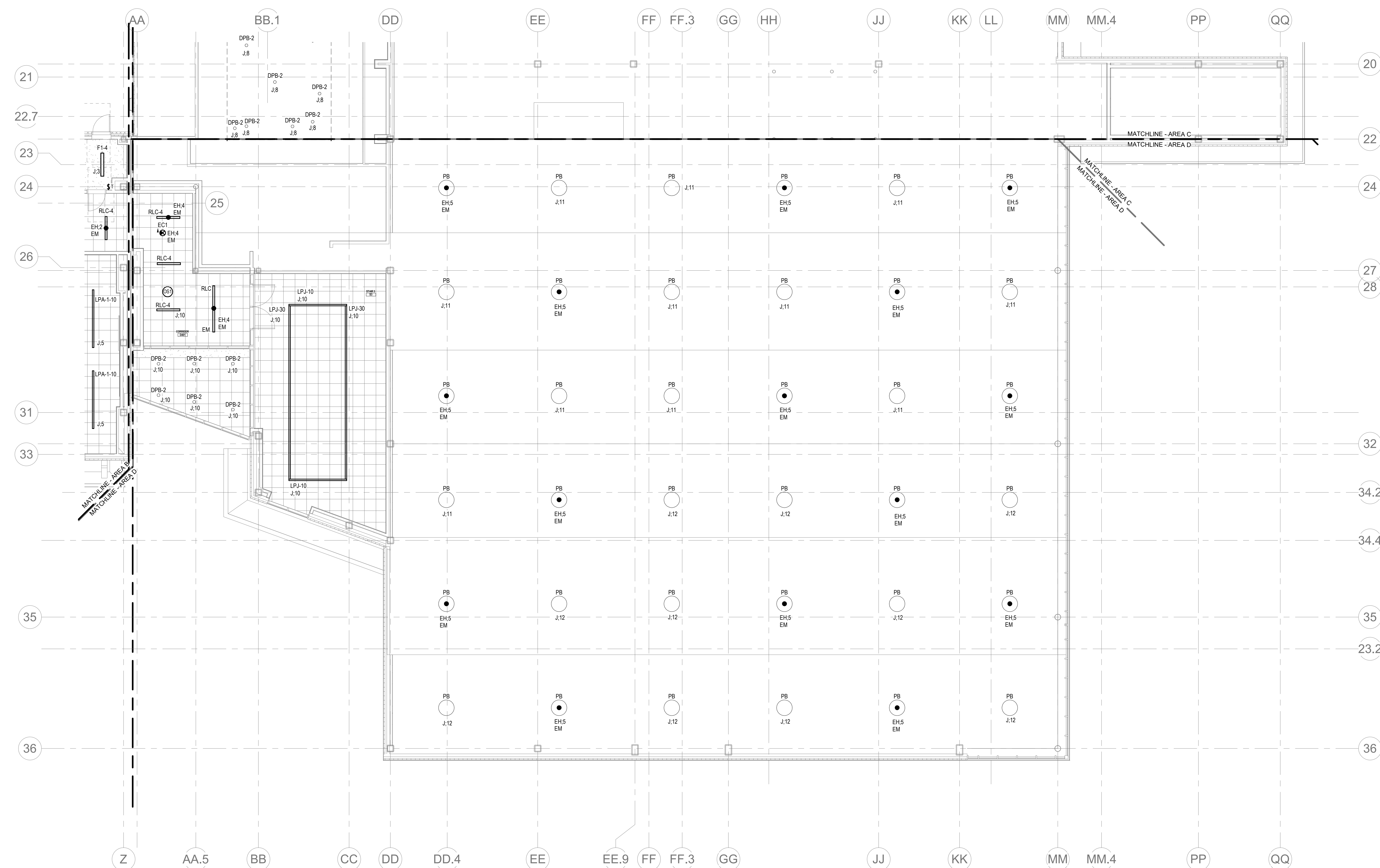


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1. REFER TO E0-3 FOR NOTES ON ELECTRICAL SCOPES OF WORK.
2. REFER TO E4-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-16 FOR LIGHTING CONTROL SCHEMATIC DIAGRAM. REFER TO E4-18 - E4-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

FJ: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4A; CIRCUIT #  
JG: # - DENOTES BRANCH CIRCUIT PANELBOARD LPH-4B; CIRCUIT #  
EG: # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-4A; CIRCUIT #  
EH: # - DENOTES BRANCH CIRCUIT PANELBOARD EM-LPH-4B; CIRCUIT #



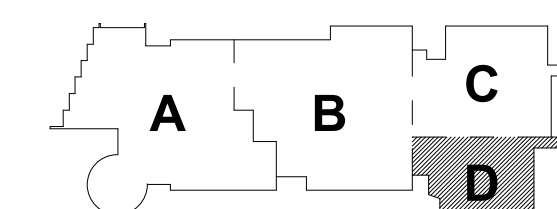
② Level 4 Area D RCP  
1/8" = 1'-0"

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### KEY PLAN

PROJECT NORTH

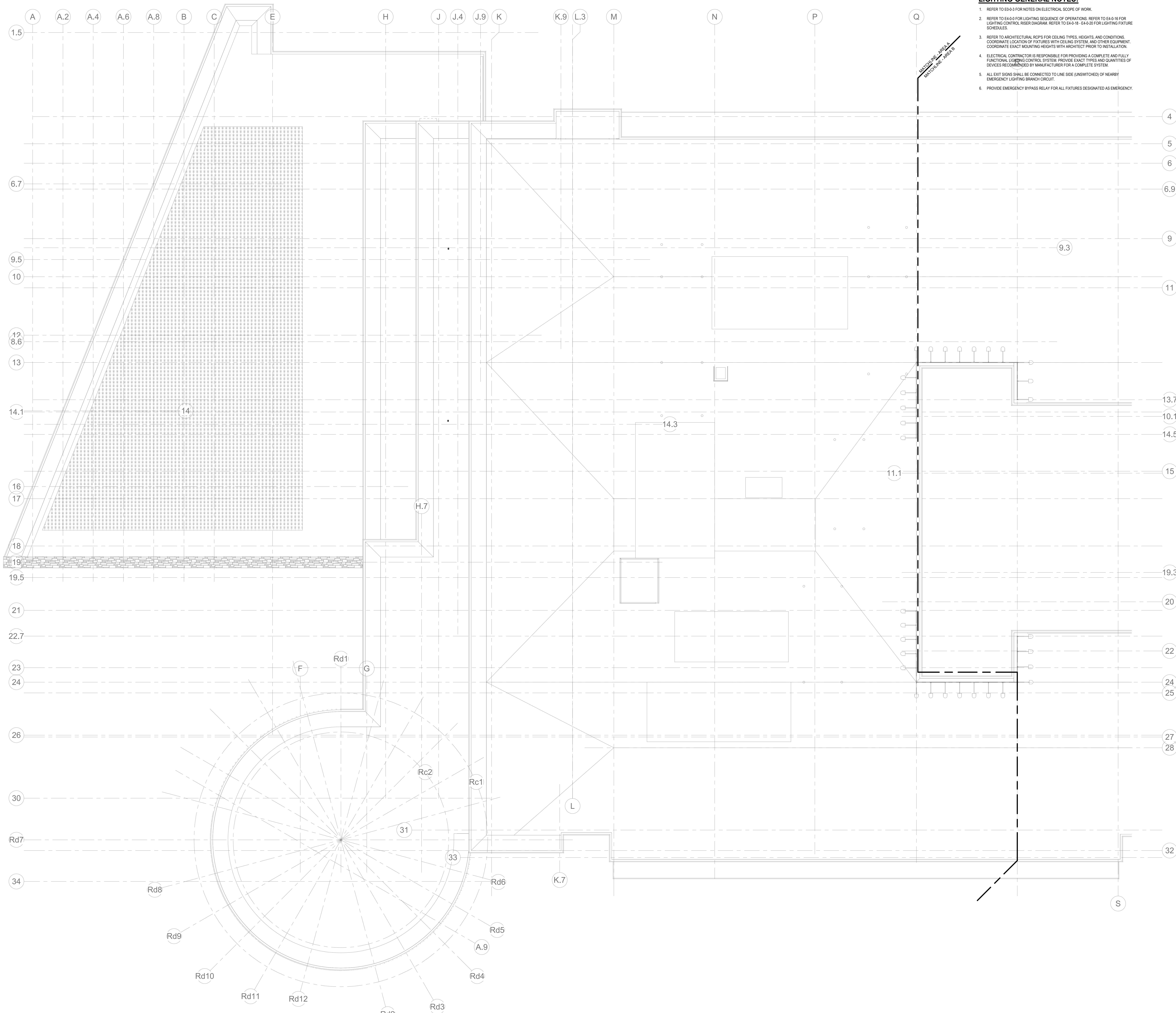
MAGNETIC NORTH

**ELECTRICAL  
LIGHTING  
FOURTH FLOOR  
PLAN - AREA D**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-4D**





- LIGHTING GENERAL NOTES:**
1. REFER TO E6-0.3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
  2. REFER TO E4-0.4 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0.16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0.18 - E4-0.20 FOR LIGHTING FIXTURE SCHEDULES.
  3. REFER TO ARCHITECTURAL RCP'S FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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  6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

1 ELECTRICAL LIGHTING Main Roof Area A  
1/8" = 1'-0"

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A B C D

KEY PLAN

PROJECT NORTH

MAGNETIC NORTH

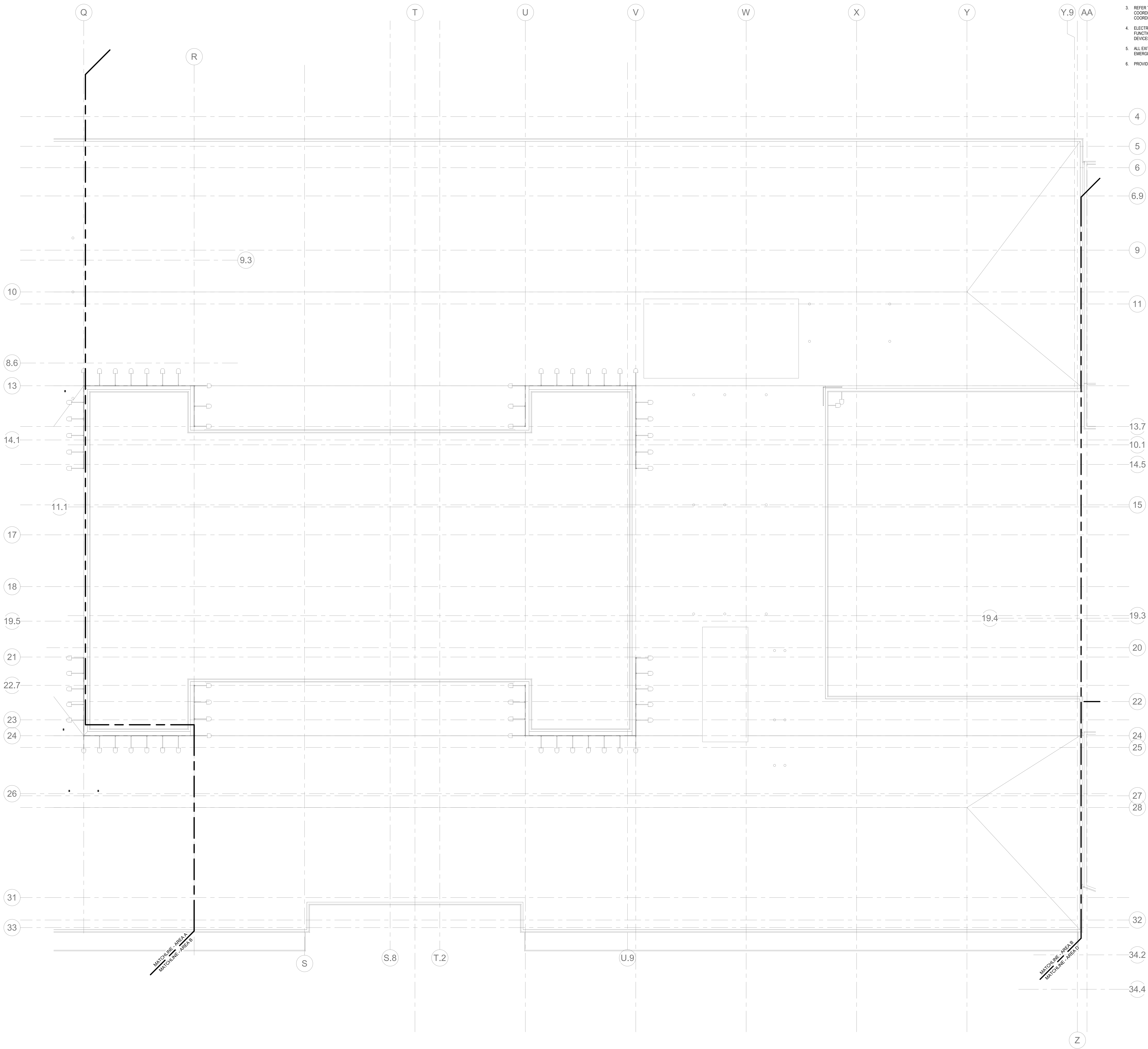
ELECTRICAL  
LIGHTING ROOF  
PLAN - AREA A

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-2-1A



- LIGHTING GENERAL NOTES:**
1. REFER TO E4-0-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
  2. REFER TO E4-0-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0-18 - E4-0-20 FOR LIGHTING FIXTURE SCHEDULES.
  3. REFER TO ARCHITECTURAL ROPS FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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  6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.



ELECTRICAL LIGHTING Main Roof Area B  
1/8" = 1'-0"

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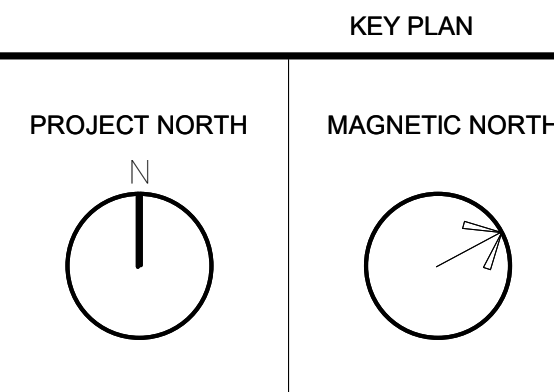
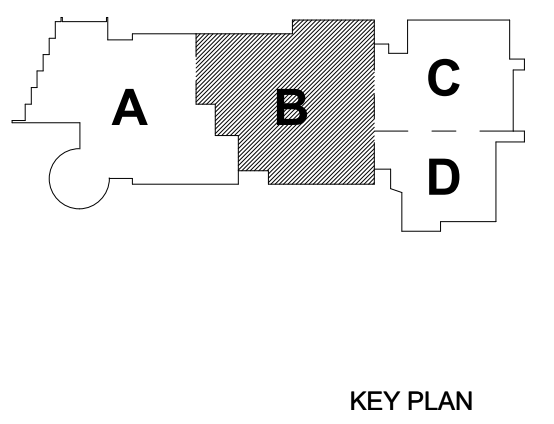
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**ELECTRICAL  
LIGHTING ROOF  
PLAN - AREA B**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-2-1B**





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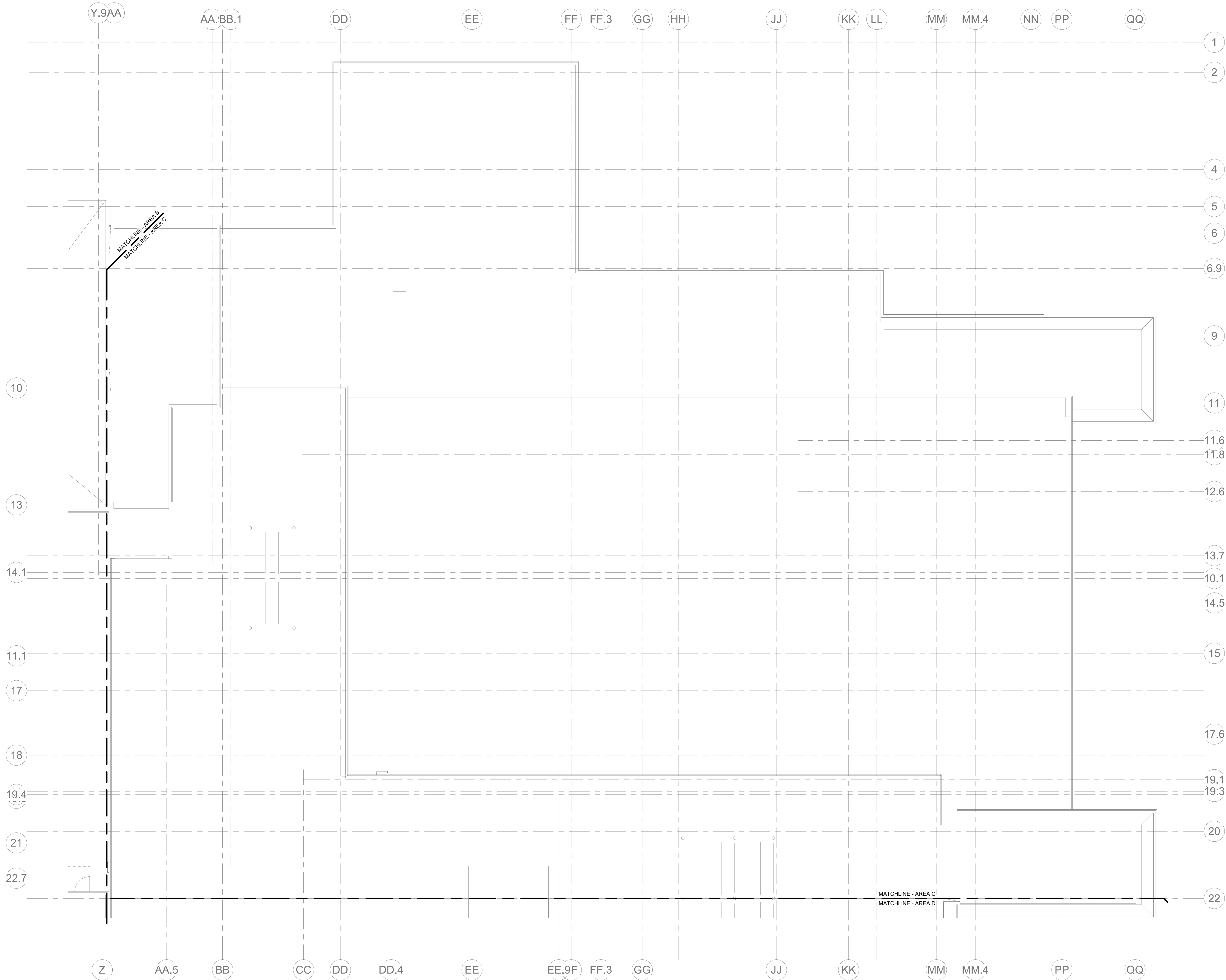
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Regional  
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Wakefield, MA 01880

**LIGHTING GENERAL NOTES:**

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2. REFER TO E4-0-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0-18 - E4-0-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPS FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
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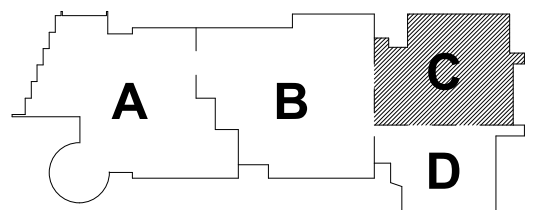


1 ELECTRICAL LIGHTING Main Roof Area C  
1/8" = 1'-0"

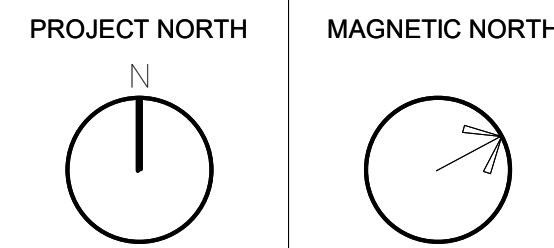
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May 12th, 2023



KEY PLAN



**ELECTRICAL  
LIGHTING ROOF  
PLAN - AREA C**

Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-2-1C**



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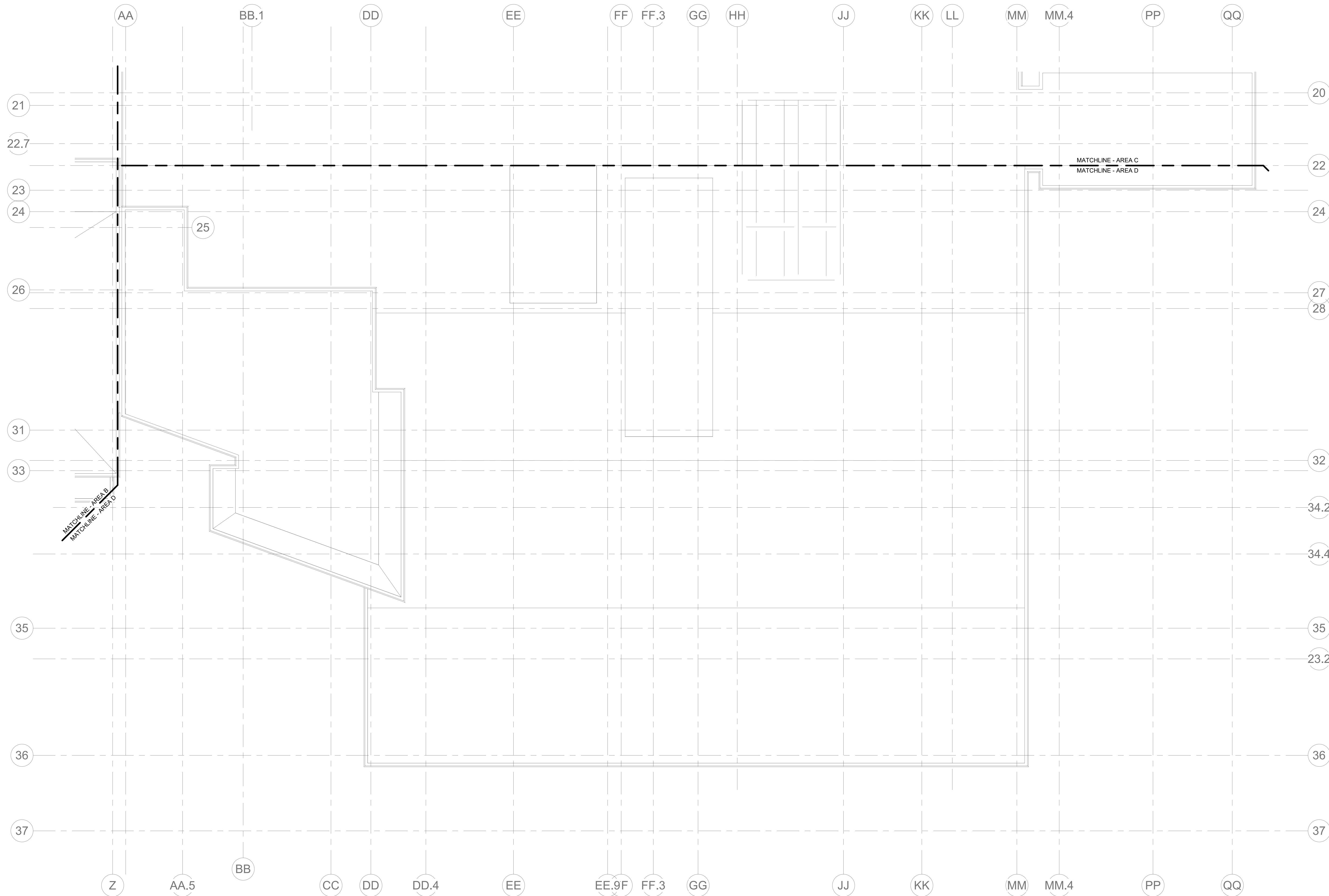
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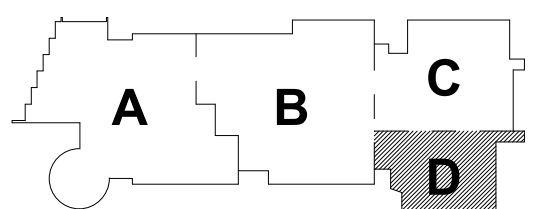


1 ELECTRICAL LIGHTING Main Roof Area D  
1/8" = 1'-0"

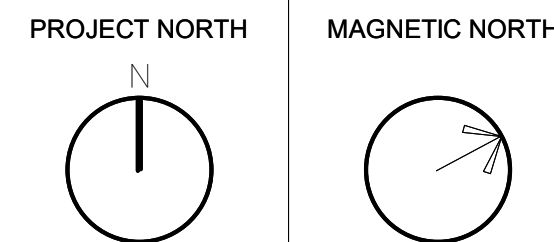
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May 12th, 2023



KEY PLAN



ELECTRICAL  
LIGHTING ROOF  
PLAN - AREA D

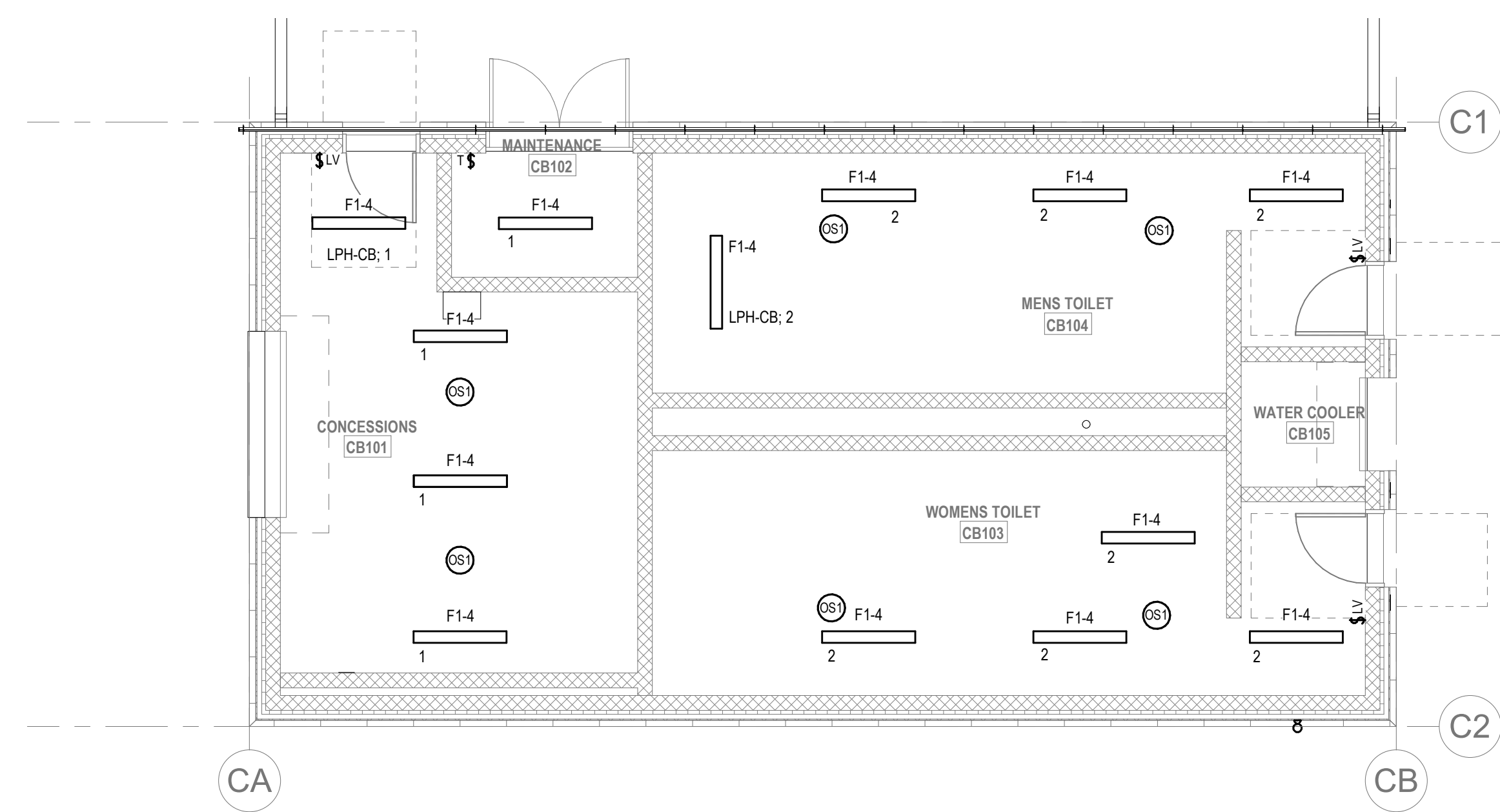
Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

E2-2-1D



1. REFER TO E0-0.3 FOR NOTES ON ELECTRICAL SCOP OF WORK.
2. REFER TO E-0.0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E-0.16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E-0.18 - E-0.20 FOR LIGHTING FIXTURE SCHEDULES.
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4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNWITNESSED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.

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**ELECTRICAL - CONCESSIONS FLOOR LEVEL LIGHTING PLAN (ADD ALTERNATE)**

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Submittal  
May 12th, 2023

**ELECTRICAL  
LIGHTING  
CONCESSIONS  
BUILDING PLAN**

Scale: 3/16" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-CB**



DRA

Drumme Rosane Anderson, Inc.

225 Oakland Road  
Studio 205  
South Windsor, CT  
06074

260 Charles Street  
Studio 300  
Waltham, MA  
02453

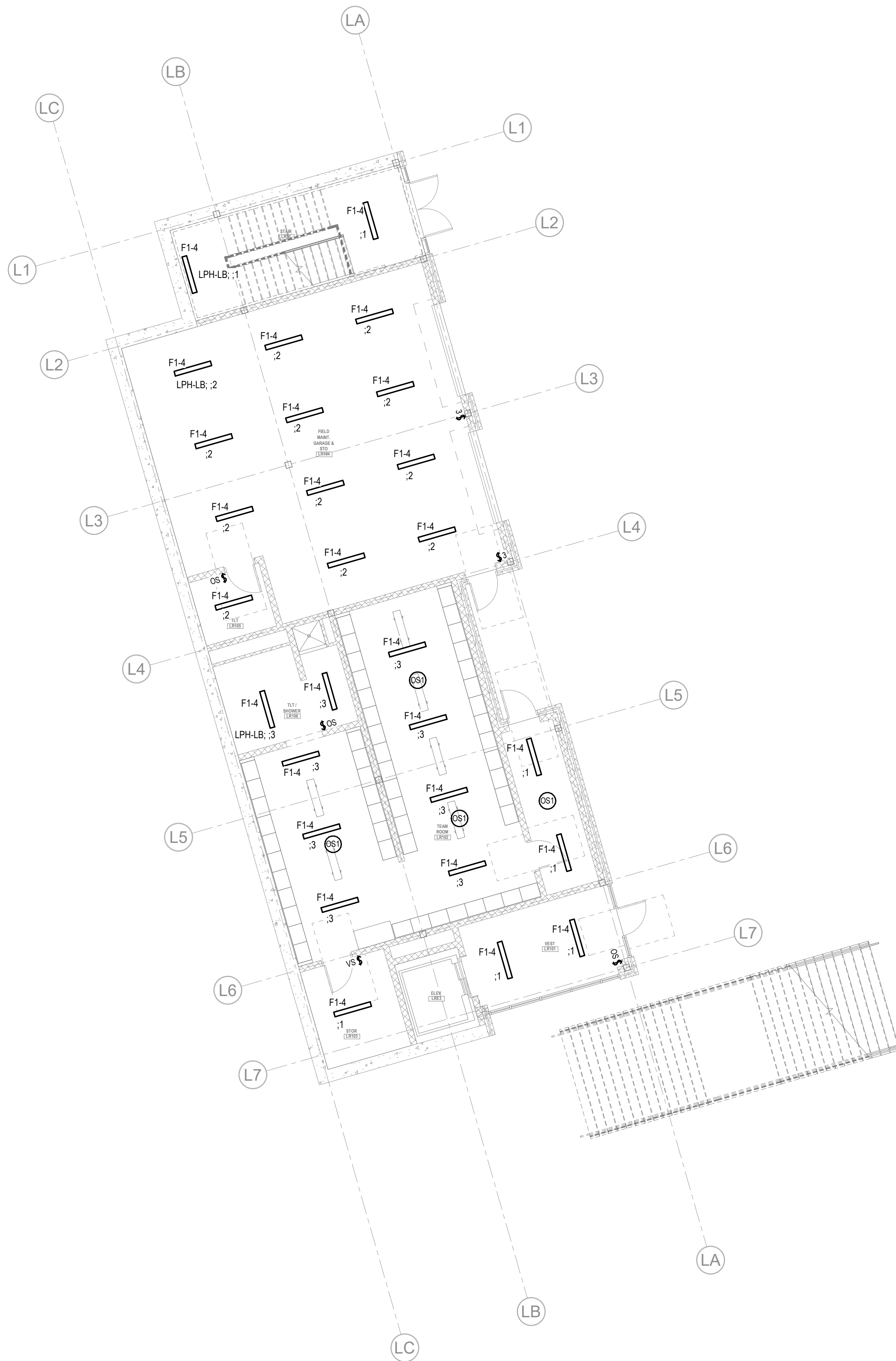
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**LIGHTING GENERAL NOTES:**

1. REFER TO E4-0-3 FOR NOTES ON ELECTRICAL SCOPE OF WORK.
2. REFER TO E4-0-0 FOR LIGHTING SEQUENCE OF OPERATIONS. REFER TO E4-0-16 FOR LIGHTING CONTROL RISER DIAGRAM. REFER TO E4-0-18 - E4-0-20 FOR LIGHTING FIXTURE SCHEDULES.
3. REFER TO ARCHITECTURAL RCPs FOR CEILING TYPES, HEIGHTS, AND CONDITIONS. COORDINATE LOCATION OF FIXTURES WITH CEILING SYSTEM, AND OTHER EQUIPMENT. COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND FULLY FUNCTIONAL LIGHTING CONTROL SYSTEM. PROVIDE EXACT TYPES AND QUANTITIES OF DEVICES RECOMMENDED BY MANUFACTURER FOR A COMPLETE SYSTEM.
5. ALL EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE (UNSWITCHED) OF NEARBY EMERGENCY LIGHTING BRANCH CIRCUIT.
6. PROVIDE EMERGENCY BYPASS RELAY FOR ALL FIXTURES DESIGNATED AS EMERGENCY.



**1 ELECTRICAL LIGHTING Locker Building First Floor (ADD ALTERNATE)**  
1/8" = 1'-0"

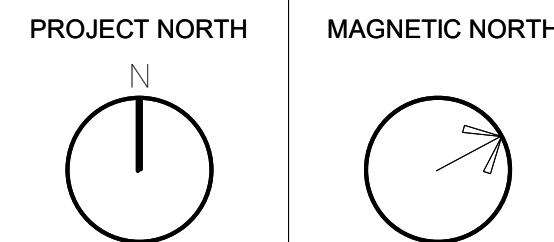


**2 ELECTRICAL LIGHTING Locker Building Second Level (ADD ALTERNATE)**  
1/8" = 1'-0"

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**ELECTRICAL  
LIGHTING  
LOCKER  
BUILDING PLAN**

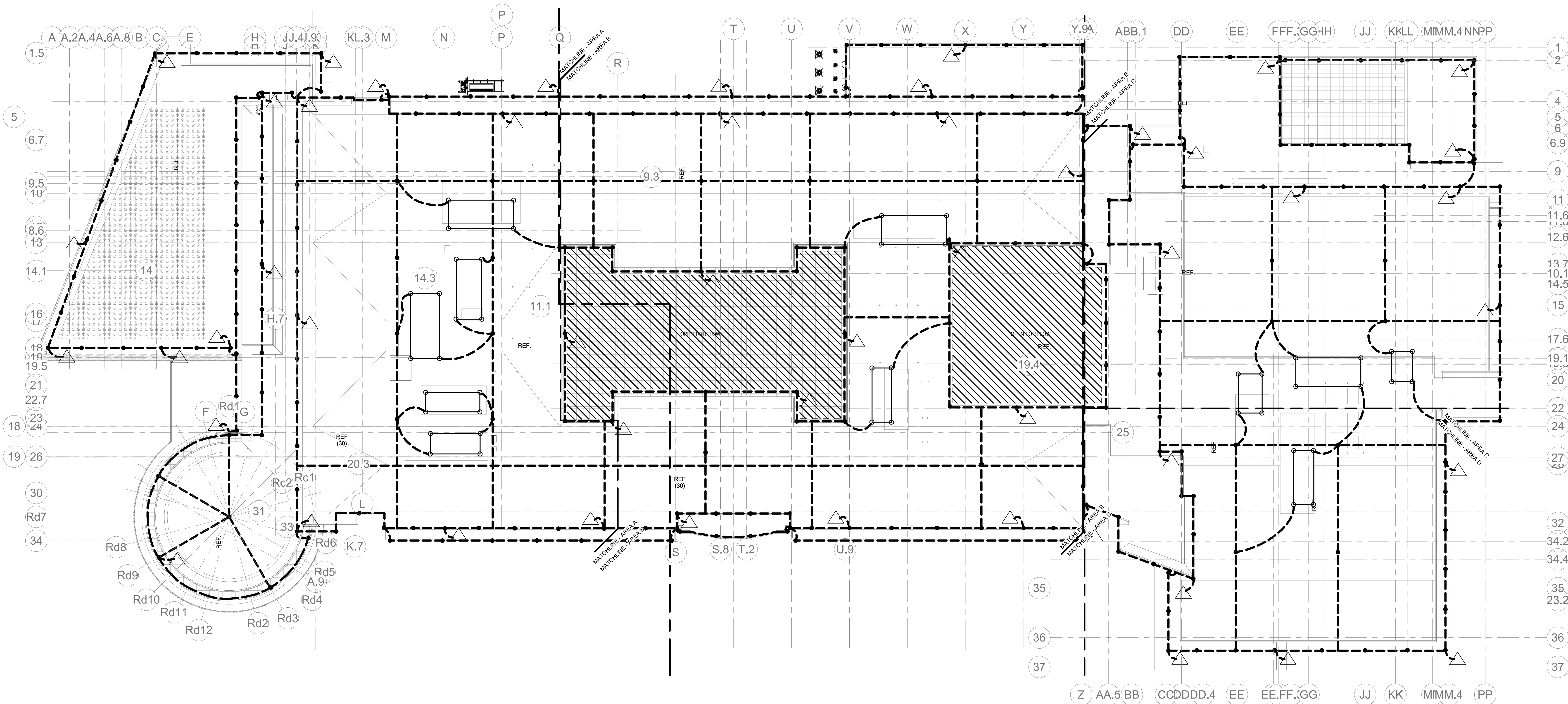
Scale: 1/8" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ERA  
Date: May 12th, 2023

**E2-1-LB**



| LIGHTNING PROTECTION LEGEND |                                                                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ●                           | AIR TERMINAL<br>REFER TO DRAWING E4-0-14 FOR DETAILS.                                                                                                                     |
| —                           | TERRACE HAND RAILING<br>RAILING SHALL BE AT LEAST 1/8" THICK AND EXTEND AT LEAST 10" ABOVE THE PARAPET AND MUST BE LOCATED WITHIN 24" OF THE OUTSIDE EDGE OF THE PARAPET. |
| △                           | THRU-ROOF ROD AND BOND PLATE<br>CONNECTION TO STRUCTURAL STEEL FRAMING<br>REFER TO DRAWING E-4# FOR DETAILS.                                                              |
| ○                           | CONNECTION FROM METAL RAILING TO CONDUCTOR CABLE<br>APPROXIMATE LOCATIONS SHOWN. FINAL LOCATIONS SHALL BE CONFIRMED ON SITE.                                              |

- LIGHTNING PROTECTION NOTES:**
- REFER TO DRAWING E4-0-14 FOR LIGHTNING PROTECTION DETAILS.
  - LIGHTNING PROTECTION AIR TERMINAL LAYOUT AND THRU-ROOF LOCATIONS ARE PRELIMINARY ONLY. FINAL SYSTEM SHALL BE DESIGNED BY LIGHTNING PROTECTION CONTRACTORS.
  - AIR TERMINALS MUST BE OF TIP-OVER TYPE (SPRING ADAPTOR AND LANYARD).
  - ELECTRICAL CONTRACTOR SHALL TIE-IN PV SYSTEM TO LIGHTNING PROTECTION SYSTEM.



Ⓢ ELECTRICAL POWER Main Roof OVERALL LIGHTNING PROTECTION 1  
1" = 20'-0"

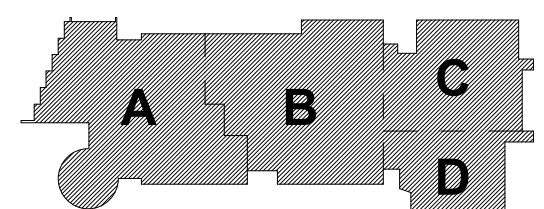
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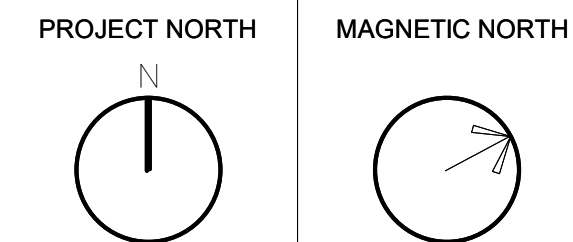
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KEY PLAN



**LIGHTNING  
PROTECTION  
PLAN -  
ROOFTOP  
LAYOUT**

Scale: 1" = 20'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

**E2-3-1**

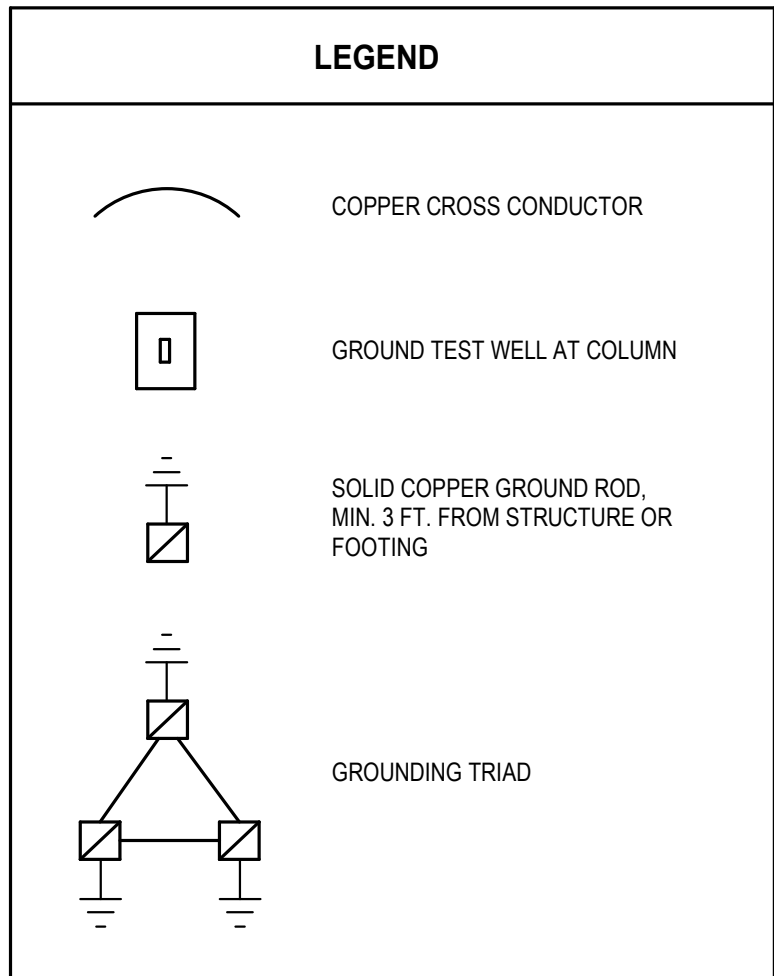


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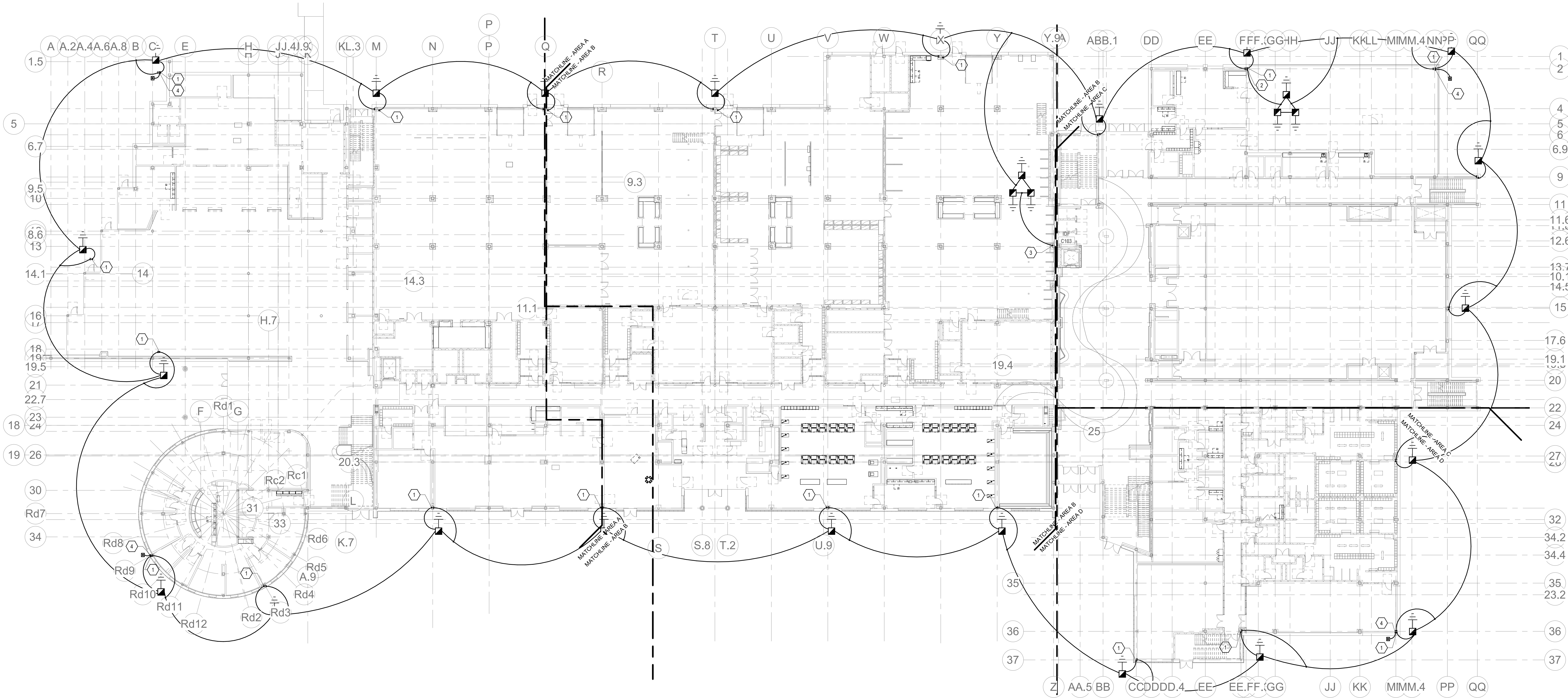


LIGHTNING PROTECTION GENERAL NOTES:

1. THE LIGHTNING PROTECTION SYSTEM AS SHOWN ON DRAWING HAS BEEN DESIGNED IN ACCORDANCE WITH UL96 & NFPA780 LIGHTNING PROTECTION SYSTEM STANDARDS.
2. CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD COURSE, FREE FROM "U" OR "V" DOWN AND UP POCKETS.
3. NO BEND OF CONDUCTOR SHALL FORM AN ANGLE OF LESS THAN 90° NOR SHALL HAVE A RADIUS OF BEND LESS THAN 12".
4. ACTUAL JOBSITE CONDITIONS MAY REQUIRE SLIGHT ALTERATIONS IN DOWN CONDUCTOR, AND GROUND GROUND PLATES OR GROUNDING TRAI LOCATIONS.
5. BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM OR GALVUM SURFACES AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACES.
6. ALL BOLTS ON BOLT PRESSURE CONNECTORS SHALL BE TORQUED AT 150 POUND INCHES (17N-m).
7. ALL CONNECTIONS MUST BE USED WITH UL LISTED CLASS II CABLE OR SAME METAL TYPE.
8. METALLIC BODIES OF INDUCTANCE SITUATED WITHIN 6" OF A LIGHTNING CONDUCTOR OR ANOTHER BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM, UNLESS INHERENTLY GROUND.
9. CONNECTIONS TO GROUND RODS SHALL BE MADE AT A POINT NOT LESS THAN 1'-0" BELOW FINISHED GRADE AND AT LEAST 2'-0" AWAY FROM FOUNDATION WALL.
10. BOND TO WATERLINES (DOMESTIC & FIRE) AND GAS SERVICE LINES.
11. A LIGHTNING ARRESTOR, PROTECTOR OR ANTENNA DISCHARGE UNIT SHALL BE INSTALLED ON EACH ELECTRIC AND TELEPHONE SERVICE AND RADIO AND TELEVISION ANTENNA LEAD-IN BY THE ELECTRICAL CONTRACTOR, IN ACCORDANCE WITH NFPA-70.
12. THE INSTALLATION SHALL MEET THE REQUIREMENTS OF NFPA-780 STANDARD. CERTIFICATION SHALL BE PROVIDED UPON COMPLETION OF INSTALLATION.
13. PROVIDE GROUNDING TRAI WITH CONNECTION FOR ELECTRIC AND TELECOM SERVICE.
14. ELECTRICAL CONTRACTOR SHALL TEST RESISTANCE TO EARTH OF EQUIPMENT GROUNDING SYSTEM TO ENSURE COMPLIANCE WITH NEC ARTICLE 250 PRIOR TO POURING CONCRETE. CONTRACTOR TO ADD GROUND PLATES, IF REQUIRED, TO MEET MINIMUM RESISTANCE REQUIREMENTS.

LIGHTNING PROTECTION KEY NOTES:

1. SURFACE MOUNTED LIGHTNING PROTECTION DOWN CONDUCTOR, UP TO STEEL COLUMN AT LOWER OR GROUND LEVEL.
2. SURFACE MOUNTED GROUNDING ELECTRODE CONDUCTOR, UP TO STEEL COLUMN AT LOWER OR GROUND LEVEL. FOR CONNECTION TO GROUND BAR IN MAIN ELECTRICAL ROOM. SEE DETAIL # ON E-# PROVIDE BLACK ENAMEL EQUIPMENT TAG ON BOX WITH WHITE ENGRAVED UPPER CASE LETTERS. TAG SHALL SAY "GROUNDING ELECTRODE CONDUCTOR FOR EQUIPMENT GROUNDING SYSTEM".
3. SURFACE MOUNTED GROUNDING ELECTRODE CONDUCTOR, UP TO STEEL COLUMN AT LOWER OR GROUND LEVEL. FOR CONNECTION TO GROUND BAR IN MAIN DISTRIBUTION FRAME (MDF) ROOM. SEE DETAIL # ON E-# PROVIDE BLACK ENAMEL EQUIPMENT TAG ON BOX, WITH WHITE ENGRAVED UPPER CASE LETTERS. TAG SHALL SAY "GROUNDING ELECTRODE CONDUCTOR FOR TELECOM EQUIPMENT GROUNDING SYSTEM".
4. CONNECTION TO GROUND TEST WELL.

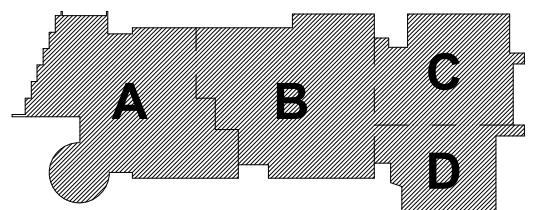


1 ELECTRICAL Level 1 OVERALL - LIGHTNING PROTECTION PLAN  
1" = 20'-0"

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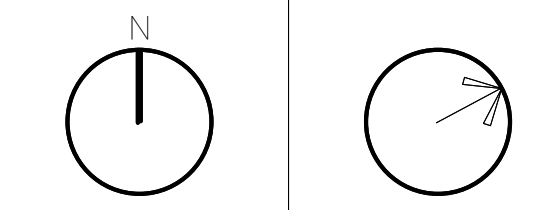
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KEY PLAN

PROJECT NORTH MAGNETIC NORTH



LIGHTNING  
PROTECTION  
PLAN -  
UNDERSLAB  
LAYOUT

Scale: 1" = 20'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

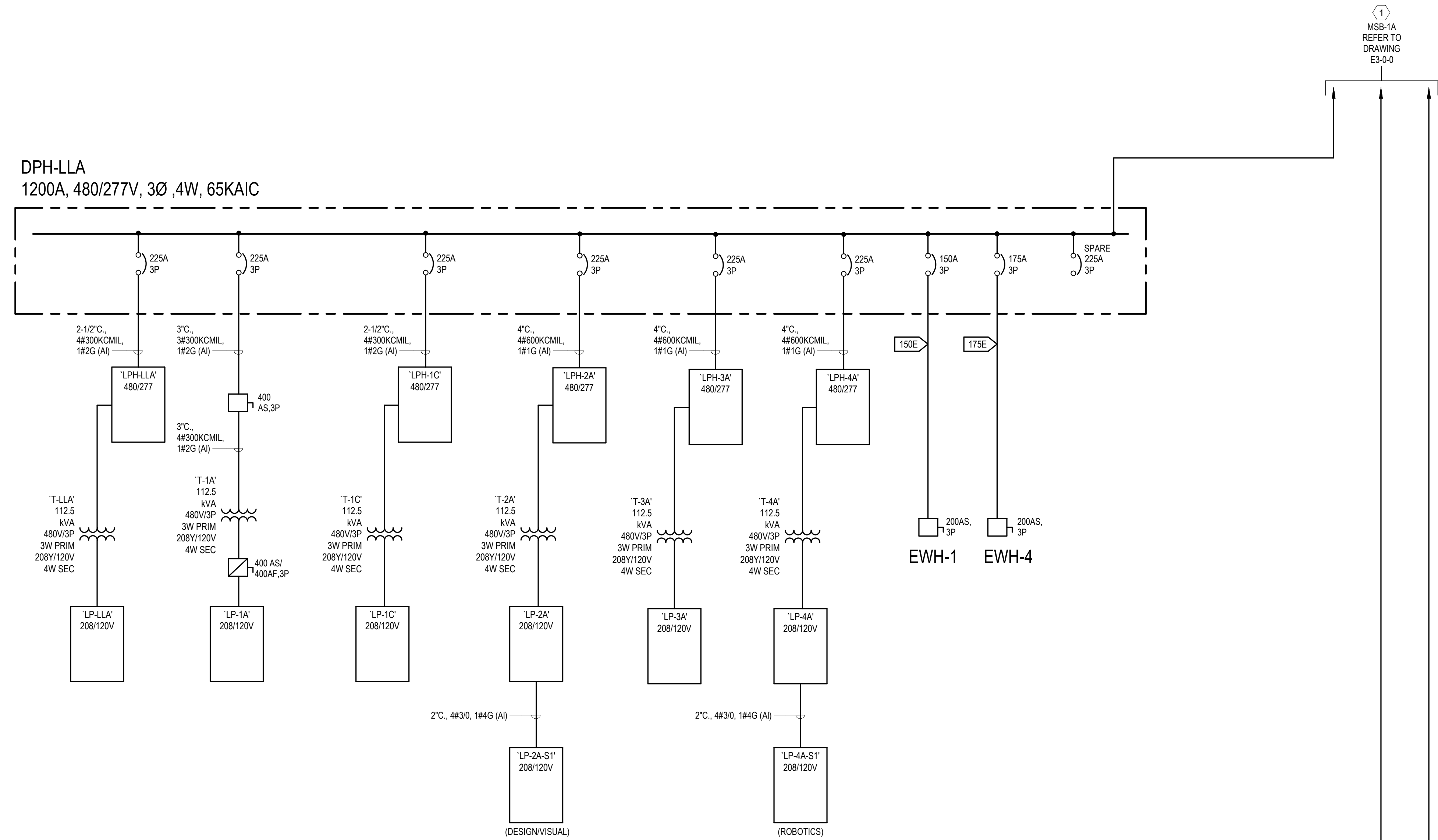
E2-3-2



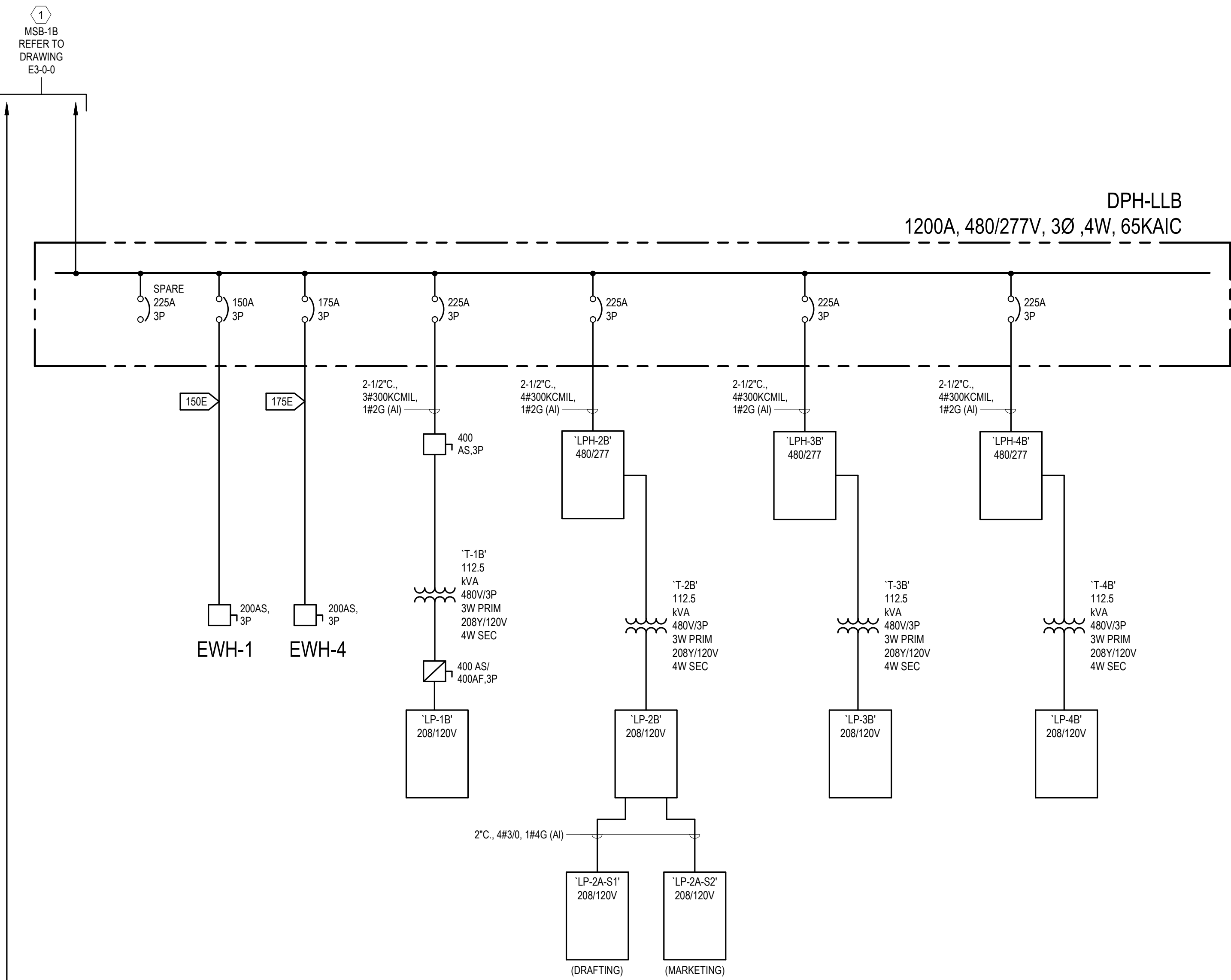




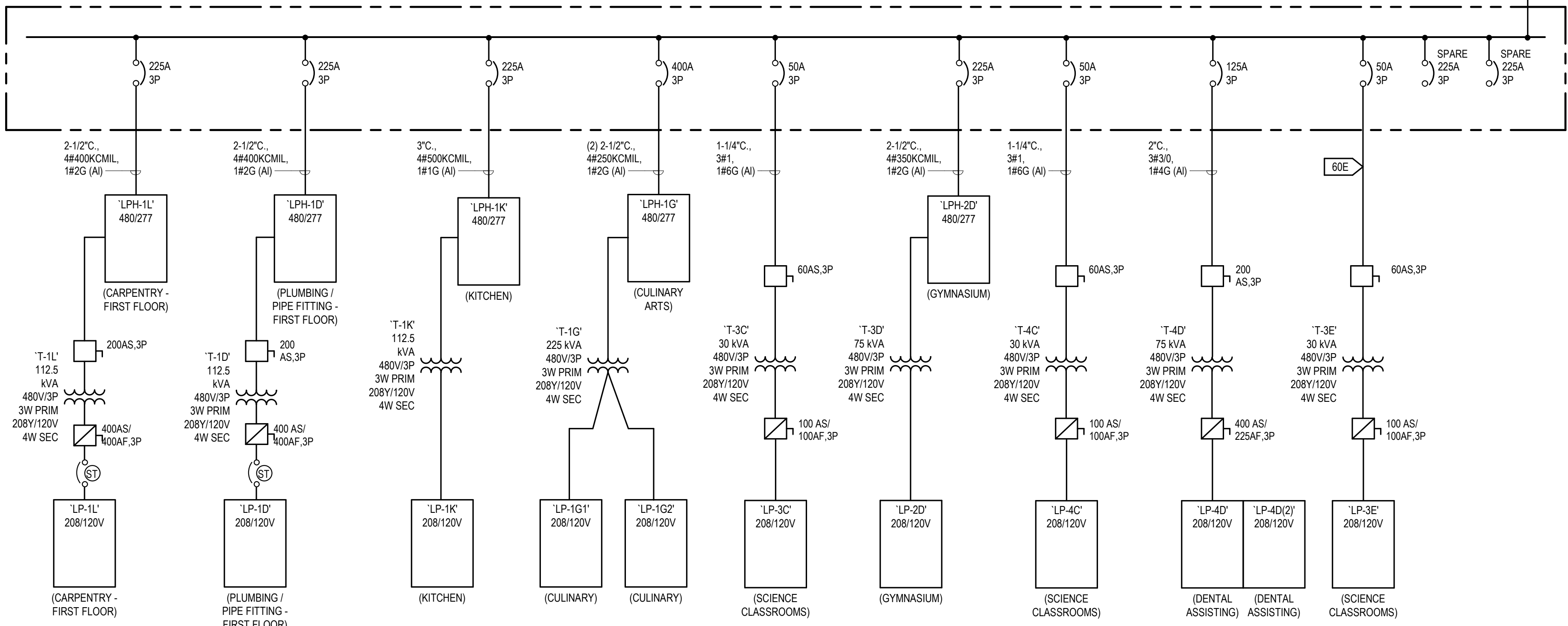
DPH-LLA  
1200A, 480/277V, 3Ø, 4W, 65KAIC



DPH-LLB  
1200A, 480/277V, 3Ø, 4W, 65KAIC



DPH-LLC  
1200A, 480/277V, 3Ø, 4W, 65KAIC



## GENERAL NOTES

- REFER TO COPPER BRANCH AND FEEDER SCHEDULES ON E4-0-0 FOR CONDUIT AND WIRE SIZES FOR COPPER FEEDERS.
- UNLESS OTHERWISE NOTED, FEEDERS OF 100 AMPS AND GREATER SHALL BE ALUMINUM. SUCH FEEDERS ARE INDICATED ON THE ONE LINE DIAGRAMS WITH "AL". UNLESS OTHERWISE NOTED, ALL OTHER WIRING FOR ALL OTHER FEEDERS AND BRANCH CIRCUITS SHALL BE COPPER.
- INCREASE ALL FEEDER SIZES BASED ON LENGTH OF FEEDER TO LIMIT VOLTAGE DROP TO 2 PER CENT.
- PROVIDE AN ENERGY MONITORING SYSTEM BY E MON, D MON, CLASS 2000 KWH METER, INTELLIMETER OR EQUAL FOR RECEPTACLES AND MECHANICAL EQUIPMENT POWER THAT ALLOWS USERS TO READ AND MONITOR ENERGY CONSUMPTION VIA ON-SITE OR OFF-SITE NON-DEDICATED COMPUTERS. SOFTWARE APPLICATION SHALL BE E-MON ENERGY SOFTWARE. OPTIDISCY PROTON AND OPTIDISCY 864 AS A STAND ALONE REPORTING SYSTEM. THE APPLICATION SHALL BE COMPATIBLE AND OPERATE IN CONJUNCTION THE BAS AND LIGHTING FRONT-END APPLICATION PACKAGES (MICROSOFT WINDOWS OPERATING SYSTEM).
- PROVIDE ALL REQUIRED ELECTRICAL EQUIPMENT REQUIRED FOR MECHANICAL UNIT INSTALLATIONS INCLUDING GFCI-SERVICE RECEPTACLES, DISCONNECT SWITCH SUPPORTS, VAPORPROOF LIGHTING AT UNITS AND AT TOP OF ROOF HATCHES WITH 20A WEATHERPROOF SWITCHES AND GFCI RECEPTACLES.

## KEY NOTES

- ① SEE DRAWING E3-0-0 FOR CONDUIT AND WIRE SIZES.

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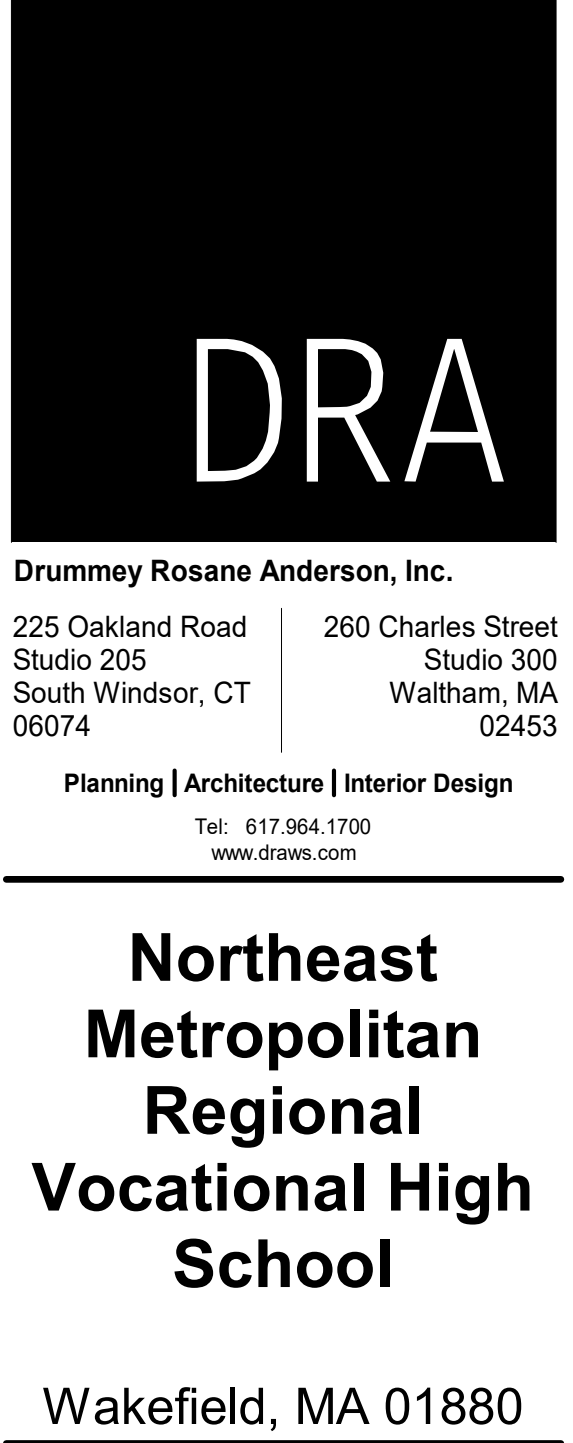
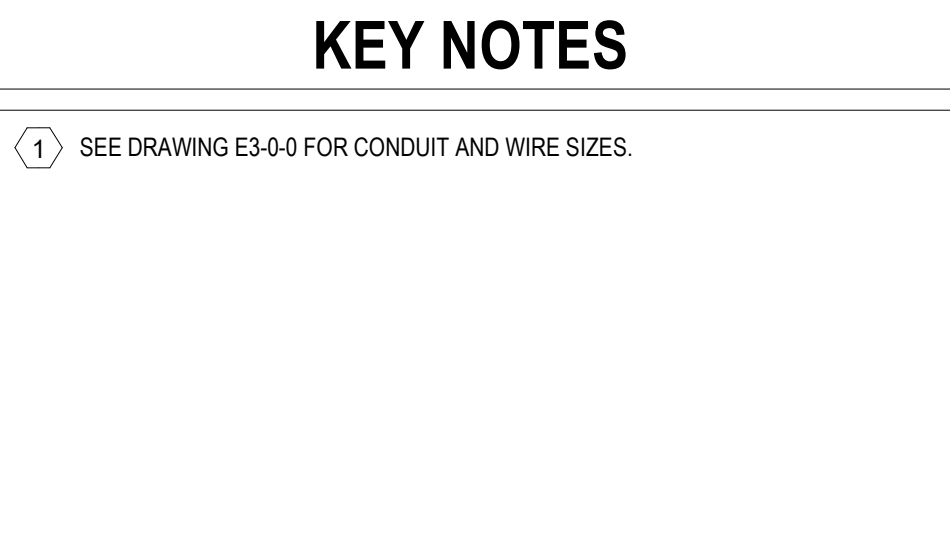
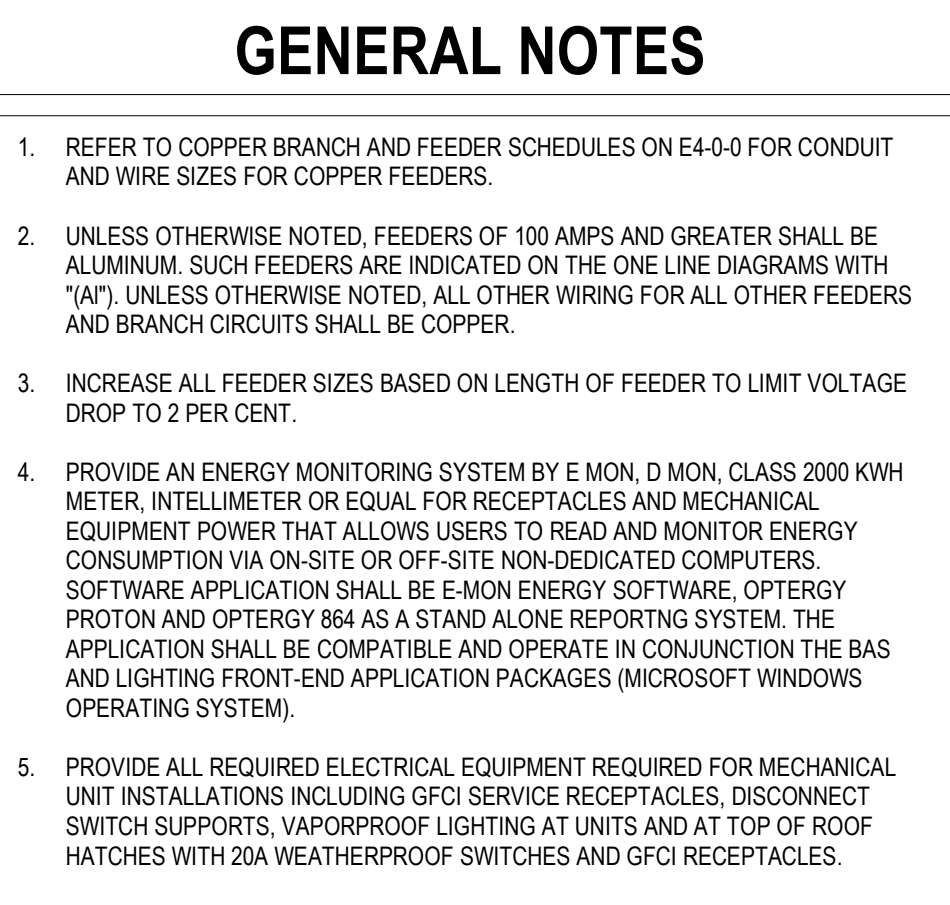
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PROJECT NORTH  
MAGNETIC NORTH

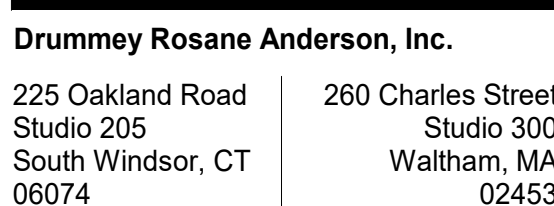
ELECTRICAL  
SINGLE LINE  
DIAGRAM SHEET  
#2

Scale: 1/2" = 1'-0"  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023  
E3-0-1





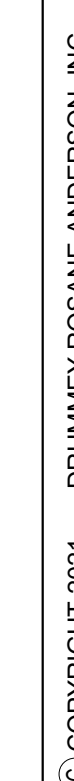




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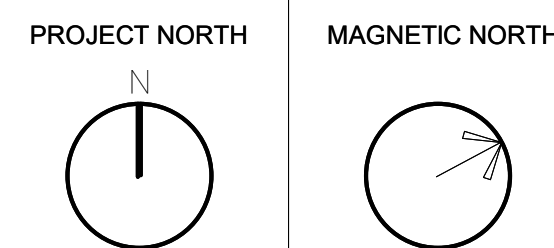
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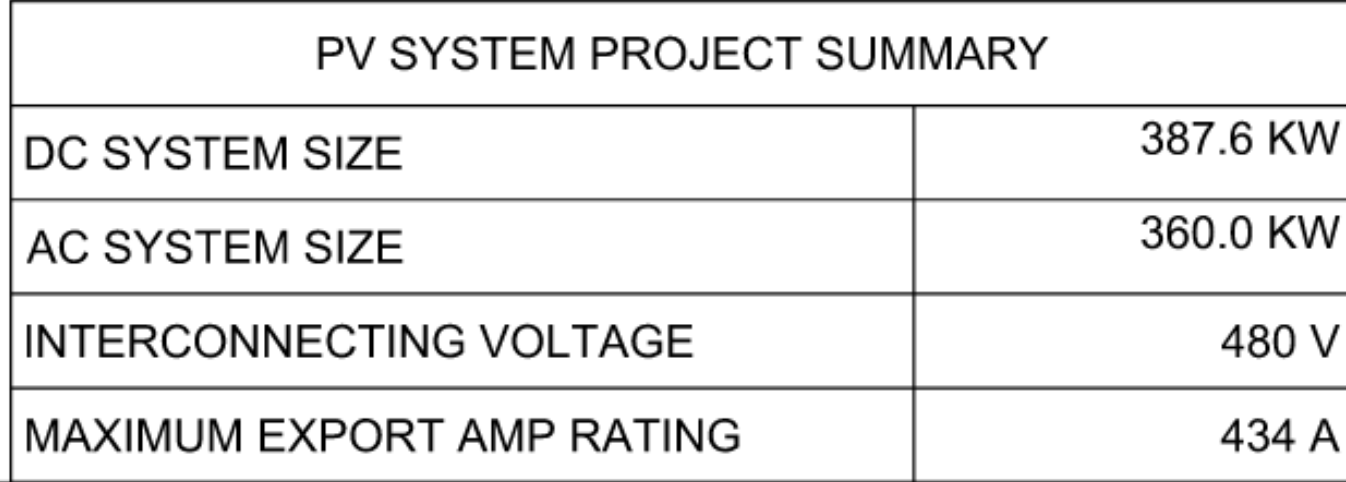


## GROUNDING RISER DIAGRAM

Scale:  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

**E3-0-3**





**SINGLE LINE DIAGRAM**  
NOT TO SCALE

|                                                                                   |                                                                                    |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| REQUIRED INVERTER SETTINGS: FREQUENCY TRIP<br>SETTINGS, $F_{NOM} = 60 \text{ HZ}$ | REQUIRED INVERTER SETTINGS: VOLTAGE<br>VOLTAGE = $480/277 \text{ V}$ , $V_{NOM} =$ |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|

|                                                                                                                                                   |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <p align="center"><b>REQUIRED INVERTER SETTINGS: VOLTAGE RIDE-THROUGH</b><br/> <b>VOLTAGE = 480/277 V, <math>V_{NOM} = 277 V_{L-N}</math></b></p> |  |  |  |
|                                                                                                                                                   |  |  |  |

THE FOLLOWING ADDITIONAL OPERATIONAL REQUIREMENTS SHALL APPLY FOR ALL INVERTERS:

- IN THE PERMISSIVE OPERATION REGION ABOVE 0.5 p.u., INVERTERS SHALL RIDE-THROUGH IN MANDATORY OPERATION MODE, AND
- IN THE PERMISSIVE OPERATION REGION BELOW 0.5 p.u., INVERTERS SHALL RIDE-THROUGH IN MOMENTARY CESSATION MODE WITH A MAXIMUM RESPONSE TIME OF 0.083 SECONDS.

THE FOLLOWING ADDITIONAL OPERATIONAL REQUIREMENTS SHALL APPLY FOR ALL INVERTERS:

- IN THE PERMISSIVE OPERATION REGION ABOVE 0.5 p.u., INVERTERS SHALL RIDE-THROUGH IN MANDATORY OPERATION MODE, AND
- IN THE PERMISSIVE OPERATION REGION BELOW 0.5 p.u., INVERTERS SHALL RIDE-THROUGH IN MOMENTARY CESSATION MODE WITH A MAXIMUM RESPONSE TIME OF 0.083 SECONDS.

## REQUIRED GRID SUPPORT INVERTER SETTINGS

## REQUIRED GRID SUPPORT INVERTER SETTINGS

PER ISO NEW ENGLAND INVERTER SRD AND IEEE STD 1547-2018 (2ND ED.) CATEGORY I, II, AND III

PER ISO NEW ENGLAND INVERTER SRD AND IEEE STD 1547-2018 (2ND ED.) CATEGORY I, II, AND III.

## RETURN TO SERVICE PARAMETERS

PER IEEE 1547-2018 (2ND ED.)

RETURN TO SERVICE PARAMETERS  
PER IEEE 1547-2018 (2ND ED.)

## UTILITY GRADE RELAY SETTINGS

PER NATIONAL GRID ESB 756 REQUIREMENTS

## UTILITY GRADE RELAY SETTINGS

PER NATIONAL GRID ESB 756 REQUIREMENTS

## ELECTRICAL WIRE SCHEDULE

## ELECTRICAL WIRE SCHEDULE

PER NATIONAL ELECTRIC CODE (NEC) 2020

## ELECTRICAL EQUIPMENT SCHEDULE

## ELECTRICAL EQUIPMENT SCHEDULE

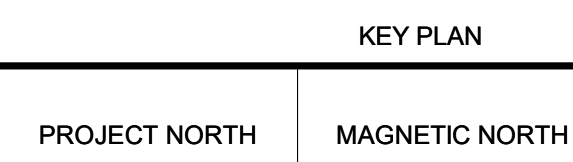
FOR REFERENCE ONLY - REFER TO EQUIPMENT SUBMITTALS FOR DETAILS

## REQUIRED GRID SUPPORT INVERTER SETTINGS

PER ISO NEW ENGLAND INVERTER SRD AND IEEE STD 1547-2018 (2ND ED.) CATEGORY I, II, AND III

PER ISO NEW ENGLAND INVERTER SRD AND IEEE STD 1547-2018 (2ND ED.) CATEGORY I, II, AND III.

(NOTE: PV SYSTEM BY OTHERS - SINGLE LINE DIAGRAM IS INCLUDED FOR REFERENCE ONLY)



## ELECTRICAL SINGLE LINE DIAGRAM - PV SYSTEM



| CONDUIT AND FEEDER SCHEDULE - WITH 200% NEUTRAL |                    |                         |                                  |                                   |                                   |                                   |                                   |                                   |
|-------------------------------------------------|--------------------|-------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| AMPS                                            | 1P+N+G             | 1P+N+G+G                | 2P+G                             | 2P+N+G                            | 3P+G                              | 3P+N+G                            | 3P+200%N+G                        | 3 PHASE MOTORS                    |
|                                                 | A                  | B                       | C                                | D                                 | E                                 | F                                 | F2                                | M                                 |
| 15                                              | 2#12+1#12G, 3/4"C  | 2#12+1#12G+1#12G, 3/4"C | 2#12+1#12G, 3/4"C                | 3#12+1#12G, 3/4"C                 | 3#12+1#12G, 3/4"C                 | 4#12+1#12G, 3/4"C                 | 3#12+1#12G, 3/4"C                 | 3#12+1#12G, 3/4"C                 |
| 20                                              | 2#12+1#12G, 3/4"C  | 2#12+1#12G+1#12G, 3/4"C | 2#12+1#12G, 3/4"C                | 3#12+1#12G, 3/4"C                 | 3#12+1#12G, 3/4"C                 | 4#12+1#12G, 3/4"C                 | 3#12+1#12G, 3/4"C                 | 3#12+1#12G, 3/4"C                 |
| 30                                              | 2#10+1#10G, 3/4"C  | 2#10+1#10G+1#10G, 3/4"C | 2#10+1#10G, 3/4"C                | 3#10+1#10G, 3/4"C                 | 3#10+1#10G, 3/4"C                 | 4#10+1#10G, 3/4"C                 | 3#10+1#10G, 3/4"C                 | 3#10+1#10G, 3/4"C                 |
| 50                                              | 2#8+1#10G, 3/4"C   | 2#8+1#10G+1#10G, 3/4"C  | 2#8+1#10G, 3/4"C                 | 3#8+1#10G, 3/4"C                  | 3#8+1#10G, 3/4"C                  | 4#8+1#10G, 3/4"C                  | 3#8+1#10G, 3/4"C                  | 3#8+1#10G, 3/4"C                  |
| 60                                              | 2#8+1#8G, 1"C      | 2#8+1#8G+1#8G, 1"C      | 2#8+1#8G, 1"C                    | 3#8+1#8G, 1"C                     | 3#8+1#8G, 1"C                     | 4#8+1#8G, 1"C                     | 3#8+1#8G, 1"C                     | 3#8+1#8G, 1"C                     |
| 70                                              | 2#4+1#8G, 1"C      | 2#4+1#8G+1#8G, 1 1/4"C  | 2#4+1#8G, 1"C                    | 3#4+1#8G, 1"C                     | 3#4+1#8G, 1"C                     | 4#4+1#8G, 1 1/4"C                 | 3#4+1#8G, 1 1/4"C                 | 3#4+1#8G, 1"C                     |
| 80                                              | 2#4+1#8G, 1"C      | 2#4+1#8G+1#8G, 1 1/4"C  | 2#4+1#8G, 1"C                    | 3#4+1#8G, 1"C                     | 3#4+1#8G, 1"C                     | 4#4+1#8G, 1 1/4"C                 | 3#4+1#8G, 1 1/4"C                 | 3#4+1#8G, 1"C                     |
| 90                                              | 2#3+1#8G, 1 1/4"C  | 2#3+1#8G+1#8G, 1 1/4"C  | 2#3+1#8G, 1 1/4"C                | 3#3+1#8G, 1 1/4"C                 | 3#3+1#8G, 1 1/4"C                 | 4#3+1#8G, 1 1/4"C                 | 3#3+1#8G, 1 1/4"C                 | 3#3+1#8G, 1 1/4"C                 |
| 100                                             | 2#3+1#8G, 1 1/4"C  | 2#3+1#8G+1#8G, 1 1/4"C  | 2#3+1#8G, 1 1/4"C                | 3#3+1#8G, 1 1/4"C                 | 3#3+1#8G, 1 1/4"C                 | 4#3+1#8G, 1 1/4"C                 | 3#3+1#8G, 1 1/4"C                 | 3#3+1#8G, 1 1/4"C                 |
| 125                                             | 2#1+1#8G, 1 1/4"C  | 2#1+1#8G+1#8G, 1 1/4"C  | 2#1+1#8G, 1 1/4"C                | 3#1+1#8G, 1 1/4"C                 | 3#1+1#8G, 1 1/4"C                 | 4#1+1#8G, 1 1/2"C                 | 3#1+1#8G, 1 1/2"C                 | 3#1+1#8G, 1 1/2"C                 |
| 150                                             | 2#10+1#8G, 1 1/4"C | 2#10+1#8G+1#8G, 1 1/2"C | 2#10+1#8G, 1 1/4"C               | 3#10+1#8G, 1 1/2"C                | 3#10+1#8G, 1 1/2"C                | 4#10+1#8G, 2"C                    | 3#10+1#8G, 2"C                    | 3#10+1#8G, 1 1/2"C                |
| 175                                             | 2#20+1#8G, 1 1/2"C | 2#20+1#8G+1#8G, 2"C     | 2#20+1#8G, 1 1/2"C               | 3#20+1#8G, 2"C                    | 3#20+1#8G, 2"C                    | 4#20+1#8G, 2"C                    | 3#20+1#8G, 2"C                    | 3#20+1#8G, 2"C                    |
| 200                                             | 2#30+1#8G, 1 1/2"C | 2#30+1#8G+1#8G, 2"C     | 2#30+1#8G, 1 1/2"C               | 3#30+1#8G, 2"C                    | 3#30+1#8G, 2"C                    | 4#30+1#8G, 2"C                    | 3#30+1#8G, 2"C                    | 3#30+1#8G, 2"C                    |
| 225                                             | 2#40+1#4G, 2"C     | 2#40+1#4G+1#4G, 2"C     | 2#40+1#4G, 2"C                   | 3#40+1#4G, 2"C                    | 3#40+1#4G, 2"C                    | 4#40+1#4G, 2 1/2"C                | 3#40+1#4G, 2 1/2"C                | 3#40+1#4G, 2"C                    |
| 250                                             | 2#250+1#4G, 2"C    | 2#250+1#4G+1#4G, 2"C    | 2#250+1#4G, 2"C                  | 3#250+1#4G, 2 1/2"C               | 3#250+1#4G, 2 1/2"C               | 4#250+1#4G, 2 1/2"C               | 3#250+1#4G, 2 1/2"C               | 3#250+1#2G, 2 1/2"C               |
| 300                                             | 2#350+1#4G, 2"C    | 2#350+1#4G+1#4G, 2"C    | 2#350+1#4G, 2"C                  | 3#350+1#4G, 2 1/2"C               | 3#350+1#4G, 2 1/2"C               | 4#350+1#4G, 3"C                   | 3#350+1#1G, 2 1/2"C               | 3#350+1#1G, 2 1/2"C               |
| 400                                             | 2#500+1#3G, 3"C    | 2#500+1#3G+1#3G, 3"C    | 2#500+1#3G, 3"C                  | 3#500+1#3G, 3"C                   | 3#500+1#3G, 3 1/2"C               | 4#500+1#3G, 3 1/2"C               | 3#500+1#3G, 3 1/2"C               | 3#500+1#10G, 3"C                  |
| 500                                             |                    | 4#250+1#2G, 2 1/2"C     | (2 SETS)3#250+1#2G, (2) 2 1/2"C  | (2 SETS)3#250+1#2G, (2) 2 1/2"C   | (2 SETS)4#250+1#2G, (2) 2 1/2"C   | (2 SETS)3#250+1#2G, (2) 2 1/2"C   | (2 SETS)3#250+1#2G, (2) 2 1/2"C   | (2 SETS)3#250+1#2G, (2) 2 1/2"C   |
| 600                                             |                    | 4#350+1#1G, 3"C         | (2 SETS)3#350+1#1G, (2) 3 1/2"C  | (2 SETS)3#350+1#1G, (2) 3 1/2"C   | (2 SETS)4#350+1#1G, (2) 3 1/2"C   | (2 SETS)3#350+1#1G, (2) 3 1/2"C   | (2 SETS)3#350+1#1G, (2) 3 1/2"C   | (2 SETS)3#350+1#1G, (2) 3 1/2"C   |
| 700                                             |                    | 4#500+1#10G, 3 1/2"C    | (2 SETS)3#500+1#10G, (2) 3 1/2"C | (2 SETS)3#500+1#10G, (2) 3 1/2"C  | (2 SETS)4#500+1#10G, (2) 3 1/2"C  | (2 SETS)3#500+1#10G, (2) 3 1/2"C  | (2 SETS)3#500+1#10G, (2) 3 1/2"C  | (2 SETS)3#500+1#10G, (2) 3 1/2"C  |
| 800                                             |                    | 4#800+1#10G, 3 1/2"C    | (2 SETS)3#800+1#10G, (2) 3 1/2"C | (2 SETS)3#800+1#10G, (2) 3 1/2"C  | (2 SETS)4#800+1#10G, (2) 3 1/2"C  | (2 SETS)3#800+1#10G, (2) 3 1/2"C  | (2 SETS)3#800+1#10G, (2) 3 1/2"C  | (2 SETS)3#800+1#10G, (2) 3 1/2"C  |
| 900                                             |                    |                         |                                  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  | (3 SETS)4#400+1#20G, (3) 2 1/2"C  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  |
| 1000                                            |                    |                         |                                  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  | (3 SETS)4#400+1#20G, (3) 2 1/2"C  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  | (3 SETS)3#400+1#20G, (3) 2 1/2"C  |
| 1200                                            |                    |                         |                                  | (3 SETS)3#600+1#40G, (3) 3 1/2"C  | (3 SETS)4#600+1#40G, (3) 3 1/2"C  | (3 SETS)3#600+1#40G, (3) 3 1/2"C  | (3 SETS)3#600+1#40G, (3) 3 1/2"C  | (3 SETS)3#600+1#40G, (3) 3 1/2"C  |
| 1600                                            |                    |                         |                                  | (4 SETS)3#600+1#40G, (4) 3 1/2"C  | (4 SETS)4#600+1#40G, (4) 3 1/2"C  | (4 SETS)3#600+1#40G, (4) 3 1/2"C  | (4 SETS)3#600+1#40G, (4) 3 1/2"C  | (4 SETS)3#600+1#40G, (4) 3 1/2"C  |
| 2000                                            |                    |                         |                                  | (5 SETS)3#600+1#250G, (5) 3 1/2"C | (5 SETS)4#600+1#250G, (5) 3 1/2"C | (5 SETS)3#600+1#250G, (5) 3 1/2"C | (5 SETS)3#600+1#250G, (5) 3 1/2"C | (5 SETS)3#600+1#250G, (5) 3 1/2"C |
| 2400                                            |                    |                         |                                  | (6 SETS)3#600+1#350G, (6) 3 1/2"C | (6 SETS)4#600+1#350G, (6) 3 1/2"C | (6 SETS)3#600+1#350G, (6) 3 1/2"C | (6 SETS)3#600+1#350G, (6) 3 1/2"C | (6 SETS)3#600+1#350G, (6) 3 1/2"C |
| 3000                                            |                    |                         |                                  | (8 SETS)3#500+1#400G, (8) 3 1/2"C | (8 SETS)4#500+1#400G, (8) 3 1/2"C | (8 SETS)3#500+1#400G, (8) 3 1/2"C | (8 SETS)3#500+1#400G, (8) 3 1/2"C | (8 SETS)3#500+1#400G, (8) 3 1/2"C |

NOTES:  
1. ADJUST SIZE OF GROUNDING CONDUCTOR FOR SEPARATELY DERIVED SYSTEMS ACCORDING TO NEC TABLE 250.66.  
2. INCREASE SIZE OF UNGROUNDED CONDUCTORS FOR VOLTAGE DROP ACCORDING TO NEC 250.122(B).

| LIGHTING SEQUENCE OF OPERATION |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                        |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| TYPE                           | CONTROL DEVICES                                                                                                                  | SEQUENCE OF OPERATION - ASHRAE 90.1 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TYPICAL USE                                                                                                                            |
| 01                             | WALL SWITCH OCCUPANCY SENSOR WITH INTEGRAL OVERRIDE SWITCH                                                                       | WHEN OCCUPIED, ALL LIGHTING IN ROOM SHALL AUTOMATICALLY SWITCH TO FULL ON AND SHALL OVERRIDE SWITCH SHALL BE CAPABLE OF TURNING OFF ALL LIGHTING IN THE ROOM. RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                                                                       | Small Restrooms, Copy/Print Room                                                                                                       |
| 02                             | CEILING OR WALL MOUNTED OCCUPANCY SENSOR WITH POWER-PACK OR RELAY AND WALL MOUNTED OVERRIDE SWITCH                               | WHEN OCCUPIED, ALL LIGHTING IN ROOM SHALL AUTOMATICALLY SWITCH TO FULL ON AND SHALL RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                                                                                                                                                 | Large, Multi-Stall Restrooms                                                                                                           |
| 03                             | CEILING OR WALL MOUNTED OCCUPANCY SENSOR WITH POWER-PACK OR RELAY AND WALL MOUNTED DIMMING / OVERRIDE SWITCH                     | WHEN OCCUPIED, ALL LIGHTING IN ROOM SHALL AUTOMATICALLY SWITCH ON TO 50% OF MAXIMUM OUTPUT. OVERRIDE SWITCH SHALL BE CAPABLE OF ADJUSTING LIGHT OUTPUT TO FULL ON, FULL OFF, AND DIMMING. ROOM LIGHTING SHALL RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                       | Open office, Larger Storage Rooms, Fitness Room, Large Breakroom                                                                       |
| V1                             | WALL SWITCH VACANCY SENSOR WITH INTEGRAL OVERRIDE SWITCH                                                                         | OVERRIDE SWITCH SHALL BE CAPABLE OF SWITCHING ALL LIGHTING TO FULL ON OR FULL OFF. ROOM LIGHTING SHALL RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                                                                                                                              | Storage Rooms <50 Sq. Ft.                                                                                                              |
| V2                             | CEILING OR WALL MOUNTED VACANCY SENSOR WITH POWER-PACK OR RELAY AND WALL MOUNTED OVERRIDE SWITCH                                 | OVERRIDE SWITCH SHALL BE CAPABLE OF SWITCHING ALL LIGHTING TO FULL ON OR FULL OFF. ROOM LIGHTING SHALL RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                                                                                                                              | Restrooms, Corridors, Lobbies, Healthcare facility                                                                                     |
| V3                             | WALL SWITCH VACANCY SENSOR WITH INTEGRAL DIMMING / OVERRIDE SWITCH                                                               | OVERRIDE SWITCH SHALL BE CAPABLE OF SWITCHING ALL LIGHTING TO FULL ON (OR PRESET), FULL OFF, AND DIMMING. ROOM LIGHTING SHALL RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                                                                                                       | Small office                                                                                                                           |
| V4                             | CEILING OR WALL MOUNTED VACANCY SENSOR(S) WITH WALL MOUNTED DIMMING / OVERRIDE SWITCHES FOR EACH CONTROL ZONE                    | OVERRIDE SWITCH FOR EACH CONTROL ZONE SHALL BE CAPABLE OF SWITCHING ALL LIGHTING TO FULL ON (OR PROGRAMMED PRESET), FULL OFF, AND DIMMING. ROOM LIGHTING SHALL RETURN TO FULL OFF WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES.                                                                                                                                                                                                                                                                                                      | Conference room, classrooms Multiple lighting control zones                                                                            |
| T1                             | TIME CLOCK CONTROL WITH SCHEDULED AUTOMATIC FULL ON AND AUTOMATIC FULL OFF                                                       | SCHEDULE TO ACCOUNT FOR NORMAL WORKING HOURS, WEEKENDS AND HOLIDAYS. PROVIDE OVERRIDE SWITCHES AS SHOWN ON PLAN TO OVERRIDE SCHEDULED OFF PERIODS FOR NOT MORE THAN TWO HOURS PER ACTIVATION. WHEN OVERRIDE IS USED PROVIDE FLASH FUNCTION 10 MINUTES BEFORE TIME-OUT.                                                                                                                                                                                                                                                              | Corridors, Lobbies                                                                                                                     |
| D1                             | SIDE/LIGHT DAYLIGHT HARVESTING, PRIMARY ZONE AUTOMATIC DAYLIGHT RESPONSIVE CONTROLS AND CONTINUOUS DIMMING                       | PROVIDE DIMMABLE LIGHT FIXTURES AND CONTROLS TO CONTINUOUSLY ADJUST THE LIGHT OUTPUT BASED ON THE AMOUNT OF AVAILABLE DAYLIGHT. DAYLIGHT SENSORS SHOWN ON LIGHTING PLANS ARE PLACED AT SUGGESTED LOCATIONS AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER INSTRUCTIONS. CONTROL DEVICES SHALL BE IN READILY ACCESSIBLE LOCATION AND MOUNTED NO HIGHER THAN 11 FEET ABOVE FINISHED FLOOR.                                                                                                                                          | For Side/lighted areas with a lighting load of 150 Watts, but less than 300 Watts                                                      |
| D2                             | SIDE/LIGHT DAYLIGHT HARVESTING, PROVIDE PRIMARY AND SECONDARY ZONE AUTOMATIC DAYLIGHT RESPONSIVE CONTROLS AND CONTINUOUS DIMMING | PROVIDE DIMMABLE LIGHT FIXTURES AND CONTROLS TO CONTINUOUSLY ADJUST THE LIGHT OUTPUT BASED ON THE AMOUNT OF AVAILABLE DAYLIGHT. PRIMARY ZONE SHALL BE SEPARATELY FROM SECONDARY ZONE WITH PRIMARY ZONE HAVING MORE GAIN (REACTING MORE TO DAYLIGHT) THAN SECONDARY ZONE. DAYLIGHT SENSORS SHOWN ON LIGHTING PLANS ARE PLACED AT SUGGESTED LOCATIONS AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER INSTRUCTIONS. CONTROL DEVICES SHALL BE IN READILY ACCESSIBLE LOCATION AND MOUNTED NO HIGHER THAN 11 FEET ABOVE FINISHED FLOOR. | For Side/lighted areas with a lighting load of 300 Watts or more                                                                       |
| D3                             | TOP/LIGHT DAYLIGHT HARVESTING, AUTOMATIC DAYLIGHT RESPONSIVE CONTROLS AND CONTINUOUS DIMMING                                     | PROVIDE DIMMABLE LIGHT FIXTURES AND CONTROLS TO CONTINUOUSLY ADJUST THE LIGHT OUTPUT BASED ON THE AMOUNT OF AVAILABLE DAYLIGHT. WHERE TOP/LIGHTING OVERLAPS SIDE/LIGHTING, THE LIGHTING SERVING THE OVERLAPPING AREAS SHALL BE CONTROLLED TOGETHER. DAYLIGHT SENSORS SHOWN ON LIGHTING PLANS ARE PLACED AT SUGGESTED LOCATIONS AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER INSTRUCTIONS. CONTROL DEVICES SHALL BE IN READILY ACCESSIBLE LOCATION AND MOUNTED NO HIGHER THAN 11 FEET ABOVE FINISHED FLOOR.                      | For Top/lighting areas with a lighting load of 150 Watts or more                                                                       |
| M1                             | MANUAL LIGHT SWITCH(S) USED TO CONTROL ROOM LIGHTING                                                                             | MANUAL LIGHT SWITCH(S) USED TO CONTROL ROOM LIGHTING. ALL LIGHTING IN ROOM SHALL MANUALLY SWITCH TO FULL ON, AND MANUALLY SWITCH TO FULL OFF. MANUAL SWITCH USED WHERE AUTOMATIC SHUT-OFF WOULD ENDANGER THE SAFETY OR SECURITY OF ROOM OR BUILDING OCCUPANTS.                                                                                                                                                                                                                                                                      | Kitchen food prep room, shops                                                                                                          |
| M2                             | TIMER SWITCH                                                                                                                     | TIMER LIGHT SWITCH(S) USED TO CONTROL ROOM LIGHTING. ALL LIGHTING IN ROOM SHALL MANUALLY SWITCH TO FULL ON, AND CAN BE MANUALLY SWITCHED TO FULL OFF OR SWITCHED TO FULL OFF AFTER TIME-OUT.                                                                                                                                                                                                                                                                                                                                        | Electrical rooms, mechanical rooms, IT rooms                                                                                           |
| S1                             | STAIRWELL INTEGRAL FIXTURE CONTROLS                                                                                              | LIGHTING ALWAYS ON AT REDUCED LEVEL (30% - 50% OF FULL LEVEL) WHEN UNOCCUPIED. PROVIDE LIGHT FIXTURES WITH INTEGRAL OCCUPANCY SENSOR TO RAISE THE LIGHT OUTPUT TO 100% WHEN OCCUPIED. STAIRWELL LIGHTING SHALL RETURN TO REDUCED LEVEL WHEN UNOCCUPIED FOR NO MORE THAN 20 MINUTES. LIGHTING TO BE ON EMERGENCY POWER, WHEN GENERATOR IS USED FOR EMERGENCY POWER, PROVIDE INTEGRAL BATTERY IN EACH LIGHT FIXTURE.                                                                                                                  | Stairwell                                                                                                                              |
| R1                             | AUTOMATIC RECEPTACLE CONTROL USING TIME CLOCK                                                                                    | AN INDEPENDENT PROGRAM SHALL BE PROVIDED FOR CONTROLLED AREAS UP TO 5000 SQUARE FEET. PROVIDE OVERRIDE SWITCHES AS SHOWN ON PLAN TO OVERRIDE SCHEDULED OFF PERIODS FOR NOT MORE THAN TWO HOURS PER ACTIVATION. ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED PER NEC 406.4(E), TO VISUALLY DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES.                                                                                                                                                                               | Time clock control Private offices, conference rooms, printing and copying rooms, break rooms, classrooms and individual workstations. |
| E1                             | EXTERIOR BUILDING FACADE AND LANDSCAPE LIGHTING CONTROL, PHOTOCELL AND TIME CLOCK                                                | PROVIDE RELAY CONTROLS USING PHOTOCELL TO TURN LIGHTS ON AND ASTRONOMICAL TIME CLOCK TO TURN LIGHTS OFF. AND OCCUPANCY SENSOR(S) TO DETECT ACTIVITY. ALL BUILDING FACADE AND LANDSCAPE LIGHTING SHALL AUTOMATICALLY TURN OFF AT MIDNIGHT OR BUILDING CLOSING (WHICHEVER IS LATER), AND 6AM OR BUSINESS OPENING (WHICHEVER COMES FIRST) OR TIMES ESTABLISHED BY AIA.                                                                                                                                                                 | Exterior building facade and landscape lighting                                                                                        |
| E2                             | EXTERIOR PARKING LOT LIGHTING CONTROL, PHOTOCELL, TIME CLOCK AND OCCUPANCY SENSORS                                               | PROVIDE RELAY CONTROLS USING PHOTOCELL TO TURN LIGHTS ON AND ASTRONOMICAL TIME CLOCK TO TURN LIGHTS OFF. AND OCCUPANCY SENSOR(S) TO DETECT ACTIVITY. PROVIDE CONTROLS TO REDUCE POWER AT EACH LUMINAIRE BY 50% OR MORE WHEN NO ACTIVITY HAS BEEN DETECTED FOR A TIME NO LONGER THAN 15 MINUTES.                                                                                                                                                                                                                                     | Exterior parking lots                                                                                                                  |

NOTES:  
1. PER ASHRAE 90.1 2016, 9.4.3, ALL LIGHTING CONTROL DEVICES AND CONTROL SYSTEMS SHALL BE FUNCTIONALLY TESTED FOR PROPER OPERATION BY AN INDEPENDENT PARTY THAT IS NOT DIRECTLY INVOLVED WITH EITHER THE DESIGN OR THE CONSTRUCTION OF THE LIGHTING SYSTEM.  
2. ALL CALIBRATION MECHANISMS SHALL BE IN ACCESSIBLE LOCATIONS.  
3. ALL TIME SWITCHES SHALL BE CAPABLE OF RETAINING PROGRAMMING AND TIME SETTINGS DURING LOSS OF POWER FOR A PERIOD OF AT LEAST 10 HOURS.  
4. LIGHTING CONTROLS SHALL BE CONFIGURED SUCH THAT DAYLIGHT RESPONSIVE CONTROL ARE ONLY ACTIVE WHEN OCCUPANCY FOR THE SAME ROOMS OR SPACES IS DETECTED.  
5. FIXTURES NOTED WITH 'EM' (SWITCHED OR DIMMED EMERGENCY) OR 'EMNL' (NIGHT LIGHT) ARE FOR EMERGENCY EGRESS LIGHTING. NIGHT LIGHTS SHALL BE DIMMED TO MATCH PRESETS FOR LIKE TYPES OF ADJACENT LIGHTING. PROVIDE EMERGENCY POWER FOR THESE FIXTURES AND EXIT SIGNS FROM AVAILABLE CIRCUITS OF EMERGENCY PANELS. LOCATED. PROVIDE STEP DOWN TRANSFORMER FOR 150V FIXTURES DESIGNATED FOR EMERGENCY.

| COPPER BRANCH AND FEEDER SCHEDULE |                   |                     |                                      |                                    |                     |
|-----------------------------------|-------------------|---------------------|--------------------------------------|------------------------------------|---------------------|
| AMPS                              | 1P+N+G            | 2P+G                | 2P+N+G                               | 3P+G                               | 3P+N+G              |
|                                   | A                 | C                   | D                                    | E                                  | F                   |
| 15                                | 2#12+1#12G, 3/4"C | 2#12+1#12G, 3/4"C   | 3#12+1#12G, 3/4"C                    | 3#12+1#12G, 3/4"C                  | 4#12+1#12G, 3/4"C   |
| 20                                | 2#12+1#12G, 3/4"C | 2#12+1#12G, 3/4"C   | 3#12+1#12G, 3/4"C                    | 3#12+1#12G, 3/4"C                  | 4#12+1#12G, 3/4"C   |
| 25                                | 2#10+1#10G, 3/4"C | 2#10+1#10G, 3/4"C   | 3#10+1#10G, 3/4"C                    | 3#10+1#10G, 3/4"C                  | 4#10+1#10G, 3/4"C   |
| 30                                | 2#10+1#10G, 3/4"C | 2#10+1#10G, 3/4"C   | 3#10+1#10G, 3/4"C                    | 3#10+1#10G, 3/4"C                  | 4#10+1#10G, 3/4"C   |
| 35                                | 2#8+1#10G, 3/4"C  | 2#8+1#10G, 3/4"C    | 3#8+1#10G, 3/4"C                     | 3#8+1#10G, 3/4"C                   | 4#8+1#10G, 3/4"C    |
| 40                                | 2#8+1#10G, 3/4"C  | 2#8+1#10G, 3/4"C    | 3#8+1#10G, 3/4"C                     | 3#8+1#10G, 3/4"C                   | 4#8+1#10G, 3/4"C    |
| 45                                | 2#6+1#10G, 3/4"C  | 2#6+1#10G, 3/4"C    | 3#6+1#10G, 1"C                       | 3#6+1#10G, 1"C                     | 4#6+1#10G, 1"C      |
| 50                                | 2#6+1#10G, 3/4"C  | 2#6+1#10G, 3/4"C    | 3#6+1#10G, 1 1/4"C                   | 3#6+1#10G, 1 1/4"C                 | 4#6+1#10G, 1 1/4"C  |
| 60                                | 2#4+1#10G, 1"C    | 2#4+1#10G, 1"C      | 3#4+1#10G, 1"C                       | 3#4+1#10G, 1"C                     | 4#4+1#10G, 1 1/4"C  |
| 70                                | 2#4+1#8G, 1"C     | 2#4+1#8G, 1"C       | 3#4+1#8G, 1 1/4"C                    | 3#4+1#8G, 1 1/4"C                  | 4#4+1#8G, 1 1/4"C   |
| 80                                | 2#3+1#8G, 1"C     | 2#3+1#8G, 1"C       | 3#3+1#8G, 1 1/4"C                    | 3#3+1#8G, 1 1/4"C                  | 4#3+1#8G, 1 1/4"C   |
| 90                                | 2#2+1#8G, 1"C     | 2#2+1#8G, 1"C       | 3#2+1#8G, 1 1/4"C                    | 3#2+1#8G, 1 1/4"C                  | 4#2+1#8G, 1 1/2"C   |
| 100                               | 2#1+1#8G, 1 1/4"C | 2#1+1#8G, 1 1/4"C   | 3#1+1#8G, 1 1/2"C                    | 3#1+1#8G, 1 1/2"C                  | 4#1+1#8G, 2"C       |
| 110                               |                   | 2#2+1#8G, 1 1/4"C   | 3#2+1#8G, 1 1/4"C                    | 3#2+1#8G, 1 1/4"C                  | 4#2+1#8G, 1 1/2"C   |
| 125                               |                   | 2#1+1#8G, 1 1/4"C   | 3#1+1#8G, 1 1/2"C                    | 3#1+1#8G, 1 1/2"C                  | 4#1+1#8G, 2"C       |
| 150                               |                   | 2#10+1#6G, 1 1/2"C  | 3#10+1#6G, 1 1/2"C                   | 3#10+1#6G, 1 1/2"C                 | 4#10+1#6G, 2"C      |
| 175                               |                   | 2#20+1#6G, 1 1/2"C  | 3#20+1#6G, 2"C                       | 3#20+1#6G, 2"C                     | 4#20+1#6G, 2"C      |
| 200                               |                   | 2#30+1#6G, 1 1/2"C  | 3#30+1#6G, 2"C                       | 3#30+1#6G, 2"C                     | 4#30+1#6G, 2 1/2"C  |
| 225                               |                   | 2#40+1#4G, 2"C      | 3#40+1#4G, 2"C                       | 3#40+1#4G, 2"C                     | 4#40+1#4G, 2 1/2"C  |
| 250                               |                   | 2#250+1#4G, 2"C     | 3#250+1#4G, 2 1/2"C                  | 3#250+1#4G, 2 1/2"C                | 4#250+1#4G, 3"C     |
| 300                               |                   | 2#350+1#4G, 2"C     | 3#350+1#4G, 3"C                      | 3#350+1#4G, 3"C                    | 4#350+1#4G, 3"C     |
| 350                               |                   | 2#500+1#3G, 2 1/2"C | 3#500+1#3G, 3"C                      | 3#500+1#3G, 3"C                    | 4#500+1#3G, 3 1/2"C |
| 400                               |                   | 2#600+1#3G, 3"C     | 3#600+1#3G, 3 1/2"C                  | 3#600+1#3G, 3 1/2"C                | 4#600+1#3G, 4"C     |
| 450                               |                   |                     | (2 Sets) 3#40+1#2G, (2) 2"C          | (2 Sets) 4#40+1#2G, (2) 2 1/2"C    |                     |
| 500                               |                   |                     | (2 Sets) 3#250+1#2G, (2) 2 1/2"C     | (2 Sets) 4#250+1#2G, (2) 3 1/2"C   |                     |
| 600                               |                   |                     | (2 Sets) 3#350+1#1G, (2) 3"C         | (2 Sets) 4#350+1#1G, (2) 3"C       |                     |
| 700                               |                   |                     | (2 Sets) 3#500+1#10G, (2) 3 1/2"C    | (2 Sets) 4#500+1#10G, (2) 3 1/2"C  |                     |
| 800                               |                   |                     | (2 Sets) 3#600+1#10G, (2) 3 1/2"C    | (2 Sets) 4#600+1#10G, (2) 4"C      |                     |
| 1000                              |                   |                     | (3 Sets) 3#400+1#20G, (3) 3"C        | (3 Sets) 4#400+1#20G, (3) 3 1/2"C  |                     |
| 1200                              |                   |                     | (3 Sets) 3#600+1#30G, (3) 3 1/2"C    | (3 Sets) 4#600+1#30G, (3) 4"C      |                     |
| 1600                              |                   |                     | (4 Sets) 3#600+1#40G, (4) 3 1/2"C    | (4 Sets) 4#600+1#40G, (4) 4"C      |                     |
| 2000                              |                   |                     | (5 Sets) 3#600+1#250G, (5) 3 1/2"C   | (5 Sets) 4#600+1#250G, (5) 4"C     |                     |
| 2500                              |                   |                     | (6 Sets) 3#600+1#350G, (6) 3 1/2"C   | (6 Sets) 4#600+1#350G, (6) 4"C     |                     |
| 3000                              |                   |                     | (8 Sets) 3#500+1#400G, (8) 3 1/2"C   | (8 Sets) 4#500+1#400G, (8) 3 1/2"C |                     |
| 4000                              |                   |                     | (10 Sets) 3#600+1#500G, (10) 3 1/2"C | (10 Sets) 4#600+1#500G, (10) 4"C   |                     |

- NOTES:
- DESIGN BASIS:
    - CONDUCTOR SIZES BASED ON AMBIENT TEMPERATURE OF 78F TO 86F (26C TO 30C). FOR AMBIENT TEMPERATURES ABOVE 30C, THE AMPACITY SHALL BE REDUCED PER NEC TABLE 310.15(B)(2)(a). WIRE SIZES SHALL NOT BE REDUCED BELOW THE 30C RATING.
    - OCPD SIZES FOR SMALL CONDUCTORS BASED ON NEC 240.4(D)(3), NEC 240.4(D)(5) AND NEC 240.4(D)(7).
    - CONDUCTOR SIZES BASED ON 60C COLUMN OF NEC 2017 TABLE 310.15(B)(16) FOR 100A AND SMALLER OCPDS. WIRES ARE ALLOWED TO BE SIZED BASED ON THE 75C COLUMN AS PERMITTED BY THE NEC AND WHEN COORDINATED WITH EQUIPMENT TERMINATION TEMPERATURE RATINGS AT EACH WIRE TERMINATION POINT.
    - CONDUCTOR SIZES BASED ON 75C COLUMN OF NEC 2017 TABLE 310.15(B)(16) FOR OCPDS LARGER THAN 100A.
    - WHEN TYPE NM CABLE IS ALLOWED ON THE PROJECT, THE WIRE SIZES SHALL BE BASED ON THE 60C COLUMN OF NEC 2017 TABLE 310.15(B)(16).
  - CONDUIT SIZES ARE BASED ON THHW COPPER CONDUCTORS AND DO NOT APPLY TO CONDUCTORS WITH LARGER DIAMETERS THAN THHW. REFER TO THE PROJECT SPECIFICATIONS FOR SPECIFIC WIRE REQUIREMENTS.
  - RACEWAY SIZES SHOWN IN THE ABOVE TABLE APPLY TO TYPES EMT, FMC, IMC, LFMC, R



**GENERAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL PROVIDE SPARE 20A, 1P CIRCUIT BREAKER FOR ALL POLES WITHIN PANELBOARD WHERE CIRCUIT INFORMATION IS NOT INDICATED

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| Switchboard: MSB-1A   |                     |               |                    |        |                                   |         |
|-----------------------|---------------------|---------------|--------------------|--------|-----------------------------------|---------|
| Location: Space LR258 |                     |               | Volts: 480/277 Vye |        | A.I.C. Rating: 200A/C             |         |
| Supply From:          |                     |               | Phases: 3          |        | Main Type: MCB                    |         |
| Mounting:             |                     |               | Wires: 4           |        | Main Rating: 4000 A               |         |
| Enclosure:            |                     |               |                    |        | MCB Rating: 4000 A                |         |
| OKT                   | CIRCUIT DESCRIPTION | POLES         | FRAME              | TRIP   | LOAD                              | REMARKS |
| 1                     | DSH-4B              | 3             | 800 A              | 800 A  | 1051506 VA                        |         |
| 2                     | DSH-4A              | 3             | 1200 A             | 1200 A | 1832131 VA                        |         |
| 3                     | DPH-LLO             | 3             | 1200 A             | 1200 A | 627970 VA                         |         |
| 4                     | DPH-LLC             | 3             | 1200 A             | 1200 A | 488701 VA                         |         |
| 5                     | DPH-LLE             | 3             | 1200 A             | 1200 A | 499027 VA                         |         |
| 6                     | DPH-LLA             | 3             | 1200 A             | 1200 A | 660751 VA                         |         |
| 7                     | EMATS-LLA           | 3             | 400 A              | 400 A  | 96676 VA                          |         |
| 8                     | SB-ATS-LLA          | 3             | 800 A              | 800 A  | 257820 VA                         |         |
| 9                     | EM-ATS-ELEV-LLA     | 3             | 400 A              | 400 A  | 0 VA                              |         |
| 10                    | MPH-2A              | 3             | 400 A              | 20 A   | 102365 VA                         |         |
| 11                    | PV SYSTEM           | 3             | 600 A              | 600 A  | 0 VA                              |         |
| 12                    | SPARE               | 3             | 800 A              | 800 A  | 0 VA                              |         |
| 13                    | SPARE               | 3             | 400 A              | 400 A  | 0 VA                              |         |
| 14                    | SPARE               | 3             | 400 A              | 400 A  | 0 VA                              |         |
| 15                    | SPARE               | 3             | 400 A              | 400 A  | 0 VA                              |         |
| 16                    | MPH-2B              | 3             | 400 A              | 20 A   | 949438 VA                         |         |
| 17                    |                     |               |                    |        |                                   |         |
| 18                    |                     |               |                    |        |                                   |         |
| 19                    |                     |               |                    |        |                                   |         |
| 20                    |                     |               |                    |        |                                   |         |
| 21                    |                     |               |                    |        |                                   |         |
| 22                    |                     |               |                    |        |                                   |         |
| 23                    |                     |               |                    |        |                                   |         |
| 24                    |                     |               |                    |        |                                   |         |
| Total Conn. Load:     |                     |               |                    |        | 743325 VA                         |         |
| Total Amps:           |                     |               |                    |        | 8941 A                            |         |
| LOAD CLASSIFICATION   | CONNECTED LOAD      | DEMAND FACTOR | ESTIMATED DEMAND   |        | TOTALS                            |         |
| HVAC                  | 0 VA                | 0.00%         | 0 VA               |        |                                   |         |
| LIGHTING              | 2720 VA             | 125.00%       | 3400 VA            |        | Total Conn. Load: 743325 VA       |         |
| Other                 | 211154 VA           | 100.00%       | 211154 VA          |        | Total Est. Demand: 539728 VA      |         |
| EQUIPMENT             | 627970 VA           | 75.00%        | 470285 VA          |        | Total Conn. Current: 8941 A       |         |
| RECEPT                | 948712 VA           | 50.53%        | 479358 VA          |        | Total Est. Demand Current: 6482 A |         |
| LIGHTING-EXT          | 336 VA              | 125.00%       | 420 VA             |        |                                   |         |
| NOTES:                |                     |               |                    |        |                                   |         |

| Switchboard: DPH-LLC  |                     |               |                    |                                  |                      |         |
|-----------------------|---------------------|---------------|--------------------|----------------------------------|----------------------|---------|
| Location: Space LR258 |                     |               | Volts: 480/277 Vye |                                  | A.I.C. Rating: 65A/C |         |
| Supply From: MSB-1A   |                     |               | Phases: 3          |                                  | Main Type: MCB       |         |
| Mounting: Enclosure:  |                     |               | Wires: 4           |                                  | Main Rating: 1200 A  |         |
|                       |                     |               |                    |                                  | MCB Rating: 1200 A   |         |
| OKT                   | CIRCUIT DESCRIPTION | POLES         | FRAME              | TRIP                             | LOAD                 | REMARKS |
| 1                     | LPH-2D              | 3             | 225 A              | 225 A                            | 42940 VA             |         |
| 2                     | LPH-1L              | 3             | 225 A              | 225 A                            | 54712 VA             |         |
| 3                     | LPH-1D              | 3             | 225 A              | 225 A                            | 53220 VA             |         |
| 4                     | LPH-1K              | 3             | 225 A              | 225 A                            | 136492 VA            |         |
| 5                     | LPH-1G              | 3             | 400 A              | 400 A                            | 141740 VA            |         |
| 6                     | T-3E                | 3             | 50 A               | 50 A                             | 8286 VA              |         |
| 7                     | T-4C                | 3             | 50 A               | 50 A                             | 7380 VA              |         |
| 8                     | T-4D                | 3             | 125 A              | 125 A                            | 37288 VA             |         |
| 9                     | T-3C                | 3             | 50 A               | 50 A                             | 6660 VA              |         |
| 10                    | SPARE               | 3             | 225 A              | 225 A                            | 0 VA                 |         |
| 11                    | SPARE               | 3             | 225 A              | 225 A                            | 0 VA                 |         |
| 12                    |                     |               |                    |                                  |                      |         |
| Total Conn. Load:     |                     |               |                    |                                  | 488701 VA            |         |
| Total Amps:           |                     |               |                    |                                  | 588 A                |         |
| LOAD CLASSIFICATION   | CONNECTED LOAD      | DEMAND FACTOR | ESTIMATED DEMAND   | TOTALS                           |                      |         |
| EQUIPMENT             | 335489 VA           | 75.00%        | 24116 VA           | Total Conn. Load: 488701 VA      |                      |         |
| RECEPT                | 16312 VA            | 53.06%        | 8606 VA            | Total Est. Demand: 130722 VA     |                      |         |
|                       |                     |               |                    | Total Conn. Current: 588 A       |                      |         |
|                       |                     |               |                    | Total Est. Demand Current: 386 A |                      |         |
| NOTES:                |                     |               |                    |                                  |                      |         |

| Panelboard: LPH-1D                                                          |        |         |                                   |                                                           |       |                                  |                                  |                                                                              |       |                                      |                                   |         |              |
|-----------------------------------------------------------------------------|--------|---------|-----------------------------------|-----------------------------------------------------------|-------|----------------------------------|----------------------------------|------------------------------------------------------------------------------|-------|--------------------------------------|-----------------------------------|---------|--------------|
| Location:<br>Supply From: DPH-LLC<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |         |                                   | Distribution System: 480/277 Vye<br>Phases: 3<br>Wires: 4 |       |                                  |                                  | A.I.C. Rating: 42KAIC<br>Main Type: MLO<br>Main Rating: 225 A<br>MCB Rating: |       |                                      |                                   |         |              |
| Notes                                                                       | Wiring | OKL No. | Load Description                  | Tripp                                                     | Poles | LOAD PHASE-A (VA)<br>5000 / 5000 | LOAD PHASE-B (VA)<br>5000 / 5000 | LOAD PHASE-C (VA)<br>5000 / 5000                                             | Poles | Tripp                                | Load Description                  | OKL No. | Wiring Notes |
| --                                                                          | --     | L-1     | EUH-1 PLUMBING & PIPEFITTING B101 | 30 A                                                      | 3     |                                  |                                  |                                                                              | 3     | 30 A                                 | EUH-1 PLUMBING & PIPEFITTING B101 | L-2     | --           |
| --                                                                          | --     | L-3     |                                   |                                                           |       |                                  |                                  |                                                                              |       |                                      |                                   | L-4     | --           |
| --                                                                          | --     | L-5     |                                   |                                                           |       |                                  |                                  |                                                                              |       |                                      |                                   | L-6     | --           |
| --                                                                          | --     | L-7     | SPARE                             | 20 A                                                      | 1     | 0 / 0                            |                                  |                                                                              |       | 1                                    | 20 A SPARE                        | L-8     | --           |
| --                                                                          | --     | L-9     | SPARE                             | 20 A                                                      | 1     |                                  | 0 / 0                            |                                                                              |       | 1                                    | 20 A SPARE                        | L-10    | --           |
| --                                                                          | --     | L-11    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 0                                                                        |       | 1                                    | 20 A SPARE                        | L-12    | --           |
| --                                                                          | --     | L-13    | SPARE                             | 20 A                                                      | 1     | 0 / 0                            |                                  |                                                                              |       | 1                                    | 20 A SPARE                        | L-14    | --           |
| --                                                                          | --     | L-15    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 0                                                                        |       | 1                                    | 20 A SPARE                        | L-16    | --           |
| --                                                                          | --     | L-17    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 0                                                                        |       | 1                                    | 20 A SPARE                        | L-18    | --           |
| --                                                                          | --     | L-19    | SPARE                             | 20 A                                                      | 1     | 0 / 0                            |                                  |                                                                              |       | 1                                    | 20 A SPARE                        | L-20    | --           |
| --                                                                          | --     | L-21    | SPARE                             | 20 A                                                      | 1     |                                  | 0 / 0                            |                                                                              |       | 1                                    | 20 A SPARE                        | L-22    | --           |
| --                                                                          | --     | L-23    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 0                                                                        |       | 1                                    | 20 A SPARE                        | L-24    | --           |
| --                                                                          | --     | L-25    | SPARE                             | 20 A                                                      | 1     | 0 / 0                            |                                  |                                                                              |       | 1                                    | 20 A SPARE                        | L-26    | --           |
| --                                                                          | --     | L-27    | SPARE                             | 20 A                                                      | 1     |                                  | 0 / 0                            |                                                                              |       | 1                                    | 20 A SPARE                        | L-28    | --           |
| --                                                                          | --     | L-29    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 0                                                                        |       | 1                                    | 20 A SPARE                        | L-30    | --           |
| --                                                                          | --     | L-31    | SPARE                             | 20 A                                                      | 1     | 0 / 0                            |                                  |                                                                              |       | 1                                    | 20 A SPARE                        | L-32    | --           |
| --                                                                          | --     | L-33    | SPARE                             | 20 A                                                      | 1     |                                  | 0 / 0                            |                                                                              |       | 1                                    | 20 A SPARE                        | L-34    | --           |
| --                                                                          | --     | L-35    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 0                                                                        |       | 1                                    | 20 A SPARE                        | L-36    | --           |
| --                                                                          | --     | L-37    | SPARE                             | 20 A                                                      | 1     | 0 / 7740                         |                                  |                                                                              |       | 3                                    | 175 A T-1D                        | L-38    | --           |
| --                                                                          | --     | L-39    | SPARE                             | 20 A                                                      | 1     |                                  | 0 / 9180                         |                                                                              |       |                                      |                                   | L-40    | --           |
| --                                                                          | --     | L-41    | SPARE                             | 20 A                                                      | 1     |                                  |                                  | 0 / 6300                                                                     |       |                                      |                                   | L-42    | --           |
|                                                                             |        |         |                                   | Load Per:                                                 |       | 17740 VA                         | 19180 VA                         | 16300 VA                                                                     |       |                                      |                                   |         |              |
| Load Classification                                                         |        |         |                                   | Connected...                                              |       | Demand...                        |                                  | Est. Demand                                                                  |       | Panel Totals                         |                                   |         |              |
| EQUIPMENT                                                                   |        |         |                                   | 3000 VA                                                   |       | 75.00%                           |                                  | 22500 VA                                                                     |       | TOTAL CONNECTED LOAD: 53220 VA       |                                   |         |              |
| RECEPT                                                                      |        |         |                                   | 23220 VA                                                  |       | 71.53%                           |                                  | 16610 VA                                                                     |       | TOTAL ESTIMATED DEMAND: 39110 VA     |                                   |         |              |
|                                                                             |        |         |                                   |                                                           |       |                                  |                                  |                                                                              |       | TOTAL CONNECTED CURRENT: 86 A        |                                   |         |              |
|                                                                             |        |         |                                   |                                                           |       |                                  |                                  |                                                                              |       | TOTAL ESTIMATED DEMAND CURRENT: 47 A |                                   |         |              |
| NOTES:                                                                      |        |         |                                   |                                                           |       |                                  |                                  |                                                                              |       |                                      |                                   |         |              |

| Switchboard: DPH-LLA  |                     |                |                    |                  |                                  |         |
|-----------------------|---------------------|----------------|--------------------|------------------|----------------------------------|---------|
| Location: Space LR258 |                     |                | Volts: 480/277 Vye |                  | A.I.C. Rating: 65kAIC            |         |
| Supply From: MSB-1A   |                     |                | Phases: 3          |                  | Main Type: MCB                   |         |
| Mounting: Enclosure:  |                     |                | Wires: 4           |                  | Main Rating: 1200 A              |         |
|                       |                     |                |                    |                  | MCB Rating: 1200 A               |         |
| OKT                   | CIRCUIT DESCRIPTION | POLES          | FRAME              | TRIP             | LOAD                             | REMARKS |
| 1                     | LPH-2A              | 3              | 225 A              | 225 A            | 162265 VA                        |         |
| 2                     | LPH-3A              | 3              | 225 A              | 225 A            | 84440 VA                         |         |
| 3                     | LPH-4A              | 3              | 225 A              | 225 A            | 101234 VA                        |         |
| 4                     | T-1A                | 3              | 225 A              | 225 A            | 62532 VA                         |         |
| 5                     | LPH-LLA             | 3              | 225 A              | 225 A            | 39623 VA                         |         |
| 6                     | LPH-1C              | 3              | 400 A              | 20 A             | 119645 VA                        |         |
| 7                     | EWB-1A              | 3              | 150 A              | 150 A            | 0 VA                             |         |
| 8                     | EWB-2A              | 3              | 175 A              | 175 A            | 0 VA                             |         |
| 9                     | SPARE               | 3              | 225 A              | 225 A            | 0 VA                             |         |
| 10                    | EWB-1               | 3              | 200 A              | 150 A            | 90000 VA                         |         |
| Total Conn. Load:     |                     |                |                    |                  | 660751 VA                        |         |
|                       |                     |                |                    |                  | 795 A                            |         |
| LOAD CLASSIFICATION   |                     | CONNECTED LOAD | DEMAND FACTOR      | ESTIMATED DEMAND | TOTALS                           |         |
| HVAC                  |                     | 0 VA           | 0.00%              | 0 VA             |                                  |         |
| LIGHTING              |                     | 1376 VA        | 125.00%            | 1720 VA          | Total Conn. Load: 660751 VA      |         |
| Other                 |                     | 88869 VA       | 100.00%            | 88869 VA         | Total Est. Demand: 479524 VA     |         |
| EQUIPMENT             |                     | 214728 VA      | 75.00%             | 161044 VA        | Total Conn. Current: 795 A       |         |
| RECEPT                |                     | 194780 VA      | 52.57%             | 102390 VA        | Total Est. Demand Current: 571 A |         |
| NOTES:                |                     |                |                    |                  |                                  |         |

| Switchboard: DPH-LLD  |                     |                |                    |                  |                                           |                                  |         |
|-----------------------|---------------------|----------------|--------------------|------------------|-------------------------------------------|----------------------------------|---------|
| Location: Space LR258 |                     |                | Volts: 480/277 Vye |                  | A.I.C. Rating: 65A/C                      |                                  |         |
| Supply From: MSB-1A   |                     |                | Phases: 3          |                  | Main Type: MCB                            |                                  |         |
| Mounting: Enclosure:  |                     |                | Wires: 4           |                  | Main Rating: 1200 A<br>MCB Rating: 1200 A |                                  |         |
| OKT                   | CIRCUIT DESCRIPTION |                | POLES              | FRAME            | TRIP                                      | LOAD                             | REMARKS |
| 1                     | LPH-1H              |                | 3                  | 225 A            | 225 A                                     | 14475 VA                         |         |
| 2                     | LPH-1F              |                | 3                  | 225 A            | 225 A                                     | 37340 VA                         |         |
| 3                     | LPH-1J              |                | 3                  | 225 A            | 225 A                                     | 126360 VA                        |         |
| 4                     | LPH-LLD             |                | 3                  | 225 A            | 225 A                                     | 135115 VA                        |         |
| 5                     | LPH-1E              |                | 3                  | 225 A            | 225 A                                     | 72030 VA                         |         |
| 6                     | LPH-LLC             |                | 3                  | 225 A            | 225 A                                     | 125280 VA                        |         |
| 7                     | LPH-LLB             |                | 3                  | 225 A            | 225 A                                     | 107460 VA                        |         |
| 8                     | T-2C                |                | 3                  | 50 A             | 50 A                                      | 7920 VA                          |         |
| 9                     | SPARE               |                | 3                  | 225 A            | 225 A                                     | 0 VA                             |         |
| 10                    | SPARE               |                | 3                  | 225 A            | 225 A                                     | 0 VA                             |         |
|                       |                     |                |                    |                  | Total Conn. Load:                         | 627970 VA                        |         |
|                       |                     |                |                    |                  | Total Amps:                               | 755 A                            |         |
| LOAD CLASSIFICATION   |                     | CONNECTED LOAD | DEMAND FACTOR      | ESTIMATED DEMAND |                                           | TOTALS                           |         |
| EQUIPMENT             |                     | 436490 VA      | 75.00%             | 327360 VA        |                                           | Total Conn. Load: 627970 VA      |         |
| RECEPT                |                     | 191480 VA      | 52.81%             | 100740 VA        |                                           | Total Est. Demand: 420108 VA     |         |
|                       |                     |                |                    |                  |                                           | Total Conn. Current: 755 A       |         |
|                       |                     |                |                    |                  |                                           | Total Est. Demand Current: 515 A |         |
| NOTES:                |                     |                |                    |                  |                                           |                                  |         |



**GENERAL NOTES:**

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| Panelboard: LPH-1G                                                          |        |          |                              |      |                                                           |              |             |             |                                       |                                                                                     |                              |          |              |
|-----------------------------------------------------------------------------|--------|----------|------------------------------|------|-----------------------------------------------------------|--------------|-------------|-------------|---------------------------------------|-------------------------------------------------------------------------------------|------------------------------|----------|--------------|
| Location:<br>Supply From: DPH-LLC<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                              |      | Distribution System: 480/277 Vye<br>Phases: 3<br>Wires: 4 |              |             |             |                                       | A.I.C. Rating: 42KAIC<br>Maine Type: MCB<br>Maine Rating: 400A<br>MCB Rating: 400 A |                              |          |              |
| Modifications:                                                              |        |          |                              |      |                                                           |              |             |             |                                       |                                                                                     |                              |          |              |
| Notes                                                                       | Wiring | Chk. No. | Load Description             | Trip | Poles                                                     | A            | B           | C           | Poles                                 | Trip                                                                                | Load Description             | Chk. No. | Wiring Notes |
|                                                                             |        | N1       |                              |      |                                                           | 39 / 167     |             |             |                                       |                                                                                     |                              | N2       |              |
|                                                                             |        | N3       | DISHWASHER                   | 20 A | 3                                                         |              | 39 / 167    |             | 3                                     | 20 A                                                                                | ROTATING DOUBLE RACK OVEN    | N4       |              |
|                                                                             |        | N5       |                              |      |                                                           |              |             | 39 / 167    |                                       |                                                                                     |                              | N6       |              |
|                                                                             |        | N7       |                              |      |                                                           | 7171 / 7333  | 7171 / 7333 |             | 3                                     | 45 A                                                                                | FTU-9 CULINARY ARTS A148     | N8       |              |
|                                                                             |        | N9       | AC-2 - COMP AIR B102         | 20 A | 3                                                         |              | 7171 / 7333 |             | 3                                     | 45 A                                                                                | FTU-9 CULINARY ARTS A148     | N10      |              |
|                                                                             |        | N11      |                              |      |                                                           |              |             | 7171 / 7333 |                                       |                                                                                     |                              | N12      |              |
|                                                                             |        | N13      |                              |      |                                                           | 3667 / 333   |             |             |                                       |                                                                                     |                              | N14      |              |
|                                                                             |        | N15      | VAV 1A-03 CULINARY ARTS A148 | 20 A | 3                                                         |              | 3667 / 333  |             | 3                                     | 15 A                                                                                | VAV 1A-04 CULINARY ARTS A148 | N16      |              |
|                                                                             |        | N17      |                              |      |                                                           |              |             | 3667 / 333  |                                       |                                                                                     |                              | N18      |              |
|                                                                             |        | N19      |                              |      |                                                           | 3667 / 7333  | 3667 / 7333 |             | 3                                     | 45 A                                                                                | FTU-8 CULINARY ARTS A148     | N20      |              |
|                                                                             |        | N21      | VAV 1A-05 CULINARY ARTS A148 | 20 A | 3                                                         |              | 3667 / 7333 |             | 3                                     | 45 A                                                                                | FTU-8 CULINARY ARTS A148     | N22      |              |
|                                                                             |        | N23      |                              |      |                                                           |              |             | 3667 / 7333 |                                       |                                                                                     |                              | N24      |              |
|                                                                             |        | N25      |                              |      |                                                           | 3667 / 5000  | 3667 / 5000 |             | 3                                     | 35 A                                                                                | FTU-7 THEORY GR A14D         | N26      |              |
|                                                                             |        | N27      | VAV 1A-02 CULINARY ARTS A148 | 20 A | 3                                                         |              |             | 3667 / 5000 |                                       |                                                                                     |                              | N28      |              |
| --                                                                          | --     | N31      | SPARE                        | 20 A | 1                                                         | 0 / 0        |             |             | 1                                     | 20 A                                                                                | SPARE                        | N32      | --           |
| --                                                                          | --     | N33      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       |             | 1                                     | 20 A                                                                                | SPARE                        | N34      | --           |
| --                                                                          | --     | N35      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       | 0 / 0       | 1                                     | 20 A                                                                                | SPARE                        | N36      | --           |
| --                                                                          | --     | N37      | SPARE                        | 20 A | 1                                                         | 0 / 0        |             |             | 1                                     | 20 A                                                                                | SPARE                        | N38      | --           |
| --                                                                          | --     | N39      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       |             | 1                                     | 20 A                                                                                | SPARE                        | N40      | --           |
| --                                                                          | --     | N41      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       | 0 / 0       | 1                                     | 20 A                                                                                | SPARE                        | N42      | --           |
| --                                                                          | --     | N43      | SPARE                        | 20 A | 1                                                         | 0 / 0        |             |             | 1                                     | 20 A                                                                                | SPARE                        | N44      | --           |
| --                                                                          | --     | N45      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       |             | 1                                     | 20 A                                                                                | SPARE                        | N46      | --           |
| --                                                                          | --     | N47      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       | 0 / 0       | 1                                     | 20 A                                                                                | SPARE                        | N48      | --           |
| --                                                                          | --     | N49      | SPARE                        | 20 A | 1                                                         | 0 / 0        |             |             | 1                                     | 20 A                                                                                | SPARE                        | N50      | --           |
| --                                                                          | --     | N51      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       |             | 1                                     | 20 A                                                                                | SPARE                        | N52      | --           |
| --                                                                          | --     | N53      | SPARE                        | 20 A | 1                                                         |              | 0 / 0       | 0 / 0       | 1                                     | 20 A                                                                                | SPARE                        | N54      | --           |
| --                                                                          | --     | N55      | SPARE                        | 20 A | 1                                                         | 0 / 9103     |             |             | 1                                     | 20 A                                                                                | SPARE                        | N56      | --           |
| --                                                                          | --     | N57      | SPARE                        | 20 A | 1                                                         |              | 0 / 9033    |             | 3                                     | 350 A                                                                               | T-1G                         | N58      | --           |
| --                                                                          | --     | N59      | SPARE                        | 20 A | 1                                                         |              |             | 0 / 8483    |                                       |                                                                                     |                              | N60      | --           |
| Load Per--                                                                  |        |          |                              |      |                                                           | 47480 VA     | 47410 VA    | 0 / 8483    | 45890 VA                              |                                                                                     |                              |          |              |
| Load Classification                                                         |        |          |                              |      |                                                           | Connected... | Demand...   | Est. Demand | Panel Totals                          |                                                                                     |                              |          |              |
| EQUIPMENT                                                                   |        |          |                              |      |                                                           | 122/29 VA    | 75.00%      | 9159 VA     | TOTAL CONNECTED LOAD: 147449 VA       |                                                                                     |                              |          |              |
| RECEIPT                                                                     |        |          |                              |      |                                                           | 19620 VA     | 75.48%      | 14810 VA    | TOTAL ESTIMATED DEMAND: 106466 VA     |                                                                                     |                              |          |              |
|                                                                             |        |          |                              |      |                                                           |              |             |             | TOTAL CONNECTED CURRENT: 1718 A       |                                                                                     |                              |          |              |
|                                                                             |        |          |                              |      |                                                           |              |             |             | TOTAL ESTIMATED DEMAND CURRENT: 128 A |                                                                                     |                              |          |              |
| NOTES:                                                                      |        |          |                              |      |                                                           |              |             |             |                                       |                                                                                     |                              |          |              |

| Panelboard: LPH-1K                                                          |          |                                |                                                           |       |              |             |             |                                                                                |                        |                      |          |              |
|-----------------------------------------------------------------------------|----------|--------------------------------|-----------------------------------------------------------|-------|--------------|-------------|-------------|--------------------------------------------------------------------------------|------------------------|----------------------|----------|--------------|
| Location:<br>Supply From: DPH-LLC<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |          |                                | Distribution System: 480/277 Vye<br>Phases: 3<br>Wires: 4 |       |              |             |             | A.I.C. Rating: 42KAIC<br>Mains Type: MLO<br>Mains Rating: 225 A<br>MCB Rating: |                        |                      |          |              |
| Modifications:                                                              |          |                                |                                                           |       |              |             |             |                                                                                |                        |                      |          |              |
| Notes/Wiring                                                                | Chk. No. | Load Description               | Trip                                                      | Poles | A            | B           | C           | Poles                                                                          | Trip                   | Load Description     | Chk. No. | Wiring Notes |
|                                                                             | M1       | 20 A EUH-3 DRY STOR A103       | 20 A                                                      | 3     | 1005 / 1005  | 1005 / 1005 |             | 3                                                                              | 20 A                   | EUH-3 RECEIVING A110 | M2       |              |
|                                                                             | M3       |                                |                                                           |       |              |             | 1005 / 1005 |                                                                                |                        |                      | M4       |              |
|                                                                             | M5       |                                |                                                           |       | 167 / 500    |             |             |                                                                                |                        |                      | M6       |              |
|                                                                             | M7       | 20 A DISHWASHER A108           | 20 A                                                      | 3     |              | 167 / 500   |             | 15 A                                                                           | VAV 1A-10 SERVERY A112 |                      | M8       |              |
|                                                                             | M11      |                                |                                                           |       | 1333 / 3667  |             | 167 / 500   |                                                                                |                        |                      | M10      |              |
|                                                                             | M13      |                                |                                                           |       |              | 1333 / 3667 |             |                                                                                |                        |                      | M12      |              |
|                                                                             | M15      | VAV 1A-11 SERVERY A112         | 15 A                                                      | 3     |              | 1333 / 3667 |             | 20 A                                                                           | VAV 1A-07 SERVRY A112  |                      | M14      |              |
|                                                                             | M17      |                                |                                                           |       |              |             | 1333 / 3667 |                                                                                |                        |                      | M16      |              |
|                                                                             | M19      |                                |                                                           |       | 4000 / 4000  |             |             |                                                                                |                        |                      | M18      |              |
|                                                                             | M21      | FTU-4 STAFF LUNCH RM A111      | 25 A                                                      | 3     |              | 4000 / 4000 |             | 25 A                                                                           | FTU-3 CAFETERIA A114   |                      | M20      |              |
|                                                                             | M23      |                                |                                                           |       |              | 4000 / 4000 |             |                                                                                |                        |                      | M22      |              |
|                                                                             | M25      |                                |                                                           |       | 4000 / 4000  |             | 4000 / 4000 |                                                                                |                        |                      | M24      |              |
|                                                                             | M27      | FTU-2 CAFETERIA A114           | 25 A                                                      | 3     |              | 4000 / 4000 |             | 25 A                                                                           | FTU-1 CAFETERIA A114   |                      | M26      |              |
|                                                                             | M29      |                                |                                                           |       |              | 4000 / 4000 | 4000 / 4000 |                                                                                |                        |                      | M28      |              |
|                                                                             | M31      |                                |                                                           |       | 4500 / 0     |             |             |                                                                                |                        |                      | M30      | --           |
|                                                                             | M33      | VAV A11-08 CHAIR STORAGE A117A | 25 A                                                      | 3     |              | 4500 / 0    |             | 1                                                                              | 20 A                   | SPARE                | M32      | --           |
| --                                                                          | M35      |                                |                                                           |       |              |             | 4500 / 0    | 1                                                                              | 20 A                   | SPARE                | M34      | --           |
| --                                                                          | M37      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             |             | 1                                                                              | 20 A                   | SPARE                | M36      | --           |
| --                                                                          | M39      | SPARE                          | 20 A                                                      | 1     |              | 0 / 0       |             | 1                                                                              | 20 A                   | SPARE                | M38      | --           |
| --                                                                          | M41      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M40      | --           |
| --                                                                          | M43      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             |             | 1                                                                              | 20 A                   | SPARE                | M42      | --           |
| --                                                                          | M45      | SPARE                          | 20 A                                                      | 1     |              |             |             | 1                                                                              | 20 A                   | SPARE                | M44      | --           |
| --                                                                          | M47      | SPARE                          | 20 A                                                      | 1     |              |             |             | 1                                                                              | 20 A                   | SPARE                | M46      | --           |
| --                                                                          | M49      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M48      | --           |
| --                                                                          | M51      | SPARE                          | 20 A                                                      | 1     |              | 0 / 0       |             | 1                                                                              | 20 A                   | SPARE                | M50      | --           |
| --                                                                          | M53      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M52      | --           |
| --                                                                          | M55      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             |             | 1                                                                              | 20 A                   | SPARE                | M54      | --           |
| --                                                                          | M57      | SPARE                          | 20 A                                                      | 1     |              | 0 / 0       |             | 1                                                                              | 20 A                   | SPARE                | M56      | --           |
| --                                                                          | M59      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M58      | --           |
| --                                                                          | M61      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             |             | 1                                                                              | 20 A                   | SPARE                | M60      | --           |
| --                                                                          | M63      | SPARE                          | 20 A                                                      | 1     |              |             |             | 1                                                                              | 20 A                   | SPARE                | M62      | --           |
| --                                                                          | M65      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M64      | --           |
| --                                                                          | M67      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             |             | 1                                                                              | 20 A                   | SPARE                | M66      | --           |
| --                                                                          | M69      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M68      | --           |
| --                                                                          | M71      | SPARE                          | 20 A                                                      | 1     |              |             |             | 1                                                                              | 20 A                   | SPARE                | M70      | --           |
| --                                                                          | M73      | SPARE                          | 20 A                                                      | 1     | 0 / 0        |             |             | 1                                                                              | 20 A                   | SPARE                | M72      | --           |
| --                                                                          | M75      | SPARE                          | 20 A                                                      | 1     |              | 0 / 0       |             | 1                                                                              | 20 A                   | SPARE                | M74      | --           |
| --                                                                          | M77      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 0       | 1                                                                              | 20 A                   | SPARE                | M76      | --           |
| --                                                                          | M79      | SPARE                          | 20 A                                                      | 1     | 0 / 17282    |             |             | 3                                                                              | 175 A                  | T-1K                 | M78      | --           |
| --                                                                          | M81      | SPARE                          | 20 A                                                      | 1     |              | 0 / 15786   |             |                                                                                |                        |                      | M80      | --           |
| --                                                                          | M83      | SPARE                          | 20 A                                                      | 1     |              |             | 0 / 18892   |                                                                                |                        |                      | M82      | --           |
|                                                                             |          | Load Per:                      |                                                           |       | 54629 VA     | 4393 VA     |             |                                                                                |                        | 47069 VA             | M84      |              |
| Load Classification                                                         |          |                                |                                                           |       | Connected... | Demand...   | Est. Demand | Panel Totals                                                                   |                        |                      |          |              |
| EQUIPMENT                                                                   |          |                                |                                                           |       | 10548 VA     | 75.00%      | 7968 VA     | TOTAL ESTIMATED LOAD: 13492 VA                                                 |                        |                      |          |              |
| RECEIPT                                                                     |          |                                |                                                           |       | 31044 VA     | 66.11%      | 20622 VA    | TOTAL ESTIMATED DEMAND: 19608 VA                                               |                        |                      |          |              |
|                                                                             |          |                                |                                                           |       |              |             |             | TOTAL CONNECTED CURRENT: 156 A                                                 |                        |                      |          |              |
|                                                                             |          |                                |                                                           |       |              |             |             | TOTAL ESTIMATED DEMAND CURRENT: 120 A                                          |                        |                      |          |              |
| NOTES:                                                                      |          |                                |                                                           |       |              |             |             |                                                                                |                        |                      |          |              |

| Panelboard: LPH-3A                                                          |          |                  |          |          | Distribution System: 480/277 Vye        |                   |                   |                                      |           | A.I.C. Rating: 42KAIC                                 |          |              |  |  |
|-----------------------------------------------------------------------------|----------|------------------|----------|----------|-----------------------------------------|-------------------|-------------------|--------------------------------------|-----------|-------------------------------------------------------|----------|--------------|--|--|
| Location:<br>Supply From: DPH-LLA<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |          |                  |          |          | Phases: 3<br>Wires: 4<br>Modifications: |                   |                   |                                      |           | Mains Type: MLO<br>Mains Rating: 225 A<br>MCB Rating: |          |              |  |  |
| Notes/Wiring                                                                | Chk. No. | Load Description | Trip     | Poles    | LOAD PHASE-A (VA)                       | LOAD PHASE-B (VA) | LOAD PHASE-C (VA) | Poles                                | Trip      | Load Description                                      | Chk. No. | Wiring Notes |  |  |
|                                                                             | D1       | LIGHTING         | 20 A     | 1        | 3110 / 1814                             |                   |                   | 1                                    | 20 A      | LIGHTING                                              | D2       |              |  |  |
|                                                                             | D3       | LIGHTING         | 20 A     | 1        |                                         | 1641 / 1081       |                   | 1                                    | 20 A      | LIGHTING                                              | D4       |              |  |  |
|                                                                             | D5       | LIGHTING         | 20 A     | 1        |                                         |                   | 1961 / 2515       | 1                                    | 20 A      | LIGHTING                                              | D6       |              |  |  |
|                                                                             | D7       | LIGHTING         | 20 A     | 1        | 2579 / 1888                             |                   |                   | 1                                    | 20 A      | LIGHTING                                              | D8       |              |  |  |
|                                                                             | D9       | LIGHTING         | 20 A     | 1        |                                         | 1604 / 0          |                   | 1                                    | 20 A      | SPARE                                                 | D10      | --           |  |  |
| --                                                                          | D11      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 0             | 1                                    | 20 A      | SPARE                                                 | D12      | --           |  |  |
| --                                                                          | D13      | SPARE            | 20 A     | 1        | 0 / 0                                   |                   |                   | 1                                    | 20 A      | SPARE                                                 | D14      | --           |  |  |
| --                                                                          | D15      | SPARE            | 20 A     | 1        |                                         | 0 / 0             |                   | 1                                    | 20 A      | SPARE                                                 | D16      | --           |  |  |
| --                                                                          | D17      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 0             | 1                                    | 20 A      | SPARE                                                 | D18      | --           |  |  |
| --                                                                          | D19      | SPARE            | 20 A     | 1        | 0 / 0                                   |                   |                   | 1                                    | 20 A      | SPARE                                                 | D20      | --           |  |  |
| --                                                                          | D21      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 0             | 1                                    | 20 A      | SPARE                                                 | D22      | --           |  |  |
| --                                                                          | D23      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 0             | 1                                    | 20 A      | SPARE                                                 | D24      | --           |  |  |
| --                                                                          | D25      | SPARE            | 20 A     | 1        | 0 / 0                                   |                   |                   | 1                                    | 20 A      | SPARE                                                 | D26      | --           |  |  |
| --                                                                          | D27      | SPARE            | 20 A     | 1        |                                         | 0 / 0             |                   | 1                                    | 20 A      | SPARE                                                 | D28      | --           |  |  |
| --                                                                          | D29      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 0             | 1                                    | 20 A      | SPARE                                                 | D30      | --           |  |  |
| --                                                                          | D31      | SPARE            | 20 A     | 1        | 0 / 0                                   |                   |                   | 1                                    | 20 A      | SPARE                                                 | D32      | --           |  |  |
| --                                                                          | D33      | SPARE            | 20 A     | 1        |                                         | 0 / 0             |                   | 1                                    | 20 A      | SPARE                                                 | D34      | --           |  |  |
| --                                                                          | D35      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 0             | 1                                    | 20 A      | SPARE                                                 | D36      | --           |  |  |
| --                                                                          | D37      | SPARE            | 20 A     | 1        | 0 / 26209                               |                   |                   | 1                                    | 20 A      | SPARE                                                 | D38      | --           |  |  |
| --                                                                          | D39      | SPARE            | 20 A     | 1        |                                         | 0 / 169994        |                   | 3                                    | 175 A T3A |                                                       | D40      | --           |  |  |
| --                                                                          | D41      | SPARE            | 20 A     | 1        |                                         |                   | 0 / 23963         |                                      |           |                                                       | D42      | --           |  |  |
|                                                                             |          | Load Per--       | 21320 VA |          | 36690 VA                                |                   | 28439 VA          |                                      |           |                                                       |          |              |  |  |
| Load Classification                                                         |          | Connected--      |          | Demand-- |                                         | Est. Demand       |                   | Panel Totals                         |           |                                                       |          |              |  |  |
| LIGHTING                                                                    |          | 128 VA           |          | 125.00%  |                                         | 160 VA            |                   | TOTAL CONNECTED LOAD: 85449 VA       |           |                                                       |          |              |  |  |
| Othr                                                                        |          | 18065 VA         |          | 100.00%  |                                         | 18065 VA          |                   | TOTAL ESTIMATED DEMAND: 18877 VA     |           |                                                       |          |              |  |  |
| EQUIPMENT                                                                   |          | 20086 VA         |          | 75.00%   |                                         | 15072 VA          |                   | TOTAL ESTIMATED DEMAND: 103 A        |           |                                                       |          |              |  |  |
| RECEPT                                                                      |          | 47160 VA         |          | 60.60%   |                                         | 28560 VA          |                   | TOTAL ESTIMATED DEMAND CURRENT: 74 A |           |                                                       |          |              |  |  |
| NOTES:                                                                      |          |                  |          |          |                                         |                   |                   |                                      |           |                                                       |          |              |  |  |



**GENERAL NOTES:**

1. ELECTRICAL CONTRACTOR SHALL PROVIDE SPARE 20A, 1P CIRCUIT BREAKER FOR ALL POLES WITHIN PANELBOARD WHERE CIRCUIT INFORMATION IS NOT INDICATED

| Panelboard: LPH-4B                                                          |        |          |                  |      |                                                                             |                   |                   |                   |                                       |                                                                                |                  |          |        |       |
|-----------------------------------------------------------------------------|--------|----------|------------------|------|-----------------------------------------------------------------------------|-------------------|-------------------|-------------------|---------------------------------------|--------------------------------------------------------------------------------|------------------|----------|--------|-------|
| Location:<br>Supply From: DPH-LLB<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                  |      | Distribution System: 480/277 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |                   |                   |                   |                                       | A.I.C. Rating: 42kAIC<br>Mains Type: MLO<br>Mains Rating: 225 A<br>MCB Rating: |                  |          |        |       |
| Notes                                                                       | Wiring | Ckt. No. | Load Description | Trip | Poles                                                                       | LOAD PHASE-A (VA) | LOAD PHASE-B (VA) | LOAD PHASE-C (VA) | Poles                                 | Trip                                                                           | Load Description | Ckt. No. | Wiring | Notes |
|                                                                             |        | J1       | LIGHTING         | 20 A | 1                                                                           | 2891 / 2754       |                   |                   | 1                                     | 20 A                                                                           | LIGHTING         | J2       |        |       |
|                                                                             |        | J3       | LIGHTING         | 20 A | 1                                                                           |                   | 3326 / 1757       |                   | 1                                     | 20 A                                                                           | LIGHTING         | J4       |        |       |
|                                                                             |        | J5       | LIGHTING         | 20 A | 1                                                                           |                   |                   | 1888 / 2128       | 1                                     | 20 A                                                                           | LIGHTING         | J6       |        |       |
|                                                                             |        | J7       | LIGHTING         | 20 A | 1                                                                           | 750 / 2672        |                   |                   | 1                                     | 20 A                                                                           | LIGHTING         | J8       |        |       |
|                                                                             |        | J9       | LIGHTING         | 20 A | 1                                                                           |                   | 1090 / 1832       |                   | 1                                     | 20 A                                                                           | LIGHTING         | J10      |        |       |
|                                                                             |        | J11      | LIGHTING         | 20 A | 1                                                                           |                   |                   | 1670 / 1700       | 1                                     | 20 A                                                                           | LIGHTING         | J12      |        |       |
|                                                                             |        | J13      |                  | 20 A | 1                                                                           | 7171 / 0          |                   |                   | 1                                     | 20 A                                                                           | SPARE            | J14      | --     | --    |
|                                                                             |        | J15      | AC-4 SPACE 855   | 20 A | 3                                                                           |                   | 7171 / 0          |                   | 1                                     | 20 A                                                                           | SPARE            | J16      | --     | --    |
|                                                                             |        | J17      |                  | 20 A | 1                                                                           | 0 / 0             |                   | 7171 / 0          | 1                                     | 20 A                                                                           | SPARE            | J18      | --     | --    |
| --                                                                          | --     | J19      | SPARE            | 20 A | 1                                                                           |                   | 0 / 0             |                   | 1                                     | 20 A                                                                           | SPARE            | J20      | --     | --    |
| --                                                                          | --     | J21      | SPARE            | 20 A | 1                                                                           |                   |                   | 0 / 0             | 1                                     | 20 A                                                                           | SPARE            | J22      | --     | --    |
| --                                                                          | --     | J23      | SPARE            | 20 A | 1                                                                           |                   |                   | 0 / 0             | 1                                     | 20 A                                                                           | SPARE            | J24      | --     | --    |
| --                                                                          | --     | J25      | SPARE            | 20 A | 1                                                                           | 0 / 0             |                   |                   | 1                                     | 20 A                                                                           | SPARE            | J26      | --     | --    |
| --                                                                          | --     | J27      | SPARE            | 20 A | 1                                                                           |                   | 0 / 0             |                   | 1                                     | 20 A                                                                           | SPARE            | J28      | --     | --    |
| --                                                                          | --     | J29      | SPARE            | 20 A | 1                                                                           |                   | 0 / 0             | 0 / 0             | 1                                     | 20 A                                                                           | SPARE            | J30      | --     | --    |
| --                                                                          | --     | J31      | SPARE            | 20 A | 1                                                                           | 0 / 0             |                   |                   | 1                                     | 20 A                                                                           | SPARE            | J32      | --     | --    |
| --                                                                          | --     | J33      | SPARE            | 20 A | 1                                                                           |                   | 0 / 0             |                   | 1                                     | 20 A                                                                           | SPARE            | J34      | --     | --    |
| --                                                                          | --     | J35      | SPARE            | 20 A | 1                                                                           |                   |                   | 0 / 0             | 1                                     | 20 A                                                                           | SPARE            | J36      | --     | --    |
| --                                                                          | --     | J37      | SPARE            | 20 A | 1                                                                           | 0 / 26112         |                   |                   | 3                                     | 175 A                                                                          | 1-4B             | J38      |        |       |
| --                                                                          | --     | J39      | SPARE            | 20 A | 1                                                                           |                   | 0 / 28069         |                   |                                       |                                                                                |                  | J40      |        |       |
| --                                                                          | --     | J41      | SPARE            | 20 A | 1                                                                           |                   |                   | 0 / 24386         |                                       |                                                                                |                  | J42      |        |       |
| Load Per...                                                                 |        |          |                  |      |                                                                             | 42350 VA          | 42365 VA          |                   | 39143 VA                              |                                                                                |                  |          |        |       |
| Load Classification                                                         |        |          |                  |      |                                                                             | Connected...      | Demand...         | Est. Demand       | Panel Totals                          |                                                                                |                  |          |        |       |
| LIGHTING                                                                    |        |          |                  |      |                                                                             | 286 VA            | 125.00%           | 320 VA            | TOTAL CONNECTED LOAD: 124758 VA       |                                                                                |                  |          |        |       |
| Other                                                                       |        |          |                  |      |                                                                             | 24401 VA          | 100.00%           | 24401 VA          | TOTAL ESTIMATED DEMAND: 16877 VA      |                                                                                |                  |          |        |       |
| EQUIPMENT                                                                   |        |          |                  |      |                                                                             | 68420 VA          | 75.00%            | 51315 VA          | TOTAL CONNECTED CURRENT: 150 A        |                                                                                |                  |          |        |       |
| RECEIPT                                                                     |        |          |                  |      |                                                                             | 31680 VA          | 65.78%            | 20840 VA          | TOTAL ESTIMATED DEMAND CURRENT: 117 A |                                                                                |                  |          |        |       |
| NOTES:                                                                      |        |          |                  |      |                                                                             |                   |                   |                   |                                       |                                                                                |                  |          |        |       |

| Panelboard: LPH-LLC                                                         |        |          |                           |      |                                                                             |                                  |                                  |                                  |                                       |                                                                                |                           |          |        |       |
|-----------------------------------------------------------------------------|--------|----------|---------------------------|------|-----------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|--------------------------------------------------------------------------------|---------------------------|----------|--------|-------|
| Location:<br>Supply From: DPH-LLD<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                           |      | Distribution System: 480/277 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |                                  |                                  |                                  |                                       | A.I.C. Rating: 42kAIC<br>Mains Type: MLO<br>Mains Rating: 225 A<br>MCB Rating: |                           |          |        |       |
| Notes                                                                       | Wiring | Ckt. No. | Load Description          | Trip | Poles                                                                       | LOAD PHASE-A (VA)<br>5000 / 5000 | LOAD PHASE-B (VA)<br>5000 / 5000 | LOAD PHASE-C (VA)<br>5000 / 5000 | Poles                                 | Trip                                                                           | Load Description          | Ckt. No. | Wiring | Notes |
|                                                                             |        | V3       | ELH-1 AUTO COLLISION C022 | 30 A | 3                                                                           |                                  |                                  |                                  | 3                                     | 30 A                                                                           | ELH-1 AUTO COLLISION C022 | V4       |        |       |
|                                                                             |        | V5       |                           |      |                                                                             |                                  |                                  |                                  |                                       |                                                                                |                           | V6       |        |       |
|                                                                             |        | V7       |                           |      |                                                                             | 5000 / 5000                      |                                  |                                  |                                       |                                                                                |                           | V8       |        |       |
|                                                                             |        | V9       | ELH-1 AUTO COLLISION C022 | 30 A | 3                                                                           |                                  | 5000 / 5000                      |                                  | 3                                     | 30 A                                                                           | ELH-1 AUTO COLLISION C022 | V10      |        |       |
|                                                                             |        | V11      |                           |      |                                                                             |                                  |                                  | 5000 / 5000                      |                                       |                                                                                |                           | V12      |        |       |
|                                                                             |        | V13      |                           |      |                                                                             | 2867 / 2867                      |                                  |                                  |                                       |                                                                                |                           | V14      |        |       |
|                                                                             |        | V15      | DEH-1                     | 30 A | 3                                                                           |                                  | 2867 / 2867                      |                                  | 3                                     | 30 A                                                                           | DEH-1                     | V16      |        |       |
|                                                                             |        | V17      |                           |      |                                                                             |                                  |                                  | 2867 / 2867                      |                                       |                                                                                |                           | V18      |        |       |
|                                                                             |        | V19      |                           |      |                                                                             | 2867 / 2867                      |                                  |                                  |                                       |                                                                                |                           | V20      |        |       |
|                                                                             |        | V21      | DEH-1                     | 30 A | 3                                                                           |                                  | 2867 / 2867                      |                                  | 3                                     | 30 A                                                                           | DEH-1                     | V22      |        |       |
|                                                                             |        | V23      |                           |      |                                                                             |                                  |                                  | 2867 / 2867                      |                                       |                                                                                |                           | V24      |        |       |
| --                                                                          | --     | V25      | SPARE                     | 20 A | 1                                                                           | 0 / 0                            |                                  |                                  | 1                                     | 20 A                                                                           | SPARE                     | V26      | --     | --    |
| --                                                                          | --     | V27      | SPARE                     | 20 A | 1                                                                           |                                  | 0 / 0                            |                                  | 1                                     | 20 A                                                                           | SPARE                     | V28      | --     | --    |
| --                                                                          | --     | V29      | SPARE                     | 20 A | 1                                                                           |                                  |                                  | 0 / 0                            | 1                                     | 20 A                                                                           | SPARE                     | V30      | --     | --    |
| --                                                                          | --     | V31      | SPARE                     | 20 A | 1                                                                           | 0 / 0                            |                                  |                                  | 1                                     | 20 A                                                                           | SPARE                     | V32      | --     | --    |
| --                                                                          | --     | V33      | SPARE                     | 20 A | 1                                                                           |                                  | 0 / 0                            |                                  | 1                                     | 20 A                                                                           | SPARE                     | V34      | --     | --    |
| --                                                                          | --     | V35      | SPARE                     | 20 A | 1                                                                           |                                  |                                  | 0 / 0                            | 1                                     | 20 A                                                                           | SPARE                     | V36      | --     | --    |
| --                                                                          | --     | V37      | SPARE                     | 20 A | 1                                                                           | 0 / 11917                        |                                  |                                  | 3                                     | 175 A                                                                          | T-LLC                     | V40      |        |       |
| --                                                                          | --     | V39      | SPARE                     | 20 A | 1                                                                           |                                  | 0 / 9087                         |                                  |                                       |                                                                                |                           | V42      |        |       |
| Load Per...                                                                 |        |          |                           |      |                                                                             | 43383 VA                         | 40553 VA                         | 41363 VA                         |                                       |                                                                                |                           |          |        |       |
| Load Classification                                                         |        |          |                           |      |                                                                             | Connected...                     | Demand...                        | Est. Demand                      | Panel Totals                          |                                                                                |                           |          |        |       |
| EQUIPMENT                                                                   |        |          |                           |      |                                                                             | 67400 VA                         | 75.00%                           | 73200 VA                         | TOTAL CONNECTED LOAD: 102090 VA       |                                                                                |                           |          |        |       |
| RECEIPT                                                                     |        |          |                           |      |                                                                             | 27880 VA                         | 67.93%                           | 18840 VA                         | TOTAL ESTIMATED DEMAND: 61960 VA      |                                                                                |                           |          |        |       |
|                                                                             |        |          |                           |      |                                                                             |                                  |                                  |                                  | TOTAL CONNECTED CURRENT: 151 A        |                                                                                |                           |          |        |       |
|                                                                             |        |          |                           |      |                                                                             |                                  |                                  |                                  | TOTAL ESTIMATED DEMAND CURRENT: 111 A |                                                                                |                           |          |        |       |
| NOTES:                                                                      |        |          |                           |      |                                                                             |                                  |                                  |                                  |                                       |                                                                                |                           |          |        |       |

| Panelboard: LPH-LLD                                                         |        |          |                      |                                                                             |           |             |                                  |                                       |                                                                                |             |                      |                 |                 |       |  |  |
|-----------------------------------------------------------------------------|--------|----------|----------------------|-----------------------------------------------------------------------------|-----------|-------------|----------------------------------|---------------------------------------|--------------------------------------------------------------------------------|-------------|----------------------|-----------------|-----------------|-------|--|--|
| Location:<br>Supply From: DPH-LLD<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                      | Distribution System: 480/277 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |           |             |                                  |                                       | A.I.C. Rating: 42kAIC<br>Mains Type: MLO<br>Mains Rating: 225 A<br>MCB Rating: |             |                      |                 |                 |       |  |  |
| Notes                                                                       | Wiring | Ckt. No. | Load Description     | Trip                                                                        | Poles     | A           | B                                | C                                     | Poles                                                                          | Trip        | Load Description     | Ckt. No.        | Wiring          | Notes |  |  |
|                                                                             |        | W1       |                      | 30 A                                                                        | 3         | 5000 / 5000 | 5000 / 5000                      |                                       | 3                                                                              | 30 A        | ELH-1 AUTO TECH D003 | W2              |                 |       |  |  |
|                                                                             |        | W3       | ELH-1 AUTO TECH D003 | 30 A                                                                        | 3         |             |                                  | 5000 / 5000                           |                                                                                |             |                      | W4              |                 |       |  |  |
|                                                                             |        | W5       |                      | 30 A                                                                        | 3         | 5000 / 1433 |                                  |                                       |                                                                                |             |                      | W6              |                 |       |  |  |
|                                                                             |        | W7       |                      | 30 A                                                                        | 3         |             | 5000 / 1433                      |                                       |                                                                                |             |                      | W8              |                 |       |  |  |
|                                                                             |        | W9       | ELH-1 STOR D003J     | 30 A                                                                        | 3         |             | 5000 / 1433                      |                                       | 15 A                                                                           | 15 A        | DEH-1 LL MEZZ D      | W10             |                 |       |  |  |
|                                                                             |        | W11      |                      | 15 A                                                                        | 3         | 1433 / 1433 |                                  | 5000 / 1433                           |                                                                                | 3           | 15 A                 | DEH-1 LL MEZZ D | W12             |       |  |  |
|                                                                             |        | W13      |                      | 15 A                                                                        | 3         |             | 1433 / 1433                      |                                       | 1433 / 1433                                                                    |             | 3                    | 15 A            | DEH-1 LL MEZZ D | W14   |  |  |
|                                                                             |        | W15      | DEH-1 LL MEZZ D      | 15 A                                                                        | 3         |             | 1433 / 1433                      |                                       | 1433 / 1433                                                                    |             | 3                    | 15 A            | DEH-1 LL MEZZ D | W16   |  |  |
|                                                                             |        | W17      |                      | 15 A                                                                        | 3         | 1433 / 1433 |                                  |                                       | 1433 / 1433                                                                    |             |                      | W18             |                 |       |  |  |
|                                                                             |        | W19      |                      | 15 A                                                                        | 3         |             | 1433 / 1433                      |                                       |                                                                                | 1433 / 1433 |                      | W20             |                 |       |  |  |
|                                                                             |        | W21      | DEH-1 LL MEZZ D      | 15 A                                                                        | 3         |             | 1433 / 1433                      |                                       | 1433 / 1433                                                                    |             | 3                    | 15 A            | DEH-1 LL MEZZ D | W22   |  |  |
|                                                                             |        | W23      |                      | 15 A                                                                        | 3         | 1433 / 1433 |                                  |                                       | 1433 / 1433                                                                    |             |                      | W24             |                 |       |  |  |
|                                                                             |        | W25      |                      | 15 A                                                                        | 3         |             | 1433 / 1433                      |                                       |                                                                                | 1433 / 1433 |                      | W26             |                 |       |  |  |
|                                                                             |        | W27      | DEH-1 LL MEZZ D      | 15 A                                                                        | 3         |             | 1433 / 1433                      |                                       | 1433 / 1433                                                                    |             | 3                    | 15 A            | DEH-1 LL MEZZ D | W28   |  |  |
|                                                                             |        | W29      |                      | 15 A                                                                        | 3         | 1433 / 1433 |                                  |                                       | 1433 / 1433                                                                    |             |                      | W30             |                 |       |  |  |
| --                                                                          | --     | W31      | SPARE                | 20 A                                                                        | 1         | 0 / 0       |                                  |                                       | 1                                                                              | 20 A        | SPARE                | W32             | --              | --    |  |  |
| --                                                                          | --     | W33      | SPARE                | 20 A                                                                        | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W34             | --              | --    |  |  |
| --                                                                          | --     | W35      | SPARE                | 20 A                                                                        | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W36             | --              | --    |  |  |
| --                                                                          | --     | W37      | SPARE                | 20 A                                                                        | 1         | 0 / 0       |                                  |                                       | 1                                                                              | 20 A        | SPARE                | W38             | --              | --    |  |  |
| --                                                                          | --     | W39      | SPARE                | 20 A                                                                        | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W40             | --              | --    |  |  |
| --                                                                          | --     | W41      | SPARE                | 20 A                                                                        | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W42             | --              | --    |  |  |
| --                                                                          | --     | W43      | SPARE                | 2                                                                           | 1         | 0 / 0       |                                  |                                       | 1                                                                              | 20 A        | SPARE                | W44             | --              | --    |  |  |
| --                                                                          | --     | W45      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W46             | --              | --    |  |  |
| --                                                                          | --     | W47      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W48             | --              | --    |  |  |
| --                                                                          | --     | W49      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W50             | --              | --    |  |  |
| --                                                                          | --     | W51      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W52             | --              | --    |  |  |
| --                                                                          | --     | W53      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W54             | --              | --    |  |  |
| --                                                                          | --     | W55      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W56             | --              | --    |  |  |
| --                                                                          | --     | W57      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W58             | --              | --    |  |  |
| --                                                                          | --     | W59      | SPARE                | 2                                                                           | 1         |             |                                  | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W60             | --              | --    |  |  |
| --                                                                          | --     | W61      | SPARE                | 2                                                                           | 1         | 0 / 0       |                                  |                                       | 1                                                                              | 20 A        | SPARE                | W62             | --              | --    |  |  |
| --                                                                          | --     | W63      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W64             | --              | --    |  |  |
| --                                                                          | --     | W65      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W66             | --              | --    |  |  |
| --                                                                          | --     | W67      | SPARE                | 2                                                                           | 1         | 0 / 0       |                                  |                                       | 1                                                                              | 20 A        | SPARE                | W68             | --              | --    |  |  |
| --                                                                          | --     | W69      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W70             | --              | --    |  |  |
| --                                                                          | --     | W71      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W72             | --              | --    |  |  |
| --                                                                          | --     | W73      | SPARE                | 2                                                                           | 1         | 0 / 0       |                                  |                                       | 1                                                                              | 20 A        | SPARE                | W74             | --              | --    |  |  |
| --                                                                          | --     | W75      | SPARE                | 2                                                                           | 1         |             | 0 / 0                            |                                       | 1                                                                              | 20 A        | SPARE                | W76             | --              | --    |  |  |
| --                                                                          | --     | W77      | SPARE                | 2                                                                           | 1         |             |                                  | 0 / 0                                 | 1                                                                              | 20 A        | SPARE                | W78             | --              | --    |  |  |
| --                                                                          | --     | W79      | SPARE                | 2                                                                           | 1         | 0 / 19857   |                                  |                                       | 3                                                                              | 175 A       | T-LLD                | W80             |                 |       |  |  |
| --                                                                          | --     | W81      | SPARE                | 2                                                                           | 1         |             | 0 / 19597                        |                                       |                                                                                |             |                      | W82             |                 |       |  |  |
| --                                                                          | --     | W83      | SPARE                | 2                                                                           | 1         |             |                                  | 0 / 20562                             |                                                                                |             |                      | W84             |                 |       |  |  |
| Load Per...                                                                 |        |          |                      | 44890 VA                                                                    | 44630 VA  |             | 45995 VA                         |                                       |                                                                                |             |                      |                 |                 |       |  |  |
| Load Classification                                                         |        |          |                      | Connected...                                                                | Demand... | Est. Demand | Panel Totals                     |                                       |                                                                                |             |                      |                 |                 |       |  |  |
| EQUIPMENT                                                                   |        |          |                      | 7875 VA                                                                     | 75.00%    | 59051 VA    | TOTAL CONNECTED LOAD: 138115 VA  |                                       |                                                                                |             |                      |                 |                 |       |  |  |
| RECEPT                                                                      |        |          |                      | 9630 VA                                                                     | 59.81%    | 31190 VA    | TOTAL ESTIMATED DEMAND: 10241 VA |                                       |                                                                                |             |                      |                 |                 |       |  |  |
|                                                                             |        |          |                      |                                                                             |           |             |                                  | TOTAL CONNECTED CURRENT: 163 A        |                                                                                |             |                      |                 |                 |       |  |  |
|                                                                             |        |          |                      |                                                                             |           |             |                                  | TOTAL ESTIMATED DEMAND CURRENT: 111 A |                                                                                |             |                      |                 |                 |       |  |  |
| NOTES:                                                                      |        |          |                      |                                                                             |           |             |                                  |                                       |                                                                                |             |                      |                 |                 |       |  |  |



| Panelboard: LP-1A (SEC.1) |        |           |                                  |      |          |             |             |                       |       |      |                                       |        |       |
|---------------------------|--------|-----------|----------------------------------|------|----------|-------------|-------------|-----------------------|-------|------|---------------------------------------|--------|-------|
| Location:                 |        |           | Distribution System: 120/208 Wye |      |          |             |             | A.I.C. Rating: 10kAIC |       |      |                                       |        |       |
| Supply From: T-1A         |        |           | Phases: 3                        |      |          |             |             | Mains Type: MLO       |       |      |                                       |        |       |
| Mounting: SURFACE         |        |           | Wires: 4                         |      |          |             |             | Mains Rating: 400 A   |       |      |                                       |        |       |
| Enclosure: TYPE 1         |        |           | Modifications:                   |      |          |             |             | MCB Rating:           |       |      |                                       |        |       |
| Notes                     | Wiring | Ckt. No.  | Load Description                 | Trip | Poles    | A           | B           | C                     | Poles | Trip | Ckt. No.                              | Wiring | Notes |
|                           |        | AB-1      | FCU - FIRST FLOOR                | 20A  | 2        | 52 / 52     |             |                       | 2     | 20A  | FCU                                   | AB-2   |       |
|                           |        | AB-3      |                                  |      |          | 52 / 52     |             |                       |       |      |                                       | AB-4   |       |
|                           |        | AB-5      | AC-1-3 ELEC A144                 | 30A  | 2        | 2392 / 1976 |             | 2392 / 1976           | 2     | 20A  | AC-1-5 PLUMB - COMP AIR B102          | AB-6   |       |
|                           |        | AB-7      |                                  |      |          |             |             |                       |       |      |                                       | AB-8   |       |
|                           |        | AB-8      | RECEPT CONF A140                 | 20A  | 1        |             | 1080 / 1620 |                       | 1     | 20A  | RECEPT CONF A140                      | AB-10  |       |
|                           |        | AB-11     | RECEPT OFFICE MAIN A124          | 20A  | 1        |             |             | 1080 / 1080           | 1     | 20A  | RECEPT WATING-2 A102-2                | AB-12  |       |
|                           |        | AB-13     | RECEPT TL A133                   | 20A  | 1        | 1260 / 1200 |             |                       | 1     | 20A  | RECEPT DUPLICATING A151               | AB-14  |       |
|                           |        | AB-15     | RECEPT DUPLICATING A131          | 20A  | 1        |             | 360 / 1260  |                       | 1     | 20A  | RECEPT RECOCOS A142                   | AB-16  |       |
|                           |        | AB-17     | PRINTER - DUPLICATING A131       | 20A  | 1        |             |             | 1000 / 1500           | 1     | 20A  | RECEPT TL A141H                       | AB-18  | GF    |
|                           |        | AB-19     | RECEPT SHED CONF A138            | 20A  | 1        | 2700 / 720  |             |                       | 1     | 20A  | RECEPT SHED CONF A138                 | AB-20  |       |
|                           |        | AB-21     | RECEPT SHED DIR A137             | 20A  | 1        |             | 1080 / 900  |                       | 1     | 20A  | RECEPT                                | AB-22  |       |
|                           |        | AB-23     | PRINTER SHED OFF A135            | 20A  | 1        |             |             | 1000 / 1440           | 1     | 20A  | CONV. RECEPT                          | AB-24  |       |
|                           |        | AB-25     | RECEPT ADULT ED 1A103-1          | 20A  | 1        | 1080 / 1080 |             |                       | 1     | 20A  | RECEPT PRN OFF A128                   | AB-26  |       |
|                           |        | AB-27     | RECEPT SHD A126                  | 20A  | 1        |             | 900 / 900   |                       | 1     | 20A  | RECEPT SHD A126                       | AB-28  |       |
|                           |        | AB-29     | RECEPT TL A148                   | 20A  | 1        |             |             | 900 / 900             | 1     | 20A  | CONV. RECEPT                          | AB-30  |       |
|                           |        | AB-31     | DRINKING FOUNTAIN                | 20A  | 1        | 180 / 900   |             |                       | 1     | 20A  | CONV. RECEPT                          | AB-32  |       |
|                           |        | AB-33     | RECEPT CARPENTRY A141            | 20A  | 1        |             | 540 / 540   |                       | 1     | 20A  | RECEPT TL A141H                       | AB-34  |       |
|                           |        | AB-35     | RECEPT TL A141H                  | 20A  | 1        |             |             | 1260 / 540            | 1     | 20A  | RECEPT VEST A141                      | AB-36  |       |
|                           |        | AB-37     | RECEPT OFF A148                  | 20A  | 1        | 720 / 540   |             |                       | 1     | 20A  | RECEPT OFF A148                       | AB-38  |       |
|                           |        | AB-39     |                                  |      |          |             | 149 / 85    |                       |       |      |                                       | AB-40  |       |
|                           |        | AB-41     | FCU                              | 20A  | 2        |             |             | 149 / 85              | 2     | 20A  | FCU                                   | AB-42  |       |
|                           |        | AB-43     |                                  |      |          |             |             |                       |       |      |                                       | AB-44  |       |
|                           |        | AB-45     | FCU                              | 20A  | 2        | 793 / 3000  |             |                       | 2     | 20A  | EVH/5                                 | AB-46  |       |
|                           |        | AB-47     |                                  |      |          |             |             |                       |       |      |                                       | AB-48  |       |
|                           |        | AB-49     | FCU                              | 13S  | A        | 85 / 0      |             | 85 / 0                | 2     | 20A  | HVAC                                  | AB-50  |       |
|                           |        | AB-51     |                                  |      |          |             | 250 / 21    |                       | 2     | 20A  | FCU-15-1                              | AB-52  |       |
|                           |        | AB-53     |                                  |      |          |             |             | 250 / 21              | 2     | 20A  | FCU-15-1                              | AB-54  |       |
|                           |        | AB-55     |                                  |      |          |             |             |                       |       |      |                                       | AB-56  |       |
|                           |        | AB-57     | EQUIPMENT WATING-1 A102-1        | 20A  | 2        | 4552 / 1276 | 4552 / 1276 |                       | 3     | 20A  | EQUIPMENT                             | AB-58  |       |
|                           |        | AB-59     |                                  |      |          |             |             | 375 / 1276            |       |      |                                       | AB-60  |       |
|                           |        | AB-61     | EQUIPMENT PLUMB - COMP AIR B102  | 20A  | 2        | 375 / 700   |             |                       | 1     | 20A  | F-6                                   | AB-62  |       |
| --                        | --     | AB-63     | AH4/H RECEPT                     | 20A  | 1        |             | 180 / 0     |                       | 1     | 20A  | SPARE                                 | AB-64  | --    |
| --                        | --     | AB-65     | SPARE                            | 20A  | 1        |             |             | 0 / 0                 | 1     | 20A  | SPARE                                 | AB-66  | --    |
| --                        | --     | AB-67     | SPARE                            | 20A  | 1        | 0 / 0       |             |                       | 1     | 20A  | SPARE                                 | AB-68  | --    |
| --                        | --     | AB-69     | SPARE                            | 20A  | 1        |             | 0 / 0       |                       | 1     | 20A  | SPARE                                 | AB-70  | --    |
| --                        | --     | AB-71     | SPARE                            | 20A  | 1        |             |             | 0 / 0                 | 1     | 20A  | SPARE                                 | AB-72  | --    |
| --                        | --     | AB-73     | SPARE                            | 20A  | 1        | 0 / 0       |             |                       | 1     | 20A  | SPARE                                 | AB-74  | --    |
| --                        | --     | AB-75     | SPARE                            | 20A  | 1        |             | 0 / 0       |                       | 1     | 20A  | SPARE                                 | AB-76  | --    |
| --                        | --     | AB-77     | SPARE                            | 20A  | 1        |             |             | 0 / 0                 | 1     | 20A  | SPARE                                 | AB-78  | --    |
| --                        | --     | AB-79     | SPARE                            | 20A  | 1        |             |             | 0 / 0                 | 1     | 20A  | SPARE                                 | AB-80  | --    |
| --                        | --     | AB-81     | SPARE                            | 20A  | 1        |             | 0 / 0       |                       | 1     | 20A  | SPARE                                 | AB-82  | --    |
| --                        | --     | AB-83     | SPARE                            | 20A  | 1        |             |             | 0 / 0                 | 1     | 20A  | SPARE                                 | AB-84  | --    |
|                           |        | Load Per- |                                  |      |          | 25633 VA    | 19590 VA    | 17309 VA              |       |      |                                       |        |       |
| Load Classification       |        |           | Connected--                      |      | Demand-- |             | Est. Demand |                       |       |      | Panel Totals                          |        |       |
|                           |        |           | 0 VA                             |      | 0.00%    | 0 VA        |             |                       |       |      | TOTAL CONNECTED LOAD: 46332 VA        |        |       |
| HVAC                      |        |           | 34652 VA                         |      | 75.00%   | 24339 VA    |             |                       |       |      | TOTAL ESTIMATED DEMAND: 34379 VA      |        |       |
| EQUIPMENT                 |        |           | 30080 VA                         |      | 66.62%   | 20040 VA    |             |                       |       |      | TOTAL CONNECTED CURRENT: 171 A        |        |       |
| RECEPT                    |        |           |                                  |      |          |             |             |                       |       |      | TOTAL ESTIMATED DEMAND CURRENT: 123 A |        |       |
| NOTES:                    |        |           |                                  |      |          |             |             |                       |       |      |                                       |        |       |



| Panelboard: LP-1K |        |                            |                                      |       |       |             |             |             |                       |       |                               |                                  |              |    |
|-------------------|--------|----------------------------|--------------------------------------|-------|-------|-------------|-------------|-------------|-----------------------|-------|-------------------------------|----------------------------------|--------------|----|
| Location:         |        |                            | Distribution System: 120/208 Wye     |       |       |             |             |             | A.I.C. Rating: 10kAIC |       |                               |                                  |              |    |
| Supply From: T-1K |        |                            | Phases: 3                            |       |       |             |             |             | Mains Type: MCB       |       |                               |                                  |              |    |
| Mounting: SURFACE |        |                            | Wires: 4                             |       |       |             |             |             | Mains Rating: 400 A   |       |                               |                                  |              |    |
| Enclosure: TYPE 1 |        |                            | Modifications:                       |       |       |             |             |             | MCB Rating: 400 A     |       |                               |                                  |              |    |
| Notes             | Wiring | Ch. No.                    | Load Description                     | Tripp | Poles | A           | B           | C           | Poles                 | Tripp | Load Description              | Ch. No.                          | Wiring Notes |    |
| GF                |        | AF-1                       | AC-12-ELEC-MANN KITCH A115           | 30A   | 2     | 1979 / 1979 |             |             | 2                     | 30A   | AC-11 IDF A119                | AF-2                             |              |    |
|                   |        | AF-3                       |                                      |       |       |             | 1979 / 1979 |             |                       |       |                               | AF-4                             |              |    |
|                   |        | AF-5                       | ELVZ                                 |       |       |             |             | 1500 / 1260 | 1                     | 20A   | CONV RECEPT-MANN KITCHEN A115 | AF-6                             |              |    |
|                   |        | AF-7                       | DRINKING FOUNTAIN - CAFETERIA-A11414 | 20A   | 1     | 180 / 900   |             |             |                       | 1     | 20A                           | RECEPT SPACE UR22                | AF-8         |    |
|                   |        | AF-9                       | RECEPT OFF A104                      | 20A   | 1     |             | 360 / 900   |             |                       | 1     | 20A                           | RECEPT CAFETERIA & LUNCH RM A111 | AF-10        |    |
|                   |        | AF-11                      | RECEPT CAFETERIA A114                | 20A   | 1     |             |             | 1080 / 1080 | 1                     | 20A   | RECEPT CAFETERIA A114         | AF-12                            |              |    |
|                   |        | AF-13                      | MILK COOLER                          | 20A   | 1     | 540 / 250   |             |             |                       | 2     | 20A                           | DROP IN FOOD WELL                | AF-14        |    |
|                   |        | AF-15                      | CONVENIENCE                          | 20A   | 1     |             | 720 / 250   |             |                       | 2     | 20A                           | DROP IN FOOD WELL                | AF-16        |    |
|                   |        | AF-17                      | HEATED SURFACE DROP IN               | 20A   | 1     |             |             |             | 500 / 1664            | 2     | 20A                           | PASS THRU HOT HOLDING CABINET    | AF-18        |    |
|                   |        | AF-19                      | PASS THRU REFRIGERATOR               | 20A   | 1     | 500 / 1664  |             |             |                       | 2     | 20A                           | PASS THRU HOT HOLDING CABINET    | AF-20        |    |
|                   |        | AF-21                      | PASS THRU HOT HOLDING CABINET        | 20A   | 2     |             | 1664 / 360  |             |                       | 1     | 20A                           | WORK TABLE                       | AF-22        |    |
|                   |        | AF-23                      | SALAD BAR                            | 20A   | 1     | 1620 / 360  |             |             | 1664 / 180            | 1     | 20A                           | GRAB & GO FRIDGE                 | AF-24        |    |
|                   |        | AF-25                      | PASS THRU HOT HOLDING CABINET        | 20A   | 2     |             | 1664 / 500  |             |                       | 1     | 20A                           | WORK TABLE                       | AF-26        |    |
|                   |        | AF-27                      | PASS THRU HOT HOLDING CABINET        | 20A   | 2     |             |             |             | 1664 / 360            | 1     | 20A                           | PASS THRU REFRIGERATOR           | AF-28        |    |
|                   |        | AF-29                      | DELI COUNTER                         | 20A   | 2     | 250 / 250   |             |             |                       | 2     | 20A                           | CONVENIENCE                      | AF-30        |    |
|                   |        | AF-31                      | PREP TOP REFRIGERATOR                | 20A   | 1     |             | 250 / 250   |             |                       | 2     | 20A                           | DROP IN FOOD WELL                | AF-32        |    |
|                   |        | AF-33                      | GRAB & GO FRIDGE                     | 20A   | 1     | 180 / 540   |             |             | 500 / 540             | 1     | 20A                           | ENTREE SERVING COUNTER           | AF-34        |    |
|                   |        | AF-35                      | DROP IN FOOD WELL                    | 20A   | 1     |             | 250 / 250   |             |                       | 1     | 20A                           | MILK COOLER                      | AF-36        |    |
|                   |        | AF-37                      | PASS THRU HOT HOLDING CABINET        | 20A   | 2     |             |             | 250 / 250   |                       | 2     | 20A                           | PASS THRU HOT HOLDING CABINET    | AF-38        |    |
|                   |        | AF-39                      | PASS THRU REFRIGERATOR               | 2     | 1     | 500 / 250   |             |             |                       | 1     | 20A                           | PANINI PRESS                     | AF-40        |    |
|                   |        | AF-41                      | CONVENIENCE                          | 2     | 1     |             | 540 / 250   |             |                       | 1     | 20A                           | DISHWASHER CONVENIENCE           | AF-42        |    |
|                   |        | AF-43                      | DISHWASHER CONVENIENCE               | 2     | 1     |             |             |             | 1080 / 167            | 1     | 20A                           | DISHWASHER CONVENIENCE           | AF-44        |    |
|                   |        | AF-45                      | BOOSTER HEATER                       | A     | 3     | 167 / 167   |             |             |                       | 3     | 150A                          | CONVEYOR DISHWASHER              | AF-46        |    |
|                   |        | AF-47                      | FOOD PROCESSOR                       | 2     | 1     |             | 167 / 167   |             |                       |       |                               | CONVEYOR DISHWASHER              | AF-48        |    |
|                   |        | AF-49                      | WORK STATION                         | 2     | 1     | 180 / 167   |             |             | 167 / 167             | 3     | 20A                           | BOOSTER HEATER, LARGE COMPACT    | AF-50        |    |
|                   |        | AF-51                      | FREEZER LIGHTING                     | 2     | 1     |             | 900 / 167   |             |                       |       |                               | BOOSTER HEATER, LARGE COMPACT    | AF-52        |    |
|                   |        | AF-53                      | FREEZER LIGHTING                     | 2     | 1     |             |             |             | 360 / 360             | 1     | 20A                           | AUTOMATIC SLICER                 | AF-54        |    |
|                   |        | AF-55                      | FREEZER LIGHTING                     | 2     | 1     | 500 / 500   |             |             |                       | 2     | 20A                           | FREEZER HEATER COILS             | AF-56        |    |
|                   |        | AF-57                      | FREEZER DRAIN LINE HEATER            | 2     | 1     |             | 180 / 500   |             |                       | 2     | 20A                           | WALK IN COOLER LIGHTING          | AF-58        |    |
|                   |        | AF-59                      | FREEZER DRAIN LINE HEATER            | 2     | 1     |             |             |             | 720 / 500             | 1     | 20A                           | WALK IN COOLER LIGHTING          | AF-60        |    |
|                   |        | AF-61                      | COOLER HEATER COIL                   | 20    | 2     | 250 / 500   |             |             |                       | 1     | 20A                           | FIRE SUPPRESSION SYSTEM          | AF-62        |    |
|                   |        | AF-63                      | COOLER HEATER COIL                   | 20    | 2     | 250 / 500   |             |             |                       | 1     | 20A                           | VENTILATOR DEMAND CONTROL        | AF-64        |    |
|                   |        | AF-65                      | CHEF WORK TABLE                      | 2     | 1     |             |             | 540 / 360   |                       | 1     | 20A                           | WORK TABLE                       | AF-66        |    |
|                   |        | AF-67                      | DRY STORAGE                          | 2     | 1     | 720 / 250   |             |             |                       | 2     | 20A                           | DISPOSER AND CONTROL PANEL       | AF-68        |    |
|                   |        | AF-69                      | COFFEE BREWER                        | 2     | 1     |             | 360 / 250   |             |                       | 2     | 20A                           | DISPOSER AND CONTROL PANEL       | AF-70        |    |
|                   |        | AF-71                      | MICROWAVE OVEN                       | 2     | 1     |             |             | 180 / 1440  |                       | 1     | 20A                           | CASHIER                          | AF-72        |    |
|                   |        | AF-73                      | CASHIER                              | 2     | 1     | 1440 / 500  |             |             |                       | 1     | 20A                           | F-18 DRY STORAGE                 | AF-74        |    |
|                   |        | AF-75                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             | 180 / 0     |             |                       | 1     | 20A                           | SPARE                            | AF-76        | -- |
|                   |        | AF-77                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             | 360 / 0     |                       | 1     | 20A                           | SPARE                            | AF-78        | -- |
|                   |        | AF-79                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             |             |                       | 1     | 20A                           | SPARE                            | AF-80        | -- |
|                   |        | AF-81                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             |             |                       |       |                               |                                  |              |    |
|                   |        | AF-83                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             |             |                       |       |                               |                                  |              |    |
|                   |        | AF-85                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             |             |                       |       |                               |                                  |              |    |
|                   |        | AF-87                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             |             |                       |       |                               |                                  |              |    |
|                   |        | AF-89                      | RECEPT STAFF LUNCH RM A111           | 2     | 1     |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-91  | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-93  | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-95  | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-97  | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-99  | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-101 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-103 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-105 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-107 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-109 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-111 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-113 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-115 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-117 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-119 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-121 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-123 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-125 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-127 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-129 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-131 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-133 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-135 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-137 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-139 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-141 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-143 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-145 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-147 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-149 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-151 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-153 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-155 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-157 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-159 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-161 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-163 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-165 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-167 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-169 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-171 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-173 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-175 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-177 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-179 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-181 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-183 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-185 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-187 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-189 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-191 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-193 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-195 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-197 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-199 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-201 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-203 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-205 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-207 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-209 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-211 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-213 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-215 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-217 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-219 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-221 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-223 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-225 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-227 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-229 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-231 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-233 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-235 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-237 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-239 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-241 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-243 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-245 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-247 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-249 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-251 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-253 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-255 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-257 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-259 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-261 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-263 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-265 | RECEPT STAFF LUNCH RM A111 | 2                                    | 1     |       |             |             |             |                       |       |                               |                                  |              |    |
|                   | AF-267 | RECEPT STAFF LUNCH RM A1   |                                      |       |       |             |             |             |                       |       |                               |                                  |              |    |







## GENERAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE SPARE 20A, 1P CIRCUIT BREAKER FOR ALL POLES WITHIN PANELBOARDS WHERE CIRCUIT INFORMATION IS NOT INDICATED

DRA

Drummeys Rosane Anderson, Inc.  
225 Oakland Road  
Studio 205  
South Windsor, CT  
06074

260 Charles Street  
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Regional  
Vocational High  
School

Wakefield, MA 01880

| Panelboard: LP-2B-S2                                                |        |            |                                      |      |                                                           |                      |                      |                      |       |                                                                                      |                                 |            |        |       |                                      |  |  |  |  |
|---------------------------------------------------------------------|--------|------------|--------------------------------------|------|-----------------------------------------------------------|----------------------|----------------------|----------------------|-------|--------------------------------------------------------------------------------------|---------------------------------|------------|--------|-------|--------------------------------------|--|--|--|--|
| Location:<br>Supply From:<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |            |                                      |      | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4 |                      |                      |                      |       | A.I.C. Rating: 10KAIC<br>Mains Type: MCB<br>Mains Rating: 200 A<br>MCB Rating: 150 A |                                 |            |        |       |                                      |  |  |  |  |
|                                                                     |        |            |                                      |      | Modifications:                                            |                      |                      |                      |       |                                                                                      |                                 |            |        |       |                                      |  |  |  |  |
| Notes                                                               | Wiring | Ok.<br>No. | Load Description                     | Trip | Poles                                                     | LOAD<br>PHASE-A (VA) | LOAD<br>PHASE-B (VA) | LOAD<br>PHASE-C (VA) | Poles | Trip                                                                                 | Load Description                | Ok.<br>No. | Wiring | Notes |                                      |  |  |  |  |
|                                                                     |        |            | JH1 FURNITURE B200C                  | 20 A | 1                                                         | 1440 / 1440          |                      |                      | 1     | 20 A                                                                                 | FURNITURE B200B                 | JH2        |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH3 CHROMEBOOK CHARGING              | 20 A | 1                                                         | 360 / 1440           |                      |                      | 1     | 20 A                                                                                 | FURNITURE B2030                 | JH4        |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH5 FURNITURE B200C                  | 20 A | 1                                                         |                      |                      | 1440 / 0             | 1     |                                                                                      |                                 | JH6        |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH7 ELECTRONIC CUTTING MACHINE B202  | 20 A | 1                                                         | 180 / 180            |                      |                      | 1     | 20 A                                                                                 | CHROMEBOOK CHARGING             | JH8        |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH11 CONFERENCE TABLE POKE THRU B202 | 20 A | 2                                                         |                      | 720 / 720            |                      | 2     | 20 A                                                                                 | CONFERENCE TABLE POKE THRU B203 | JH12       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH13 COMPUTERS B200C                 | 20 A | 1                                                         | 720 / 720            |                      |                      | 1     | 20 A                                                                                 | COMPUTERS B200C                 | JH14       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH15 COMPUTERS B200C                 | 20 A | 1                                                         |                      | 540 / 540            |                      | 1     | 20 A                                                                                 | COMPUTERS B200C                 | JH16       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH17 COMPUTERS B202B                 | 20 A | 1                                                         |                      |                      | 540 / 540            | 1     | 20 A                                                                                 | COMPUTERS B202B                 | JH18       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH19 COMPUTERS B202B                 | 20 A | 1                                                         | 360 / 540            |                      |                      | 1     | 20 A                                                                                 | COMPUTERS B202B                 | JH20       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH21 COMPUTERS B2030                 | 20 A | 1                                                         |                      | 540 / 1080           |                      | 1     | 20 A                                                                                 | COMPUTERS B2030                 | JH22       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH23 COMPUTERS B2030                 | 20 A | 1                                                         |                      |                      | 720 / 360            | 1     | 20 A                                                                                 | COMPUTERS B2030                 | JH24       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH25 COMPUTERS B2030                 | 20 A | 1                                                         | 1080 / 360           |                      |                      | 1     | 20 A                                                                                 | COMPUTERS B2030                 | JH26       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH27 COMPUTERS B2030C                | 20 A | 1                                                         |                      | 900 / 1440           |                      | 1     | 20 A                                                                                 | COMPUTERS B2030C                | JH28       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH29 COMPUTERS B2030C                | 20 A | 1                                                         |                      |                      | 900 / 540            | 1     | 20 A                                                                                 | COMPUTERS B2030C                | JH30       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH31 WORK STATION QUADS              | 20 A | 1                                                         | 540 / 720            |                      |                      | 1     | 20 A                                                                                 | WORK STATION QUADS              | JH32       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH33 BUSINESS OFFICE TECH RECEIPT    | 20 A | 1                                                         |                      | 900 / 540            |                      | 1     | 20 A                                                                                 | OFFICE RECEIPT                  | JH34       |        |       |                                      |  |  |  |  |
|                                                                     |        |            | JH35 MARKETING RECEIPT               | 20 A | 1                                                         |                      |                      | 540 / 180            | 1     | 20 A                                                                                 | OFFICE RECEIPT                  | JH36       |        |       |                                      |  |  |  |  |
| --                                                                  | --     | --         | JH37 SPARE                           | 20 A | 1                                                         | 0 / 0                |                      |                      | 1     | 20 A                                                                                 | SPARE                           | JH38       | --     | --    |                                      |  |  |  |  |
| --                                                                  | --     | --         | JH39 SPARE                           | 20 A | 1                                                         |                      | 0 / 0                |                      | 1     | 20 A                                                                                 | SPARE                           | JH40       | --     | --    |                                      |  |  |  |  |
| --                                                                  | --     | --         | JH41 SPARE                           | 20 A | 1                                                         |                      |                      | 0 / 0                | 1     | 20 A                                                                                 | SPARE                           | JH42       | --     | --    |                                      |  |  |  |  |
| Load Classification                                                 |        |            |                                      |      | Load Per...:                                              |                      |                      |                      |       | 8280 VA      9720 VA      7200 VA                                                    |                                 |            |        |       |                                      |  |  |  |  |
| Connected...                                                        |        |            |                                      |      | Demand...                                                 |                      |                      |                      |       | Est. Demand                                                                          |                                 |            |        |       | Panel Totals                         |  |  |  |  |
| 25200 VA                                                            |        |            |                                      |      | 69.84%                                                    |                      |                      |                      |       | 17600 VA                                                                             |                                 |            |        |       | TOTAL CONNECTED LOAD: 25200 VA       |  |  |  |  |
|                                                                     |        |            |                                      |      |                                                           |                      |                      |                      |       |                                                                                      |                                 |            |        |       | TOTAL ESTIMATED DEMAND: 17600 VA     |  |  |  |  |
|                                                                     |        |            |                                      |      |                                                           |                      |                      |                      |       |                                                                                      |                                 |            |        |       | TOTAL CONNECTED CURRENT: 170 A       |  |  |  |  |
|                                                                     |        |            |                                      |      |                                                           |                      |                      |                      |       |                                                                                      |                                 |            |        |       | TOTAL ESTIMATED DEMAND CURRENT: 49 A |  |  |  |  |
| NOTES:                                                              |        |            |                                      |      |                                                           |                      |                      |                      |       |                                                                                      |                                 |            |        |       |                                      |  |  |  |  |

| Panelboard: LP-FS1                                                  |        |          |                           |      |                                                                             |                   |                   |                   |                                      |                                                                                |                    |          |        |       |
|---------------------------------------------------------------------|--------|----------|---------------------------|------|-----------------------------------------------------------------------------|-------------------|-------------------|-------------------|--------------------------------------|--------------------------------------------------------------------------------|--------------------|----------|--------|-------|
| Location:<br>Supply From:<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                           |      | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |                   |                   |                   |                                      | A.I.C. Rating: 10KAIC<br>Mains Type: MCB<br>Mains Rating: 300 A<br>MCB Rating: |                    |          |        |       |
| Notes                                                               | Wiring | Ckt. No. | Load Description          | Trip | Poles                                                                       | LOAD PHASE-A (VA) | LOAD PHASE-B (VA) | LOAD PHASE-C (VA) | Poles                                | Trip                                                                           | Load Description   | Ckt. No. | Wiring | Notes |
|                                                                     |        | KH1      | ICE CREAM DIPPING CABINET | 20 A | 1                                                                           | 500 / 2496        |                   |                   | 2                                    | 20 A                                                                           | PIZZA OVEN         | KH2      |        |       |
|                                                                     |        | KH3      | WORK TOP FREEZER          | 20 A | 1                                                                           |                   | 180 / 2496        |                   | 2                                    | 20 A                                                                           | HEAT LAMP          | KH4      |        |       |
|                                                                     |        | KH5      | POS PRINTER               | 20 A | 1                                                                           |                   |                   | 180 / 250         | 2                                    | 20 A                                                                           | HEAT LAMP          | KH6      |        |       |
|                                                                     |        | KH7      | HEAT LAMP                 | 20 A | 2                                                                           | 250 / 250         |                   |                   | 2                                    | 20 A                                                                           | HEAT LAMP          | KH8      |        |       |
|                                                                     |        | KH9      | POS PRINTER               | 20 A | 1                                                                           |                   | 250 / 250         |                   | 2                                    | 20 A                                                                           | HEAT LAMP          | KH10     |        |       |
|                                                                     |        | KH11     | PREP TOP REFRIGERATOR     | 20 A | 2                                                                           | 250 / 250         |                   |                   | 2                                    | 20 A                                                                           | 3-WELL STEAM TABLE | KH14     |        |       |
|                                                                     |        | KH15     | POS PRINTER               | 20 A | 1                                                                           |                   | 180 / 250         |                   | 2                                    | 20 A                                                                           | POP UP TOASTER     | KH16     |        |       |
|                                                                     |        | KH17     | PREP TOP REFRIGERATOR     | 20 A | 2                                                                           | 250 / 2400        |                   |                   | 2                                    | 20 A                                                                           | POP UP TOASTER     | KH18     |        |       |
|                                                                     |        | KH19     | PREP TOP REFRIGERATOR     | 20 A | 2                                                                           | 250 / 2400        |                   |                   | 2                                    | 20 A                                                                           | SQUP WELLS         | KH20     |        |       |
|                                                                     |        | KH21     | HOT FOOD WELL             | 20 A | 2                                                                           |                   | 1664 / 360        |                   | 2                                    | 20 A                                                                           | POS PRINTER        | KH22     |        |       |
|                                                                     |        | KH23     | WARMER DRAWER             | 20 A | 2                                                                           | 250 / 2400        |                   |                   | 2                                    | 20 A                                                                           | POS PRINTER        | KH24     |        |       |
|                                                                     |        | KH25     | WARMER DRAWER             | 20 A | 2                                                                           |                   | 250 / 2400        |                   | 2                                    | 20 A                                                                           | POP UP TOASTER     | KH26     |        |       |
| --                                                                  | --     | KH29     | SPARE                     | 20 A | 1                                                                           |                   |                   | 0 / 0             | 1                                    | 20 A                                                                           | SPARE              | KH28     | --     | --    |
| --                                                                  | --     | KH31     | SPARE                     | 20 A | 1                                                                           | 0 / 0             |                   |                   | 1                                    | 20 A                                                                           | SPARE              | KH30     | --     | --    |
| --                                                                  | --     | KH33     | SPARE                     | 20 A | 1                                                                           |                   | 0 / 0             |                   | 1                                    | 20 A                                                                           | SPARE              | KH34     | --     | --    |
| --                                                                  | --     | KH35     | SPARE                     | 20 A | 1                                                                           |                   |                   | 0 / 0             | 1                                    | 20 A                                                                           | SPARE              | KH36     | --     | --    |
| --                                                                  | --     | KH37     | SPARE                     | 20 A | 1                                                                           | 0 / 0             |                   |                   | 1                                    | 20 A                                                                           | SPARE              | KH38     | --     | --    |
| --                                                                  | --     | KH39     | SPARE                     | 20 A | 1                                                                           |                   | 0 / 0             |                   | 1                                    | 20 A                                                                           | SPARE              | KH40     | --     | --    |
| --                                                                  | --     | KH41     | SPARE                     | 20 A | 1                                                                           |                   |                   | 0 / 0             | 1                                    | 20 A                                                                           | SPARE              | KH42     | --     | --    |
| Load Per...:                                                        |        |          |                           |      |                                                                             | 9296 VA           | 8280 VA           | 5624 VA           |                                      |                                                                                |                    |          |        |       |
| Load Classification                                                 |        |          |                           |      |                                                                             | Connected...      | Demand...         | Est. Demand       | Panel Totals                         |                                                                                |                    |          |        |       |
| EQUIPMENT                                                           |        |          |                           |      |                                                                             | 4000 VA           | 75.00%            | 3000 VA           | TOTAL CONNECTED LOAD: 23000 VA       |                                                                                |                    |          |        |       |
| RECEIPT                                                             |        |          |                           |      |                                                                             | 19000 VA          | 76.32%            | 14500 VA          | TOTAL ESTIMATED DEMAND: 17000 VA     |                                                                                |                    |          |        |       |
|                                                                     |        |          |                           |      |                                                                             |                   |                   |                   | TOTAL CONNECTED CURRENT: 84 A        |                                                                                |                    |          |        |       |
|                                                                     |        |          |                           |      |                                                                             |                   |                   |                   | TOTAL ESTIMATED DEMAND CURRENT: 49 A |                                                                                |                    |          |        |       |
| NOTES:                                                              |        |          |                           |      |                                                                             |                   |                   |                   |                                      |                                                                                |                    |          |        |       |

| Panelboard: LP-FS2                                                  |        |            |                                      |      |                                                                             |                      |                      |                      |             |                                                                                |                                      |            |        |       |
|---------------------------------------------------------------------|--------|------------|--------------------------------------|------|-----------------------------------------------------------------------------|----------------------|----------------------|----------------------|-------------|--------------------------------------------------------------------------------|--------------------------------------|------------|--------|-------|
| Location:<br>Supply From:<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |            |                                      |      | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |                      |                      |                      |             | A.I.C. Rating: 10KAIC<br>Mains Type: MCB<br>Mains Rating: 300 A<br>MCB Rating: |                                      |            |        |       |
| Notes                                                               | Wiring | Ok.<br>No. | Load Description                     | Trip | Poles                                                                       | LOAD<br>PHASE-A (VA) | LOAD<br>PHASE-B (VA) | LOAD<br>PHASE-C (VA) | Poles       | Trip                                                                           | Load Description                     | Ok.<br>No. | Wiring | Notes |
|                                                                     |        |            | KU1 DOUBLE 200T TILTING KETTLE       | 20 A | 1                                                                           | 500 / 500            |                      |                      | 1           | 20 A                                                                           | 400T KETTLE W/ STAND                 | KU2        |        |       |
|                                                                     |        |            | KU3 40 GALLON TILTING BRAISING PAN   | 20 A | 1                                                                           |                      | 500 / 500            |                      | 1           | 20 A                                                                           | 6 BURNER RANGE W/ OVEN               | KU4        |        |       |
|                                                                     |        |            | KU5 BROILER OVEN                     | 20 A | 1                                                                           |                      |                      | 500 / 500            | 1           | 20 A                                                                           | SMOKER OVEN                          | KU6        |        |       |
|                                                                     |        |            | KU7 COMBINATION OVEN                 | 20 A | 1                                                                           | 500 / 500            |                      |                      | 1           | 20 A                                                                           | 10-PAN STEAMER                       | KU8        |        |       |
|                                                                     |        |            | KU9 CONNECTION OVEN                  | 20 A | 1                                                                           |                      | 500 / 500            |                      | 1           | 20 A                                                                           | 6 BURNER RANGE W/ OVEN & BROILER     | KU10       |        |       |
|                                                                     |        |            | KU11 GRID-LE RANGE W/ OVEN & BROILER | 20 A | 1                                                                           |                      |                      | 500 / 840            | 1           | 20 A                                                                           | FRYER ASSEMBLY                       | KU12       |        |       |
|                                                                     |        |            | KU13 FRYER ASSEMBLY                  | 20 A | 1                                                                           | 408 / 0              |                      |                      | 1           | 20 A                                                                           | SPARE                                | KU14       | --     | --    |
| --                                                                  |        |            | KU15 SPARE                           | 20 A | 1                                                                           |                      | 0 / 0                |                      | 1           | 20 A                                                                           | SPARE                                | KU16       | --     | --    |
| --                                                                  |        |            | KU17 SPARE                           | 20 A | 1                                                                           |                      |                      | 0 / 0                | 1           | 20 A                                                                           | SPARE                                | KU18       | --     | --    |
| --                                                                  |        |            | KU19 SPARE                           | 20 A | 1                                                                           | 0 / 0                |                      |                      | 1           | 20 A                                                                           | SPARE                                | KU20       | --     | --    |
| --                                                                  |        |            | KU21 SPARE                           | 20 A | 1                                                                           |                      |                      | 0 / 0                | 1           | 20 A                                                                           | SPARE                                | KU22       | --     | --    |
| --                                                                  |        |            | KU23 SPARE                           | 20 A | 1                                                                           |                      | 0 / 0                |                      | 1           | 20 A                                                                           | SPARE                                | KU24       | --     | --    |
| --                                                                  |        |            | KU25 SPARE                           | 20 A | 1                                                                           | 0 / 0                |                      |                      | 1           | 20 A                                                                           | SPARE                                | KU26       | --     | --    |
| --                                                                  |        |            | KU27 SPARE                           | 20 A | 1                                                                           |                      | 0 / 0                |                      | 1           | 20 A                                                                           | SPARE                                | KU28       | --     | --    |
| --                                                                  |        |            | KU29 SPARE                           | 20 A | 1                                                                           |                      |                      | 0 / 0                | 1           | 20 A                                                                           | SPARE                                | KU30       | --     | --    |
| --                                                                  |        |            | KU31 SPARE                           | 20 A | 1                                                                           | 0 / 0                |                      |                      | 1           | 20 A                                                                           | SPARE                                | KU32       | --     | --    |
| --                                                                  |        |            | KU33 SPARE                           | 20 A | 1                                                                           |                      | 0 / 0                |                      | 1           | 20 A                                                                           | SPARE                                | KU34       | --     | --    |
| --                                                                  |        |            | KU35 SPARE                           | 20 A | 1                                                                           |                      |                      | 0 / 0                | 1           | 20 A                                                                           | SPARE                                | KU36       | --     | --    |
| --                                                                  |        |            | KU37 SPARE                           | 20 A | 1                                                                           | 0 / 0                |                      |                      | 1           | 20 A                                                                           | SPARE                                | KU38       | --     | --    |
| --                                                                  |        |            | KU39 SPARE                           | 20 A | 1                                                                           |                      | 0 / 0                |                      | 1           | 20 A                                                                           | SPARE                                | KU40       | --     | --    |
| --                                                                  |        |            | KU41 SPARE                           | 20 A | 1                                                                           |                      |                      | 0 / 0                | 1           | 20 A                                                                           | SPARE                                | KU42       | --     | --    |
| Load Classification                                                 |        |            |                                      |      | Lead Per...                                                                 |                      | 2468 VA              |                      | 2000 VA     |                                                                                | 230 VA                               |            |        |       |
| EQUIPMENT                                                           |        |            |                                      |      | Connected...                                                                |                      | Demand...            |                      | Est. Demand |                                                                                | Panel Totals                         |            |        |       |
|                                                                     |        |            |                                      |      | 6748 VA                                                                     |                      | 75.00%               |                      | 5061 VA     |                                                                                | TOTAL CONNECTED LOAD: 6748 VA        |            |        |       |
|                                                                     |        |            |                                      |      |                                                                             |                      |                      |                      |             |                                                                                | TOTAL ESTIMATED DEMAND: 5061 VA      |            |        |       |
|                                                                     |        |            |                                      |      |                                                                             |                      |                      |                      |             |                                                                                | TOTAL CONNECTED CURRENT: 19 A        |            |        |       |
|                                                                     |        |            |                                      |      |                                                                             |                      |                      |                      |             |                                                                                | TOTAL ESTIMATED DEMAND CURRENT: 14 A |            |        |       |
| NOTES:                                                              |        |            |                                      |      |                                                                             |                      |                      |                      |             |                                                                                |                                      |            |        |       |

| Panelboard: LP-FS3                                                  |        |           |                             |      |                                                           |                                       |                      |                      |                               |                                                                                |                          |           |        |       |
|---------------------------------------------------------------------|--------|-----------|-----------------------------|------|-----------------------------------------------------------|---------------------------------------|----------------------|----------------------|-------------------------------|--------------------------------------------------------------------------------|--------------------------|-----------|--------|-------|
| Location:<br>Supply From:<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |           |                             |      | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4 |                                       |                      |                      |                               | A.I.C. Rating: 10kAIC<br>Mains Type: MCB<br>Mains Rating: 100 A<br>MCB Rating: |                          |           |        |       |
|                                                                     |        |           |                             |      | Modifications:                                            |                                       |                      |                      |                               |                                                                                |                          |           |        |       |
| Notes                                                               | Wiring | Ok<br>No. | Load Description            | Trip | Poles                                                     | LOAD<br>PHASE-A (VA)                  | LOAD<br>PHASE-B (VA) | LOAD<br>PHASE-C (VA) | Poles                         | Trip                                                                           | Load Description         | Ok<br>No. | Wiring | Notes |
|                                                                     |        |           | OVEN/STEAMER                | 20 A | 1                                                         | 500 / 500                             |                      |                      | 1                             | 20 A                                                                           | DOUBLE CONNECTION OVEN   | HM2       |        |       |
|                                                                     |        |           | CONVEYOR OVEN               | 20 A | 1                                                         |                                       | 500 / 500            |                      | 1                             | 20 A                                                                           | 10 PAN STEAMER           | HM4       |        |       |
|                                                                     |        |           | 40 GAL TILTING BRAISING PAN | 20 A | 1                                                         |                                       |                      | 500 / 500            | 1                             | 20 A                                                                           | 6-BURNER RANGE WITH OVEN | HM8       |        |       |
|                                                                     |        |           | 40 GAL TILTING KETTLE       | 20 A | 1                                                         |                                       |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM8       |        | --    |
| --                                                                  |        |           | HM3 SPARE                   | 20 A | 1                                                         |                                       | 0 / 0                |                      | 1                             | 20 A                                                                           | SPARE                    | HM10      |        | --    |
|                                                                     |        |           | HM7 SPARE                   | 20 A | 1                                                         |                                       |                      | 0 / 0                | 1                             | 20 A                                                                           | SPARE                    | HM12      |        | --    |
|                                                                     |        |           | HM13 SPARE                  | 20 A | 1                                                         | 0 / 0                                 |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM14      |        | --    |
|                                                                     |        |           | HM15 SPARE                  | 20 A | 1                                                         |                                       | 0 / 0                |                      | 1                             | 20 A                                                                           | SPARE                    | HM16      |        | --    |
|                                                                     |        |           | HM17 SPARE                  | 20 A | 1                                                         |                                       |                      | 0 / 0                | 1                             | 20 A                                                                           | SPARE                    | HM18      |        | --    |
|                                                                     |        |           | HM19 SPARE                  | 20 A | 1                                                         | 0 / 0                                 |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM20      |        | --    |
|                                                                     |        |           | HM21 SPARE                  | 20 A | 1                                                         |                                       | 0 / 0                |                      | 1                             | 20 A                                                                           | SPARE                    | HM22      |        | --    |
|                                                                     |        |           | HM23 SPARE                  | 20 A | 1                                                         |                                       |                      | 0 / 0                | 1                             | 20 A                                                                           | SPARE                    | HM24      |        | --    |
|                                                                     |        |           | HM25 SPARE                  | 20 A | 1                                                         | 0 / 0                                 |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM26      |        | --    |
|                                                                     |        |           | HM27 SPARE                  | 20 A | 1                                                         |                                       |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM28      |        | --    |
|                                                                     |        |           | HM29 SPARE                  | 20 A | 1                                                         |                                       | 0 / 0                |                      | 1                             | 20 A                                                                           | SPARE                    | HM30      |        | --    |
|                                                                     |        |           | HM31 SPARE                  | 20 A | 1                                                         | 0 / 0                                 |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM32      |        | --    |
|                                                                     |        |           | HM33 SPARE                  | 20 A | 1                                                         |                                       |                      | 0 / 0                | 1                             | 20 A                                                                           | SPARE                    | HM34      |        | --    |
|                                                                     |        |           | HM35 SPARE                  | 20 A | 1                                                         |                                       | 0 / 0                |                      | 1                             | 20 A                                                                           | SPARE                    | HM36      |        | --    |
|                                                                     |        |           | HM37 SPARE                  | 20 A | 1                                                         |                                       |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM38      |        | --    |
|                                                                     |        |           | HM39 SPARE                  | 20 A | 1                                                         | 0 / 0                                 |                      |                      | 1                             | 20 A                                                                           | SPARE                    | HM40      |        | --    |
|                                                                     |        |           | HM41                        | 20 A | 1                                                         |                                       |                      | 0 / 0                | 1                             | 20 A                                                                           | SPARE                    | HM42      |        | --    |
| Load Per...                                                         |        |           |                             |      |                                                           | 1500 VA                               | 500 VA               |                      |                               | 0 / 0                                                                          | 1500 VA                  |           |        |       |
| Load Classification                                                 |        |           |                             |      |                                                           | Connected...                          | Demand...            | Est. Demand          | Panel Totals                  |                                                                                |                          |           |        |       |
| EQUIPMENT                                                           |        |           |                             |      |                                                           | 3600 VA                               | 75.00%               | 2625 VA              | TOTAL CONNECTED LOAD: 3600 VA |                                                                                |                          |           |        |       |
|                                                                     |        |           |                             |      |                                                           | TOTAL ESTIMATED DEMAND: 2625 VA       |                      |                      |                               |                                                                                |                          |           |        |       |
|                                                                     |        |           |                             |      |                                                           | TOTAL CONNECTED CURRENT: 10.0 A       |                      |                      |                               |                                                                                |                          |           |        |       |
|                                                                     |        |           |                             |      |                                                           | TOTAL ESTIMATED DEMAND CURRENT: 7.4 A |                      |                      |                               |                                                                                |                          |           |        |       |
|                                                                     |        |           |                             |      |                                                           |                                       |                      |                      |                               |                                                                                |                          |           |        |       |
| NOTES:                                                              |        |           |                             |      |                                                           |                                       |                      |                      |                               |                                                                                |                          |           |        |       |



[illegible]

|                              |  |                    |  |                       |  |
|------------------------------|--|--------------------|--|-----------------------|--|
| Switchboard: SB-DPH-E...     |  |                    |  |                       |  |
| Location: 10F C09            |  | Volts: 480/277 Vly |  | A.I.C. Rating: 65kA   |  |
| Supply From: EM-ATS-ELEV-LLA |  | Phases: 3          |  | Main In: MCS          |  |
| Mounting:                    |  | Wires: 4           |  | Main In Rating: 400 A |  |
| Enclosure:                   |  |                    |  | MCR Rating: 400 A     |  |

| Ckt                      | Circuit Description | Poles | Frame | Trip  | Load | Remarks |
|--------------------------|---------------------|-------|-------|-------|------|---------|
| 1                        | PE-1                | 3     | 200 A | 200 A | 0 VA |         |
| 2                        | PE-2                | 3     | 200 A | 200 A | 0 VA |         |
| 3                        | SPARE               | 3     | 200 A | 200 A | 0 VA |         |
| <b>Total Conn. Load:</b> |                     |       |       |       | 0 VA |         |
| <b>Total Amps:</b>       |                     |       |       |       |      |         |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Totals                         |
|---------------------|----------------|---------------|------------------|--------------------------------|
|                     |                |               |                  | Total Conn. Load: 0 VA         |
|                     |                |               |                  | Total Est. Demand: 0 VA        |
|                     |                |               |                  | Total Conn. Current: 0 A       |
|                     |                |               |                  | Total Est. Demand Current: 0 A |
|                     |                |               |                  |                                |
|                     |                |               |                  |                                |

**NOTES:**

| Switchboard: GEN-EM-D... |                     |                    |                  |                            |      |         |
|--------------------------|---------------------|--------------------|------------------|----------------------------|------|---------|
| Location: Space U257     |                     | Volts: 480/277 Wye |                  | A.I.C. Rating: 65KVAIC     |      |         |
| Supply from:             |                     | Phases: 3          |                  | Main Type: MCB             |      |         |
| Mounting:                |                     | Wires: 4           |                  | Main Rating: 600 A         |      |         |
| Enclosure:               |                     |                    |                  | MCB Rating: 600 A          |      |         |
| CKT                      | CIRCUIT DESCRIPTION | POLES              | FRAME            | TRIP                       | LOAD | REMARKS |
| 1                        | EMATS ELEV/LA       | 3                  | 400 A            | 400 A                      | 0 VA |         |
| 2                        | EMATS/LA            | 3                  | 400 A            | 400 A                      | 0 VA |         |
| 3                        | ATS-FIRE PUMP       | 3                  | 250 A            | 250 A                      | 0 VA |         |
| 4                        | SGA/LA              | 3                  | 600 A            | 600 A                      | 0 VA |         |
| 5                        | SPARE               | 3                  | 400 A            | 400 A                      | 0 VA |         |
| 6                        | SPARE               | 3                  | 400 A            | 400 A                      | 0 VA |         |
| Total Circ. Load:        |                     |                    |                  |                            | 0 VA |         |
| Total Amps:              |                     |                    |                  |                            | 0 A  |         |
| LOAD CLASSIFICATION      | CONNECTED LOAD      | DEMAND FACTOR      | ESTIMATED DEMAND | TOTALS                     |      |         |
|                          |                     |                    |                  | Total Circ. Load:          | 0 VA |         |
|                          |                     |                    |                  | Total Est. Demand:         | 0 VA |         |
|                          |                     |                    |                  | Total Circ. Current:       | 0 A  |         |
|                          |                     |                    |                  | Total Est. Demand Current: | 0 A  |         |
| NOTES:                   |                     |                    |                  |                            |      |         |

| Panelboard: EM-LPH-1C   |        |         |                      |                                  |       |                      |                      |                       |                               |            |                     |  |         |        |       |  |  |  |
|-------------------------|--------|---------|----------------------|----------------------------------|-------|----------------------|----------------------|-----------------------|-------------------------------|------------|---------------------|--|---------|--------|-------|--|--|--|
| Location:               |        |         |                      | Distribution System: 480/277 Vye |       |                      |                      | A.I.C. Rating: 42kAIC |                               |            |                     |  |         |        |       |  |  |  |
| Supply From: EM-DPH-LLA |        |         |                      | Phases: 3                        |       |                      |                      | Mains Type: 100 A     |                               |            |                     |  |         |        |       |  |  |  |
| Mounting: SURFACE       |        |         |                      | Wires: 4                         |       |                      |                      | Mains Rating: 100 A   |                               |            |                     |  |         |        |       |  |  |  |
| Enclosure: TYPE 1       |        |         |                      | Modifications:                   |       |                      |                      | MCB Rating:           |                               |            |                     |  |         |        |       |  |  |  |
| Notes                   | Wiring | Ckt No. | Load Description     |                                  | Trips | LOAD<br>PHASE-A (VA) | LOAD<br>PHASE-B (VA) | LOAD<br>PHASE-C (VA)  | Poles                         | Trips      | Load Description    |  | Ckt No. | Wiring | Notes |  |  |  |
| --                      | --     | EB3     | OTHER CORRIDOR C104  |                                  | 20A   | 1                    | 5267 / 301           |                       | 1                             | 20A        | OTHER CORRIDOR C105 |  | EB2     | --     | --    |  |  |  |
| --                      | --     | EB3     | SPARE                |                                  | 20A   | 1                    |                      | 0 / 0                 |                               | 1          | SPARE               |  | EB4     | --     | --    |  |  |  |
| --                      | --     | EB5     | OTHER STAIR 3-4 SS-4 |                                  | 20A   | 1                    |                      |                       |                               | 324 / 3854 | OTHER               |  | EB5     | --     | --    |  |  |  |
| --                      | --     | EB7     | SPARE                |                                  | 20A   | 1                    |                      |                       |                               |            | SPARE               |  | EB8     | --     | --    |  |  |  |
| --                      | --     | EB9     | SPARE                |                                  | 20A   | 1                    | 0 / 0                | 0 / 0                 |                               |            | SPARE               |  | EB10    | --     | --    |  |  |  |
| --                      | --     | EB11    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               | 0 / 0      | SPARE               |  | EB12    | --     | --    |  |  |  |
| --                      | --     | EB13    | SPARE                |                                  | 20A   | 1                    | 0 / 0                |                       |                               |            | SPARE               |  | EB14    | --     | --    |  |  |  |
| --                      | --     | EB15    | SPARE                |                                  | 20A   | 1                    |                      | 0 / 0                 |                               |            | SPARE               |  | EB15    | --     | --    |  |  |  |
| --                      | --     | EB17    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               | 0 / 0      | SPARE               |  | EB18    | --     | --    |  |  |  |
| --                      | --     | EB19    | SPARE                |                                  | 20A   | 1                    | 0 / 0                |                       |                               |            | SPARE               |  | EB20    | --     | --    |  |  |  |
| --                      | --     | EB21    | SPARE                |                                  | 20A   | 1                    |                      | 0 / 0                 |                               |            | SPARE               |  | EB22    | --     | --    |  |  |  |
| --                      | --     | EB23    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               | 0 / 0      | SPARE               |  | EB24    | --     | --    |  |  |  |
| --                      | --     | EB25    | SPARE                |                                  | 20A   | 1                    | 0 / 0                |                       |                               |            | SPARE               |  | EB26    | --     | --    |  |  |  |
| --                      | --     | EB27    | SPARE                |                                  | 20A   | 1                    |                      | 0 / 0                 |                               |            | SPARE               |  | EB28    | --     | --    |  |  |  |
| --                      | --     | EB29    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               | 0 / 0      | SPARE               |  | EB30    | --     | --    |  |  |  |
| --                      | --     | EB31    | SPARE                |                                  | 20A   | 1                    | 0 / 0                |                       |                               |            | SPARE               |  | EB32    | --     | --    |  |  |  |
| --                      | --     | EB33    | SPARE                |                                  | 20A   | 1                    |                      | 0 / 0                 |                               |            | SPARE               |  | EB34    | --     | --    |  |  |  |
| --                      | --     | EB35    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               | 0 / 0      | SPARE               |  | EB36    | --     | --    |  |  |  |
| --                      | --     | EB37    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               |            | SPARE               |  | EB38    | --     | --    |  |  |  |
| --                      | --     | EB39    | SPARE                |                                  | 20A   | 1                    | 0 / 0                | 0 / 0                 |                               |            | SPARE               |  | EB40    | --     | --    |  |  |  |
| --                      | --     | EB41    | SPARE                |                                  | 20A   | 1                    |                      |                       |                               | 0 / 0      | SPARE               |  | EB42    | --     | --    |  |  |  |
| Load Per...             |        |         |                      |                                  |       | 1127 VA              | 0 VA                 | 4178 VA               |                               |            |                     |  |         |        |       |  |  |  |
| Connected...            |        |         |                      |                                  |       | 5265 VA              | Demand...            | Est. Demand           | Panel Totals                  |            |                     |  |         |        |       |  |  |  |
| Other                   |        |         |                      |                                  |       | 40 VA                | 100.00%              | 5285 VA               | TOTAL CONNECTED LOAD: 5305 VA |            |                     |  |         |        |       |  |  |  |
|                         |        |         |                      |                                  |       |                      |                      |                       |                               |            |                     |  |         |        |       |  |  |  |

| <b>Panelboard: EM-LPH-2A</b>    |        |          |                                         |                     |                             |                   |                   |                              |       |                                       |                          |          |
|---------------------------------|--------|----------|-----------------------------------------|---------------------|-----------------------------|-------------------|-------------------|------------------------------|-------|---------------------------------------|--------------------------|----------|
| <b>Location:</b>                |        |          | <b>Distribution System:</b> 480/277 Vye |                     |                             |                   |                   | <b>A.I.C. Rating:</b> 42KAIC |       |                                       |                          |          |
| <b>Supply From:</b> EM-DP#H-LLA |        |          | <b>Phases:</b> 3                        |                     | <b>Mainie Type:</b> MLO     |                   |                   | <b>Mainie Rating:</b> 100 A  |       |                                       |                          |          |
| <b>Mouting:</b> SURFACE         |        |          | <b>Wires:</b> 4                         |                     | <b>Mainie Rating:</b> 100 A |                   |                   | <b>MCR Rating:</b>           |       |                                       |                          |          |
| <b>Enclosure:</b> TYPE I        |        |          | <b>Modifications:</b>                   |                     |                             |                   |                   |                              |       |                                       |                          |          |
| Notes                           | Wiring | Ckt. No. | Load Description                        | Terp                | Poles                       | LOAD PHASE-A (VA) | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)            | Poles | Terp                                  | Load Description         | Chk. No. |
| --                              | --     | EC1      | OTHER CAETERIA-RJ A114-1                | 20.A                | 1                           | 292 / 292         |                   |                              | 1     | 20.A                                  | OTHER CAETERIA-RJ A114-1 | EC-2     |
| --                              | --     | EC3      | OTHER CAETERIA-RJ A114-1                | 20.A                | 1                           |                   | 292 / 292         |                              | 1     | 20.A                                  | OTHER CAETERIA-RJ A114-1 | EC-4     |
| --                              | --     | EC5      | OTHER CAETERIA-RJ A114-1                | 20.A                | 1                           |                   |                   | 202 / 689                    | 1     | 20.A                                  | OTHER SPAUE R200         | EC-8     |
| --                              | --     | EC7      | OTHER                                   | 20.A                | 1                           | 811 / 223         |                   |                              | 1     | 20.A                                  | OTHER OFFICE-MAIN A124   | EC-8     |
| --                              | --     | EC9      | OTHER OTHER CAPSPENTRY A141             | 20.A                | 1                           |                   | 2052 / 598        |                              | 1     | 20.A                                  | OTHER CORRIDOR-J A20T-1  | EC-10    |
| --                              | --     | EC11     | SPARE                                   | 20.A                | 1                           |                   |                   | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-12 -- |
| --                              | --     | EC13     | SPARE                                   | 20.A                | 1                           | 0 / 0             |                   |                              | 1     | 20.A                                  | SPARE                    | EC-14 -- |
| --                              | --     | EC15     | SPARE                                   | 20.A                | 1                           |                   |                   |                              | 1     | 20.A                                  | SPARE                    | EC-16 -- |
| --                              | --     | EC17     | SPARE                                   | 20.A                | 1                           |                   | 0 / 0             | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-18 -- |
| --                              | --     | EC19     | SPARE                                   | 20.A                | 1                           | 0 / 0             |                   |                              | 1     | 20.A                                  | SPARE                    | EC-20 -- |
| --                              | --     | EC21     | SPARE                                   | 20.A                | 1                           |                   |                   | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-22 -- |
| --                              | --     | EC23     | SPARE                                   | 20.A                | 1                           |                   |                   | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-24 -- |
| --                              | --     | EC25     | SPARE                                   | 20.A                | 1                           | 0 / 0             |                   |                              | 1     | 20.A                                  | SPARE                    | EC-26 -- |
| --                              | --     | EC27     | SPARE                                   | 20.A                | 1                           |                   | 0 / 0             |                              | 1     | 20.A                                  | SPARE                    | EC-28 -- |
| --                              | --     | EC29     | SPARE                                   | 20.A                | 1                           |                   |                   | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-30 -- |
| --                              | --     | EC31     | SPARE                                   | 20.A                | 1                           | 0 / 0             |                   |                              | 1     | 20.A                                  | SPARE                    | EC-32 -- |
| --                              | --     | EC33     | SPARE                                   | 20.A                | 1                           |                   | 0 / 0             |                              | 1     | 20.A                                  | SPARE                    | EC-34 -- |
| --                              | --     | EC35     | SPARE                                   | 20.A                | 1                           |                   |                   | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-36 -- |
| --                              | --     | EC37     | SPARE                                   | 20.A                | 1                           | 0 / 0             |                   |                              | 1     | 20.A                                  | SPARE                    | EC-38 -- |
| --                              | --     | EC39     | SPARE                                   | 20.A                | 1                           |                   | 0 / 0             |                              | 1     | 20.A                                  | SPARE                    | EC-40 -- |
| --                              | --     | EC41     | SPARE                                   | 20.A                | 1                           |                   |                   | 0 / 0                        | 1     | 20.A                                  | SPARE                    | EC-42 -- |
| <b>Lead Per:-</b>               |        |          |                                         | <b>1418 VA</b>      |                             | <b>2331 VA</b>    |                   | <b>891 VA</b>                |       |                                       |                          |          |
| <b>Load Classification</b>      |        |          |                                         | <b>Connected...</b> |                             | <b>Demnd...</b>   |                   | <b>Est. Demand</b>           |       | <b>Panel Totals</b>                   |                          |          |
| <b>Other</b>                    |        |          |                                         | 5418 VA             |                             | 100.00%           |                   | 5418 VA                      |       | TOTAL CONNECTED LOAD: 5540 VA         |                          |          |
| <b>Lighting-EXIT</b>            |        |          |                                         | 124 VA              |                             | 125.00%           |                   | 155 VA                       |       | TOTAL ESTIMATED DEMAND: 5571 VA       |                          |          |
|                                 |        |          |                                         |                     |                             |                   |                   |                              |       | TOTAL CONNECTED CURRENT: 7.7 A        |                          |          |
|                                 |        |          |                                         |                     |                             |                   |                   |                              |       | TOTAL ESTIMATED DEMAND CURRENT: 7.6 A |                          |          |

**NOTES:**

| <b>Panelboard: EM-LPH-2B</b>  |         |         |                                   |                                         |                    |                    |                   |                                      |       |      |                                      |         |         |      |
|-------------------------------|---------|---------|-----------------------------------|-----------------------------------------|--------------------|--------------------|-------------------|--------------------------------------|-------|------|--------------------------------------|---------|---------|------|
| <b>Location:</b>              |         |         |                                   | <b>Distribution System:</b> 480/277 Wye |                    |                    |                   | <b>A.I.C. Rating:</b> 42KAIC         |       |      |                                      |         |         |      |
| <b>Supply From:</b> EM-DPH-LA |         |         |                                   | <b>Phases:</b> 3                        |                    |                    |                   | <b>Mainly Type:</b> MLO              |       |      |                                      |         |         |      |
| <b>Mounting:</b> SURFACE      |         |         |                                   | <b>Wires:</b> 4                         |                    |                    |                   | <b>Mains Rating:</b> 100 A           |       |      |                                      |         |         |      |
| <b>Enclosure:</b> TYPE 1      |         |         |                                   | <b>Modifications:</b>                   |                    |                    |                   | <b>MCB Rating:</b>                   |       |      |                                      |         |         |      |
| Notes                         | Writing | Ckt No. | Load Description                  | Poles                                   | Trip               | LOAD PHASE-A (VA)  | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)                    | Poles | Trip | Load Description                     | Ckt No. | Writing | Note |
| --                            |         | ED11    | OTHER PLUMBING & PIPEFITTING B101 | 20 A                                    | 1                  | 1708 / 555         |                   |                                      | 1     | 20 A | OTHER CORRIDOR A146                  | ED12    |         |      |
| --                            |         | ED3     | OTHER HVAC TECHNOLOGY-1 B103-1    | 20 A                                    | 1                  |                    | 2218 / 2562       |                                      | 1     | 20 A | OTHER ELECTRICAL TECHNOLOGY-2 B104-2 | ED14    |         |      |
| --                            |         | ED3     | OTHER                             | 20 A                                    | 1                  |                    |                   | 854 / 747                            | 1     | 20 A | OTHER CORRIDOR J B03-1               | ED6     |         |      |
| --                            |         | ED11    | OTHER TLT C112                    | 20 A                                    | 1                  | 1041 / 404         |                   |                                      | 1     | 20 A | OTHER CORRIDOR C001                  | ED8     |         |      |
| --                            |         | ED19    | OTHER CORRIDOR D201               | 20 A                                    | 1                  |                    | 41 / 0            |                                      | 1     | 20 A | SFAPR                                | ED10    | --      |      |
| --                            |         | ED11    | SFAPR                             | 20 A                                    | 1                  |                    |                   | 0 / 0                                | 1     | 20 A | SFAPR                                | ED12    | --      |      |
| --                            |         | ED13    | SFAPR                             | 20 A                                    | 1                  | 0 / 0              |                   |                                      | 1     | 20 A | SFAPR                                | ED14    | --      |      |
| --                            |         | ED15    | SFAPR                             | 20 A                                    | 1                  |                    | 0 / 0             |                                      | 1     | 20 A | SFAPR                                | ED16    | --      |      |
| --                            |         | ED17    | SFAPR                             | 20 A                                    | 1                  |                    |                   | 0 / 0                                | 1     | 20 A | SFAPR                                | ED18    | --      |      |
| --                            |         | ED19    | SFAPR                             | 20 A                                    | 1                  | 0 / 0              |                   |                                      | 1     | 20 A | SFAPR                                | ED20    | --      |      |
| --                            |         | ED21    | SFAPR                             | 20 A                                    | 1                  |                    | 0 / 0             |                                      | 1     | 20 A | SFAPR                                | ED22    | --      |      |
| --                            |         | ED23    | SFAPR                             | 20 A                                    | 1                  |                    |                   | 0 / 0                                | 1     | 20 A | SFAPR                                | ED24    | --      |      |
| --                            |         | ED25    | SFAPR                             | 20 A                                    | 1                  | 0 / 0              |                   |                                      | 1     | 20 A | SFAPR                                | ED26    | --      |      |
| --                            |         | ED27    | SFAPR                             | 20 A                                    | 1                  |                    | 0 / 0             |                                      | 1     | 20 A | SFAPR                                | ED28    | --      |      |
| --                            |         | ED29    | SFAPR                             | 20 A                                    | 1                  |                    |                   | 0 / 0                                | 1     | 20 A | SFAPR                                | ED30    | --      |      |
| --                            |         | ED31    | SFAPR                             | 20 A                                    | 1                  | 0 / 0              |                   |                                      | 1     | 20 A | SFAPR                                | ED32    | --      |      |
| --                            |         | ED33    | SFAPR                             | 20 A                                    | 1                  |                    | 0 / 0             |                                      | 1     | 20 A | SFAPR                                | ED34    | --      |      |
| --                            |         | ED35    | SFAPR                             | 20 A                                    | 1                  |                    |                   | 0 / 0                                | 1     | 20 A | SFAPR                                | ED36    | --      |      |
| --                            |         | ED37    | SFAPR                             | 20 A                                    | 1                  |                    |                   |                                      | 1     | 20 A | SFAPR                                | ED38    | --      |      |
| --                            |         | ED39    | SFAPR                             | 20 A                                    | 1                  | 0 / 0              |                   |                                      | 1     | 20 A | SFAPR                                | ED40    | --      |      |
| --                            |         | ED41    | SFAPR                             | 20 A                                    | 1                  |                    |                   | 0 / 0                                | 1     | 20 A | SFAPR                                | ED42    | --      |      |
| <b>Lead Per:</b>              |         |         |                                   |                                         |                    | 4598 VA            | 4821 VA           |                                      |       |      |                                      |         |         |      |
| <b>Load Classification</b>    |         |         |                                   | <b>Connected.....</b>                   | <b>Demand.....</b> | <b>Est. Demand</b> |                   | <b>Panel Totals</b>                  |       |      |                                      |         |         |      |
| <b>Lighting</b>               |         |         |                                   | 10909 VA                                | 100.00%            | 10909 VA           |                   | TOTAL CONNECTED LOAD: 11021 VA       |       |      |                                      |         |         |      |
| <b>Other</b>                  |         |         |                                   | 112 VA                                  | 125.00%            | 140 VA             |                   | TOTAL ESTIMATED DEMAND: 11049 VA     |       |      |                                      |         |         |      |
|                               |         |         |                                   |                                         |                    |                    |                   | TOTAL CONNECTED CURRENT: 15 A        |       |      |                                      |         |         |      |
|                               |         |         |                                   |                                         |                    |                    |                   | TOTAL ESTIMATED DEMAND CURRENT: 13 A |       |      |                                      |         |         |      |

**NOTES:**

| Panelboard: EM-LPH-3A  |        |              |                  |                                  |       |                   |                   |                                     |       |       |                  |       |         |             |  |  |
|------------------------|--------|--------------|------------------|----------------------------------|-------|-------------------|-------------------|-------------------------------------|-------|-------|------------------|-------|---------|-------------|--|--|
| Location:              |        |              |                  | Distribution System: 480/277 Vye |       |                   |                   | A.I.C. Rating: 42kAIC               |       |       |                  |       |         |             |  |  |
| Supply From: EMDPH-LLA |        |              |                  | Phases: 3                        |       |                   |                   | Mainly Type: MLO                    |       |       |                  |       |         |             |  |  |
| Mounting: SURFACE      |        |              |                  | Wires: 4                         |       |                   |                   | Main Rating: 100 A                  |       |       |                  |       |         |             |  |  |
| Enclosure: Type 1      |        |              |                  | Modifications:                   |       |                   |                   | MCCB Rating:                        |       |       |                  |       |         |             |  |  |
| Notes                  | Wiring | Ckt No.      | Load Description |                                  | Trips | LOAD PHASE-A (VA) | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)                   | Poles | Trips | Load Description |       | Ckt No. | Wiring Note |  |  |
| --                     | --     | EE-1         | LIGHTING         | 20A 1                            |       | 452 V/A           |                   |                                     | 1     | 20A   | SPARE            | EE-2  | --      | --          |  |  |
| --                     | --     | EE-3         | SPARE            | 20A 1                            |       |                   | 0 0               |                                     | 1     | 20A   | SPARE            | EE-4  | --      | --          |  |  |
| --                     | --     | EE-5         | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-6  | --      | --          |  |  |
| --                     | --     | EE-7         | SPARE            | 20A 1                            | 0 0   |                   |                   |                                     | 1     | 20A   | SPARE            | EE-8  | --      | --          |  |  |
| --                     | --     | EE-9         | SPARE            | 20A 1                            |       |                   | 0 0               |                                     | 1     | 20A   | SPARE            | EE-10 | --      | --          |  |  |
| --                     | --     | EE-11        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-12 | --      | --          |  |  |
| --                     | --     | EE-13        | SPARE            | 20A 1                            | 0 0   |                   |                   |                                     | 1     | 20A   | SPARE            | EE-14 | --      | --          |  |  |
| --                     | --     | EE-15        | SPARE            | 20A 1                            |       |                   | 0 0               |                                     | 1     | 20A   | SPARE            | EE-16 | --      | --          |  |  |
| --                     | --     | EE-17        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-18 | --      | --          |  |  |
| --                     | --     | EE-19        | SPARE            | 20A 1                            | 0 0   |                   |                   |                                     | 1     | 20A   | SPARE            | EE-20 | --      | --          |  |  |
| --                     | --     | EE-21        | SPARE            | 20A 1                            |       |                   | 0 0               |                                     | 1     | 20A   | SPARE            | EE-22 | --      | --          |  |  |
| --                     | --     | EE-23        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-24 | --      | --          |  |  |
| --                     | --     | EE-25        | SPARE            | 20A 1                            | 0 0   |                   |                   |                                     | 1     | 20A   | SPARE            | EE-26 | --      | --          |  |  |
| --                     | --     | EE-27        | SPARE            | 20A 1                            |       |                   | 0 0               |                                     | 1     | 20A   | SPARE            | EE-28 | --      | --          |  |  |
| --                     | --     | EE-29        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-30 | --      | --          |  |  |
| --                     | --     | EE-31        | SPARE            | 20A 1                            | 0 0   |                   |                   |                                     | 1     | 20A   | SPARE            | EE-32 | --      | --          |  |  |
| --                     | --     | EE-33        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-34 | --      | --          |  |  |
| --                     | --     | EE-35        | SPARE            | 20A 1                            |       |                   |                   |                                     | 1     | 20A   | SPARE            | EE-36 | --      | --          |  |  |
| --                     | --     | EE-37        | SPARE            | 20A 1                            |       |                   | 0 0               |                                     | 1     | 20A   | SPARE            | EE-38 | --      | --          |  |  |
| --                     | --     | EE-39        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-40 | --      | --          |  |  |
| --                     | --     | EE-41        | SPARE            | 20A 1                            |       |                   |                   | 0 0                                 | 1     | 20A   | SPARE            | EE-42 | --      | --          |  |  |
| Load Per:              |        |              |                  | 452 VA                           |       | 0 VA              |                   | 0 VA                                |       |       |                  |       |         |             |  |  |
| Load Classification    |        | Connected... |                  | Demand...                        |       | Est. Demand       |                   | Panel Totals                        |       |       |                  |       |         |             |  |  |
| Other                  |        | 480 VA       |                  | 100.00%                          |       | 480 VA            |                   | TOTAL CONNECTED LOAD: 480 VA        |       |       |                  |       |         |             |  |  |
| LIGHTING-EXIT          |        | 32 VA        |                  | 125.00%                          |       | 40 VA             |                   | TOTAL ESTIMATED DEMAND: 500 VA      |       |       |                  |       |         |             |  |  |
|                        |        |              |                  |                                  |       |                   |                   | TOTAL CONNECTED CURRENT: 1 A        |       |       |                  |       |         |             |  |  |
|                        |        |              |                  |                                  |       |                   |                   | TOTAL ESTIMATED DEMAND CURRENT: 1 A |       |       |                  |       |         |             |  |  |

| <b>Panelboard: EM-LPH-3B</b>                                                          |        |         |                        |                                                                                      |      |                   |                   |                                                                                                              |       |                                 |                     |         |              |  |  |
|---------------------------------------------------------------------------------------|--------|---------|------------------------|--------------------------------------------------------------------------------------|------|-------------------|-------------------|--------------------------------------------------------------------------------------------------------------|-------|---------------------------------|---------------------|---------|--------------|--|--|
| <b>Location:</b><br>Supply From: EM-DPH-LLA<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |         |                        | <b>Distribution System:</b> 480/277 Vye<br><b>Phases:</b> 3<br><b>Modifications:</b> |      |                   |                   | <b>A.I.C. Rating:</b> 42kAIC<br><b>Main's Type:</b> MLO<br><b>Main's Rating:</b> 100 A<br><b>MCB Rating:</b> |       |                                 |                     |         |              |  |  |
| Nois                                                                                  | Wiring | Ckt No. | Load Description       | Poles                                                                                | Trip | LOAD PHASE-A (VA) | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)                                                                                            | Poles | Trip                            | Load Description    | Ckt No. | Writing Note |  |  |
| --                                                                                    | --     | EF-1    | OTHER CORRIDOR-1 A3U-1 | 20A                                                                                  | 1    | 707 / 1407        |                   |                                                                                                              | 1     | 20 A                            | OTHER CORRIDOR C301 | EP-2    |              |  |  |
| --                                                                                    | --     | EF-3    | SPARE                  | 20A                                                                                  | 1    |                   | 0 / 0             |                                                                                                              | 1     | 20 A                            | SPARE               | EP-4    | --           |  |  |
| --                                                                                    | --     | EF-4    | SPARE                  | 20A                                                                                  | 1    |                   |                   | 0 / 0                                                                                                        | 1     | 20 A                            | SPARE               | EP-5    | --           |  |  |
| --                                                                                    | --     | EF-7    | SPARE                  | 20A                                                                                  | 1    | 0 / 0             |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-6    | --           |  |  |
| --                                                                                    | --     | EF-9    | SPARE                  | 20A                                                                                  | 1    |                   |                   | 0 / 0                                                                                                        | 1     | 20 A                            | SPARE               | EP-10   | --           |  |  |
| --                                                                                    | --     | EF-11   | SPARE                  | 20A                                                                                  | 1    |                   |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-12   | --           |  |  |
| --                                                                                    | --     | EF-13   | SPARE                  | 20A                                                                                  | 1    | 0 / 0             |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-14   | --           |  |  |
| --                                                                                    | --     | EF-15   | SPARE                  | 20A                                                                                  | 1    |                   | 0 / 0             |                                                                                                              | 1     | 20 A                            | SPARE               | EP-16   | --           |  |  |
| --                                                                                    | --     | EF-17   | SPARE                  | 20A                                                                                  | 1    |                   |                   | 0 / 0                                                                                                        | 1     | 20 A                            | SPARE               | EP-18   | --           |  |  |
| --                                                                                    | --     | EF-19   | SPARE                  | 20A                                                                                  | 1    | 0 / 0             |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-20   | --           |  |  |
| --                                                                                    | --     | EF-21   | SPARE                  | 20A                                                                                  | 1    |                   |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-22   | --           |  |  |
| --                                                                                    | --     | EF-23   | SPARE                  | 20A                                                                                  | 1    |                   |                   | 0 / 0                                                                                                        | 1     | 20 A                            | SPARE               | EP-24   | --           |  |  |
| --                                                                                    | --     | EF-25   | SPARE                  | 20A                                                                                  | 1    | 0 / 0             |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-26   | --           |  |  |
| --                                                                                    | --     | EF-27   | SPARE                  | 20A                                                                                  | 1    |                   | 0 / 0             |                                                                                                              | 1     | 20 A                            | SPARE               | EP-28   | --           |  |  |
| --                                                                                    | --     | EF-29   | SPARE                  | 20A                                                                                  | 1    |                   |                   | 0 / 0                                                                                                        | 1     | 20 A                            | SPARE               | EP-30   | --           |  |  |
| --                                                                                    | --     | EF-31   | SPARE                  | 20A                                                                                  | 1    | 0 / 0             |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-32   | --           |  |  |
| --                                                                                    | --     | EF-33   | SPARE                  | 20A                                                                                  | 1    |                   | 0 / 0             |                                                                                                              | 1     | 20 A                            | SPARE               | EP-34   | --           |  |  |
| --                                                                                    | --     | EF-35   | SPARE                  | 20A                                                                                  | 1    |                   |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-36   | --           |  |  |
| --                                                                                    | --     | EF-37   | SPARE                  | 20A                                                                                  | 1    | 0 / 0             |                   |                                                                                                              | 1     | 20 A                            | SPARE               | EP-38   | --           |  |  |
| --                                                                                    | --     | EF-39   | SPARE                  | 20A                                                                                  | 1    |                   | 0 / 0             |                                                                                                              | 1     | 20 A                            | SPARE               | EP-40   | --           |  |  |
| --                                                                                    | --     | EF-41   | SPARE                  | 20A                                                                                  | 1    |                   |                   | 0 / 0                                                                                                        | 1     | 20 A                            | SPARE               | EP-42   | --           |  |  |
| <b>Load Classification</b>                                                            |        |         |                        | <b>Load Per..</b>                                                                    |      |                   |                   |                                                                                                              |       |                                 |                     |         |              |  |  |
| <b>Other</b>                                                                          |        |         |                        | <b>Connected...</b>                                                                  |      | <b>Demand...</b>  |                   | <b>Est. Demand</b>                                                                                           |       | <b>Panel Totals</b>             |                     |         |              |  |  |
| Lighting-EXIT                                                                         |        |         |                        | 866 VA                                                                               |      | 100.00%           |                   | 866 VA                                                                                                       |       | TOTAL CONNECTED LOAD: 814 VA    |                     |         |              |  |  |
|                                                                                       |        |         |                        | 8 VA                                                                                 |      | 125.00%           |                   | 10 VA                                                                                                        |       | TOTAL ESTIMATED DEMAND : 816 VA |                     |         |              |  |  |
|                                                                                       |        |         |                        |                                                                                      |      |                   |                   | TOTAL CONNECTED CURRENT : 1 A                                                                                |       |                                 |                     |         |              |  |  |
|                                                                                       |        |         |                        |                                                                                      |      |                   |                   | TOTAL ESTIMATED DEMAND CURRENT : 1 A                                                                         |       |                                 |                     |         |              |  |  |

| <b>Panelboard: EM-LPH-4A</b>                                                                        |              |                  |        |                                                                                                          |       |                   |                   |                                                                                                             |       |                                |                  |    |                    |  |  |  |
|-----------------------------------------------------------------------------------------------------|--------------|------------------|--------|----------------------------------------------------------------------------------------------------------|-------|-------------------|-------------------|-------------------------------------------------------------------------------------------------------------|-------|--------------------------------|------------------|----|--------------------|--|--|--|
| <b>Location:</b><br>Supply From: EM-DPH-LLA<br><b>Mounting:</b> SURFACE<br><b>Enclosure:</b> TYPE I |              |                  |        | <b>Distribution System:</b> 480/277 Vyle<br><b>Phases:</b> 3<br><b>Wires:</b> 4<br><b>Modifications:</b> |       |                   |                   | <b>A.I.C Rating:</b> 42kAIC<br><b>Main's Type:</b> MLO<br><b>Main's Rating:</b> 100 A<br><b>MCB Rating:</b> |       |                                |                  |    |                    |  |  |  |
| Notes                                                                                               | Wire Ckt No. | Load Description |        | Trips                                                                                                    | Poles | LOAD PHASE-A (VA) | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)                                                                                           | Poles | Trips                          | Load Description |    | Ckt No. Wire Notes |  |  |  |
| --                                                                                                  | E01 LIGHTING | 20.A 1           | 675 VA | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E02 --           | -- |                    |  |  |  |
| --                                                                                                  | E03 SPARE    | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E04 --           | -- |                    |  |  |  |
| --                                                                                                  | E05 SPARE    | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E08 --           | -- |                    |  |  |  |
| --                                                                                                  | E07 SPARE    | 20.A 1           | 0 / 0  | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E08 --           | -- |                    |  |  |  |
| --                                                                                                  | E09 SPARE    | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E010 --          | -- |                    |  |  |  |
| --                                                                                                  | E011 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E012 --          | -- |                    |  |  |  |
| --                                                                                                  | E013 SPARE   | 20.A 1           | 0 / 0  | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E014 --          | -- |                    |  |  |  |
| --                                                                                                  | E015 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E016 --          | -- |                    |  |  |  |
| --                                                                                                  | E017 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E018 --          | -- |                    |  |  |  |
| --                                                                                                  | E019 SPARE   | 20.A 1           | 0 / 0  | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E020 --          | -- |                    |  |  |  |
| --                                                                                                  | E021 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E022 --          | -- |                    |  |  |  |
| --                                                                                                  | E023 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E024 --          | -- |                    |  |  |  |
| --                                                                                                  | E025 SPARE   | 20.A 1           | 0 / 0  | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E026 --          | -- |                    |  |  |  |
| --                                                                                                  | E027 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E028 --          | -- |                    |  |  |  |
| --                                                                                                  | E029 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E030 --          | -- |                    |  |  |  |
| --                                                                                                  | E031 SPARE   | 20.A 1           | 0 / 0  | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E032 --          | -- |                    |  |  |  |
| --                                                                                                  | E033 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E034 --          | -- |                    |  |  |  |
| --                                                                                                  | E035 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E036 --          | -- |                    |  |  |  |
| --                                                                                                  | E037 SPARE   | 20.A 1           | 0 / 0  | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E038 --          | -- |                    |  |  |  |
| --                                                                                                  | E039 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   |                                                                                                             | 1     | 20.A SPARE                     | E040 --          | -- |                    |  |  |  |
| --                                                                                                  | E041 SPARE   | 20.A 1           |        | 1                                                                                                        | 0 / 0 |                   |                   | 0 / 0                                                                                                       | 1     | 20.A SPARE                     | E042 --          | -- |                    |  |  |  |
|                                                                                                     |              |                  |        | Load Per---                                                                                              |       | 675 VA            | 0 VA              | 0 VA                                                                                                        | 1     | 20.A SPARE                     |                  |    |                    |  |  |  |
| <b>Load Classification</b>                                                                          |              |                  |        | <b>Connected--</b>                                                                                       |       | <b>Demand---</b>  |                   | <b>Est. Demand</b>                                                                                          |       | <b>Panel Totals</b>            |                  |    |                    |  |  |  |
| Other                                                                                               |              |                  |        | 671 VA                                                                                                   |       | 100.00%           |                   | 671 VA                                                                                                      |       | TOTAL CONNECTED LOAD: 675 VA   |                  |    |                    |  |  |  |
| Lighting-EXIT                                                                                       |              |                  |        | 8 VA                                                                                                     |       | 125.00%           |                   | 10 VA                                                                                                       |       | TOTAL ESTIMATED DEMAND: 881 VA |                  |    |                    |  |  |  |
|                                                                                                     |              |                  |        |                                                                                                          |       |                   |                   | TOTAL CONNECTED CURRENT: 1 A                                                                                |       |                                |                  |    |                    |  |  |  |
|                                                                                                     |              |                  |        |                                                                                                          |       |                   |                   | TOTAL ESTIMATED DEMAND CURRENT: 1 A                                                                         |       |                                |                  |    |                    |  |  |  |

[illegible][illegible]

1. ELECTRICAL CONTRACTOR SHALL PROVIDE SPARE 20A, 1P CIRCUIT BREAKER FOR ALL POLES WITHIN PANELBOARD WHERE CIRCUIT INFORMATION IS NOT INDICATED

**Drummey Rosane Anderson, Inc.**

|                                                     |                                                 |
|-----------------------------------------------------|-------------------------------------------------|
| 225 Oakland Road<br>Studio 205<br>South Windsor, CT | 260 Charles Street<br>Studio 300<br>Waltham, MA |
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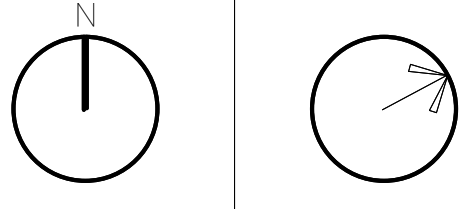
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May 12th, 2023

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**ELECTRICAL  
SCHEDULES  
SHEET 8**

Scale:

Job No.: 60-20-409

Drawn By: ZMB

Date: May 12th, 2023

**E4-0-8**



GENERAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE SPARE 20A, 1P CIRCUIT BREAKER FOR ALL POLES WITHIN PANELBOARD WHERE CIRCUIT INFORMATION IS NOT INDICATED

DRA

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| Panelboard: EM-LP-1C                                                        |        |          |                  |              |       |                                                                             |       |           |       |      |                  |                                                                                      |              |
|-----------------------------------------------------------------------------|--------|----------|------------------|--------------|-------|-----------------------------------------------------------------------------|-------|-----------|-------|------|------------------|--------------------------------------------------------------------------------------|--------------|
| Location:<br>Supply From: EM-T-1C<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                  |              |       | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |       |           |       |      |                  | A.I.C. Rating: 10KAIC<br>Mains Type: MCB<br>Mains Rating: 100 A<br>MCB Rating: 100 A |              |
| Notes                                                                       | Wiring | Ckt. No. | Load Description | Trip         | Poles | A                                                                           | B     | C         | Poles | Trip | Load Description | Ckt. No.                                                                             | Wiring Notes |
| --                                                                          | --     | EK1      | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK2                                                                                  | --           |
| --                                                                          | --     | EK3      | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK4                                                                                  | --           |
| --                                                                          | --     | EK5      | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK6                                                                                  | --           |
| --                                                                          | --     | EK7      | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK8                                                                                  | --           |
| --                                                                          | --     | EK9      | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK10                                                                                 | --           |
| --                                                                          | --     | EK11     | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK12                                                                                 | --           |
| --                                                                          | --     | EK13     | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK14                                                                                 | --           |
| --                                                                          | --     | EK15     | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK16                                                                                 | --           |
| --                                                                          | --     | EK17     | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK18                                                                                 | --           |
| --                                                                          | --     | EK19     | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK20                                                                                 | --           |
| --                                                                          | --     | EK21     | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK22                                                                                 | --           |
| --                                                                          | --     | EK23     | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK24                                                                                 | --           |
| --                                                                          | --     | EK25     | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK26                                                                                 | --           |
| --                                                                          | --     | EK27     | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK28                                                                                 | --           |
| --                                                                          | --     | EK29     | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK30                                                                                 | --           |
| --                                                                          | --     | EK31     | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK32                                                                                 | --           |
| --                                                                          | --     | EK33     | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK34                                                                                 | --           |
| --                                                                          | --     | EK35     | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK36                                                                                 | --           |
| --                                                                          | --     | EK37     | SPARE            | 20A          | 1     | 0 / 0                                                                       |       |           |       | 1    | 20A SPARE        | EK38                                                                                 | --           |
| --                                                                          | --     | EK39     | SPARE            | 20A          | 1     |                                                                             | 0 / 0 |           |       | 1    | 20A SPARE        | EK40                                                                                 | --           |
| --                                                                          | --     | EK41     | SPARE            | 20A          | 1     |                                                                             |       | 0 / 0     |       | 1    | 20A SPARE        | EK42                                                                                 | --           |
| Load Per...                                                                 |        |          |                  | 0 VA         |       |                                                                             |       | 0 VA      |       |      |                  |                                                                                      |              |
| Load Classification                                                         |        |          |                  | Connected... |       |                                                                             |       | Demand... |       |      |                  | Panel Totals                                                                         |              |
|                                                                             |        |          |                  |              |       |                                                                             |       |           |       |      |                  | TOTAL CONNECTED LOAD: 0 VA                                                           |              |
|                                                                             |        |          |                  |              |       |                                                                             |       |           |       |      |                  | TOTAL ESTIMATED DEMAND: 0 VA                                                         |              |
|                                                                             |        |          |                  |              |       |                                                                             |       |           |       |      |                  | TOTAL CONNECTED CURRENT: 0 A                                                         |              |
|                                                                             |        |          |                  |              |       |                                                                             |       |           |       |      |                  | TOTAL ESTIMATED DEMAND CURRENT: 0 A                                                  |              |
| NOTES:                                                                      |        |          |                  |              |       |                                                                             |       |           |       |      |                  |                                                                                      |              |

| Panelboard: EM-LP-3A                                                                  |        |          |                       |                                                                             |       |              |       |                                                                                      |       |             |                  |                                     |              |
|---------------------------------------------------------------------------------------|--------|----------|-----------------------|-----------------------------------------------------------------------------|-------|--------------|-------|--------------------------------------------------------------------------------------|-------|-------------|------------------|-------------------------------------|--------------|
| Location:<br>Supply From: EM-T-3A (TRAPPEZ)<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                       | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |       |              |       | A.I.C. Rating: 10kAIC<br>Mains Type: MCB<br>Mains Rating: 100 A<br>MCB Rating: 100 A |       |             |                  |                                     |              |
| Notes                                                                                 | Wiring | Ckt. No. | Load Description      | Trip                                                                        | Poles | A            | B     | C                                                                                    | Poles | Trip        | Load Description | Ckt. No.                            | Wiring Notes |
| --                                                                                    | --     | EN1      | FSD CORRIDOR 2 A304-2 | 20A                                                                         | 1     | 480 / 0      |       |                                                                                      |       | 1           | 20A SPARE        | EN2                                 | --           |
| --                                                                                    | --     | EN3      | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN4                                 | --           |
| --                                                                                    | --     | EN5      | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN6                                 | --           |
| --                                                                                    | --     | EN7      | SPARE                 | 20A                                                                         | 1     | 0 / 0        |       |                                                                                      |       | 1           | 20A SPARE        | EN8                                 | --           |
| --                                                                                    | --     | EN9      | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN10                                | --           |
| --                                                                                    | --     | EN11     | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN12                                | --           |
| --                                                                                    | --     | EN13     | SPARE                 | 20A                                                                         | 1     | 0 / 0        |       |                                                                                      |       | 1           | 20A SPARE        | EN14                                | --           |
| --                                                                                    | --     | EN15     | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN16                                | --           |
| --                                                                                    | --     | EN17     | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN18                                | --           |
| --                                                                                    | --     | EN19     | SPARE                 | 20A                                                                         | 1     | 0 / 0        |       |                                                                                      |       | 1           | 20A SPARE        | EN20                                | --           |
| --                                                                                    | --     | EN21     | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN22                                | --           |
| --                                                                                    | --     | EN23     | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN24                                | --           |
| --                                                                                    | --     | EN25     | SPARE                 | 20A                                                                         | 1     | 0 / 0        |       |                                                                                      |       | 1           | 20A SPARE        | EN26                                | --           |
| --                                                                                    | --     | EN27     | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN28                                | --           |
| --                                                                                    | --     | EN29     | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN30                                | --           |
| --                                                                                    | --     | EN31     | SPARE                 | 20A                                                                         | 1     | 0 / 0        |       |                                                                                      |       | 1           | 20A SPARE        | EN32                                | --           |
| --                                                                                    | --     | EN33     | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN34                                | --           |
| --                                                                                    | --     | EN35     | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN36                                | --           |
| --                                                                                    | --     | EN37     | SPARE                 | 20A                                                                         | 1     | 0 / 0        |       |                                                                                      |       | 1           | 20A SPARE        | EN38                                | --           |
| --                                                                                    | --     | EN39     | SPARE                 | 20A                                                                         | 1     |              | 0 / 0 |                                                                                      |       | 1           | 20A SPARE        | EN40                                | --           |
| --                                                                                    | --     | EN41     | SPARE                 | 20A                                                                         | 1     |              |       | 0 / 0                                                                                |       | 1           | 20A SPARE        | EN42                                | --           |
| Load Per...                                                                           |        |          |                       |                                                                             |       | 480 VA       |       | 0 VA                                                                                 |       |             |                  |                                     |              |
| Load Classification                                                                   |        |          |                       |                                                                             |       | Connected... |       | Demand...                                                                            |       | Est. Demand |                  | Panel Totals                        |              |
| EQUIPMENT                                                                             |        |          |                       |                                                                             |       | 480 VA       |       | 75.00%                                                                               |       | 360 VA      |                  | TOTAL CONNECTED LOAD: 480 VA        |              |
|                                                                                       |        |          |                       |                                                                             |       |              |       |                                                                                      |       |             |                  | TOTAL ESTIMATED DEMAND: 360 VA      |              |
|                                                                                       |        |          |                       |                                                                             |       |              |       |                                                                                      |       |             |                  | TOTAL CONNECTED CURRENT: 1 A        |              |
|                                                                                       |        |          |                       |                                                                             |       |              |       |                                                                                      |       |             |                  | TOTAL ESTIMATED DEMAND CURRENT: 1 A |              |
| NOTES:                                                                                |        |          |                       |                                                                             |       |              |       |                                                                                      |       |             |                  |                                     |              |

| Panelboard: EM-LP-2B                                                                  |        |          |                  |                                                                             |       |          |       |                                                                                      |       |      |                  |                                     |              |
|---------------------------------------------------------------------------------------|--------|----------|------------------|-----------------------------------------------------------------------------|-------|----------|-------|--------------------------------------------------------------------------------------|-------|------|------------------|-------------------------------------|--------------|
| Location:<br>Supply From: EM-T-2B (TRAPEZE)<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                  | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |       |          |       | A.I.C. Rating: 10KAIC<br>Mains Type: MCB<br>Mains Rating: 100 A<br>MCB Rating: 100 A |       |      |                  |                                     |              |
| Notes                                                                                 | Wiring | Ckt. No. | Load Description | Trip                                                                        | Poles | A        | B     | C                                                                                    | Poles | Trip | Load Description | Ckt. No.                            | Wiring Notes |
| --                                                                                    | --     | EM1      | FSD              | 20 A                                                                        | 1     | 1000 / 0 |       |                                                                                      | 1     | 20 A | SPARE            | EM2                                 | --           |
| --                                                                                    | --     | EM3      | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM4                                 | --           |
| --                                                                                    | --     | EM5      | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM6                                 | --           |
| --                                                                                    | --     | EM7      | SPARE            | 20 A                                                                        | 1     |          |       |                                                                                      | 1     | 20 A | SPARE            | EM8                                 | --           |
| --                                                                                    | --     | EM9      | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM10                                | --           |
| --                                                                                    | --     | EM11     | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM12                                | --           |
| --                                                                                    | --     | EM13     | SPARE            | 20 A                                                                        | 1     | 0 / 0    |       |                                                                                      | 1     | 20 A | SPARE            | EM14                                | --           |
| --                                                                                    | --     | EM15     | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM16                                | --           |
| --                                                                                    | --     | EM17     | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM18                                | --           |
| --                                                                                    | --     | EM19     | SPARE            | 20 A                                                                        | 1     | 0 / 0    |       |                                                                                      | 1     | 20 A | SPARE            | EM20                                | --           |
| --                                                                                    | --     | EM21     | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM22                                | --           |
| --                                                                                    | --     | EM23     | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM24                                | --           |
| --                                                                                    | --     | EM25     | SPARE            | 20 A                                                                        | 1     | 0 / 0    |       |                                                                                      | 1     | 20 A | SPARE            | EM26                                | --           |
| --                                                                                    | --     | EM27     | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM28                                | --           |
| --                                                                                    | --     | EM29     | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM30                                | --           |
| --                                                                                    | --     | EM31     | SPARE            | 20 A                                                                        | 1     | 0 / 0    |       |                                                                                      | 1     | 20 A | SPARE            | EM32                                | --           |
| --                                                                                    | --     | EM33     | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM34                                | --           |
| --                                                                                    | --     | EM35     | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM36                                | --           |
| --                                                                                    | --     | EM37     | SPARE            | 20 A                                                                        | 1     | 0 / 0    |       |                                                                                      | 1     | 20 A | SPARE            | EM38                                | --           |
| --                                                                                    | --     | EM39     | SPARE            | 20 A                                                                        | 1     |          | 0 / 0 |                                                                                      | 1     | 20 A | SPARE            | EM40                                | --           |
| --                                                                                    | --     | EM41     | SPARE            | 20 A                                                                        | 1     |          |       | 0 / 0                                                                                | 1     | 20 A | SPARE            | EM42                                | --           |
| Load Per...                                                                           |        |          |                  | 1000 VA                                                                     |       |          |       | 0 VA                                                                                 |       |      |                  |                                     |              |
| Load Classification                                                                   |        |          |                  | Connected...                                                                |       |          |       | Demand...                                                                            |       |      |                  | Panel Totals                        |              |
| EQUIPMENT                                                                             |        |          |                  | 1000 VA                                                                     |       |          |       | 75.00%                                                                               |       |      |                  | 750 VA                              |              |
|                                                                                       |        |          |                  |                                                                             |       |          |       |                                                                                      |       |      |                  | TOTAL CONNECTED LOAD: 1000 VA       |              |
|                                                                                       |        |          |                  |                                                                             |       |          |       |                                                                                      |       |      |                  | TOTAL ESTIMATED DEMAND: 750 VA      |              |
|                                                                                       |        |          |                  |                                                                             |       |          |       |                                                                                      |       |      |                  | TOTAL CONNECTED CURRENT: 3 A        |              |
|                                                                                       |        |          |                  |                                                                             |       |          |       |                                                                                      |       |      |                  | TOTAL ESTIMATED DEMAND CURRENT: 2 A |              |
| NOTES:                                                                                |        |          |                  |                                                                             |       |          |       |                                                                                      |       |      |                  |                                     |              |

| Panelboard: EM-LP-2A                                                                  |        |          |                       |      |       |                                                                             |           |             |                                     |                                                                                      |                  |          |              |
|---------------------------------------------------------------------------------------|--------|----------|-----------------------|------|-------|-----------------------------------------------------------------------------|-----------|-------------|-------------------------------------|--------------------------------------------------------------------------------------|------------------|----------|--------------|
| Location:<br>Supply From: EM-T-2A (TRAPPEZ)<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                       |      |       | Distribution System: 120/208 Wye<br>Phases: 3<br>Wires: 4<br>Modifications: |           |             |                                     | A.I.C. Rating: 10KAIC<br>Mains Type: MCB<br>Mains Rating: 100 A<br>MCB Rating: 100 A |                  |          |              |
| Notes                                                                                 | Wiring | Ckt. No. | Load Description      | Trip | Poles | A                                                                           | B         | C           | Poles                               | Trip                                                                                 | Load Description | Ckt. No. | Wiring Notes |
| --                                                                                    | --     | EL1      | FSD CORRIDOR 1 A201-1 | 20A  | 1     | 720 / 0                                                                     |           |             |                                     | 1                                                                                    | 20A SPARE        | EL2      | --           |
| --                                                                                    | --     | EL3      | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL4      | --           |
| --                                                                                    | --     | EL5      | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL6      | --           |
| --                                                                                    | --     | EL7      | SPARE                 | 20A  | 1     | 0 / 0                                                                       |           |             |                                     | 1                                                                                    | 20A SPARE        | EL8      | --           |
| --                                                                                    | --     | EL9      | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL10     | --           |
| --                                                                                    | --     | EL11     | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL12     | --           |
| --                                                                                    | --     | EL13     | SPARE                 | 20A  | 1     | 0 / 0                                                                       |           |             |                                     | 1                                                                                    | 20A SPARE        | EL14     | --           |
| --                                                                                    | --     | EL15     | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL16     | --           |
| --                                                                                    | --     | EL17     | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL18     | --           |
| --                                                                                    | --     | EL19     | SPARE                 | 20A  | 1     | 0 / 0                                                                       |           |             |                                     | 1                                                                                    | 20A SPARE        | EL20     | --           |
| --                                                                                    | --     | EL21     | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL22     | --           |
| --                                                                                    | --     | EL23     | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL24     | --           |
| --                                                                                    | --     | EL25     | SPARE                 | 20A  | 1     | 0 / 0                                                                       |           |             |                                     | 1                                                                                    | 20A SPARE        | EL26     | --           |
| --                                                                                    | --     | EL27     | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL28     | --           |
| --                                                                                    | --     | EL29     | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL30     | --           |
| --                                                                                    | --     | EL31     | SPARE                 | 20A  | 1     | 0 / 0                                                                       |           |             |                                     | 1                                                                                    | 20A SPARE        | EL32     | --           |
| --                                                                                    | --     | EL33     | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL34     | --           |
| --                                                                                    | --     | EL35     | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL36     | --           |
| --                                                                                    | --     | EL37     | SPARE                 | 20A  | 1     | 0 / 0                                                                       |           |             |                                     | 1                                                                                    | 20A SPARE        | EL38     | --           |
| --                                                                                    | --     | EL39     | SPARE                 | 20A  | 1     |                                                                             | 0 / 0     |             |                                     | 1                                                                                    | 20A SPARE        | EL40     | --           |
| --                                                                                    | --     | EL41     | SPARE                 | 20A  | 1     |                                                                             |           | 0 / 0       |                                     | 1                                                                                    | 20A SPARE        | EL42     | --           |
| Load Per...                                                                           |        |          |                       |      |       | 720 VA                                                                      | 0 VA      | 0 VA        |                                     |                                                                                      |                  |          |              |
| Load Classification                                                                   |        |          |                       |      |       | Connected...                                                                | Demand... | Est. Demand | Panel Totals                        |                                                                                      |                  |          |              |
| EQUIPMENT                                                                             |        |          |                       |      |       | 720 VA                                                                      | 75.00%    | 540 VA      | TOTAL CONNECTED LOAD: 720 VA        |                                                                                      |                  |          |              |
|                                                                                       |        |          |                       |      |       |                                                                             |           |             | TOTAL ESTIMATED DEMAND: 540 VA      |                                                                                      |                  |          |              |
|                                                                                       |        |          |                       |      |       |                                                                             |           |             | TOTAL CONNECTED CURRENT: 2 A        |                                                                                      |                  |          |              |
|                                                                                       |        |          |                       |      |       |                                                                             |           |             | TOTAL ESTIMATED DEMAND CURRENT: 1 A |                                                                                      |                  |          |              |
| NOTES:                                                                                |        |          |                       |      |       |                                                                             |           |             |                                     |                                                                                      |                  |          |              |



**GENERAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL PROVIDE SPARE 20A, 1P CIRCUIT BREAKER FOR ALL POLES WITHIN PANELBOARD WHERE CIRCUIT INFORMATION IS NOT INDICATED

DRA

Drummett Rosane Anderson, Inc.

225 Oakland Road  
Studio 205  
South Windsor, CT 06074

280 Charles Street  
Studio 300  
Waltham, MA 02453

Planning | Architecture | Interior Design  
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School**

Wakefield, MA 01880

| Switchboard: SB-DPH-LLA  |                     |                |                      |                  |       |                            |           |  |  |
|--------------------------|---------------------|----------------|----------------------|------------------|-------|----------------------------|-----------|--|--|
| Location: 01F C009       |                     |                | Voltage: 480/277 Vye |                  |       | A.I.C. Rating: 69AIC       |           |  |  |
| Supply From: SB-ATIS-LLA |                     |                | Phases: 3            |                  |       | Main Type: MCB             |           |  |  |
| Mounting:                |                     |                | Wires: 4             |                  |       | Main Rating: 800 A         |           |  |  |
| Enclosure:               |                     |                |                      |                  |       | MCB Rating: 800 A          |           |  |  |
| CKT                      | CIRCUIT DESCRIPTION |                | POLES                | FRAME            | TRIP  | LOAD                       | REMARKS   |  |  |
| 1                        | SB-LPH-2B           |                | 3                    | 200 A            | 200 A | 0 VA                       |           |  |  |
| 2                        | SB-LPH-3B           |                | 3                    | 200 A            | 200 A | 20280 VA                   |           |  |  |
| 3                        | SB-LPH-4B           |                | 3                    | 200 A            | 200 A | 0 VA                       |           |  |  |
| 4                        | SB-LPH-2A           |                | 3                    | 200 A            | 200 A | 152880 VA                  |           |  |  |
| 5                        | SB-LPH-3A           |                | 3                    | 200 A            | 200 A | 21000 VA                   |           |  |  |
| 6                        | SB-LPH-4A           |                | 3                    | 200 A            | 200 A | 0 VA                       |           |  |  |
| 7                        | SB-LPH-LLA          |                | 3                    | 200 A            | 200 A | 21360 VA                   |           |  |  |
| 8                        | SB-LPH-1C           |                | 3                    | 200 A            | 200 A | 42720 VA                   |           |  |  |
| 9                        | SPARE               |                | 3                    | 200 A            | 200 A | 0 VA                       |           |  |  |
| 10                       | SPARE               |                | 3                    | 200 A            | 200 A | 0 VA                       |           |  |  |
| Total Conn. Load:        |                     |                |                      |                  |       | 257620 VA                  |           |  |  |
| Total Amps:              |                     |                |                      |                  |       | 310 A                      |           |  |  |
| LOAD CLASSIFICATION      |                     | CONNECTED LOAD | DEMAND FACTOR        | ESTIMATED DEMAND |       | TOTALS                     |           |  |  |
| RECEPT                   |                     | 257620 VA      | 51.94%               | 133910 VA        |       |                            |           |  |  |
|                          |                     |                |                      |                  |       | Total Conn. Load:          | 257620 VA |  |  |
|                          |                     |                |                      |                  |       | Total Est. Demand:         | 133910 VA |  |  |
|                          |                     |                |                      |                  |       | Total Conn. Current:       | 310 A     |  |  |
|                          |                     |                |                      |                  |       | Total Est. Demand Current: | 161 A     |  |  |
| NOTES:                   |                     |                |                      |                  |       |                            |           |  |  |

| Panelboard: SB-LPH-2B                                                          |        |          |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              |          |        |       |
|--------------------------------------------------------------------------------|--------|----------|------------------|------|-------------|-----------------------------------------------------------------------------|-------------------|-------------------|--------------|-------------------------------------|------------------------------------------------------------------------------|----------|--------|-------|
| Location:<br>Supply From: SB-DPH-LLA<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |          |                  |      |             | Distribution System: 480/277 Vye<br>Phases: 3<br>Wires: 4<br>Modifications: |                   |                   |              |                                     | A.I.C. Rating: 42KAIC<br>Main Type: MLO<br>Main Rating: 200 A<br>MCB Rating: |          |        |       |
| Notes                                                                          | Wiring | Ckt. No. | Load Description | Trip | Poles       | LOAD PHASE-A (VA)                                                           | LOAD PHASE-B (VA) | LOAD PHASE-C (VA) | Poles        | Trip                                | Load Description                                                             | Ckt. No. | Wiring | Notes |
|                                                                                |        | SD1      |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD2      |        |       |
|                                                                                |        | SD3      |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD4      |        |       |
|                                                                                |        | SD5      |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD6      |        |       |
|                                                                                |        | SD7      |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD8      |        |       |
|                                                                                |        | SD9      |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD10     |        |       |
|                                                                                |        | SD11     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD12     |        |       |
|                                                                                |        | SD13     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD14     |        |       |
|                                                                                |        | SD15     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD16     |        |       |
|                                                                                |        | SD17     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD18     |        |       |
|                                                                                |        | SD19     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD20     |        |       |
|                                                                                |        | SD21     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD22     |        |       |
|                                                                                |        | SD23     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD24     |        |       |
|                                                                                |        | SD25     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD26     |        |       |
|                                                                                |        | SD27     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD28     |        |       |
|                                                                                |        | SD29     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD30     |        |       |
|                                                                                |        | SD31     |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              | SD32     |        |       |
| --                                                                             | --     | SD33     | SPARE            |      | 20 A 1      |                                                                             | 0 / 0             |                   | 1            | 20 A                                | SPARE                                                                        | SD34     | --     | --    |
| --                                                                             | --     | SD35     | SPARE            |      | 20 A 1      |                                                                             |                   | 0 / 0             | 1            | 20 A                                | SPARE                                                                        | SD36     | --     | --    |
| --                                                                             | --     | SD37     | SPARE            |      | 20 A 1      | 0 / 0                                                                       |                   |                   |              |                                     |                                                                              | SD38     |        |       |
| --                                                                             | --     | SD39     | SPARE            |      | 20 A 1      |                                                                             | 0 / 0             |                   |              |                                     |                                                                              | SD40     |        |       |
| --                                                                             | --     | SD41     | SPARE            |      | 20 A 1      |                                                                             |                   | 0 / 0             | 3            | 50 A                                | SB-T-2B (TRAPEZE)                                                            | SD42     |        |       |
|                                                                                |        |          |                  |      | Load Per... | 0 VA                                                                        | 0 VA              | 0 VA              |              |                                     |                                                                              |          |        |       |
| Load Classification                                                            |        |          |                  |      |             | Connected...                                                                | Demand...         | Est. Demand       | Panel Totals |                                     |                                                                              |          |        |       |
|                                                                                |        |          |                  |      |             |                                                                             |                   |                   |              | TOTAL CONNECTED LOAD: 0 VA          |                                                                              |          |        |       |
|                                                                                |        |          |                  |      |             |                                                                             |                   |                   |              | TOTAL ESTIMATED DEMAND: 0 VA        |                                                                              |          |        |       |
|                                                                                |        |          |                  |      |             |                                                                             |                   |                   |              | TOTAL CONNECTED CURRENT: 0 A        |                                                                              |          |        |       |
|                                                                                |        |          |                  |      |             |                                                                             |                   |                   |              | TOTAL ESTIMATED DEMAND CURRENT: 0 A |                                                                              |          |        |       |
| NOTES:                                                                         |        |          |                  |      |             |                                                                             |                   |                   |              |                                     |                                                                              |          |        |       |

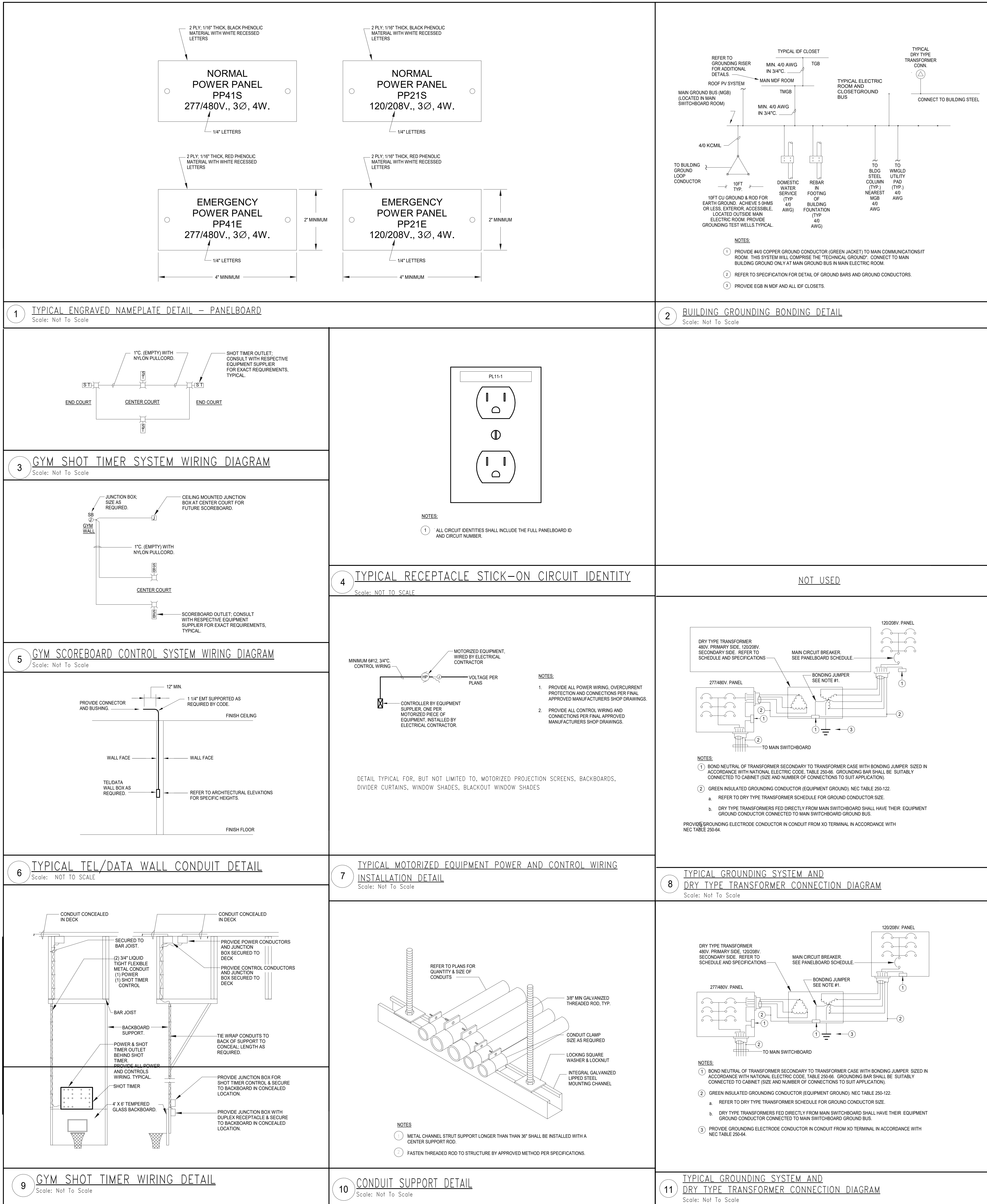
| Panelboard: SB-LPH-4A                                                          |        |         |                                                                             |       |       |                                     |                   |                                                                              |              |       |                  |                   |        |       |
|--------------------------------------------------------------------------------|--------|---------|-----------------------------------------------------------------------------|-------|-------|-------------------------------------|-------------------|------------------------------------------------------------------------------|--------------|-------|------------------|-------------------|--------|-------|
| Location:<br>Supply From: SB-DPH-LLA<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |         | Distribution System: 480/277 Vye<br>Phases: 3<br>Wires: 4<br>Modifications: |       |       |                                     |                   | A.I.C. Rating: 42KAIC<br>Main Type: MLO<br>Main Rating: 200 A<br>MCB Rating: |              |       |                  |                   |        |       |
| Notes                                                                          | Wiring | CKL No. | Load Description                                                            | Tripp | Poles | LOAD PHASE-A (VA)                   | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)                                                            | Poles        | Tripp | Load Description | CKL No.           | Wiring | Notes |
| --                                                                             | --     | 1       | SPARE                                                                       | 20 A  | 1     | 0 / 0                               |                   |                                                                              |              | 1     | 20 A             | SPARE             | 2      | --    |
| --                                                                             | --     | 3       | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 4      | --    |
| --                                                                             | --     | 5       | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 1     | 20 A             | SPARE             | 6      | --    |
| --                                                                             | --     | 7       | SPARE                                                                       | 20 A  | 1     | 0 / 0                               |                   |                                                                              |              | 1     | 20 A             | SPARE             | 8      | --    |
| --                                                                             | --     | 9       | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 10     | --    |
| --                                                                             | --     | 11      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 1     | 20 A             | SPARE             | 12     | --    |
| --                                                                             | --     | 13      | SPARE                                                                       | 20 A  | 1     | 0 / 0                               |                   |                                                                              |              | 1     | 20 A             | SPARE             | 14     | --    |
| --                                                                             | --     | 15      | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 16     | --    |
| --                                                                             | --     | 17      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 1     | 20 A             | SPARE             | 18     | --    |
| --                                                                             | --     | 19      | SPARE                                                                       | 20 A  | 1     | 0 / 0                               |                   |                                                                              |              | 1     | 20 A             | SPARE             | 20     | --    |
| --                                                                             | --     | 21      | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 22     | --    |
| --                                                                             | --     | 23      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 1     | 20 A             | SPARE             | 24     | --    |
| --                                                                             | --     | 25      | SPARE                                                                       | 20 A  | 1     | 0 / 0                               |                   |                                                                              |              | 1     | 20 A             | SPARE             | 26     | --    |
| --                                                                             | --     | 27      | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 28     | --    |
| --                                                                             | --     | 29      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 1     | 20 A             | SPARE             | 30     | --    |
| --                                                                             | --     | 31      | SPARE                                                                       | 20 A  | 1     | 0 / 0                               |                   |                                                                              |              | 1     | 20 A             | SPARE             | 32     | --    |
| --                                                                             | --     | 33      | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 34     | --    |
| --                                                                             | --     | 35      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 1     | 20 A             | SPARE             | 36     | --    |
| --                                                                             | --     | 37      | SPARE                                                                       | 20 A  | 1     |                                     | 0 / 0             |                                                                              |              | 1     | 20 A             | SPARE             | 38     | --    |
| --                                                                             | --     | 39      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              | 3     | 50 A             | SB-T-4A (TRAPEZE) | 40     | --    |
| --                                                                             | --     | 41      | SPARE                                                                       | 20 A  | 1     |                                     |                   | 0 / 0                                                                        |              |       |                  |                   | 42     | --    |
| Load Per...                                                                    |        |         |                                                                             |       |       | 0 VA                                | 0 VA              | 0 VA                                                                         |              |       |                  |                   |        |       |
| Load Classification                                                            |        |         |                                                                             |       |       | Connected...                        | Demand...         | Est. Demand                                                                  | Panel Totals |       |                  |                   |        |       |
|                                                                                |        |         |                                                                             |       |       | TOTAL CONNECTED LOAD: 0 VA          |                   |                                                                              |              |       |                  |                   |        |       |
|                                                                                |        |         |                                                                             |       |       | TOTAL ESTIMATED DEMAND: 0 VA        |                   |                                                                              |              |       |                  |                   |        |       |
|                                                                                |        |         |                                                                             |       |       | TOTAL CONNECTED CURRENT: 0 A        |                   |                                                                              |              |       |                  |                   |        |       |
|                                                                                |        |         |                                                                             |       |       | TOTAL ESTIMATED DEMAND CURRENT: 0 A |                   |                                                                              |              |       |                  |                   |        |       |
| NOTES:                                                                         |        |         |                                                                             |       |       |                                     |                   |                                                                              |              |       |                  |                   |        |       |

| Panelboard: SB-LPH-1C                                                          |        |         |                                                                             |           |             |                                      |                   |                                                                              |       |       |                  |         |        |       |
|--------------------------------------------------------------------------------|--------|---------|-----------------------------------------------------------------------------|-----------|-------------|--------------------------------------|-------------------|------------------------------------------------------------------------------|-------|-------|------------------|---------|--------|-------|
| Location:<br>Supply From: SB-DPH-LLA<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |         | Distribution System: 480/277 Vye<br>Phases: 3<br>Wires: 4<br>Modifications: |           |             |                                      |                   | A.I.C. Rating: 42KAIC<br>Main Type: MLO<br>Main Rating: 200 A<br>MCB Rating: |       |       |                  |         |        |       |
| Notes                                                                          | Wiring | CKL No. | Load Description                                                            | Tripp     | Poles       | LOAD PHASE-A (VA)                    | LOAD PHASE-B (VA) | LOAD PHASE-C (VA)                                                            | Poles | Tripp | Load Description | CKL No. | Wiring | Notes |
| --                                                                             | --     | SB-1    | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 0             |                                                                              |       | 1     | 20 A             | SPARE   | SB-2   | -- -- |
| --                                                                             | --     | SB-3    | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-4   | -- -- |
| --                                                                             | --     | SB-5    | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-6   | -- -- |
| --                                                                             | --     | SB-7    | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 0             |                                                                              |       | 1     | 20 A             | SPARE   | SB-8   | -- -- |
| --                                                                             | --     | SB-9    | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-10  | -- -- |
| --                                                                             | --     | SB-11   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-12  | -- -- |
| --                                                                             | --     | SB-13   | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 0             |                                                                              |       | 1     | 20 A             | SPARE   | SB-14  | -- -- |
| --                                                                             | --     | SB-15   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-16  | -- -- |
| --                                                                             | --     | SB-17   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-18  | -- -- |
| --                                                                             | --     | SB-19   | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 0             |                                                                              |       | 1     | 20 A             | SPARE   | SB-20  | -- -- |
| --                                                                             | --     | SB-21   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-22  | -- -- |
| --                                                                             | --     | SB-23   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-24  | -- -- |
| --                                                                             | --     | SB-25   | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 0             |                                                                              |       | 1     | 20 A             | SPARE   | SB-26  | -- -- |
| --                                                                             | --     | SB-27   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-28  | -- -- |
| --                                                                             | --     | SB-29   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-30  | -- -- |
| --                                                                             | --     | SB-31   | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 0             |                                                                              |       | 1     | 20 A             | SPARE   | SB-32  | -- -- |
| --                                                                             | --     | SB-33   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-34  | -- -- |
| --                                                                             | --     | SB-35   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 0                                                                        |       | 1     | 20 A             | SPARE   | SB-36  | -- -- |
| --                                                                             | --     | SB-37   | SPARE                                                                       |           | 20 A        | 1                                    | 0 / 20640         |                                                                              |       | 1     | 20 A             | SPARE   | SB-38  | -- -- |
| --                                                                             | --     | SB-39   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 11040                                                                    |       | 3     | 50 A             | SB-T-1C | SB-40  | -- -- |
| --                                                                             | --     | SB-41   | SPARE                                                                       |           | 20 A        | 1                                    |                   | 0 / 11040                                                                    |       |       |                  | SB-42   | -- --  |       |
| Load Per...                                                                    |        |         |                                                                             |           |             | 20640 VA                             | 11040 VA          | 0 / 11040                                                                    |       |       |                  |         |        |       |
| Load Classification                                                            |        |         | Connected...                                                                | Demand... | Est. Demand | Panel Totals                         |                   |                                                                              |       |       |                  |         |        |       |
| RECEPT                                                                         |        |         | 42720 VA                                                                    | 61.70%    | 26360 VA    | TOTAL CONNECTED LOAD 42720 VA        |                   |                                                                              |       |       |                  |         |        |       |
|                                                                                |        |         |                                                                             |           |             | TOTAL ESTIMATED DEMAND 26360 VA      |                   |                                                                              |       |       |                  |         |        |       |
|                                                                                |        |         |                                                                             |           |             | TOTAL CONNECTED CURRENT 161 A        |                   |                                                                              |       |       |                  |         |        |       |
|                                                                                |        |         |                                                                             |           |             | TOTAL ESTIMATED DEMAND CURRENT 122 A |                   |                                                                              |       |       |                  |         |        |       |
| NOTES:                                                                         |        |         |                                                                             |           |             |                                      |                   |                                                                              |       |       |                  |         |        |       |



| Panelboard: SB-LP-1C                                                                  |        |         |                    |      |                                                                              |             |             |             |       |                                                                                                                                                  |                    |         |        |       |
|---------------------------------------------------------------------------------------|--------|---------|--------------------|------|------------------------------------------------------------------------------|-------------|-------------|-------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|--------|-------|
| Location:<br>Supply From: SB-T-1C (TRAPEZE)<br>Mounting: SURFACE<br>Enclosure: TYPE 1 |        |         |                    |      | Distribution System: 120/208 Vyle<br>Phases: 3<br>Wires: 4<br>Modifications: |             |             |             |       | A.I.C. Rating: 10KAIC<br>Maine Type: MCB<br>Mains Rating: 100 A<br>MCB Rating: 100 A                                                             |                    |         |        |       |
| Notes                                                                                 | Wiring | Ch. No. | Load Description   | Trip | Poles                                                                        | A           | B           | C           | Poles | Trip                                                                                                                                             | Load Description   | Ch. No. | Wiring | Notes |
| --                                                                                    | --     | SK1     | RECEPT CUB3        | 20A  | 1                                                                            | 360 / 360   |             |             | 1     | 20 A                                                                                                                                             | RECEPT CUB3        | SK2     | --     | --    |
| --                                                                                    | --     | SK3     | RECEPT CUB3        | 20A  | 1                                                                            |             | 360 / 360   |             | 1     | 20 A                                                                                                                                             | RECEPT CUB3        | SK4     | --     | --    |
| --                                                                                    | --     | SK5     | RECEPT CUB3        | 20A  | 1                                                                            |             |             | 360 / 360   | 1     | 20 A                                                                                                                                             | RECEPT CUB3        | SK6     | --     | --    |
| --                                                                                    | --     | SK7     | RECEPT CUB3        | 20A  | 1                                                                            | 4800 / 4800 |             |             | 1     | 20 A                                                                                                                                             | RECEPT CUB3        | SK8     | --     | --    |
| --                                                                                    | --     | SK9     | RECEPT CUB3        | 20A  | 1                                                                            |             | 4800 / 4800 |             | 1     | 20 A                                                                                                                                             | RECEPT CUB3        | SK10    | --     | --    |
| --                                                                                    | --     | SK11    | RECEPT TRAINER D18 | 20A  | 1                                                                            |             |             | 360 / 360   | 1     | 20 A                                                                                                                                             | RECEPT TRAINER D18 | SK12    | --     | --    |
| --                                                                                    | --     | SK13    | RECEPT TRAINER D18 | 20A  | 1                                                                            | 360 / 360   |             |             | 1     | 20 A                                                                                                                                             | RECEPT TRAINER D18 | SK14    | --     | --    |
| --                                                                                    | --     | SK15    | RECEPT TRAINER D18 | 20A  | 1                                                                            |             |             | 360 / 360   | 1     | 20 A                                                                                                                                             | RECEPT TRAINER D18 | SK16    | --     | --    |
| --                                                                                    | --     | SK17    | RECEPT TRAINER D18 | 20A  | 1                                                                            |             |             | 4800 / 4800 | 1     | 20 A                                                                                                                                             | RECEPT TRAINER D18 | SK18    | --     | --    |
| --                                                                                    | --     | SK19    | RECEPT TRAINER D18 | 20A  | 1                                                                            | 4800 / 4800 |             |             | 1     | 20 A                                                                                                                                             | RECEPT TRAINER D18 | SK20    | --     | --    |
| --                                                                                    | --     | SK21    | SPARE              | 20A  | 1                                                                            |             | 0 / 0       |             | 1     | 20 A                                                                                                                                             | SPARE              | SK22    | --     | --    |
| --                                                                                    | --     | SK23    | SPARE              | 20A  | 1                                                                            |             |             | 0 / 0       | 1     | 20 A                                                                                                                                             | SPARE              | SK24    | --     | --    |
| --                                                                                    | --     | SK25    | SPARE              | 20A  | 1                                                                            | 0 / 0       |             |             | 1     | 20 A                                                                                                                                             | SPARE              | SK26    | --     | --    |
| --                                                                                    | --     | SK27    | SPARE              | 20A  | 1                                                                            |             | 0 / 0       |             | 1     | 20 A                                                                                                                                             | SPARE              | SK28    | --     | --    |
| --                                                                                    | --     | SK29    | SPARE              | 20A  | 1                                                                            |             |             | 0 / 0       | 1     | 20 A                                                                                                                                             | SPARE              | SK30    | --     | --    |
| --                                                                                    | --     | SK31    | SPARE              | 20A  | 1                                                                            | 0 / 0       |             |             | 1     | 20 A                                                                                                                                             | SPARE              | SK32    | --     | --    |
| --                                                                                    | --     | SK33    | SPARE              | 20A  | 1                                                                            |             | 0 / 0       |             | 1     | 20 A                                                                                                                                             | SPARE              | SK34    | --     | --    |
| --                                                                                    | --     | SK35    | SPARE              | 20A  | 1                                                                            |             |             | 0 / 0       | 1     | 20 A                                                                                                                                             | SPARE              | SK36    | --     | --    |
| --                                                                                    | --     | SK37    | SPARE              | 20A  | 1                                                                            | 0 / 0       |             |             | 1     | 20 A                                                                                                                                             | SPARE              | SK38    | --     | --    |
| --                                                                                    | --     | SK39    | SPARE              | 20A  | 1                                                                            |             | 0 / 0       |             | 1     | 20 A                                                                                                                                             | SPARE              | SK40    | --     | --    |
| --                                                                                    | --     | SK41    | SPARE              | 20A  | 1                                                                            |             |             | 0 / 0       | 1     | 20 A                                                                                                                                             | SPARE              | SK42    | --     | --    |
| Load Per:                                                                             |        |         |                    |      | 20640 VA 11040 VA 11040 VA                                                   |             |             |             |       |                                                                                                                                                  |                    |         |        |       |
| Load Classification                                                                   |        |         |                    |      | Connected... Demand... Est. Demand                                           |             |             |             |       | Panel Totals                                                                                                                                     |                    |         |        |       |
| RECEPT                                                                                |        |         |                    |      | 42720 VA 61.70% 26360 VA                                                     |             |             |             |       | TOTAL CONNECTED LOAD: 42720 VA<br>TOTAL ESTIMATED DEMAND: 26360 VA<br>TOTAL CONNECTED CURRENT: 119.9 A<br>TOTAL ESTIMATED DEMAND CURRENT: 77.9 A |                    |         |        |       |
| NOTES:                                                                                |        |         |                    |      |                                                                              |             |             |             |       |                                                                                                                                                  |                    |         |        |       |





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MSBA 90% CD Construction Document Submittal  
May 12th, 2023

PROJECT NORTH  
MAGNETIC NORTH

ELECTRICAL DETAIL SHEET 1

Scale: NONE  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

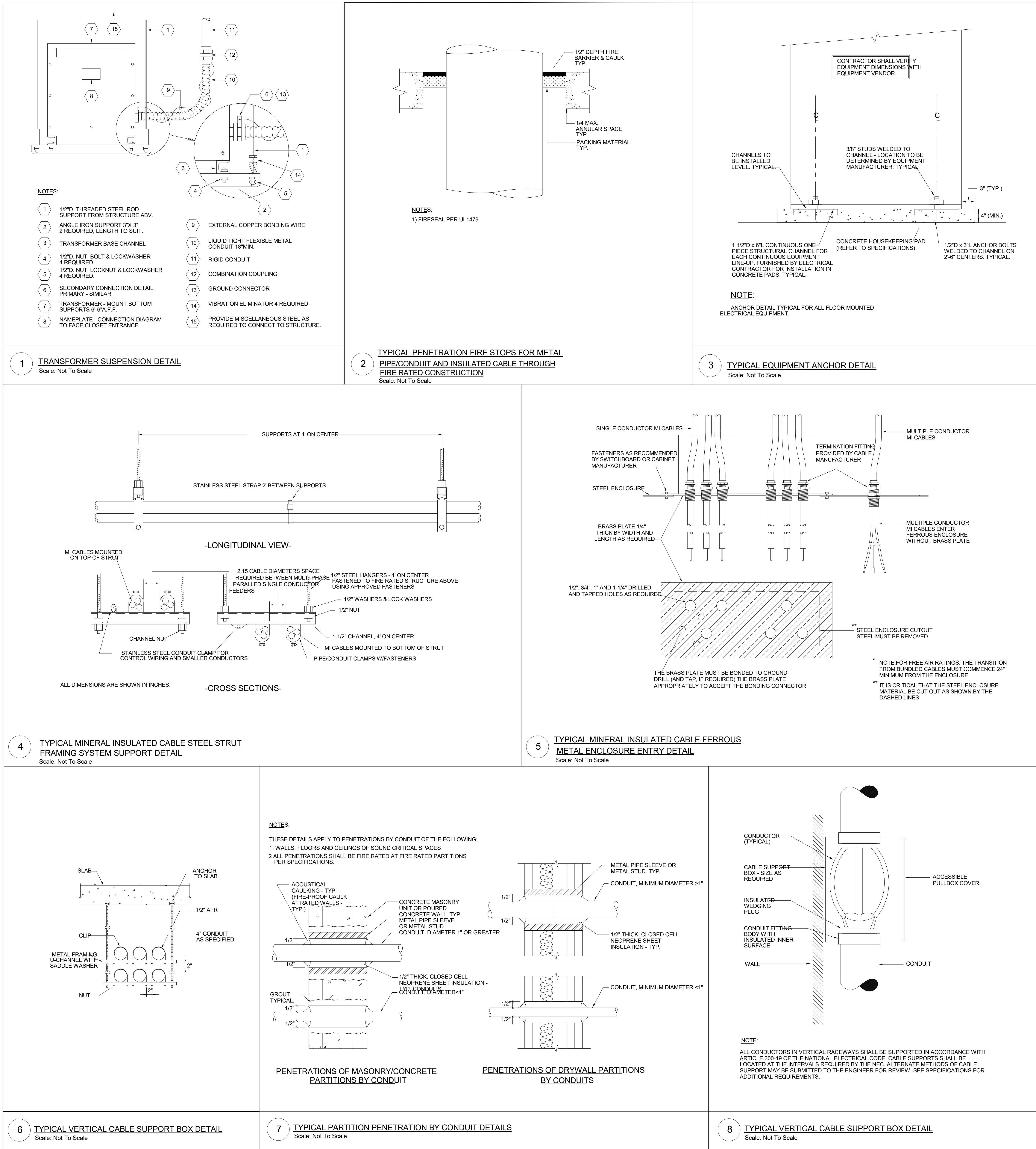
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PROJECT NORTH

MAGNETIC NORTH

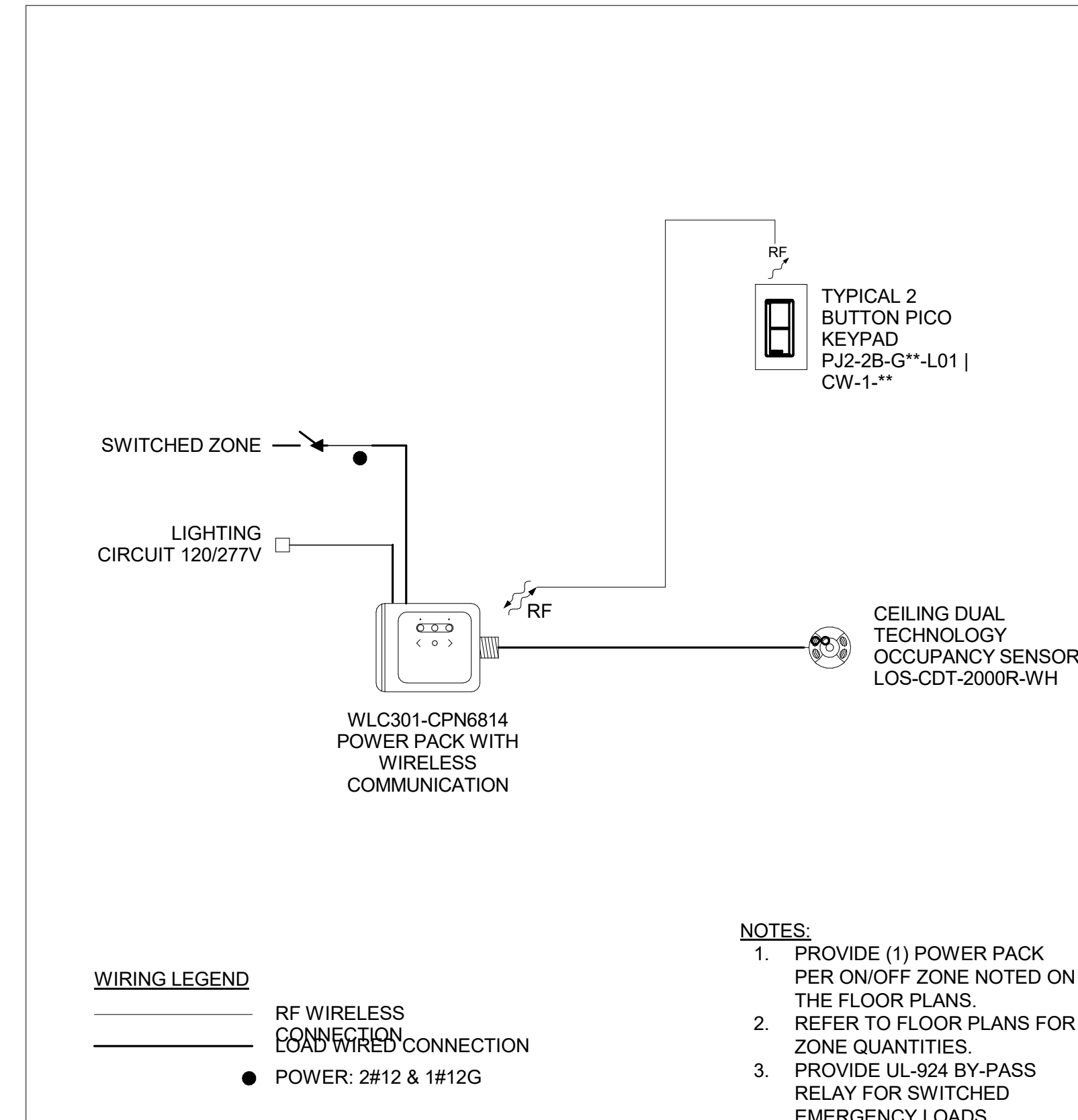
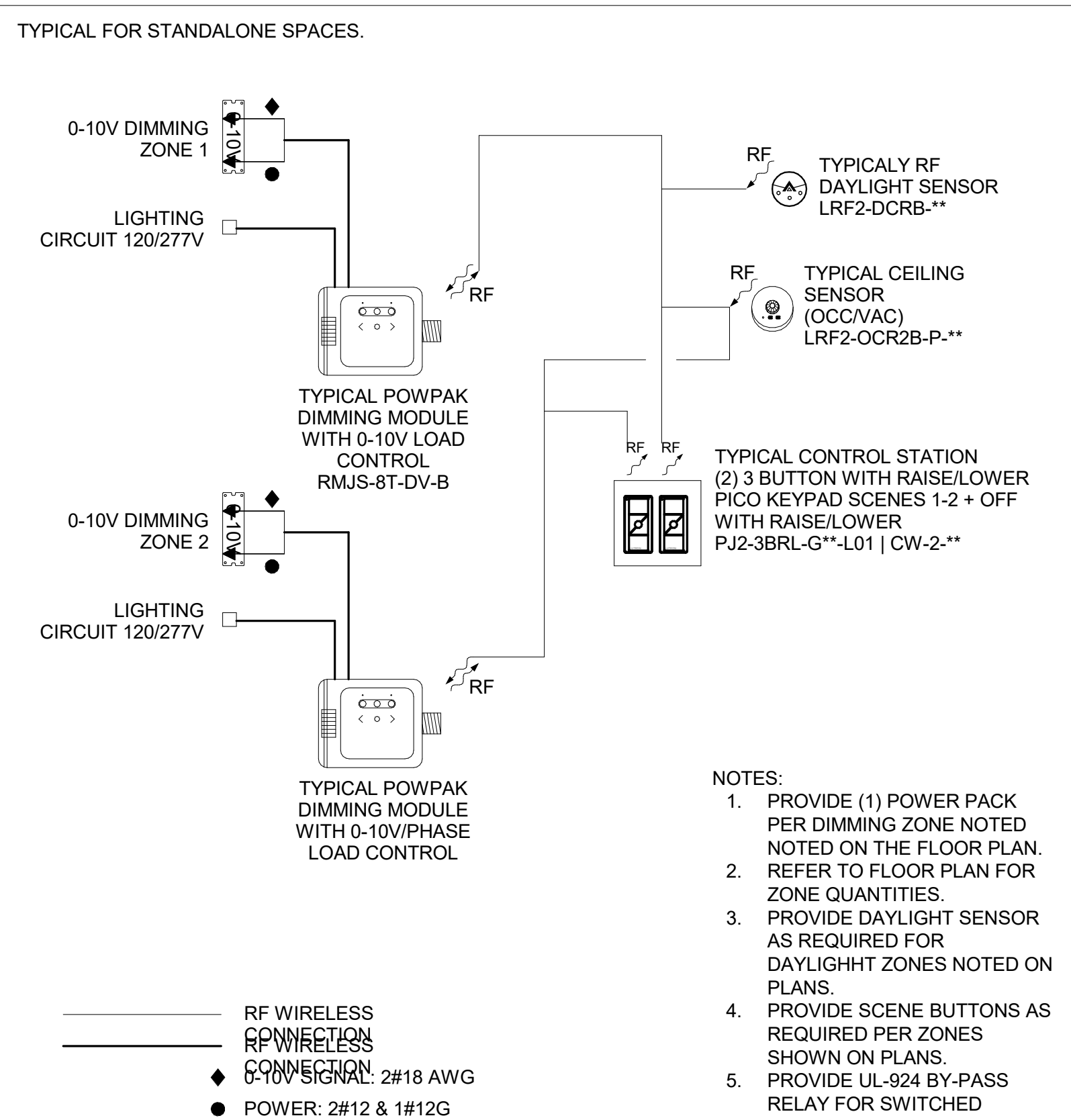
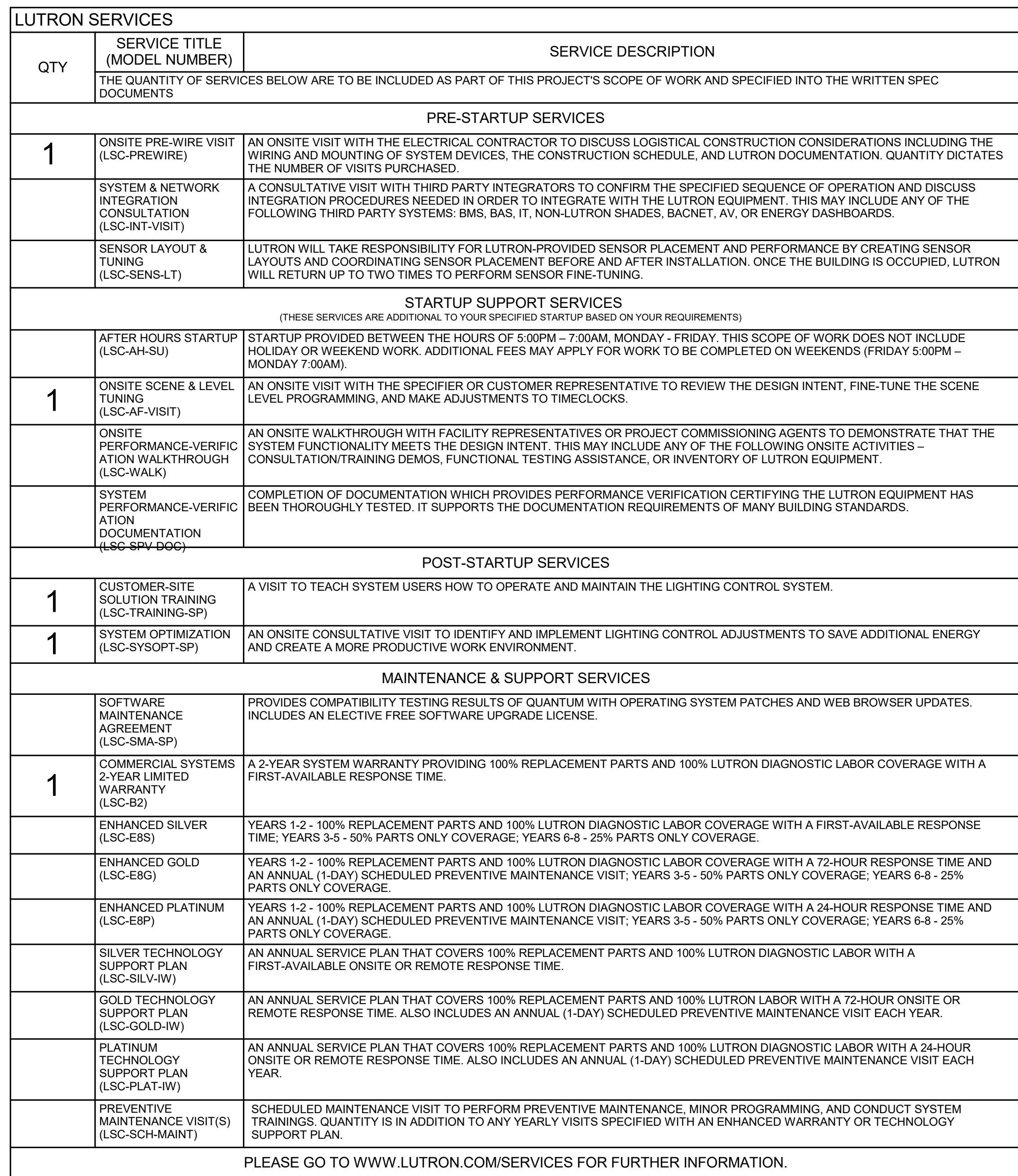
ELECTRICAL  
DETAIL SHEET 2

Scale:  
Job No.: 60-20-409  
Drawn By: ZMB  
Date: May 12th, 2023

E4-0-13

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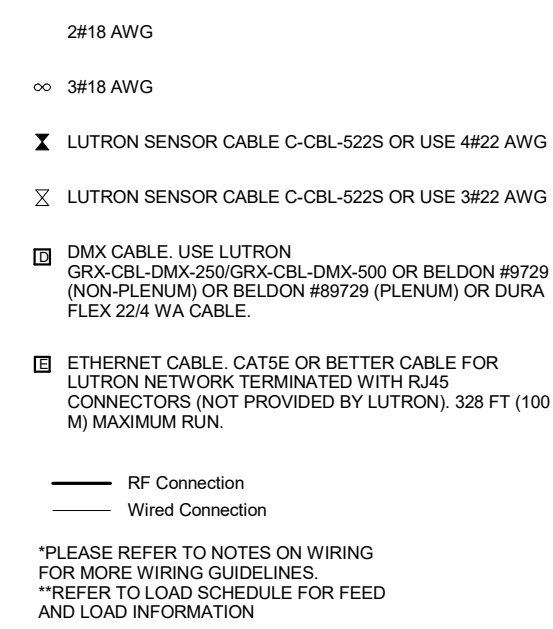






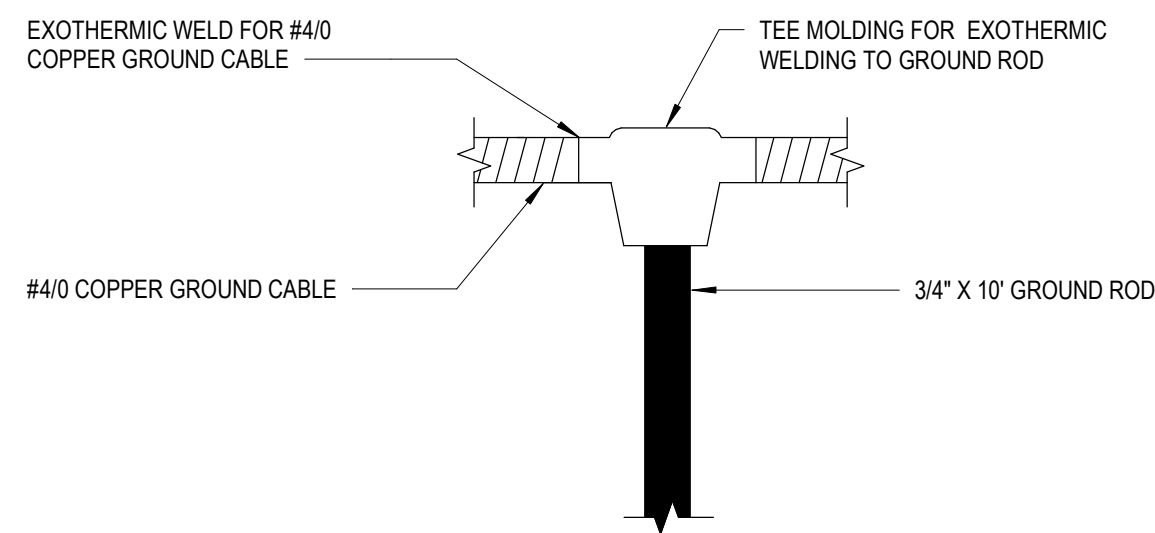




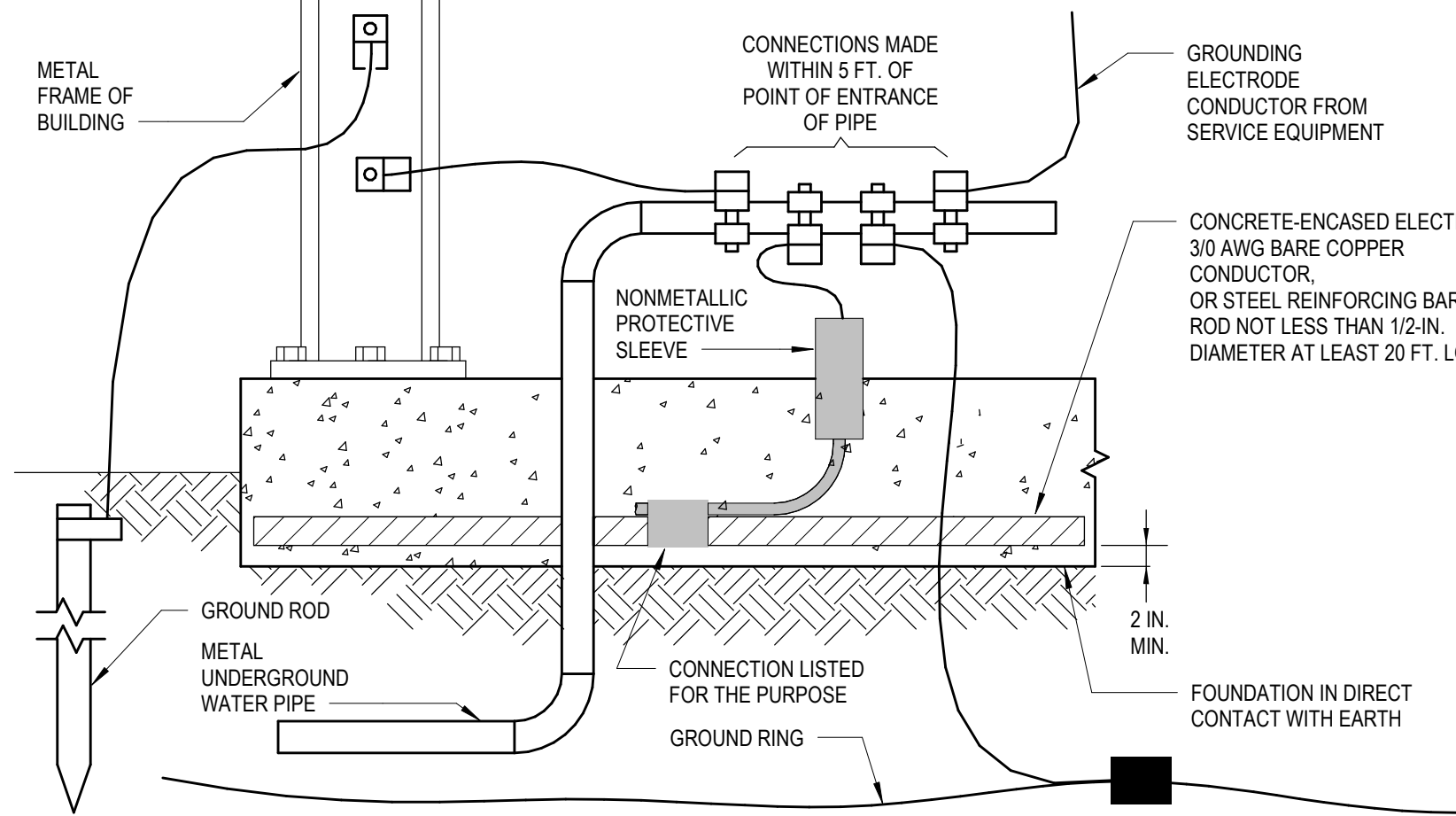


Scale: 12" = 1'-0"  
Job No.: 60-20-409  
Drawn By: DRA  
Date: May 12th, 2023

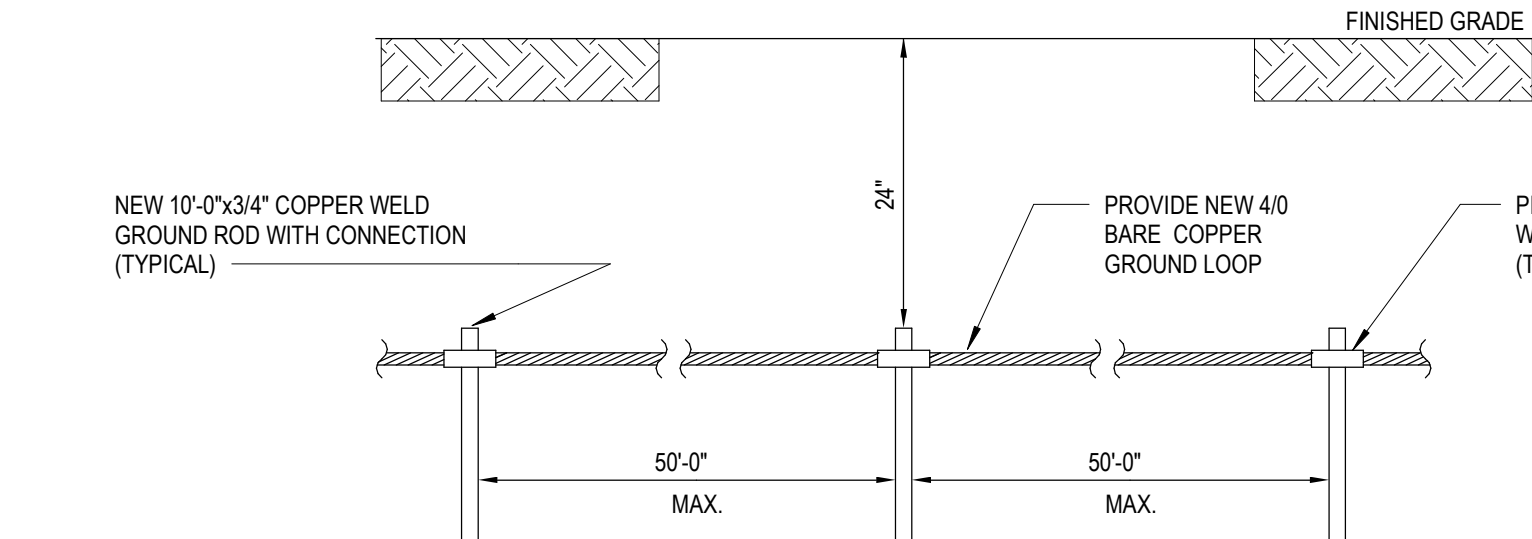




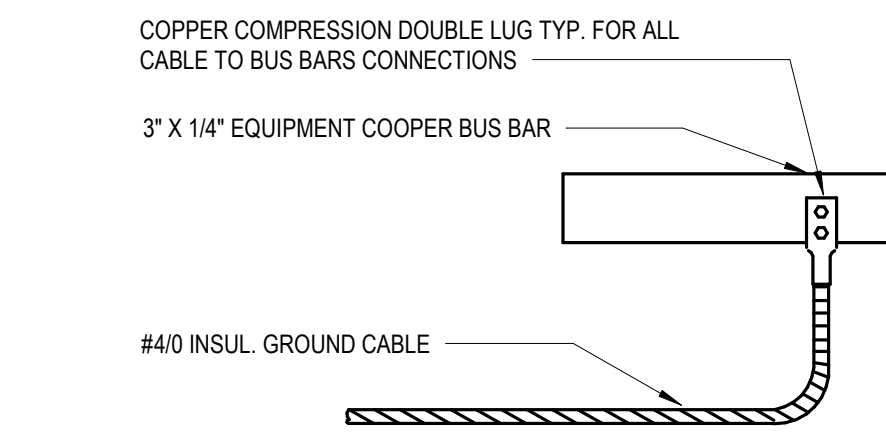
1  
E4-0-17  
BELOW GRADE GROUND CABLE  
NOT TO SCALE



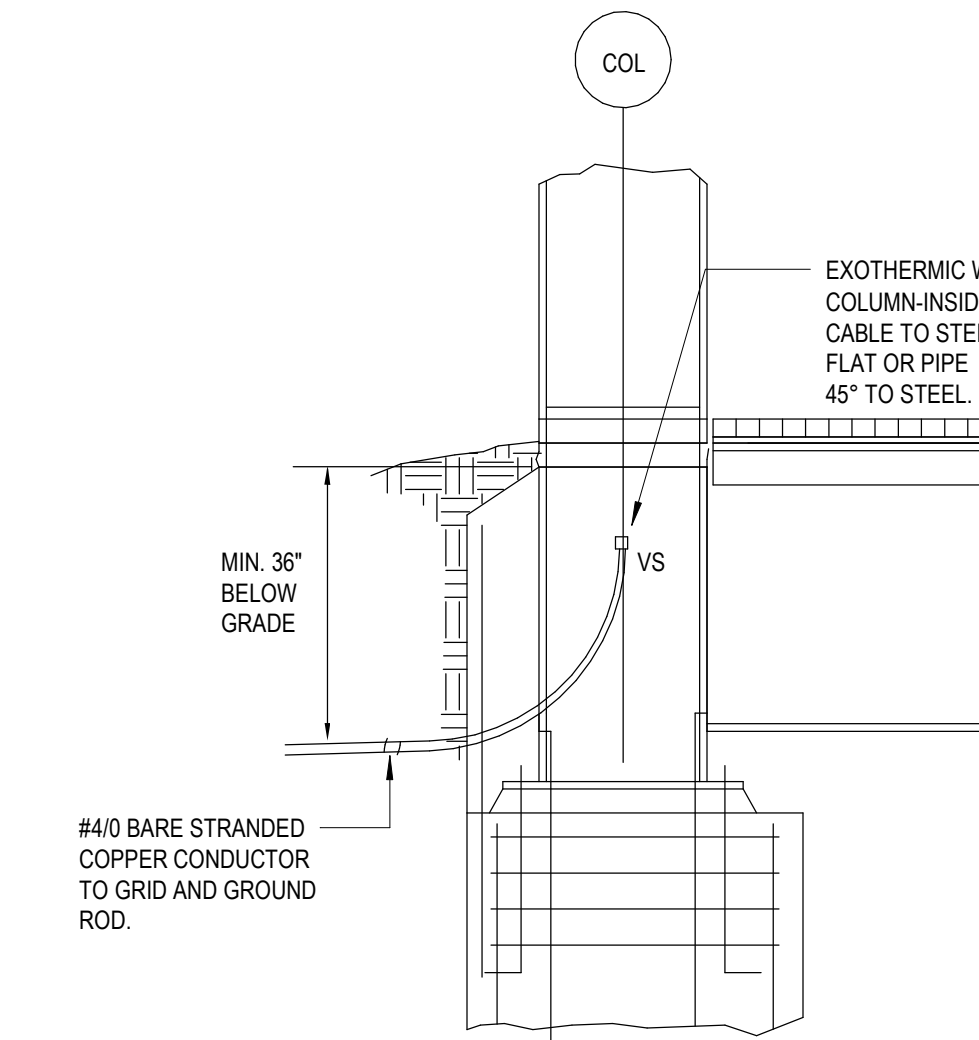
2  
E4-0-17  
CONCRETE ENCASED ELECTRODE DETAIL  
NOT TO SCALE



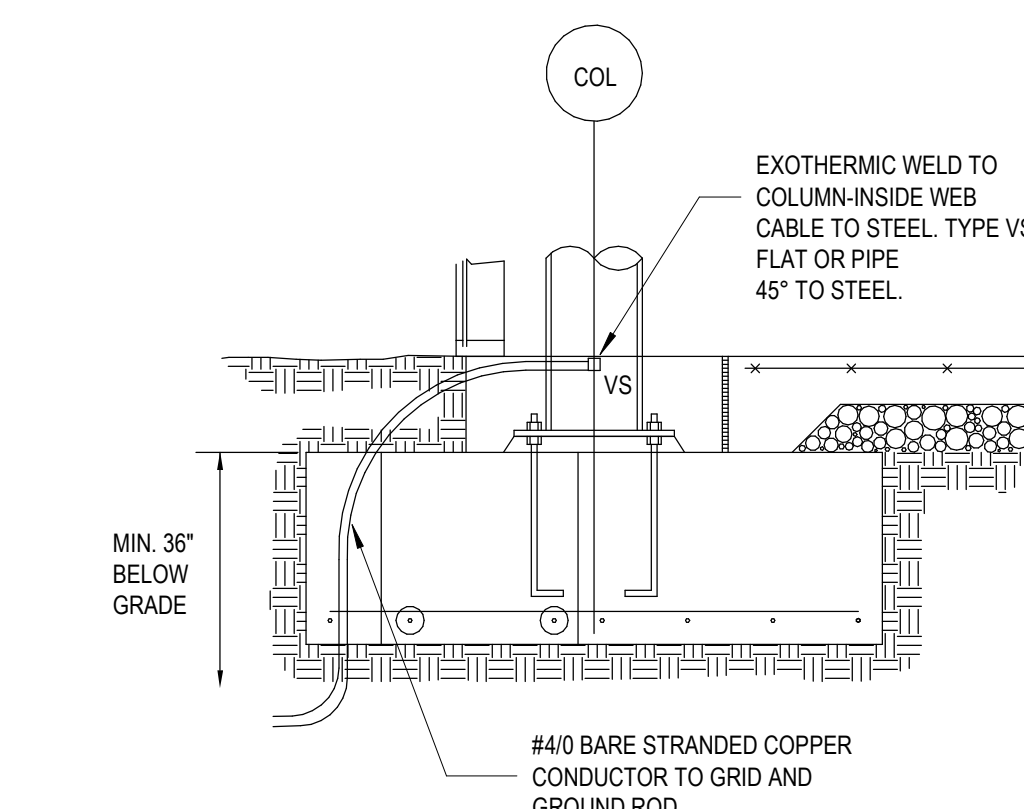
3  
E4-0-17  
GROUND - LOOP/GRID DETAIL  
NOT TO SCALE



4  
E4-0-17  
CABLE TO GROUND BUS  
NOT TO SCALE



5  
E4-0-17  
RAISED GROUNDING DETAIL  
NOT TO SCALE

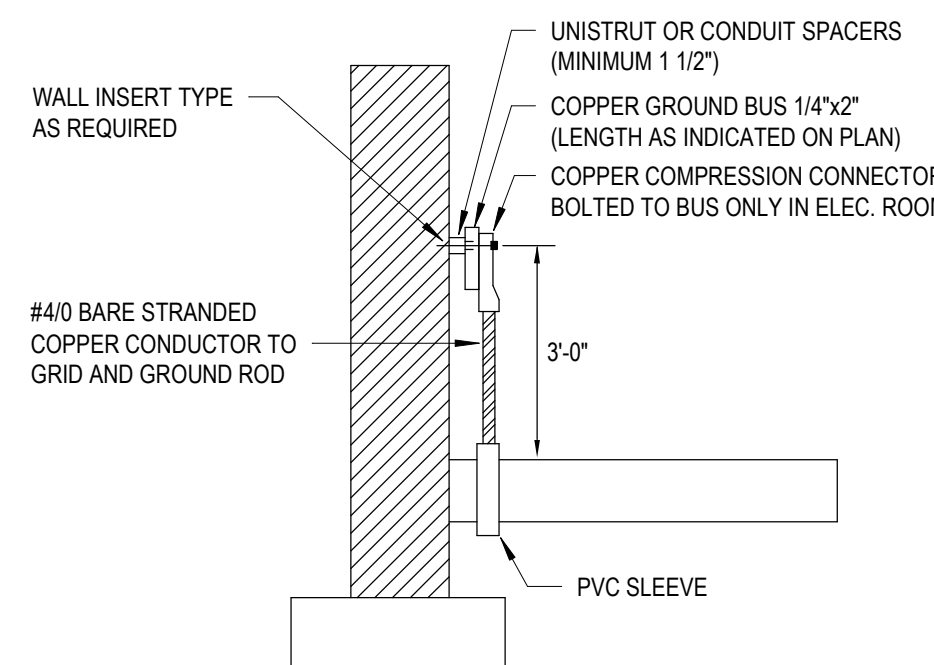


6  
E4-0-17  
TYPICAL COLUMN FOOTING DETAIL  
NOT TO SCALE

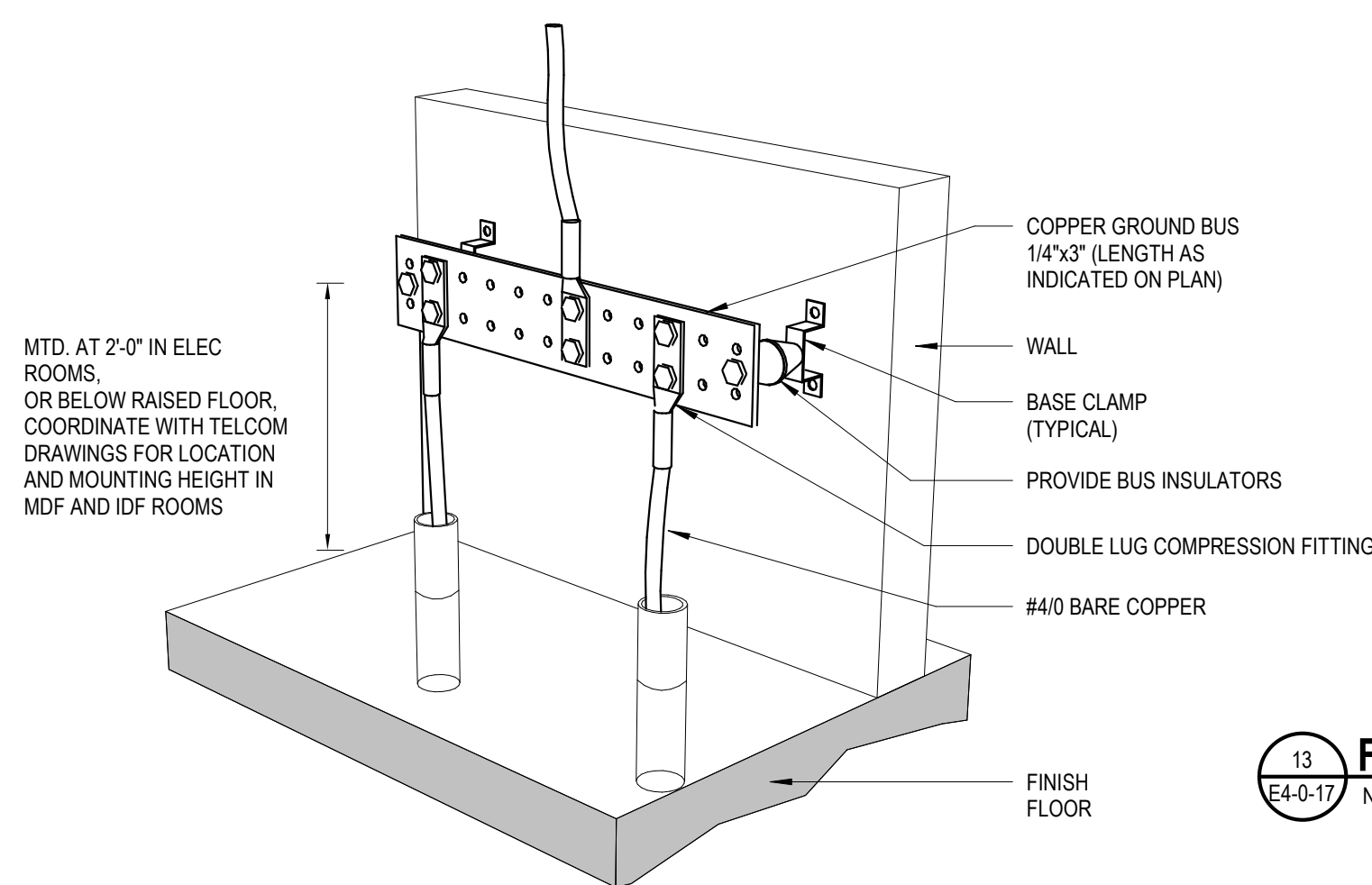
BUILDING GROUNDING SHEET NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF SWITCHGEAR PRIOR TO INSTALLATION OF GROUND BUS.
2. ALL EMBEDDED CONDUIT STUB-UPS TO BE RGS CONDUIT.
3. GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE (NEC), AND THE NOTES AND DETAILS ON THIS DWG.
4. ALL BELOW GRADE AND EMBEDDED GROUND CONNECTIONS SHALL BE BY EXOTHERMIC WELDING PROCESS OR APPROVED EQUAL.
5. ALL EXPOSED GROUND CONNECTIONS SHALL BE MECHANICAL TYPE.
6. SURFACES WHERE GROUNDING CONNECTIONS ARE TO BE MADE SHALL BE CLEANED TO BARE METAL AND SHALL BE FREE OF ALL PAINT, SCALE, GREASE, DIRT AND OXIDES.
7. UNDERGROUND CABLES AND GROUND LOOP TO BE BACKFILLED COMPLETELY AROUND CABLE WITH NON-CORROSIVE FILL.
8. GROUND LOOP CONDUCTORS SHALL BE INSTALLED 2 FT. FROM BUILDING FOUNDATION/FOOTER WITH A MINIMUM OF 3\"/>
9. CONTRACTOR SHALL INVESTIGATE FOR UNDERGROUND OBSTACLES PRIOR TO EXCAVATION FOR UNDERGROUND WORK.

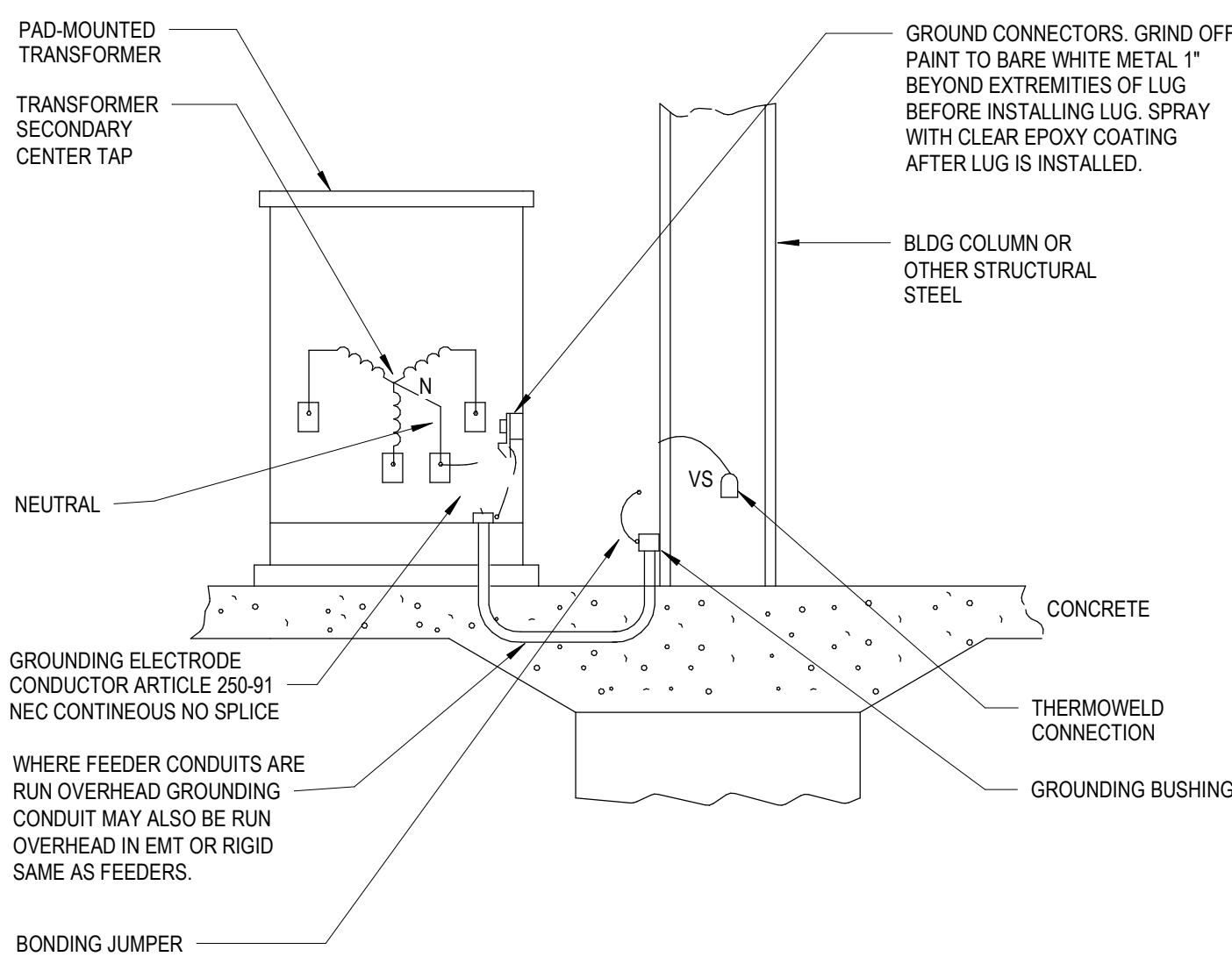
7  
E4-0-17  
BUILDING GROUNDING SHEET NOTES  
NOT TO SCALE



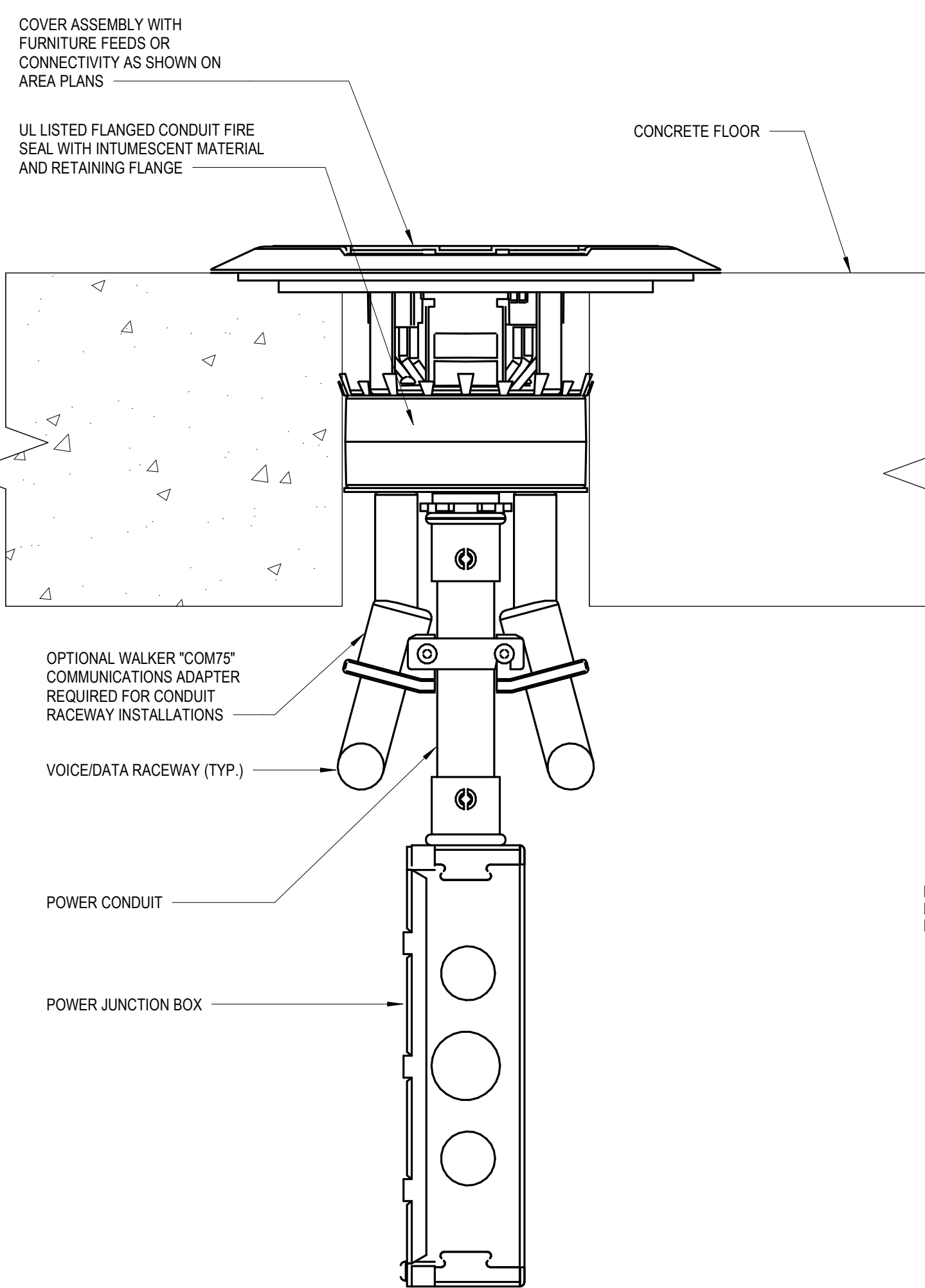
8  
E4-0-17  
TYPICAL GROUND BUS DETAIL  
NOT TO SCALE



9  
E4-0-17  
GROUND BUS DETAIL  
NOT TO SCALE

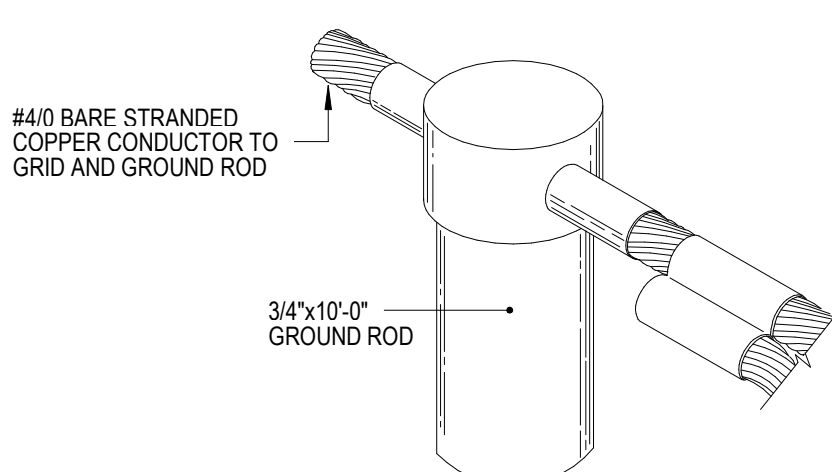


10  
E4-0-17  
PAD-MOUNTED XFMR. & GENERATOR GROUNDING DETAIL  
NOT TO SCALE

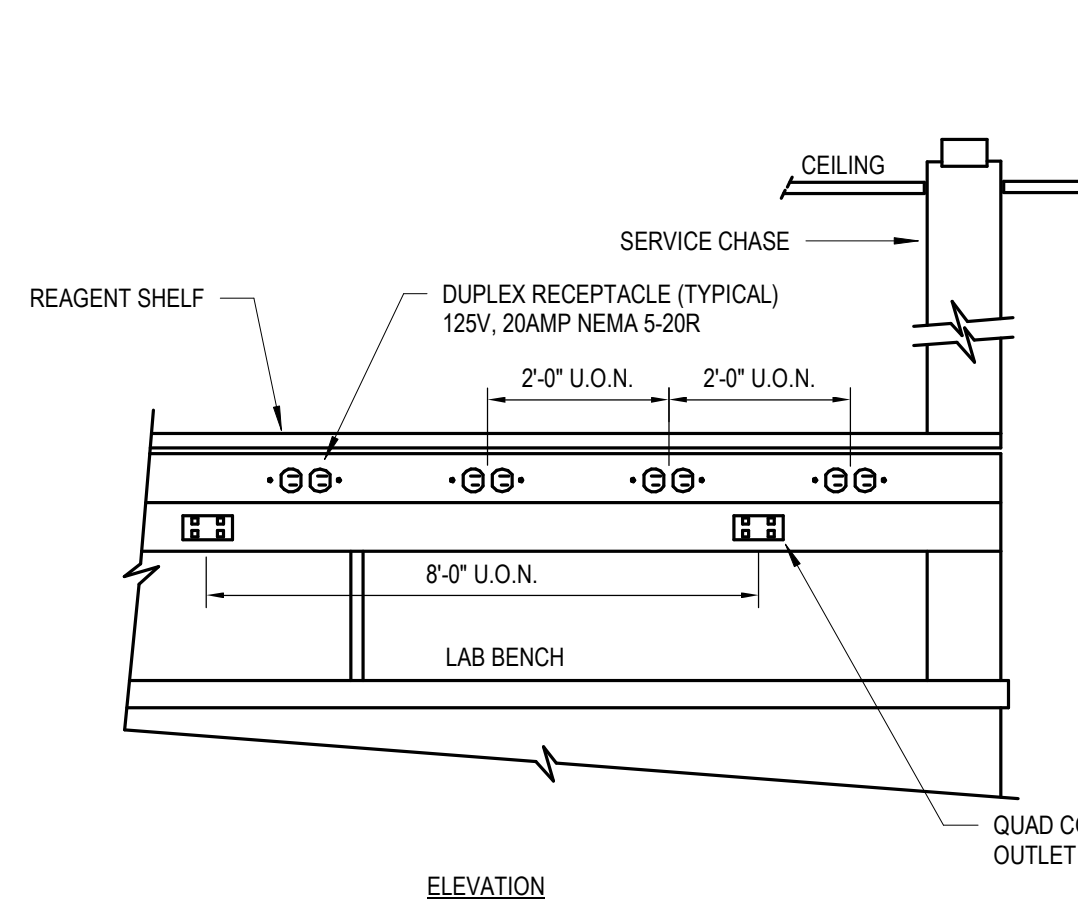


- NOTES:
1. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR MINIMUM AND MAXIMUM O.D. CORE BIT SIZES.
  2. HOLES SHALL BE SPACED A MINIMUM OF 24\"/>
  3. MINIMUM THICKNESS OF STRUCTURAL CONCRETE TOPPING TO BE 2 1/4\"/>

11  
E4-0-17  
FLOORBOX DETAIL, WALKER POKE-THRU  
NOT TO SCALE

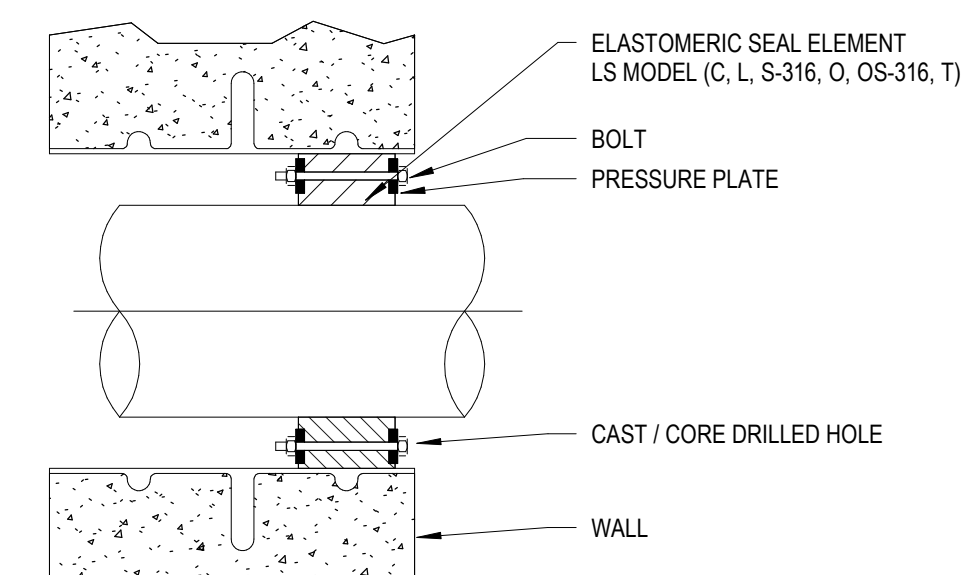


12  
E4-0-17  
GROUND ROD CONNECTION  
NOT TO SCALE



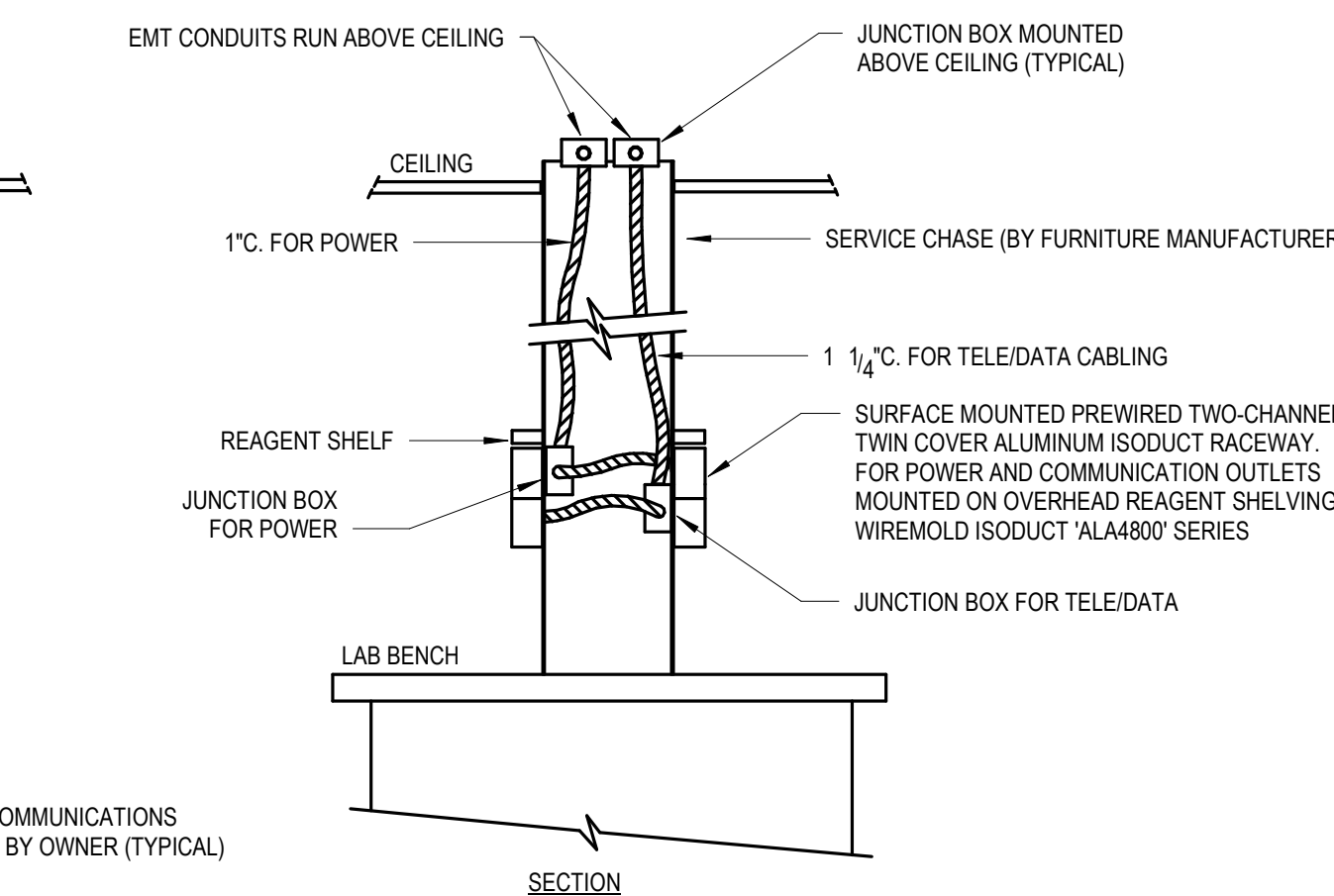
13  
E4-0-17  
TYPICAL BENCH TOP MULTI-OUTLET RACEWAY DETAIL  
NOT TO SCALE

LINK-SEAL® MODULAR SEALS WITH CAST OR CORE DRILLED WALL OPENING MANUFACTURED BY PIPELINE SEAL & INSULATOR, INC. HOUSTON, TEXAS, U.S.A. TEL: 800-452-3410; E-MAIL: INFO@SPISI.COM

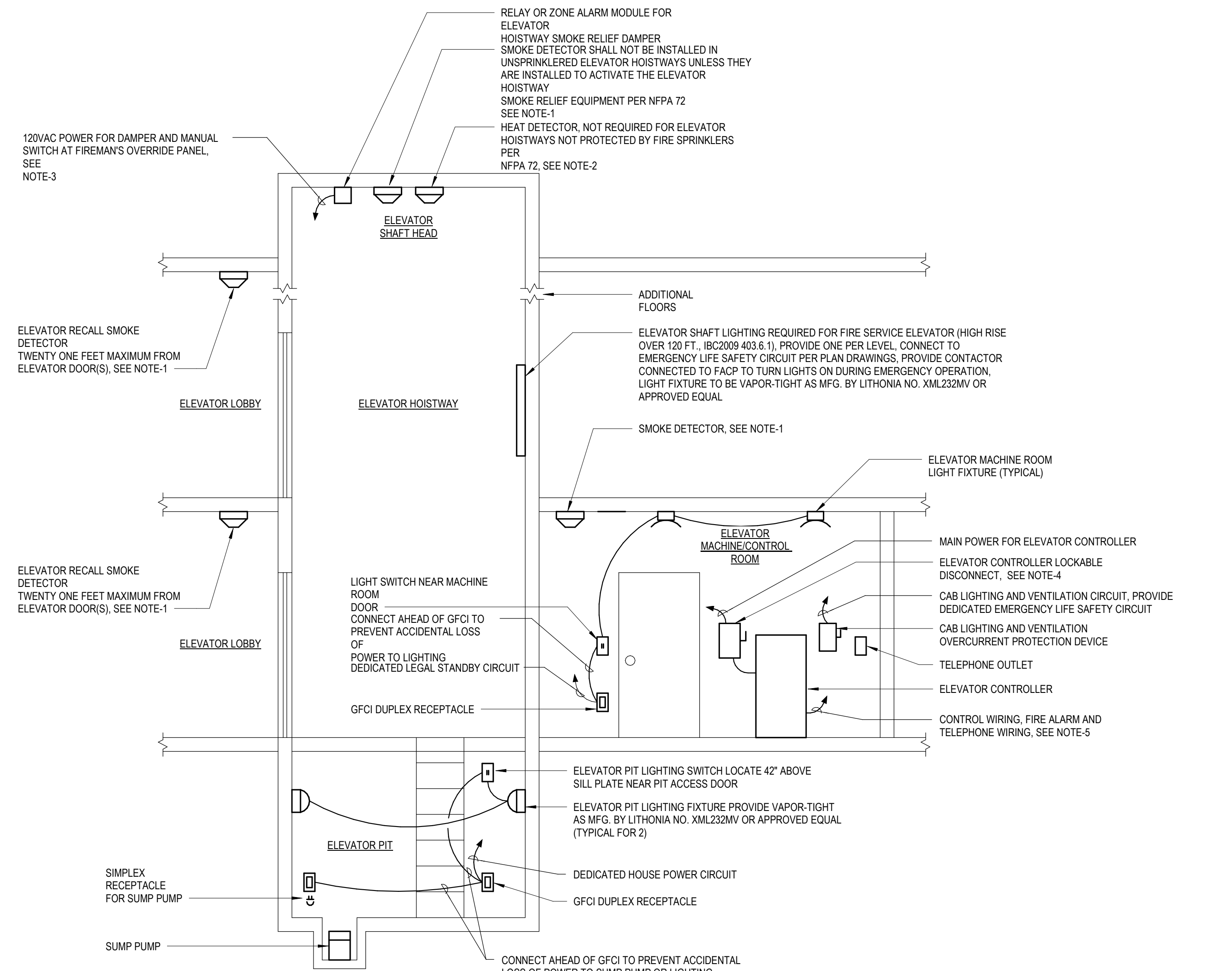


| LS Model | Seal Element | Roll-In/Out  | Pressure Plate |
|----------|--------------|--------------|----------------|
| C        | Seal Element | Seal Element | Seal Element   |
| L        | Seal Element | Seal Element | Seal Element   |
| S        | Seal Element | Seal Element | Seal Element   |
| O        | Seal Element | Seal Element | Seal Element   |
| OS       | Seal Element | Seal Element | Seal Element   |

14  
E4-0-17  
LINK SEAL CORE DRILLED WALL OPENING  
NOT TO SCALE



15  
E4-0-17  
EMERGENCY SHUT-OFF DIAGRAM FOR SHOP EQUIPMENT  
NOT TO SCALE

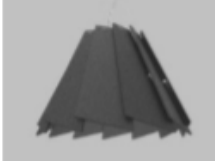
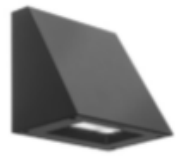
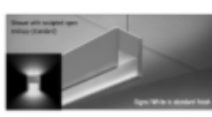


NOTES:

1. ACTIVATION OF ANY OF THE SMOKE DETECTORS SHOWN SHALL INITIATE ELEVATOR RECALL. ACTIVATION OF SMOKE DETECTORS ON DESIGNATED LEVEL SHALL CAUSE THE ELEVATOR TO RETURN TO AN ALTERNATE LEVEL DESIGNATED AND ALTERNATE LEVELS TO BE DETERMINED BY THE ELEVATOR INSPECTOR AND FIRE MARSHAL.
2. IF THE HOIST-WAY OR MACHINE-CONTROL ROOM IS SPRINKLERED, THEN THERE MUST BE A 15C DEGREE RATE OF RISE OR RATE COMPENSATION HEAT DETECTOR INSTALLED WITHIN 24\"/>
3. DAMPER AT TOP OF SHAFT SHALL BE MANUALLY CONTROLLED FROM FIRE ALARM PANEL.
4. ILLUSIBLE ELEVATOR DISCONNECT, LOCATE ADJACENT TO DOOR ENTERING MACHINE ROOM, PROVIDE WITH MEANS FOR LOCKING IN OPEN POSITION PROVIDE WITH CLASS II JUNGLE ELEMENT, TIME-DELAY FUSES.
5. CONTROL AND COMMUNICATION WIRING, PROVIDE THE FOLLOWING TO EACH ELEVATOR CONTROLLER.  
5.1 SHUNT TRIP CONTROL WIRES TO HEAT DETECTOR(S) OR CONTROL PANEL  
5.2 AUXILIARY CONTACTS FOR SELF LOWERING ELEVATORS (IF APPLICABLE)  
5.3 TELEPHONE AND DATA CABLES  
5.4 COMMUNICATION WIRES FROM AUTOMATIC TRANSFER SWITCH  
5.5 COMMUNICATION WIRES FROM FIRE ALARM CONTROL PANEL.

16  
E4-0-17  
ELECTRICAL - TYPICAL ELEVATOR REQUIREMENTS  
NOT TO SCALE



| Type                                                                                                | Manufacturer                                                                                                                                                          | Description                                                                                                                                                                                                                                                                           | Lamp/Details                                                                                                                                                                      | Scope/Notes/Location                                        | Type                                                                                                 | Manufacturer                                                                                                                                              | Description                                                                                                                                                                                                                                                                      | Lamp/Details                                                                                                                                                                                          | Scope/Notes/Location                                      | Type                                                                                                  | Manufacturer                                                                                                                                                                                                               | Description                                                                                                                                                                    | Lamp/Details                                                                                                                                                             | Scope/Notes/Location                                                            |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>DPA</b><br>     | Eureka Lighting<br>4258-32-LED-35-80-XX-DV-AC-60-RC1-WHE-REF-WH<br><br>Or Equal per performance specifications in lamp/details section and description.               | 32" Diameter x 26" High LED decorative pendant with acoustic felt sides in overlapping conical pattern. Fixture has internal reflector and, frosted acrylic lens. Aircraft cable suspension                                                                                           | 28.5 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Lumens: 1760 delivered per fixture<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                | <div></div> <i>Location: Principal Office, Collab Rooms</i> | <b>GWB</b><br>     | Lithonia Lighting<br>WDGE1LED-P2-35K-80CRI-TBD-XXX-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.            | 8" Tall by 9" Wide Surface Mounted Wall Sconce mounted above doors.                                                                                                                                                                                                              | 15 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 2000 per fixture<br>Dim: 0-10V<br>Mount: Wall Mount<br>Finish: Per Architect                                            | <div></div> <i>Location: Exterior</i>                     | <b>LPG</b><br>     | Mercury Lighting<br>MLS3-DI-VARIES-500-500-35K-ASO-BW-1%-2C-XXX-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                            | 3" Wide by 4 1/8" Tall suspended linear lensed direct/indirect fixture with fully adjustable mounting.                                                                         | 8.1 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1000 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                       | <div></div> <i>Location: Restaurant Cosmetology area Secondary stair towers</i> |
| <b>DPB</b><br>     | Luminis Lighting<br>CL842-LBL60-XXX-TBD-TBD-K35-TBD-DL1L40-R30<br><br>Or Equal per performance specifications in lamp/details section and description.                | 4" Tall by 6" Diameter pendant mounted LED fixture with acrylic column section and downlight component and 30" flood optic. LED boards are contained in a white UV stabilized high impact acrylic sealed cylinder. The assembly is designed to provide a uniform column illumination. | 98 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: 30°<br>Lumens: 9968 per fixture<br>Dim: 0-10V to 10%<br>Mount: Pendant<br>Finish: Per Architect | <div></div> <i>Location: Cafeteria</i>                      | <b>GWC</b><br>     | Luminis Lighting<br>SQ802-L2L35-R40-XX-SGT-XX-2K3-LSL-U<br><br>Or Equal per performance specifications in lamp/details section and description.           | 8" Square x 12" long wall-mounted LED adjustable direct/indirect cylinder fixture with 18" vertical tilt and linear spread lens.                                                                                                                                                 | 81 W per fixture<br>Volts: Per EE<br>Color Temp: 3000K<br>CRI: 80<br>Beam Spread: 38°<br>Lumens: 7144 delivered per fixture<br>Dim: Per EE<br>Mount: Wall Mount<br>Finish: Steel Gray<br>Rating: IP66 | <div></div> <i>Location: Exterior</i>                     | <b>LPH</b><br>     | H. E. Williams Inc.<br>96-8-L220-835-HIAFR-XXX-XXX<br><br>Or Equal by: Lithonia FEM Series<br>Current Albeo ALR Series                                                                                                     | 7 3/8" W x 5" H x 8" L. Suspended linear fixture, fully enclosed and gasketed. Toolless latches. Internal white reflector. Frosted, ribbed impact resistant acrylic shielding. | 166 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Lumens: 22000 per fixture<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect                 | <div></div> Provide with suspended mounting kit.<br><br><i>Location: Auto</i>   |
| <b>DPB-2</b><br>   | Luminis Lighting<br>CL842-LBL60-XXX-TBD-TBD-K35-TBD-DL1L20-R55<br><br>Or Equal per performance specifications in lamp/details section and description.                | 4" Tall by 6" Diameter pendant mounted LED fixture with downlight component and 55" flood optic. LED boards are contained in a white UV stabilized high impact acrylic sealed cylinder. The assembly is designed to provide a uniform column illumination.                            | 74 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: 55°<br>Lumens: 7912 per fixture<br>Dim: 0-10V to 10%<br>Mount: Pendant<br>Finish: Per Architect | <div></div> <i>Location: Level 4 Corridor</i>               | <b>GWD</b><br>     | Brownlee Lighting<br>157D-24-[FINISH]-H32-35K-2CT                                                                                                         | 24" Long wall mounted rectangular direct/indirect LED sconce fixture.                                                                                                                                                                                                            | 32 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 3024 per fixture<br>Dim: 0-10V<br>Mount: Wall Mount<br>Finish: Per Architect                                            | <div></div> <i>Location: Stairwell</i>                    | <b>LPJ</b><br>     | Finelite<br>H04-ID-RO-VARIES-B-H-835-WSOTG-OPN-XXX-FA-OE-DC-C-                                                                                                                                                             | 4" Aperture direct/indirect pendant mounted linear LED light fixture with indirect widespread top glow optics.                                                                 | 11.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1379 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                      | <div></div> <i>Location: Throughout</i>                                         |
| <b>GPB</b><br>     | Lithonia Lighting<br>CPRB-24000LM-XXX-35K-80CRI-PM-TBD-TBD-DWH<br><br>Or Equal by: PacLite FHUS/2 Series<br>Current Albeo Lumination Series                           | 15.1" Diameter x 3.35" Tall pendant mounted LED high-bay fixture                                                                                                                                                                                                                      | 170 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Lumens: 24000 per fixture<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: White                                  | <div></div> <i>Location: Standard Shops</i>                 | <b>GWD-ALT</b><br> | A Light<br>D4-VARIES-LVH-35-XXX-M-D-R-TBD-D                                                                                                               | 3.57" Wide wall mounted indirect linear LED light fixture with asymmetric optics.                                                                                                                                                                                                | 9.7 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Beam Spread: Asymmetric<br>Lumens: 768 per foot<br>Dim: 0-10V<br>Mount: Wall Mount<br>Finish: Per Architect                       | <div></div> <i>Location: Stairwell</i>                    | <b>LPK</b><br>     | Mercury Lighting<br>MLS3-M-VARIES-950-35K-HTA-1%-XXX-TBD-TBD-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                               | 3-1/2" Tall by 3" Wide pendant mounted direct linear fixture.                                                                                                                  | 8.7 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 950 per foot<br>Dim: 0-10V to 10%<br>Mount: Pendant<br>Finish: Per Architect                 | <div></div> <i>Location: Gymnasium</i>                                          |
| <b>GPE</b><br>     | OCL Architectural Lighting<br>TW1-P1EM-312-MW-PTD-LED1/35K-XXX-XS-DM1-DUC/MOD<br><br>Or Equal per performance specifications in lamp/details section and description. | 26" Diameter ring direct/indirect pendant with 3.25" wide x 6.25" H cross-section. Independent control of direct vs indirect.                                                                                                                                                         | 975 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>Lumens: 80000 per fixture<br>Dim: 0-10V to 1%<br>Mount: Pendant<br>Finish: Per Architect                               | <div></div> <i>Location: Media Center</i>                   | <b>GWE-1</b><br>   | Brownlee Lighting<br>5172-L25-TBD-H16-35K                                                                                                                 | 25" Long horizontal wall mounted linear LED vanity light fixture.                                                                                                                                                                                                                | 16 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1660 per fixture<br>Dim: 0-10V<br>Mount: Wall Mount<br>Finish: Per Architect                                            | <div></div> <i>Location: Small bathrooms</i>              | <b>LPL</b><br>     | Finelite<br>H04-ID-RO-VARIES-V-S-835-WSOTG-OPN-XXX-FA-OE-DC-C4<br><br>Or Equal by Prudential Steam 2 Peerless Open                                                                                                         | 4" Aperture direct/indirect pendant mounted linear LED light fixture with indirect widespread top glow optics mounted to exposed j-box.                                        | 12.5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1525 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect<br>Connection: J-Box | <div></div> <i>Location: Stair well</i>                                         |
| <b>GPK</b><br>     | PMC Lighting<br>ARCXMDI-ACI-35K-MD-LI-5D-FPX-WHT-XXX                                                                                                                  | 5" Diameter Pendant mounted direct/indirect LED ring fixture.                                                                                                                                                                                                                         | 7 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90<br>Beam Spread: Direct/ Indirect<br>Lumens: 1030 per fixture<br>Dim: Yes<br>Mount: Pendant<br>Finish: White      | <div></div> <i>Location: Cafeteria, Staff Lunch Room</i>    | <b>GWE-2</b><br>   | Brownlee Lighting<br>5172-L25-TBD-H16-35K                                                                                                                 | 25" Long vertical wall mounted linear LED vanity light fixture.                                                                                                                                                                                                                  | 16 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1660 per fixture<br>Dim: 0-10V<br>Mount: Wall Mount<br>Finish: Per Architect                                            | <div></div> <i>Location: Large Bathrooms</i>              | <b>LPL-ALT</b><br> | A Light<br>D1-VARIES-LVH-35-XXX-M-D-TBD-TBD-D                                                                                                                                                                              | 3.75" Wide pendant mounted linear LED indirect distribution light fixture mounted on underside of stair rise following stair rise angle.                                       | 20 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1648 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect<br>Connection: J-Box   | <div></div> <i>Location: Stair well</i>                                         |
| <b>GPL-1</b><br> | Lithonia Lighting<br>BLWP8-40LHE-ADSM-XXX-GZ10-LP835-BLWPCG36F2                                                                                                       | 8" long pendant mounted linear LED wrap around light fixture with adjustable air craft cable kit.                                                                                                                                                                                     | 30 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 4113 per fixture<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                           | <div></div> <i>Location: Locker Rooms</i>                   | <b>GWF</b><br>   | Gotham Lighting<br>EVO6WTRC-35025-AR-LS-ND-XXX-GZ1-JBX-UP-CPC                                                                                             | 6" Diameter wall-mounted adjustable cylinder with custom finish (TBD)                                                                                                                                                                                                            | 24.7 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>Beam Spread: Narrow<br>Lumens: 2537 delivered per fixture<br>Dim: 0-10V to 1%<br>Mount: Wall Mount<br>Finish: Custom                      | <div></div> <i>Location: Media Center</i>                 | <b>LPM-1</b><br> | Mercury Lighting<br>MLS3-DI-VARIES-400-400-35K-ASO-BW-1%-2C-XXX-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                            | 3" Wide by 4 1/8" Tall suspended linear lensed direct/indirect fixture.                                                                                                        | 6.5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 800 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                        | <div></div> <i>Location: Restaurant Cosmetology area</i>                        |
| <b>GPL-2</b><br> | Lithonia Lighting<br>BLWP4-30LHE-ADSM-XXX-GZ10-LP835-BLWPCG36F2                                                                                                       | 4" long pendant mounted linear LED wrap around light fixture with adjustable air craft cable kit.                                                                                                                                                                                     | 24 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 3118 per fixture<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                           | <div></div> <i>Location: Locker Rooms</i>                   | <b>LPA-1</b><br> | Mercury Lighting<br>MLS3-DI-VARIES-500-825-35K-ASO-BW-1%-2C-XXX-TBD-TBD<br><br>Or Equal by Dayolite PRFL-24-DI-FL Series<br>Finelite HP-2-P-ID series     | 3" Wide by 4 1/8" Tall suspended linear lensed direct/ indirect fixture. Extruded aluminum housing and snap-in extruded acrylic lens. Batwing Indirect optics.                                                                                                                   | 10.8 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 500 Direct/825 Indirect per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                                | <div></div> <i>Location: Design Classrooms</i>            | <b>LPM-2</b><br> | Mercury Lighting<br>MLS3-DI-VARIES-625-625-935K-ASO-BW-1%-2C-XXX-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                           | 3" Wide by 4 1/8" Tall suspended linear lensed direct/indirect fixture.                                                                                                        | 10.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1250 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                      | <div></div> <i>Location: Restaurant Cosmetology area</i>                        |
| <b>GSA</b><br>   | Focal Point<br>FSDEP-2-FL-3000DN-SG-35K-1c-XXX-L11-SM-TBD-TBD<br><br>Or Equal by Prudential P3900 series A-Light ATL2 series                                          | 2" Diameter x 3"High Surface-mounted disc fixture with upright glow. Extruded aluminum housing. One-piece ABS Plastic top cover. Regressed lens of 0.118" acrylic.                                                                                                                    | 26 Watts<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 3000 delivered per fixture<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect                         | <div></div> <i>Location: Restrooms</i>                      | <b>LPA-2</b><br> | Mercury Lighting<br>MLS3-DI-VARIES-400-400-935K-ASO-BW-1%-2C-XXX-TBD-TBD<br><br>Or Equal by Dayolite PRFL-24-DI-FL Series<br>Finelite HP-2-P-ID series    | 3" Wide by 4 1/8" Tall suspended linear lensed direct/ indirect fixture. Extruded aluminum housing and snap-in extruded acrylic lens. Batwing Indirect optics.                                                                                                                   | 6.5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90+<br>Lumens: 400 Direct/400 Indirect per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                                 | <div></div> <i>Location: Facial &amp; Resting</i>         | <b>LSA</b><br>   | Day-Brite<br>LINC5100E-Varies-935-XXX-TBD-DIM-RSx<br><br>Provide with: -Connectors and jumpers as needed -OSC Occ sensor as needed<br><br>Or Equal per performance specifications in lamp/details section and description. | 1" High x 4" Wide linkable undercabinet fixture with integral switch, and available occ sensor.                                                                                | 6 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 270 per foot<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect                          | <div></div> <i>Location: Classrooms Throughout</i>                              |
| <b>GSB</b><br>   | Luminis Lighting<br>SN1100C-L1L13-K30-XXX-BKT-<br><br>Or Equal per performance specifications in lamp/details section and description.                                | 11" Diameter x 2.75" Depth surface mounted LED downlight fixture with sealed and gasketed patterned tempered glass lens.                                                                                                                                                              | 14 Watts<br>Volts: Per EE<br>Color Temp: 3000K<br>CRI: 80+<br>Lumens: 1288 delivered per fixture<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect<br>Rating: IP65/K10     | <div></div> <i>Location: Entrances</i>                      | <b>LPB</b><br>   | Mercury Lighting<br>MLS2-DI-VARIES-NA-825-35K-NA-BW-1%-1C-XXX-TBD-TBD-TBD<br><br>Or Equal by Dayolite PRFL-24-I-FL Series<br>Finelite HP-2-P-I series     | 4-1/8" Tall by 1-7/8" Wide pendant mounted direct indirect fixture. Provide with indirect lighting modules only. Provide with housing cap in place of direct lighting modules and lensing. Extruded aluminum housing and snap-in extruded acrylic lens. Batwing Indirect optics. | 7.75 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Lumens: 825 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                                                     | <div></div> <i>Location: Computer Lab</i>                 | <b>LSB</b><br>   | focal Point<br>FCOLT-HF-500-35K-1-XXX-LD1<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                          | 2" High x 4" wide linear cove fixture with asymmetric distribution, and quick connects for mounting in coves.                                                                  | 5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 500 per foot<br>Dim: 0-10V to 10%<br>Mount: Cove<br>Finish: Standard                           | <div></div> <i>Location: Level 4 Corridor</i>                                   |
| <b>GSC</b><br>   | Mercury Lighting<br>MLS2-M1-VARIES-400-35K-ASO-1%-XXX-TBD-TBD-TBD-WL<br><br>Or Equal per performance specifications in lamp/details section and description.          | 3-1/2" Tall by 1-5/8" wide aperture surface-mount wet location rated linear LED direct distribution fixture.                                                                                                                                                                          | 3.9 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 400 per foot<br>Dim: 0-10V to 10%<br>Mount: Surface<br>Finish: Per Architect<br>Rating: Wet Rated     | <div></div> <i>Location: Outdoor Overhangs</i>              | <b>LPC</b><br>   | Mercury Lighting<br>MLS3-DI-VARIES-825-625-35K-ASO-BW-1%-2C-XXX-TBD-TBD<br><br>Or Equal by Dayolite PRFL-24-DI-FL Series<br>Finelite HP-2-P-ID series     | 3" Wide by 4 1/8" Tall suspended linear lensed direct/indirect fixture. Extruded aluminum housing and snap-in extruded acrylic lens. Batwing Indirect optics.                                                                                                                    | 12.15 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 825 Direct/625 Indirect per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                               | <div></div> <i>Location: SCI Labs and Tech Classrooms</i> | <b>LSG-1</b><br> | Lithonia Lighting<br>FEM-L48-3000LM-LPAFL-MD-35K-90CRI<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                             | 6.8" W x 4.2" H x 4' low profile linear fixture-1                                                                                                                              | 18 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90<br>Lumens: 2902 per fixture<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect                   | <div></div> <i>Location: Closets</i>                                            |
| <b>GSD</b><br>   | Gotham Lighting<br>IC025C-35-10-TBD-LSS-40D-XXX-UGZ-SGBCC-TBD-TBD                                                                                                     | 2" Aperture surface mounted round cylinder linear LED downlight fixture with direct conduit surface gear box mounting.                                                                                                                                                                | 12 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Beam Spread: 40°<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect<br>Connection: J-Box              | <div></div> <i>Location: Stair well</i>                     | <b>LPD</b><br>   | Mercury Lighting<br>MLS2-M-VARIES-400-35K-ASO-1%-XXX-TBD-TBD-TBD-TBD<br><br>Or Equal by Dayolite PRFL-24-D-FL Series<br>Finelite HP-2-P-D series          | 3-1/2" Tall by 1-7/8" Wide pendant mounted direct linear fixture. Extruded aluminum housing and snap-in extruded acrylic lens.                                                                                                                                                   | 5.8 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 400 per foot<br>Dim: 0-10V to 10%<br>Mount: Pendant<br>Finish: Per Architect                                              | <div></div> <i>Location: Corridors &amp; Bank</i>         | <b>LSG-2</b><br> | Lithonia Lighting<br>FEM-L96-9000LM-LPAFL-WD-35K-80CRI<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                             | 6.8" W x 4.2" H x 8' low profile linear fixture                                                                                                                                | 53.4 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 9000 per fixture<br>Dim: 0-10V<br>Mount: Surface<br>Finish: Per Architect                | <div></div> <i>Location: Mezzanine Mech Areas</i>                               |
| <b>GSE</b><br>   | A Light<br>ABS-MX-LS-35-U-H-R-P-D<br><br>Or Equal per performance specifications in lamp/details section and description.                                             | 2" Tall by 8" Wide Wall mounted indirect fixture.                                                                                                                                                                                                                                     | 5 W per foot<br>Volts: 120-277V<br>Color Temp: 3500K<br>CRI: 80+<br>Beam Spread: Indirect<br>Lumens: 486.5 per foot<br>Dim: 0-10V<br>Mount: Wall Mount                            | <div></div> <i>Location: Throughout</i>                     | <b>LPE</b><br>   | Mercury Lighting<br>MLS2-DI-VARIES-400-825-35K-ASO-BW-1%-2C-XXX-TBD-TBD-TBD<br><br>Or Equal by Dayolite PRFL-24-DI-FL Series<br>Finelite HP-2-P-ID series | 4-1/8" Tall by 1-7/8" Wide pendant mounted direct indirect fixture. Extruded aluminum housing and snap-in extruded acrylic lens. Batwing Indirect optics.                                                                                                                        | 10.7 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Lumens: 1225 per foot<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                                                    | <div></div> <i>Location: Computer Lab</i>                 | <b>LSH</b><br>   | Lithonia Lighting<br>RLNK-VARIES-120-35K-80CRI-M4<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                  | Task lighting: 1.82" High x 1.58" wide linkable LED strip light with steel body, acrylic lens.                                                                                 | 5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 470 per foot<br>Dim: 0-10V<br>Mount: TBD<br>Finish: Per Architect                              | <div></div> <i>Location: Task lighting booths</i>                               |

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PROJECT NORTH

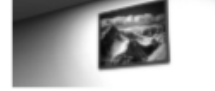
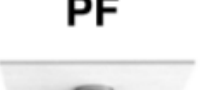
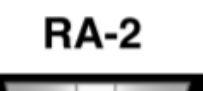
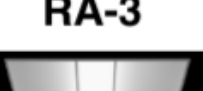
MAGNETIC NORTH

LUMINAIRE  
SCHEDULE

Scale:  
Job No.: 60-20-409  
Drawn By: DRA  
Date: May 12th, 2023

E4-0-18



| Type                                                                                | Manufacturer                                                                                                                                                                  | Description                                                                                                                                                                    | Lamp/Details                                                                                                                                                                                 | Scope/Notes/Location               | Type                                                                                 | Manufacturer                                                                                                                                         | Description                                                                                                     | Lamp/Details                                                                                                                                                                                  | Scope/Notes/Location                       | Type                                                                                  | Manufacturer                                                                                                                                        | Description                                                                                                                                                                | Lamp/Details                                                                                                                                                                       | Scope/Notes/Location           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|    | Peerless<br>RNNAWID-LCB-8FT-MSL8-90CRI-35K-1150LMF-300LMF-SSH-XXX-XXX-XXX-XXX                                                                                                 | 1 1/2" Tall by 4 1/2" wide wall-mounted linear direct/indirect fixture.                                                                                                        | 5.5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Beam Spread: Direct/ Indirect<br>Lumens: 494 per foot<br>Dim: 0-10V<br>Mount: Wall Mount<br>Finish: Per Architect        | Location: Staircase                |    | Focal Point<br>FLC220-SDO-SW-900L-XXX-LD1-LC22-SDO-900L-935K-DNS-WFL1-TBD                                                                            | 2.5" by 2.5" Recessed downlight fixture                                                                         | 9.3 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 900 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                      | Location: Cosmetology area                 |    | Gotham Lighting<br>EVO4WW-35/20-AR-LSS-XXX-GZ1-TRW                                                                                                  | 4" Diameter recessed wall wash fixture.                                                                                                                                    | 19.7 W per fixture<br>Volts: 120-277V<br>Color Temp: 3500K<br>Beam Spread: Wall-Wash<br>Lumens: 1881 delivered per fixture<br>Dim: 0-10V to 1%<br>Mount: Recessed<br>Finish: White | Location: Level 3 Corridor     |
|    | Mercury Lighting<br>ML32-M1-VARIES-400-35K-ASO-1%-XXX-TBD-TBD-TBD-TBD                                                                                                         | 3-1/2" Tall by 1-5/8" wide pendant mounted LED round fixture with 60 degree linear LED direct distribution fixture.                                                            | 3.9 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 400 per foot<br>Dim: 0-10V to 10%<br>Mount: Surface<br>Finish: Black                                             | Location: Corridors                |    | Kenall Lighting<br>CSE10-24-45LD-35K8-DIM1-DV-TBD-2H-SYM-FN                                                                                          | 9.8" Tall by 24" Wide by 48" long recessed food safe high-bay fixture                                           | 45 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: Wide<br>Lumens: 6771 delivered per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect        | Location: Culinary Arts Area               |    | Focal Point<br>FLC3D-RT-SW-1500L-[VOLTAGE?]-[DRIVER?]-TW-LC3-RT-SW-1500L-35K-WFL-CD-LC3-WOOD-KIT                                                    | 4" Diameter recessed LED round downlight fixture with semi-specular clear reflector and flangeless wood ceiling installation kit.                                          | 17 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1500 delivered per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                 | Location: Cafeteria Lobby Area |
|    | Meteor<br>WS2-170-358-XXX-60-TBD-AD10-WG                                                                                                                                      | 16.24" Diameter by 4.44" tall pendant mounted LED round fixture with 60 degree optics and wire guard accessory.                                                                | 170 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 85<br>Beam Spread: 60°<br>Lumens: 19450 per fixture<br>Dim: 0-10V to 10%<br>Mount: Pendant<br>Finish: Per Architect          | Location: Gymnasium                |    | Kenall Lighting<br>CSE10-22-45LD-D-35K8-DIM1-DV-TBD-2H-SYM-FN                                                                                        | 9.8" Tall by 24" Wide by 24" long recessed food safe high-bay fixture                                           | 45 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: Wide<br>Lumens: 6771 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                  | Location: Theory Classroom                 |    | Mercury Lighting<br>MLW2-G-VARIES-450-935K-1%-XXX-TBD                                                                                               | 3-9/16" Tall by 2 3/8" Wide Recessed lensed linear wallwash fixture with angled lens and kicker reflector mounted in grid ceiling.                                         | 5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90+<br>Lumens: 375 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                   | Location: Throughout           |
|    | Gotham Lighting<br>IC04CC-35/30-BR-LD-40D-XXX-EDXB-SGB-CCAN45-C120-DBL                                                                                                        | 4" Diameter pendant mounted cylinder.                                                                                                                                          | 34.12 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: 40°<br>Lumens: 2610 delivered per fixture<br>Dim: 0-10V to <1%<br>Mount: Pendant<br>Finish: Matte Black | Location: Multi Purpose Room       |    | Gotham Lighting<br>EVO4-35/35-AR-WD-LSS-XXX-GZ1-TRW                                                                                                  | 4" Diameter recessed downlight with semi-specular lens.                                                         | 38.4 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Beam Spread: Wide Flood<br>Lumens: 3612 delivered per fixture<br>Dim: 0-10V to 1%<br>Mount: Recessed<br>Finish: White | Location: Media Center                     |    | Mercury Lighting<br>MLP9-G-3-VARIES-450-935K-1%-XXX-TBD                                                                                             | 3-9/16" Tall by 2 3/8" Wide Recessed lensed linear wallwash fixture with angled lens and kicker reflector mounted in hard lid ceiling.                                     | 5 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90+<br>Lumens: 375 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                   | Location: Throughout           |
|    | Gotham Lighting<br>IC04CC-35/25-BR-LD-45D-XXX-EDXB-SGB-CCAN45-C120-DBL                                                                                                        | 4" Diameter pendant mounted cylinder.                                                                                                                                          | 26.5 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: 45°<br>Lumens: 2419 delivered per fixture<br>Dim: 0-10V to <1%<br>Mount: Pendant<br>Finish: Matte Black  | Location: Upper Multipurpose Room  |    | Focal Point<br>FLC2W-RDO-500L-XXX-LD1 (Housing)<br>LC2-RDO-500L-835K-WW-TBD-TBD (Trim)                                                               | 2.5" aperture recessed LED lensed wallwash with angled lens, semi-specular reflector cone, painted trim flange. | 11.7 Watts<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 500 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                             | Location: Restrooms                        |    | Mercury Lighting<br>MLP9-G-3-VARIES-400-35-ASO-1%-XXX-TEL                                                                                           | 6 7/8" Tall by 3.25" Wide Indirect wall-wash perimeter cove system mounted in ACT ceiling.                                                                                 | 4.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 400 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Matte White                                   | Location: Restaurant           |
|    | Gotham Lighting<br>IC04CC-35/15-AR-LSS-35D-MVOLT-GZ1-XXX-CCAN-C120-X-X-DBL                                                                                                    | 4" Diameter pendant mounted cylinder with additional field changeable optics.<br><br>Provide with:<br>- OPTC4-25D (25° additional optic)<br>- OPTC4-45D (45° additional optic) | 15.1 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: 35°<br>Lumens: 1545 delivered per fixture<br>Dim: 0-10V to <1%<br>Mount: Pendant<br>Finish: Matte Black  | Location: Media Center             |    | Lithonia Lighting<br>VTL4-40L-ADP-XXX-GZ10-LP835                                                                                                     | 2'x4' Recessed troffer with center lensed section and ribbed curved metallic side reflectors.                   | 35.6 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 4000 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect<br>Rating: Damp Rated              | Location: Level 1 Area D Lockers           |    | Mercury Lighting<br>MLP9-G-3-VARIES-400-35-ASO-1%-XXX-TEL                                                                                           | 6 7/8" Tall by 3.25" Wide with 3.25" wide aperture Indirect wall-wash perimeter cove system mounted in hardlid ceiling.                                                    | 4.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 400 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Matte White                                   | Location: Restaurant           |
|  | Gotham Lighting<br>IC04CC-35/25-AR-LSS-15D-MVOLT-GZ1-XXX-CCAN-C120-X-X-DBL                                                                                                    | 4" Diameter pendant mounted cylinder with additional field changeable optics.<br><br>Provide with:<br>- OPTC4-20D (20° additional optic)<br>- OPTC4-25D (25° additional optic) | 26.5 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Beam Spread: 15°<br>Lumens: 2419 delivered per fixture<br>Dim: 0-10V to <1%<br>Mount: Pendant<br>Finish: Matte Black  | Location: Media Center             |  | Gotham Lighting<br>EVO6SQSH-35/07-DFL-SOL-XX-XX                                                                                                      | 6" Square recessed LED shower-grade downlight with flush, textured lens.                                        | 8.2 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 85<br>Lumens: 666 delivered per fixture<br>Dim: Per EE<br>Mount: Recessed<br>Finish: White<br>Rating: IP66                    | Location: Showers                          |  | Mercury Lighting<br>MLP9-G-3-VARIES-400-935-ASO-1%-XXX-TEL                                                                                          | 6 7/8" Tall by 3.25" Wide with 3.25" wide aperture Indirect wall-wash perimeter cove system mounted in ACT ceiling.                                                        | 4.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90+<br>Lumens: 400 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Matte White                                   | Location: Cosmetology area     |
|  | Focal Point<br>FEQ2-22-AC-2500LH-35K-1C-XXX-Lxx-Cxx-XXX<br><br>Or Equal by:<br>Mark Architectural Whisper Series Day-o-lite Harmony Series                                    | 2' x 2' recessed troffer with center panel and angled side luminous lens panels mounted in ACT ceiling.                                                                        | 23 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 2500 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                     | Location: Throughout               |  | Focal Point<br>FLC22D-SDO-SW-900L-XXX-LD1-T-OD-LC22-SDO-900L-835K-DSS-WFL1-TBD-LC22-WOOD-KIT                                                         | 2.5" by 2.5" Wet-rated recessed trimless downlight fixture mounted in wood ceiling.                             | 9.3 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 900 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                      | Location: Outdoor Overhangs                |  | Mercury Lighting<br>MLP3-F-3-VARIES-400-935-ASO-1%-XXX-TEL                                                                                          | 6 7/8" Tall by 3.25" Wide with 3.25" wide aperture Indirect wall-wash perimeter cove system mounted in hardlid ceiling.                                                    | 4.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90+<br>Lumens: 400 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Matte White                                   | Location: Cosmetology area     |
|  | Focal Point<br>FEQ2-22-AC-2500LH-35K-1C-XXX-Lxx-F-XXX<br><br>Or Equal per performance specifications in lamp/details section and description.                                 | 2' x 2' recessed troffer with center panel and angled side luminous lens panels mounted in hardlid gyp ceiling.                                                                | 23 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 2500 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                     | Location: Throughout               |  | Focal Point<br>FEQ2-24-AC-4000LH-35K-1C-XXX-LXX-CXX-GX-XXX<br><br>Or Equal per performance specifications in lamp/details section and description.   | 2' x 4' recessed troffer with center panel and angled side luminous lens panels mounted in ACT ceiling.         | 31 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 4000 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                      | Location: Throughout                       |  | Finelite<br>H04-RO-Varies-H-835-OPN-835-XXX-SC-SE-C<br><br>Or Equal by<br>Prudential Steam 2 series<br>Peerless Open series                         | 3" Aperture linear fixture with indirect reflector.                                                                                                                        | 6.7 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 776 per foot<br>Dim: 0-10V<br>Mount: Recessed                                                          | Location: Corridors            |
|  | Focal Point<br>FEQ2-22-AC-2500LH-935K-1C-XXX-Lxx-Cxx-XXX<br><br>Or Equal per performance specifications in lamp/details section and description.                              | 2' x 2' recessed troffer with center panel and angled side luminous lens panels mounted in ACT ceiling.                                                                        | 23 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 90+<br>Lumens: 2500 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                     | Location: Cosmetology area         |  | Focal Point<br>FEQ2-24-AC-6000LH-35K-1C-XXX-LXX-CXX-GX-XXX<br><br>Or Equal per performance specifications in lamp/details section and description.   | 2' x 4' recessed troffer with center panel and angled side luminous lens panels mounted in ACT ceiling.         | 47 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 6000 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                      | Location: Science Lab Prep & Sterilization |  | Mercury Lighting<br>MLS3-G-VARIES-625-35K-ASO-1%-XXX                                                                                                | 3-3/4" Aperture recessed linear LED fixture mounted in grid ceiling.                                                                                                       | 7 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 625 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                   | Location: Throughout           |
|  | Lithonia Lighting<br>STAK-2X2-2000LM-80CRI-35K-COLT-MIN1-ZT-XXX-TBD-TBD-TBD-TBD<br><br>Or Equal by:<br>LSI LPEC Series<br>HE Williams LT Series                               | 2x2 Recessed troffer with center lensed section and angled metallic side reflectors.                                                                                           | 16.8 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 2000 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                   | Location: Shop Classroom & Storage |  | Gotham Lighting<br>IC04-35/35-AR-SS-15D-XXX-GZ1-TRW<br><br>Provide with:<br>- OPTC4-20D (20° additional optic)<br>- OPTC4-25D (25° additional optic) | 4" Diameter recessed downlight with additional changeable optics.                                               | 33.8 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>Beam Spread: 15°<br>Lumens: 3548 delivered per fixture<br>Dim: 0-10V to 1%<br>Mount: Recessed<br>Finish: White                    | Location: Media Center                     |  | Mercury Lighting<br>MLS3-F-VARIES-625-35K-ASO-1%-XXX                                                                                                | 3-3/4" Aperture recessed linear LED fixture mounted in hardlid ceiling.                                                                                                    | 7 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 625 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                   | Location: Throughout           |
|  | Lithonia Lighting<br>STAK-2X4-4000LM-80CRI-35K-COLT-MIN1-ZT-XXX-TBD-TBD-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.       | 2x4 Recessed troffer with center lensed section and angled metallic side reflectors.                                                                                           | 33.2 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 4000 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                   | Location: Shop Classroom & Storage |  | Gotham Lighting<br>EVO4-35/10-AR-FL-WD-LSS-XXX-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.       | 4" Diameter recessed LED round downlight fixture with semi-specular clear reflector and painted trim.           | 8.8 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1000 delivered per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                           | Location: Level 1 Corridor                 |  | Focal Point<br>FM48LE-84-RA-10500L-35K-2C-XXX-L11-G-WHA                                                                                             | 8" Wide by 4' long grid recessed linear LED ambient/exam light fixture pair.                                                                                               | 42 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 5250 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: White                                   | Location: Dental Assisting     |
|  | Focal Point<br>FLC22D-SDO-SW-900L-XXX-LD1-LC22-SDO-900L-835K-DNS-WFL1-TBD<br><br>Or Equal by:<br>USAI Lighting B3SD Basic Series<br>Specialty Lighting Industries Core Series | 2.5" by 2.5" Square Recessed downlight fixture with die-cast aluminum trim with flange and regressed solite lens. Trim has 60° Cutoff.                                         | 9.3 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 900 per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                                     | Location: Throughout               |  | Gotham Lighting<br>EVO4-35/15-AR-FL-MWD-LSS-XXX-TBD-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.      | 4" Diameter recessed LED round downlight fixture with semi-specular clear reflector and painted trim.           | 13.7 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 1500 delivered per fixture<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Per Architect                          | Location: Level 1 Lobby                    |  | Lumenpulse<br>LOI-ASHRAE-XXX-VARIES-30K-WW-TBD-INTL-TBD-ASL<br><br>Or Equal per performance specifications in lamp/details section and description. | 2-5/16" wide aperture walk-over rated linear in-ground fixture with 5-9/16" Deep x 8-1/2" Wide housing and grazing or wallwash optics. Anti-slip lens and internal louver. | 5 W per foot<br>Volts: Per EE<br>Color Temp: 3000K<br>CRI: 80+<br>Dim: 0-10V<br>Mount: Recessed In Ground<br>Finish: Per Architect<br>Rating: IP68/K10                             | Location: Front Signage Wall   |



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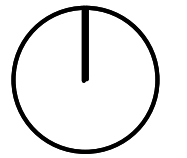
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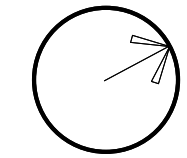
## Northeast Metropolitan Regional Vocational High School

Wakefield, MA 01880

PROJECT NORTH



MAGNETIC NORTH



MSBA 90% CD Construction Document Submittal

May 12th, 2023

LUMINAIRE SCHEDULE

Scale:

Job No.: 60-20-409

Drawn By: DRA

Date: May 12th, 2023

E4-0-19



| Type                                                                                                          | Manufacturer                                                                                                                                                                                                                                     | Description                                                                                                               | Lamp/Details                                                                                                                                                                                 | Scope/Notes/Location       |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <div>RLG-1</div> <div></div> | Mercury Lighting<br>MLP3-G-3-VARIES-400-35-ASO-1%-XXX-TEL<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                                | 6 7/8" Tall by 3.25" Wide with 3.25" wide aperture Indirect wall-wash perimeter cove system mounted in ACT ceiling.       | 4.3 W per foot<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 400 per foot<br>Dim: 0-10V<br>Mount: Recessed<br>Finish: Matte White                                             | <i>Location: Corridors</i> |
| <div>RLH</div> <div></div>   | Elliptipar<br>S-215-M112-T-02-M-TBD-0-835-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                                            | 3'-0" Semi-recessed linear LED wallwash fixture.                                                                          | 63 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80<br>Lumens: 6651 per fixture<br>Dim: Per EE<br>Mount: Semi-recessed<br>Finish: Semigloss White                              |                            |
| <div>SA</div> <div></div>    | Erco<br>Tesis-Size 4-3000K-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                                                           | 8" Diameter 6-5/8" Deep ingrade uplight fixture with wallwash or grazing optics.                                          | 16 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Lumens: 2200 per fixture<br>Dim: 0-10V                                                                                 | <i>Location: Exterior</i>  |
| <div>SWA</div> <div></div>   | Luminis Lighting<br>L1L15-R30-XXX-BKT-K3-SL<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                                              | 6" x 12" Wall mount exterior rated architectural wall sconce with down light including integral LED lamp and solite lens. | 15 W per fixture<br>Volts: Per EE<br>Color Temp: 3000K<br>CRI: 80<br>Beam Spread: 30°<br>Lumens: 1599 per fixture<br>Dim: Yes<br>Mount: Wall Mount<br>Finish: Black                          | <i>Location: Exterior</i>  |
| <div>T1</div> <div></div>    | Juno Lighting<br>T-Varies-TBD<br><br>Or Equal per performance specifications in lamp/details section and description.                                                                                                                            | 11/16" Tall by 1 3/8" Wide Pendant Mounted Track with indirect component.                                                 | 0 W per foot<br>Volts: Per EE<br>Dim: 0-10V<br>Mount: Pendant<br>Finish: Per Architect                                                                                                       | <i>Location: Photo</i>     |
| <div>TA</div> <div></div>    | Juno Lighting<br>R601L-30K-80CRI-PDIM-NFL-TBD-AHR610 ____ (fixture)<br><br>Provide with:<br>SOLITE 275 (uniformity lens)<br>TR11 FLD (reflector - flood)<br><br>Or Equal per performance specifications in lamp/details section and description. | 3 1/2" Diameter Track mounted spot fixture.                                                                               | 21 W per fixture<br>Volts: Per EE<br>Color Temp: 3500K<br>CRI: 80+<br>Beam Spread: Narrow Flood<br>Lumens: 2341 delivered per fixture<br>Dim: 0-10V<br>Mount: Track<br>Finish: Per Architect | <i>Location: Photo</i>     |

| LIGHTING FIXTURE SCHEDULE |                   |                       |      |                |                                                                            |
|---------------------------|-------------------|-----------------------|------|----------------|----------------------------------------------------------------------------|
| FIXTURE TYPE              | MANUFACTURER      | CATALOG NUMBER        | LAMP | BALLAST/DRIVER | REMARKS                                                                    |
| EC1                       | EMERGLITE         | LX-1A-R-C-LIA-A       |      |                | EDGE LIT EXIT SIGN - INDICATING CHEVRONS AND FACE SHADING AS SHOWN ON PLAN |
| F1                        | LITHONIA LIGHTING | FMLWL 48 840 ZT MVOLT |      |                | 4FT SURFACE-MOUNTED LINEAR LED                                             |
| LS1                       | MANUFACTURER      | CATALOG NUMBER        |      |                | SUSPENDED LINEAR LED - VERIFY STEM LENGTHS                                 |
| RA1                       |                   |                       |      |                |                                                                            |
| T1                        | MANUFACTURER      | CATALOG NUMBER        |      |                | TRACK                                                                      |

| Fixture Schedule |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Progress Design Development |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| General Notes    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |
| A                | Contractor shall supply and install a complete, fully functioning lighting system, including but not limited to: mounting hardware and accessories; appropriately sized transformers; power supplies; drivers; lamps; optical accessories; and electrical appurtenances.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |
| B                | Contractor shall be responsible for final fixture counts of all lighting fixtures and accessories, as well as linear fixture run lengths, as shown on Architect's drawings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |
| C                | Contractor shall be responsible for verifying mounting conditions with mounting locations to ensure compatibility. Contractor shall notify Owner and Architect of any conflicts with all trades prior to the ordering of the equipment. For fixtures where more than one manufacturer is specified, mounting requirements may vary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |
| D                | Contractor shall verify compliance of all lighting equipment specified in its intended application on this project with all applicable national and local codes, ordinances, regulations and jurisdictions prior to ordering any equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |
| E                | Contractor shall supply "Contractor net" unit pricing for each lighting product specified. Unit price shall be for equipment only and shall not include installation or other costs. The unit price supplied shall be guaranteed for the project and valid for additions and deletions of product throughout the duration of the project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             |
| F                | All drawings represent visual concepts and suggestions only. Available Light is not qualified to determine structural or electrical suitability and will not assume liability for improper engineering, construction or handling of design concepts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |
| G                | The accompanying drawings and all the ideas, arrangements, designs, and plans indicated thereon or represented thereby are owned by and remain the property of Available Light and have been created and developed for use on and in connection with the specified project. Neither this drawing, nor any such ideas, arrangements, designs, or plans shall be appropriated by or disclosed to any person, firm, or corporation for any use or purpose whatsoever, except by the specific and written permission of Available Light.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |
| H                | Written dimensions on drawings shall have authority over scaled measurements. Contractor shall field verify all dimensions on the job and inform the Architect of any proposed variations from drawings prior to performing the work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                             |
| I                | Do not scale electrical drawings for exact location of the lighting fixtures. Refer to Architect reflected ceiling plans and other lighting layouts for proper locations of lighting fixtures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |
| J                | Contractor shall not substitute products unless approved in writing by Available Light and/or Architect. Lighting fixture, ballast, driver, power supply, lamp, and/or accessory substitutions shall be formally presented to Available Light no later than fourteen (14) working days prior to bid due date.<br><br>All proposed substitute fixtures must:<br><br>1) Be proven to meet or exceed the standards of quality, design, appearance, and performance as established by the lighting fixture specified by Available Light. See next note for list of items to be submitted for all substitutions.<br><br>2) Afford to the owner a significant economic benefit.<br><br>Contractor shall coordinate changes due to use of approved substitutes with all trades.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |
| K                | For a fixture type where a manufacturer is named as equal, the equal shall meet aesthetic criteria of the specified fixture, including but not limited to: dimensional criteria, finishes, including custom finishes; mounting details; and specified modifications.<br><br>Additionally, for a fixture type where a manufacturer is named as equal, the equal shall meet the minimum performance requirements as defined by specified product, including but not limited to: regulatory listings; output as measured in delivered lumens; center beam candle power (CBCP); baseline efficacies as measured in lumens delivered per watt; cut-off angle as measured from nadir; LED binning; color rendering (CRI); color temperature (CCT); Duv per Manufacturers supporting documentation; dimming and method; five (5) year minimum warranty including LED engine and driver; L70 lumen maintenance tested according to IES LM79; and specified modifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |
| L                | Contractor shall provide the following items to the Architect and Available Light for evaluation of proposed substitutions:<br><br>1) A current manufacturer's data sheet with luminaire catalog numbers.<br><br>2) A complete and working sample wired with cord and plug for 120V operation furnished upon request.<br><br>3) A complete photometric report for the proposed substitute fixture using the same lamp type, wattage, and distribution as per the specification. The photometric report should include TM-30 or CRI documentation with R 1-14 values, tabulated candlepower values, a coefficient of utilization table, and an ISO foot-candle diagram from an independent testing laboratory. The photometric report must reflect the fixture specified without modification to the file.<br><br>4) The specified product defines minimum performance requirements as defined by specified product including but not limited to: regulatory listings; output as measured in delivered lumens; center beam candle power (CBCP); baseline efficacies as measured in lumens delivered per watt; cut-off angle as measured from nadir; LED binning; color rendering (CRI); color temperature (CCT); Duv per Manufacturers supporting documentation; dimming and method; five (5) year minimum warranty including LED engine and driver; and L70 lumen maintenance tested according to IES LM79.<br><br>5) The Contractor shall submit a signed document stating that if the proposed substitution is accepted the project schedule will not be negatively affected. |                             |
| M                | Contractor shall provide the following items to the Architect and Available Light for evaluation of specified fixtures:<br><br>1) Manufacturer's product data sheets for each luminaire indicating luminaire type, dimensions, driver/ballast/power supply/transformer quantity and type, lamp quantity and type, photometric data (including lumen output, CRI & TM-30 data), materials, finishes, accessories, voltage, input wattage, CFM data, and photographic image of luminaire.<br><br>2) Manufacturer's data sheet for each driver/ballast/power supply/transformer including driver/ballast/power supply/transformer type, power factor, input voltage, input watts, and ballast factor.<br><br>3) Scaled and dimensioned detail plan and elevation drawings of custom and continuous row type luminaires including joints, mounting points and type, power connection locations(s), and emergency or separate switching configurations.<br><br>4) For custom luminaires, manufacturer shall perform and submit all engineering calculations as required to ensure the safe and proper installation and operation of the luminaire.<br><br>5) Dimming Power Supply Compatibility Certificates: Signed by driver/ballast/power supply manufacturer certifying that driver/ballast/power supply is compatible with dimming systems and equipment with which they are used.<br><br>6) For all submittals contractor shall submit within 2 weeks of award of bid. All submittals shall have project name and luminaire type clearly shown.                                |                             |
| N                | Electronic devices that generate radio frequency energy must not interfere with other electronic devices and must not be susceptible to interference from other devices. Equipment shall not be an Electromagnetic (EM) polluter or be effected by EM pollution. All relevant equipment shall comply with current EMC standards.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |
| O                | Unless otherwise specified all downlights (recessed, wallwasher, and adjustable) shall be supplied by the same manufacturer, and all linear fixtures (recessed, pendant, and surface mounted) shall be supplied by the same manufacturer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             |
| P                | Unless otherwise specified, all retrofit LED lamps shall be manufactured by LEDvance (Osram-Sylvania), Philips, GE, Sora, or Green Creative. All lamps of a given type shall be supplied by the same manufacturer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                             |
| Q                | Unless otherwise specified, all LED drivers shall be manufactured by one of the following: Advance (Philips), LEDvance (Osram Sylavnia), Hatch, EldoLED, or Lutron.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |
| R                | All fixtures shall be supplied with specified lamp(s). Contractor shall provide an additional 10% replacement lamps (minimum two of each lamp type specified). For fixtures that use replaceable LED modules and drivers rather than lamps, Contractor shall provide an additional 5% (minimum one) of each driver and module type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |
| S                | Fixture construction and installation shall ensure no light leaks between ceiling trims of recessed lighting equipment and the ceiling plane. For applications in perforated or partially transparent ceilings, fixture construction shall also ensure no light leaks above the ceiling line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |
| T                | Reflectors, reflector cones, and visible trim of all lighting fixtures shall not be installed until completion of plastering, ceiling tile work, painting, and general cleanup. Reflectors, reflector cones, and visible trim shall be carefully handled to avoid scratching or fingerprinting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |
| U                | At the time of acceptance by the Owner, all lighting fixtures shall have been thoroughly cleaned with materials and methods recommended by the manufacturers, all broken parts shall have been replaced, and all lamps and/or LED modules shall be operative.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |
| V                | The Owner shall perform regular maintenance on all luminaires in order to ensure expected performance. Fixtures may produce light past their rated life, however, lamps/ballasts/drivers/components must be replaced at or before rated end-of-life for the luminaire to meet minimum photometric performance standards. Neither the Architect nor Available Light shall be held responsible or liable for improper service and maintenance of lighting systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |
| W                | Budget pricing is the cost the Owner should be prepared to pay for a specific luminaire or system. Price includes lamp(s) but does not include freight, tax, or installation costs. Owner level fixture prices were received directly from the manufacturer's agent, or derived by adding a 15% distributor markup and a 15% contractor markup to a Distributor Net price received from the manufacturer's agent, unless otherwise noted. Details regarding the source of individual fixture budget prices are available upon request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |
| X                | Contractor shall supply all low-voltage control data lines and wiring in order to properly network and dim fixtures together per control intent documentation and manufacturer's documentation. Data runs must be properly terminated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |
| Y                | Due to rapid advances in LED technology, Available Light reserves the right to change lamp or LED module specifications at the time of submittal to another lamp or LED module of equal or lesser cost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             |
| 1                | Final finish of fixture shall be approved in writing by Architect.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                             |
| 2                | Mounting height shall be coordinated with Architect's elevations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |
| 3                | Fixture shall be aimed and focused by Contractor under the direction of Available Light.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |
| 4                | The Contractor shall provide all ladders and mechanical lifts (i.e scissors lifts, articulating boom arm lifts, etc.) for the exclusive use of the aim and focus effort. The number and type of lifts and/or ladders to be pre-approved by Available Light. Crew shall arrive at aim and focus equipped with appropriate aim and focus tools including wrenches, gloves, electrical testers, etc., as per industry standards for a theatrical lighting technician. All costs associated with aiming and focusing shall be included in the bid, including but not limited to travel expenses, parking, storage, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |
| 5                | Junction boxes and/or conduit that is used to wire fixtures and that is open to view shall be painted to match adjacent structure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                             |
| 6                | Fixture or track shall be mounted to structure in a manner recommended by the manufacturer without compromising the integrity of the structure. Contractor shall be responsible for all materials required to insure a safe and proper pendant installation. Contractor to coordinate changes in size of fixtures or track due to use of approved substitutes with all trades. Tracks shall be mounted to prevent twisting when fixtures are aimed and focused causing an asymmetrical load.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |
| 7                | Prior to the onsite arrival of Available Light, all luminaires shall be installed in the proper positions as indicated in the construction documents with all mechanical shutters pulled and beams of light directed straight down. Accessories (spread lenses, color filters, screens, gobos, top hats, snoots, etc.) shall be installed under the supervision of Available Light during the aim and focus period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |
| 8                | Remote transformers, power supplies, or drivers shall be located in nearby accessible, concealed-from-view location with manufacturer recommended ventilation available. As per manufacturer's recommendations, Contractor shall not exceed the maximum allowable distance between any luminaire and its associated remote control devices. Contractor shall supply manufacturer's transformer, power supply or driver of proper capacity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             |
| 9                | "Local Control" means the controller or dimmer is mounted within the exhibit, rather than a central lighting controller.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |
| 10               | Prior to aim and focus, all DMX fixtures shall be properly addressed per Available Light's specification and tested using the specified control system (i.e. not a local test device).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |

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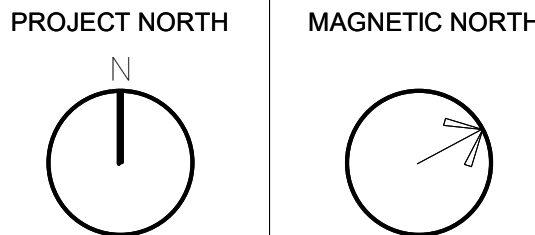
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MSBA 90% CD  
Construction Document  
Submittal  
May 12th, 2023



LUMINAIRE  
SCHEDULE

Scale:  
Job No.: 60-20-409  
Drawn By: DRA  
Date: May 12th, 2023

E4-0-20