GENERAL ELECTRICAL NOTES (IF APPLICABLE)

- 1. ALL ELECTRICAL INSTALLATIONS SHALL BE IN COMPLETE COMPLIANCE W/ ALL APPLICABLE PROVISIONS OF THE
- * 2017 NATIONAL ELECTRIC CODE (NEC)
- * 2021 MARYLAND ENERGY CODE * STATE OF MARYLAND FIRE PREVENTION CODE (NFPA 1 WITH AMENDMENTS)
- 2. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF INTENDED SCOPE OF WORK TO BE PROVIDED BY CONTRACTOR. DRAWINGS INTENT IS NOT TO SHOW ALL RACEWAYS, OUTLETS, JUNCTION BOXES, APPURTENANCES AND ACCESSORIES REQUIRED TO COMPLETE INSTALLATIONS OF ELECTRICAL SYSTEMS CONSISTENT WITH THE PROJECT'S IMPLIED SCOPE OF WORK.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECCESARY RIGGING, LABOR, MATERIALS AND EQUIPMENT TO ENSURE A COMPLETE AND FULLY OPERATIONAL ELECTRICAL SYSTEM AS INDICATED
- 4. ALL ELECTRICAL MATERIALS AND FIXTURES SHALL BE UL LISTED AND LABELED AS APPLICABLE FOR APPLICATION.
- 5. ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR COMPLIANCE WITH AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT, THE ELECTRICAL INSTALLATIONS SHALL BE INSPECTED BY AN APPROVED STATE CERTIFIED INSPECTION AGENCY; VERIFY COMPLIANCE IN WRITING BY AGENCY PRIOR TO ANY NEW SERVICE ACTIVATION
- 6. ALL ELECTRICAL EQUIPMENT AND MATERIAL(S) SHALL BE FURNISHED AND/OR INSTALLED IN COMPLETE ACCORDANCE WITH RESPECTIVE MANU. SPECS. AND ALL APPROPRIATE TYPICAL DETAILS

CABLE AND WIRING REQUIREMENTS (IF APPLICABLE)

- 1. SPECIFIED CONDUCTOR DESIGNATIONS ARE AMERICAN WIRE GAUGE SIZES. MIN. SIZE SHALL BE #12 AWG FOR BOTH POWER CABLE AND GROUND
- 2. WIRE SIZE #10 AWG AND SMALLER SHALL BE SINGLE STRAND COPPER.
- 3. ALL WIRES BELOW GRADE TO BE RATED FOR IMMERSION IN WATER AND AND MARKED WITH A 'W' AS PART OF THE IDENTIFICATION CODING SYSTEM.
- 4. CONTRACTOR SHALL HAVE THE OPTION TO INSTALL MULTIPLE POWER CIRCUITS THRU THE SAME CONDUIT, WHICH SHALL COMPLY TO NEC SIZE REQUIREMENTS FOR QUANTITY OF WIRES. NO COMMUNICATION WIRE IN CONDUIT WITH POWER WIRES
- 5. ELECTRICIAN SHALL BEAR THE FULL RESPONSIBILITY TO VERIFY ALL SUITABLE EQUIPMENT AND FIXTURE CONNECTION REQUIREMENTS AS MANDATED BY BOTH THE CODE ENFORCEMENT AGENCY AND RESPECTIVE MANUFACTURER'S SPECIFICATIONS
- 6. KEEP CABLE AND WIRE SPLICES AND DEVICE CONNECTIONS TO AN ABSOLUTE MIN. USING ATTACHMENT BONDING TERMINATORS PER MATERIAL MANUFACTURER'S SPECS.
- 7. AWG SIZE FOR SUBSTITUTION OF ALUMINUM CONDUCTORS AND GROUND WIRES SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
- 8. DO NOT INSTALL CONDUCTORS IN A "STRAINED" OR "STRESSED" CONFIGURATION UNDER ANY CIRCUMSTANCE; PROVIDE MINOR ADDITION LENGTH OF WIRE WHEN ABSOLUTELY NECESSARY. LIGHTING SYSTEM REQUIREMENTS (IF APPLICABLE)
- 1. FIELD VERIFY THE EXACT MOUNTING HARDWARE REQUIREMENTS FOR ALL LIGHT FIXTURES BASED ON MANUF. INSTALLATION INSTRUCTIONS AND SURROUNDING PHYSICAL CONDITIONS. EACH LIGHT FIXTURE SHALL BE RIDGIDLY SUPPORTED FROM A BUILDING STRUCTURAL ELEMENT.
- 2. CONNECT EACH EMERGENCY LIGHT BATTERY PACK UNIT TO THE NEAREST LINE VOLTAGE LIGHTING CIRCUIT AHEAD OF THE SWITCHES THIS WILL ENSURE THAT THE UNIT IS ON A CONSTANT TRICKLE CHARGE AND WILL ACTIVATE INSTANTANEOUSLY UPON REGULAR LIGHTING CIRCUIT FAILURE.

CONDUIT AND RACEWAY REQUIREMENTS (IF APPLICABLE)

- 1. UNDERGROUND CONDUIT SHALL BE SCH. 40 GREY PVC AT MIN. 18" DEEP W/ GALV. STEEL LONGSWEEP ELBOWS. VERIFY DEPTH AND PROVIDE ANSI CERTIFIED MARKING TAPE (12" ABOVE TOP OF CONDUIT) AND 2500 PSI 12" THICK (AROUND ALL SIDES) CONC. (IF REQUIRED) BY UTILITY.
- 2. CONDUIT ABOVE GRADE SHALL BE OF TYPE AS APPROVED BY THE N.E.C.: THE LOCAL CODE ENFORCEMENT AGENCY; OR AS IDENTIFIED ON THE DRAWINGS. ELECTRICIAN SHALL BEAR THE FULL RESPONSIBILITY FOR COMPLIANCE AS AUTHORIZED BY ARCHITECT'S REVIEW.
- 3. CONDUITS FOR ALL WIRING OUTSIDE OF THE BUILDING SHALL BE GREY, SCHEDULE 40 PVC, UL RATED FOR SERVICE USES AND BE MARKED AS CERTIFIED FOR IMMERSION IN WATER WITH "W" AS PART OF THE IDENTIFICATION CODING SYSTEM; EXPOSED TO WEATHER WITH WATERTIGHT SEALS. SUPPORTS POINTS 4'-0" (ON CENTER) MAX. APART.
- 4. PROVIDE EXPANSION COUPLINGS ON ALL STRAIGHT RUNS WITH A TOTAL LENGTH GREATER THAN 75 LINEAL FT.
- 5. RACEWAY SIZE(S) SHALL BE INCREASED IN SIZE, WHERE NECESSARY, IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.E.C.
- MIN. CONDUIT SIZE SHALL BE ONE/HALF IN. INSIDE DIAMETER. RACEWAY SIZE SHALL BE INCREASED WHERE NECESSARY IN ACCORDANCE WITH N.E.C.
- 7. COMMUNICATION CABLING AND WIRES SHALL NOT BE INSATLLED IN THE SME CONDUIT WITH A POWER CIRDUIT.
- 8. BOXES SHALL NEC COMPLIANT FOR EACH RESPECTIVE APPLICATION OF TYPE(S) AS APPROVED BY REPRESETATIVES OF THE OWNER(S), ARCHITECT, AND THE ENGINEER

CIRCUIT PROTECTION (IF APPLICABLE)

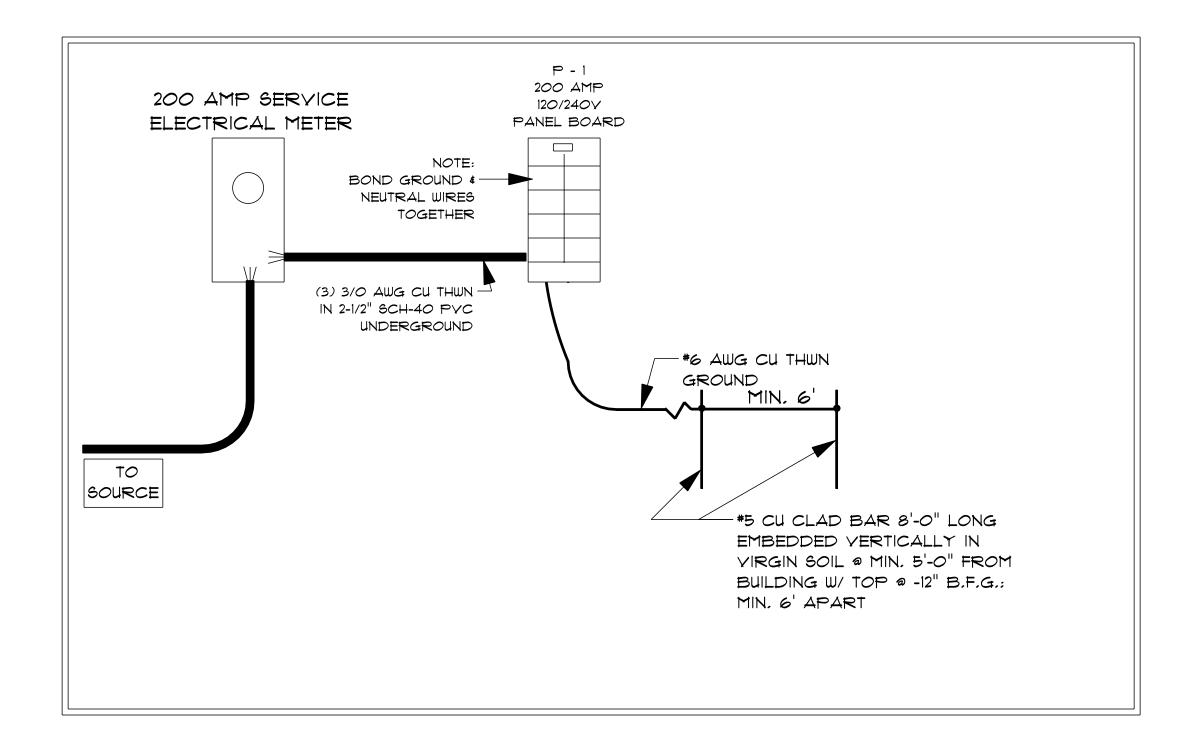
- 1. ALL WIRING SYSTEMS SHALL BE PROTECTED BY AN N.E.C. COMPLIANT ARRANGEMENT OF U.L. LISTED AND LABELED AUTOMATIC, IE.... FUSE(S) OR BREAKER(S), OVERLOAD FAILURE DE-ENERGIZATION SYSTEM.
- 2. VERIFY AND OR PROVIDE AN APPROPRIATELY RATED FOR AMPERAGE, AND VOLTAGE, MAIN BREAKER IN EACH PANEL OR SUBPANEL EITHER AS IDENTIFIED IN THE PANEL SCHEDULE OR AS REQUIRED BY THE N.E.C. TO PROTECT **EACH CIRCUIT**
- 3. PROVIDE AN APPROPRIATELY RATED FOR AMPERAGE, (FUSES IF NECESSARY), VOLTAGE AND NEMA INTEGRATED APPLICATION; U.L. LISTED AND LABELED; MANUAL OR AUTOMATIC DISCONNECTING DEVICE; OR SWITCH FOR EACH POWER-CONSUMING APPLIANCE AS IDENTIFIED ON THE DRAWINGS MANDATED BY A PARTICULAR MANUF. SPECS. OR REQUIRED BY THE N.E.C.

GROUNDING REQUIREMENTS (IF APPLICABLE)

- 1. ALL ELECTRICALLY ENERGIZED EQUIPMENT, ELECTRICAL DEVICES, PANELS, AND TERMINATIONS SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE MOST RECENT N.E.C. AND UL 467 STIPULATIONS
- 2. CONNECTION BOXES AND RACEWAYS SHALL NOT UNDER ANY CIRCUMSTANCE - BE UTILIZED AS THE SERVICE GROUND.
- 3. GROUNDING CONNECTORS SHALL COMPLY WITH IEEE 837 AND UL 467. BOLTED ATTACHMENTS SHALL UTILIZED BOLTED--PRESSURE OR COMPRESSION TYPE FITTINGS. WELDED CONNECTIONS SHALL BE EXOTHERMIC TYPE AND GROUNDING CONDUCTOR TERMINATIONS SHALL BE ACCOMPLISHED WITH USE OF BOLTED PRESSURE CLAMPS.
- 4. ROUTE GROUND CONDUTORS BY THE SHORTEST, MOST DIRECT PATH TO THE MAIN GROUND ARRANGEMENT OR RESPECTIVE UPSTREAM PANEL ASSEMBLY
- 5. INSTALL GROUND CONDUCTORS AND CONNECTIONS TO NOT PERMIT ELECTROLYTIC OF GALVANIC DETERIORATION OF MATERIAL --- IN PARTICULAR NO BONDING OF DISSIMILIAR MATERIALS
- 6. GROUND TERMINATIONS FOR #6 AWG WIRE AND LARGER SHALL BE BY MEANS OF PRESSURE TYPE LUGS; FOR #10 AND SMALLER, UL LISTED AND LABELED, HINGED PRESSURE TYPE DEVICES WILL BE ACCEPTABLE.

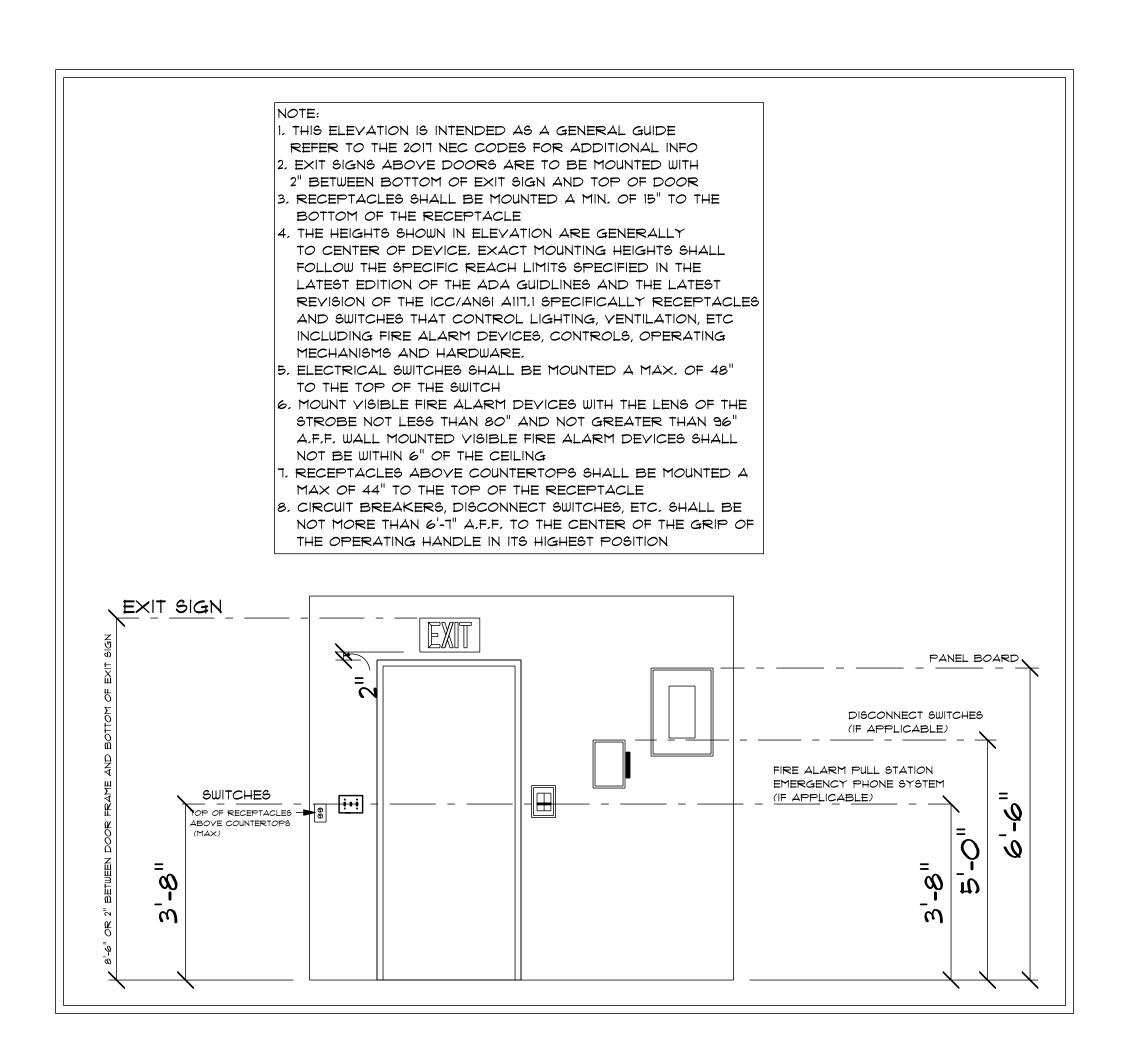
PANEL REQUIREMENTS (IF APPLICABLE)

- 1. PANEL SHALL BE LISTED BY UNDERWRITERS LABAROTORIES (UL) AND BEAR THE ORGANIZATIONAL SEAL VISIBLE FOR INSPECTION; AND BE PROVIDED WITH A TYPED CIRCUIT IDENTIFICATION LIST.
- 2. PANEL SHALL HAVE AMPERE INTERRUPTING CAPACITY (AIC) RATINGS AS REQUIRED BY THE LOCAL UTILITY COMPANY. IF REQUESTED BY CODE OFFICIAL. SUBMIT ON DEFERRED BASIS.
- 3. PANEL SHALL HAVE NEMA TYPE 1 CERTIFIED FOR DRY ENVIRONMENTS INDOOR INSTALLATIONS AND NEMA 3R/12 FOR WEER-AREA APPLICATIONS AS REQUIRED BY OWNER, ARCHITECT, ENGINEER AND/OR ENFORCEMENT AUTHORITY.
- 4. ELECTRICIAN SHALL MAKE EVERY REASONABLE EFFORT AS NECESSARY TO PROVIDE (EQUAL) BALANCING OF LOADS ACROSS ALL BUSS BARS (PHASES) WITH RESPECT TO AVAILABLE VOLTAGE.
- 5. WALL MOUNT PANEL SHALL BE RIGIDLY SUPPORTED PER MANUF. SPECS. WITH TOP AT APPROXIMATELY 6'-7"" A.F.F.
- 6. PANEL SHALL BE FACTORY ASSEMBLED WITH NEMA AB-1 COMPLIANT MOLDED-CASE BREAKERS AND ALL COMPONENTS TO ESTABLISH FULL RATING.
- 7. FOR BREAKER FRAME SIZES 125 AMP AND SMALLER, THEY SHALL BE PLUG-IN TYPE; LARGER BOLT-IN TYPE
- 8. INSTALL PANEL WITH ALL PROPERLY BONDED INTERNAL CONNECTIONS AND MECHANICAL RACEWAY FITTINGS TO ENSURE RIGIDITY OF NEAT ORDERLY WIRING ARRANGEMENTS

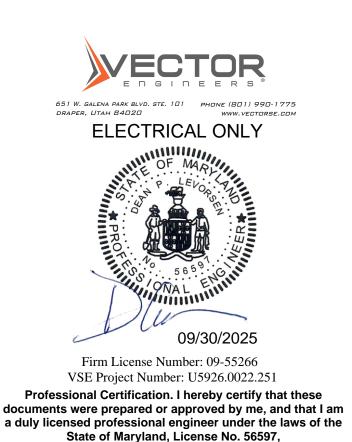


LINE DIAGRAM

SCALE: NOT TO SCALE







Expiration Date: 21-Oct-2026

262 SPRING (KINZERS PA 1TEL: 717-201) E: mike@silv



UNKNOWN

M N RD .087 : JERUSALEN ERUSALEM F ILLE MD 210 JERUS VILLE 2813 KINGS

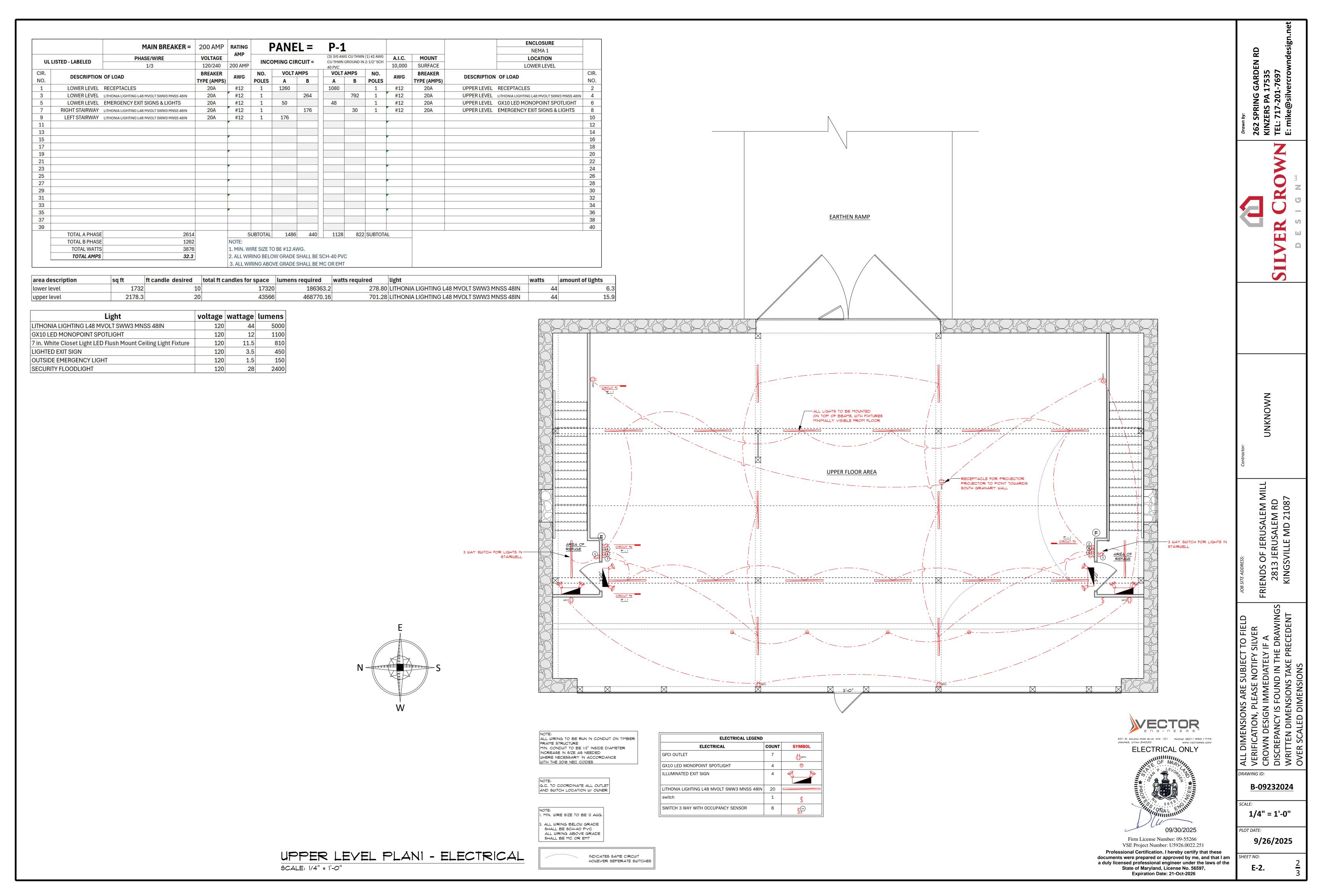
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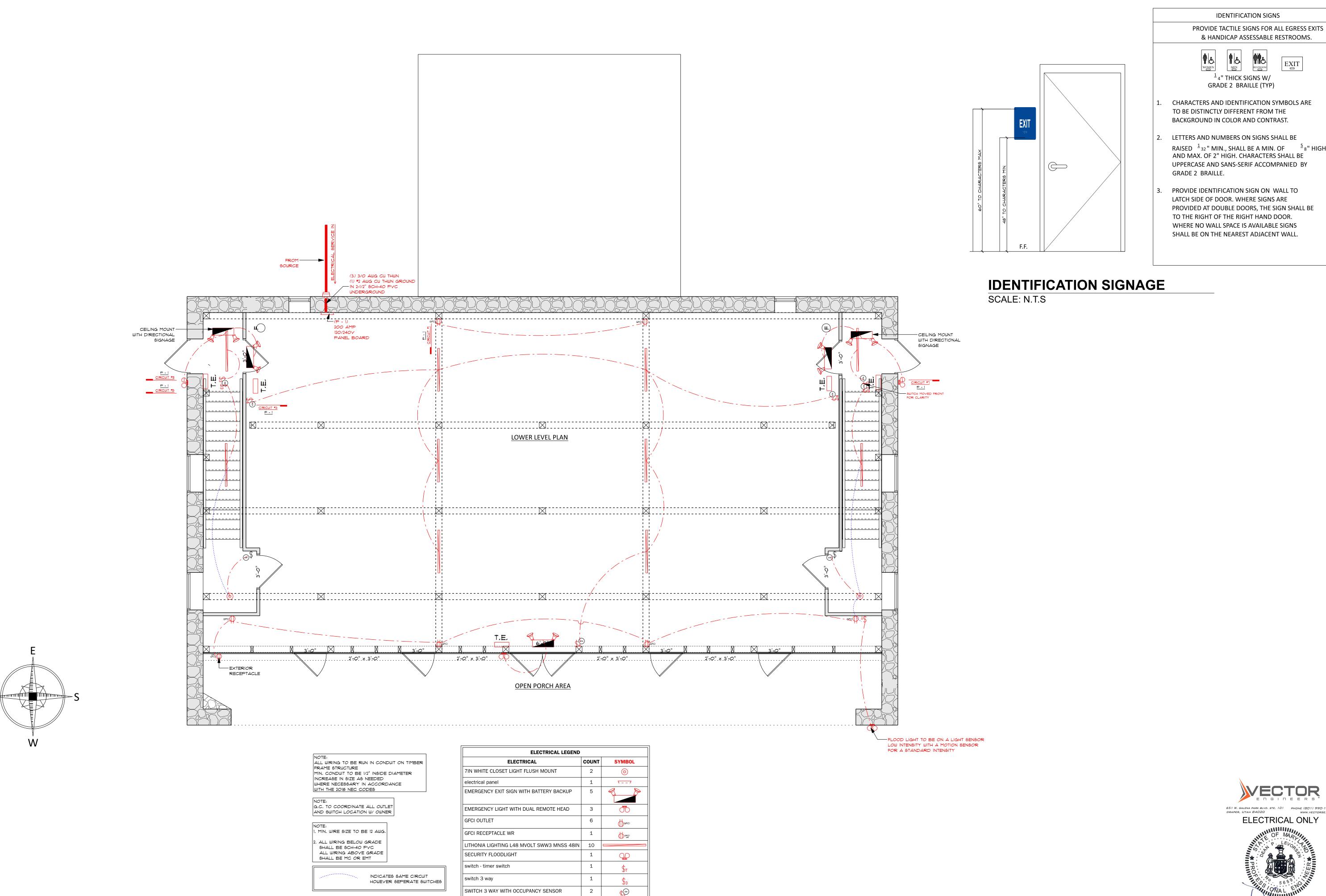
RAWING ID: B-09232024

As Noted

OT DATE: 9/26/2025

E-1.





♦

T.E.

SWITCH 4 WAY WITH OCCUPANCY SENSOR

SWITCH WITH OCCUPANCY SENSOR

TACTILE EXIT SIGN

& HANDICAP ASSESSABLE RESTROOMS.

CHARACTERS AND IDENTIFICATION SYMBOLS ARE TO BE DISTINCTLY DIFFERENT FROM THE

LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED $\frac{1}{32}$ " MIN., SHALL BE A MIN. OF $\frac{5}{8}$ " HIGH AND MAX. OF 2" HIGH. CHARACTERS SHALL BE UPPERCASE AND SANS-SERIF ACCOMPANIED BY

PROVIDE IDENTIFICATION SIGN ON WALL TO LATCH SIDE OF DOOR. WHERE SIGNS ARE PROVIDED AT DOUBLE DOORS, THE SIGN SHALL BE TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE NO WALL SPACE IS AVAILABLE SIGNS

ELECTRICAL ONLY

09/30/2025

Firm License Number: 09-55266

VSE Project Number: U5926.0022.251

Professional Certification. I hereby certify that these

documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the

State of Maryland, License No. 56597,

Expiration Date: 21-Oct-2026

DRAWING ID: B-09232024

As Noted

PLOT DATE: 9/26/2025

E-3.

LOWER LEYEL PLANI - ELECTRICAL

SCALE: 1/4" = 1'-0"