BASIC ELECTRICAL REQUIREMENTS:

- 1. GENERAL: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST APPROVED NATIONAL ELECTRICAL CODE (NEC) AND NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) STANDARDS UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED. ALL ELECTRICAL WORK SHALL COMPLY WITH ADA RECOMMENDATIONS. ALL ELECTRICAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER BY A LICENSED ELECTRICIAN, OR A CERTIFIED APPRENTICE WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN, USING THE BEST METHODS KNOWN TO THE TRADE AND SHALL PRESENT A NEAT AND PROFESSIONAL APPEARANCE WHEN COMPLETED. THE OWNER RESERVES THE RIGHT TO CHANGE, WITHOUT ADDITIONAL COST, THE LOCATION OF ANY APPARATUS OR OUTLET, PROVIDED SUCH CHANGE DOES NOT ADD MORE THAN 10 FT TO THE FEEDER AND IS ORDERED BEFORE INSTALLATION OF THE AFFECTED PORTION OF THE WORK IS COMMENCED. CONTRACTOR SHALL BRING ALL CONFLICTS ON THE DRAWINGS TO THE OWNERS ATTENTION FOR HIS RESOLUTION PRIOR TO PERFORMING THAT WORK.
- 2. THE CONTRACTOR SHALL SURVEY THE PROJECT SITE PRIOR TO THE BID TO ASSESS ACTUAL FIELD CONDITIONS. FAILURE TO PERFORM THIS INSPECTION BINDS THE CONTRACTOR TO PERFORM THE WORK WITH OUT EXTRA CHARGES DESPITE THE IGNORANCE OF REASONABLY ANTICIPATED CONDITIONS.
- 3. ROUGH-INS: THE CONTRACTOR SHALL VERIFY AND COORDINATE THE ROUGH-IN REQUIREMENTS OF EACH ITEM OF EQUIPMENT WITH THE CONTRACTOR SUPPLYING THE EQUIPMENT. 4. INSTALLATION: THE ELECTRICAL DRAWINGS INDICATE THE EXTENT AND GENERAL LOCATION AND ARRANGEMENT OF EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL DETAILS OF THE WORK AND VERIFY ALL DIMENSIONS IN THE FIELD SO THAT EQUIPMENT AND MATERIALS WILL BE PROPERLY LOCATED AND READILY ACCESSIBLE. THE CONTRACTOR SHALL
- A. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.

BUILDING SYSTEMS.

COORDINATE ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS AND TRADES.

SEQUENCE. COORDINATE. AND INTEGRATE THE VARIOUS ELEMENTS OF ELECTRICAL SYSTEMS,

EQUIPMENT, AND MATERIALS. COMPLY WITH THE FOLLOWING REQUIREMENTS:

- ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION. TO ALLOW FOR INSTALLATION OF ELECTRICAL SYSTEMS. FOUIPMENT, AND MATERIALS
- SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATION OF ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS FOR EFFICIENT FLOW OF THE WORK.
- WHERE MOUNTING HEIGHTS ARE NOT INDICATED, INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS TO PROVIDE MAXIMUM HEADROOM POSSIBLE. INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS TO CONFORM WITH APPROVED

SUBMITTAL DATA TO THE GREATEST EXTENT POSSIBLE. CONFORM TO THE ARRANGEMENTS INDICATED ON THE ELECTRICAL DRAWINGS, RECOGNIZING THAT PORTIONS OF THE WORK ARE

SHOWN ONLY IN DIAGRAMATIC FORM. WHERE COORDINATION REQUIREMENTS CONFLICT WITH

INDIVIDUAL SYSTEM REQUIREMENTS, REFER CONFLICT TO THE ARCHITECT/ENGINEER OR OWNER'S

- REPRESENTATIVE FOR RESOLUTION IN GENERAL, INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO BUILDING LINES AND/OR FEATURES AND/OR OTHER
- INSTALL ELECTRICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT AND COMPONENT PARTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.
- INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS GIVING RIGHT-OF-WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIC SLOPE(INCL. SPRINKLER SYSTEMS). 5. CUTTING AND PATCHING: ALL ELECTRICAL WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE, AND WHERE CUTTING, CHANNELING, CHASING, OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES IS NECESSARY FOR THE PROPER INSTALLATION, SUPPORT, OR ANCHORAGE OF
- CONDUIT OR OTHER ELECTRICAL WORK, THIS WORK SHALL BE CAREFULLY DONE. ANY RESULTING DAMAGE TO THE BUILDING OR OTHER SYSTEMS, EQUIPMENT, OR MATERIALS SHALL BE REPAIRED BY SKILLED MECHANICS OF THE TRADES INVOLVED, AT NO ADDITIONAL COST TO THE OWNER. 6. PRODUCTS: SYSTEMS, EQUIPMENT, AND MATERIALS DESCRIBED ON THE ELECTRICAL DRAWINGS ESTABLISH THE MINIMUM STANDARDS FOR QUALITY AND STYLE AND SHALL BE THE BASIS OF THE BID.
- ALL SYSTEMS, EQUIPMENT, AND MATERIALS SHALL BE NEW AND SHALL BEAR THE UL LABEL OR BE UL LISTED, WHERE APPLICABLE, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND NEMA 7. SUBSTITUTIONS: WHERE SYSTEMS, EQUIPMENT, OR MATERIALS ARE SPECIFIED BY MANUFACTURER OR BRAND NAME AND CATALOG NUMBER, SUCH SPECIFICATION SHALL ESTABLISH THE MINIMUM STANDARDS FOR QUALITY AND STYLE AND SHALL BE THE BASIS OF THE BID. SYSTEMS, EQUIPMENT. AND MATERIALS SO SPECIFIED SHALL BE FURNISHED UNDER THE CONTRACT UNLESS CHANGED BY WRITTEN AGREEMENT. SHOULD THE CONTRACTOR PROPOSE TO FURNISH PRODUCTS OTHER THAN THOSE SPECIFIED. AS PERMITTED BY "OR APPROVED EQUAL" CLAUSES, HE SHALL SUBMIT A WRITTEN REQUEST
- FOR SAID SUBSTITUTIONS THROUGH APPROPRIATE CHANNELS TO THE ARCHITECT/ENGINEER FOR HIS REVIEW. SUCH REQUEST SHALL BE ACCOMPANIED WITH COMPLETE DESCRIPTIVE LITERATURE INCLUDING, BUT NOT LIMITED TO, CATALOG CUT SHEETS, BROCHURES, CIRCULARS, SPECIFICATIONS, PERFORMANCE DATA, INSTALLATION INSTRUCTIONS, SHOP DRAWINGS, AND OTHER PRINTED INFORMATION IN SUFFICIENT DETAIL AND SCOPE TO VERIFY COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT. DESCRIPTIVE LITERATURE ON PROPOSED SUBSTITUTIONS SHALL BE CLEAR. CONCISE. AND LOGICALLY ARRANGED. ALL DATA WHICH IS, AND IS NOT, APPLICABLE SHALL BE CLEARLY IDENTIFIED AS SUCH. IF REQUESTED, THE CONTRACTOR SHALL SUBMIT SAMPLES OF BOTH SPECIFIED 4. WIRING DEVICES: AND PROPOSED ITEMS FOR INSPECTION. DESCRIPTIVE LITERATURE ON PROPOSED SUBSTITUTIONS SHALL BE RETURNED WITHOUT REVIEW IF NOT PROPERLY PREPARED. ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL BE UP TO THE DESCRETION OF THE ARCHITECT/ENGINEER AND/OR
- 8. SUBMITTALS: THE CONTRACTOR SHALL FOLLOW THE GENERAL PROVISIONS OF THE CONTRACT AND ESTABLISHED PROCEDURES. SUBMITTALS SHALL CONSIST OF COMPLETE DESCRIPTIVE LITERATURE INCLUDING, BUT NOT LIMITED TO, CATALOG CUT SHEETS, BROCHURES, CIRCULARS, SPECIFICATIONS, PERFORMANCE DATA, INSTALLATION INSTRUCTIONS, SHOP DRAWINGS, AND OTHER PRINTED INFORMATION IN SUFFICIENT DETAIL AND SCOPE TO VERIFY COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT. DESCRIPTIVE LITERATURE SHALL BE CLEAR, CONCISE, AND LOGICALLY ARRANGED. ALL DATA WHICH IS, AND IS NOT. APPLICABLE SHALL BE CLEARLY IDENTIFIED AS SUCH. IF REQUESTED, THE CONTRACTOR SHALL SUBMIT SAMPLES OF SPECIFIED ITEMS FOR INSPECTION. DESCRIPTIVE LITERATURE SHALL BE RETURNED WITHOUT REVIEW IF NOT PROPERLY PREPARED. THE
- FOLLOWING SYSTEMS, EQUIPMENT, AND MATERIALS, AS A MINIMUM, REQUIRE SUBMITTALS: A. ANY PROPOSED SUBSTITUTIONS.
- B. WIRING DEVICES.
- C. PANELBOARDS. D. DISCONNECT SWITCHES.
- E. CIRCUIT BREAKERS.

L & I STAMP AREA

- F. LIGHTING FIXTURES INCLUDING BALLASTS.
- 9. RECORD DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AT THE SITE A CLEAN, UNDAMAGED SET OF BLUE- OR BLACK-LINE WHITE PRINTS OF CONTRACT DRAWINGS. THIS RECORD SET OF CONTRACT DRAWINGS SHALL BE MARKED TO SHOW THE ACTUAL INSTALLATION AND WHERE THE ACTUAL INSTALLATION VARIES SUBSTANTIALLY FROM THE ELECTRICAL WORK AS ORIGINALLY SHOWN. MARK WHICHEVER DRAWINGS ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD DRAWINGS WITH A RED FRASABLE PENCIL USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE ELECTRICAL WORK. NOTE CONTRACT MODIFICATIONS AND APPROVED SUBSTITUTIONS WHERE APPLICABLE.
- 10 PROTECTION OF INSTALLED SYSTEMS, EQUIPMENT, AND MATERIALS: PROTECT INSTALLED SYSTEMS, EQUIPMENT, AND MATERIALS FROM DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER. REPAIR OR REPLACE, AT NO ADDITIONAL COST TO THE OWNER, DAMAGED SYSTEMS, EQUIPMENT, AND MATERIALS TO THE SATISFACTION OF THE ARCHITECT/ ENGINEER AND/OR OWNER.
- 11.CLEANING: UPON COMPLETION OF INSTALLATION, INSPECT INTERIOR AND EXTERIOR OF ALL ELECTRICAL EQUIPMENT. REMOVE PAINT SPLATTERS AND OTHER SPOTS, DIRT, AND DEBRIS. TOUCH-UP SCRATCHES AND MARS OF FINISH TO MATCH ORIGINAL FINISH.
- 12.CERTIFICATIONS: THE FOLLOWING SHALL BE OBTAINED AND SUBMITTED TO THE OWNER PRIOR TO

ELECTRICAL SYSTEMS: A CERTIFICATE OF FINAL INSPECTION AND APPROVAL BY

THE AUTHORITIES HAVING JURISDICTION 13.GUARANTEE: THE CONTRACTOR SHALL SUBMIT A WRITTEN GUARANTEE TO THE OWNER, PRIOR TO FINAL PAYMENT, THAT WARRANTS THE INSTALLATION SHALL REMAIN FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE BY THE OWNER. THE GUARANTEE SHALL STATE THAT THE OWNER IS NOT LIABLE FOR PARTS AND LABOR COSTS INCLIRED BY THE CONTRACTOR IN THE REPAIR OF ACTUAL PRODUCT OR INSTALLATION DEFECTS. THE GUARANTEE SHALL ALSO STATE THAT THE ON-SITE RESPONSE TIME TO REQUESTS FOR ASSISTANCE WILL BE 24 HOURS FOR NON-EMERGENCY CONDITIONS AND 2 HOURS FOR EMERGENCY CONDITIONS.

STANDARD MOUNTING HEIGHTS (UNLESS OTHERWISE NOTED)

WALL-MOUNTED CLOCKS, PROGRAM BELLS(OR AS SHOWN ON 9" BELOW -FINISHED CEILING ARCHITECTURAL DETAILS). 6" ABOVE FIRE BLUE SIGNAL LIGHT. HOUSE CABINET 10'-0" BATTERY LIGHTING UNITS AND REMOTE WALL MOUNTED LIGHT HEADS(OR 1'-0" BELOW FINISHED CEILING OF TOP OF UNIT). 8'-6" PEDANT-HUNG INDUSTRIAL AND STRIP LIGHTING FIXTURES. CENTER ABOVE WARNING AND SIGNALING FIXTURES/SIGNS. DOOR OR WINDOW OPENING 6'-6" TOP OF FLUSH AND SURFACE MOUNTED ELECTRICAL LIGHTING OR POWER PANELBOARDS WHOSE OPERABLE PARTS ARE EXCLUDED FORM 2010 ADA STANDARD SECTION 205. TOP OF HIGHEST ELECTRICAL SAFETY DISCONNECT SWITCHES, MAGNETIC STARTERS, CONTACTORS EXCLUDED FROM ACCESSIBLE ADA COMPLIANT DEVICES / OPERABLE PARTS COVERED BY 2010 ADA STANDARD SECTION 205, 309. 4'-0" MAX TOP OF ACCESSIBLE PART OF LIGHT SWITCHES, MANUAL MOTORS STARTERS. THERMOSTATS. GFI RECEPTACLES IN TOILET ROOM OR FOR SEPARATE SINKS, FIRE ALARM PULL STATION.TOP OF OPERABLE PARTS(CIRCUIT BREAKERS, SWITCHES ETC.) OF ACCESSIBLE DEVICES COVERED BY 2010 STANDARD SECTION 205, 309. 1'-4" BOTTOM OF RECEPTACLES, DESK TYPE TELEPHONE OUTLETS, LOW TELEVISION OUTLETS, DATA OUTLETS FINISHED FLOOR(FF)

MOUNTING HEIGHT NOTES:

- ALL MOUNTING HEIGHTS SHALL BE AS INDICATED BY ARCHITECT, IF NOT INDICATED BY ARCHITECT THEN PROVIDE AS NOTED ABOVE. 2. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS NOTED IN STANDARD MOUNTING HEIGHTS ABOVE. IN MASONRY CONTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING.
- 3. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWING OR SPECIFICATIONS.

1. STANDARD MOUNTING HEIGHTS: (COORDINATE WITH ARCH DRAWINGS)

- 4. INDICATION (+) NEXT TO A DEVICE INDICATES THAT DEVICE IS MOUNTED ABOVE A COUNTER OR CASEWORK. COORDINATE WITH ARCHITECTURAL DETAILS AND
- 5. ALL ACCESSIBLE ADA COMPLIANT DEVICES AND ITS OPERABLE PARTS SHALL BE MOUNTED PER 2010 ADA STANDARD SECTION 205,309.

ELECTRICAL MATERIALS:

- 1. RACEWAYS: RIGID GALVANIZED STEEL (RGS) CONDUIT: ANSI C80.1. LIQUIDTIGHT FLEXIBLE METAL CONDUIT: UL 360. FLEXIBLE STEEL CONDUIT WITH PVC JACKET. NONMETALIC CONDUIT AND TUBING (ENT): NEMA TC 13
- CAST METAL: NEMA FB 1, TYPE FD, CAST FERALLOY BOX WITH GASKETED COVER. HINGED COVER ENCLOSURES: NEMA 250, GALVANIZED STEEL ENCLOSURE WITH CONTINUOUS HINGE COVER, QUICK RELEASE TYPE LATCHES, REMOVABLE INTERIOR PANEL, AND MANUFACTURER'S STANDARD GRAY ENAMEL INSIDE AND OUT
- CONDUCTOR MATERIAL: ANNEALED COPPER OR ALUMINUM.
- INSULATION: THHN/THWN CONFORMING TO WC 5. CONDUCTORS #16 AWG AND SMALLER SHALL BE SOLID; CONDUCTORS #14 AWG AND
- LARGER SHALL BE STRANDED. MC CABLE IS PERMITTED FOR BRANCH CIRCUITRY, AND SHALL UTILIZE SOLID CONDUCTORS. GROUND CONDUCTORS #10 AWG AND SMALLER SHALL HAVE GREEN THHN/THWN INSULATION.
- GENERAL: COMPLY WITH NEMA WD 1, "GENERAL PURPOSE WIRING DEVICES." COLOR: WHITE, BLACK, GRAY, IVORY, OR BROWN TO BE AS SELECTED BY THE ARCHITECT/ ENGINEER AND/OR THE OWNER. RECEPTACLES: COMPLY WITH UL 498, "ELECTRICAL ATTACHMENT PLUGS AND RECEPTACLES, "HEAVY DUTY SPECIFICATION GRADE EXCEPT AS OTHERWISE INDICATED. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLES SHALL COMPLY WITH UL 943. "GROUND FAULT
- CIRCUIT INTERRUPTERS." WITH INTEGRAL NEMA 5-20R DUPLEX RECEPTACLE DESIGNED FOR INSTALLATION IN A 2-3/4" DEEP DEVICE BOX WITHOUT ADAPTER. TOGGLE SWITCHES: 20A, 120-277V AC, QUIET TYPE, SPECIFICATION GRADE AND SHALL COMPLY WITH UL 20, "GENERAL USE SNAP SWITCHES." SINGLE-POLE, TWO-POLE, THREE-WAY,
- AND FOUR-WAY AS INDICATED AND/OR REQUIRED. DEVICE PLATES: SINGLE AND COMBINATION TYPES WHICH MATE AND MATCH WITH CORRESPONDING WIRING DEVICES.
- MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS MANUFACTURED BY HUBBEL INC., OR APPROVED EQUAL BY LEVITON.

5. GROUNDING:

- GROUNDING AND BONDING PRODUCTS: OF TYPES INDICATED AND/OR OF SIZES AND RATINGS O COMPLY WITH THE NEC. WHERE TYPES, SIZES, RATINGS, AND QUANTITIES ARE IN EXCESS OF NEC REQUIREMENTS, THE MORE STRINGENT REQUIREMENTS AND THE GREATER SIZE, RATING, AND QUANTITY INDICATIONS SHALL GOVERN. SMOOTH MATCHING NYLON IN ALL AREAS.
- CONDUCTOR MATERIAL: COPPER.
 WIRE AND CABLE CONDUCTORS: CONFORM TO NEC TABLE 8, EXCEPT AS OTHERWISE INDICATED, FOR CONDUCTOR PROPERTIES, INCLUDING STRANDING.
 CONNECTOR PRODUCTS: UL LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED.
- CIRCUIT BREAKERS: PROVIDE TYPE, RATING, AND FEATURES INDICATED. BOLT-ON EXCEPT WHERE PLUG-IN FOR USE ON EXISTING PANELBOARDS(NOT BEING UPGRADED) TANDEM CIRCUIT BREAKERS SHALL NOT BE USED. MULTIPOLE CIRCUIT BREAKERS SHALL HAVE AN INTERNAL COMMON TRIP AND A SINGLE HANDLE. ENCLOSURES: NEMA TYPE 1, UNLESS OTHERWISE INDICATED. FRONT: SECURED TO BOX WITH CONCEALED TRIM CLAMPS EXCEPT AS INDICATED. FRONT FOR
- SURFACE MOUNTED PANELBOARDS SHALL BE SAME DIMENSIONS AS BOX.
 DIRECTORY FRAME: METAL WITH CLEAR PLASTIC COVER MOUNTED ON INSIDE OF PANELBOARD BUS WORK: HARD DRAWN COPPER OF 98% CONDUCTIVITY.
- MAIN AND NEUTRAL LUGS: COMPRESSION TYPE. EQUIPMENT GROUND BUS: ADEQUATE FOR FEEDER AND BRANCH CIRCUIT EQUIPMENT GROUND CONDUCTORS. BONDED TO BOX. PROVISIONS FOR FUTURE DEVICES: EQUIP WITH MOUNTING BRACKETS, BUS CONNECTION, AND NECESSARY APPURTENANCES, FOR THE CIRCUIT BREAKER AMPERE RATINGS INDICATED FOR FUTURE INSTALLATION OF DEVICES.
- MAIN AND SUBFEED LUGS: PROVIDE WHERE INDICATED.

 NAMEPLATE: CUSTOM ENGRAVED PLASTIC LAMINATE, WHITE LETTERS ON BLACK FIELD, FOR EACH PANELBOARD MOUNTED WITH EPOXY OR INDUSTRIAL CEMENT OR ADHESIVE. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS MANUFACTURED BY SQUARE-D, SIEMENS OR CUTLER HAMMER CO. DISCONNECTS AND CIRCUIT BREAKERS:
- FUSIBLE SWITCH, 800A AND SMALLER: NEMA KS 1, TYPE HD, CLIPS TO ACCOMODATE SPECIFIED TWO (2) PAD LOCKS, AND INTERLOCKED WITH COVER IN "CLOSED" POSITION. ENCLOSURES SHALL COMPLY WITH NEMA KS 1; TYPE 1 INDOOR DRY LOCATIONS; MOLDED CASE CIRCUIT BREAKER: NEMA AB 1, HANDLE LOCKABLE WITH TWO (2) PADLOCKS. FRAME SIZE. TRIP RATING, NUMBER OF POLES, AND AUXILLARY DEVICES AS INDICATED.
- CIRCUIT BREAKERS SHALL HAVE A MINIMUM INTERRUPTING CAPACITY AS FOLLOWS: MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS

SUITABLE FOR INSTALLATION IN EXISTING PANELS. DISCONNECTS SHALL BE BY SQUARE—D.

ENCLOSURES SHALL COMPLY WITH NEMA AB 1; TYPE 1. INDOOR DRY LOCATIONS.

GENERAL ELECTRICAL NOTES:

APPROVED CONDUITS

- 1. WIRING METHODS: WIRING SHALL CONSIST OF CABLES AND WIRES INSTALLED IN RGS CONDUIT, EMT, LIQUIDTIGHT FLEXIBLE METAL CONDUIT AND MC CABLES. RACEWAYS SHALL BE CONCEALED WITHIN FINISHED WALLS AND CEILINGS UNLESS OTHERWISE INDICATED. OTHER THAN ROOF PENETRATIONS REQUIRED TO FEED ROOF MOUNTED EQUIPMENT, RACEWAYS WILL NOT BE ROUTED EXPOSED OUTSIDE OF THE BUILDING. NON-METALLIC ROMEX SHALL BE PERMITTED TO BE USED IN THE FOLLOWING:
- 1) ONE- AND TWO-FAMILY DWELLINGS AND THEIR ATTACHED OR DETACHED GARAGES, AND THEIR STORAGE BUILDINGS. 2) MULTI-FAMILY DWELLINGS PERMITTED TO BE OF TYPES III, IV, AND V CONSTRUCTION. 3) OTHER STRUCTURES PERMITTED TO BE OF TYPES III, IV, AND V CONSTRUCTION. CABLES SHALL BE CONCEALED WITHIN WALLS, FLOORS, OR CEILINGS THAT PROVIDE A THERMAL BARRIER OF MATERIAL THAT HAS AT LEAST A 15-MINUTE FINISH RATING AS IDENTIFIED IN LISTINGS OF FIRE-RATED ASSEMBLIES. 4) CABLE TRAYS IN STRUCTURES PERMITTED TO BE TYPES III. IV. OR V WHERE THE CABLES ARE IDENTIFIED FOR THE USE.
- TYPES I AND II CONSTRUCTION. NON-METALLIC ROMEX SHALL NOT BE PERMITTED IN THE FOLLOWING:
- 1) IN ANY DWELLING OR STRUCTURE NOT SPECIFICALLY PERMITTED ABOVE. 2) EXPOSED WITHIN A DROPPED OR SUSPENDED CEILING CAVITY IN OTHER THAN ONE- AND TWO-FAMILY AND MULTIFAMILY DWELLINGS 3) AS SERVICE-ENTRANCE CABLE.

5) TYPES I AND II CONSTRUCTION WHERE INSTALLED WITHIN RACEWAYS PERMITTED TO BE INSTALLED IN

- 4) IN HOISTWAYS OR ON ELEVATORS OR ESCALATORS. 5) EMBEDDED IN POURED CEMENT, CONCRETE, OR AGGREGATE.
- 6) IN WET, DAMP OR CORROSIVE LOCATIONS IF NOT IDENTIFIED AS NMC CABLES. EXPOSED & OUTDOOR PART OF WIRE SHALL BE PROTECTED AGAINST PHYSICAL DAMAGE USING
- 2. RACEWAYS: RACEWAYS SHALL BE PROVIDED WHERE INDICATED AND REQUIRED AND SHALL BE INSTALLED AS SPECIFIED BELOW. UNLESS OTHERWISE INDICATED. MINIMUM RACEWAY SIZE SHALL BE 3/4 IN. RGS CONDUIT SHALL BE USED FOR ALL OUTDOOR INSTALLATIONS. EMT SHALL BE USED FOR ALL INDOOR INSTALLATIONS. LIQUIDTIGHT FLEXIBLE METAL CONDUIT, 6 FT MAXIMUM LENGTH, SHALL BE USED FOR ALI CONDUIT TERMINATIONS AT EQUIPMENT SUBJECT TO VIBRATION. BUSHINGS, MANUFACTURED FITTINGS, OR BOXES PROVIDING EQUIVALENT MEANS OF PROTECTION SHALL BE INSTALLED ON THE ENDS OF ALL CONDUITS AND SHALL BE OF THE INSULATING TYPE WHERE REQUIRED BY THE N.E.C. ONLY LISTED ADAPTERS SHALL BE USED TO CONNECT EMT TO RGS CONDUIT AND CAST METAL BOXES AND CONDUIT BODIES, PENETRATIONS OF SLABS AND FIRE RATED WALLS SHALL BE FIRESTOPPED. KEEP RACEWAYS AT LEAST 6 IN. AWAY FROM PARALLEL RUNS OF FLUES AND STEAM OR HOT WATER PIPING. INSTALL HORIZONTAL RACEWAY RUNS HIGHER THAN WATER AND STEAM PIPING RACEWAYS CROSSING STRUCTURAL EXPANSION JOINTS SHALL BE PROVIDED WITH SUITABLE EXPANSION FITTINGS OR OTHER SUITABLE MEANS TO COMPENSATE FOR THE BUILDING EXPANSION AND CONTRACTION. RACEWAYS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS. STRUCTURAL MEMBERS AND FEATURES, MECHANICAL DUCT AND PIPING SYSTEMS, OR INTERSECTIONS OF VERTICAL PLANES AND CEILINGS. CHANGES IN DIRECTION OF RUNS SHALL BE ACCOMPLISHED WITH SYMMETRICAL BENDS OR CAST METAL FITTINGS. FIELD-MADE ELBOWS AND OFFSETS SHALL BE MADE WITH AN APPROVED HICKEY OR CONDUIT BENDING MACHINE. CRUSHED OR DEFORMED RACEWAY SHALL NOT BE INSTALLED. CARE SHALL BE TAKEN TO PREVENT THE LODGMENT OF DIRT. AND CONSTRUCTION MATERIALS AND DEBRIS IN RACEWAYS
- OBSTRUCTIONS OR SHALL BE REPLACED. RGS CONDUIT AND EMT SHALL BE SECURELY AND RIGIDLY FASTENED IN PLACE AT INTERVALS OF NOT MORE THAN 10 FT AND WITHIN 3 FT OF FITTINGS AND BOXES WITH APPROVED PIPE STRAPS, WALL BRACKETS, CONDUIT CLAMPS, CONDUIT HANGERS, THREADED C-CLAMPS, OR CEILING TRAPEZE. C-CLAMPS OR BEAM CLAMPS SHALL HAVE STRAP OR ROD TYPE RETAINERS. LOADS AND SUPPORTS SHALL BE COORDINATED WITH SUPPORTING STRUCTURES TO PREVENT DEFORMATION OR DAMAGE TO STRUCTURES. BUT NO LOAD SHALL BE APPLIED TO JOIST BRIDGING. FASTENINGS SHALL BE BY WOOD SCREWS OR SCREW TYPE NAILS TO WOOD; BY TOGGLE BOLTS ON HOLLOW CMU; BY EXPANSION BOLTS ON CONCRETE OR BRICK; AND BY MACHINE SCREWS, WELDED THREADED STUDS, HEAT TREATED OR SPRING STEEL TENSION CLAMPS ON STEEL WORK. NAIL TYPE NYLON ANCHORS OR THREADED STUDS DRIVEN IN BY A POWDER CHARGE AND PROVIDED WITH LOCK WASHERS AND NUTS MAY BE USED IN LIEU OF EXPANSION BOLTS OR MACHINE SCREWS. RACEWAYS OR PIPE STRAPS SHALL NOT BE WELDED TO STEEL STRUCTURES. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, SHEET METAL SCREWS MAY BE USED. CONDUIT SHALL NOT BE SUPPORTED USING WIRE OR NYLON TIES. RACEWAYS SHALL BE INSTALLED AS A COMPLETE SYSTEM AND BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE. UPPER RACEWAYS SHALL NOT BE THE SUPPORT OF LOWER RACEWAYS. SUPPORTING MEANS WILL NOT BE SHARED BETWEEN ELECTRICAL RACEWAYS AND MECHANICAL DUCTS OR PIPING. MOUNTING HARDWARE SHALL NOT PRESENT SHARP EDGES WHERE ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS: ANSI C80.3 WITH COMPRESSION TYPE FITTINGS. PERSONNEL CONTACT IS POSSIBLE. IN MECHANICAL SPACES, "MINERALAC" SUPPORTS SHALL NOT BE USED

DURING THE COURSE OF CONSTRUCTION. CLOGGED RACEWAYS SHALL BE ENTIRELY FREED OF

3. BOXES: BOXES SHALL BE PROVIDED IN RACEWAY SYSTEMS WHEREVER REQUIRED FOR PULLING OF WIRES, MAKING CONNECTIONS, AND MOUNTING OF DEVICES OR LIGHTING FIXTURES. IN GENERAL, BOXES SHALL E CONSTRUCTED OF HOT-DIPPED GALVANIZED FINISHED SHEET STEEL. BOXES FOR METALLIC RACEWAYS, 4 IN BY 4 IN. NOMINAL SIZE AND SMALLER, SHALL BE OF THE CAST METAL HUB TYPE AND GASKETED WHEN LOCATED OUTSIDE OF THE BUILDING. BOXES SHALL BE LISTED AS SUITABLE FOR THE ENVIRONMENTAL CONDITIONS OF THE LOCATION THEY ARE INSTALLED. BOXES FOR MOUNTING OF LIGHTING FIXTURES SHALL BE NOT LESS THAN 4 IN. SQUARE EXCEPT SMALLER BOXES SHALL BE INSTALLED WHERE REQUIRED BY FIXTURE CONFIGURATION. UNLESS OTHERWISE INDICATED, DEVICE BOXES FOR RECEPTACLES SHALL BE MOUNTED WITH THE CENTER OF THE DEVICE BOX APPROXIMATELY 18 IN. AFF. INDICATED. DEVICE BOXES FOR TOGGLE SWITCHES SHALL BE MOUNTED WITH THE TOP OF THE ACCESSIBLE PART APPROXIMATELY 48 IN. AFF. BOXES AND BOX SUPPORTS SHALL BE FASTENED TO WOOD WITH WOOD SCREWS OR SCREW TYPE NAILS OF EQUAL HOLDING STRENGTH, WITH BOLTS AND METAL EXPANSION SHIELDS ON CONCRETE AND BRICK, WITH TOGGLE BOLTS ON HOLLOW CMU, AND WITH MACHINE SCREWS OR WELDED STUDS ON STEEL WORK. THREADED STUDS DRIVEN IN BY POWDER CHARGE AND PROVIDED WITH

LOCKWASHERS AND NUTS, OR NAIL TYPE NYLON ANCHORS MAY BE USED IN LIEU OF EXPANSION SHIELDS

OR MACHINE SCREWS. HANGERS SHALL NOT BE FASTENED OR SUPPORTED FROM JOIST BRIDGING.

- 4. WIRES AND CABLES: EXAMINE RACEWAYS AND BUILDING FINISHES TO RECEIVE WIRES AND CABLES FOR COMPLIANCE WITH INSTALLATION TOLERANCES AND OTHER CONDITIONS. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. PULL WIRES AND CABLES INTO RACEWAY SIMULTANEOUSLY WHERE MORE THAN ONE IS BEING INSTALLED IN THE SAME RACEWAY. USE PULLING COMPOUND OR LUBRICANT WHERE NECESSARY; COMPOUND USED MUST NOT DETERIORATE CONDUCTORS OR INSULATION. USE PULLING MEANS, INCLUDING FISH TAPE, CABLE, ROPE, AND BASKET-WEAVE WIRE/CABLE GRIPS THAT WILL NOT DAMAGE WIRES/CABLES OR RACEWAY. INSTALL EXPOSED CABLE. PARALLEL AND PERPENDICULAR TO WALLS. STRUCTURAL MEMBERS AND FEATURES MECHANICAL DUCT AND PIPING SYSTEMS. OR INTERSECTIONS OF VERTICAL PLANES AND CEILINGS. HORIZONTAL RUNS OF MC CABLE SHALL BE SUPPORTED ON 3 FT MAXIMUM CENTERS. VERTICAL RUNS OF MC CABLES SHALL BE SUPPORTED ON 6 FT MAXIMUM CENTERS. EXPOSED PLENUM CABLE SHALL BE SUPPORTED ON 3 FT MAXIMUM CENTERS. THE NUMBER OF SPLICES SHALL BE KEPT TO AN ABSOLUTE MINIMUM. WIRING AT EACH OUTLET SHALL BE INSTALLED WITH AT LEAST 8 IN. SLACK.
- . WIRING DEVICES: INSTALL WIRING DEVICES WHERE INDICATED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTION, APPLICABLE REQUIREMENTS OF THE NEC, AND RECOGNIZED INDUSTRY PRACTICES. INSTALL WIRING DEVICES IN DEVICE BOXES WHICH ARE CLEAN AND FREE FROM DIRT AND CONSTRUCTION MATERIALS AND DEBRIS. INSTALL WIRING DEVICES AFTER WIRING WORK IS COMPLETE. INSTALL DEVICE PLATES AFTER PAINTING WORK IS COMPLETE. TIGHTEN CONNECTORS AND TERMINALS. INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. PRIOR TO ENERGIZING CIRCUITS, TEST WIRING FOR ELECTRICAL CONTINUITY AND SHORTS. ENSURE PROPER POLARITY OF CONNECTIONS IS MAINTAINED. SUBSEQUENT TO ENERGIZING, TEST WIRING DEVICES AND DEMONSTRATE COMPLIANCE WITH REQUIREMENTS.
- 6. GROUNDING: ELECTRICAL SYSTEMS AND EQUIPMENT, METALLIC RACEWAYS AND BOXES, CABLE SHIELDS, METALLIC CABLE SHEATHS AND ARMOR, AND OTHER NON-CURRENT CARRYING METALLIC PARTS OF EQUIPMENT SHALL BE GROUNDED IN CONFORMANCE WITH THE NEC. EQUIPMENT GROUND CONDUCTORS SHALL COMPLY WITH NEC ARTICLE 250 FOR SIZES AND QUANTITIES. EXCEPT WHERE LARGER SIZES AND/OR MORE CONDUCTORS ARE INDICATED. PROVIDE SEPARATE INSULATED GROUND CONDUCTOR IN ALL RACEWAYS, REGARDLESS OF RACEWAY TYPE. SEPARATELY DERIVED SYSTEMS AS DEFINED BY THE NEC SHALL BE GROUNDED IN CONFORMANCE WITH NEC ARTICLE 250 PARA, 26. TERMINATE EQUIPMENT GROUND WIRES FOR FEEDERS AND BRANCH CIRCUITS WITH PRESSURE TYPE GROUND LUGS. WHERE METALLIC CONDUITS TERMINATE AT METALLIC HOUSINGS WITHOUT MECHANICAL AND ELECTRICAL CONNECTION TO HOUSING, TERMINATE EACH CONDUIT WITH A GROUNDING BUSHING. CONNECT GROUNDING BUSHINGS WITH A GROUND WIRE TO THE GROUND BUS IN THE HOUSING. BOND ELECTRICALLY NONCONTINUOUS CONDUITS AT BOTH ENTRANCES AND EXITS WITH GROUNDING BUSHINGS AND GROUND WIRES. TIGHTEN GROUNDING AND BONDING CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE—TIGHTENING VALUES.
- PANELBOARDS: INSTALL PANELBOARDS AND ACCESSORY ITEMS IN ACCORDANCE WITH NEMA PB 1.1. GENERAL INSTRUCTIONS FOR PROPER INSTALLATION, OPERATION, AND MAINTENANCE OF PANELBOARDS" RATED 600 VOLTS OR LESS," AND MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. MOUNT PANELBOARDS PLUMB AND RIGID WITHOUT DISTORTION OF BOX AND WITH THE TOP OF THE TRIM AT 78 IN AFF UNLESS OTHERWISE INDICATED. PROVIDE NEATLY TYPED AND ACCURATE CIRCUIT DIRECTORIES IN EACH PANELBOARD, REFLECTIVE OF FINAL CIRCUIT CONFIGURATION. PROVIDE FILLER PLATES IN ALL UNUSED SPACES. TRAIN WIRES IN PANELBOARDS GUTTERS NEATLY IN GROUPS, BUNDLE, AND WRAP WITH WIRE TIES. GROUND PANELBOARD IN CONFORMANCE WITH THE NEC. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS, INCLUDING GROUNDING CONNECTIONS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. PERFORM INSULATION RESISTANCE TESTS OF PANELBOARD BUSES. COMPONENTS, AND FEEDER AND BRANCH CIRCUIT WIRING; INSULATION RESISTANCE LESS THAN 100

MEGOHM IS UNACCEPTABLE.

FUSES. ENCLOSURE SUITABLE FOR THE ENVIRONMENT WHERE INSTALLED, HANDLE LOCKABLE WITH 8. DISCONNECTS AND CIRCUIT BREAKERS: PROVIDE DISCONNECTS AND CIRCUIT BREAKERS WHERE INDICATED ON THE ELECTRICAL DRAWINGS AND/OR WHERE REQUIRED BY THE NEC, WHETHER INDICATED ON THE ELECTRICAL DRAWINGS OR NOT. INSTALL DISCONNECTS AND CIRCUIT BREAKERS PLUMB AND LEVEL AND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. UPON COMPLETION OF INSTALLATION OF DISCONNECTS AND CIRCUIT BREAKERS, ENERGIZE CIRCUITS AND DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. EXCEPT AS OTHERWISE INDICATED, DO NOT DEMONSTRATE DISCONNECTS AND CIRCUIT BREAKERS BY OPERATING THEM UNDER LOAD; HOWEVER, DEMONSTRATE DISCONNECT AND CIRCUIT BREAKER OPERATION THROUGH SIX OPENING/CLOSING CYCLES WITH CIRCUIT UNLOADED. OPEN DISCONNECT AND CIRCUIT BREAKER ENCLOSURES FOR INSPECTION OF INTERIOR, MECHANICAL AND ELECTRICAL CONNECTIONS, FUSE INSTALLATION IF APPLICABLE, AND FOR VERIFICATION OF TYPE AND RATING OF FUSES INSTALLED IF APPLICABLE. CORRECT DEFICIENCIES THEN RETEST TO DEMONSTRATE COMPLIANCE WITH REQUIREMENTS. REMOVE AND REPLACE DEFECTIVE UNITS WITH NEW UNITS

- 9. LIGHTING FIXTURES: INSTALL FIXTURES WHERE, AND AT HEIGHTS, INDICATED IN ACCORDANCE WITH FIXTURE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. REQUIREMENTS OF THE NEC. AND RECOGNIZED INDUSTRY PRACTICES. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS, INCLUDING GROUND CONNECTIONS. IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. RECESSED OR SEMIRECESSED FIXTURES MAY BE SUPPORTED BY CEILING SUPPORT SYSTEM. INSTALL CEILING SUPPORT SYSTEM RODS OR WIRES AT A MINIMUM OF FOUR (4) RODS OR WIRES PER FIXTURE LOCATED NOT MORE THAN 6 IN. FROM FIXTURE CORNERS. FIXTURES WHICH ARE SMALLER THAN CEILING GRID SHALL BE CENTERED IN ACOUSTICAL CEILING PANEL AND SUPPORTED BY AT LEAST TWO (2) 3/4 IN. METAL CHANNELS SPANNING AND SECURED TO CEILING SYSTEM GRID TEES. FIXTURES WHICH LAY-IN CEILING GRID SYSTEM SHALL BE SECURED IN PLACE BY INSTALLATION OF CLIPS WHICH SECURELY FASTEN FIXTURE TO CEILING GRID TEES. SUPPORT SURFACE MOUNT FIXTURES GREATER THAN 2 FT IN LENGTH AT A POINT IN ADDITION TO THE OUTLET BOX FIXTURE STUD. UPON COMPLETION OF INSTALLATION AND JUST PRIOR TO DEMONSTRATION, CLEAN AND RELAMP FIXTURES. LAMP FIXTURES WITH SPECIFIED LAMPS IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS. UPON COMPLETION OF INSTALLATION, DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. WHERE POSSIBLE, CORRECT MALFUNCTIONING FIXTURES AT THE SITE. THEN RETEST TO DEMONSTRATE COMPLIANCE; OTHERWISE, REMOVE MALFUNCTIONING UNITS AND REPLACE WITH NEW UNITS AND PROCEED WITH RETESTING.
- 10. ELECTRICAL POWER & LIGHTING PLANS ARE DIAGRAMMATIC. FINAL LOCATIONS OF OUTLETS AND LIGHT FIXTURES ARE APPROXIMATE. EXACT ROUTING OF WIRING, LOCATIONS OF SWITCHES, OUTLETS & LIGHT FIXTURES SHALL BE GOVERNED BY STRUCTURAL, MECHANICAL AND PLUMBING CONDITIONS AND OBSTRUCTIONS. FINAL LOCATIONS OF ELECTRICAL FIXTURES SHALL BE DETERMINED DURING WALKTHROUGH W/ GENERAL CONTRACTOR AND OWNER PRIOR TO START OF ROUGH-IN.
- 11. THE MOUNTING HEIGHT OF ALL ELECTRICAL DEVICES, EQUIPMENT, FIXTURES SHALL COMPLY WITH THE STANDARD MOUNTING HEIGHT TABLE AND MOUNTING HEIGHT NOTES UNLESS OTHERWISE NOTED.
- 12. ALL ELECTRICAL AND LIGHTING DEVICE INSTALLATION SHALL MAINTAIN THE FIRE RATING SPECIFIED BY THE ARCHITECTURE PLANS

- MULTI STATION HARD-WIRED W/ BATTERY BACK-UP OR BATTERY OPERATED SMOKE ALARM MULTI STATION HARD-WIRED W/ BATTERY BACK-UP OR S/CO BATTERY OPERATED SMOKE & CARBON MONOXIDE
- MULTI STATION HARD-WIRED W/ BATTERY BACK-UP OR BATTERY OPERATED SMOKE ALARM, W/BUILT IN ADA
- MULTI STATION HARD-WIRED W/ BATTERY BACK-UP OR S/CO BATTERY OPERATED SMOKE & CARBON MONOXIDE STR COMBINATION ALARM, W/ BUILT-IN ADA STROBE
- D: DISCONNECT SWITCH
- FUSED SAFETY DISCONNECT SWITCH
- JUNCTION BOX
- ATTRIBUTE: D - DIMMER SWITCH

 B - THREE WAY SWITCH 4 - FOUR WAY SWITCH
- T TIMER SWITCH GD - GARBAGE DISPOSAL AIR SWITCH OS - OCCUPANCY SENSOR SWITCH PT - PROGRAMMABLE TIMER SWITCH
- FL FAN CONTROL & LIGHT SWITCH → DUPLEX OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DUPLEX OUTLET WEATHER PROOF EXTERIOR GFCI OUTLET
- SINGLE SPECIAL PURPOSE OUTLET WITH NEMA
- CONFIGURATION TO BE FIELD DETERMINED BASED ON INSTALLED EQUIPMENT

CEILING MOUNTED MOTION SENSOR SWITCH. COORDINATE

- W/ MANUFACTURER FOR OPTIMAL SPACING CEILING MOUNTED OCCUPANCY SENSOR SWITCH.
- COORDINATE W/ MANUFACTURER FOR OPTIMAL SPACING
- CEILING FAN/LIGHT COMBO

- BATHROOM FAN BATHROOM FAN/LIGHT COMBO
- BREAKER W/ SHUNT TRIP FUNCTION/ACCESSORY
- DISCONNECT OST O DISCONNECT W/ SHUNT TRIP FUNCTION/ACCESSORY
- FIRE ALARM ADDRESSABLE MONITOR MODULE FIRE ALARM ADDRESSABLE RELAY MODULE
- FIRE ALARM MANUAL PULL STATION, WIRE TO FACP FIRE ALARM CONTROL PANEL BOX
- FAAP FIRE ALARM ANNUNCIATOR PANEL EMERGENCY VOICE COMMUNICATION SYSTEMS
- 2-WAY COMMUNICATION CALL BOX BS 2-WAY COMMUNICATION SYSTEM BASE STATION
- CP CONTROL PANEL FIFF STROBE/HORN, WIRE TO FACE
- STROBE/SPEAKER, WIRE TO FACP & AMPLIFIER SI EMERGENCY SPEAKER, WIRE TO AMPLIFIER
- STROBE ONLY, WIRE TO FACP M LOW FREQUENCY SOUNDER, WIRE TO FACE
- © FS FLOW SWITCH "ALARM"
- TS TAMPER SWITCH "ALARM"
- SYSTEM HEAT DETECTOR, WIRE TO FACP SYSTEM SMOKE DETECTOR, WIRE TO FACP
- (D)_{F/∞} SYSTEM FIRE/CO DETECTOR, WIRE TO FACP
- H.P.I MINI-SPLIT HEAT PUMP INDOOR UNIT
- H.P.O MINI-SPLIT HEAT PUMP INDOOR UNIT



REVISIONS

0. 07/15/2022

CONTRACTOR IS RESPONSIBLE FOR CHECKING 8 VERIFYING ALL CONDITIONS PRIOR TO & DURING CONSTRUCTION, ANY INCONSISTENCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER FOR RESOLUTION OR VERIFICATION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ANY GOVERNING BUILDING CODES OR ORDINANCES. CONTRACTOR SHALL CHECK WITH THE ENGINEER (10) DAY PRIOR TO START OF CONSTRUCTION

FOR ADDENDUMS OR BULLETINS.

NO. DATE REVISIONS/SUBMISSIONS

ISSUE FOR PRICING

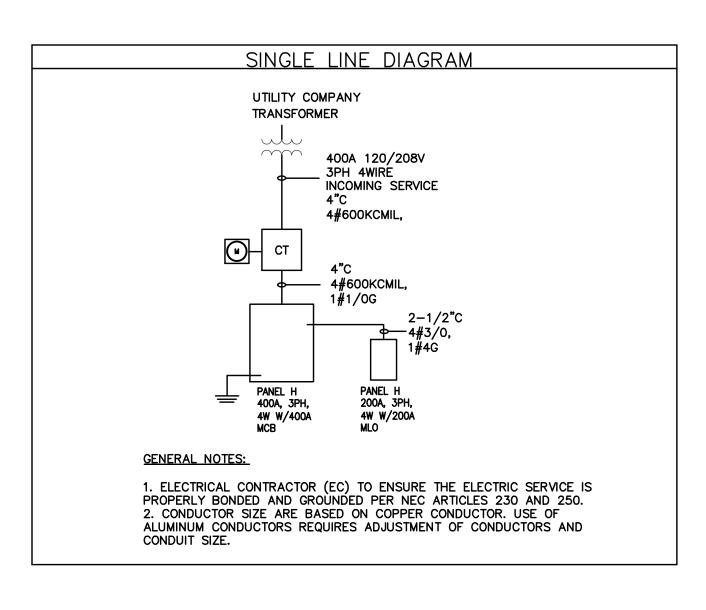
EARLY CHILDHOOD

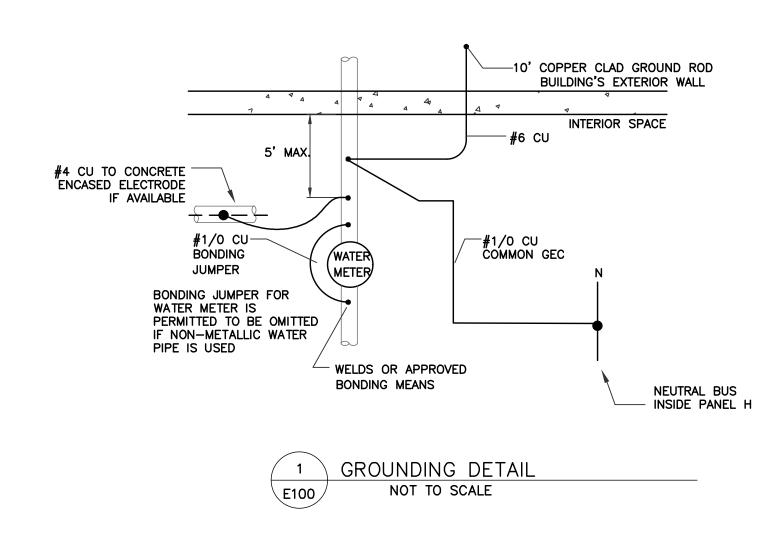
171 Penn Blvd.

Lansdowne PA

DRAWING TITLE:

ELECTRICAL COVER SHEET





LIGHTING FIXTURE SCHEDULE										
SYMBOL/TAG	DESCRIPTION	MANUF.	CATALOG NUMBER	LAMP	WATTAGE	VOLTS				
0	6" RECESSED DOWNLIGHT	EATON	HALO RL56	LED	13.2W	120V				
+	SURFACE MOUNT LIGHT	WAC	FM-05	LED	12W	120V				
	EXTERIOR WALL SCONCE W/PHOTOCELL SENSOR	MAXXIMA	MEL-14125W	LED	12W	120V				
•	PENDANT LIGHT	WAC	DS-PD05	LED	27W	120V				
<u> </u>	EXTERIOR WALL SCONCE	HOMEDEPOT	# 29800	LED	12W	120V				
오	BATHROOM VANITY LIGHT	LITHONIA	FMVCCL	LED	18W	120V				
	4' LINEAR LIGHT	COLUMBIA	LCL4	LED	48W	120V				
	EMERGENCY BATTERY WALL-PACK LIGHT	LITHONIA	ELM4L	LED	5W	120V				
<u> </u>	EMERGENCY EXIT SIGN WITH BATTERY BACKUP	LITHONIA	EXR LED EL M6	LED	3.8W	120V				
*	EMERGENCY EXIT SIGN WITH EMERGENCY DUAL HEADS AND BATTERY BACKUP	LITHONIA	ECRG	LED	3.8W	120V				
44	REMOTE EMERGENCY FIXTURE DUAL HEAD	LITHONIA	ELA REMOTE LAMP HEADS	LED	5W	120V				

NOTE: LIGHTING FIXTURE IS FOR REFERENCE ONLY AND SUBJECT TO CHANGE BY ARCHITECT/OWNER/INTERIOR DESIGNER/LIGHTING CONSULTANT.

ı		

L & I STAMP AREA

ELECTRICAL LOAD CALCULATIONS

LOAD SUMMARY:					
NEC 2017 - Article 220					
III. Feeders and Services					
220.42 General Lighting					
	Load (VA)		Demand Factor		Load (VA)
Lighting Load(School)	9032sf*3w/sf	х	100%	=	27096
Lighting Load(Storage)	8194sf*0.25 w/sf	Х	100%	=	2048.5
220.44 Receptacle Loads					
- Nondwelling Units					
	Load (VA)		Demand Factor		Load (VA)
At 100%	10,000	Х	100%	=	10000
At 50%	18,180	Х	50%	=	9090
220.50 Motors					
	Load (VA)		Demand Factor		Load (VA)
125% of Largest Motor:	6760	х	125%	=	8450
100% of all other motors	70 <mark>2</mark> 37	Х	100%	=	<u>70237</u>
Other Appliance					
	Load (VA)		Demand Factor		Load (VA)
Misc. Equipment	<u>2,000</u>	Х	100%	=	2000
	TOTAL D	EM	AND LOAD (VA):		128921
	SER	VIC	E VOLTAGE (V):		208
	MINIMUM	ISE	ERVICE SIZE (A):	3PH	358

	0 50 00 0			21					200			Panel:		1	1-	
ctncal Lo	oad Calc ((Watts)		Au	xiliary G	Sutter		X	Neu	itral B	lus	Voltage 208		se Wir	e Bu	S
I					uble Lu	gged		X	Gro	und E	Bus	Amp MC		O Mo	unting	
el sched	dule											and the latest support to the		CB Sur	The state of the s	
	Party II in		r			learn after the					Ground Bus	ISC Rati		65,0	Я	
ht Rec	pt. Equi	*	svins .	Description		Bkr	No.	No	_	T T	Description	Light	Rec	pt. Eq	uip. M	ech
		1,76 1,76	A/C C	OUTDOOR UNIT	Н	25/2	3	4	20/1		C INDOOR UNIT (GAS) C INDOOR UNIT (GAS)	+				1,7
	-	2,46	5	THE STATE OF STATE OF STATE OF		117-236-11	5	6	20/1		C INDOOR UNIT (GAS)					1,72
		2,46	- A/C C	DUTDOOR UNIT	П	40/2	7	8	20/1	A	C INDOOR UNIT (GAS)					1,7
		2,46	5 A/C. C	DUTDOOR UNIT		40/2	9	10	20/1	-	CINDOOR UNIT (GAS)					1,72
		2,46		JO IDOOR ONLI	$\perp \downarrow \downarrow$	70/2	11	12			CINDOOR UNIT (GAS)					1,72
		2,46	A/C C	OUTDOOR UNIT	Н	40/2	13 15	14	0.25-0.50		C INDOOR UNIT (GAS) C INDOOR UNIT (GAS)					1,72
		2,46 3,07	R		$\dashv +$		17	18			C INDOOR UNIT (GAS)	1				1,72
		3,07	A/C C	DUTDOOR UNIT	Н	50/2	19	20			PARE					1,72
	-	3,07	R	DUTDOOR UNIT		50/2	21	22	20/1	S	PARE					
		3,07		JO IDOOR UNIT	\Box	JUIZ	23	24			RE ALARM CIRCUIT(NOTE 1)				300	
		3,07	A/C C	DUTDOOR UNIT	Н	50/2	25	26	1 1 1		RE ALARM CIRCUIT(NOTE 1)		-		500	
		3,07	-		+		27 29	28 30			UMP /ATER HEATER (GAS)				900	
		3,07	- A/C C	DUTDOOR UNIT	H	50/2	31	32			ALITHENTEN (ONO)		+		300	
		3,38	n .	SPUT SYSTEM		40/2	33	34								
		3,38	0	o, LI OTOTEM	\Box	+UIZ	35	36	-							
		3,07	- A/C C	OUTDOOR UNIT	Н	50/2	37 39	38 40		+			1			
			4 ERV		$\dashv \dagger$	20/1	41	42	_	++			+			
			4 ERV			20/1	43	44	- 4							
			4 ERV		-++	20/1	45 47	46 48	_			-				
			2 ERV		$\dashv \vdash$	20/1	49	50		++						
	2		ERV			20/1	51	52								
			SPAF	Æ		20/1	53	54								
	,393	0 6		PANEL "LP"		200/3	55 57	56 58				1				
	,393	0 6			-H		59	60				1				
00 28,	180	0 62,237	Sub	-Total							Sub-Tota	1 ()	0 2,	000 1	4,76
00 28,°	180	0 62,237	Sub	-Total							Sub-Tota Sub-total (from left side		0 28,1		-	
es:				-Total device and mark the	circuit b	oreako	er in re	d.				5,200		180	0 6	2,23
tes: nstall an	approved	breaker lo	cking		circuit b	oreake	er in re	d.			Sub-total (from left side)	5,200	28,1	180 180 2,	0 6	2,23 6,99
tes: nstall an	approved	breaker lo	cking	device and mark the	ecircuit b	oreako	er in re	d.			Sub-total (from left side Totals Connected:	5,200 5,200 5,200	28,1 28,1 19,0	180 2, 090 2,	0 6	2,23 6,99 8,68
tes: nstall an	approved	breaker lo	cking	device and mark the	circuit b	oreako	er in re	d.		11	Sub-total (from left side) Totals Connected: Totals Demand:	5,200 5,200 5,200	28,1 28,1 19,0	180 2, 090 2,	0 6	2,23 6,99 8,68
tes: nstall an	approved	breaker lo	cking	device and mark the	circuit b	oreake	er in re	d.			Sub-total (from left side) Totals Connected: Totals Demand:	5,200 5,200 5,200 104,977	0 28,1 0 28,1 0 19,0 7 VA	180 2, 090 2,	0 6	2,23 6,99 8,68
tes: Istall an C to ver	approved ify electric	breaker lo	cking for all	device and mark the					- X		Sub-total (from left side) Totals Connected: Totals Demand: Total Load:	5,200 5,200 5,200 104,977	0 28,1 0 28,1 0 19,0 7 VA	180 2, 090 2,	0 6: 000 7: 000 7: 291 A	2,23 6,99 8,68 mps
tes: Istall an C to ver	approved ify electric	breaker lo	cking for all	device and mark the	circuit b				X		Sub-total (from left side) Totals Connected: Totals Demand:	5,200 5,200 5,200 104,977	0 28,1 0 28,1 0 19,0 7 VA	180 2, 090 2,	0 6: 000 7: 000 7: 291 A	2,23 6,99 8,68 mps
tes: Istall an C to ver	approved ify electric	breaker lo	cking for all	device and mark the		ary G	utter			Neu	Sub-total (from left side) Totals Connected: Totals Demand: Total Load:	5,200 5,200 5,200 104,977	0 28,1 0 28,1 0 19,0 7 VA nel: Itage	180 2, 090 2, LP Phase	0 6. 000 7 000 7 291 A	2,23 6,99 8,68 mps
tes: Install an C to ver	approved ify electric	breaker lo	cking for all	device and mark the	Auxilia	ary G	utter			Neu Grou	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus und Bus	5,200 5,200 5,200 104,977	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208	180 2, 090 2, LP Phase 3 B/MLO A MLO	0 6. 000 7. 000 7. 291 A Wire Mount Surface	2,23 6,99 8,68 mps
tes: Install an C to ver	approved ify electric	breaker local ratings	cking for all (device and mark the	Auxilia	ary G	utter			Neu Grou	Sub-total (from left side) Totals Connected: Totals Demand: Total Load:	5,200 5,200 5,200 104,977	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208	180 2, 090 2, LP Phase 3 B/MLO A MLO	0 6. 000 7. 000 7. 291 A Wire	2,23 6,99 8,68 mps
Electrice LP Panel:	approved ify electric cal Load (schedule	breaker local ratings	cking for all (device and mark the equipment. Description	Auxilia	ary G	outter gged Bkr	No.	X No.	Neur Grou Isola Bkr	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus und Bus ated Ground Bus Description	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 C Ratir	180 2, 180 2, 190 2, 190 2, 190 3 19	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electrice LP Panel: Light	approved ify electric cal Load (schedule Recpt. 360	breaker local ratings	cking for all o	Description ELEC RM B03	Auxilia	ary G	gged Bkr 20/1	No. 1	No.	Neur Grou Isola Bkr 20/1	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus ated Ground Bus Description CLASS RM 101	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 C Ratir	180 2, 190 2, 190 2, 190 2, 1,440	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electrice LP Panel:	approved ify electric cal Load (schedule Recpt. 360	breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT	Auxilia	ary G	outter gged Bkr	No.	X No.	Neur Grou Isola Bkr 20/1 20/1	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus tral Bus ted Ground Bus Description CLASS RM 101 CLASS RM 102	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 C Ratir 200 200	180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electrice LP Panel: Light	approved ify electric cal Load (breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC	Auxilia Doubl	ary G	gged Bkr 20/1	No. 1 3	X No. 2 4	Neur Grou Isola Bkr 20/1	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus ated Ground Bus Description CLASS RM 101	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 C Ratir	180 2, 190 2, 190 2, 190 2, 1,440	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800	approved ify electric cal Load (schedule Recpt. 360 1,440 1,080	breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT	Auxilia Doubl	ary G	Bkr 20/1 20/1	No. 1 3 5	No. 2 4 6	Neuronal Solar S	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus ated Ground Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 Ratir 200 200 200	180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electrice LP Panel: Light 100 800	cal Load (schedule Recpt. 360 1,440 1,080 1,440	breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11	X No. 2 4 6 8 10 12	Neuronal Solar Isola Bkr 20/1	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus ated Ground Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 Ratir 200 200 200	180 2, 180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200	approved ify electric cal Load (cal	breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 203	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13	X No. 2 4 6 8 10 12 14	Neuronal Ground Isola Bkr 20/1 20/1 20/1 20/1 20/1 20/1	Totals Connected: Totals Demand: Total Load: tral Bus tral Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 200 200 200 200	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200	cal Load (cal Load) Recpt. 360 1,440 1,080 1,440 1,440 1,440 1,440 1,440	breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 204	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15	X No. 2 4 6 8 10 12 14 16	Sola	Totals Connected: Totals Demand: Total Load: Total Bus Ind Bus Ind Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI	5,200 5,200 5,200 104,977 Pa Vo	0 28,1 0 28,1 0 19,0 7 VA nel: Itage 208 200 200 200 200	180 2, 180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200	approved ify electric cal Load (schedule Recpt. 360 1,440 1,080 1,440 1,440 1,440 1,440 1,440	breaker local ratings	cking for all o	Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17	X No. 2 4 6 8 10 12 14 16 18	Neural Isola	Totals Connected: Totals Demand: Total Load: tral Bus tral Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI OFFICE 112	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200	approved ify electric cal Load (schedule Recpt. 360 1,440 1,080 1,440 1,440 1,440 1,440 1,440 1,440	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20 INTERVENTION RM 20	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15	X No. 2 4 6 8 10 12 14 16	Sola	Totals Connected: Totals Demand: Total Load: tral Bus tral Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI OFFICE 112 CALSS RM 117	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 np MC 200 200 200 200 200 200 200	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200	approved ify electric cal Load (schedule Recpt. 360 1,440 1,080 1,440 1,440 1,440 1,440 1,440 1,440	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19	X No. 2 4 6 8 10 12 14 16 18 20	Neural Ground Isola Bkr 20/1 20/	Totals Connected: Totals Demand: Total Load: tral Bus tral Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI OFFICE 112	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200	approved rify electric cal Load (schedule Recpt. 360 1,440 1,440 1,440 1,440 1,440 1,440 1,440 1,440 1,440	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20 INTERVENTION RM 20 HALLWAY 2ND FL	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19 21	X No. 2 4 6 8 10 12 14 16 18 20 22	Neu	Sub-total (from left side) Totals Connected: Totals Demand: Total Load: tral Bus tral Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI OFFICE 112 CALSS RM 117 ATTIC	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200 200 200 200 300	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200	approved ify electric cal Load (cal	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 203 INTERVENTION RM 20 INTERVENTION RM 20 HALLWAY 2ND FL BATHRM GFCI BATHRM GFCI OFFICE 211	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19 21 23 25 27	X No. 2 4 6 8 10 12 14 16 18 20 22 24 26 28	Neuronal Ground Isola Bkr 20/1	Totals Connected: Totals Demand: Total Load: tral Bus tral Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI OFFICE 112 CALSS RM 117 ATTIC STAIRCASE	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200 200 200 200 300	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000 Equip	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200 200	approved ify electric cal Load (cal	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20 INTERVENTION RM 20 HALLWAY 2ND FL BATHRM GFCI BATHRM GFCI OFFICE 211 CLASS RM 214	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29	X No. 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30	Neu* Ground Isola Bkr 20/1	Totals Connected: Totals Demand: Total Load: Total Bus Ind Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI DFFICE 112 CALSS RM 117 ATTIC STAIRCASE DRINKING FOUNTAIN OUTDOOR GFCI	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200 200 200 200 300	180 2, 180	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200 200	approved ify electric cal Load (cal	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20 INTERVENTION RM 20 INTERVENTION RM 20 HALLWAY 2ND FL BATHRM GFCI BATHRM GFCI OFFICE 211 CLASS RM 214 SPARE	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31	X No. 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32	Neural Section Secti	Totals Connected: Totals Demand: Total Load: Total Bus Ind Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 103 CLASS RM 104 LOBBY 1ST FL HALL WAY 1ST FL BATHRM GFCI BATHRM GFCI BATHRM GFCI OFFICE 112 CALSS RM 117 ATTIC STAIRCASE DRINKING FOUNTAIN DRINKING FOUNTAIN OUTDOOR GFCI SPARE	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200 200 200 200 300	180 2, 180 2, 180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200 200	approved ify electric cal Load (cal	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 201 CLASS RM 202 CLASS RM 203 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20 INTERVENTION RM 20 HALLWAY 2ND FL BATHRM GFCI BATHRM GFCI OFFICE 211 CLASS RM 214	Auxilia Doubl	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29	X No. 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30	Neu* Ground Isola Bkr 20/1	Totals Connected: Totals Demand: Total Load: Total Bus Ind Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI BATHRM GFCI DFFICE 112 CALSS RM 117 ATTIC STAIRCASE DRINKING FOUNTAIN OUTDOOR GFCI	5,200 5,200 5,200 104,977	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200 200 200 200 300	180 2, 180 2, 180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000	2,23 6,99 8,68 mps
Electric LP Panel: Light 100 800 200 200 200 200 200 200	approved ify electric cal Load (cal	breaker local ratings	cking for all (Description ELEC RM B03 STORAGE B02 LGT STORAGE B02 REC MECH RM (B01,B04,B0 CLASS RM 201 CLASS RM 202 CLASS RM 202 CLASS RM 203 CLASS RM 204 INTERVENTION RM 20 INTERVENTION RM 20 INTERVENTION RM 20 HALLWAY 2ND FL BATHRM GFCI BATHRM GFCI OFFICE 211 CLASS RM 214 SPARE SPARE SPARE	Auxilia Doubl n 05)	ary G	Bkr 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	No. 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35	X No. 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36	Neural Section Secti	Totals Connected: Totals Demand: Total Load: Total Bus Ind Bus Description CLASS RM 101 CLASS RM 102 CLASS RM 103 CLASS RM 104 LOBBY 1STFL HALL WAY 1STFL BATHRM GFCI DFICE 112 CALSS RM 107 ATTIC STAIRCASE DRINKING FOUNTAIN DRINKING FOUNTAIN OUTDOOR GFCI SPARE SPARE	5,200 5,200 5,200 104,977 Pa Vo Am ISO	0 28,1 0 19,0 7 VA nel: Itage 208 1p MC 200 200 200 200 200 200 200 200 300	180 2, 180 2, 180 2, 180 2, 190	0 6. 000 7. 000 7. 291 A Wire Mount Surface 22,000	ing

			Doub	le Lugged		X	Grou	nd Bus	Amp MCB/MLO		Mounting Surface	
edule					2	-		200	A MLO			
							Isolated Ground Bus		ISC Rati	22,000		
ecpt.	Equip.	Mech.	Description	Bkr	No.	No.	Bkr	Description	Light	Recpt.	Equip.	Mech
360			ELEC RM B03	20/1	1	2	20/1	CLASS RM 101	200	1,440		
			STORAGE B02 LGT	20/1	3	4	20/1	CLASS RM 102	200	1,440		
1,440			STORAGE B02 REC	20/1	5	6	20/1	CLASS RM 103	200	1,440		
1,080			MECH RM (B01,B04,B05)	20/1	7	8	20/1	CLASS RM 104	200	1,440		
1,440			CLASS RM 201	20/1	9	10	20/1	LOBBY 1STFL		540		
1,440			CLASS RM 202	20/1	11	12	20/1	HALL WAY 1STFL	200	720	,	10
1,440			CLASS RM 203	20/1	13	14	20/1	BATHRM GFCI		360		
1,440			CLASS RM 204	20/1	15	16	20/1	BATHRM GFCI		360		
1,440			INTERVENTION RM 205	20/1	17	18	20/1	OFFICE 112	200	1,440		
1,440			INTERVENTION RM 207	20/1	19	20	20/1	CALSS RM 117	200	1,440		
720		100	HALLWAY 2ND FL	20/1	21	22	20/1	ATTIC	300	360		
360			BATHRM GFCI	20/1	23	24	20/1	STAIRCASE	400			
360			BATHRM GFCI	20/1	25	26	20/1	DRINKING FOUNTAIN		500	0	
1,440			OFFICE 211	20/1	27	28	20/1	DRINKING FOUNTAIN		500		
1,440			CLASS RM 214	20/1	29	30	20/1	OUTDOOR GFCI		360		
			SPARE	20/1	31	32	20/1	SPARE				
			SPARE	20/1	33	34	20/1	SPARE				
			SPARE	20/1	35	36	20/1	SPARE				
					37	38						
					39	40						
					41	42						
					43	44						
					45	46						
					47	48				.0		
					49	50					1	
					51 53	52 54						
				+	55	56						
	-		*		57	58				58	- 12	
				++-	59	60			4			

1. Install an approved breaker locking device and mark the circuit breaker in red.

2. EC to verify electrical ratings for all equipment.

EARLY CHILDHOOD CENTER 171 Penn Blvd, Lansdowne PA Sub-total (from left side) 3,100 15,840 Totals Connected: 5,200 28,180

Totals Demand: 5,200 19,090 0 200

Total Load: 24,490 VA

DRAWING TITLE:

0. 07/15/2022

ISSUE FOR PRICING

NO. DATE REVISIONS/SUBMISSIONS

CONTRACTOR IS RESPONSIBLE FOR CHECKING &

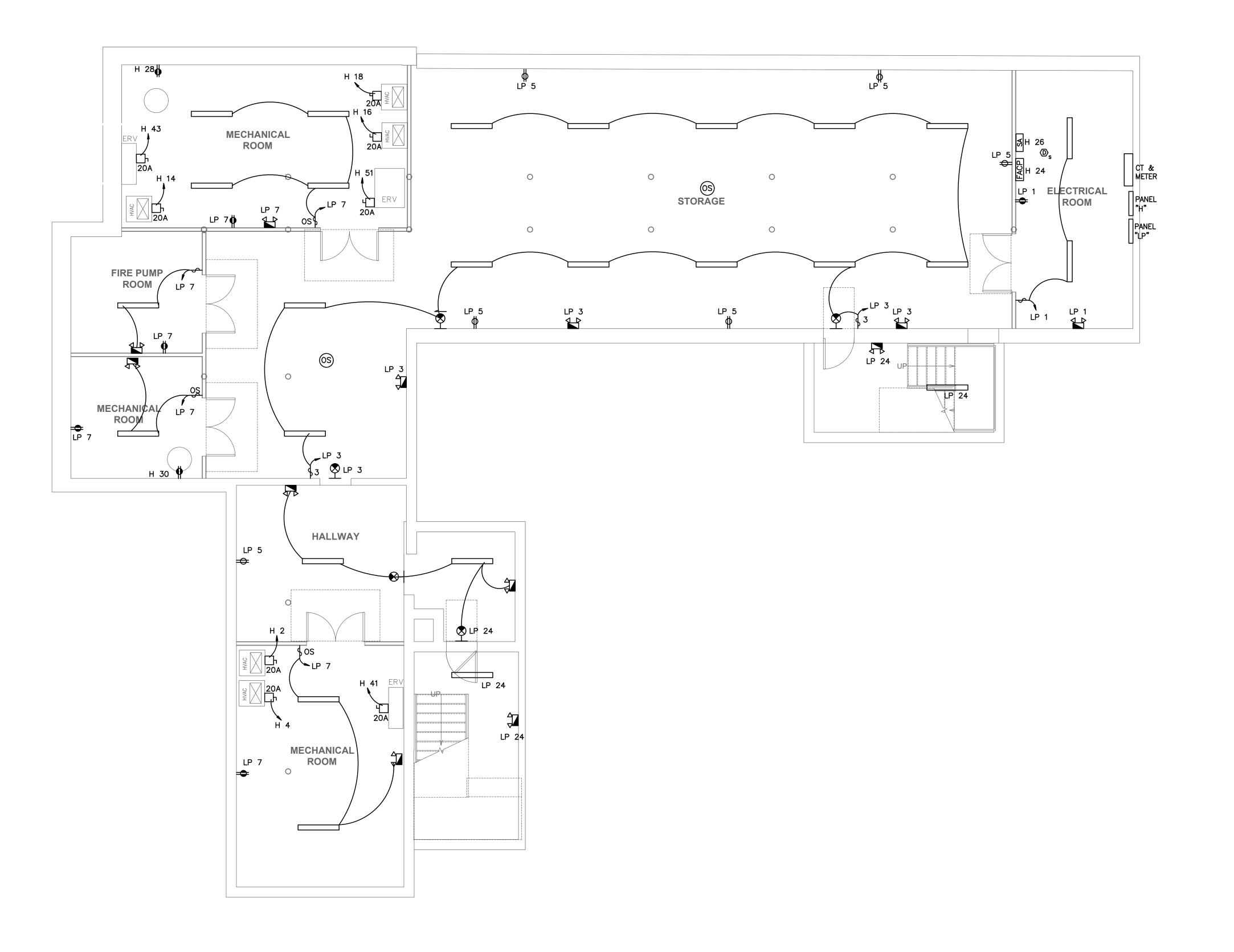
CONTRACTOR IS RESPONSIBLE FOR CHECKING & VERIFYING ALL CONDITIONS PRIOR TO & DURING CONSTRUCTION. ANY INCONSISTENCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER FOR RESOLUTION OR VERIFICATION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ANY GOVERNING BUILDING CODES OR ORDINANCES. CONTRACTOR SHALL CHECK WITH THE ENGINEER (10) DAY PRIOR TO START OF CONSTRUCTION FOR ADDENDUMS OR BULLETINS.

CALCULATIONS, SCHEDULES & DIAGRAMS

INFO@HUTECENGINEERING.COM T 267 800 3540

REVISIONS

304 MASTER ST, 1ST FLOOR PHILADELPHIA, PA 19122



1 BASEMENT PLAN

NOTES:

1. COORDINATE W/ FIRE PROTECTION CONTRACTOR FOR LOCATIONS OF TAMPER AND FLOW SWITCHES.

2. ALL EMERGENCY LIGHTING AND EXITING LIGHTING SHALL BE WIRED TO THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES.

3. COORDINATE W/ OWNER FOR LOCATION OF A/C UNIT.

4. INDICATION (+) NEXT TO A DEVICE INDICATES THAT DEVICE IS MOUNTED ABOVE A COUNTER OR CASEWORK.

5. IN DWELLING UNITS, ALL RECEPTACLES SPECIFIED IN NEC ARTICLE 210.52 SHALL BE TAMPER—RESISTANT RECEPTACLES.

6. LIGHT FIXTURES IN MEAN OF EGRESS OF PUBLIC AREA SHALL BE "ON" POSITION AT ALL TIMES OR THE ELECTRICAL CONTRACTOR SHALL PROVIDE OCCUPANCY SENSOR WITH DUAL—LEVEL CAPABILITY TO CONTROL THESE LIGHT FIXTURES.

7. SMOKE ALARMS IN DWELLING UNITS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT WHEN MORE THAN ONE SMOKE ALARMS ARE INSTALLED.

8. ALL BRANCH CIRCUITS WITHIN A DWELLING UNIT SHALL BE CIRCUITED TO THE ELECTRICAL PANEL WITHIN THAT UNIT.

9. GFCI RECEPTACLES SHOWN IN THE PLAN SHALL BE CAPABLE OF BEING REACHED QUICKLY FOR OPERATION, RENEWAL, OR INSPECTION WITHOUT REQUIRING TO USE TOOL (OTHER THAN KEYS), TO CLIMBE OVER OR UNDER, TO REMOVE OBSTACLES, OR TO RESORT TO PORTABLE LADDERS AND SO FORTH. A GFCI PROTECTION CIRCUIT BREAKER FOR THAT BRANCH CIRCUIT SUPPLYING NON—GFCI RECEPTACLE IS PERMITTED IN LIEU OF THE GFCI RECEPTACLE.

HUTEC ENGINEERING

INFO@HUTECENGINEERING.COM T 267 800 3540

304 MASTER ST, 1ST FLOOR PHILADELPHIA, PA 19122

0. 07/15/2022 ISSUE FOR PRICING
NO. DATE REVISIONS/SUBMISSIONS

REVISIONS

CONTRACTOR IS RESPONSIBLE FOR CHECKING & VERIFYING ALL CONDITIONS PRIOR TO & DURING CONSTRUCTION. ANY INCONSISTENCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER FOR RESOLUTION OR VERIFICATION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ANY GOVERNING BUILDING CODES OR ORDINANCES. CONTRACTOR SHALL CHECK WITH THE ENGINEER (10) DAY PRIOR TO START OF CONSTRUCTION FOR ADDENDUMS OR BULLETINS.

PROJECT:

EARLY CHILDHOOD

CENTER

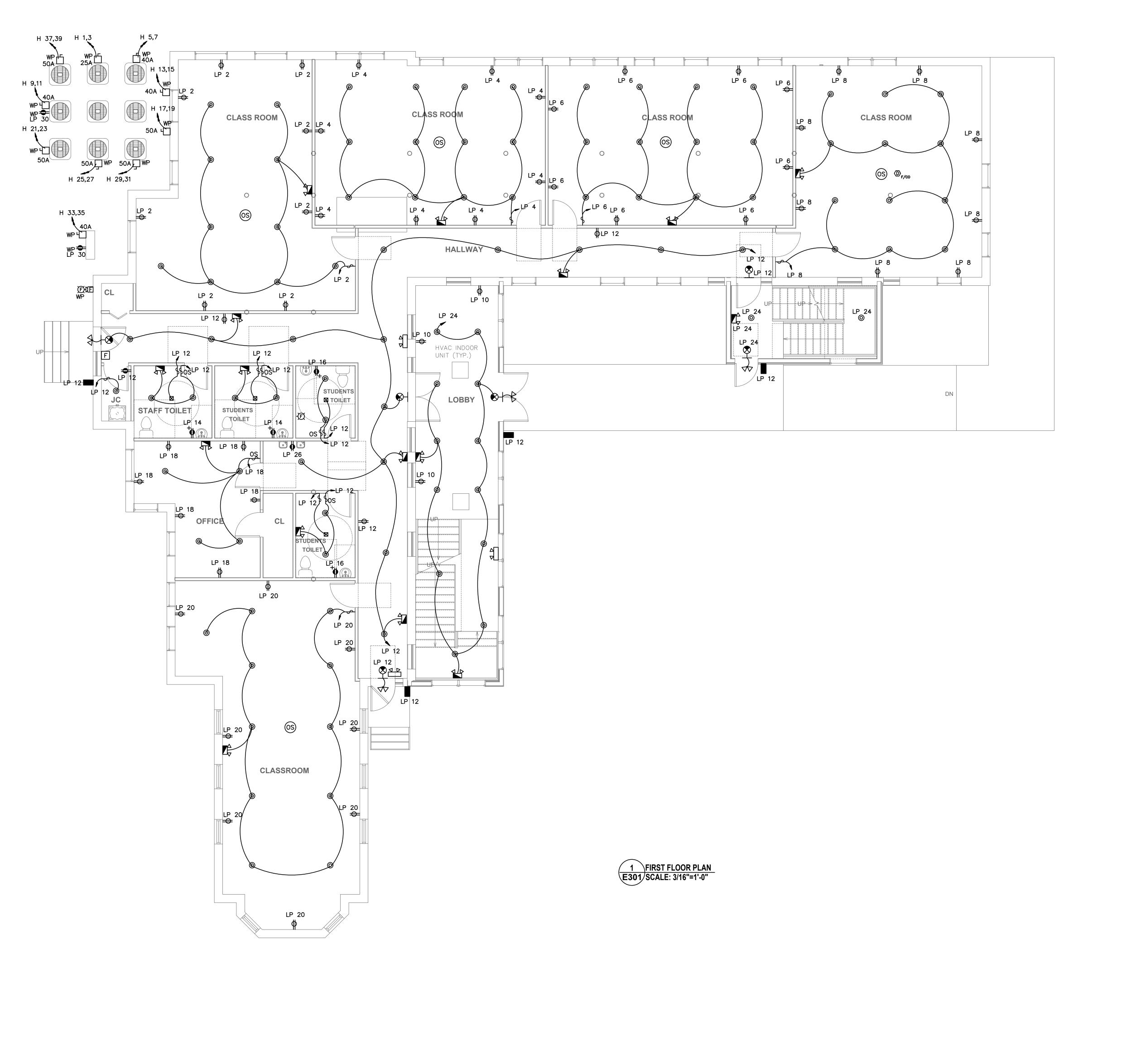
171 Penn Blvd, Lansdowne PA

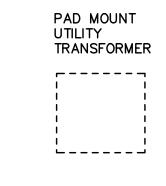
DRAWING TITLE:

ELECTRICAL PLANS

DRAWING NO

E300





NOTES:

COORDINATE W/ FIRE PROTECTION CONTRACTOR FOR LOCATIONS OF TAMPER AND FLOW SWITCHES.
 ALL EMERGENCY LIGHTING AND EXITING LIGHTING SHALL BE WIRED TO THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES.

COORDINATE W/ OWNER FOR LOCATION OF A/C UNIT.
 INDICATION (+) NEXT TO A DEVICE INDICATES THAT DEVICE IS MOUNTED ABOVE A COUNTER OR CASEWORK.
 IN DWELLING UNITS, ALL RECEPTACLES SPECIFIED IN NEC ARTICLE 210.52 SHALL BE TAMPER—RESISTANT RECEPTACLES.

6. LIGHT FIXTURES IN MEAN OF EGRESS OF PUBLIC AREA SHALL BE "ON" POSITION AT ALL TIMES OR THE ELECTRICAL CONTRACTOR SHALL PROVIDE OCCUPANCY SENSOR WITH DUAL—LEVEL CAPABILITY TO CONTROL THESE LIGHT FIXTURES.

7. SMOKE ALARMS IN DWELLING UNITS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVE ALL OF THE ALARMS IN THE

INDIVIDUAL UNIT WHEN MORE THAN ONE SMOKE ALARMS ARE

8. ALL BRANCH CIRCUITS WITHIN A DWELLING UNIT SHALL BE CIRCUITED TO THE ELECTRICAL PANEL WITHIN THAT UNIT.

9. GFCI RECEPTACLES SHOWN IN THE PLAN SHALL BE CAPABLE OF BEING REACHED QUICKLY FOR OPERATION, RENEWAL, OR INSPECTION WITHOUT REQUIRING TO USE TOOL (OTHER THAN KEYS), TO CLIMBE OVER OR UNDER, TO REMOVE OBSTACLES, OR TO RESORT TO PORTABLE LADDERS AND SO FORTH. A GFCI PROTECTION CIRCUIT BREAKER FOR THAT BRANCH CIRCUIT SUPPLYING NON—GFCI RECEPTACLE IS PERMITTED IN LIEU OF THE GFCI RECEPTACLE.

304 MASTER ST, 1ST FLOOR PHILADELPHIA, PA 19122

HUTEC ENGINEERING

INFO@HUTECENGINEERING.COM T 267 800 3540

REVISIONS

0. 07/15/2022 ISSUE FOR PRICING
NO. DATE REVISIONS/SUBMISSIONS

CONTRACTOR IS RESPONSIBLE FOR CHECKING & VERIFYING ALL CONDITIONS PRIOR TO & DURING CONSTRUCTION. ANY INCONSISTENCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER FOR RESOLUTION OR VERIFICATION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ANY GOVERNING BUILDING CODES OR ORDINANCES. CONTRACTOR SHALL CHECK WITH THE ENGINEER (10) DAY PRIOR TO START OF CONSTRUCTION FOR ADDENDUMS OR BULLETINS.

PROJECT:

EARLY CHILDHOOD

CENTER

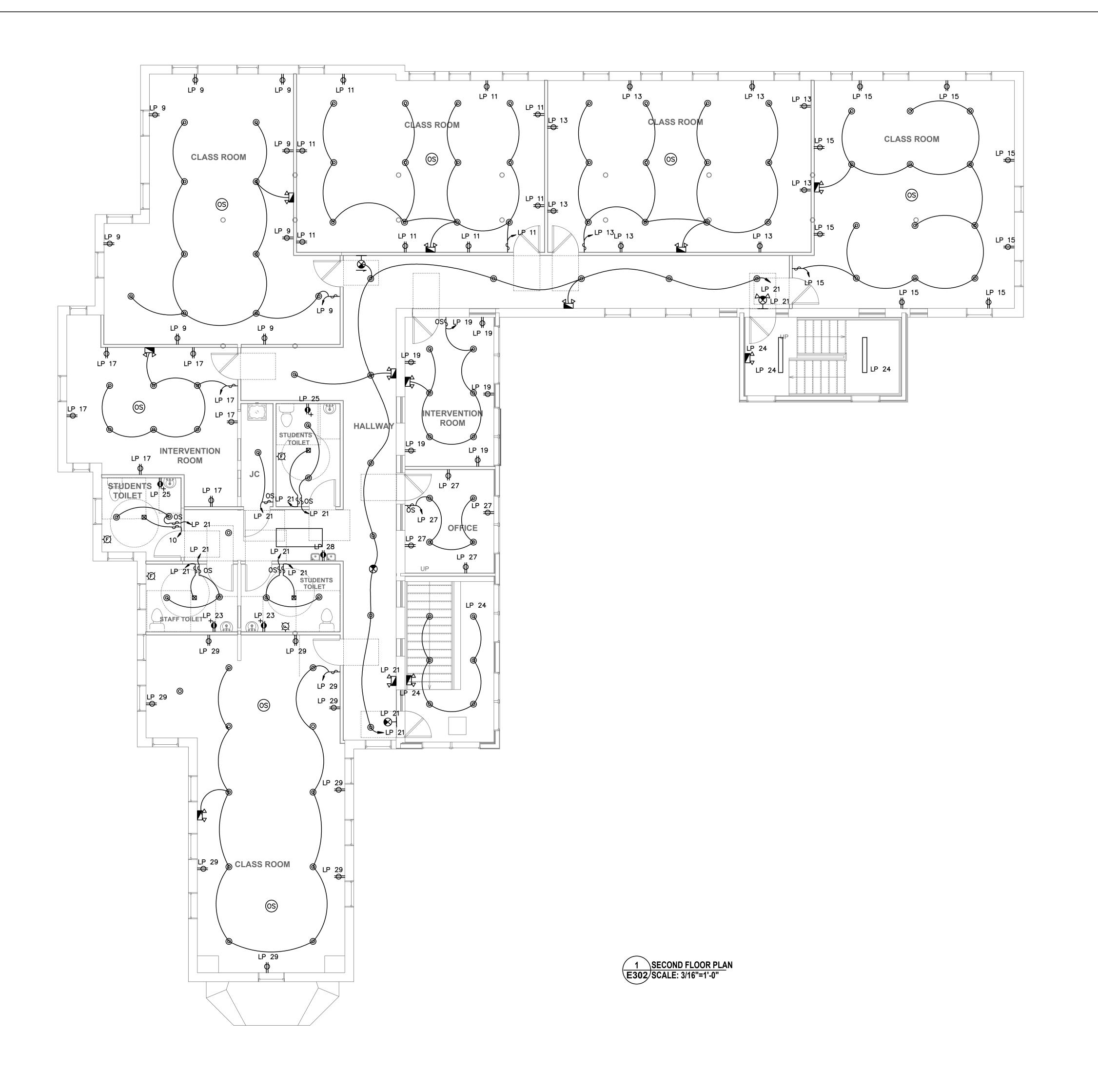
171 Penn Blvd, Lansdowne PA

DRAWING TITLE:

ELECTRICAL PLANS

DRAWING NO:

E301



NOTES:

1. COORDINATE W/ FIRE PROTECTION CONTRACTOR FOR LOCATIONS OF TAMPER AND FLOW SWITCHES.

2. ALL EMERGENCY LIGHTING AND EXITING LIGHTING SHALL BE WIRED TO THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES.

COORDINATE W/ OWNER FOR LOCATION OF A/C UNIT.
 INDICATION (+) NEXT TO A DEVICE INDICATES THAT DEVICE IS MOUNTED ABOVE A COUNTER OR CASEWORK.
 IN DWELLING UNITS, ALL RECEPTACLES SPECIFIED IN NEC ARTICLE 210.52 SHALL BE TAMPER—RESISTANT RECEPTACLES.

6. LIGHT FIXTURES IN MEAN OF EGRESS OF PUBLIC AREA SHALL BE "ON" POSITION AT ALL TIMES OR THE ELECTRICAL CONTRACTOR SHALL PROVIDE OCCUPANCY SENSOR WITH DUAL—LEVEL CAPABILITY TO CONTROL THESE LIGHT FIXTURES.

7. SMOKE ALARMS IN DWELLING UNITS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT WHEN MORE THAN ONE SMOKE ALARMS ARE

8. ALL BRANCH CIRCUITS WITHIN A DWELLING UNIT SHALL BE CIRCUITED TO THE ELECTRICAL PANEL WITHIN THAT UNIT.

9. GFCI RECEPTACLES SHOWN IN THE PLAN SHALL BE CAPABLE OF BEING REACHED QUICKLY FOR OPERATION, RENEWAL, OR INSPECTION WITHOUT REQUIRING TO USE TOOL (OTHER THAN KEYS), TO CLIMBE OVER OR UNDER, TO REMOVE OBSTACLES, OR TO RESORT TO PORTABLE LADDERS AND SO FORTH. A GFCI PROTECTION CIRCUIT BREAKER FOR THAT BRANCH CIRCUIT SUPPLYING NON—GFCI RECEPTACLE IS PERMITTED IN LIEU OF THE GFCI RECEPTACLE.

PROJECT:
EARLY CHILDHOOD

0. 07/15/2022

ISSUE FOR PRICING

NO. DATE REVISIONS/SUBMISSIONS

CONTRACTOR IS RESPONSIBLE FOR CHECKING & VERIFYING ALL CONDITIONS PRIOR TO & DURING CONSTRUCTION. ANY INCONSISTENCIES SHALL BE

BROUGHT TO THE IMMEDIATE ATTENTION OF THE

ORDINANCES. CONTRACTOR SHALL CHECK WITH THE ENGINEER (10) DAY PRIOR TO START OF CONSTRUCTION FOR ADDENDUMS OR BULLETINS.

ENGINEER FOR RESOLUTION OR VERIFICATION.
CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE
ENGINEER OF ANY INCONSISTENCIES BETWEEN THESE
PLANS AND ANY GOVERNING BUILDING CODES OR

HUTEC ENGINEERING

REVISIONS

INFO@HUTECENGINEERING.COM T 267 800 3540

304 MASTER ST, 1ST FLOOR PHILADELPHIA, PA 19122

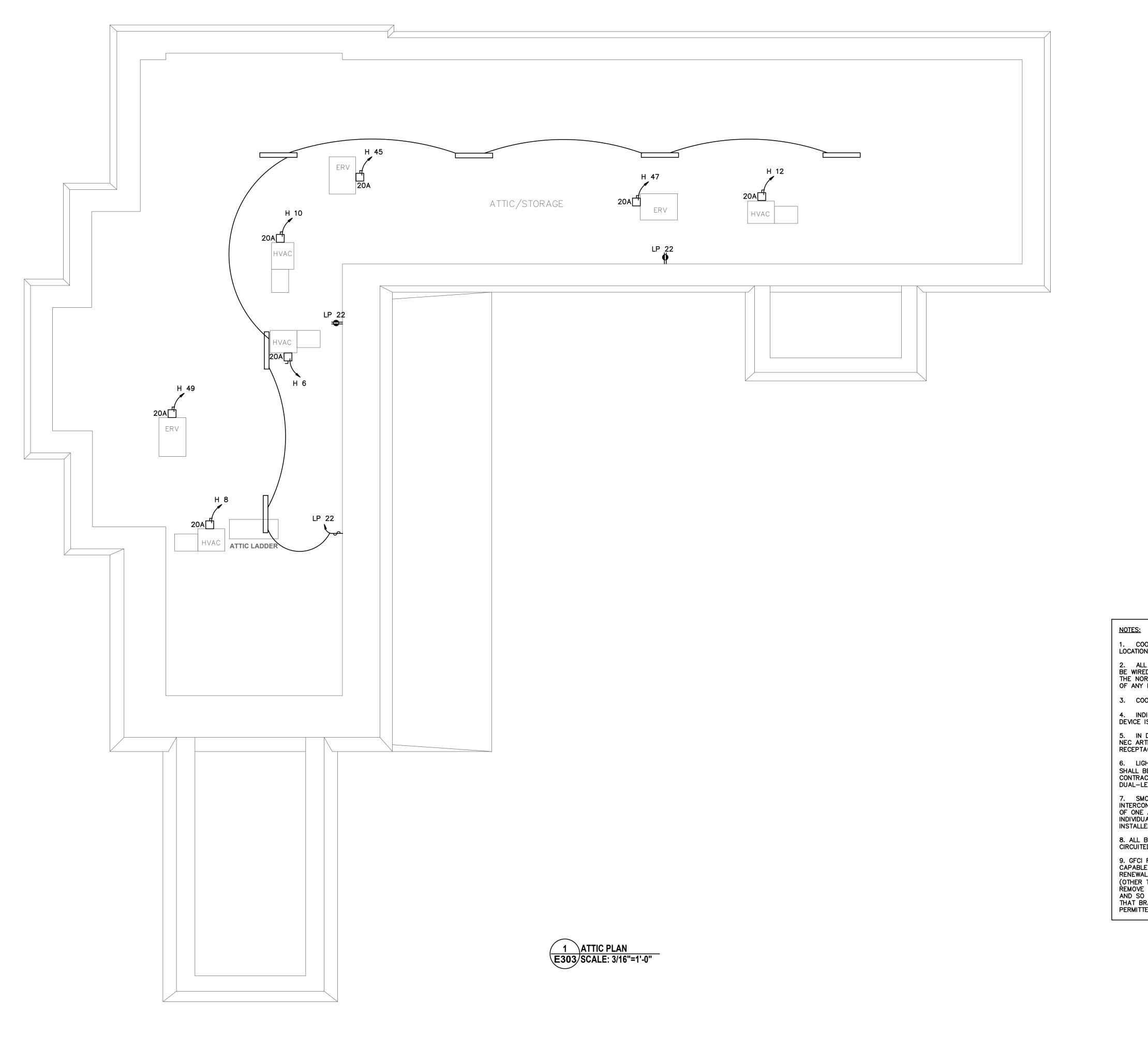
CENTER 171 Penn Blvd, Lansdowne PA

DRAWING TITL

ELECTRICAL PLANS

DRAWING NO

E302



1. COORDINATE W/ FIRE PROTECTION CONTRACTOR FOR LOCATIONS OF TAMPER AND FLOW SWITCHES. 2. ALL EMERGENCY LIGHTING AND EXITING LIGHTING SHALL BE WIRED TO THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES. 3. COORDINATE W/ OWNER FOR LOCATION OF A/C UNIT. 4. INDICATION (+) NEXT TO A DEVICE INDICATES THAT DEVICE IS MOUNTED ABOVE A COUNTER OR CASEWORK. 5. IN DWELLING UNITS, ALL RECEPTACLES SPECIFIED IN NEC ARTICLE 210.52 SHALL BE TAMPER-RESISTANT RECEPTACLES. 6. LIGHT FIXTURES IN MEAN OF EGRESS OF PUBLIC AREA SHALL BE "ON" POSITION AT ALL TIMES OR THE ELECTRICAL CONTRACTOR SHALL PROVIDE OCCUPANCY SENSOR WITH DUAL-LEVEL CAPABILITY TO CONTROL THESE LIGHT FIXTURES. 7. SMOKE ALARMS IN DWELLING UNITS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT WHEN MORE THAN ONE SMOKE ALARMS ARE INSTALLED. 8. ALL BRANCH CIRCUITS WITHIN A DWELLING UNIT SHALL BE CIRCUITED TO THE ELECTRICAL PANEL WITHIN THAT UNIT. 9. GFCI RECEPTACLES SHOWN IN THE PLAN SHALL BE CAPABLE OF BEING REACHED QUICKLY FOR OPERATION, RENEWAL, OR INSPECTION WITHOUT REQUIRING TO USE TOOL (OTHER THAN KEYS), TO CLIMBE OVER OR UNDER, TO REMOVE OBSTACLES, OR TO RESORT TO PORTABLE LADDERS AND SO FORTH. A GFCI PROTECTION CIRCUIT BREAKER FOR THAT BRANCH CIRCUIT SUPPLYING NON—GFCI RECEPTACLE IS PERMITTED IN LIEU OF THE GFCI RECEPTACLE.

HUTEC ENGINEERING INFO@HUTECENGINEERING.COM T 267 800 3540 304 MASTER ST, 1ST FLOOR PHILADELPHIA, PA 19122 **REVISIONS** 0. 07/15/2022 ISSUE FOR PRICING NO. DATE REVISIONS/SUBMISSIONS

CONTRACTOR IS RESPONSIBLE FOR CHECKING & CONTRACTOR IS RESPONSIBLE FOR CHECKING & VERIFYING ALL CONDITIONS PRIOR TO & DURING CONSTRUCTION. ANY INCONSISTENCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER FOR RESOLUTION OR VERIFICATION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ANY GOVERNING BUILDING CODES OR ORDINANCES. CONTRACTOR SHALL CHECK WITH THE ENGINEER (10) DAY PRIOR TO START OF CONSTRUCTION FOR ADDENDUMS OR BULLETINS.

EARLY CHILDHOOD CENTER 171 Penn Blvd, Lansdowne PA

DRAWING TITLE:

ELECTRICAL PLANS