

ELECTRICAL SYMBOLS LIST

(NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT)

| KEY NOTE | |
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| NEW CONDUIT/EQUIPMENT | |
| DEMOTES EXISTING-TO-REMAIN | |
| DEMOTES FOR DEMOLITION | |
| NEW UNDERGROUND PRIMARY CABLE | |
| DEMOTES EXISTING-TO-REMAIN | |
| DEMOTES FOR DEMOLITION | |
| NEW UNDERGROUND SECONDARY CABLE | |
| DEMOTES EXISTING-TO-REMAIN | |
| DEMOTES FOR DEMOLITION | |
| NEW UNDERGROUND FEEDER | |
| DEMOTES EXISTING-TO-REMAIN | |
| DEMOTES FOR DEMOLITION | |
| NEW GROUND CABLE | |
| DEMOTES EXISTING-TO-REMAIN | |
| DEMOTES FOR DEMOLITION | |
| NEW UNDERGROUND SITE LIGHTING CABLE | |
| DEMOTES EXISTING-TO-REMAIN | |
| DEMOTES FOR DEMOLITION | |
| JUNCTION BOX / EQUIPMENT CONNECTION | |
| INSTALLED WITHIN 2' OF EQUIPMENT WHERE REQUIRED AND DEDICATED FOR: | |
| 15 or 20A, 125V DUPLEX RECEPTACLE, FLUSH WALL MOUNTED @ 18" AFF, UON | |
| 20A, 125V, 2P WIG. SINGLE RECEPTACLE | |
| FLUSH WALL MOUNTED @ 18" AFF, UON | |
| 15 or 20A, 125V DUPLEX RECEPTACLE, GP TYPE | |
| FLUSH WALL MOUNTED @ 18" AFF, UON | |
| WP = WEATHER PROOF | |
| HANDHOLE | |
| HOMERUN-NUMERAL WHERE USED INDICATES DESIGNATED PANEL AND CIRCUIT NUMBER FOR REFERENCE ONLY, WHERE CONDUIT IS NOT SPECIFIED USE AC OR MC CABLE FOR APPLICATION | |
| #212, #12G, 3/4" C HOMERUN, UON | |
| #312, #12G, 3/4" C HOMERUN, UON | |
| #412, #12G, 3/4" C HOMERUN, UON | |
| AT 120V AND OVER 100' CIRCUIT LENGTH PROVIDE #10 MINIMUM. | |
| AT 277V AND OVER 200' CIRCUIT LENGTH PROVIDE #10 MINIMUM. | |
| CONDUIT OR RACEWAY TURNING UP | |
| CONDUIT OR RACEWAY TURNING DOWN | |
| CONDUIT WITH CAP | |
| CONDUIT WITH BUSHING | |
| SPLICE (JUNCTION) OF PATHS OF CONDUCTORS OR CABLES. | |
| TAPBOX, SPLICE BOX | |
| INDIVIDUAL RUNS OR FEEDERS ARE BEING COMBINED INTO ONE GROUP. | |
| TRANSFORMER | |
| FLOOR MOUNTED METAL SUPPORT FRAME FOR ELECTRICAL ENCLOSURES | |
| MOTOR RATED TOGGLE SWITCH, 20A SINGLE POLE, UON | |
| HORSEPOWER RATED WITH OVERLOAD PROTECTION. | |
| UNFUSED DISCONNECT SWITCH | |
| <SWITCH AMPS><POLES>, VOLTAGE RATING AS REQUIRED | |
| FUSED DISCONNECT SWITCH | |
| <SWITCH AMPS><FUSE AMPS><POLES>, VOLTAGE RATING AS REQUIRED | |
| ENCLOSED CIRCUIT BREAKER | |
| <FRAME AMPS><TRIP AMPS><POLES>, VOLTAGE RATING AS REQUIRED | |
| ST = SHUNT TRIP | |
| 208/120V PANELBOARD | |
| SURFACE MOUNTED | |
| 480/277V PANELBOARD | |
| SURFACE MOUNTED | |
| EXTERIOR LIGHTING FIXTURE (BRACKET TYPE) | |
| A = FIXTURE TYPE | |
| ROADWAY LIGHTING FIXTURE-SINGLE ARM | |
| A = FIXTURE TYPE | |
| ROADWAY LIGHTING FIXTURE-DOUBLE ARM | |
| A = FIXTURE TYPE | |
| LINE-VOLTAGE SWITCH / LOW-VOLTAGE SWITCH OR SMART CONTROL SWITCH | |
| FLUSH WALL MOUNTED @ 48" AFF, UON | |
| 3 = THREE-WAY | |
| 4 = FOUR-WAY | |
| D = INTEGRAL DIMMER | |
| K = KEY OPERATED | |
| OS = TIME SWITCH | |
| QS = INTEGRATED OCCUPANCY SENSOR | |
| MM = MOMENTARY SWITCH | |
| R = AUXILIARY RELAY TO CONTROL OTHER THAN LIGHTING LOADS | |
| 10V = 0-10V DIMMER | |
| PHOTOCELL CONTROL SWITCH - WALL OR CEILING MOUNTED OUTDOOR | |
| WP = WEATHERPROOF FOR OUTDOOR INSTALLATIONS. | |
| DL = DAYLIGHT HARVESTING CONTROL SWITCH | |
| LIGHT FIXTURES. REFER TO LIGHTING FIXTURE SCHEDULE. | |

APPLICABLE CODES

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| • 2018 IBC | INTERNATIONAL BUILDING CODE |
| • 2015 IECC | INTERNATIONAL ENERGY CONSERVATION CODE |
| • 2017 NEC, NFPA 70 | NATIONAL ELECTRICAL CODE |
| • 2013 NFPA 72 | NATIONAL FIRE ALARM AND SIGNALING CODE |
| • 2015 NFPA 101 | LIFE SAFETY CODE |
| • 2018 NFPA 70E | STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE |
| • 2013 NFPA 110 | STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS |
| • 2014 NFPA 780 | STANDARD FOR LIGHTNING PROTECTION SYSTEMS |

ABBREVIATIONS

(NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

| | |
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| (+) | MOUNTING HEIGHT AFF. |
| (E) | EXISTING TO REMAIN |
| (ER) | DEMOLISH |
| (ERRO) | EXISTING TO BE RELOCATED |
| (F) | EXISTING |
| (FBO) | FURNISHED BY OTHERS |
| (PBO) | PROVIDED BY OTHERS |
| 1P | SINGLE POLE |
| 2P | TWO POLE |
| 3P | THREE POLE |
| A | AMPERE |
| A | ARMORED CABLE |
| AMP | AMPERE FEET |
| AF | ABOVE FINISHED FLOOR |
| AHJ | AUTHORITY HAVING JURISDICTION |
| AIC | AMPERE INTERRUPTING CAPACITY |
| ALT | ALTERNATE |
| APPROX | APPROXIMATELY |
| AT | AMPERE TRIP |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AWG | AMERICAN WIRE GAUGE |
| BKR | BREAKER |
| BLDG | BUILDING |
| BMS | BUILDING MANAGEMENT SYSTEM |
| C, CND | CONDUIT |
| 'C | DEGREE CELSIUS |
| CB, C/B | CIRCUIT BREAKER |
| CCTV | CLOSED CIRCUIT TELEVISION |
| CD | CANDELA |
| CL | CEILING MOUNT |
| OKT | CIRCUIT |
| CONT | CONTINUATION |
| CU | COPPER |
| CT, CT | CURRENT TRANSFORMER |
| DEG | DEGREE |
| DIA | DIAMETER |
| DISC | DISCONNECT |
| DIST | DISTRIBUTION |
| DM | DIVISION |
| DWG | DRAWING |
| EM | EXISTING |
| EACH | EACH |
| EC, E.C. | ELECTRICAL CONTRACTOR |
| ELEC | ELECTRICAL |
| EM | EMERGENCY |
| EMT | ELECTRICAL METALLIC TUBING |
| F | DEGREE FAHRENHEIT |
| FA | FIRE ALARM |
| FACP | FIRE ALARM CONTROL PANEL |
| FATC | FIRE ALARM TERMINATOR PANEL |
| FATC | FIRE ALARM TERMINATION CABINET |
| FC | FOOT CANDLE |
| FCD | FEEDER |
| FLOOR | FLOOR |
| FLA | FULL LOAD AMPERES |
| FLEX | FLEXIBLE |
| FLUORESC | FLUORESCENT |
| FMC | FLEXIBLE METAL CONDUIT |
| G, GND | GROUND |
| GI | GROUND FAULT INTERRUPTER |
| GH | GALVANIZED RIGID CONDUIT |
| GR | GROUND |
| HANDHOLE | HANDHOLE |
| HP | HORSE POWER |
| HZ | HERTZ |
| IG | ISOLATED GROUND |
| JB | JUNCTION BOX |
| JMIL | THOUSAND CIRCULAR MILS |
| KV | KILOVOLT |
| KVA | KILOVOLT AMPERE |
| KW | KILOWATT |
| KWH | KILOWATT HOUR |
| LITG, LTS | LIGHTING, LIGHTS |
| MC | METAL-CLAD CABLE |
| MCB | MAIN CIRCUIT BREAKER |
| MCC | MOTOR CONTROL CENTER |
| MCM | THOUSAND CIRCULAR MILS |
| MH | MANHOLE |
| MI | MINERAL INSULATED CABLE |
| MFR | MANUFACTURER |
| MLO | MAIN LUGS ONLY |
| MTD, MTG | MOUNTED, MOUNTING |
| MTS | MANUAL TRANSFER SWITCH |
| MV | MEDIUM VOLTAGE |
| N, NEUT | NEUTRAL |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| P | POLE |
| Ø | PHASE |
| PNL | PANEL |
| PVC | POLYVINYL CHLORIDE CONDUIT |
| PWR | POWER |
| REC | RECEPTACLE |
| REQD | REQUIRED |
| RMC | RIGID METAL CONDUIT |
| RGS | RIGID GALVANIZED STEEL |
| SCADA | SUPERVISORY CONTROL AND DATA ACQUISITION |
| SPD | SURGE PROTECTION DEVICE |
| SPEC | SPECIFICATION |
| STBY | STANDBY |
| SW | SWITCH |
| SWBD | SWITCHBOARD |
| SWGR | SWITCHGEAR |
| SYS | SYSTEMS |
| TBD | TO BE DETERMINED |
| TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSION |

GENERAL NOTES

- DEFINITION: UNLESS OTHERWISE NOTED, ALL WORK SPECIFIED HEREIN OR NOTED ON DRAWINGS, SHALL BE BY THE ELECTRICAL CONTRACTOR. ALL REFERENCES TO "CONTRACTOR" OR "THIS CONTRACTOR" ON DRAWINGS OR SPECIFICATIONS ARE ADDRESSED TO THE ELECTRICAL CONTRACTOR. THE TERM "PROVIDE" WHENEVER ENCOUNTERED ON DRAWINGS OR IN THESE SPECIFICATIONS, SHALL MEAN "FURNISH AND INSTALL".
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL BENDS, OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF CONDUIT TO AVOID OBSTRUCTIONS, COORDINATE WITH OTHER TRADES, AS REQUIRED, MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. THE EXACT LOCATIONS OF DEVICES AND EQUIPMENT ARE SUBJECT TO THE APPROVAL OF THE OWNER, WHO RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGES IN LOCATION WITHOUT EXTRA COST.
- SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK), NAILS, RAWL PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10' APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS. MC AND AC CABLES SHALL BE SECURED EVERY 6' AND WITHIN 12" FROM THE JUNCTION BOX. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
- PROVIDE TEMPORARY LIGHT AND POWER SYSTEMS AT EARLIEST POSSIBLE DATE WITHIN THE CONSTRUCTION AREAS FOR THE REQUIREMENTS OF ALL TRADES AS HEREIN DESCRIBED. EXTEND SYSTEMS TO NEW CONSTRUCTION AS SOON AS PHYSICALLY POSSIBLE. MAINTAIN SYSTEM DURING WORKING HOURS OF ALL TRADES. OWNER WILL PAY FOR COST OF ENERGY. PROVIDE ALL REQUIRED MAINTENANCE, INCLUDING LAMPS AND SOCKETS.
- IN LOCATING BOXES AND OUTLETS TO AVOID INACCESSIBILITY, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT. VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
- PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3" OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY IS AT LEAST 1" FROM PIPE COVERS AND PARALLEL RUNS WHERE RACEWAY IS AT LEAST 18").
- CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MALE THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
- HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED. DO NOT RUN CONDUIT IN PRECAST FLOOR SLABS, IN 2" SLABS OR IN TERRAZZO FLOOR FINISH.
- MINIMUM CONDUIT SIZE SHALL BE 3/4".
- LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10' LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH NYLON PUL STRING. FOR ANY RACEWAY OVER 25' PROVIDE PULL STRING WITH CONDUIT MEASURING TAPE AND INDICATE DESIGNATION OF THE RACEWAY ON EACH END.
- VERIFY LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. COORDINATE WITH ARCHITECT AND INSTALL SWITCH ON LOCK LATCH SIDE OF DOOR. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
- SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.
- COVERS OF JUNCTION AND PULLBOXES SHALL BE ACCESSIBLE.
- PROVIDE PULLBOXES WHERE INDICATED, REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES. BOXES SHALL BE ACCESSIBLE AND GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
- EMPTY RACEWAY RUNS: PROVIDE PULLBOXES EVERY 100' AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES. THE PULLBOX SHALL BE INSTALLED EVERY 270' OF TOTAL CONDUIT TURNS.
- ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
- CONNECT CONDUIT TO MOTOR TERMINAL BOXES WITH FLEXIBLE CONDUIT OF MINIMUM 18". MAXIMUM 6' LENGTH. PROVIDE SUFFICIENT WIRE BLACK AT EACH END OF TERMINATION. DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
- PROVIDE 2 #14WAG WIRING FOR INDICATING PILOT LIGHT FROM PILOT LIGHT IN CONTROLLER TO LOAD SIDE OF DISCONNECT SWITCH. RUN WIRES IN BRANCH CIRCUIT CONDUIT AND INCREASE CONDUIT SIZE AS REQUIRED.
- PULL NO THERMOPLASTIC WIRES AT AMBIENT TEMPERATURES LOWER THAN 32°F (0°C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
- PROVIDE SEPARATE RACEWAYS AND ENCLOSURES FOR 208/120V AND 480/277V POWER AND CONTROL WIRING AND SEPARATE SYSTEMS FOR EMERGENCY AND NORMAL POWER. THE EMERGENCY AND NORMAL SYSTEMS SHALL NOT BE INSTALLED IN THE SAME RACEWAYS, ENCLOSURES, JUNCTION BOXES, PULLBOXES, TERMINATION CABINETS, EXCEPT IN EQUIPMENT ENCLOSURES DESIGNED TO ACCEPT BOTH SYSTEMS SUCH AS AUTOMATIC TRANSFER SWITCH OR EMERGENCY LIGHTING.
- CORE BORING OF CONCRETE FLOORS AND/OR WALLS IF REQUIRED, IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL PENETRATIONS THROUGH CONCRETE STRUCTURAL FLOORING SHALL BE SCANNED WITH GROUND PENETRATING RADAR (GPR). SUBMIT FINDINGS TO ENGINEER FOR APPROVAL PRIOR TO PENETRATION.
- COLOR CODE (CODING): AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUIRE FOR OVERLAP COLOR TAPING OF COLOR IDENTIFICATION (MINIMUM LENGTH 6") IN ALL ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
480/277V - WAY SYSTEM:
PHASES A = BROWN, B = ORANGE, C = YELLOW, NEUTRAL = GRAY, GROUNDING = GREEN WITH YELLOW STRIPES.
208/120V - WAY SYSTEM:
PHASES A = BLACK, B = RED, C = BLUE, NEUTRAL = WHITE, GROUNDING = GREEN.
240/120V - DELTA SYSTEM WITH HIGH LEG:
PHASES A = BLACK, B (HIGH LEG) ORANGE, C = RED, NEUTRAL = WHITE, GROUNDING = GREEN.
240/120V SINGLE PHASE:
PHASES A = BLACK, B = RED, NEUTRAL = WHITE, GROUNDING = GREEN.
DC SYSTEM:
POSITIVE = RED, MID-WIRE = WHITE, NEGATIVE = BLACK.

- FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE UL LISTED FIRE RATING OF THE PENETRATED WALL OR FLOOR ASSEMBLY.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK BETWEEN THE TRADES. ANY WORK RESULTING FROM THE LACK OF COORDINATION SHALL BE CORRECTED WITH NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR REPORTING INCONSISTENCIES TO THE ENGINEER IN FORM OF "RFI" REQUEST FOR INFORMATION BEFORE ANY INACCURATE WORK IS EXECUTED.
- CONTRACTOR SHALL INCLUDE PRICING FOR ARC FLASH STUDY/LABELING AND DEVICE COORDINATION STUDY BY CONTRACTOR OR EQUIPMENT VENDOR.
- CONTRACTOR SHALL SEND LOAD LETTER TO PECO FOR INCREASE IN USE.

ELECTRICAL SPECIFICATIONS

- SHOP DRAWINGS
 - PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT, CONTRACTOR SHALL PROVIDE COMPLETE SETS OF COORDINATED SHOP DRAWINGS OF ALL NEW AND EXISTING EQUIPMENT, INDICATING CAPACITY, DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ARCHITECT AND ENGINEER.
 - INDICATE ON EACH SHOP DRAWINGS SUBMITTED:
 - PROJECT NAME AND LOCATION
 - NAME OF ARCHITECT AND ENGINEER
 - ITEM IDENTIFICATION
 - APPROVAL STAMP OF PRIME CONTRACTOR
 - SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
 - SWITCHES
 - FUSES
 - CIRCUIT BREAKERS
 - RACEWAYS
 - WIRE AND CABLE
 - INSERTION RECEPTABLES
 - MOMENTARY CONTACT SWITCHES
 - TIME SWITCHES
 - SURFACE METAL RACEWAY
 - GENERAL PROVISIONS FOR ELECTRICAL WORK
 - GENERAL
 - PANEL JUNCTION AND PULL BOXES SHALL BE LOCATED CLEAR OF OTHER TRADES. SUPPORT BOXES FROM BUILDING STRUCTURE. INDEPENDENT OF CONDUIT. PROVIDE FLOOR-TO-CEILING CHANNELS FOR MOUNTING ON DRYWALL AND LIGHTWEIGHT CONSTRUCTION. OUTLET BOXES FOR FIXTURES RECESSED IN HUNG CEILINGS SHALL BE ACCESSIBLE THROUGH OPENING CREATED BY REMOVAL OF FIXTURE. SECURE TO BLACK IRON SUPPORT. MOTOR TERMINAL BOXES COORDINATE WITH MOTOR BRANCH CIRCUIT AND WIRING, ADD BOX VOLUME WHERE REQUIRED.
 - THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EQUIPMENT WITH ARCHITECTURAL DRAWINGS. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS, AND MECHANICAL EQUIPMENT. VARIATIONS IN FIRE PROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS, AND THE LIKE, AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSES TO THE OWNER
 - THE CONTRACTOR SHALL FURNISH AND INSTALL WIRING FOR EQUIPMENT FURNISHED BY OTHERS, AS SHOWN ON DRAWINGS. COORDINATE WITH ALL OTHER TRADES OR DETAILS FOR INSTALLATION. THE TERM "WIRING" AS USED HERE-IN, INCLUDES, BUT IS NOT LIMITED TO FURNISHING AND INSTALLING CONDUIT, WIRE, JUNCTION BOXES, DISCONNECTS AND MAKING CONNECTIONS. CONTRACTOR SHALL CHECK ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT TO BE INSTALLED BY OTHERS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER WIRING AND NECESSARY ELECTRICAL ADJUSTMENTS TO EQUIPMENT TO CONFORM TO SPECIFIED REQUIREMENTS OF THE EQUIPMENT.
 - QUALITY ASSURANCE
 - QUALITY AND GAUGE OF MATERIALS: NEW, BEST OF THEIR RESPECTIVE KINDS, FREE FROM DEFECTS AND LISTED BY UNDERWRITERS LABORATORIES, INC. OR OTHER NATIONALLY APPROVED TESTING AGENCY AND BEARING THEIR LABEL. MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION SHALL BE OF SAME MANUFACTURER, EXCEPT AS NOTED.
ON COMPLETION OF THE WORK, THE ENTIRE WIRING SYSTEM SHALL BE ENTIRELY FREE FROM GROUND, SHORT CIRCUITS, EXCESS, OVERLOADS AND IMPROPER VOLTAGES, AND THOROUGH TEST SHALL BE MADE. FURNISH ALL LABOR AND MATERIALS AND INSTRUMENTS.
 - GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
 - PRODUCT DELIVERY, STORAGE AND HANDLING
 - MOVING OF EQUIPMENT: WHERE NECESSARY, SHIP IN CARTED SECTIONS OF SIZE TO PERMIT PASSING THROUGH AVAILABLE SPACES.
 - MATERIALS
 - NAMETAPES: PROVIDE BLACK LAMICOID SHEET WITH 3/4" WHITE LETTERING, FASTENED WITH EPOXY CEMENT FOR EACH DISCONNECT SWITCH, CIRCUIT BREAKER, PANEL, CABINET, TRANSFORMER, ENCLOSURE, MOTOR CONTROLLER AND THE LIKE. NAMETAPES SHALL DESCRIBE THE NAME AND NUMBER OF EACH COMPONENT.
 - CABLE TAGS: TAG EACH CONDUCTOR PASSING THROUGH SPLICE OR PULLBOX WITH A WHITE LINEN TAG, INDICATING POINT OF ORIGIN AND TERMINATION OF THE CIRCUIT.
 - INSERTS AND SUPPORTS
 - INSERTS: STEEL, SLOTTED TYPE, FACTORY PAINTED.
 - SINGLE ROD: SIMILAR TO GRINNELL FIG. 281.
 - MULTI-ROD: SIMILAR TO FEE AND MASON SERIES 9000 WITH END CAPS AND CLOSURE STRIPS.
 - CLIP FORM WALLS FLUSH WITH INSERTS.
 - MAXIMUM LOADING 75% OF RATING.
 - SUPPORTS FROM BUILDING CONSTRUCTION: INSERTS: BEAM CLAMPS, STEEL FISHPLATES (IN CONCRETE FILL ONLY), CANTILEVER BRACKETS OR OTHER MEANS, SUBMIT FOR REVIEW.
 - GROUPED LINES AND SERVICES: TRAPEZE HANGERS OF BOLTED ANGLES OR CHANNELS.
 - WHERE BUILDING CONSTRUCTION IS INADEQUATE: PROVIDE ADDITIONAL FRAMING. SUBMIT FOR REVIEW.
 - PAINT SHALL BE THE BEST GRADE FOR ITS PURPOSE. DELIVER IN ORIGINAL SEALED CONTAINERS AND APPLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. COLORS SHALL BE AS SELECTED BY ARCHITECT OR ENGINEER. UTILIZE GALVANIZED IRON PRIMER ON PANEL AND PULL BOXES. AFTER FABRICATION, UTILIZE HOT DIPPED GALVANIZED OR DIPPED IN ZINC CHROMATE FOR: OUTLET BOXES, JUNCTION BOXES, CONDUIT HANGERS, RODS, INSERTS AND SUPPORTS. RED LEAD OR ZINC CHROMATE WITH FINISH TO MATCH SURROUNDINGS SHALL BE USED FOR MARRED SURFACES OF STEEL EQUIPMENT AND RACEWAYS. A FIELD-APPLIED ZINC CHROMATE PRIME COAT SHALL BE UTILIZED FOR STEEL OR IRONWORK.
 - BRUSH AND CLEAN WORK PRIOR TO CONCEALING, PAINTING AND ACCEPTANCE. PAINTED EXPOSED WORK SOLED OR DAMAGED, CLEAN AND REPAIR TO MATCH ADJOINING WORK BEFORE FINAL ACCEPTANCE. REMOVE DEBRIS FROM INSIDE AND OUTSIDE OF MATERIAL AND EQUIPMENT.
 - LOW-VOLTAGE DISTRIBUTION EQUIPMENT
 - ALL EQUIPMENT SHALL CONFORM TO NEMA, ANSI AND IEEE STANDARDS.
 - CIRCUIT BREAKERS: MOLDED CASE BREAKERS SHALL BE THERMAL-MAGNETIC, QUICK-MAKE-QUICK-BREAK, BOLT-ON TYPE, MANUALLY OPERATED WITH INSULATED TRIP-FREE HANDLE. MULTI-POLE TYPE BREAKERS SHALL CONTAIN INTERNAL TRIP BAR. TERMINALS SHALL BE SUITABLE FOR COPPER OR ALUMINUM CABLE. FURNISH AUXILIARY DEVICES WHERE REQUIRED FOR SHUNT TRIPPING, OPEN AND CLOSE MOTOR OPERATOR AND ALARM INDICATION. ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, AS NOTED. CIRCUIT BREAKERS TO BE INSTALLED IN EXISTING PANEL BOARDS, SHALL BE OF THE SAME MANUFACTURER, TYPE AND A.I.C. RATINGS AS PRESENTLY IN USE. FRAMES, AIC AND INTERCHANGEABLE TRIPS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED
 - 120V, 100A FRAME: 10,000A, 1 POLE
 - 240V, 100A FRAME: 18,000A, 2 AND 3 POLES
 - 240V, 200A FRAME: 50,000A, 2 AND 3 POLES
 - 277V, 100A FRAME: 14,000A, 1 POLE
 - 480V, 100A FRAME: 20,000A, 2 AND 3 POLES
 - BALANCE THE LOAD OVER PHASES WHEN NEW CIRCUITS ARE ADDED TO NEW OR EXISTING PANELS. PROVIDE MULTI-CABLE LUGS WHERE REQUIRED. DOUBLE LUGGING SHALL NOT BE PERMITTED. MOUNTING HEIGHT SHALL BE A MAXIMUM OF 6'-6" FROM FLOOR TO TOP SWITCH UNIT. UPDATE DIRECTORIES ON EXISTING PANELBOARDS WHERE CIRCUITING IS CHANGED.
- TESTS: OPEN AND CLOSE LOAD BREAK SWITCHING DEVICES UNDER LOAD.
- SURGE PROTECTION DEVICES
 - THE INDIVIDUAL SURGE PROTECTION DEVICE (SPD) UNITS SHALL BE UL LISTED UNDER UL1449 STANDARD FOR TRANSIENT VOLTAGE SURGE SUPPRESSIONS AND THE SURGE RATINGS AND SHORT CIRCUIT CAPACITY RATING SHALL BE PERMANENTLY AFFIXED TO THE COVER OF SPD. THE UNIT SHALL ALSO BE COMPLEMENTARY LISTED TO UL 1283 STANDARD FOR EMURFI FACILITY FILTERS.
- SYSTEM DESCRIPTION
 - THE SPD/FILTER SHALL BE CONSTRUCTED USING MULTIPLE SURGE CURRENT DIVERSION ARRAYS OF METAL OXIDE VARISTORS (MOV), MATCHED TO 1% VARIANCE. THE ARRAY SHALL CONSIST OF MULTIPLE GAP-LESS METAL OXIDE VARISTORS, WITH EACH MOV INDIVIDUALLY FUSED. THE ARRAYS SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER, WHICH ENSURES MOV SURGE CURRENT SHARING. NO GAS TUBES, SILICON AVALANCHE DIODES OR SELENIUM PLATES/RECTIFIERS SHALL BE USED. THE STATUS OF EACH ARRAY SHALL BE CONTINUOUSLY MONITORED AND A GREEN LED SHALL BE ILLUMINATED IF THE ARRAY IS FULLY WORKING ORDER. ALL PROTECTIVE MODES, INCLUDING N-G, SHALL BE CLOSELY MONITORED AND INTERNALLY FUSED, FOR COMPLIANCE TO NEC ARTICLE 110.9, 110.10 AND 280.22.
- BASIS OF DESIGN (MINIMUM RATING TO BE 40 KA - L-L, 40 KA - L-G, 40 KA - L-N):
- LIBERT CATALOG NOS.
 - ACV 208110 FOR 208V, 3Ø, 3W+G
 - ACV 120Y11KRKE FOR 208Y120V, 3Ø, 4W+G
 - ACV 480110 FOR 480V, 3Ø, 3W+G
 - ACV 277V111KRKE FOR 480Y277V, 3Ø, 4W+G
- WARRANTY
 - THE MANUFACTURER SHALL PROVIDE A LIMITED FIVE YEAR WARRANTY FROM THE DATE OF SHIPPING AGAINST FAILURE WHEN INSTALLED IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTION, UL LISTING REQUIREMENTS, AND ANY APPLICABLE NATIONAL OR LOCAL ELECTRICAL CODES. MANUFACTURER SHALL MAKE AVAILABLE FOR CONSULTATION, (LOCAL, NATIONAL) ENGINEERING SERVICE SUPPORT.
- MANUFACTURER
 - LIEBERT ACV SERIES OR APPROVED EQUAL BY CURRENT TECHNOLOGY OR INNOVATIVE TECHNOLOGY.
- ACCESSORIES
 - UNIT STATUS INDICATORS
 - THE UNIT SHALL HAVE AN INTEGRAL STATUS CIRCUIT THAT MONITORS THE OPERATIONAL STATUS OF ALL MODES OF PROTECTION, INCLUDING LINE TO NEUTRAL, LINE TO GROUND AND NEUTRAL TO GROUND. NO MANUAL TESTING IS REQUIRED TO CONFIRM THE INTEGRITY OF THE SUPPRESSION AND FILTER SYSTEMS. IF THE SYSTEM DOES FAIL, THE GREEN LED LIGHT WILL GO OUT AND THE RED LED LIGHT WILL BE LIT.
- GROUNDING
 - AN EQUIPMENT-GROUNDING CONDUCTOR, COMMONLY DESCRIBED AS A "GREEN WIRE" SHALL BE PROVIDED FOR ALL BRANCH CIRCUITS PROTECTED BY OVERCURRENT DEVICES EXCEPT FOR LIGHTING BRANCH CIRCUITS. "GREEN GROUND" WIRE SHALL ALSO BE PROVIDED FOR FLEXIBLE CONDUIT AND MOTOR CIRCUITS.
 - PROVIDE RACEWAYS CONTINUITY TESTS OF RESISTANCE OF FEEDER CONDUITS FROM SERVICE TO POINT OF FINAL DISTRIBUTION USING 1 CONDUCTOR RETURN. MAXIMUM RESISTANCE SHALL BE 25 OHMS.
 - MAINTAIN GROUNDING CONTINUITY OF INTERRUPTED METALLIC RACEWAYS WITH GROUND CONDUCTOR, AND IN FLEXIBLE CONDUIT FOR FEEDERS AND MOTOR TERMINAL CONNECTIONS.
- RACEWAYS
 - CONDUIT & FITTINGS
 - RIGID METAL CONDUIT (RMC/RGS): FULL-WHEAT PIPE, GALVANIZED STEEL, THREADED
 - PERMITTED FOR FEEDERS AND BRANCH CIRCUITS. PAINT MALE THREADS OF FIELD-THREADED CONDUIT WITH GRAPHITE-BASE PIPE COMPOUND AND BUTT CONDUIT ENDS. TOUCH UP MARRED SURFACES AND FIELD-CUT THREADS, CRC-COLD GALVANIZED.
 - FITTINGS: NONSPLT, THREADED, STEEL OR MALLEABLE IRON. ZINC DIE CAST NOT PERMITTED
 - WIRES/WAYS: WIRE SHALL BE AS NOTED, MINIMUM #10 GAUGE STEEL WITH GROUND CONTINUITY. FINISH SHALL BE BAKED ENAMEL. COVERS SHALL BE SCREW-ON.
- ACCESSORIES
 - BUSHINGS: METALLIC INSULATED TYPE.
 - EXPANSION FITTINGS SHALL BE INSTALLED AT RIGHT ANGLES WITH CLIP JOINT CENTERED IN EXPANSION JOINT. PROVIDE A LENGTH OF RUN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PRESET FITTINGS SHALL ALLOW FOR TEMPERATURE VARIATION.
- BOXES
 - OUTLET BOXES: EXCEPT AS OTHERWISE REQUIRED BY CONSTRUCTION, DEVICES OR WIRING, BOXES SHALL BE STAMPED STEEL 4" SQUARE OR OCTAGON FOR FIXTURES. BOXES ABOVE CEILING SHALL BE 1-1/2" DEEP. BOXES IN CEILING OR SLAB SHALL BE 3" DEEP. BOXES IN WALL FOR FIXTURES SHALL BE 2-3/4" DEEP. BOXES IN WALL FOR RECEPTABLES AND SWITCHES SHALL BE 1-1/2" DEEP. FURNISH WITH RAISED COVERS AND FIXTURE STUDS WHERE REQUIRED.
 - WITHOUT FIXTURE OR DEVICE: FURNISH BLANK COVER. OFFSET BACK-TO-BACK OUTLETS WITH MINIMUM 6" SEPARATION.
 - ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. OUTLET BOXES SHALL BE SET SQUARE AND TRUE WITH BUILDING FINISH. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRON OR GRIP IN CONCRETE OR MASONRY. PROVIDE BARRIERS BETWEEN SWITCHES CONNECTED TO DIFFERENT PHASES FOR VOLTAGES EXCEEDING 150V TO GROUND.
 - JUNCTION AND PULL BOXES: GALVANIZED SHEET STEEL WITH SCREW-ON COVERS, EXCEPT AS NOTED. FURNISH WITH INSULATED SUPPORTS FOR CABLES. LOCATIONS SHALL BE AS NOTED OR REQUIRED AND ACCESSIBLE.
 - CABLE, JUNCTION AND PULL BOXES SHALL BE LOCATED CLEAR OF OTHER TRADES. CONCEAL JUNCTION AND PULL BOXES IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. BOXES SHALL BE ACCESSIBLE. SUPPORT BOXES FROM BUILDING STRUCTURE. INDEPENDENT OF CONDUIT. PROVIDE FLOOR-TO-CEILING CHANNELS FOR MOUNTING ON DRYWALL AND LIGHTWEIGHT CONSTRUCTION. OUTLET BOXES FOR FIXTURES RECESSED IN HUNG CEILINGS SHALL BE ACCESSIBLE THROUGH OPENING CREATED BY REMOVAL OF FIXTURE. SECURE TO BLACK IRON OR GALVANIZED STEEL CHANNEL SUPPORT. MOTOR TERMINAL BOXES: COORDINATE WITH MOTOR BRANCH CIRCUIT CONDUIT AND WIRING; ADD BOX VOLUME WHERE REQUIRED.
- SUPPORT
 - PROVIDE RACEWAY SUPPORT UTILIZING CEILING TRAPEZE, STRAPHANGERS, OR WALL BRACKETS. PROVIDE U-BOLTS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND CONNECTED TO ACCEPTABLE SUPPORTS. PROVIDE RISER CLAMPS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND RESTING ON SLAB.
- WIRE & CABLE
 - ALL WIRE AND CABLE ABOVE CEILINGS SHALL BE PLENUM RATED.
 - PROVIDE WIRE AND CABLE COMPLETE WITH ACCESSORIES. SIZE REFERENCE SHALL BE AWG EXCEPT AS NOTED.
 - CONDUCTORS SHALL BE COPPER, ASTM STANDARD 360 (#10 AND SMALLER) OR STRANDED (#8 AND LARGER), GENERAL USE CABLE SHALL BE #12 MINIMUM.
 - CONTROL AND ALARM CABLE, EXCEPT AS NOTED, SHALL BE #14 MINIMUM. AT 120V AND OVER 200' CIRCUIT LENGTH PROVIDE #12 MINIMUM.
 - OTHER VOLTAGES AND PHASES: ADJUST CABLE SIZES AS REQUIRED TO MAINTAIN VOLTAGE DROP. INCREASE RACEWAY SIZES FOR LARGER WIRE AS REQUIRED.
- INSULATION SHALL BE RUBBER AND THERMOPLASTIC MEETING ASTM AND IPCEA STANDARDS.
 - TYPE THW, THWN SHALL BE UTILIZED FOR BRANCH CIRCUITS EXCEPT AS NOTED.
 - TYPE THHN, THW-2 SHALL BE UTILIZED FOR FEEDERS EXCEPT AS NOTED.
 - FOR UNGROUNDED ISOLATED BRANCH CIRCUITS PROVIDE CROSS-LINKED POLYETHYLENE INSULATION (TYPE XHHW).
 - PRE-MANUFACTURED HOSPITAL GRADE ARMORED CABLE (ATCMH) SHALL BE UTILIZED FOR ALL NORMAL BRANCH CIRCUITS IN DRY HOLLOW STUD WALL LOCATIONS, ABOVE ACCESSIBLE CEILING AND WHERE PERMITTED BY ARTICLE 320 & 517 OF THE NATIONAL ELECTRICAL CODE ONLY. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG COPPER WITH INTEGRAL GREEN INSULATED CONTINUOUS GROUND CONDUCTOR AND BARE BONDING CONDUCTOR IN DIRECT CONTACT WITH THE OUTER METAL JACKET.
- THE INSULATION OF ALL CONDUCTORS SHALL BE 90°C RATED THERMOPLASTIC WITH COLOR CODING AS FOLLOWS:
 - 120/208V SYSTEM
 - BLACK FOR A PHASE
 - RED FOR B PHASE
 - BLUE FOR C PHASE
 - 277/480V SYSTEM
 - BROWN FOR A PHASE
 - ORANGE FOR B PHASE
 - YELLOW FOR C PHASE
- NEUTRAL WIRE SHALL UTILIZE WHITE OUTER COVERING THROUGHOUT. EQUIPMENT GROUND WIRE SHALL UTILIZE GREEN OUTER COVERING THROUGHOUT.
- WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION TO OVERLAP CONDUCTORS WITH 6" OF COLOR TAPING IN ACCESSIBLE LOCATIONS.
- EMERGENCY BRANCH CIRCUIT WIRE SHALL BE RUN IN CONDUIT.
- PROVIDE FLAMEPROOF LINEN OR FIBER TAGS IN ACCESSIBLE LOCATIONS. FOR FEEDERS INDICATE FEEDER NUMBER, SIZE, PHASE AND POINTS OF ORIGIN AND TERMINATIONS. FOR CONTROL AND ALARM WIRING INDICATE TYPE (CONTROL OR ALARM), SIZE OF WIRE, AND POINTS OF ORIGIN AND TERMINATIONS.
- TERMINATIONS, SPLICES AND TAPS UNDER 600V: COPPER CONDUCTORS #10 AND SMALLER SHALL UTILIZE COMPRESSION TYPE OF TWIST-ON SPRINGS-LOADED CONNECTORS AND CLEAR NYLON INSULATED OVERLAP CONDUIT SPLICING. COPPER CONDUCTORS #8 AND LARGER SHALL UTILIZE MECHANICAL BOLTED PRESSURE OR HYDRAULIC COMPRESSION TYPE USING MANUFACTURER'S RECOMMENDED TOOLING. CABLE LUGS AND CONNECTORS SHALL UTILIZE COMPRESSION TYPE OF SAME METAL AS CONDUCTOR. PROVIDE TO MATCH CABLE, WITH MARKING INDICATING SIZE AND TYPE. COPPER LUG CONNECTIONS TO BUS BARS: USE
- ANTI-SEIZE COMPOUND ON TANG. PROVIDE SEALED WATERPROOF SPLICES FOR UNDERGROUND RUNS.
- NOT MORE THAN 3 LIGHTING OR CONVENIENCE OUTLET CIRCUITS SHALL BE INSTALLED IN ONE CONDUIT UNLESS OTHERWISE INDICATED. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF 120/208V AND 277/480V SYSTEMS EXCEPT 400V MOTOR OR BRANCH CIRCUIT WIRING AND RELATED 120V CONDUIT WIRING. THERMOPLASTIC WIRES SHALL NOT BE INSTALLED IN COMPUTER AREA RAISED FLOORS.
- DEVICES
- LOCAL SWITCHES
 - CONVENTIONAL QUITE SINGLE-POLE TOGGLE TYPE, RATED AT 20 AMP, 120/277V AC. PROVIDE SIMILAR TO: P&S #20AC1, COOPER #2221, HUBBELL #CS1221
 - CONVENTIONAL QUITE THREE-POLE TOGGLE TYPE, RATED AT 20 AMP, 120/277V AC. PROVIDE SIMILAR TO: P&S #20AC3, COOPER #2223, HUBBELL #CS1223
- THE OWNER OR ARCHITECT SHALL SELECT TOGGLE COLOR.
- INSERTION RECEPTABLES
- GROUND FAULT INTERRUPTER WITH SELF-PROTECTION AND LED INDICATOR LIGHT. COORDINATE DECORA OR REGULAR STYLE WITH POLE RECEPTACLE BLANK. PROVIDE SIMILAR TO: P&S #2091, HUBBELL #GF20LL, LEVITON #8989-HGI
- ARCHITECT SHALL SELECT FACE COLOR AND ORIENTATION. DEVICES USED ON EMERGENCY BRANCH CIRCUITS SHALL BE RED FACE ONLY
- DEVICE SHALL MEET OR EXCEED
 - UL 488
 - UL FEDERAL SPECIFICATION WIC-596 LISTING.
 - NEMA WD-1 AND WD-6</



The image contains two technical drawings. The left drawing is a top-down view of the 'COVER'. It is a square plate with a side length of 24 inches. It features four 3/4" 16NC hex bolts with washers at the corners, with a 12-inch spacing between the bolts. A 3-inch wide 'SKID RESISTANT SURFACE' is located at the bottom center. Two 'PULL SLOTS (TYP. FOR 2)' are positioned on the left side, with a 9-inch spacing between them. The word 'COVER' is written in a box at the bottom left. The right drawing is a perspective view of the 'BASE'. It is a rectangular frame with an overall width of 24 inches and a depth of 18 inches. The front and back vertical supports are 2 1/2 inches thick. There are 'MOUSEHOLES (2)' on the front and back faces, each with a '4"x4" OPENING (TYP. FOR 2)'. The word 'BASE' is written in a box at the bottom right.



NOTE: PROVIDE ALL POWER PACKS/POWER SUPPLIES AND NECESSARY MOUNTING HARDWARE AS NEEDED TO FACILITATE INSTALLATION OF LUMINAIRES.

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR
AND OWNER MUST BE NOTIFIED OF ANY
DISCREPANCIES BEFORE PROCEEDING WITH WORK

ELECTRICAL SCHEDULES & DETAILS
SCHUYLKILL RIVER DEVELOPMENT CORPORATION
2401 WALNUT STREET, 6TH FLOOR
PHILADELPHIA, PA 19103

[illegible]

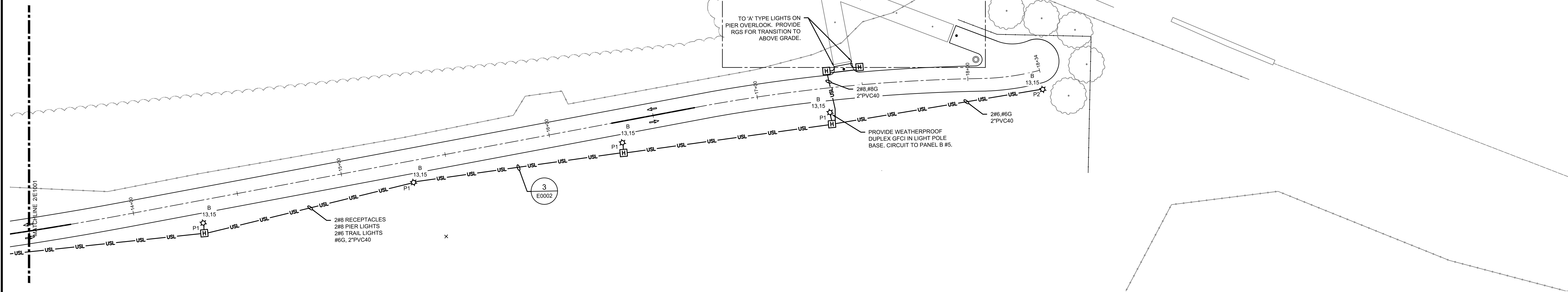
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| PROJECT | SRDC1601 |
| DATE | 3/25/2020 |
| DRAWING SCALE | AS NOTED |
| DRAWN BY | RKM |
| APPROVED BY | RWM |

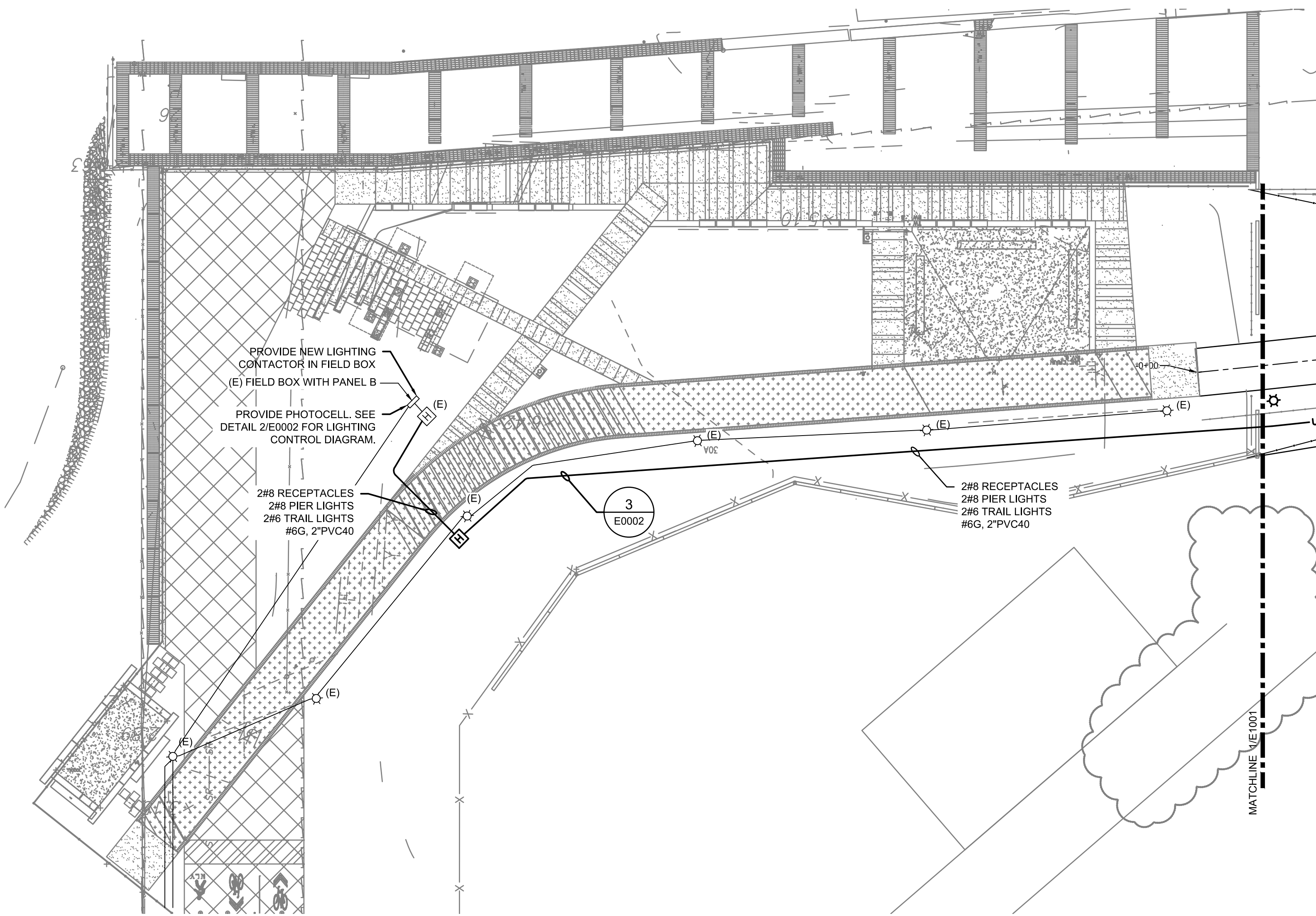
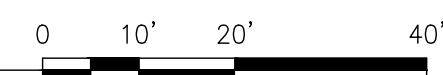
E0002

SHEET OF

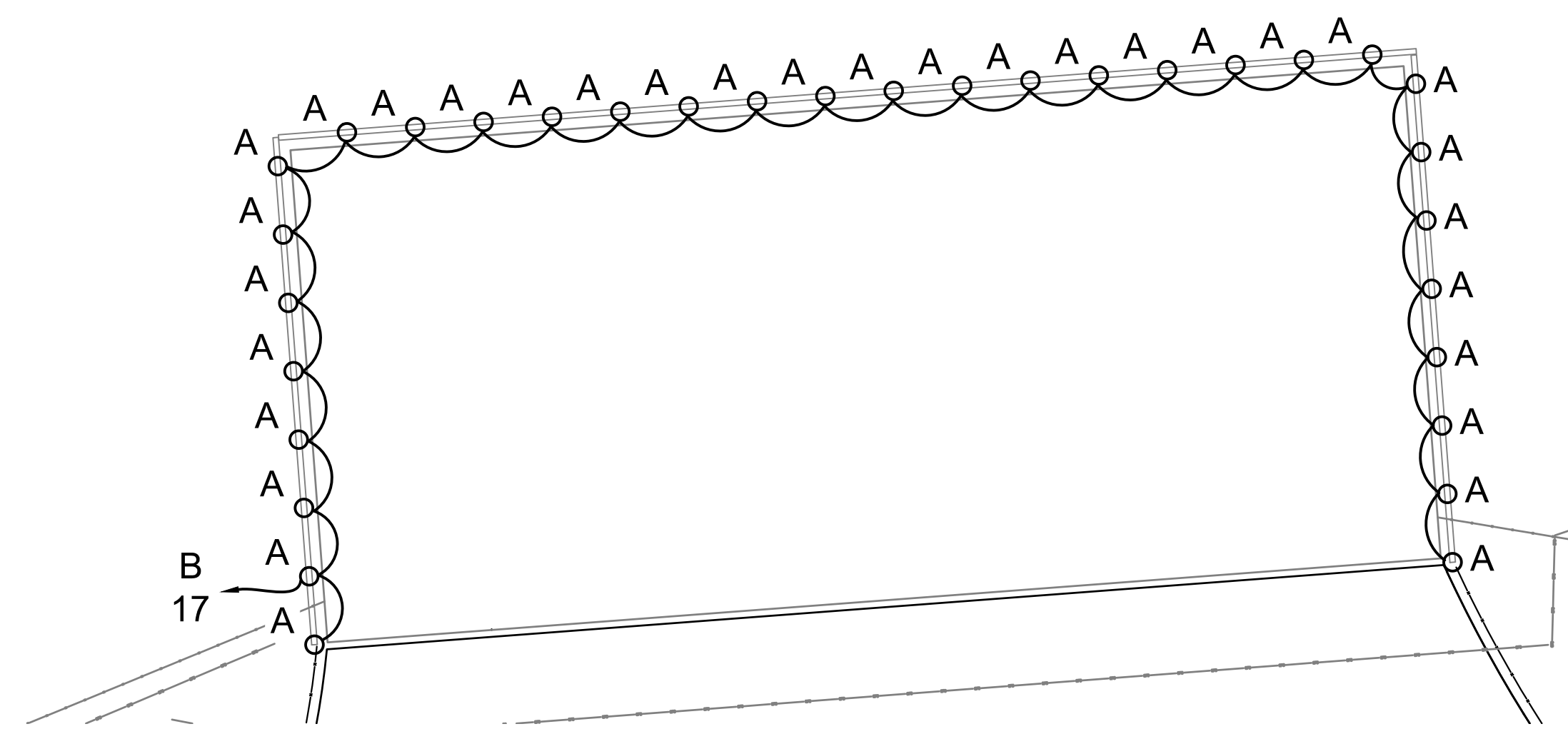
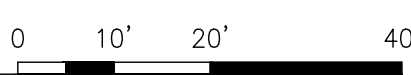
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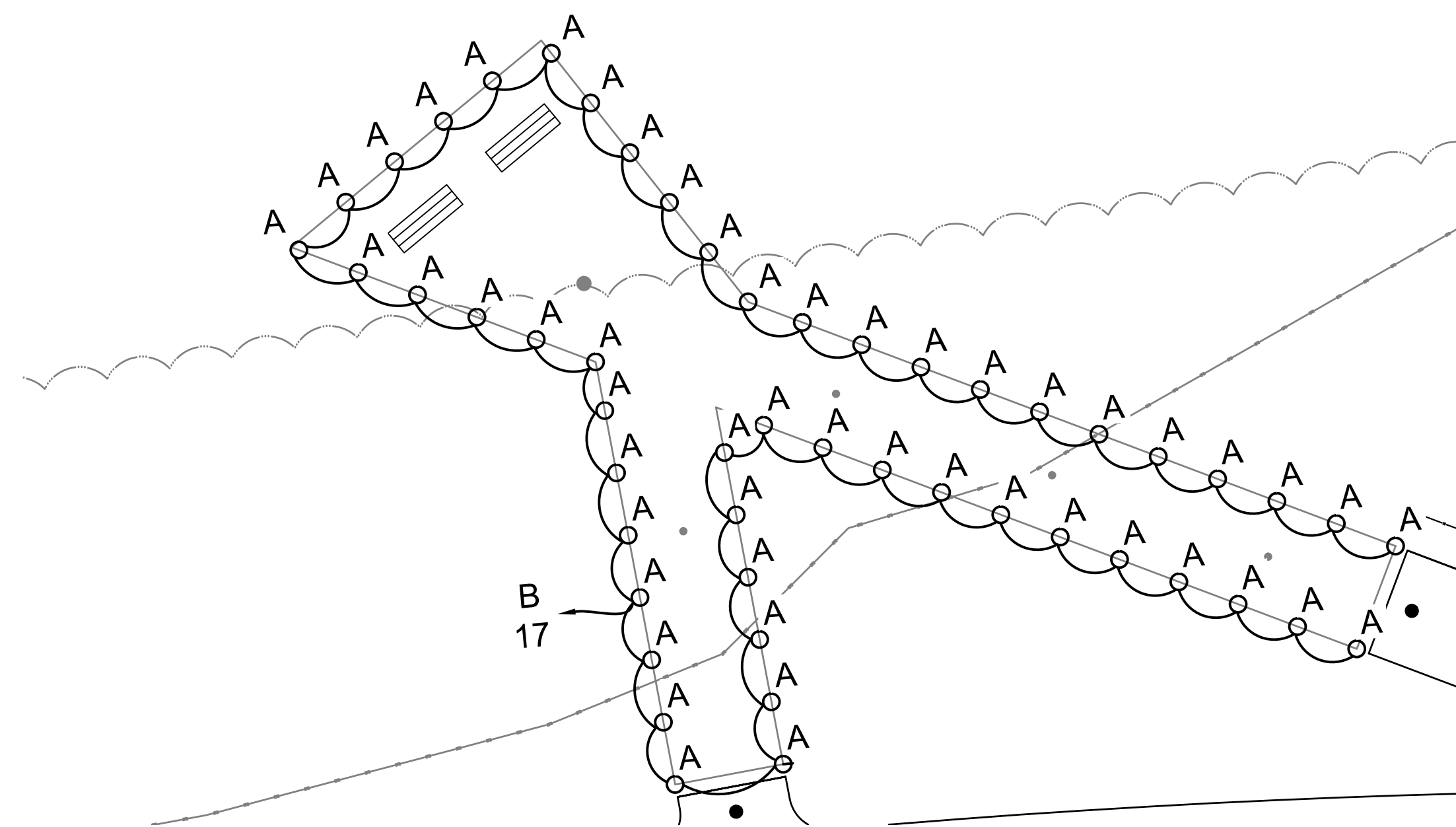
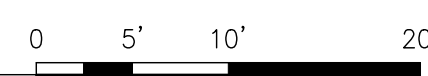
1 TRAIL LIGHTING SOUTH SIDE
E1002 SCALE: 1" = 20'-0"



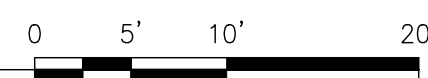
2 TRAIL LIGHTING POWER SOURCE
E1002 SCALE: 1" = 20'-0"



3 ENLARGED PLAN - FISHING PIER
E1002 SCALE: 1" = 10'-0"



4 ENLARGED PLAN - PIER OVERLOOK
E1002 SCALE: 1" = 10'-0"



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DISCREPANCIES BEFORE PROCEEDING WITH WORK

SCHUYLKILL RIVER TRAIL 56TH TO 61ST STREET
3000 S. 56TH STREET, 2751 S. 58TH STREET, 3107 S. 61ST STREET
PHILADELPHIA, PA 19143

ELECTRICAL SITE PLAN
SCHUYLKILL RIVER DEVELOPMENT CORPORATION
2401 WALNUT STREET, 6TH FLOOR
PHILADELPHIA, PA 19103

| NO. | DATE | REVISIONS | BY |
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| PROJECT | SRDC1601 |
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| DRAWING SCALE | AS NOTED |
| DRAWN BY | RKM |
| APPROVED BY | RWM |

E1002

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