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ELECTRICAL SYMBOL LEGEND

Table with electrical symbols and their corresponding descriptions, including circuit conductors, junction boxes, switches, receptacles, and lighting fixtures.

ELECTRICAL ABBREVIATIONS

Table listing electrical abbreviations such as 18", AFF, AFG, EC, FPN, GC, MC, PC, WP, UON, and FACP with their respective meanings.

GENERAL ELECTRICAL NOTES

- 1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES.
2. ALL MATERIAL, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITERS LABORATORIES, INC., AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
3. ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR. DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE ONLY THE GENERAL ARRANGEMENT. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
4. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE THE DAY THE PROJECT IS ACCEPTED BY THE OWNER.
5. ELECTRICAL CONTRACTOR SHALL MAKE ALL ELECTRICAL POWER CONNECTIONS TO HVAC, PLUMBING AND OTHER EQUIPMENT AS REQUIRED.
6. A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
7. ALL CUTTING AND PATCHING OF WALLS AND FLOORS FOR ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
8. CONDUCTORS SHALL BE STRANDED COPPER RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS #10 AND SMALLER SHALL BE SOLID, UNLESS OTHERWISE NOTED. BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE THHN OR THWN AS REQ'D.
9. ALL WIRING SHALL BE INSTALLED IN GALVANIZED RIGID CONDUIT, INTERMEDIATE METAL CONDUIT, OR EMT. EMT SHALL NOT BE USED IN OR UNDER CONCRETE SLABS, OR IN MASONRY WALLS. USE SCHEDULE 40 PVC OUTDOORS WHERE NOT SUBJECT TO PHYSICAL DAMAGE OR BELOW FLOOR SLAB. MINIMUM CONDUIT SIZE TO BE 1/2". TYPE MC AND AC CABLE MAY BE USED WHERE PERMISSIBLE BY NEC.
10. USE SCHEDULE 40 PVC OUTDOORS WHERE NOT SUBJECT TO PHYSICAL DAMAGE OR BELOW FLOOR SLAB. MINIMUM CONDUIT SIZE TO BE 1/2". TYPE NM, MC AND AC CABLE MAY BE USED IN RESIDENTIAL BUILDINGS WHERE PERMISSIBLE BY NEC.
11. PROVIDE A PULLWIRE IN ALL EMPTY CONDUITS.
12. PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND.
13. FUSES 0 - 600 AMPS SHALL BE UL CLASS "RK-1" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200,000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSSMANN, UNLESS NOTED OTHERWISE.
14. ALL TERMINALS/LUGS SHALL BE 60/75° RATED. ALL TERMINALS, SPlicing CONNECTORS, LUGS, ETC SHALL BE IDENTIFIED FOR USE WITH THE MATERIAL (CU/AL) OF THE CONDUCTOR AND SHALL BE PROPERLY INSTALLED.
15. VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
16. E.C. TO VERIFY DEVICE PLATE COLOR AND MATERIAL WITH ARCHITECT PRIOR TO PURCHASE THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ELECTRICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPACKLE, ETC.).
17. PENETRATIONS OF REQUIRED SMOKE PARTITIONS SHALL BE SEALED USING METHODS APPROVED UNDER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO INSURE THAT THIS SMOKE STOPPING IS ACCOMPLISHED.
18. WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO INSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. USE APPROVED U.L. OR EQUIVALENT ASSEMBLIES.
19. IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16 SQUARE INCHES SHALL BE PROTECTED AS REQUIRED BY U.L. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO INSURE THAT THE INTEGRITY OF THE U.L. RATING IS MAINTAINED.
20. WHERE A HOME RUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN, THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS: A MAXIMUM OF THREE 20A BRANCH CIRCUITS MAY BE COMBINED IN A COMMON HOMERUN WITH SEPARATE NEUTRALS FOR A MAXIMUM TOTAL OF SIX CURRENT CARRYING CONDUCTORS. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO THE PANEL.
21. COORDINATE WITH THE CABLE TV AND TELEPHONE UTILITIES AS REQUIRED FOR SERVICE ENTRANCE REQUIREMENTS. INSTALLATION MUST COMPLY WITH THEIR RESPECTIVE REGULATIONS AND REQUIREMENTS.
22. RECEPTACLES SHALL BE SPECIFICATION GRADE EQUAL TO HUBBELL 5300 SERIES, GROUND FAULT RECEPTACLES SHALL BE HUBBELL GF-5362. LIGHTING SWITCHES SHALL BE SPECIFICATION GRADE EQUAL TO HUBBELL 1200 SERIES.
23. SOUNDIBLE FIRE ALARM NOTIFICATION APPLIANCES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15DB(A) ABOVE THE AVERAGE AMBIENT SOUND PRESSURE LEVEL AT ALL LOCATIONS WITHIN THE OCCUPIABLE SPACE. TYPICAL AVERAGE AMBIENT SOUND PRESSURE LEVELS ARE GIVEN IN NFPA 72 TABLE A-4-3.2.
24. IF THREE OR MORE FIRE ALARM SYSTEM VISUAL NOTIFICATION APPLIANCES ARE LOCATED WITHIN AN OBSERVERS FIELD OF VIEW (180°) AND WITHIN 55'-0" OF THE OBSERVER, THEN THE DEVICES SHALL BE SYNCHRONIZED.
25. ALL EXTERIOR FIXTURES AND DEVICES SHALL BE RATED FOR OPERATION AT 0° F AND SHALL BE DAMP OR WET LABELED AS REQUIRED.
26. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ELECTRICAL EQUIPMENT, DEVICES, ETC. IN ACCORDANCE WITH LOCAL SEISMIC CODE REQUIREMENTS. PROVIDE SEISMIC RESTRAINTS, ACCESSORIES AND INSTALLATION DETAIL AS REQUIRED.
27. ELECTRICAL CONTRACTOR TO COORDINATE THE EXACT MCM/MCP REQUIREMENTS OF ALL EQUIPMENT WITH ALL OTHER TRADES PRIOR TO PRICING, ORDERING, OR INSTALLING ANY ELECTRICAL GEAR. THIS SHALL INCLUDE BUT NOT LIMITED TO ALL HVAC, PLUMBING, KITCHEN, OWNER PROVIDED EQUIPMENT, ETC.

LIGHT FIXTURE SCHEDULE

Table with columns: TYPE, DESCRIPTION, LAMP, # OF LAMPS, TOTAL FIXTURE WATTAGE, BALLAST/DRIVER, VOLTAGE, MANUFACTURER, MODEL, REMARKS, EXAMPLE. Lists various lighting fixtures like car wash recessed, exterior canopy, wall mounted LED, etc.

LIGHTING FIXTURE SCHEDULE NOTES:

- 1. ALL LAMPS SHALL BE ENERGY EFFICIENT UNLESS NOTED. ALL FLUORESCENT LAMPS SHALL BE 3000K AS SPECIFIED. ALL FLUORESCENT BALLASTS SHALL BE ELECTRONIC AS SPECIFIED. SUBMITTAL SHEETS SHALL BE SUBMITTED WITH FIXTURE SUBMITTALS. FLUORESCENT LAMP AND BALLAST WARRANTY SHALL BE OBTAINED BY CONTRACTOR AND TURNED OVER TO THE OWNER AT END OF PROJECT. IF FLUORESCENT IS USED, SUBSTITUTIONS, PLEASE CONTACT SABER FOR MORE INFORMATION. 704-334-2821.
2. ALL FLUORESCENT FIXTURES SHALL HAVE A U.L. LABEL INDICATING THAT THE LAMP WATTAGE SPECIFIED ABOVE IS THE MAXIMUM ALLOWABLE IN FIXTURE.
3. ALL FLUORESCENT BALLASTS SHALL HAVE PROTECTED OVERCOURT SWITCHING AS INDICATED ON THE DRAWINGS. TANDDEM FIXTURES ARE ALLOWED TO FACILITATE HUBBARD OUTBOARD SWITCHING.
4. ALL BALLASTS SHALL BE DIFFERENTIATED BY COLOR FOR EACH FIXTURE LOCATION.
5. ALL BALLASTS SHALL BE IDENTIFIED BY COLOR AND TYPE ON THE DRAWINGS.
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30. ALL BALLASTS SHALL BE IDENTIFIED BY COLOR AND TYPE ON THE DRAWINGS.

LIGHTING SYSTEMS ENERGY CONSERVATION CODE SECTION 404, 505 AND 506

Form containing project classification (THIS PROJECT IS CLASSIFIED AS - RESIDENTIAL AND COMPLES WITH SECTION 404, COMMERCIAL (SEE BELOW)), lighting power density calculation compliance, designer statement, and section 506 compliance checkboxes.

ELECTRICAL SHEET INDEX

Table listing sheet titles and numbers: E101 ELECTRICAL NOTES, LEGEND AND SCHEDULES; E102 ELECTRICAL SITE LIGHTING PLAN; E103 ELECTRICAL DETAILS; E201 ELECTRICAL POWER PLAN; E202 ELECTRICAL LIGHTING PLAN; E203 ELECTRICAL MEZZANINE LIGHTING PLAN; E301 ELECTRICAL CAR WASH PLAN; E401 ELECTRICAL RISER DIAGRAMS; E402 PANEL SCHEDULES; E501 ELECTRICAL RISER SCHEDULES.

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Order Plans