GENERAL NOTES

G01. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. THESE DRAWINGS ARE SUPPLEMENTARY TO THE PROJECT SPECIFICATIONS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS.

G02. INSTALL SYSTEMS SUCH THAT CODE REQUIRED WORKING CLEARANCE AND DEDICATED EQUIPMENT SPACE ALONG WITH SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

G03. COORDINATE AND PROVIDE ACCESS DOORS WITHIN INACCESSIBLE CEILING, SHAFT, AND CHASE AREAS FOR ALL COMPONENTS WHICH REQUIRE SERVICE ACCESS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES AND PARTITION RATINGS. ACCESS DOORS IN FIRE RATED SURFACES SHALL MAINTAIN THE FIRE RATING OF THE PARTITION.

G04. PROVIDE ALL MISCELLANEOUS STEEL AND HARDWARE TO SUPPORT ALL DEVICES AND EQUIPMENT AS INDICATED IN THE SPECIFICATIONS.

G05. REFER TO MECHANICAL/ELECTRICAL SCHEDULE DRAWING(S) FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT. PROVIDE ALL CONNECTIONS, STARTERS, DISCONNECTS, ETC. AS INDICATED ON THE SCHEDULES AND WHERE ELSEWHERE NOTED. PROVIDE THE CIRCUIT OF HIGHER AMPACITY WHERE CIRCUIT SIZES ARE SHOWN ON THE ELECTRICAL DRAWINGS THAT DIFFER FROM WHAT IS INDICATED ON THE MECHANICAL SCHEDULES.

G06. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH EQUIPMENT SHOP DRAWINGS PRIOR TO ORDERING MATERIALS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE EQUIPMENT SHOP DRAWINGS AND ELECTRICAL DRAWINGS. OBTAIN DIRECTION FROM THE ENGINEER PRIOR TO ORDERING MATERIALS WHERE DISCREPANCIES EXIST.

G07. PROVIDE NEW OVERCURRENT PROTECTIVE DEVICES TO MATCH EXISTING EQUIPMENT WHERE NEW OVERCURRENT PROTECTIVE DEVICES ARE REQUIRED TO SERVE NEW LOADS FROM EXISTING EQUIPMENT.

G08. TRANSFORMER CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE NEC AND TRANSFORMER CIRCUIT SIZING SCHEDULE LOCATED ON THESE DRAWINGS UNLESS NOTED OTHERWISE.

G09. MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH THE NEC AND MOTOR CIRCUIT SIZING SCHEDULE LOCATED ON THESE DRAWINGS UNLESS NOTED OTHERWISE.

G10. REFER TO CIRCUIT MAXIMUM DISTANCE TABLES FOR WIRING AND CONDUIT UPSIZING REQUIREMENTS.

G11. WHERE MULTIPLE SWITCHES, RECEPTACLES, AND OTHER OUTLETS (EXCEPT WALL PHONES) ARE INDICATED PROVIDE MULTI-GANG BACK BOXES WITH GANG BARRIERS AND A COMMON FACEPLATE FOR ALL SIMILAR DEVICES.

G12. WHERE DIFFERENT RECESSED ELECTRICAL DEVICES WITH THE SAME MOUNTING HEIGHTS ARE INDICATED SIDE-BY-SIDE, MOUNT THE DEVICES SO THAT THERE IS ONE INCH BETWEEN ADJACENT VERTICAL EDGES OF THE FACEPLATES, UNLESS OTHERWISE NOTED.

G13. WHERE ELECTRICAL DEVICES WITH DIFFERENT MOUNTING HEIGHTS ARE LOCATED IN THE SAME AREA ALIGN DEVICES VERTICALLY THROUGH THEIR CENTERLINES.

G14. COORDINATE THE MOUNTING HEIGHT OF DEVICES AND EQUIPMENT INDICATED ON THESE DRAWINGS THAT ARE INDICATED AT DIFFERENT MOUNTING HEIGHTS THAN THOSE INDICATED ON THE ARCHITECTURAL DRAWINGS WITH THE ARCHITECT AND/OR ENGINEER PRIOR TO INSTALLATION.

G15. COORDINATE THE EXACT LOCATION OF ALL FLOOR BOXES WITH THE FINAL FURNITURE LAYOUT DRAWINGS AND ARCHITECTURAL TRADE.

G16. WHERE THE NUMBER OF CURRENT-CARRYING CONDUCTORS IN A RACEWAY EXCEEDS THREE, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED AS SHOWN IN THE ADJUSTMENT FACTOR TABLE IN THE NATIONAL ELECTRICAL CODE. LOAD DIVERSITY FACTORS SHALL NOT BE USED IN SIZING BRANCH CIRCUIT CONDUCTORS.

G17. CONTRACTOR SHALL PROVIDE UPDATED, TYPED PANEL DIRECTORIES FOR ALL NEW AND EXISTING PANELBOARDS MODIFIED DURING DEMOLITION AND/OR CONSTRUCTION. ANY CIRCUITS MADE AVAILABLE DURING DEMOLITION AND NOT RE-USED DURING CONSTRUCTION SHALL BE MARKED "SPARE".

G18. COORDINATE ANY SHUT DOWN OF EXISTING SERVICES AND EQUIPMENT THAT ARE REMAINING IN USE WITH THE OWNER'S REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COST TO PERFORM THIS WORK DURING WEEKENDS AND EVENINGS, INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWNS MUST OCCUR FOR PERIODS LONGER THAN THESE HOURS. COORDINATE ELECTRICAL SHUT DOWNS WITH THE OWNER 72 HOURS PRIOR TO SHUT DOWN.

G19. ELECTRICAL WORK SHALL CONFORM TO THE LOCALLY ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE REQUIREMENTS

G20. CONDUCTORS SHALL BE STRANDED COPPER. CONDUCTORS 6 AWG AND SMALLER SHALL BE TYPE THHN/THWN. CONDUCTORS 4 AWG AND LARGER SHALL BE TYPE XHHW.

G21. MINIMUM SIZE POWER CONDUCTOR SHALL BE #12 AWG, RATED FOR 90 DEGREES C 'DRY'.

G22. MINIMUM SIZE CONTROL CONDUCTOR SHALL BE #14 AWG, RATED 90 DEGREE C 'DRY' OR 75 DEGREE C 'WET' UNLESS NOTED OTHERWISE.

G23. ALL CABLES NOT CONCEALED IN A RACEWAY ROUTED IN CEILING SPACE SHALL BE PLENUM RATED PER NEC REQUIREMENTS.

G24. MINIMUM CONDUIT SIZE IS 3/4" ABOVE GRADE, MINIMUM CONDUIT SIZE BELOW GRADE IS 1".

G25. WHERE REQUIRED FOR FLEXIBLE CONNECTIONS TO EQUIPMENT, FLEXIBLE METAL CONDUIT MAY BE USED IN LENGTHS OF 6'-0" OR LESS. FOR EXTERIOR OR DAMP LOCATIONS, USE LIQUID TIGHT FLEXIBLE METAL CONDUIT.

G26. PROVIDE BUSHINGS ON CONDUITS INSIDE ENCLOSURES, JUNCTION BOXES, OR PULL BOXES.

G27. EMPTY CONDUITS FOR TELEPHONE, DATA OR OTHER LOW VOLTAGE CABLES SHALL HAVE PULL STRING AND BUSHED ENDS.

G28. PROVIDE JUNCTION OR PULL BOXES IN THE CONDUIT SYSTEM PER NEC REQUIREMENTS OVER AND ABOVE THOSE SPECIFICALLY CALLED FOR ON THE DRAWINGS.

G29. ALL CONDUIT RUNS ARE SHOWN DIAGRAMMATIC. EXACT CONDUIT RUNS SHALL BE DETERMINED IN THE FIELD TO CLEAR OTHER EQUIPMENT, PIPES, ETC.

G30. ALL HORIZONTAL AND VERTICAL PENETRATIONS THROUGH FIRE RATED STRUCTURE MUST BE SLEEVED (RGS CONDUIT) AND SEALED WITH AN APPROVED FIRE STOP.

G31. PROVIDE EXPANSION JOINTS IN CONDUITS, CABLE TRAYS, AND BUSWAYS WHERE CONDUITS, CABLE TRAYS, AND BUSWAYS CROSS BUILDING EXPANSION JOINTS.

G32. DO NOT ROUTE RACEWAYS, CABLE TRAY, OR BUSWAY BENEATH ANY ROOF OPENINGS OR HATCHES.

G33. ALL WALL OUTLETS NOT PROVIDED WITH A DEVICE BY THIS CONTRACTOR SHALL BE PROVIDED WITH A BLANK WALL PLATE.

G34. MISCELLANEOUS SUPPORT STEEL SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. PROVIDE FLOOR MOUNTING SUPPORT RACK FOR CONDUITS RUN BETWEEN THE EQUIPMENT AND VERTICAL DROPS FROM OVERHEAD OR BUSWAY. DO NOT RUN CONDUITS ON THE FLOOR.

G35. GROUNDING CONDUCTOR SHALL BE RUN IN ALL RACEWAYS.

G36. LIGHTNING PROTECTION DOWN CONDUCTOR SPACING SHALL COMPLY WITH NFPA 780 AND UL96a REQUIREMENTS

G37. ELECTRICAL EQUIPMENT SHALL BE UL LISTED AND LABELED.

G38. WIRING DEVICES SHALL BE SPECIFICATION GRADE, SELF GROUNDING WITH BACK AND SIDE WIRING.

G39. CIRCUIT BREAKERS FOR HEATING AND AIR CONDITIONING EQUIPMENT SHALL BE HACR RATED.

G40. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, NEMA 1 INDOORS, NEMA 3R OUTDOORS, AND NEMA 4X FOR COOLING TOWER APPLICATIONS.

G41. PROVIDE FUSES IN FUSED SWITCHES AS INDICATED. WHERE NOT INDICATED SIZE PER EQUIPMENT NAMEPLATE.

G42. CONTRACTOR SHALL SIZE OVERLOAD RELAY HEATERS AFTER READING ACTUAL HORSEPOWER AND SERVICE FACTOR RATING ON THE MANUFACTURER'S NAMEPLATE. HEATER SHALL BE SIZED PER NEC REQUIREMENT. REDUCE HEATER SIZE IF POWER FACTOR CORRECTION CAPACITOR IS CONNECTED ON LOAD SIDE OF OVERLOAD RELAYS. CHANGE FUSE SIZE IN PROPORTION IF NAMEPLATE HORSEPOWER IS DIFFERENT THAN SHOWN ON DRAWINGS.

G43. ALL FLUSH MOUNTED PANELS SHALL HAVE 3 – 1" EMPTY CONDUITS STUBBED OUT ABOVE CEILING FOR FUTURE CIRCUITS.

G44. OVERHEAD DOOR PACKAGE SHALL BE SUPPLIED WITH CONTROL PANEL, STARTERS, FUSED CPT, ETC AS A COMPLETE PACKAGE BY EQUIPMENT SUPPLIER. EC SHALL INSTALL PANEL, ALL REMOTE DEVICES, AND MAKE ALL CONNECTIONS PER CERTIFIED EQUIPMENT DRAWINGS. EC SHALL PROVIDE FUSED DISCONNECT SWITCHES, ALL CONDUIT AND WIRING TO CONNECT AS RECOMMENDED BY MANUFACTURER.

G45. CIRCUIT BREAKERS FOR LIGHTING SHALL BE SWD RATED. SHORT CIRCUIT RATINGS SHALL MATCH EXISTING BREAKERS (IF APPLICABLE).

G46. ALL EMERGENCY LIGHTING AND NIGHT LIGHTING SHALL BE CONNECTED AHEAD OF ANY LOCAL SWITCHING.

G47. FUSING FOR LIGHTING FIXTURES SHALL BE EXTERNALLY ACCESSIBLE.

G48. COORDINATE LIGHT FIXTURE LOCATIONS WITH OTHER TRADES TO AVOID INTERFERENCES.

G49. COORDINATE LIGHTING CONTROL STATION LOCATIONS WITH OWNER'S REPRESENTATIVE.

G50. SHARED NEUTRALS ARE NOT ALLOWED WITH SINGLE POLE CIRCUITS

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