



### GENERAL POWER NOTES

- REFER TO EQUIPMENT SCHEDULES ON SHEET E4.1 FOR MOUNTING HEIGHTS AND ADDITIONAL INFORMATION. SEE DETAILS ON E4-SERIES DRAWINGS WHERE APPLICABLE.
- INSTALL ELECTRICAL OUTLETS FOR REFRIGERATION ISLANDS AND CASES IN A STRAIGHT LINE ALIGNED WITH THE HUB DRAWING. COORDINATE WITH B.C. DIMENSIONS SIGNED PLAN.
- ALL CONDUITS FOR COOLERS, FREEZERS, PREP ROOM EQUIPMENT FED FROM ABOVE SHALL BE RUN ON TOP OF INSULATED ROOF PANEL AND STUBBED THROUGH PANEL INTO PREP ROOM AT EQUIPMENT LOCATIONS SHOWN. SEE ESD-25 ON E4-SERIES DRAWINGS.
- FIELD COORDINATE UNDER-SLAB CONDUIT AND RACEWAY (AVOITS WITH ALL AFFECTED PARTIES PRIOR TO SLAB PLACEMENT).
- PROVIDE 15 FEET OF FLEXIBLE CONDUIT FOR REFRIGERATED CASES SERVED FROM WALL JUNCTION BOXES AND 6 FEET FOR ISLAND REFRIGERATED CASES FOR CONNECTION TO CASES BY THE FIXTURING ELECTRICAL CONTRACTOR.
- REFER TO ELECTRICAL DIMENSION PLANS FOR GENERAL DIMENSIONAL INFORMATION THAT SHALL ALSO SCHEMATICALLY APPLY FOR CORRESPONDING SYSTEMS WORK.
- CIRCUITS FILLED THROUGH RACEWAYS SHALL BE 100V UNLESS INDICATED OTHERWISE.
- WIRE CASH REGISTERS (GCR) WITH SEPARATE AND INDEPENDENT CIRCUITS SHALL HAVE A SEPARATE AND INDEPENDENT GROUND WIRE, AND SEPARATE AND INDEPENDENT NEUTRAL WIRE CAN NOT BE PHASED OUT AT THE PANEL. EACH BRANCH CIRCUIT FOR CASH REGISTERS SHALL BE AS FOLLOWS: (1) #14 AWG WIRES EACH CASH REGISTER, (1) HOT, (1) NEUTRAL, AND (1) INSULATED/ISOLATED GROUND (PLUS EQUIPMENT GROUND).
- WHERE MORE THAN (1) ELECTRICAL LOAD IS INDICATED AT AN OUTLET, PROVIDE A SEPARATE CIRCUIT FROM THE ELECTRICAL PANEL FOR EACH LOAD.
- DEDICATED ELECTRICAL ISOLATED GROUND PANELS SHALL BE USED EXCLUSIVELY FOR ITEMS SO SPECIFIED. OTHER CIRCUITS WILL NOT BE PERMITTED IN THIS PANEL. THESE PANELS SHALL BE 208Y/120V, 3-PHASE, 3-WIRE WITH FEEDERS CONSISTING OF (3) HOT, (1) INSULATED NEUTRAL, (1) INSULATED AND ISOLATED GROUND (PLUS EQUIPMENT GROUND), WITH GROUND AND NEUTRAL WIRES INSULATED AND ISOLATED FROM THE PANEL. ALL WIRING DEVICES SERVED BY THE DEDICATED ELECTRICAL PANEL SHALL BE EQUIPPED AND WIRED FOR ISOLATED GROUND.
- ALL ELECTRICAL AND COMMUNICATION JUNCTION/OUTLET BOXES SHOWN AGAINST THE WALL SHALL BE MOUNTED IN THE WALL. REFER TO THE ELECTRICAL EQUIPMENT SCHEDULE FOR MOUNTING HEIGHT INFORMATION.
- PROVIDE NEMA 1-15/20R TYPE RECEPTACLE FOR ALL MIXERS AND GRINDERS ORIGINATE THE FOLLOWING CIRCUITS FROM PANELS (DO NOT PROVIDE ACCESS BY STAFF PERSONNEL): COOLING COILS (COOLERS, FREEZERS, RETARDERS), PREP AND MEAT PREPARATION AND COMBINATION CASES (FRIGIDAR), CASES FOR BAKING, CASES FOR SERVING, CASES AND TO FACILITATE PROPER TERMINATIONS, ELSEWHERE, NO OTHER WIRING SHOWN ON DRAWINGS SHEETS. ELECTRICAL CONTRACTOR SHALL MAKE REQUIRED TERMINATIONS.
- ALL EXTERIOR SIGNS AND SIGNS FOR STORES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. LIGHTING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. REFER TO THE ELECTRICAL EQUIPMENT SCHEDULE FOR INFORMATION ON OTHER WIRING FOR CONVENIENCE OUTLETS THAT SHALL BE PROVIDED AS A F.F. REGARDLESS OF WHETHER AN OUTLET IS LOCATED ON CASES FROM WALL, WEBSIDE CASES ARE LOCATED AGAINST WALL, AND OUTLET BOXES FOR SUCH CASES SO THAT BOTTOMS OF BOXES ARE 48" TO 54" INCHES ABOVE THE TOP OF RESPECTIVE CASE (FIELD VERIFY).
- SEE DETAIL ESD-10 FOR INFORMATION ON DISCONNECTING MEANS (NOT FURNISHED WITH EQUIPMENT OR BY KROGER). PROVIDE ALL DISCONNECTING MEANS (SEE DETAIL ESD-42).
- INSTALL (1) KROGER FURNISHED TOPPER FS-705 OCCUPANCY SENSOR, MOUNTED AT OR CLASSIFICATION CASE, FOR EVERY 30' OF CASES. DO NOT INSTALL ON CASES LOCATED ALONG A WALL OR GLASS DOOR. REFER TO KROGER INSTALLATION INSTRUCTIONS FOR WALL MOUNTING. REFER TO KROGER CASES FOR ADDITIONAL INFORMATION.
- INSTALL (1) EXACTLY ONE (1) CIRCUIT TO KROGER HANGING FLAT SCREEN MONITORS. PROVIDE ONE (1) DUPLEX RECEPTACLE EACH, FOR UP TO EIGHT (8) TELEVISION MONITORS THAT WILL BE INSTALLED AT VARIOUS LOCATIONS THROUGHOUT THE STORE. PROVIDE 5/8" DIA. BRASS BRANCH CIRCUIT CONDUIT, WIRING AND HOME-RUNS TO NEAREST NORMAL GENERAL POWER PANEL/LOAD THAT HAS AVAILABLE POLE & BRIMS; UP TO FOUR (4) MONITORS MAY BE INSTALLED TO THE SAME CIRCUIT. DETERMINE EXACT LOCATIONS IN FIELD.

### SPARE CIRCUITS, IDF RECEPTACLES AND TV MONITOR RECEPTACLES

- IN ADDITION TO ITEMS BELOW AND IN ADDITION TO ALL OTHER ELECTRICAL WORK SHOWN ON DRAWINGS, PROVIDE A TOTAL OF TEN (10) SPARE BRANCH CIRCUITS (INCLUDING NEW 1" CONDUIT PER CIRCUIT AND LABOR TO INSTALL CONDUIT, WIRE, AND TO MAKE FINAL CONNECTIONS), EACH UP TO 100 FEET FROM THE RESPECTIVE SOURCE PANEL AND FOR FUTURE USE OR ADDITIONAL WORK AS DIRECTED BY KROGER. ASSUME EACH CIRCUIT SHALL BE 120V/208V 1P, BUT FIELD VERIFY EACH.
- IN ADDITION TO ALL OTHER ELECTRICAL WORK SHOWN ON DRAWINGS, PROVIDE UP TO A TOTAL OF FOUR (4) ISOLATED GROUND RECEPTACLES (FOR UP TO A TOTAL OF FOUR (4) VOICE/DATA IDF CABINETS THAT WILL BE INSTALLED REMOTE FROM THE ESD/DATA CENTER ROOM. PROVIDE DEDICATED 208Y/120V BRANCH CIRCUIT HOME-RUN FROM EACH (UP TO FOUR CIRCUITS) TO (1) TO EMERGENCY STANDBY POWER PANELS (E.A. CONNECTIONS TO THE CABLE PLANT INSTALLATION CONTRACTOR IN FIELD TO DETERMINE A IDF CABINET LOCATIONS). IN ADDITION TO ALL OTHER ELECTRICAL WORK SHOWN ON DRAWINGS, PROVIDE ONE (1) DUPLEX RECEPTACLE EACH, FOR UP TO EIGHT (8) TELEVISION MONITORS THAT WILL BE INSTALLED AT VARIOUS LOCATIONS THROUGHOUT THE STORE. PROVIDE 5/8" DIA. BRASS BRANCH CIRCUIT CONDUIT, WIRING AND HOME-RUNS TO NEAREST NORMAL GENERAL POWER PANEL/LOAD THAT HAS AVAILABLE POLE & BRIMS; UP TO FOUR (4) MONITORS MAY BE INSTALLED TO THE SAME CIRCUIT. DETERMINE EXACT LOCATIONS IN FIELD.

### KEYED NOTES

- FEED EQUIPMENT VIA METHODS USED FOR ADJACENT CASHIER STATION. CONCEAL WORK WITHIN ONE CIRCUIT CASEWORK. SEE DETAILS ESD-28 AND ESD-60A.
- PROVIDE HOLLOW TUBE STEEL "TELE-POWER" POLE TO BE USED AS A CABLE/RACEWAY CHASE. NOTE THAT THE POLE IS NOT A FLEXIBLE RACEWAY. PROVIDE MATERIAL TO ANCHOR AT TOP OF COUNTER/ISLAND (OPEN ON TWO SIDES FOR EXIT OF CABLE/RACEWAYS) AND/OR ABOVE CEILING IN OVERHEAD CONDUIT. REFER TO KROGER INSTALLATION INSTRUCTIONS FOR METHOD AS DETERMINED IN FIELD. TRANSITION TO FLEXIBLE STEEL CONDUIT (WITH PARTIALLY SIZED GREEN INSULATED EQUIPMENT GROUND CONDUIT) AND USE POLE AS A CHASE TO FEED DOWN TO COUNTERTOP EQUIPMENT. SEE DETAILS ESD-9, AND ESD-9A ON E4-SERIES SHEETS.
- UTILIZE ADJACENT RACEWAY IN SAME ROW OR COLUMN. CONCEAL ALL WIRING AND CONDUIT FROM VIEW EXCEPT TO SIGNAL RACEWAY.
- PROVIDE PAINTED CONDUIT DROP (SUPPORTED PER DIVISION 26 SPECIFICATIONS) FROM JUNCTION BOX (JUNCTION BOX TO EQUIPMENT) AND/OR CONDUIT TO SHELVE/EQUIPMENT PER ESD-9. BEG SHALL PROVIDE RECEPTACLE FOR SHOW WINDOWS MOUNT WITHIN THE FRAMED SPLIT OVER WINDOW MOUNTING RECEPTACLE IN FASCIA IS PROHIBITED. BEC TO ENSURE NEC 210.52 REQUIREMENTS ARE SATISFIED.
- BEH SHALL INSTALL OWNER-FURNISHED CORD REEL FOR DISPLAY POWER DROPS. SEE SPEC SECTION 28 08 33.1.6A FOR MORE DETAILS.
- BEH TO PROVIDE ABOVE CEILING JUNCTION BOX AND CORD DROP AS SHOWN ON DETAIL ESD-10 ON E4-SERIES DRAWINGS. CORD DROP TO BE WHITE IN AREAS IN VIEW TO CUSTOMERS. FINAL DROP TO BE INSTALLED ONLY AFTER CASE HAS BEEN SET. MATCH TO CASE. VERIFY FINAL LOCATION WITH KROGER PM. REQUIREMENTS IN FIELD. PRIOR TO INSTALLATION VERIFY FINAL LOCATION WITH KROGER PM.
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- BEH SHALL PROVIDE CIRCUIT TO JUNCTION BOX. BEH SHALL PROVIDE WIRING AND CONNECTION AS REQUIRED FOR DISPLAY SHELVING LIGHTING GANTRY OR PALANCE AS APPLICABLE. FIELD VERIFY SPECIFICS AND LOCATIONS. BEC TO FIELD WIRE VALANCE LIGHTS FOR ENTIRE ROW OF SHELVING PER DETAIL 12" ON SHEET ESD-10 DRAWINGS. THIS NOTE APPLIES FOR ALL 208-SERIES AND 208-SERIES. ROWS OF SHELVING BE TWENTY-EIGHT (28) FEET AND TO ANY OTHER INDICATED SHELVING ROWS.
- BEH SHALL PROVIDE EXTEND CIRCUIT TO JUNCTION BOX IN FLOOR UNDER CASE/SHELF FOR UNDER-FLOOR FED CASES OR ATOP CASE FOR OVERHEAD FED CASES AS SHOWN. BEH SHALL PROVIDE DUPLEX RECEPTACLES MOUNTED ATOP CASE, FOR SIGN DISPLAYS/CONVENIENCE. COORDINATE EXACT REQUIREMENTS AND LOCATIONS WITH KROGER ENGINEER. CONCEAL ALL WIRING METHODS.
- BEH SHALL PROVIDE 20A GFCI CIRCUIT FOR UNDER FLOOR HEAT TRACE. IF CIRCUIT IS NOT FED WITH GFCI BREAKER (SEE SOURCE PANEL LOADS ON E4-SERIES DRAWINGS), BEC TO PROVIDE FULLY OPERATIONAL GFCI SYSTEM FOR EQUIPMENT PER NEC 407.26. SEE DETAIL ESD-7 ON E4-SERIES DRAWINGS. REFER TO ENERGY MANAGEMENT AND PLUMBING SPECIFICATION 25 05 33 FOR HEAT TRACE MANUFACTURER(S) AND ADDITIONAL INFORMATION.
- BEH SHALL PROVIDE POWER SUPPLY AND ELECTRICAL CONNECTION FOR HEAT TRACING FOR FREEZER COIL CONDENSATE DRAIN LINES; HEAT TRACING PROVIDED BY REFRIGERATION CONTRACTOR. REFER TO PLUMBING SPECIFICATION 25 05 33 FOR HEAT TRACE MANUFACTURER(S) AND ADDITIONAL INFORMATION. REQUIRES 30A GFCI BREAKER.
- BEH SHALL PROVIDE POWER AND CONTROL WIRING AS REQUIRED FOR OVERHEAD DOOR - INCLUDING INSTALLATION AND WIRING OF ALL SAFETY DEVICES. MOUNT RECEPTACLE FOR DOOR POWER ADJACENT TO DOOR (BELOW POWERED OPEN) AT 4" AFF. PROVIDE RUBBER MOUNTED KEYPAD OPERATOR (4" AFF) IN EXTERIOR WALL ADJACENT TO GARAGE DOOR. PROVIDE TWO (2) WALL MOUNTED PUSHBUTTONS AT LOCATIONS SHOWN (4" AFF). PROVIDE RUBBER MOUNTED WALL SWITCH AT BASKET ENTRANCE NEAREST VESTIBULE, WIRED AHEAD OF ALL OTHER DOOR WORK (ENGINEER WALL PLATE TO READ OVERHEAD DOOR).
- BEH SHALL PROVIDE QUAD RECEPTACLE FOR THEFT DETECTION ELECTRONIC SURVEILLANCE SYSTEM CONTROL BOX. SEE DETAIL ESD-49 ON E4-SERIES DRAWINGS. COORDINATE WORK WITH DECOR ELEMENTS AT DOORS IN SALES AND VESTIBULE AREAS.
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- DUPLEX RECEPTACLE TO BE INSTALLED WITHIN THE IDF CABINET FOR EACH CIRCUIT SHOWN. COORDINATE CONDUIT/RACEWAY INSTALLATION WITH LOW VOLTAGE/RECORD DRAWING(S). PROVIDE #14 AWG GROUND TO THE INLET CABINET.
- REFER TO ESD-4 FOR ADDITIONAL INFORMATION ON COOLER/FREEZER DOOR SENSOR, THE ATOP COOLER/FREEZER LIGHTING CIRCUIT AHEAD OF SWITCHING CONTROLS.
- BEH SHALL PROVIDE HOME-RUN FOR "X" AND/OR "Y" CONTROL PANEL AS APPLICABLE. SEE DETAIL ESD-8 ON E4-SERIES DRAWINGS. INSTALL AT 4" AFF. COORDINATE EXACT LOCATION AND DETAIL IN FIELD. BEH SHALL MAKE FINAL TERMINATIONS IN "X" AND/OR "Y" PANELS. SEE SINGLE LINE DRAWING WHERE APPLICABLE FOR FURTHER RELATED REQUIREMENTS.
- DISCONNECT SHALL BE PROVIDED THROUGH KROGER DIRECT BUY PROGRAM UNLESS OTHERWISE SHOWN ON SINGLE LINE DIAGRAM. ALL DISCONNECTS IN WORK AREAS SHOULD BE MOUNTED AT 4" AFF ABOVE FINISHED FLOOR TO DISCONNECT HANDLE. SEE SINGLE LINE DIAGRAM E4.1.
- BEH SHALL PROVIDE 20A CIRCUITS FOR EXTERIOR BUILDING MOUNTED SIGNAGE AS INDICATED. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS. FIELD VERIFY ALL REQUIREMENTS FOR SIGN CIRCUITS, WALL PENETRATION, LOCATIONS, ETC. BEFORE BEGINNING ANY RELATED ROUGH-IN WORK. ROUTE INDIVIDUAL CIRCUITS THROUGH CONDUIT/PIPE/PLUMBING AS INDICATED ON E4 DRAWINGS. PROVIDE ALL REQUIRED CIRCUIT BREAKERS (V.I.F.) AS REQUIRED FOR SIGN(S). TERMINATIONS AT DISCONNECT TO BE MADE BY SIGNAGE CONTRACTOR. PROVIDE LOCAL WEATHER-PROOF DISCONNECT SWITCH IF THE SIGNAGE DOES NOT HAVE AN INTEGRAL DISCONNECT.
- BEH SHALL PROVIDE GENERATOR EMERGENCY POWER OFF (EPO) AT 9'-0" AFF INSIDE BUILDING NEAR EXTERIOR DOOR AS SHOWN ON DRAWING FOR GENERATOR SHUT-OFF OF GENERATOR LOCATED OUTSIDE. FIELD WIRE EPO SWITCH. SEE SINGLE LINE DIAGRAM FOR MORE DETAIL.

ELECTRICAL POWER PLAN AND DETAILS - WEST  
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 ISSUE DATE: 10/23/2018  
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