

DESIGN CRITERIA

1. Related Sections: Division 01 and Section 26 05 00 apply.
2. Reference Standards: NFPA 70, NEC.
3. General: Provide general purpose convenience receptacles throughout all areas of the facility. In addition, provide the outlets specifically required herein below. Provide ground fault circuit protection for receptacle circuits in all areas where required by the National Electrical Code.
4. Sales and Checkout Areas: Provide ground-type duplex receptacles connected to 20-amp branch circuits throughout.
 - A. Provide receptacles at each end of every row (alternating sides) of the sales gondola shelving, located in the side toe space of the last section of gondola (not in the end cap), for floor maintenance and demonstration use. Locate to ensure that floor buffers and scrubbers with 50' 0" cords can reach all floor areas. Provide electrical receptacles throughout the store for cleaning, maintenance, and general purpose use. Reference Design Standard Plate 26 27 26-02 and 26 27 26-03.
 - B. Receptacles are required within the gondola shelving for refrigerated merchandisers, and special displays requiring power. Verify the number and approximate location with DeCA Project Manager. The construction electrical contractor must coordinate the exact final locations of these receptacles with store operations personnel after the planograms are completed in the final phases of construction. Note this coordination requirement on the project drawings. Reference Design Standard Plate 26 27 26-02 and 26 27 26-03.
 - C. Wiring for gondola receptacles shall be installed within EMT conduit where run through the gondola shelving concealed spaces behind the back-of-shelf panels and under the base shelf. Conduit is to be supported above the floor under the base shelf by running through the holes in the support brackets. Run wiring homeruns from gondolas up to the overhead cable tray in power poles. Use liquid-tight flexible conduit for final receptacle connection at base of gondola. Reference Design Standard Plate 26 27 26-02 and 26 27 26-03 (Power poles, receptacles, and connections by contractor).
 - D. Provide a 20A branch circuit for an electrical receptacle on the power pole at each checkout stand for refrigerated merchandisers. Leave the conductors coiled, labeled and tie-wrapped to the cable tray or ceiling support, in sufficient length to reach the floor plus ten feet. (Power pole, receptacle and connection by others)
 - E. Through Section 23 90 00 refrigeration, provide two each separately circuited 20-amp receptacles at the base of each row end of island reach-in or coffin frozen food cases for use in food demonstrations. Do not duplicate the receptacles on cases directly across the aisle, however.
 - F. In addition to the power required for equipment, provide a minimum of two each separately circuited 20-amp duplex receptacles at the sushi station.
 - G. Provide a dedicated circuit for each dock leveler.
 - H. In addition to the power required for equipment, provide a minimum of two each separately circuited 20-amp duplex receptacles in the deli/bakery area. If the deli and bakery areas are separate, provide two each separately circuited 20-amp duplex receptacles in the deli and the bakery.
 - I. Provide a 20-amp duplex convenience power outlet for the take-a-number display approximately 80" above finished floor centered on the wall behind the deli/bakery clerk service cases. Coordinate exact location.
5. Meat Wrapping and Processing Areas: Provide ceiling drop cords with strain relief bushings, flexible cords, and suitable water-tight connectors (Daniel Woodhead matched receptacle and connection cap, or equal) in meat wrapping and processing areas for meat saws, wrappers, and grinders (Ref.: Design Standard 26 27 26-01). Other outlets for equipment locations near walls may be installed on walls at 48" AFF. Fit all wall-mounted receptacles with "in-use" weatherproof covers (ensure that the specified matching plug will fit under the cover). In addition to the power required for equipment,

provide a minimum of two receptacles with “in-use” weatherproof enclosures in each meat wrapping and processing area (for convenience or future equipment) circuited together to a 20 amp circuit.

6. Refrigerated Walk-in Boxes and Meat Wrapping and Processing Areas: Provide “in-use” weatherproof enclosures (NEC 406.9(B)) over receptacles designated for unattended electrical equipment connections (see Concept Floor Plan).
7. Commissary Exterior: Provide four each 20A GFCI duplex electrical receptacles on the building's exterior near the Customer Entry and Exit. Provide a 20A GFCI duplex electrical receptacle on the building's exterior at each exterior door other than the Customer Entry, Customer Exit, and overhead doors at the dock. All exterior receptacles shall have weatherproof while in use covers.
8. Roof: Provide appropriate weatherproof exterior exposure type GFCI duplex receptacles at roof locations per NEC for maintenance purposes.
9. Stub-ups: Do not install stub-ups within the commissary sales or traffic areas.
10. Scales/Labelers: Provide 20-amp electrical receptacles, at all electronic scales, scale/labelers and at the platform scale in the staging/receiving area (RM. 37 / 37).
11. Ground-type Duplex Receptacle at Commissary Ice Merchandiser: Provide at each Ice Merchandiser location at front of Commissary. Verify quantity with Store Director.
12. Fax and Photocopy Machines: Provide dedicated electrical duplex receptacles for photocopy and fax machines located within the admin area.
13. Offices and Administrative Areas: Provide at least four general-purpose duplex receptacles in the wiring channel at each work station where modular work stations are provided. Provide a junction box and circuits for furniture whips where furniture is to be prewired. **[Provide filtered power at two receptacles should conditions warrant, i.e. in geographical areas where power quality is very poor.]** Where work stations are not next to a permanent wall, provide power poles to connect electrical. Provide wall-mounted receptacles not more than 10' apart nor more than 5' along the floor line from any accessible wall area more than 2' wide. Provide not less than one duplex receptacle on each wall of any office. Do not count dedicated receptacles in satisfying the requirements of this paragraph.
14. Provide power connections for time clock(s). Coordinate locations during design.
15. Provide power connection for key storage equipment (key control cabinet) from nearest 120 volt circuit. Locate connection directly behind key control cabinet, so that it is concealed within the key control cabinet. Key control cabinets have internal battery back-up and are not required to be on the generator.
16. Mechanical Rooms and Utility Areas: Provide duplex receptacles sufficient for maintenance operations, such that any point can be reached with a 25' extension cord.
17. Break Rooms: Provide dedicated GFCI receptacles for vending machines and for microwave, refrigerator, and coffee service in addition to minimum general purpose receptacles.
18. Training Room: Provide receptacles for audiovisual device connections (overhead projectors, videotape machines/TV, slide projectors, etc.), in addition to minimum general purpose receptacles. Where a central table is provided, provide one or two drop cord receptacles at 7' AFF over the table (depending on table dimensions).
19. Light Switches: Provide local control of lighting in each room. Provide light switches to control lights at each entry to the room inside the room and opposite the hinge side of the door, except as otherwise indicated for refrigerated processing rooms. Provide 3-way and 4-way switches, as appropriate, for spaces with more than one entry. Where multiple entrances would require a large number of 3- and 4-way switches, consider pilot control using relays. Provide multi-level control of lighting in the Training Room and Conference Room to facilitate use of audio-visual presentations; use separate switching of lamps or fixtures, or use dimmer controls for multi-level control. Use occupancy sensors in offices, breakrooms, training rooms, and rest rooms. Occupancy sensors can be considered in staging/receiving. It is not permitted to use occupancy sensor control in meat processing area(s). Refer to Section 26 51 00 for further details.

20. Loading Docks: Provide exterior receptacle at each loading dock for refrigerated trailers where directed by DeCA. [*note: This item is not generally needed at most stores. Trailers don't sit at the dock very long. Exceptions: where deliveries are infrequent and trailers may sit a long time.*]
21. General Purpose Receptacles: 20-amp, 125 volt, single-phase, 3-wire, duplex Specification Grade grounded type. Grey color to match stainless steel device plates unless otherwise indicated.
22. Waterproof Electrical Receptacles and Switches: Electrical receptacles and switches outdoors and in the preparation areas shall be waterproof. Protect receptacle circuits by GFI breakers located in the panel or with individual GFCI type receptacles (feed-through type not permitted). Surface mounted junction boxes located in processing areas subject to hot water wash down shall be a sealed type conforming to the NFPA classification for wet areas.
23. Light Switches: Specification grade, 20-Amp, A.C. only, voltage rating and pole configuration per application. Grey color to match stainless steel device plates unless otherwise indicated.
24. Isolated Ground Receptacles: Provide orange faced isolated ground duplex receptacles for all POS system equipment and other outlets served from the POS system isolated ground panelboard. Receptacles to be rated 20 Amp, 125 volt, single phase, 3 wire.
25. Special Purpose Receptacles: Provide appropriate specification grade receptacles for equipment requiring ratings or pole configurations other than those addressed above. Grey color to match device plates unless otherwise indicated.
26. Multi-Outlet Assemblies (Plugmold): Provide where indicated. Aluminum or steel body with receptacle outlets as indicated in the drawings or in other sections of this DeCA Commissary Design Guidance. Unless otherwise indicated, receptacles shall be duplex grounding type 125V 15A receptacles, spaced on 12" centers.
27. Device Plates: Stainless Steel, brushed finish, in finished areas. Galvanized steel, for flush or surface mount as appropriate, in unfinished areas. Where cast metal boxes are used, plates to match box. Weatherproof covers in wet locations. Screws to match in all cases.
28. Mounting height of devices: Unless otherwise noted or required for special purposes, mount all devices of like kind at the same height throughout the facility, and with sensitivity to ABA requirements.
 - A. Light Switches: 48" AFF
 - B. Duplex Receptacles
 - 1). Above Countertops 8" Above Counter - but coordinate with architectural features
 - 2). For Refrigerators 8" higher than adjacent countertop, or 48" AFF if no countertop
 - 3). In Processing Coolers 48" AFF
 - 4). Other Locations 12" to 18" AFF; coordinate with adjacent communications.
Coordinate with Design Standard Plate 10 26 00-01.

END OF SECTION