



A Tradition of Stewardship
A Commitment to Service

RETAIL FOOD PLAN CHECK GUIDE

INTRODUCTION

The California Retail Food Code (CalCode) requires that a new retail food facility, or an existing retail food facility that wishes to remodel, submit plans to the local enforcement agency for review and approval. Wholesale facilities fall under the jurisdiction of the California Department of Health Services Food and Drug Branch and must contact them to obtain the requirements. Plans must be submitted and approved *prior* to beginning construction. This plan check guide has been developed to assist you in preparing and submitting plans to this office for approval.

“Food” may be defined for these purposes as anything intended for human consumption. Typically “food” is considered a meal served at a restaurant; however, by law, such things as candy bars, soft drinks, packaged snacks, bottled water, ice, and coffee are considered “food.” If your operation consists of selling any of these items at the retail level, you will be operating a “food facility,” which must comply with CalCode.

Even the simplest food facility is required by law to meet certain minimum requirements regarding construction and equipment standards. These requirements may differ depending on the scope of your operation.

Facilities planning on only selling or distributing *prepackaged* food (food or drink that was properly packaged in an approved wholesale food facility prior to purchase by the retailer and sold unopened by the retailer) should refer to the following sections of this guide:

- Dry Food Storage
- Menu
- Refrigeration
- Equipment
- Water and Sewage Disposal
- Restrooms
- Clothing Storage
- Floors
- Walls
- Ceilings
- Janitorial Equipment
- Garbage Enclosure
- Pass-Through Windows
- Customer's Doors

Facilities planning to handle unpackaged food or drinks in any manner should refer to, in addition to the sections noted above, the following sections:

- Kitchen Utensil Sink
- Dishwashing Machines
- Service of Food To or By the Customers
- Floor Sinks
- Ice Machines
- Food Preparation Sink
- Handwashing Sinks
- Hoods and Ducts
- Window Screens
- Dipper Well

PROCEDURE FOR SUBMITTAL and GENERAL INSTRUCTIONS

1. Please read this entire guide prior to submitting plans. If you have any questions, feel free to contact your district Environmental Health Specialist at (707) 253-4471.
2. Pursuant to section 114380 of CalCode, a plan approval must be obtained from the local environmental health agency before constructing, enlarging, altering, converting, or remodeling any building for use as a food establishment.
3. Permits may be required from your local Building Department. Contact your local Building Department regarding building permit requirements.
Note: Plans within the City of Napa must be “green stamped” by the City of Napa Building Department before they are submitted to our department. Plans within the City of Calistoga must also be stamped before they are submitted to our department.
4. An architect, draftsman, contractor, or owner may prepare plans. All plans must be drawn in a professional manner, encompassing all applicable requirements of this construction guide. All new food plans, major remodels of existing facilities, plans that involve extensive plumbing work, and/or plans that involve hood installation or modification are required to be submitted on stamped prints.
5. **One (1) set of plans and one (1) set of manufacturer specification sheets must be submitted to the Napa County Division of Environmental Health.** These plans and specifications should include:
 - Equipment floor plan;
 - Equipment schedule;
 - Dry storage area;
 - Finish schedule;
 - Mechanical exhaust ventilation system data;
 - Plumbing layout;
 - Hot water calculations; and
 - Proposed menu;

6. A plan check fee must be paid when plans are submitted. Plans cannot be accepted unless this fee is paid.
7. Request a submittal appointment with one day in advance. The plans will not be accepted without the fee or vice versa.
8. After the set of plans have been approved and stamped, two additional sets of plans will be requested. Two sets will be returned to the person submitting the plans. One copy is for their own use, and one copy will be taken to the Building Department having jurisdiction. The third copy will be kept on file with the Division of Environmental Health.
9. The food plans that are stamped "approved" by the Division of Environmental Health must be kept at the construction site and used for construction work and inspections.
10. Construction must not deviate from the approved plans without prior written approval of this department.

PLANS THAT ARE INCOMPLETE OR HAVE A SIGNIFICANT NUMBER OF DISCREPANCIES WILL BE RETURNED TO THE APPLICANT FOR REVISION, AND MUST BE RESUBMITTED FOR FURTHER REVIEW BEFORE APPROVAL MAY BE GRANTED.

Common problems that result in plans being rejected or unnecessary delays:

1. Plans not drawn to scale.
2. Conflicting information given (e.g., plumbing plan and list of plumbing fixtures do not agree).
3. Failure to provide adequate dry food storage space.
4. Failure to provide specific makes and model numbers of proposed equipment.
5. Insufficient detail provided on finish schedule.
6. Submittal of plans without the fee or vice versa.

PLAN REQUIREMENTS

Plans must be drawn to scale (e.g. $\frac{1}{4}'' = 1'$), and must show the following:

1. The complete floor plan, equipment layout, and dry storage area.
2. The complete plumbing layout.
3. The finish schedule for walls, ceilings, and floors that indicate the type and color of material to be used. (Samples should be submitted.)

4. Manufacturers specification sheets for each piece of equipment, including the water heater. Please include make and model numbers. All equipment must meet nationally recognized sanitation standards and the specification sheets must show this.
5. The complete exhaust and make-up air ventilation plans, including CFM withdrawal, number and size of ducts; number, size, and rating of grease filters; and other pertinent information. The form in Appendix A must be included of each hood.

The plans must show and specify, in detail, compliance with the following requirements for all food establishments:

1. FLOORS:

- a. *Vinyl composition floor tiles and carpeting are not approved for use, except in dining and retail sales areas.*
- b. *Vinyl/rubber top set base coving is not approved for use, except in dining and retail sales areas.*
- c. Except in dining and retail sales areas, floors in food establishments shall be durable, smooth and impervious to water, grease and acid, and of easily cleanable construction.
- d. The floor surfaces must continue up the wall at least 4 inches with a $\frac{3}{8}$ -inch radius cove in all kitchens; employee storage areas; areas where food is stored in opened containers; food preparation areas; janitorial rooms; toilet rooms; rooms where any utensils are washed; and other related areas.
- e. Concrete floors are not recommended, but may be acceptable when *properly* installed and sealed. If the concrete floor is excavated for placement of plumbing or other equipment, cover the concrete with an approved flooring material.
- f. Where applicable, provide sufficient, properly installed floor drains so as to facilitate easy cleaning, and to adequately keep moisture from accumulating on the floor.
- g. Area drains must be installed in floors that contain non-skid agents and in floors which are water-flushed.
- h. Floor surfaces that contain non-skid agents shall be restricted to traffic areas only. Flooring under equipment and on the coved bases shall be completely smooth.
- i. At self-service counters, install approved flooring at least 24 inches around the counter and continue the flooring material for four inches up the base of the counter.

2. WALLS:

- a. *Brick, concrete block or rough concrete, plaster, and wallpaper are not acceptable wall finishes.*
- b. Provide wall surfaces that have a smooth, non-absorbent, light-colored, easily cleanable finish. Light in color shall mean having a light reflectance value of 70% or greater. *Exception:* Walls in customer areas; in rooms where food is stored in original, *unopened* shipping containers; and in bars need not meet this requirement.
- c. Provide smooth, non-absorbent, light-colored, easily cleaned wall adjacent to bar sinks. The wall color must be a minimum of 70% light reflectance value.

- d. Wall surface materials are subject to evaluation and may require submission of samples.
- e. Walls adjacent to sinks should be covered with a durable, water-resistant material (FRP, ceramic tile, stainless steel, etc.) extending from the top of the coved base to at least 12 inches above the back splash.

3. CEILINGS:

- a. Ceilings (except for in bar areas, rooms where food is stored in original, unopened shipping containers, and customer areas) must be durable, smooth and non-absorbent, with a light-colored, washable finish. The ceiling color must be a minimum of 70% light reflectance value. Ceiling panels may be approved based on samples being provided and approved.
- b. Acoustical ceiling panels are not acceptable except in the areas specified in "a." above.

NOTE: Waitress stations; salad bars; food serving or self-service open food counters; or other similar stations located immediately adjacent to or in dining areas must comply with floor, wall, and ceiling requirements.

4. DRY FOOD AND BEVERAGE STORAGE:

- a. The floor space required for dry food storage is 2 square feet of floor space per patron seat **or** 25% of the kitchen for facilities without onsite dining **or** whichever is greater. The reviewing Environmental Health Specialist may revise this figure in either direction if conditions warrant.
- b. ANSI approved shelving must be provided for the storage of dry foods.
- c. Shelves installed on a wall must have at least a one-inch open space between the back edge of the shelf and the wall surface; or, the back edge of the shelf must be sealed to the wall with silicone sealant or equivalent.
- d. Shelves mounted on the floor are required to be installed on round, 6-inch high, metal equipment legs with a clear unobstructed area below, or be the upper surface of a completely sealed 4-inch minimum height self-coved base.
- e. Provide a minimum of 6 inches of space between the lowest shelf and the floor.

5. SAMPLE MENU:

- a. Provide a sample menu. This menu should reflect what will typically be served. This is required for the evaluation of the dry storage and refrigeration needs and food preparation that will take place in the facility.

6. RESTROOMS:

- a. Provide toilet facilities on the premises of each food establishment, convenient for the employees.
- b. Install handwashing sinks that are provided with hot and cold water through a mixing faucet, which supplies 100°F warm water for a minimum of 10-15 seconds, with both hands free for washing.

- c. Provide liquid or powder soap and paper towels in single service, permanently installed dispensers at the lavatory sink.
- d. Provide toilet paper in a permanently installed dispenser at each toilet.
- e. Provide the restrooms with tight fitting, self-closing doors.
- f. Toilet facilities provided for use by patrons of the food establishment must be so situated that the patrons do not pass through food preparation, food storage, or utensil washing areas.
- g. Provide all toilet rooms with ventilation either via an openable screened (16 mesh) window or by means of mechanical ventilation.

7. CLOTHING STORAGE:

- a. Provide a room, enclosure, or designated area separate from toilet, food storage, food preparation, and utensil washing areas for employees' garments and personal belongings.
- b. Lockers or locking cabinets in this area are recommended.

8. EQUIPMENT:

- a. All display cases, counters, shelves, tables, refrigeration equipment, sinks, and other equipment used in connection with the storage, preparation, service, and display of food, are required to be made of non-toxic, non-corrosive materials, and so constructed and installed as to be readily cleaned.
- b. Used equipment is subject to field evaluation prior to installation.
- c. Install all equipment as follows: On six-inch high, round, metal legs or approved casters; cantilevered from the wall; or sealed on a four-inch high, coved island base.
- d. Provide equipment (new and used) that meets nationally recognized sanitation standards (e.g. NSF, UL sanitation, ETL sanitation, etc.).

9. KITCHEN UTENSIL SINK:

- a. In all food establishments in which food is prepared, or in which multi-service kitchen utensils (pots, pans, knives, etc.) are used, provide as a minimum a three-compartment metal sink with two, integral metal drain boards.
- b. The sink must be large enough to accommodate the largest utensil to be washed.
- c. All sinks except for janitorial or handwashing sinks must be properly air gapped via a floor sink.
- d. Mechanical dishwashers may not be a substitute for a three-compartment sink.

10. HANDWASHING SINKS:

- a. A lavatory sink exclusively for handwashing must be provided in each food preparation area.
- b. Hot and cold water shall be provided through a mixing faucet.

- c. Provide liquid or powder soap and paper towels in permanently installed, single service dispensers at each handwash sink.
- d. A splashguard may be required between the handwash sink and other equipment or operations.
- e. Sanitizer may not be substituted for handwashing.

11. FOOD PREPARATION SINK:

- a. A separate sink may be required for food preparation, such as cleaning fruits or vegetables, thawing foods, and preparing ready-to-serve food. This sink must drain to a floor sink via a legal air gap.

12. JANITORIAL EQUIPMENT:

- a. A one-compartment janitorial sink is to be used exclusively for general cleaning purposes and for the disposal of mop bucket wastes and other liquid wastes. A slab or basin constructed of concrete or equivalent material, curbed and sloped to a drain is also acceptable. Such facilities must be connected to an approved sewer and provided with hot and cold water through a mixing faucet with an approved back-flow prevention device. The sink shall be located so as not to contaminate food preparation areas, food storage areas, utensils or equipment.
- b. A room, area, or cabinet, with mop/broom rack, separate from any food preparation or storage area, or utensil washing area, for the storage of cleaning equipment and supplies such as mops, brooms, buckets, cleaners, and waxes shall be provided.

13. REFRIGERATION:

All refrigeration units must be adequate in capacity to meet the needs of the proposed operation and must comply with the following requirements:

- a. All refrigeration units must meet nationally recognized sanitation standards. Domestic refrigerators will not be accepted.
- b. Be capable of maintaining temperatures of 41° F at all times.
- c. Be provided with an easily visible, accurate thermometer.
- d. Have shelving that is durable, washable, and impervious. Wood is not acceptable.
- e. Have smooth, non-absorbent, and easily cleanable surfaces.
- f. Condensate wastewater from reach-in units must be drained into a floor sink via a legal air gap, or into an approved evaporator unit.
- g. Cooling coils, related electrical, drainage and refrigerant lines must be installed in a safe, easily cleanable manner.

14. WALK-IN REFRIGERATORS SHALL ALSO:

- a. Have an integrally coved base with a minimum radius of $\frac{3}{8}$ -inch at the floor/wall juncture; the floor material must extend up to a height of at least 4 inches on the wall. Metal coving with a minimum $\frac{3}{8}$ -inch radius is acceptable against metal wall surfaces of walk-in units.

- b. Have shelving that is ANSI approved, and that is at least 6" off the floor on round, metal legs or cantilevered from the wall for ease of cleaning. Wood shelves are not acceptable.
- c. Have condensate waste drained to a floor sink via a legal air gap. (Floor sinks are not acceptable inside walk-in units).
- d. Wood is not an acceptable interior finish.

15. ICE MACHINES:

Locate all ice machines within the building in an easily cleanable area and provide drainage to a floor sink via a legal air gap.

16. WATER SUPPLY:

Provide:

- a. Hot and cold potable water under pressure through a mixing faucet to each sink compartment in all food establishments.
- b. The water supply shall be from a water system approved by the health officer or the State of California.
- c. Adequate hot water shall be provided of a minimum of 120° F throughout the food facility.
- d. Hot water calculations, demonstrating the proposed hot water heater(s) can meet the hot water demand of the facility must be submitted with the plans.
- e. Provide the specification for the tank or tankless water heater. The temperature rise in Napa County is 50F.

17. WATER AND SEWAGE DISPOSAL:

- a. The water supply and method of sewage disposal must be approved by the Division of Environmental Health and the local Building Department.

For establishments that will be served by an on-site well and/or septic system, the issuance of a finalized small public water system permit and/or septic system permit will be required prior to the issuance of a food facility permit. In those cases where a well and/or septic system will be used, it is highly recommended that the feasibility of water supply and sewage disposal be verified before proceeding.

- b. All steam tables, ice machines and bins, food preparation sinks, utensil wash sinks, display cases, dishwashers, refrigeration units, and salad bars which are not self-evaporative and other similar equipment which discharge liquid waste, shall discharge this waste through an air gap into a floor sink. Fixed airgap devices will not be permitted.

18. FLOOR SINKS:

All floor sinks must:

- a. Be installed flush with the finished floor surface, and have appropriate grates.

- b. Have all condensate and similar liquid waste drained by means of indirect waste pipes into a floor sink via a legal air gap.
- c. Have horizontal runs of drain lines that are at least ¾-inch from the wall and 6" off the floor, and that terminate a minimum of 1" above the rim of the floor sink.
- d. Be located so that they are readily accessible for inspection, cleaning and repairs (i.e. at least half exposed or in line with the front face of elevated freestanding equipment).
- e. Be within 15 feet of the drain opening of the equipment served.
- f. Not have waste lines that cross any aisle, traffic area, or door opening.

19. CONSTRUCTION:

- a. All food service equipment must be fully enclosed in a building consisting of approved floors, walls, and ceiling.
- b. Enclosure of dining areas or open air barbecue facilities is not required.

20. VENTILATION:

Provide adequate ventilation to remove gases, odors, steam, heat, grease, vapors, or smoke and provide adequate employee comfort in all rooms in the facility including toilet, janitorial, changing, and similar rooms.

21. EXHAUST HOODS AND DUCTS:

a. General Information:

- (1) Provide mechanical exhaust ventilation at or above all ranges, griddles, ovens, deep fat fryers, barbecues, rotisseries, and high temperature dishwashing machines or similar equipment to effectively remove odors, smoke, steam, grease, and vapors.
- (2) Seal, weld, or solder all joints and seams for easy cleaning.
- (3) Riveted seams are not acceptable.
- (4) Flash hoods to the ceiling and to the adjacent walls.
- (5) Exhaust systems must comply with the latest edition of the Uniform Mechanical Code.

b. Canopy Type Hoods:

Canopy type hoods shall not be more than 4 feet above the cooking surface. The hood must extend at least 6 inches beyond the edges of the cooking equipment on all opened sides. It must have grease troughs or drip pans that are easily cleanable.

c. Non-Canopy Type Hoods:

Non-canopy type hoods may be approved, provided they are constructed to be easily cleanable and comply with the minimum exhaust air velocity requirements. Shielding at the ends may be necessary to prevent interference from cross drafts.

d. Makeup Air:

Makeup air must be provided in an approved manner and must be at least equal to that amount which is mechanically exhausted. Windows and doors shall not be used to provide makeup air. Makeup air units and exhaust units *must* be electrically interlocked. A hood performance test by a third party will be required as part of the final inspection and the report must be submitted to this office prior to an operating permit being issued. See hood performance test sheet attached at end of this packet.

e. Fire Extinguishing System:

Fire extinguishing systems may be required by local fire department codes. They must be installed so as not to obstruct the easy cleanability of the hood and duct systems.

f. Food Heating or Warming Devices:

Food heating or warming devices (e.g. food and utensil warmers, cheese melters, etc.) that are installed under a hood, and/or above other equipment, may create an air flow obstruction to proper ventilation of the basic equipment for which the hood vent system is designed. The design, construction, and installation of such devices under a hood are subject to this Department's evaluation and approval *prior* to installation.

22. DELIVERY DOORS:

- a. All delivery doors leading to the outside are required to open outward, be self-closing, and be constructed to exclude the entrance of insects and vermin.
- b. An overhead air curtain is recommended. The air curtain, when installed inside the building, should produce a downward-outward air velocity of 1,600 feet per minute minimum over the entire opening to a point 3 feet above the floor, and must turn on automatically when the door is opened.
- c. A rough in electrical is recommended on all service doors that open directly into the kitchen area.
- d. Large "cargo type" doors cannot open directly into food preparation areas.

23. CUSTOMER DOORS:

All entrance doors leading to the outside must self-closing.

24. GARBAGE AND TRASH AREA:

- a. Provide a room or area for the storage and cleaning of garbage and trash containers.
- b. The walls, floors, and ceilings of this room or area must be constructed so as to be smooth, impervious, and cleanable.
- c. Hot and cold water for cleaning is recommended.
- d. All liquid wastes from this area must drain to an approved sewer.
- e. Outside trash storage areas must be situated as far away from delivery doors as possible, and drain these areas so as not to create a nuisance.
- f. Indicate the type of trash receptacle that will be used.

25. LIGHTING:

- a. In every room or area in which any food is prepared, manufactured, processed, or packaged, or in which utensils are cleaned, provide an intensity of not less than 50 footcandles of light 30 inches above the floor surface.
- b. The working surfaces on which alcoholic beverages are prepared or where utensils used in the preparation or service of alcoholic beverages are cleaned must be provided with at least 10 footcandles of light.
- c. During general cleanup activities, provide at least 20 footcandles of light, measured 30 inches above the floor, to all areas being cleaned.
- d. Light fixtures in areas where food is prepared, where open food is stored, or where utensils are cleaned must be of shatterproof construction or protected with shatterproof shields and readily cleanable.

26. CONDUITS:

- a. Conceal plumbing, electrical, and gas lines within the structure to as great an extent as possible.
- b. Where this is not possible, all runs, including insulation, must have at least 3/4-inch clearance from the walls or ceiling and be 6 inches off the floor. Conduit run outside of the walls must be smooth and cleanable. Ridged conduit is not acceptable.
- c. Where conduit or pipe lines enter the wall, ceiling, or floor, tightly seal the opening around the line.
- d. Do not install conduit or pipe lines across any aisle, traffic area, or door opening.
- e. Multiple runs or clusters of pipe lines must be furred in, and encased in an approved runway or other approved sealed enclosure.

27. WINDOW SCREENS:

Screen all openable windows with not less than 16 mesh screens.

28. DISHWASHING MACHINES:

- a. Submit make and model numbers for all dishwashing equipment.
- b. A minimum three-compartment metal sink with two, integral drain boards is required in addition to any dish or glass washing machine.
- c. Dishwashing machines must:
 - (1) Drain to a floor sink via a legal air gap.
 - (2) Be provided with two integral, sloped metal drain boards of adequate size and construction.

(3) Provide an appropriate sanitizer test kit if chemical sanitizer is used.

29. GARBAGE DISPOSAL:

- a. Garbage disposal must *not* discharge into grease interceptors or be installed in a sink compartment.
- b. An *additional* sink compartment or drain board may be utilized for the installation, provided that the drain board is lengthened to accommodate the disposal in addition to the minimum required drain board size.

30. SERVICE OF FOOD DIRECTLY TO OR BY THE CUSTOMERS:

- a. Install sneeze guards at all salad bars and buffet type food service, constructed so as to intercept a direct line between the customer's mouth and the food being displayed.
- b. Unpackaged foods in bulk displays must be in a container that has a tight fitting, securely attached, self-closing lid, or may be dispensed from an approved mechanical dispenser.
- c. Beverage and/or ice dispensers that are meant for customer self-service or refills given in the same customer utensil must be push-button activated.
- d. See sneeze guard pamphlet.

31. DIPPER WELL:

- a. Provide a running water dipper well if scoops or other reusable serving utensils are used for dipping ice cream, butter, etc.
- b. Drain the dipper well to a floor sink through a legal air gap.

32. PASS-THROUGH WINDOWS:

Pass-through windows to the outside must:

- a. Have openings that do not exceed 432 square inches.
- b. Have a minimum distance between multiple pass-through windows of *at least* 18 inches.
- c. Have a counter surface that is smooth, free of channels or crevices, and easily cleanable.
- d. Be equipped with tight-fitting closures. An air curtain to minimize the entrance of insects is recommended.

33. PATRON RESTROOMS:

- a. Toilet facilities must be provided for patrons, guests, or invitees on property used in connection with, or in, each food establishment with more than 20,000 square feet in floor space or for those that provide seating for customers on the premises.
- b. There must be at least one separate toilet facility for men and one separate toilet facility for women.
- c. These facilities must:
 - (1) Have doors that are well fitting and self-closing.

- (2) Have handwashing lavatories provided within or adjacent to toilet rooms that are equipped with hot and cold water through a mixing faucet.
 - (3) Have liquid or powder soap and sanitary towels or hot air blowers provided at handwashing facilities in permanently installed single-service dispensing devices.
- d. Patron restrooms shall be so situated that patrons do not pass through food preparation, food storage, or utensil washing areas.

34. INSPECTION:

- a. All construction and equipment installation is subject to an on-site inspection.
- b. For new facilities, inspections will be required at the following times:
 - (1) After plumbing and floor sinks are installed, but prior to flooring being poured.
 - (2) Once equipment has been installed.
 - (3) Final inspection
- c. For remodels on existing facilities, the inspection will be set as part of the conditions of plan approval.
- d. A final inspection is required and issuance of a valid permit to operate is required *prior* to opening for business.
- e. Inspections must be scheduled at least 24 hours in advance.

35. INSPECTION SCHEDULE:

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