

**CALIFORNIA PLAN CHECK GUIDE
FOR RETAIL FOOD FACILITIES**

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Environmental Health Division
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CALIFORNIA PLAN CONSTRUCTION GUIDE FOR RETAIL FOOD FACILITIES

Construction Plan Approval Procedures For Food Facilities

Pursuant to the California Health & Safety Code, Part 7, California Retail Food Code, Section 114380, a plan approval must be obtained from the Solano County Environmental Health Division before constructing or remodeling any building for use as a food facility. Remodel of a food facility means construction, building, enlarging, altering, converting or repairing that requires a permit from the local building authority. The following procedures are required to process and approve food facility plans as well as to obtain final approval to open for business:

- 1) The plans must include sufficient information to demonstrate compliance with the "Minimum Requirements for Food Facility Plans." [See page 5]
- 2) Plans may be prepared by an architect, draftsman, designer, contractor or owner. All plans must be drawn in a concise, detailed and professional manner. Inadequate plans will be rejected.
- 3) A minimum of two (2) sets of detailed plans and specifications must be submitted; a food construction plan application form with supplemental questionnaire completed, and required plan check fees paid.
- 4) Upon approval, one set will be returned to the owner and the other set will be kept on file by the Environmental Health Division until construction has been completed. An approved set of plans must be maintained at the construction site until the final inspection has been made.
- 5) Before commencing construction, approvals must be obtained from the local health department, local building authority and other appropriate agencies. Building permits for food facilities are not to be issued until plan approval has been obtained from the Solano County Environmental Health Division.
- 6) If any changes on the approved plans are desired, revised plans shall be submitted for review and approval prior to construction.
- 7) All construction and equipment installation shall be subject to field inspection. The food facility shall not open for business until final approval is obtained from the Solano County Environmental Health Division and a valid Food Facility Permit is issued. Call (707) 784-6765 between the hours of 8:00 A.M. - 5:00 P.M. for inspection appointment(s).

I. Minimum Requirements for Food Facility Plans

Plans shall be drawn to scale (recommended scale is 1/4 inch = 1 foot) and shall include the following:

- 1) Name and address of the food facility; the name, mailing address and telephone number of owner, contractor and contact person.
- 2) Vicinity map.
- 3) Floor plan of entire facility.
- 4) Floor plan showing equipment layout including: [See Appendix A]
 - a) Complete equipment checklist, including methods of installation. [See Appendix B]
 - b) Equipment manufacturer specification sheets and/or elevations.
- 5) Plumbing layout.
- 6) Electrical layout.
- 7) Plans for each mechanical exhaust hood system.
Complete the attached worksheet for each hood. [See Appendix C]
- 8) A site plan including proposed waste storage receptacle location.
- 9) Room finish schedule for floors, base, walls and ceiling that indicates the type of material, the color and the surface finish for each room or area. Give specific brand names. Samples and/or specifications of proposed finish materials may be required. [See Appendix D]

II. Field Construction Inspection Procedure

1) Preliminary construction inspection

Contact the Environmental Health Division to request a preliminary construction inspection prior to the installation of equipment.

2) Final construction inspection

Upon completion of construction, including finishing work, contact the Solano County Environmental Health Division to arrange for a final construction inspection. Approved materials and good workmanship are significant factors in the evaluation and final field approval of food facility construction and equipment installation. A final inspection should be requested no less than five (5) working days prior to the proposed opening of the establishment. Final

construction must be approved by this agency prior to opening for business or use of remodeled areas.

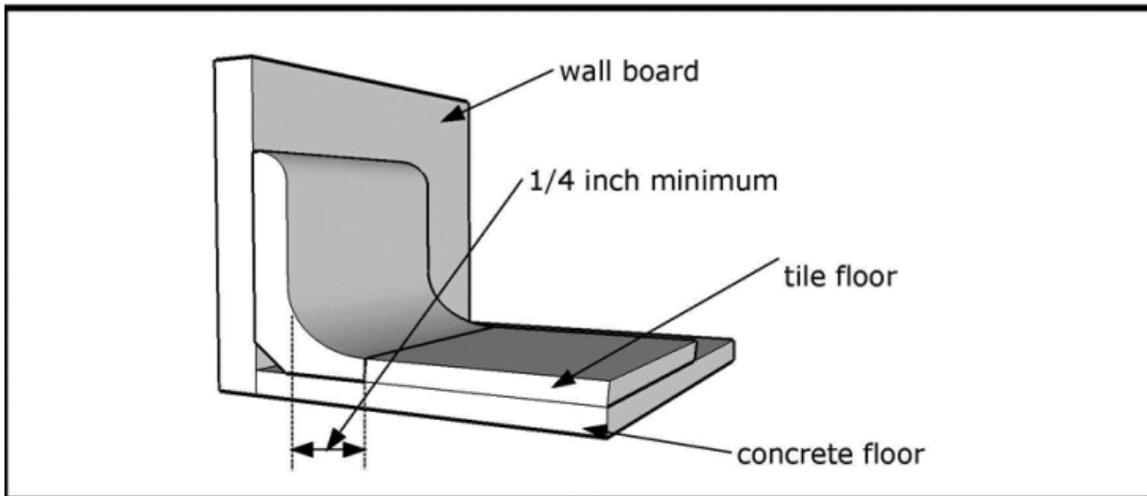
III. Structural Requirements:

The plans must show and specify in detail the following:

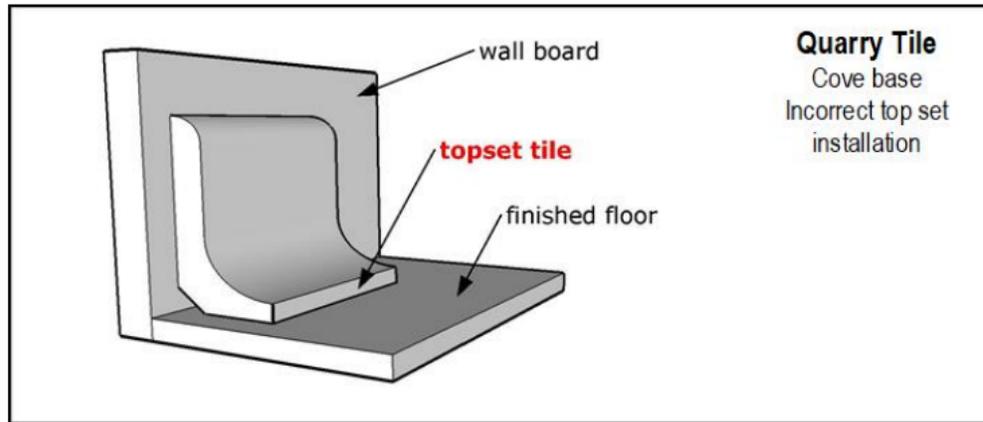
1) Floors:

- a) Except in sales, dining and employee change areas, the floor surfaces in all areas where food is prepared, packaged, dispensed, or stored, where any utensil is washed, where refuse or garbage is stored, where janitorial facilities are located and in all toilet and handwashing areas shall be smooth, and of durable construction and nonabsorbent material that is easily cleanable (e.g., quarry tile or seamless epoxy pour). Floor surfaces shall be coved at the juncture of the floor and wall with a $\frac{3}{8}$ inch minimum integral radius coving that extends up the wall at least 4 inches (except in areas where food is stored only in unopened bottles, cans, cartons, sacks, or other original shipping containers.) Vinyl rubber topset base is not acceptable. [Cal Code 114268 (a) (b)]

Example of approved coving:



Example of unapproved coving:



b) Floor drains are required in floors that are water- flushed for cleaning and/or where pressure spray methods for cleaning equipment are used. Where floor drains are utilized, the floor surfaces shall be sloped 1:50 (1/4 inch per foot) to the floor drains. [Cal Code 114269 (a)]

c) Approved anti-slip floor finishes or materials are acceptable in areas where necessary for safety reasons, such as traffic areas. [Cal Code 114268 (e)]

2) Walls and Ceilings:

a) Walls and ceilings of all rooms (except bar areas, rooms where food is stored in unopened containers, in dining/sales areas, and dressing rooms / locker areas) shall be durable, smooth, , nonabsorbent and easily cleanable (e.g., gloss or semi-gloss enamel paint, epoxy paint, FRP paneling, stainless steel, ceramic tile). Exposed brick, concrete block, rough concrete, rough plaster or textured gypsum board is not acceptable. [Cal Code 114271]

b) The walls behind and adjacent to sinks (mop, utensil wash, prep, etc.) and dishtables should be covered with a durable waterproof material (e.g., FRP, ceramic tile, stainless steel, etc.) extending from the top of the coved base to at least eight feet above the floor. [Cal Code 114271]

c) Provide a durable, cleanable, smooth, corrosion-resistant and nonflammable material (e.g., stainless steel, ceramic tile, etc.) behind the cook line and to any side walls that are adjacent or in close proximity. [Cal Code 114271 & 114130.4]

3) Conduits:

a) All plumbing, electrical and gas lines shall be concealed within the building structure to as great an extent as possible. When otherwise installed, they shall be mounted or enclosed so as to facilitate cleaning (e.g., at least 1/2 inch from the wall and six (6) inches above the floor). [Cal Code 114271 (d)]

b) Where conduits or pipelines enter a wall, ceiling or floor, the opening around the line shall be tightly sealed and made smooth. [Cal Code 114271]

c) Conduits or pipelines shall not be installed across any aisle, traffic area or door opening. [Cal Code 114271 (d)]

d) Multiple runs or clusters of conduits or pipelines shall be installed within the walls or encased in an approved sealed enclosure. [Cal Code 114271 (d)]

4) Window Screens:

All openable exterior windows, other than pass through windows, shall be screened with not less than sixteen (16) mesh per square inch screening. [Cal Code 114259.2]

5) Food Protection Equipment: Service of unpackaged foods/utensils directly to or by the customer:

a) Displays of unpackaged foods or utensils shall be shielded so as to intercept a direct line between the customer's mouth and the food or utensils being displayed or shall be dispensed from approved self-service containers. [Cal Code 114060 (a) (b)]

b) Cafeteria, buffet and salad bar self-service; food preparation equipment and food preparation areas etc. shall be protected by approved sneeze guards. [Cal Code 114060 (a)]

c) Approved self-service containers shall have tight fitting, individual covers. [Cal Code 114060 (a)]

d) Each approved container shall have its own suitable food dispensing utensil or effective dispensing method that prevents the contamination of food. [Cal Code 114063 (d)]

Sneeze guards examples:

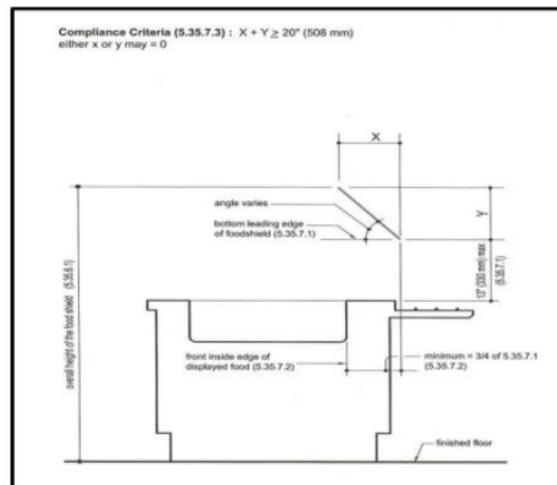
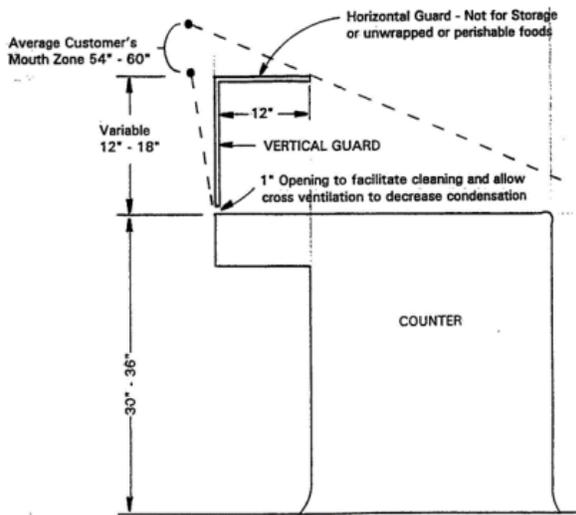


Fig. 6 NSF Example of a Self Service Sneeze Guard

6) Dry Food and Beverage Storage:

a) Adequate and suitable space shall be provided and designated on plans for dry storage purposes. This area shall be equipped with sufficient and approved shelving to accommodate anticipated needs. It shall include only aisle space and floor area where shelving, cabinets or other storage facilities are located. It shall not include floor area where desks, equipment, ladders or other items may be placed. The following recommended methods of determining adequate storage space may be used:

[Cal Code 114047 (a)]

1. A floor area equivalent to 25 percent of all kitchen space or,
2. One square foot of floor space per customer seat, whichever is greater.
3. Sufficient approved shelving* dispersed throughout kitchen area may be substituted for 1 and 2 above.

*Sufficient approved shelving for a small food service establishment means ninety-six (96) linear feet of eighteen (18) inch deep, shall meet or be equivalent to applicable NSF standards, shelving. More shelving may be required for larger establishments.

b) Shelving shall meet or be equivalent to applicable NSF standards or other approved shelving which is smooth, durable, easily cleanable, nonabsorbent and vermin tight. The lowest shelf shall be at least six (6) inches above the floor with clear unobstructed area below. Unfinished wood is not acceptable. [Cal Code 114047 & 114130.4]

7) Other Required Storage Facilities:

a) Adequate and suitable space shall be provided for the separate storage of clean and soiled linens. [Cal Code 114185.4 (a) (b)]

b) A room, area or cabinet separated from any food preparation or storage area, or utensil washing or storage area, shall be provided for the storage of all cleaning equipment, supplies and poisonous substances (e.g., mops, buckets, brooms, cleaning compounds, waxes, insecticides, rodenticides, detergents, bleaches or any other injurious or poisonous materials).

[Cal Code 114281]

8) Refuse Disposal Facilities: Garbage and waste grease shall be disposed into adequate, watertight, nonabsorbent, rodent proof containers with close fitting lids. There shall be an area provided for the storage of these containers and facilities for their washing. [Cal Code 114245 (a) (b) & 114245.1 (a)]

A floor mounted janitorial sink may be sufficient to clean the food waste containers of a small food facility. [Cal Code 114245.7]

a) Structural requirements for interior refuse disposal rooms and areas [Cal Code 114245.3]:

1. Floors shall be smooth, durable, grease resistant, nonabsorbent, coved, easily cleanable and sloped to a floor drain discharging to the sanitary sewer. [Cal Code 114268] [UPC 302]
2. Walls and ceilings shall be durable, easily cleanable, impervious to grease and moisture, and capable of withstanding the expected impacts. [Cal Code 114271]
3. The room or enclosure shall be well ventilated. [Cal Code 114149]
4. Hot and cold running water through a mixing valve protected with a backflow protection device shall be provided and located so that the room or enclosure can be cleaned. [Cal Code 114245.7 & 114193.1]

b) Structural requirements for exterior refuse disposal facilities:

1. A securable enclosure is required.
2. Ground surfaces and enclosure surfaces should be constructed so as to be durable and cleanable. [Cal Code 114245.4]
3. A hose bib shall be located within reasonable proximity to the refuse enclosure.

9) Toilet Facilities:

a) In each food establishment, there shall be employee toilet facilities. The requirements on the number of toilet rooms and handicapped facilities shall be in accordance with local building and plumbing ordinances. [Cal Code 114250]

b) Toilet facilities which are provided for use by patrons shall be so situated that patrons do not pass through food preparation, food storage or utensil washing areas. [Cal Code 114276 (b) (2)]

c) The floors, walls and ceilings shall have surfaces that are smooth, nonabsorbent and easily cleanable. (For construction requirements refer to Sections 1 and 2 on pages 6 & 7). [Cal Code 114271 (a) & 114268 (a)]

d) Handwashing facilities shall be provided within or adjacent to toilet rooms and shall be equipped with an adequate supply of hot and cold running water under pressure from a premixing faucet. Handwashing cleanser and single use sanitary towels in permanently installed dispensers or hot air blowers shall be provided at handwashing facilities. [Cal Code 114276 & 113953 & 113953.3]

e) Toilet tissue shall be provided in a permanently installed dispenser at each toilet. [Cal Code 114250]

f) Toilet rooms shall be separated from other portions of the food establishment by well fitted, self-closing doors that prevent passage of flies, dust or odors. [Cal Code 114276 (c) (1)]

g) Public toilet facilities shall be provided in each food establishment with more than 20,000 square feet of floor space. Separate men's and women's toilet facilities are required. [Cal Code 114276 (b) (1) (3)]

h) Toilet rooms shall be vented to the outside air by means of an openable screened window, an air shaft or a light switch-activated exhaust fan, consistent with the requirements of local building codes. [Cal Code 114149 (b)]

10) Clothing Change Rooms and Areas:

a) A room, enclosure (e.g., locker, cabinet, etc.) or designated area shall be provided where employees may change and store clothing and personal effects. [Cal Code 114256.1 (a) (b)]

b) The room, enclosure or designated area should be sized to accommodate the number of employees. [Cal Code 114256.1]

c) The room, enclosure or area shall be separated from toilets, food storage, food preparation and utensil washing areas. [Cal Code 114256]

11) Exterior Doors and Windows:

a) All exterior doors shall be well fitted and self-closing to effectively prevent the entrance of flies, rodents and vermin. [Cal Code 114259]

b) All exterior windows, with the exception of food pass through windows, which open to food preparation areas, food storage areas and utensil washing areas shall be screened with no less than sixteen (16) mesh per square inch. [Cal Code 114259]

12) Pass-through Windows:

a) When food is passed through a window to a customer on the outside of the building, the size of the window opening should not exceed 216 square inches. [Cal Code 114259.2]

b) Pass-through windows of up to 432 square inches are approved if equipped with an automatic air curtain device. Air curtains shall produce an air flow eight inches thick at the discharge opening and an air velocity of not less than 600 FPM (feet per minute) across the entire opening measured at a point three feet below the air curtain. [Cal Code 114259.2]

c) Food service pass-through window openings should be equipped with a self-closing screen or window.

d) The minimum distance between the pass-through window openings may not be less than eighteen (18) inches. [Cal Code 114259.2]

e) The counter surface of the pass-through window must be smooth, easily cleanable and free of channels and crevices. [Cal Code 114259.2]

13) Delivery and Cargo Doors:

a) All delivery doors leading to the outside shall open outward and be self-closing. Overhead air curtains must be provided when delivery doors remain open for an extended period of time and when necessary to exclude insects, dust, dirt and fumes. [Cal Code 114259]

b) The air curtain when installed inside the building shall produce a downward and outward air flow not less than three (3) inches thick at the nozzle with an air velocity of not less than 1600 FPM (feet per minute) across the entire opening at a point three (3) feet above the floor. [Cal Code 114259]

When the air curtain is installed outside the building, the same velocity of air needs to be directed straight down over the entire door opening. The air curtain shall turn on automatically when the door is opened. [Cal Code 114259]

c) Large cargo type doors shall not open directly into a food preparation area. Cargo type doors that open into any food warehouse of a food facility may only be open during deliveries. [Cal Code 114259]

d) An overhead air curtain is not a substitute device to permit a door to remain open. [Cal Code 114259]

14) Lighting:

a) In every room and area in which any food is prepared, manufactured, processed or packaged, or in which utensils are cleaned, sufficient natural or artificial lighting shall be provided to produce the following light intensity:

(1) 10-foot candles-

- At a distance of 30 inches above the floor shall be provided in walk-in refrigeration units and dry food storage areas.
- At a working surface on which alcohol beverages are prepared or where utensils used in the preparation or service of alcoholic beverages are cleaned,
- Inside equipment such as reach-in or under-the-counter refrigerators. [Cal Code 114252 (a)]

(2) 20-foot candles-

- At a surface where food is provided for consumer self-service or where produce or prepackaged food are sold or offered for consumption.
- In server stations where food is prepared.
- At a distance of 30 inches above the floor in areas used for handwashing, warewashing, and equipment and utensil storage, and in toilet rooms.
- In all areas and rooms during periods of cleaning. [Cal Code 114252 (b)]

(3) 50-foot candles-

- Where a food employee is working with food or utensils or equipment such as knives, slicers, grinders, or saws where employee safety is a factor. [Cal Code 114252 (c)]

b) Light fixtures in areas where food is prepared, open food is stored or utensils are cleaned shall be shielded, coated, or otherwise shatter-resistant and be readily cleanable. [Cal Code 114252.1]

15) Water:

a) An adequate, protected, pressurized, potable supply of hot water at least 49 degrees Celsius (120 degrees Fahrenheit) and cold water shall be provided. [Cal Code 114192 (a)]

b) In sizing the water heater, the peak hourly demands for all sinks, dishwashing machines, etc., are added together to determine the minimum required recovery rate. [Cal Code 114195]

c) The water supply shall be from a water system approved by the health officer or the local enforcement agency. [Cal Code 114192 (a)]

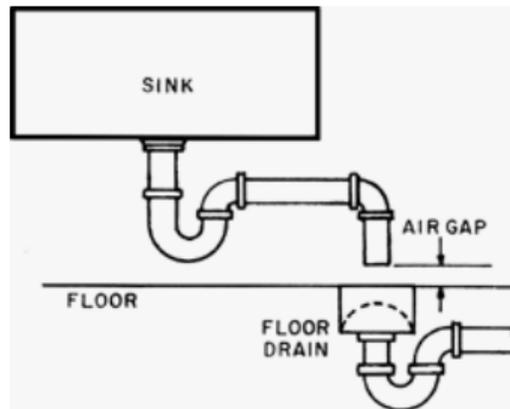
16) Backflow Protection:

An approved backflow prevention device shall be properly installed upstream of any potential hazard between the potable water system and a source of contamination (e.g., all threaded water outlets, mop sinks, sprayers, dishwashers, etc.). [Cal Code 114192 (c)]

17) Indirect Waste Receptors:

a) All steam tables, ice machines and bins, food preparation sinks, utensil washing sinks, display cases, and other similar equipment that discharge liquid waste shall be drained by means of indirect waste pipes, and all wastes drained by them shall discharge through an air gap into a floor sink or other approved type of receptor that is properly connected to the drainage system. [Cal Code 114193 (a)] [UPC 601 (b)]

Air gap example:



- b) The floor sink or other approved waste receptors should be located to provide adequate drainage of the equipment being served. [Cal Code 114193]
- c) Floor sinks or other approved waste receptors shall be located so that they are readily accessible for inspection, cleaning and repair. [Cal Code 114193 (c)]
- d) Local ordinances may require floor sinks to be installed flush or raised above finished floor surfaces. Contact local plumbing or building official. [Cal Code 114190]

18) Sewage Disposal, Grease Traps and Interceptors:

- a) All liquid waste, including sewage generated by a food establishment, shall be disposed of in an approved manner into either a public sewer system or to an approved on-site sewage disposal system. [Cal Code 114197]
- b) Grease traps or grease interceptors shall be easily accessible for servicing and shall not be located in a food or utensil handling area. [Cal Code 114201]

NOTE: Check with local health, building, sanitary or public works agencies for information or regulations regarding special sewerage, grease trap and interceptor sizing requirements.

IV. Ventilation: Provide adequate ventilation to remove gases, odors, steam, heat, grease, vapors or smoke from all rooms in the facility including: food preparation, scullery, toilet, janitorial, garbage and change rooms, consistent with the requirements of local building codes. [Cal Code 114149]

Exhaust Hoods and Ducts:

- a) Mechanical exhaust ventilation equipment shall be provided over all cooking equipment (deep fat fryers, broilers, fry grills, steam jacketed kettles, ranges, ovens, barbecues, rotisseries, etc.) and high temperature dishwashing machines to effectively remove cooking odors, smoke, steam,

heat, grease, and vapors from the food establishment. Usually chemical sanitizing or under counter dishwashing machines do not require exhaust hoods. [Cal Code 114149.1]

b) All mechanical exhaust ventilation equipment shall be installed and maintained in accordance with the California Mechanical Code. Makeup air shall be provided at the rate of that exhausted. [Cal Code 114149.1]

c) Ventilation plans for each system shall include front and side elevations of the exhaust hood and duct details to the roof fans (both exhaust and make-up air). [See Appendix C]

NOTE: Ventless Hoods: These are subject to conditional approval and determined based on site specific information, equipment proposed, and make-up air circulation.

d) Provide manufacturer specification sheets for the exhaust fan, make-up air fan and hood system (UL listing Card) along with the completed hood worksheet. Specify the number and location of make-up air diffuser. [See page 2 of Appendix C]

e) Hood Exemptions a. Certain types of cooking equipment (e.g. induction cookers, convection ovens, electric hot plates) may be considered for exemption from exhaust hood requirements. Only two pieces of equipment may be considered for exemption. Request a Cooking Equipment Exhaust Ventilation Exemption Guide. The application for exemption must be submitted along with a letter or report from a licensed mechanical engineer to verify that the ventilation where the equipment is located will be adequate to dissipate any heat, steam, or vapors released by the units. The letter or report must also address the latent and sensible heat load emitted from such appliances.

V. Equipment Requirements: All new and replacement food-related and utensil-related equipment shall be certified or classified for sanitation by an American National Standards Institute (ANSI) accredited certification program.
[Cal Code 114130]

Example ANSI accredited certifications:



All utensils, display cases, windows, counters, shelves, tables, refrigeration units, sinks, dishwashing machines and other equipment or utensils used in the preparation, sale, service and display of food shall not allow the migration of deleterious substances or impart colors, odors, or tastes to food and under normal use shall be safe, corrosion-resistant, nonabsorbent, and durable

enough to withstand repeated warewashing, finished to have a smooth, easily cleanable surface, that is resistant to pitting, chipping, scoring, and decomposition. [Cal Code 114130.1]

Equipment that is fixed because it is not easily movable shall be installed so that it is:

- (1) Spaced to allow access for cleaning along the sides, behind, and above the equipment.
- (2) Spaced from adjoining equipment, walls, and ceilings a distance of not more than one millimeter (1/32 inch).
- (3) Sealed to adjoining equipment if exposed to spillage or seepage. See Appendix B [Cal Code 114169]

All floor mounted equipment shall be placed on NSF approved casters, minimum six (6) inch high easily cleanable legs or be completely sealed in position on at least a four (4) inch high continuously coved base or concrete curb. See Appendix B [Cal Code 114169 (b)]

1) Refrigeration:

a) All reach-in and walk-in refrigeration and freezer units shall be adequate in capacity and usage to meet the needs of the proposed operation and shall:

[Cal Code 114130]

1. Be specifically constructed for commercial use and shall meet or be equivalent to applicable NSF standards. Domestic model refrigerators and freezers will not be accepted. [Cal Code 114130]
2. Have shelving that is nonabsorbent, corrosion-resistant, and easily cleanable and meets applicable sanitation standards. Wood is not acceptable. [Cal Code 114130.1 & 114130.4]
3. Be provided with an accurate, readily visible thermometer. [Cal Code 114157 (a)]
4. Drain condensate and other liquid waste in a sanitary manner to a floor sink or other approved device by an indirect connection located outside the refrigerator and freezer units. Condensate may be drained to a properly installed and functioning evaporator. [Cal Code 114193 (a) & (b)]
5. Open into the building.

b) Walk-in refrigeration and storage freezer units shall also:

1. Be designed to be closed and sealed to the floor or be constructed integral with the floor. Coved bases shall be provided at the intersection of interior floors and walls. [Cal Code 114268]
2. Be flashed or sealed to walls and/or ceiling as needed to prevent rodent and vermin harborage or inaccessible areas. [Cal Code 114169 & 114259]

3. Have shelving that is nonabsorbent, corrosion-resistant, and easily cleanable that is at least six (6) inches above the floor and meets applicable sanitation standards. Wood is not acceptable. [Cal Code 114047 & 114130.4]

4. Have floor drains and floor sinks located outside units, when they are required. [Cal Code 114193 (c)]

2) Sinks: When a sink is installed next to a wall, the integral metal backsplash shall be sealed to the wall. See page 6: 2b & 2c [Cal Code 114169 (a)]

Hot and cold water under pressure shall be provided through a mixing valve to each compartment of the following sinks:

a) Kitchen Utensil Sinks:

1. Where food is prepared or multi-service kitchen utensils (i.e. pots, pans, etc.) are used, a minimum three (3) compartment stainless steel sink with dual integral stainless steel drainboards shall be provided. [Cal Code 114099 (a)]

2. The sink compartments must be capable of accommodating the largest utensil to be washed and the drainboards shall be as large as the largest sink compartment. A minimum compartment size of approximately 18 x 18 x 12 inches deep will generally be adequate for most utensils. [Cal Code 114099 (b)]

3. A three (3) compartment sink may be required within each separate section of a large food establishment which handles unpackaged foods (i.e., deli, meat, bakery, sushi bars, oyster bars, etc.). [Cal Code 114099]

b) Eating and Drinking Utensil Sinks:

1. Where multiservice eating and drinking utensils are washed by hand, a three (3) compartment stainless steel sink with dual integral stainless steel drainboards shall be provided. Dishwashing machines are recommended where a large volume of eating and drinking utensils is washed. [Cal Code 114099 (a)]

2. The sink compartments must be capable of accommodating the largest utensil to be washed and the drainboards shall be as large as the largest sink compartment. A minimum compartment size of approximately 18 x 18 x 12 inches deep will generally be adequate for most utensils. [Cal Code 114099 (b)]

3. A three (3) compartment bar sink may require a quick funnel drain or a fourth sink compartment for disposal of drink/ice waste. [Cal Code 114099]

c) Food Preparation Sink:

Food facilities that wash, rinse, thaw, or similarly prepare foods shall have a food preparation sink that is located in the food preparation area. The sink shall have minimum dimensions of 18 inches by 18 inches in length and width and 12 inches in depth with an integral drainboard or adjacent table at least 18 inches by 18 inches in length and width. The sink shall be equipped with an adequate supply of hot and cold running water through a mixing valve and drain by means of an indirect connection. [Cal Code 114163 & 114193]

d) Handwashing Sinks:

1. Handwashing facilities shall be provided in each food preparation and warewash area. Handwashing sinks shall be sufficient in number and conveniently located so as to be accessible at all times for use by food handlers (i.e., deli, meat, bakery, sushi bar, oyster bar, etc.). [Cal Code 113953 (b) (1)]
2. Soap and single-use sanitary towels shall be provided in permanently installed dispensers at the handwashing sinks. [Cal Code 113953.2]
3. Handwashing sinks shall be equipped to provide warm water (of at least 100°F) under pressure for a minimum of 15 seconds through a mixing valve or combination faucet. [Cal Code 113953 (c)]
4. The handwashing facility shall be separated from the warewashing sink by a metal splashguard with a height of at least 6 inches. No splashguard is required if the distance between the handwashing sink and the warewashing sink drainboards is 24 inches or more. [Cal Code 113953 (b) (2)]

e) Janitorial Sink:

1. At least one curbed cleaning facility or janitorial sink equipped with hot and cold water and a drain shall be provided and conveniently located for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water and similar liquid waste. [Cal Code 114279]
2. The sink shall be located so as not to contaminate any food preparation areas, food storage areas, utensils or equipment. [Cal Code 113980]
3. The mixing valve faucet shall be equipped with a backflow prevention device. [Cal Code 114192 (c)]

3) Dishwashing and Glass Washing Machines:

- a) An area should be provided for scrapping utensils and equipment as circumstances require. An overhead pre-rinse sprayer with scupper tray, sink or garbage disposal will satisfy this requirement. [Cal Code 114099.1]

b) Dishwashing machines may be connected directly to the sewer immediately downstream from a floor drain or they may be drained through an approved indirect connection.

[Cal Code 114193 (d)]

c) Spray type dishwashing and glass washing machines which are designed for a hot water sanitizing rinse shall be provided with an approved booster heater or be connected to an approved recirculating water system which is capable of achieving a utensil surface temperature of 160°F. These machines typically require an approved type II exhaust hood.

[Cal Code 114099.7 (a) & 114149]

d) Spray type dishwashing and glass washing machines which are designed for a chemical sanitizing rinse shall be capable of maintaining a sanitizing solution concentration and rinse water temperature in accordance with the manufacturer's specifications. [Cal Code 114099 (b)]

e) Dishwashing machines and sinks must have two (2) integral stainless steel drainboards or dish tables large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation. One drainboard designated for soiled utensils and one for clean utensils. The drainboards shall be sloped and drained to an approved waste receptor.

[Cal Code 114103 (a) (e)]

f) For glass washing machines and undercounter dishwashing machines, there shall be two (2) metal drainboards, one for soiled utensils and one for clean utensils, located adjacent to the machine. The drainboards shall be sloped and drained to an approved waste receptor.

[Cal Code 114103 (b) (e)]

g) A minimum of a three (3) compartment stainless steel sink with dual integral metal drainboards is required in addition to any dishwashing machine. [Cal Code 114095]

h) When a dishtable is installed next to a wall, the integral metal backsplash shall be sealed to the wall. See page 6: 2b [Cal Code 114169 (a)]

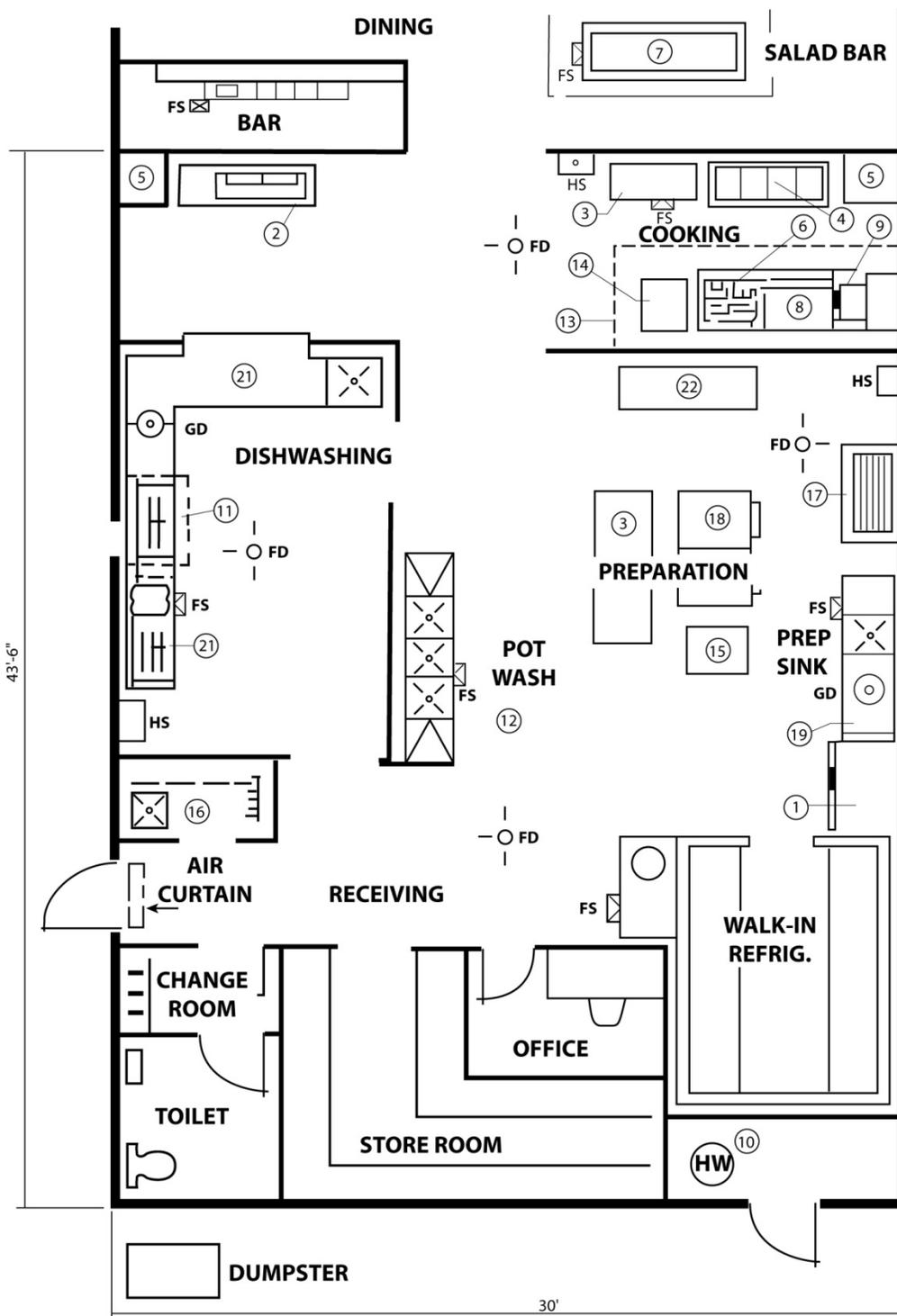
4) Dipper Well:

A running water dipper well shall be provided, if scoops or other reusable serving utensils are stored in water. The dipper well shall be drained by means of an indirect connection.

[CalCode114193(a)]

APPENDIX 1

Scale has been reduced for illustration only 1/4"=1' scale required.



SCALE: 1/4"=1'-0"

NOTE: FLOOR TO SLOPE TO FDs

Notes: This is not intended as a model layout but ONLY to illustrate procedure for submitting plans and data. Each piece of equipment is numbered to correspond to the listing in the Equipment Schedule in Appendix 2. Floor Drain: FD; Floor Sinks: FS; Handsinks: HS; hash lines indicate exhaust hoods are over equipment.

APPENDIX 2

SAMPLE EQUIPMENT SCHEDULE							
EQUIPMENT No.	*EQUIPMENT MAKE AND MODEL	GAS CONNECTION	ELECTRICAL	HOT WATER	COLD WATER	WASTE WATER	COMMENTS
1	Reach-in Refrigerator BEST: Side Model EHS		110V 20A			FS	
2	Food Preparation Table ACME: Model DLM		110V 20A				Self-contained
3	Work Table, Stainless Steel Top – ACME, Custom						Made to dimensions supplies by General Contractor
4	Steam Table Super, MD0315	¾"			½"	FS	Anti-siphon Valve
5	Proofing Cabinet Meier, P-C		110V 20A				
6	Heavy Duty Range ACME, Model I.A.N.	¾"					
7	Salad Bar Custom by General Contractor				½"	FS	Anti-siphon Valve
8	Deep Fat Fryer BEST, Type L	½"					
9	Steam Cooker BEST, SC5				½"	FS	Anti-siphon Valve
10	Hot Water Heater Mills G-BT155	¾"		1"	1"		155,000 BTU
11	Dish machine and Hood Warford., QF-1		220V	1"	1"	FS	High-temperature warewasher hood
12	Utensil Sink ACME, 18" x 18" x 18" F			½"	½"	2"	
13	Hood Custom by General Contractor						See mechanical drawing, detail
14	Bake Oven Meier, O/B	¾"					
15	Bakers Table Custom by CONRAD						
16	Janitor Sink ACME, STD			½"	½"	2"	Floor Mop Sink
17	Ice Machine Frozen CDW56				½"	1"	
18	Freezer Forte: Side Model F		110V				Self-contained

***ABOVE EQUIPMENT LISTINGS ARE FICTITIOUS**

APPENDIX 3

THIS IS A SAMPLE ONLY: Specific Brand Names and colors for materials should be specified to insure acceptability.

SAMPLE FINISH SCHEDULE

	FLOOR	FLOOR BASE OR COVE	WALLS	CEILING
FOOD PREPARATION	QUARRY TILE	QUARRY TILE, UP WALL 4 INCHES 3/8" RADIUS COVE	F.R.P.	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
DISHWASHING	QUARRY TILE	QUARRY TILE, AS ABOVE	F.R.P.	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
STOREROOM	COMMERCIAL GRADE SHEET VINYL	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	DRYWALL WITH WHITE GLOSS ENAMEL	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
WAITRESS SERVICE STATION	QUARRY TILE	QUARRY TILE, AS ABOVE	GREENBOARD, 4 FT. CERAMIC WAINSCOT, LIGHT COLORED	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
BAR	QUARRY TILE	QUARRY TILE, AS ABOVE	F.R.P.	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
SALAD BAR	QUARRY TILE: EXTENDS 36" BEYOND TABLE ON ALL SIDES	QUARRY TILE, AS ABOVE	N.A.	LAY-IN PANELS
RESTROOMS	CERAMIC TILE	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	GREENBOARD, 4 FT. CERAMIC WAINSCOT	WATER-RESISTANT DRYWALL, WHITE ENAMEL
CLEANING EQUIPMENT/ MOP EQUIPMENT	QUARRY TILE	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	F.R.P.	WASHABLE NON-ABSORBENT CEILING PANELS
DRESSING ROOM(S)	CERAMIC TILE	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	DRYWALL WITH WHITE ENAMEL	LIGHT-COLORED ENAMEL PAINTED DRYWALL
WALK-IN REFRIGERATOR	**SEALED SMOOTH CONCRETE	PREFABRICATED STAINLESS STEEL WALL UP WALL 4 INCHES, 3/8" RADIUS SANITARY COVE	PREFABRICATED STAINLESS STEEL	PREFABRICATED STAINLESS STEEL

*SALAD BAR IS COVERED ON TOP AND SIDES BY AN APPROVED SNEEZE GUARD: SEE DETAIL SHEET A-4.

**SMOOTH CONCRETE IS SEALED TO BE GREASE RESISTANT WITH AN APPROVED SEALER.

ROOM FINISH SCHEDULE

FACILITY NAME:			ADDRESS:		
ROOM OR AREA	FLOOR	FLOOR BASE OR COVE (1)	WALLS	CEILING	REMARKS
KITCHEN & FOOD PREP AREAS					
FOOD SERVICE AREA (FRONT COUNTER)					
STORAGE ROOM					
CLOTHING CHANGEROOM					
DISHWASHING					
JANITORIAL					
MEN'S RESTROOM					
WOMEN'S RESTROOM					
SELF-SERVICE AREAS					
WAITRESS STATIONS					

(1) Indicate if the floor material is to extend up walls and toekicks at least 4" with a minimum 3/8" radius at the wall/floor and toekick/floor juncture.



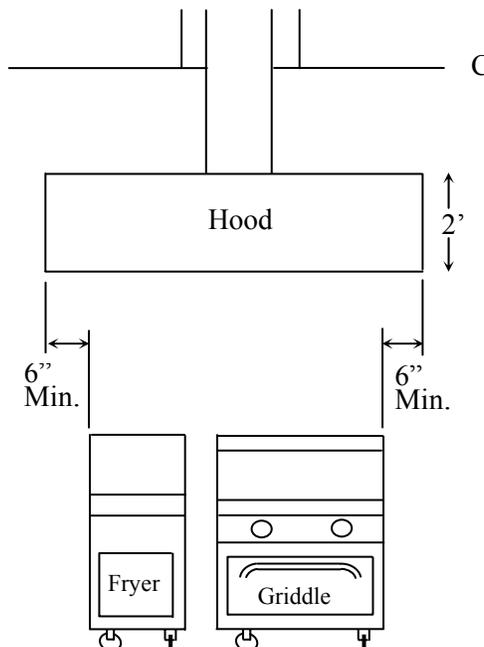
Requirements for Hood Plan Submittals

Provide 2 sets of plans including:

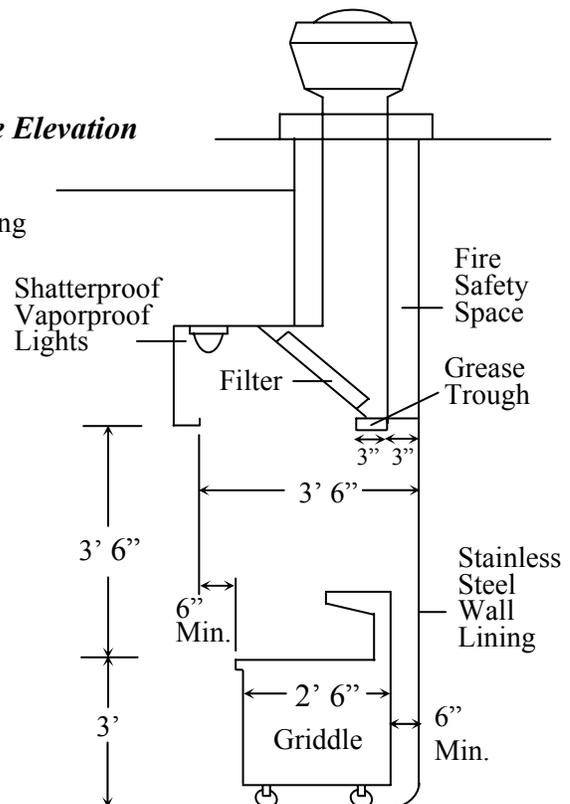
- | | |
|---|--|
| <ol style="list-style-type: none"> 1) Completed HOOD WORKSHEET for <u>each</u> hood (attached) 2) Plan view: <ol style="list-style-type: none"> a) Outline of hood over cooking equipment b) Clearances around equipment & to walls c) Exhaust & make-up air ducts d) Exhaust & make-up air fans on roof e) Make-up air diffusers on ceiling f) Make & model numbers of equipment & fans g) All dimensions of equipment & ducts 3) Front & side elevations showing: <ol style="list-style-type: none"> a) Cooking equipment b) Hood overhang c) Duct elbows and fans | <ol style="list-style-type: none"> 4) Type & gauge of metal used in hood & ducts 5) Specify if hood is Type I, Type II, UL Listed, non-canopy, compensating, etc. 6) Name, address & phone number of facility & hood designer 7) Submit one set of cut-sheets (manufacturers' specification sheets) for: <ol style="list-style-type: none"> a) Cooking equipment b) Exhaust fan c) Make-up air fan d) UL Listing Card for hood system |
|---|--|

EXAMPLES OF ELEVATIONS

Front Elevation



Side Elevation



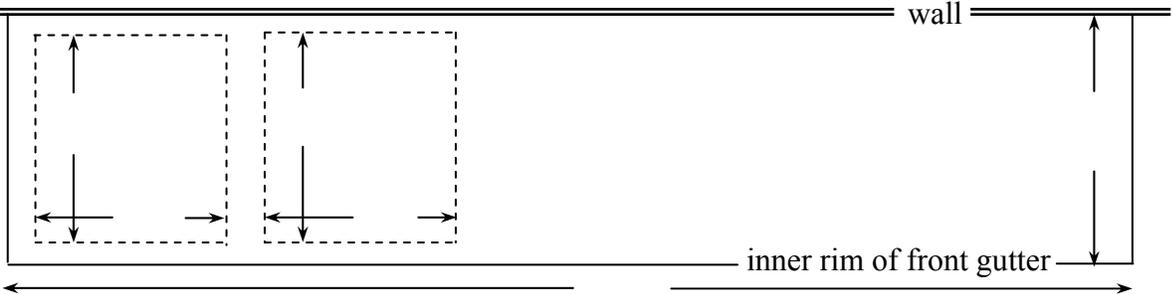
HOOD WORKSHEET

Facility Name: _____

Address: _____

COOKING EQUIPMENT & HOOD

- Fill in cooking equipment & hood dimensions in overhead view.
- Casters & quick disconnects **strongly** recommended!



- Specified? yes__ no__
- Hood long enough to allow $\geq 6"$ on sides of equipment? yes__ no__
- Hood wide enough to allow $\geq 6"$ in front & back of equipment? yes__ no__
- Canopy lip $\geq 6.5'$ above floor & $\leq 4'$ above cooking surface? yes__ no__
- Canopy free of exposed horizontal electrical & ansul lines? yes__ no__

CFM

- What kind of hood? _____
- Hood length _____ ft x appliance airflow _____ CFM/LF = _____ CFM
(from CMC)
- Other formula?: _____ = _____ CFM

FILTERS

- _____" H x _____" W (Filter Size) x _____ (# of Filters) x _____ sq ft (usable area per filter) = _____ sq ft (total filter area)
- _____ CFM \div _____ sq ft (total filter area) = _____ fpm
- Baffle filter ideal fpm = 300; should be 250-350. Is it? yes__ no__
- Horizontal slot filter ideal fpm = 1000; should be 800-1200. Is it? yes__ no__ n.a.__
- Fpm can be < or > above if this is a "LISTED" hood. Is it? yes__ no__
- Total of filter widths (_____") must be < hood length. Is it? yes__ no__

DUCT

- Duct dimensions: _____" x _____" = _____" \div 144 = _____ sq ft
- Hood >12 ft. long shows >1 exhaust outlet to main duct? yes__ no__ n.a.__
- _____ CFM \div _____ sq ft = _____ fpm
- Fpm should \approx 1800; must = 1500 - 2500 (Type I). Is it? yes__ no__ n.a.__

STATIC PRESSURE & EXHAUST FAN

- # of elbows = _____ Cleanout at each elbow? yes__ no__ n.a.__
- Static Pressure \approx _____" SP
- Exhaust Fan: Make _____ Model # _____ H.P. _____
- Fan is UL for grease (Type I)? yes__ no__ Easily pulls CFM at SP? yes__ no__

MAKE-UP AIR

- _____ CFM (Exhaust) \div 2000 CFM (Max. per diffuser) = _____ Next higher whole number = _____ Diffusers required
- Make-up air Static Pressure \approx _____" SP
- Make-up air fan: Make _____ Model # _____ H.P. _____
- Supplies 95-100% of exhaust CFM at SP? yes__ no__
- Make-up air on roof ≥ 10 ft. from exhaust? yes__ no__
- Diffusers on ceiling ≥ 10 ft. from hood? yes__ no__
- Exhaust & make-up air interlocked? yes__ no__

Prepared by: _____ / ____ / ____
Name Phone # Company Date