

Norfolk Department of Public Health
Environmental Health Services
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(757) 683-2712 FAX (757) 683-2394

FOOD ESTABLISHMENT CONSTRUCTION GUIDELINES

1. Submission of Plans. Prior to the start of construction, plans and specifications for the construction of new food establishments (or for alteration or additions to existing food establishments) shall be submitted to the Environmental Health Services Office. This is not only required by local and state regulation, but may also prevent costly changes during construction. Two (2) sets of floor plans are required at the time of final review. Plans will be reviewed as rapidly as possible. The plan review fee is **\$40.00**.

State law requires that in certain situations, architecturally sealed (stamped) plans be submitted to the Building Official's Office for review and approval. In those instances where stamped plans are required, they also shall be submitted to the Environmental Health Services Office for review.

2. Approval of Plans in Writing. Written approval is also a requirement prior to commencing construction. Since all food establishments are not alike and may have different requirements, this procedure will help us to better advise you. In order to obtain construction permits for the project, a letter of authorization must be obtained from this office to be presented to the building official.
3. Expiration of Approval. Plans submitted to this office for approval will be held for 12 months once approved. If construction has not commenced or if this office has not been notified that the project is still in the process, then after 12 months our plan review will be voided.
4. Additional Changes or Alterations. Changes or alteration in the plans after submission require notice to this office so as to be added to the originals. Any alterations or changes not included on the plans may be subject to rejection at the time of inspection and could result in unnecessary expense. During construction, if modifications are needed, then a request for change is required along with approval from the Environmental Health Services Office.

5. Certain Basic Information To Be Included.

- a. Contact Information – It is important that the **name and phone number of the contact individual** for the establishment be included on the plan itself in addition to the **name and address of the establishment**.
- b. An Interior Finish Schedule – Provide a description of the inside final finishes of walls, floors, and ceilings in each room.
- c. An Equipment Schedule – Show the exact location of all equipment, large or small, identifying equipment by a numbered key or by description in place. Any outdoor dining areas need to be shown, along with any overhead protection.
- d. A Mechanical Plan showing ventilation systems (hoods) shall also be submitted.
 - Mechanical plans shall be submitted for review prior to review by the Building Codes Official in the case where a restaurant allows for smoking. The Virginia Indoor Clean Air Act (Title 15.2 Sections 2820-2833) prohibits smoking in restaurants that are open to the public with a few exceptions. These include separate smoking rooms, unenclosed outdoor seating on patios or decks, and private clubs. The smoking area, in the restaurant, must be structurally separated from the non-smoking areas, to which ingress and egress is through a door and separately vented to prevent the recirculation of air from the smoking to the non-smoking area. At least one public entrance into the restaurant shall be into an area of the restaurant where smoking is prohibited.
- e. A Menu – Provide an intended menu.
- f. Seating – Provide number of seats.

INTERIOR CONSTRUCTION AND FINISHES

A. WALLS

- Walls in food preparation areas, areas of splash, and toilet rooms shall be finished with a glazed, washable surface to at least the level of splash.
- Walls in other areas shall be **smooth, easily cleanable** and in good repair, free of cracks or holes.
- Walls in food preparation areas shall be of light color.

- Finishes on walls in areas of specialized use will be required to be appropriate for the use intended and with such restrictions as may be necessary for cleaning or maintenance.

B. FLOORS

- Floors in food preparation and service areas, toilet rooms, janitor closets with sinks, or any other areas subject to splash or spillage shall be of a smooth, non-absorbent construction and easily cleanable.
- Carpeting, where approved, shall be so constructed as to be easily cleaned and maintained.
- Utility service lines, pipes, or other similar construction shall be elevated above floor level to facilitate cleaning.

C. CEILINGS

- Ceilings and upper walls in food preparation, storage, and display areas shall be of smooth, easily cleanable construction, finished in a light color, and non-absorbent.

D. LIGHTING

- All lighting fixtures over food preparation equipment or food preparation areas or where employee safety is a factor shall be a minimum of 50-foot candles at the equipment work surfaces.
- Warewashing areas, toilet rooms, and lavatories, consumer self-service areas and the interior of reach in refrigerators shall have a minimum of 20-foot candles of light.
- Lighting for walk-in refrigeration units, storage areas, dining rooms during cleaning, and non-food preparation areas shall be a minimum of 10-foot candles.
- All lighting as described herein shall be from artificial sources properly shielded or of an approved safety type.

E. VENTILATION

All rooms shall be sufficiently ventilated so as to be free from excessive heat, steam, and condensation, vapors, obnoxious odors, smoke and fumes. Where ventilation for these conditions is necessary, it shall be mechanically vented directly to the outside. Keep the following in mind for ventilation over cooking equipment:

- Such ventilation shall include a hood system that shall be in compliance with the building codes as determined by the building official (mechanical inspector).

- Hoods shall be equipped with removable metal grease filters and effective ventilating fans and exhausted to the outside air.
- Hoods shall be provided with lighting where necessary and such lighting shall be shielded or of an approved safety type.
- Equipment such as ovens, ranges, grills, fryers, steamers, rotisseries, hot temperature dishwashing machines are required to be located under a properly designed hood system. There are various types of cooking and heating devices that may or may not require ventilation. These requirements are regulated by the building official's office (mechanical inspector).

F. TOILET FACILITIES

The building official shall make the determination as to the number of restrooms and handicap designation.

- Toilet room doors and vestibule doors shall be self-closing.
- Convenient hand washing facilities are to be provided for all toilet rooms.
- All toilet rooms are to be mechanically ventilated to the outside, complying with the requirements of the building official. Toilet rooms shall be provided with at least one waste receptacle. Toilet rooms for women shall have at least one covered waste receptacle.
- Patron toilet rooms shall be located so as to permit access by patrons without passing through areas where food is prepared, stored, or where utensils are washed or stored.
- Restaurants serving alcoholic beverages for on-premises consumption shall provide toilet facilities for patrons.
- Toilet rooms shall be non smoking in accordance with the Virginia Indoor Clean Air Act.

G. EXTERNAL OPENINGS

- All outer openings to food establishments shall be effectively screened or provided with other effective approved means to prevent entry into establishment by flies, other insects, rodents, and birds.
- Screen doors shall open outward and shall be self-closing.
- Establishments shall be so constructed and maintained as to prevent entry of vermin, such as rodents, flies and other insects.
- Rear delivery doors shall have self closing devices and be tight to the frame.

H. STORAGE

- All storage is to be elevated from the floor high enough to permit cleaning and inspection for evidence of vermin with a minimum of 6" clearance.
- Poisonous materials shall be stored separately so as to minimize accidental usage and shall be stored in such a manner as not to provide a potential for contamination of food supplies, utensils, or equipment. Closed cabinets are recommended for poisonous storage. Such enclosures should be clearly marked as to the nature of the contents. MSDS sheets shall be required.

EQUIPMENT

Equipment shall be of an approved type as to function, of approved design for cleaning and maintenance, and in good repair. Equipment shall be accessible for cleaning on all sides or be capable of being moved for cleaning. There are requirements that particular types of equipment be commercial; therefore it is important to check with the Building Official, Fire Prevention and Environmental Health Services Office prior to purchasing equipment.

A. Refrigeration Equipment

Refrigeration equipment shall be of adequate capacity to meet the maximum needs of the food establishment, and shall include the following:

- Maintain potentially hazardous foods at a temperature of 41°F or below.
- Ambient air temperature should fall between 36°F - 38°F.
- Be equipped with numerical indicating thermometers prominently located.
- Be properly drained of condensation or waste liquids.
- Commercial Refrigeration is recommended because of its durability and capacity to meet the above requirements.

B. Hot Storage Equipment

- Shall be capable of maintaining preheated potentially hazardous foods at a temperature of 135°F or above.
- Be equipped with numerical thermometers prominently located. Readily available product thermometers must be provided for equipment not designed to accept a thermometer in place.

C. Utensil Washing Sinks

- Minimum requirement is a three compartment sink with attached drain board at each end. Also acceptable is a four compartment sink with one drain board. In large establishments, more sinks may be required.
- Each compartment size shall be large enough to submerge any utensil or equipment to be washed, rinsed and sanitized.
- Each compartment shall be provided with hot and cold running water.
- If hot water sanitizing (171°F) is used for manual washing, a numerical indicating thermometer shall be readily available.
- If chemical sanitizing is used, a corresponding test kit shall be provided.
- Sinks shall be of approved construction and materials and be in good repair. Handwashing at a sink used for food preparation or utensil washing is prohibited.
- The temperature of water at the utensil washing sink shall be at a minimum 110°F.
- A direct connection may not exist between the sewerage system and any drains originating from equipment where food is placed or prepared. There shall be an air gap or air break between both drain lines.
- Grease traps may be required and are regulated by the Building Officials Office (mechanical/plumbing).

D. Dishwashing/Warewashing Machines

- Shall be provided with an easily accessible and readable data plate affixed to the machine by the manufacturer indicating the machine's design and operating specifications, such as temperature, pressure and time requirements.
- Shall be equipped with an automatic detergent dispenser.
- Shall incorporate a visual means to verify that detergents and sanitizers are delivered or a visual or audible alarm to signal if the detergents and sanitizers are delivered to the respective washing and sanitizing cycles.
- Shall be equipped with a pressure regulator and pressure gauge on the final rinse line.
- Shall have adequate sized drain boards.
- Shall be equipped with numerical indicating thermometers for wash and rinse temperatures.
- Water pressure and temperatures shall conform to specifications for each individual model of machine as provided by the manufacturer.
- Dishwashing machines shall be provided with pre-wash capability to remove gross food particles from utensils prior to being placed in the machine.
- Chemical sanitizing machines shall use an approved chemical in approved concentrations with a corresponding test kit.

- A hot water or low temperature sanitizing dishwashing machine shall be provided with ventilation or other approved means to relieve steam and condensation, as regulated by the building official.

E. Food Preparation Sinks

- A direct connection may not exist between the sewerage system and any drains originating from equipment where food is placed or prepared. There shall be an air gap or air break between both drain lines.

F. Handwashing Facilities

- Convenient handwashing facilities shall be provided for all food preparation areas, warewashing areas, and wait stations. For instance, a kitchen may be 30 feet in length and 12 feet wide. Although the size of the kitchen may dictate only one hand washing sink using a basic distance measurement, if a prep table the length of the line is placed between the line and the hand washing sink, the hand washing sink may not be conveniently located. Similarly, one handwashing sink located at the end of cook line is useless to employees working at the other end if there is limited space for employees to go around one another during busy periods.
- Shall be used for no other purpose.
- Shall be located or shielded to prevent splash to any adjacent equipment or food preparation.
- Shall be provided with hot and cold running water and mixing valve.
- Shall be provided with soap or approved hand cleaner, approved sanitary towels or air dryers and waste receptacles.
- The temperature of the hot water provided at a hand basin shall be maintained at a minimum of 100°F.

G. Janitorial Facilities

- A mop sink or curbed floor drain shall be provided as a utility for cleaning mops and disposal of mop water or other similar liquid waste.
- A hose shall not be capable of being attached to a faucet unless a backflow prevention device has been installed. If the hose has an attached sprayer, then there shall be a double check valve attached to the sink faucet and hose connection.

Note: The use of lavatories, utensil washing or food preparation sinks is not permitted for these purposes.

H. Garbage and Refuse Storage and Disposal:

- Storage outside the establishment shall be in approved covered containers or dumpsters. Dumpster and grease receptacles are required to be screened from view of adjacent right of ways.
- Plastic garbage bags shall not be used for outside storage.
- Containers stored outside must be on or above a hard, cleanable surface.
- Bulk waste disposal units (dumpsters and/or privately contracted 90 gallon roll out containers) require permitting by the health department. There is an application to be completed and a fee is assessed (\$50.00).

SPECIAL CONSIDERATIONS FOR NEW ESTABLISHMENTS/ADDITIONS

* When planning for **new establishments**, notations should be made regarding seating capacity, type of menu, etc., for possible future expansion.

* When planning for **additions to or remodeling of** existing establishments that would increase the seating capacity, the following items should be examined to assure that the capability of the facility will not be over taxed:

1. Adequate refrigeration
2. Adequate storage space
3. Utensil washing capability
4. Toilet facilities
5. Refuse disposal
6. Food preparation equipment and operating space
7. Locker facilities for additional personnel
8. Although it does not increase the need for seating, catering does possibly increase the need for items numbered 1, 2, 3, and 6.
9. Adequate hot water supply, commercial water heaters are recommended.

Additional Agency Contacts

- | | |
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| 1. Building Inspections & Permits | 757-664-6565 |
| 2. Commissioner of Revenue Business Licenses | 757-664-7886 |
| 3. ABC Board | 757-424-6700 |
| 4. Fire Prevention Bureau | 757-664-6604 |
| 5. Planning & Zoning | 757-664-4752 |

Final Inspection Required

A final on-site inspection is required before the establishment may begin operation. There shall be no food or single service goods on site. Upon passing the final inspection and payment of fees, a health department permit shall be issued, and a letter of authorization will be given for

obtaining the city business license. Any approval for an ABC license shall be granted at this time.

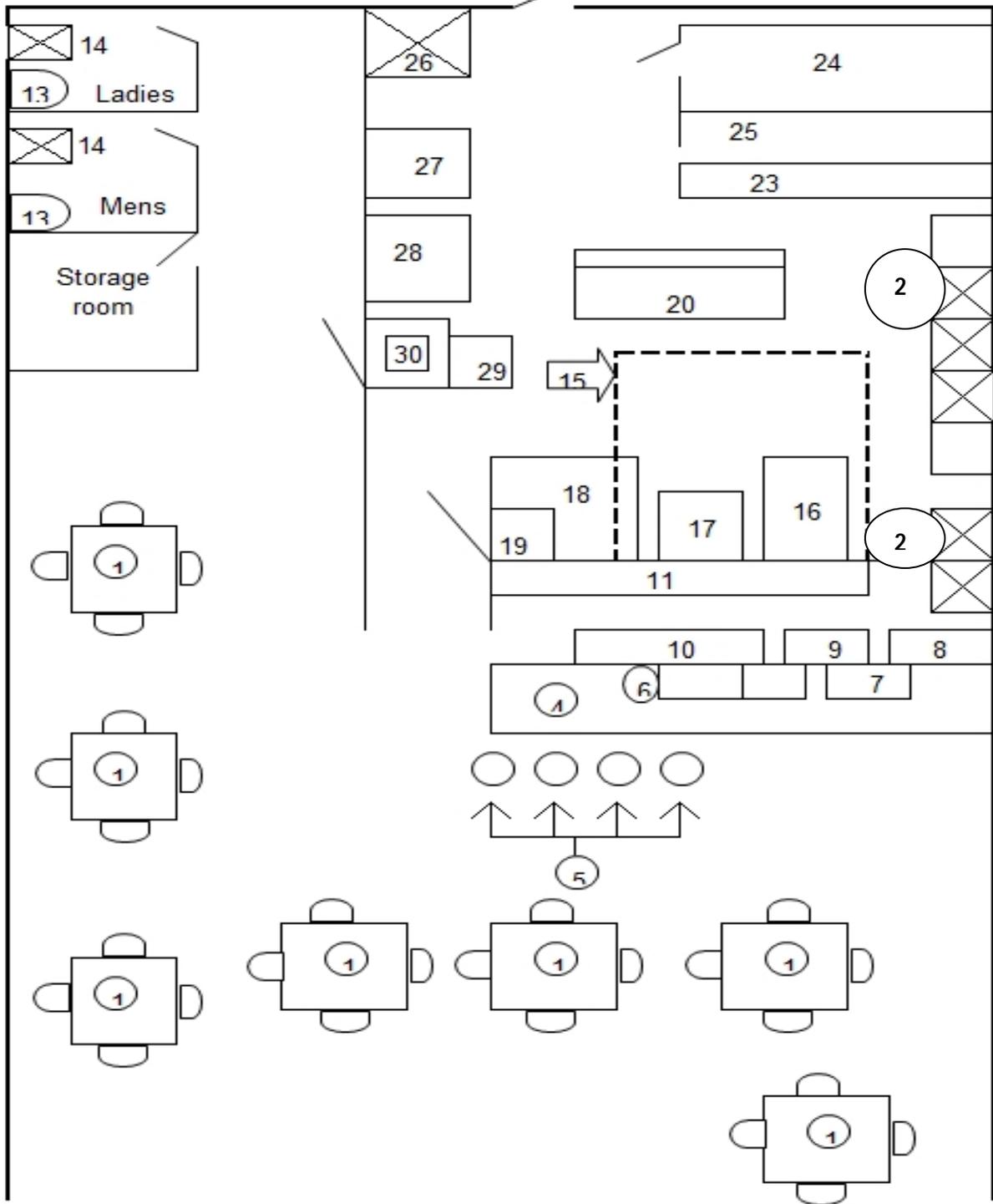
Attachments: Floor Plan/Equipment Key/Finish Schedule

The attached plan has been included to further assist you in preparing your plans for submission. The categories, which have been presented in these guidelines, cover most situations but cannot be all inclusive. It is important that the plan be drawn to scale and contain as much information as possible. Remember, if it is not on the plan, it is not approved. Thus, if a special problem arises that is not covered by these guidelines or there is a need to make changes after plans have been approved, this office shall be contacted for clarification and/or additional approval. Also, remember that if the Building Official requires sealed plans, then we would also need to review the sealed plans. In this case, hand drawn or computer generated, but not sealed, would not be acceptable.

Sample (1 of 4)

Sample Drawing (next page)

NOTES



Sample (2 of 4)

Equipment Schedule

- | | |
|--------------------------------------|---|
| 1. Dining Tables (7) | 21. Hand Basin |
| 2. Cash Register | 22. Three Compartment Utensil Sink
with Drain Boards |
| 3. Counter | 23. Shelves |
| 4. Counter | 24. Walk-in Refrigerator |
| 5. Stool | 25. Storage Racks |
| 6. Coffee/Tea | 26. Mop Sink |
| 7. Beverage Dispenser | 27. Freezer |
| 8. Draft Beer Box | 28. Reach-in Refrigerator |
| 9. Ice Bin | 29. Table |
| 10. Table | 30. Slicer |
| 11. Back Bar (utensil storage, etc.) | |
| 12. Hand Basin | |
| 13. Toilet (2) | |
| 14. Hand Basin (2) | |
| 15. Hood | |
| 16. Stove | |
| 17. Deep Fryer | |
| 18. Table | |
| 19. Microwave Oven | |
| 20. Sandwich Unit | |

Sample (3 of 4)

Finish Schedule

The following chart provides guidance for finish for floors, walls, and ceilings:

	Floor	Wall	Ceiling
Kitchen Cooking	Quarry tile; poured Seamless sealed	Stainless steel; aluminum; ceramic tile	Plastic coated or metal clad fiberboard; drywall epoxy, glazed surface; plastic laminate
Food Prep	Same as above plus commercial grade vinyl composition tile	Same as above plus approved wall panels (FRP) fiberglass reinforced polyester panel; epoxy painted drywall; filled block with epoxy paint or glazed surface	Same as above
Bar	Same as above	Same as above for areas behind sinks	Meets building codes
Food	Same as above plus sealed concrete; commercial grade vinyl composition tile; or sheets	Approved wall (FRP) fiberglass reinforced polyester panel; epoxy painted drywall; filled block w/ epoxy paint or glazed surface	Acoustic tile; painted sheetrock
Other Storage	Same as above	Painted sheetrock	Same as above

Toilet Room	Quarry tile; poured sealed concrete; commercial grade vinyl commercial grade vinyl tile or sheets	Approved wall panels (FRP) fiberglass reinforced polyester panel; epoxy painted drywall; filled block w/ epoxy paint or glazed surface	Plastic coated or metal clad fiberboard; drywall w/ epoxy; glazed surface; plastic laminate
Dressing Rooms	Same as above	Painted sheetrock	Same as above plus painted sheetrock
Garbage & Refuse Areas (interior)	Quarry tile; poured seamless, sealed concrete; commercial grade vinyl composition tile or sheets epoxy	Approved wall panel (FRP) fiberglass reinforced polyester panel; epoxy painted drywall, filled w/ paint or glazed surface	Plastic coated or metal clad fiberboard; drywall w/ epoxy glazed surface; plastic laminate
Mop Service Area	Quarry tile; poured seamless sealed concrete	Same as above	Same as above
Warewashing Area	Same as above plus commercial grade vinyl composition tile	Stainless steel; aluminum; approved wall panels (FRP) fiberglass reinforced polyester panel; epoxy painted drywall; filled block w/ epoxy paint or glazed surface	Same as above
Walk-in Refrig. & Freezers	Quarry tile; stainless steel poured sealed concrete; synthetic	Aluminum; stainless steel; enamel coated steel (or other corrosion resistant material)	Aluminum; stainless; enamel coated steel (or other corrosion resistant material)