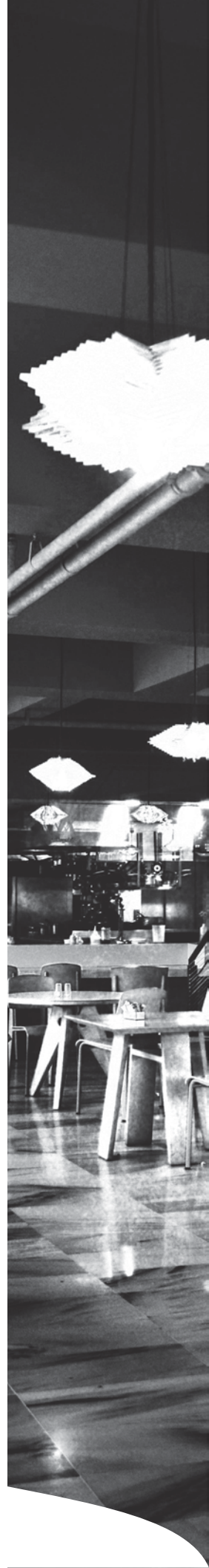


# Food Service Design & Construction Manual

Community Development Department  
Environmental Health Division



**VILLAGE OF SCHAUMBURG**  
PROGRESS THROUGH THOUGHTFUL PLANNING



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## INTRODUCTION

This manual is intended to assist architects, building contractors, food service equipment consultants, food service operators, and other interested professionals in developing plans that meet the requirements of the Village of Schaumburg Environmental Health Division.

Whenever a food establishment is constructed or extensively remodeled and whenever an existing structure is converted to use as a food establishment, properly prepared plans and specifications for such construction, remodeling, or conversion shall be submitted for review prior to construction, remodeling, or conversion of an existing structure to a food establishment. For building, mechanical, electrical, plumbing and fire protection requirements, you should contact the Village of Schaumburg Building Division and/or Fire Department.

Our goal is to ensure food safety and sanitation remain a top priority for food service operators. Food service operations should be designed to be easy to maintain, have efficient food flow patterns, and be prepared to handle the maximum number of customers.

Typically, menus should be planned before designing the facility. The type and variety of foods to be served will influence the type and quantity of equipment and the amount of storage space needed. A menu must be submitted with your plans.

If you have any questions, please contact the Village of Schaumburg's Environmental Health Division at 847-923-3700.

# I. PLANS AND INSPECTIONS

## A. PLANS

Four sets of detailed plans must be submitted to the Village of Schaumburg Building Division before constructing, enlarging, altering, or converting any building for use as a restaurant or food service establishment.

The plans are to include:

1. Complete architectural, plumbing, and floor plan layouts.
2. Complete food service equipment layout.
3. Elevations of equipment should be included.
4. Room and area finish schedules for walls, floor, ceilings, and covered surfaces.
5. All food service equipment specification sheets, including the manufacturer's name and model number. Include equipment cut sheets/schematics.
6. A copy of the menu.

Plans that are incomplete will not receive approval.

If any changes are desired after the plans have been approved by this Department, changes must be submitted in writing to receive approval.

Only finishes, fixtures, materials, equipment, or installations that are equal to or better than the requirements outlined may be substituted after the review and approval process.

## B. FIELD INSPECTIONS

During construction, field inspections of the facility construction and installation of the equipment will be conducted by representatives of the Health Division.

A pre-operational inspection of the facility can be arranged and is highly recommended. At the time of the pre-operational inspection, major construction must be complete and all foodservice equipment installed. In addition, hot water must be operational, and refrigeration must be maintaining temperature.

A pre-operational report will be provided during the inspection. Once all items on the pre-operational report are corrected, the food service operator must call for a final health inspection. A final health inspection is required prior to opening to determine if the facility has met all health requirements and can be approved for a certificate of occupancy and food license.

## II. RISK CLASSIFICATION AND HACCP

### A. RISK CLASSIFICATION

Based on the complexity of the day-to-day operations for the proposed food establishment and the type of population served, the Environmental Health Division will designate a risk category for the facility.

**Category Type Low:** means a food service facility where the facility meets one or more of these criteria.

- Only time/temperature control for safety (TCS) foods commercially pre-packaged in an approved processing plant are available or served in the facility.
- Only limited preparation of non-time/temperature control for safety (TCS) foods and beverages, such as snack foods and carbonated beverages, occur at the facility.
- Only beverages (alcoholic and non-alcoholic) are served at the facility.

**Category Type Medium:** means a food service facility where the facility meets one or more of these criteria.

- Hot or cold foods are held at required temperatures for no more than 12 hours and are restricted to same day service.
- Foods are prepared from raw ingredients, using only minimal assembly.
- Foods that require complex preparation (whether canned, frozen, or fresh prepared) are obtained from approved processing plants, high risk food service establishments, or retail food stores.
- ***A Food Service Sanitation Manager must be on the premises at all times of operation.***

**Category Type High:** means a food service facility where the facility meets one or more of these criteria.

- Time/temperature control for safety (TCS) foods are cooled as part of the food handling operation at the facility.
- Time/temperature control for safety (TCS) foods are prepared hot or cold food and held hot or cold for more than 12 hours before serving.
- Time/temperature control for safety (TCS) foods cooked and cooled foods must be reheated.
- Complex preparation of foods or extensive handling of raw ingredients with hand contact for ready to-eat foods occurs as part of the food handling operations at the facility.
- Vacuum packaging, other forms of reduced oxygen packaging, or other special processes that require a HACCP plan occur.
- Immunocompromised individuals such as the elderly, young children under age four, and pregnant women are served, where these individuals compose the majority of the consuming population.
- ***A Food Service Sanitation Manager must be on the premises at all times of operation.***

## B. HAZARD ANALYSIS CRITICAL CONTROL POINTS (HACCP)

Hazard Analysis Critical Control Points (HACCP) plays a vital role in proper food establishment design. The FDA Food Code requires an approved HACCP plan to be in place for some specialized processes. A formal HACCP plan review is required and needs to be approved prior to conducting these operations. Processes that may require a variance and/or HACCP Plans include:

- Juice packaged for retail sale;
- Custom processing of meat, poultry, or fish;
- Fermentation of kimchi, sausage, cheese, kombucha, tepache;
- Smoking of meat, poultry, or fish (does not apply to food smoked for flavor enhancement only);
- Curing of meat, poultry, or fish;
- Drying of meat, poultry, or fish;
- Reduced Oxygen Packaging (includes Reduced Oxygen Packaging (ROP), Modified Atmospheric Packaging (MAP), Cook-chill, etc.);
- Live Molluscan Shellfish life support system;
- Sprouting (alfalfa sprouts, mung bean sprouts, popcorn, etc.);
- Food additives (includes adding vinegar to sushi rice to prolong shelf life).

## III. EQUIPMENT

### A. MATERIALS AND DESIGN

All food service equipment is required to be commercial grade. Equipment must meet the standards regarding design, materials, and workmanship of the National Sanitation Foundation (NSF), Underwriters Laboratory Environmental Public Health (UL-EPH) or Intertek (ETL-S). Specification sheets for all new and used equipment are required to verify approval. If specification sheets are unavailable, then a list of equipment, including manufacturer and model number, is required for review.



### B. SPECIALTY EQUIPMENT

1. Cold Plates: When installing ice bins, the cold plate must be an integral part of the bin. Drop in plates are no longer allowed.
2. Dipper Wells: When dispensing hard packed ice cream, a dipper well is required. Dipper wells must be plumbed in accordance with the Illinois Plumbing Code. Dipper wells should be considered when dispensing cooked rice, mashed potatoes, or whipped butter.

3. Custom Cabinetry: When custom cabinets are constructed in food storage, food preparation, food service, or self-service areas, they are required to be constructed of approved materials such as stainless steel or laminate. Countertops may also be constructed of material such as Corian, granite, or other solid materials. Cabinetry that covers an open site drain (floor sink, floor hub drain) are required to be placed on 6-inch legs or the cabinet base must be open to the floor to allow easy access to the open site drain for inspection and cleaning.
4. Food Preparation Sinks: When a sink is needed for the washing or preparation of food, a separate sink (consisting of a single basin with attached drain board) shall be installed for that purpose only.
5. Single Service Dispensing Equipment: When providing unwrapped single service items such as straws, napkins, cups, and lids, dispensing equipment that will protect single service items shall be installed.
6. Open Food Displays: Provide mechanical equipment to consistently maintain all time temperature control for safety foods. Ice and sterno are not reliable for maintaining temperature. When food is on display, such as at a buffet or salad bar, protect food from consumer contamination by:
  - a. Using easily cleanable sneeze guards.
  - b. Providing individual utensils, with long handles, for each food item.
  - c. Labeling food items to discourage consumer sampling.
7. Table-Mounted Equipment: Install table-mounted equipment on 4-inch legs. Portable equipment weighs less than 75 pounds and has no rigid utility connections.
8. Floor-Mounted Equipment: Install floor-mounted equipment on 6-inch legs to facilitate cleaning under and around equipment. Floor-mounted equipment may be installed on casters. Use commercial-grade utility connections that are smooth and flexible with quick disconnects.



9. Beverage dispensing Equipment: PVC under slab conduit for beverage dispensing lines are required to be capped on both ends. PVC caps may be cut large enough to accommodate the poly beverage lines. Any gaps between the poly beverage lines and the cap should be neatly sealed with silicone caulk.



## C. REFRIGERATION

Refrigeration and freezers are required to maintain time temperature control for safety foods below 41°F. All refrigerators and freezers must meet NSF design and material standards. Therefore, domestic type refrigerators and freezers are not approved for retail food service.

Calculating the amount of refrigeration and freezer space should be based on the menu and the expected food volume. The amount and location of refrigeration and freezer equipment should complement the food flow of the operation from receiving, storage, and food processing to the point of service.

Accurate thermometers must be conspicuously located in all refrigerators and freezers.

1. Walk-in refrigerators: Walk-in refrigerators should be considered for long-term storage of time/temperature control for safety foods. If quick chilling techniques for prepared or cooked foods will be utilized, walk-in refrigerators should be considered. Walk-ins should be located near the receiving area of the facility.
2. Reach-in Refrigerators: Reach-in units are used for short-term storage of time temperature control for safety foods. These units should be conveniently located at points of food preparation and food assembly. The size and number of these units should accommodate the daily demands of the operation.
3. Freezers: Freezers provide long-term storage and should be located close to the receiving area. Additional reach-in freezers should be conveniently located to cooklines.
4. Display Refrigerators: Most display refrigerators are only for the display and storage of packaged or bottled beverages/products. These display refrigerators are not intended for the storage of time/temperature control for safety foods, prepared foods, or non-commercially wrapped foods. Verify the intended purpose on the label located inside the display refrigerator.
5. Walk-in cooler or freezers constructed on the outside of the building must have an entrance to the unit from the inside of the facility. The door to the walk-in cooler or freezer must be within the food storage or food preparation areas.

## IV. ROOM AND AREA FINISHES

### A. STORAGE AREAS

Provide enough suitable space for storing all non-perishable food items and all food-related items (paper products). The minimum space required is 25 percent of the overall kitchen space. Increase storage space to a minimum of 35 percent when liquor and beverages are part of the operation.

1. Equip dry storage areas with shelving constructed of metal or material which has been finished to be smooth, easily cleanable, non-absorbent, and non-corrosive. Cardboard, aluminum foil, or shelf liners are not approved.
2. All shelving shall keep food and food related items at least six (6) inches off the floor. Milk crates, bread racks and other similar equipment are not suitable for keeping food and food related items six (6) inches off the floor.
3. Provide eighteen (18) inches of clearance from the ceiling to the top of items stored on the shelving.
4. Provide ventilation to keep dry goods cool and dry. Temperature should be between 60-70°F and humidity should not exceed 70%.
5. Distressed products/merchandise that are held for credit, redemption, or return to the distributor shall be segregated and held in designated areas that are separated from food and food related items.
6. Facilities utilizing solid fuel, such as wood, shall provide a designated interior and exterior storage area. Interior storage should be limited to one day supply and stored separate from food and food related items. Exterior storage should implement protective measures to ensure insect and rodent control. Interior and exterior wood storage areas should be elevated on cleanable racks 6" above the floor.

## **B. FLOORS**

Floors in food storage rooms, food preparation rooms, walk-in refrigerators and freezers, dishwashing rooms, bars, server stations, self-service beverage/condiment areas, janitors' closets, employee locker rooms, employee toilet rooms, and public restrooms used by foodservice employees are required to be constructed of smooth, light in color, and made of durable materials.

1. The base coving (floor and wall juncture) shall be constructed with a three-eighths (3/8") inch radius cove, either with a base coving material or as an integral part of the flooring material.
2. Quarry, ceramic, or terrazzo tile is acceptable with complete grout installation. Grout sealer should be applied to ensure that food debris and moisture do not infiltrate below floor tile. Monolithic poured floors may be considered for high moisture areas.
3. Due to separation and breakage, tile and vinyl bases are not recommended for walk-in refrigerator or freezer installation. Instead, manufacturer screeds can be used to provide an effective 3/8 radius cove on both interior and exterior sides of the unit. Other approved methods include a grout radius as an integral part of the flooring material or corrosion-resistant metal.

4. Sealed concrete is allowed only in retail grocery store receiving, warehousing, and inside walk-in refrigerator or freezers that do not contain any onsite prepared foods.
5. Carpet is prohibited in any area subject to grease or water. Carpet may be installed in dining areas; However, bars, server stations, buffet lines, or self-service beverage condiment stations that are part of the dining area may NOT have carpet. Carpeting, if used in approved areas, must be closely woven construction, properly installed, easily cleanable, and maintained in good repair.
6. Mats and duckboards may be of non-absorbent, grease resistant material and of such size, design, and construction to facilitate easy cleaning.

## C. WALLS

Walls in food storage rooms, food preparation rooms, dish washing rooms, bars, server stations, self-service beverage/condiment areas, janitor's closets, employee locker rooms, employee toilet rooms and public restrooms used for food service employees are required to be smooth, easily cleanable, durable, light in color, continuous and uniform.

1. Finished drywall painted with a light color washable paint is acceptable in areas not subjected to splash.
2. Walls behind cook lines must be stainless steel or the equivalent.
3. Interior bar walls and undersides of bar counter tops must have a smooth, non-absorbent, and light-colored finish that can withstand frequent cleaning. Exposed joints or other support structures will not be accepted.
4. Splash zones of mop basins and utensil washing areas must be finished with a durable, waterproof material such as fiberglass reinforced panels (FRP) or stainless steel.
5. Ceramic wall tiles with complete grout installation and sealer are acceptable in all areas.
6. Stainless steel corner guards are recommended in high traffic areas or areas subject to moving equipment.
7. Wallpaper, woods, corkboard, and grooved paneling are not approved wall surfaces. Wallpaper as part of "brand" may be installed in areas not subject to splash of food debris or water.
8. Concrete masonry blocks shall be sealed with pore filler and painted with a light in color washable enamel.

9. Manufacturer fabricated walls and ceiling panels for walk-in refrigeration units with National Sanitation Foundation (NSF) approval are acceptable.

## **D. CEILINGS**

Ceilings in food storage rooms, food preparation rooms, dish washing rooms, janitor's closets, employee locker rooms, employee toilet rooms, and vestibules are required to be smooth, easily cleanable, durable, light in color, continuous, and uniform.

1. Finished drywall with light in color washable enamel paint is acceptable in all areas.
2. In grid drop ceilings, vinyl coated gypsum board ceiling tiles are acceptable in all areas.
3. Open structure ceilings are acceptable as part of a dining area décor for bars, server stations and self-service beverage/condiment dispensing areas.
4. Fissured acoustic ceiling tiles are not acceptable ceiling finish material.

## **V. PLUMBING**

Plumbing must be installed and maintained in accordance with the Illinois Plumbing Code.

### **A. WATER SOURCE**

Provide an adequate supply of potable water to satisfy the needs of the food service establishment. Water must come from the Village's public water supply or from a private water supply approved by the Village of Schaumburg.

### **B. SEWAGE DISPOSAL**

All water-carried sewage must go to the Village's public sanitary system.

### **C. GREASE INTERCEPTORS**

Grease traps or grease interceptors, if required, shall be installed in accordance with Village of Schaumburg ordinance requirements. Each person or operating facility within the village, other than a private residence, which is or will be used for the manufacture, processing or preparation of food or food products must install and use, at its own expense, an appropriately sized grease trap/interceptor adequate to prevent a discharge of fats, oils and grease to village sewers in prohibited concentrations. Prior to operating, a contract with a licensed grease hauler is required.

## D. JANITORIAL SINKS

Provide janitorial sinks for general cleaning activities. Janitorial sinks are used to provide cleaning chemical solutions and disposing of mop water or other similar waste. Cleaning tools, such as mops, dustpans, brooms, and brushes should be cleaned at janitorial sinks.

1. Install either a floor basin sink or a janitorial sink. Installation of a tiled curb area will not be accepted. The basin or sink must be connected to the sanitary sewer.
2. Provide hot and cold water, under pressure, with a mixing faucet and approved backflow protection.
3. Provide a method to hang clean, wet mop heads that allow them to dry.
4. Allow enough space in the janitorial area to easily access the mop basin/sink, store cleaning chemicals and store cleaning equipment. Other stationary equipment such as water heaters, softeners, or filtration systems may not obstruct the accessibility of the mop basin.
5. Janitorial sinks should be located to avoid contamination to food contact surfaces.

## E. POTABLE WATER BACKFLOW PROTECTION

All water inlets (faucets, etc.) must have an air gap between the water inlet and the fixture it is serving. The air gap must be twice the diameter of the water inlet or faucet.

1. The potable water supply must be protected from all contaminants, including chemicals. Automatic chemical feed systems at dish machines, mop basins, and three compartment sinks must be equipped with an appropriately installed backflow prevention device.
2. Pre-rinse sprayers, when not in the storage clip, must provide an air gap. Pre-rinse sprayers hanging below the flood rim of the sink are a submerged inlet and pose a potential risk of cross connection.
3. Vacuum Breakers are backflow prevention devices used on submerged inlets such as toilets, urinals, dish washing machines, garbage grinders, and threaded water faucets at a mop sink and interior/exterior hose bibs.

## F. INDIRECT WASTE CONNECTIONS

Indirect waste connections are required on dishwashing machines, dishwashing sinks, pot washing sinks, silverware sinks, bar sinks, soda fountain sinks, beer tap sinks, potato peelers, ice machines, steam tables, steam cookers, ice bins, salad bars, dipper wells, and other similar fixtures shall be indirectly connected. (Note: Garbage grinders/disposals must be installed with a direct waste line connection).

1. An indirect connection discharges waste through an air gap into the drainage system and is not connected directly with the drainage system. An air gap is required to be twice the size of the supply.
2. The indirect piping from the fixture to the air gap shall not exceed (5') five feet.
3. Indirectly connected fixtures shall discharge to a vented trap located as close as possible to the fixture and in the same room.
4. Floor drains and floor sinks accepting waste through an indirect connection must be visible and accessible for cleaning.
5. Indirect waste receptors (floor sinks, etc.) should be designed and sized to prevent overflows and splashing.
6. Food service equipment sinks or buckets cannot receive the discharge of an indirect waste pipe. However, the clear wastewater of a walk-in refrigerator or freezer may discharge to a mop basin or utility sink.
7. The air gap between the indirect waste and the building drainage system subject to negative pressure shall be at least twice the effective diameter of the drain served, but no less than one inch. All other air gaps shall be at least one inch.
8. Direct connections of a utensil washing sink or a dish washing machine must meet specific requirements outlined in the Illinois Plumbing Code.

## **G. FLOOR DRAINS**

1. Floor drains shall be located every 400ft<sup>2</sup> throughout the establishment to facilitate cleaning.
2. Floor drains shall be in areas that require frequent water flushing to clean the floor or equipment.
3. Floor drains may be in refrigerated process rooms or high moisture storage areas, such as produce coolers, provided the doors to the area or room have been undercut or are swing doors.

## **H. OVERHEAD SEWER LINES**

Waste lines and roof drains should not be directly above food preparation, food display, food storage, utensil washing areas and dining areas.

## **VI. SANITIZING EQUIPMENT**

### **A. HOT WATER SYSTEMS**

1. A 40-gallon minimum capacity water heater is required for a facility with a three-compartment sink, hand sink, and utility sink. For facilities with less than the minimum, fixtures can be evaluated for hot water capacity.
2. Facilities using a commercial dish washing machine must provide hot water (temperature and volume) to meet the maximum demand for the make and model of the machine to be installed.
3. A hot water system that does not provide any storage capacity is not approved for use in food service facilities.

### **B. MANUAL UTENSIL WASHING**

1. A three-compartment sink with stainless steel integral drain boards is required for manual utensil washing. Each compartment must be large enough to submerge the largest piece of equipment to be cleaned and sanitized. Drain boards must equal the area (length and width) of the sink compartments.
2. The three-compartment sink shall be equipped with at least one swing arm faucet that provides water to each sink. Sprayer faucets may be installed so long as no cross connection is created, and appropriate air gap is met.
3. Water for manual dish washing shall be maintained at not less than 110°F.
4. Chemical dispensers shall be installed with backflow prevention devices and in a manner that provides approved level of sanitizer in water that shall be greater than 75°F but not exceed 120°F.
5. Existing facilities with three-compartment sinks that do not have two drain boards may use dedicated stainless-steel carts for staging soiled and clean dishes. Clean dishes may be allowed to air dry on shelving installed over a three-compartment sink.

### **C. MECHANICAL UTENSIL WASHING**

1. All spray-type dish washing machines must comply with the current edition of NSF Standard #3.
2. A soiled dish table or drain board of adequate size is needed to handle soiled utensils before washing. The soiled dish table must not drain into the washing

- compartment of the dish washing machine. Install a pre-rinse sink as needed so that larger food particles can be rinsed off before entering the dish washing machine.
3. A clean dish table or drain board large enough to allow dishes and utensils to air dry is required. This installation must provide room for the temporary storage of utensils and racks immediately after being removed from dish machines. Slope the clean dish table to drain into the machine. The clean dish table must be at least the size of the soiled dish table.
  4. Machine or water line mounted numerically scaled indicating thermometers accurate to +3°F shall be provided to indicate the temperature of the water in each tank of the machine and the temperature of the final rinse water as it enters the manifold.
  5. Mechanical exhaust ventilation usually is required over the dish washing machine to remove steam and vapors effectively.
  6. Chemical Sanitizing Machines shall be equipped with a sanitizer alert system which includes a visual and audible alarm designed and approved for the specific machine installed; This is needed to warn the user automatically when the sanitizer supply has depleted.
  7. Hot water sanitizing dish machines are required to heat 140°F water to at least 180°F for the final rinse of the dish washing machine. This requires a booster heater.
  8. Chemical sanitizing requires the appropriate test kit for the approved sanitizer to verify that an effective level of sanitizer for the reduction of pathogens to a safe level is being used. Chlorine test kits are used for household bleach and other chlorine-based sanitizers. Quat test strips are used for quaternary ammonia-based sanitizers.
  9. Hot water sanitizing requires thermal labels, T-sticks, or maximum registering thermometers to verify water temperature.

**A mechanical ware washing machine does not eliminate the need for a three-compartment sink.**

## **VII. GENERAL VENTILATION**

All rooms shall have sufficient ventilation to keep them free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes. Ventilation systems shall be installed and operated according to law and when vented to the outside shall not create an unsightly, harmful, or unlawful discharge.

All rooms, from which obnoxious odors, vapors or fumes originate, such as restrooms, shall be mechanically vented to the outside.



## VIII. LIGHTING

Adequate lighting is required in all food service areas to facilitate cleaning and to promote worker safety. Listed below are lighting requirements for each food preparation area. In the food code, the brightness of light is measured in “foot candles”:

- 10-foot candles – walk-in cooler, walk-in freezer, dry storage
- 20-foot candles – reach-in equipment, custom self-service area, bar
- 50-foot candles – food preparation areas, ware washing area, or areas where employee safety is a critical factor.

Light fixtures must be installed with adequate shielding or shatter proof bulbs.

## IX. EMPLOYEE AREAS AND HANDWASHING

### A. EMPLOYEE AREAS

Employee personal belongings, such as coats, purses, and backpacks, are required to be stored separate from food and food related items. In a designated area, provide lockers, coat racks, coat hooks, or other suitable facilities for employees to store their personal belongings.

If employees routinely change clothes within the establishment, areas shall be designated for that purpose. Those areas shall not be in areas used for food preparation, storage, or service, or for utensil washing or storage.

### B. RESTROOMS

Toilet facilities for employees shall be provided and installed according to law, shall be conveniently located, and shall be accessible to employees at all times. If toilet facilities are provided for the public, they shall meet the same requirements.

The minimum number of restrooms and handicap accessibility is determined by the Building Division.

Mechanical ventilation to the outside is required in all restrooms.

Restrooms are required to be equipped with self-closing doors and the door should close tightly in the door frame without additional pushing or pulling.

Restrooms are required to have hand sinks equipped with hot (at least 100°F) and cold water by means of a mixing valve or combination faucet. Hand sinks in public restrooms shall have hot water not exceeding 110°F, for customer scald protection. Any self-closing, slow-closing, or metered faucet must provide a flow of water for a minimum of 15 seconds without the need to reactivate the faucet. Hand sinks are required to have:

- A supply of dispensed liquid hand cleansing soap.

- A supply of dispensed single-use paper towel and/or a warm air-drying device.
- Employee restrooms hand sinks are required to have dispensed single-use paper towels.
- A covered waste can.

## **C. HAND WASHING SINKS**

Enough handwashing sinks shall be located to permit convenient use by all employees in food preparation, utensil washing, and service areas. Bars are required to have a designated hand sink within the bar service area.

1. All hand sinks must be accessible to food handlers during all hours of operations. Food handlers should not have to move anything to access the hand sink.
2. Hand sinks are required to have hot and cold water tempered by means of a mixing valve or combination faucet. Hand sink water temperature should be between 100°F and 110°F.
3. Hand sink faucets must be equipped with wrist blade-type handles, self-closing motion activated faucets, or metered faucets. All motion detecting faucets must be hard-wired, not battery operated. Any self-closing, slow-closing or metered faucet shall be designed to provide a flow of water at least 15 seconds without the need to reactivate the faucet.
4. Each hand sink is required to have a supply of dispensed hand-cleansing soap and a supply of single-use disposable paper towels. An easily cleanable waste receptacle shall be located conveniently to each hand sink. The use of common towels is prohibited. Air hand drying devices are prohibited in food preparation, food service, and utensil washing areas.
5. A sign or poster that notifies food employees to wash their hands shall be provided at all handwashing sinks used by food employees and shall be clearly visible to food employees.
6. Hand washing sinks located within 18 inches of a food contact surface, food storage shelf, food service area, vegetable prep sink or three-compartment sink are required to be equipped with splash guards. The splash guard must be at least 8 inches high and constructed of stainless steel. The splash guards should be securely fastened to the wall and sink, and any seams created should be sealed with clear silicone caulk.

## **D. CLEAN-UP OF VOMITING AND DIARRHEAL EVENTS**

A food establishment shall have procedures for employees to follow when responding to vomiting and diarrheal events that involve the discharge of vomitus or fecal matter onto surfaces in the food establishment. The procedures shall address the specific actions employees

must take to minimize the spread of contamination and the exposure of employees, consumers, food, and surfaces to vomitus or fecal matter.

## **X. COMMERCIAL KITCHEN VENTILATION**

Type I hoods are required for food service equipment that produces smoke, grease laden vapors, particulate matter, and odors. A Type I hood is defined as a stainless-steel hood certified by UL, NFPA, or NSF with a fire suppression system. Many Type I hoods carry a listing label and are manufactured and installed according to the manufacturer's and listing agencies requirements. Examples of equipment requiring this type of hood system include but are not limited to stoves, fryers, griddles, ovens, broilers, smokers, hot plates (except induction cookers), and salamanders.

Type II hoods are required for all food service equipment that produces steam, mist, heat, and vapors. A Type II hood is defined as a stainless-steel hood certified by UL, NFPA, NSF and usually does not require a fire suppression system. Type II hoods can be classified as condensate or heat/fume. Examples of equipment requiring a Type II hood include but are not limited to pizza ovens, rotisseries, bakery ovens, gas convection ovens, pasta cookers, conveyor ovens, bain maries, steam-jacketed kettles, and dish washers.

Cooking equipment that uses solid fuel such as wood or charcoal requires a dedicated exhaust hood.

A commercial exhaust hood is not required for steam tables, completely enclosed ovens, soup wells, panini presses, electric rice cookers, electric cheese melters, coffee makers, and toasters.

The size of an exhaust hood is determined by the overall length of the equipment to be located under the hood plus appropriate overhang. The hood system must capture all air rising off the equipment at maximum input.

The Building Division and Fire Department has final approval of all exhaust systems.

## **XI. INSECT AND RODENT CONTROL**

All pesticides applied in a food service facility must be applied by an Illinois Licensed Pest Control Operator. Prior to operating, a contract with a licensed pest control operator is required.

### **A. BUILDING**

All masonry or cement foundations must be rodent proof.

Cover all building vents with a minimum of 16-mesh per inch wire screen.

Seal openings into the foundation and exterior walls around pipes, wires, and conduits.

Seal around all conduit or plumbing penetrations in walls, floors, and ceilings.

## **B. DELIVERY DOORS**

All delivery doors leading to the outside must be self-closing and tight-fitting. Self-closing arms or hinges and rubber or brush type threshold sweeps are required to deny pest entry.

Vertically opening garage-type deliver doors must be protected from pests. An overhead air curtain with a minimum velocity of 750 feet of air per minute measured 3 feet above the floor is required. A suitable alternative pest control for these types of doors would be considered.

All exterior doors for customers are required to be self-closing and tight-fitting. Automatic sliding customer doors must be equipped with an overhead air curtain with a minimum velocity of 750 feet of air per minute, measuring 3 feet above the floor.

Exterior doors open for ventilation must be equipped with a full 16-mesh per inch screen door to prevent pest entry. The screen door must also be self-closing.

## **C. WINDOWS**

All windows open to the outside must be equipped with at least 16-mesh per inch screening.

Drive-thru and walk-up service windows are required to provide flying insect protection by one of the following methods:

- Windows can be equipped with a self-closing device, such as a spring-loading bump pad or an electronic opener. When the food handler steps away from the window, it should automatically close.
- Windows can be equipped with an air curtain so that fast moving air is produced vertically downward. The air flow runs parallel with the window and is within 1 inch (inside or outside) of the window opening. The air curtain must protect the entire width of the window opening. Minimum air velocity is 750 feet per minute, measured at the furthest point in the window opening from the air curtain.

## **XII. GARBAGE AND REFUSE DISPOSAL**

Interior garbage containers shall be insect-proof and rodent-proof. Containers shall be constructed with materials that are easily cleanable and non-absorbent. Tight-fitting lids shall be provided.

Garbage and refuse containers and compactor systems located outside shall be located on a smooth surface of non-absorbent material such as concrete. A concrete pad is recommended for the storage of grease containers or barrels.

Compactors shall be of tight construction and be able to contain any liquid deposited in them. Recycling is mandatory and must be in compliance with the Village of Schaumburg ordinance. A dumpster enclosure is required and must be large enough to accommodate all garbage dumpsters, recycling containers and grease bins.

### **XIII. LAUNDRY FACILITIES**

Laundry facilities in a food service establishment shall be restricted to the washing and drying of linens, clothes, uniforms, and aprons necessary to the operation. Such operations may be conducted in separate storage rooms containing packaged foods or packaged single-service items. Food preparation areas are not acceptable for laundry.

If linens, uniforms, or aprons are laundered on the premises, an electric or gas dryer is required. Dryers must be vented to the outside.

Soiled uniforms, aprons, and linens shall be stored in non-absorbent containers or washable laundry bags until removed for laundering.

Clean uniforms, aprons, and linens shall be stored in a clean place and protected from contamination until used.

### **XIV. ANIMALS**

Living animals, including dogs, cats, rodents, birds, and turtles, shall be excluded from food service establishments except in the following conditions:

1. Edible fish, crustacean, shellfish, or fish in aquariums.
2. Patrol dogs accompanying police or security officers in offices and dining, sales, and storage areas.
3. Caged or confined animals not in food service or food preparation areas such as in a variety store that sells pets or a tourist park that displays animals.

Service animals that are controlled by the disabled person may be in areas not used for food preparation and that are usually open to the customer, such as dining and sales. Health or safety hazards may not result from the presence or activity of the service animal.

Pets may be in the common dining area of institutional care facilities such as nursing homes, assisted living facilities, group homes, or residential care facilities at times other than during meals if:

1. Effective partitioning or self-closing doors separate the common dining areas from food storage and food preparation.
2. Condiments, equipment, and utensils are stored in enclosed cabinets or removed from the common dining area.
3. Common dining area tables, countertops, and similar surfaces are cleaned before the next meal service.

## APPENDIX A: SUMMARY OF ROOM AND AREA FINISHES

Room or Area Example	Floors	Coving	Walls	Ceilings
<ul style="list-style-type: none"> <li>○ Food Preparation</li> <li>○ Food Storage</li> <li>○ Cookline</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Grease resistant</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ 3/8" radius cove</li> <li>○ Sealed</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Stainless steel behind cookline</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Non-absorbent</li> <li>○ Smooth</li> <li>○ Durable</li> </ul>
<ul style="list-style-type: none"> <li>○ Ware Washing</li> <li>○ Janitorial Stations</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Grease resistant</li> <li>○ Smooth</li> <li>○ Easily Cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ 3/8" radius cove</li> <li>○ Sealed</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> <li>○ Waterproof in splash zones</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Non-absorbent</li> <li>○ Smooth</li> <li>○ Durable in splash areas</li> </ul>
<ul style="list-style-type: none"> <li>○ Walk-in Coolers</li> <li>○ Refrigerators &amp; Freezers</li> </ul>	<ul style="list-style-type: none"> <li>○ Corrosion resistant</li> <li>○ Easily cleanable</li> </ul>	<ul style="list-style-type: none"> <li>○ Manufacturer screeds can be used to provide a 3/8" radius cove</li> <li>○ Sealed</li> <li>○ Inside &amp; outside unit</li> </ul>	<ul style="list-style-type: none"> <li>○ Corrosion Resistant</li> <li>○ Easily cleanable</li> </ul>	<ul style="list-style-type: none"> <li>○ Corrosion resistant</li> <li>○ Waterproof</li> <li>○ Easily cleanable</li> </ul>
<ul style="list-style-type: none"> <li>○ Server Areas</li> </ul>	<ul style="list-style-type: none"> <li>○ Smooth</li> <li>○ Easily cleanable</li> </ul>	<ul style="list-style-type: none"> <li>○ 3/8" radius cove</li> <li>○ Sealed</li> <li>○ Include cabinets</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Durable</li> <li>○ Non-absorbent</li> </ul>
<ul style="list-style-type: none"> <li>○ Bar</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ 3/8" radius cove</li> <li>○ Sealed</li> </ul>	<ul style="list-style-type: none"> <li>○ Back of the bar &amp; under bar top:</li> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Durable</li> <li>○ Non-absorbent</li> </ul>
<ul style="list-style-type: none"> <li>○ Restrooms</li> <li>○ Dressing Areas</li> <li>○ Locker Rooms</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Grease resistant</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ 3/8" radius cove</li> <li>○ Sealed</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Durable</li> <li>○ Non-absorbent</li> </ul>
<ul style="list-style-type: none"> <li>○ Buffets Salad Bars</li> <li>○ Beverage Stations</li> </ul>	<ul style="list-style-type: none"> <li>○ Light colored</li> <li>○ Grease resistant</li> <li>○ Smooth</li> <li>○ Easily cleanable</li> <li>○ Durable</li> </ul>	<ul style="list-style-type: none"> <li>○ 3/8" radius cove</li> <li>○ Sealed</li> </ul>	<ul style="list-style-type: none"> <li>○ If placed against a wall:</li> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Durable</li> <li>○ Non-absorbent</li> </ul>	<ul style="list-style-type: none"> <li>○ If placed against a wall:</li> <li>○ Light colored</li> <li>○ Smooth</li> <li>○ Durable</li> <li>○ Non-absorbent</li> </ul>
<b>Combination Areas</b>	<b>Any area used for a combination of activities must meet the more stringent requirements.</b>			

**Important Phone Numbers:**  
Environmental Health Division 847-923-3700  
Building Division and Permit Services 847-923-4420  
Finance Department (Licensing) 847-895-4500