City of Evanston

Health & Human Services Department

Food Service
Design & Construction Manual

2019
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INTRODUCTION
The plan review process provides an opportunity to discuss and prepare a proper foundation that will enable a food establishment to be successful, remain in compliance over time, and to protect public health. Poor design, repair, and maintenance will compromise the functionality of the physical facilities and its operations.

The end goal of the plan review process is to prevent foodborne illness resulting from poor sanitary facility design and/or floor plans, and, where applicable, when the process is based on menu, food preparation, and food product flow.

Plan Review
The City of Evanston must approve your plans before you begin constructing enlarging, altering, or converting any building for use as a food service facility. Applicants must complete an application for a building permit and submit drawings.

Go to: https://www.cityofevanston.org/building-inspection-services
Contact the Building Department, permitdesk@cityofevanston.org or call 847-448-4311 to find out what you are required to provide with your application.

Inspections
Inspections of permitted work, and a Certificate of Occupancy, if applicable, are required before a license can be issued.

Fees
After plans are submitted for review, you will be invoiced for the Health Department Plan Review Fee (see current fee schedule on the City website)

Plan Submittal
The following is a summary of what should be included in the plan submittal:
- Food Facility Review Packet
- Proposed menu
- Seating Capacity
- Location of all equipment
  - Each piece must be labeled
- Spec sheets for each piece of equipment
• Auxiliary areas such as storage rooms, garbage rooms, toilets, basements and/or cellars used for storage or food preparation
• Complete finish schedules for each room including floors, walls, ceilings, and coved juncture bases
• Plumbing schedule including location of floor drains, floor sinks, water supply lines, overhead waste-water lines
• Location of lighting fixtures
• Storage of employee personal items
• Storage of chemicals

**MENU REVIEW AND FOOD FLOW**

The menu or a listing of all of the food and beverage items to be offered at the food establishment must be submitted as part of the plan review application. The menu review and the flow of food through the food establishment are integral parts of the plan review process.

As with the inspection process, the plan review process should focus on the food and its flow through receipt, storage, preparation and service.

The food that flows through a food establishment can be placed into the 3 following processes:

- **Food Processes With No Cook Step**
  - Receive – Store – Prepare – Hold – Serve
  - Examples: Salads, deli meats, cheeses, sashimi, raw oysters

- **Food Preparation for Same Day Service**
  - Receive – Store – Prepare – Cook – Hold – Serve
  - Examples: Hamburgers, fried chicken, hot dogs

- **Complex Processes**
  - Receive – Store – Prepare – Cook – Cool – Reheat – Hot Hold – Serve
  - Examples: Leftovers, refried beans
The menu for a food establishment dictates the space and equipment requirements for the safe preparation and service of various food items.

**EQUIPMENT AND INSTALLATION**

All equipment must comply with the design and construction standards contained in Chapter 4 of the FDA Food Code. The equipment must be certified for sanitation by an ANSI accredited program.

The following installation recommendations will help ensure proper spacing and sealing allowing for adequate and easy cleaning:

**Floor-Mounted Equipment**

Equipment should be mounted on approved lockable casters, gliders or wheels to facilitate easy moving and cleaning.

Moveable equipment requiring gas or electrical connections should be provided with easily accessible quick-disconnects or the utility service lines should be flexible and of sufficient length to permit moving the equipment for cleaning.

Floor-mounted equipment that is not mounted on wheels or casters should be:

- Permanently sealed to the floor around the entire perimeter of the equipment. The sealing compound should retain its elasticity and provide a water and vermin-tight joint; or
• Installed on a solid, smooth, non-absorbent masonry base. Spaces between the masonry base and the equipment must be sealed as above; or
• Elevated on legs to provide at least a 6 inch clearance between the floor and equipment. The legs shall contain no hollow open ends.
• At least 6” of clear, unobstructed space under each piece of equipment must be provided or equipment must be sealed to the floor.

Unobstructed and functional aisle and working spaces must be provided. A minimum width of 36 inches is required by fire and building codes.

All utility and service lines and openings through the floor and walls must be adequately sealed.

**Counter-Mounted Equipment**

Counter-mounted equipment is defined as equipment that is not portable and is designed to be mounted off the floor on a table, counter, or shelf. All counter-mounted equipment shall be:

• Sealed to the table or counter; or
• Elevated on approved legs to provide at least a 4 inch clearance between the table or counter and the equipment to facilitate cleaning.

---

Elevate equipment for effective cleaning.

Sanitary Leg Example
Holding Cabinet & a Reach-in Refrigerator

Mobile Kitchen equipment mounted on Castor

Flexible Gas Connection with Safety Chain
**Recommended** equipment spacing; provided access is available from both ends:

<table>
<thead>
<tr>
<th>Equipment Length (A)</th>
<th>Space From Walls and Adjacent Equipment (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4' or less</td>
<td>6&quot;</td>
</tr>
<tr>
<td>4' - 8'</td>
<td>12&quot;</td>
</tr>
<tr>
<td>8' or more</td>
<td>18</td>
</tr>
</tbody>
</table>
**Specialty Equipment**

**Dipper Wells:** Provide dipper wells with running water where you dispense bulk ice cream. Also consider using dipper wells with dispensing utensils for other bulk foods such as cooked rice, whipped butter, etc.

**Food Preparation Sink:** Install separate sinks designed for vegetable washing or food preparation only in the food preparation area. Options to be considered are multiple compartments, overhead spray faucets and drain boards. Refer to Figure 11.4.

**Single Service Dispensing Equipment:** Install equipment for properly handling single service items like paper cups, lids, straws, cutlery, etc.

**Food Contact Surfaces:** Install work surfaces made of stainless steel. NSF approved cutting surfaces are acceptable where food is prepared and assembled. They must be durable under conditions of normal use and cleaning.

**Buffets:**

**Open Food Display:** Protect food on display from consumer contamination by using easily cleanable sneeze shields, display cases and similar equipment. Design and install these devices to intercept a direct line between a customer’s mouth and foods on display. Submit a scaled drawing of this equipment to this Department for approval.

**Temperature Control:** Provide equipment to maintain all readily perishable foods at required temperatures. Provide thermometers in all hot and cold food holding units.

**COLD HOLDING EQUIPMENT**

Refrigerators and freezers are required to maintain TCS food at or below 41°F and 0°F (frozen) respectively. It is recommended that refrigerators be maintained between 36°F and 38°F. All refrigeration units must have numerically scaled indicating thermometers accurate to ±3°F. Air circulation within refrigeration and freezer units should not be obstructed and should allow for an even and consistent flow of cold air through the unit.

Refrigeration and freezer storage involves five major areas:

- Storage and short-term holding of perishable and TCS food
• Long-term storage
• Storage space for quick chilling of foods
• Space for assembling and processing of TCS food
• Display storage for customer service

**Refrigeration Storage Calculations**
Calculating the amount of refrigeration and freezer space should be based on the menu and expected food volume.

Formulas can be used to estimate refrigerated storage space. To calculate, you will need information on number of meals estimated to be served per day, days between deliveries and storage area availability. Calculations can be found in the Appendix.

**Walk-in Cooler/Freezer Units**
Walk-in units should be installed when there is a need for long-term storage of perishable and TCS food or when cooling space is needed for prepared and cooked foods. These coolers should be located near delivery or receiving areas.

A walk-in beverage or beer cooler is not recommended for food storage.

Quarry tile, ceramic, and galvanized flooring are not recommended for walk-in units.

All gaps, cracks, penetrations, seams, and plug holes shall be sealed smooth and flush with surface material.

Condensate lines from the walk-in units shall drain to approved floor drains.
Each walk-in unit shall be equipped with lighting that provides 10 foot candles of light throughout the unit when it is full of product. Lights must be properly shielded or shatter resistant.

**Reach-in Refrigerators**
These units are for short-term storage of perishable and TCS foods. These units should be considered to meet the daily storage demands of the kitchen operation. They are to be conveniently located at points of food preparation and food assembly.

These units are not to be considered for the quick chilling of cooked and prepared foods.
(TIP) Locating refrigeration units under or adjacent to heat-generating pieces of equipment is not recommended.

Reach-in Freezers
Freezers are for long-term storage. They are not designed to be used as quick-chill units. These units should be located near delivery and dry storage areas.

Blast Chillers/Rapid Chill Units
These units are recommended for use when handling large volumes of food that require quick chilling. A blast chiller is an efficient cooling mechanism for any amount of food to be chilled, and where refrigeration space is limited.

Refrigerated Worktables
These units are suggested when the menu includes assembling TCS foods. These units provide easy access of foods from the top of the unit. These units are not designed for long-term storage of food or cooling.

Refrigerated Processing Rooms
These areas (e.g. meat cutting rooms) should be considered when there is extensive handling of cold TCS food. Approved hand sinks should be located in these areas.

Display Storage Refrigerators
These units are designed to display TCS food under refrigeration. Examples of these units are deli display, fresh fish, and meat and poultry cases.

Customer Service Display Units/Cold Buffet Units
These units are designed for holding food under refrigeration for customer access. They are designed for short-term display and are not designed for the cooling of food.

Beverage display coolers are not approved for storing TCS foods.
Ice Machines

If ice is to be used as a cooling medium for food and beverage items the unit should be adequately designed and sized to meet all operational needs.

GENERAL COOKING AND HOT HOLDING

Cooking and hot holding units are designed to heat food to a required temperature within a required amount of time for food safety.

Stovetops and Grills

Gas, electric, or wood-burning stoves are used to cook and reheat product in pots or pans. A grill is similar to a stove with the ability to place the food directly over the flame.

Ovens

Ovens are thermally insulated chambers used for cooking or reheating foods. They can be gas, electric, or wood-burning units.

Combination Oven/Steamer (Combi Oven)

A combi oven/steamer is similar to a convection oven with the ability to produce dry heat, moist heat, or a combination of the two.

Rice Cooker/Warmer

The unit is an electric appliance that is capable of cooking rice and then hot holding the rice at 135°F or above. Scoops or ladles for serving may be stored in a running dipper well.

Kettle

Kettles are cooking pots used to boil large quantities of food products. The units are generally clean-in-place and should have the necessary tools for sanitation. Adequate floor drains must be present for disposal of spent water.
Rotisserie
Rotisseres are self-contained units that include a heat source and racks for skewers of spits. Beef, pork, poultry is rotated over the fire to cook the food to the required temperature.

Small Appliances
Small appliances (table top) include microwaves, Panini press, broilers, and toasters. These units are used to heat food to the required cook or reheat temperature depending on the application.

Fryers
Fryers are cooking devices that use oil heated to a high temperature. The hot oil has a flash point that can result in a fire. Follow the manufacturer’s instructions for operation, maintenance and cleaning to prevent a fire incident.

Hot Tables
Hot tables are gas or electric heated units that are designed to maintain temperature. They should never be used to cook or reheat TCS foods. The design should allow for a disassembly and deep cleaning of interior surfaces. These units must be able to maintain a minimum temperature of 135°F

Customer Service Display Units/Hot Buffet Units
These are gas or electric heated units that are designed to maintain temperature. They should never be used to cook or reheat TCS foods. They should be constructed of durable and easily cleanable materials. The design should allow for disassembly and deep cleaning of interior surfaces.

The design should protect food from contamination that could occur from the environment or customers by using sneeze shields or covers.

The units must be able to maintain a minimum temperature of 135°F
WARE WASHING FACILITIES

The minimum requirement for ware washing in a food establishment is a three-compartment sink. A mechanical ware washing machine may be installed in addition to the three-compartment sink.

Manual Ware Washing
A stainless steel sink with no fewer than three compartments must be provided. There must be a drain board on either side of the sink. The compartments must be large enough to completely immerse the largest pot, pan, or piece of equipment to be used in the establishment that will not be cleaned in-place.

Mechanical Ware Washing
Adequate facilities shall be provided to air dry washed equipment and utensils.

If a hot water booster is to be used it must be identified during the plan review.

If using a high temperature dish machine, a ventilation hood must be installed.

If using a chemical dish machine, ensure the sanitizers are resulting in the correct concentration.

PLUMBING

Water Supply
Provide an adequate supply of potable water to satisfy the needs of the food service establishment

Hot Water Supply
The hot water supply shall be sufficient to satisfy peak hot water demands of the food establishment.

Hot water for handwashing shall be at least 100°F

Sewage Disposal
All sewage including liquid waste shall be disposed into a public sewage system.
**Grease Traps**

The Evanston Building Department determines the number and size of grease traps, grease interceptors or catch basins. If required, verify these installation requirements in your plans:

- Install an outside grease catch basin with access for maintenance purposes.
- If an outside grease catch basin is not feasible, install a recessed grease trap in the following manner:
  - The lid must be flush with the floor
  - The interceptor must be durable, corrosion-resistant and have a watertight lid securely fastened in place
  - The lid and baffles must be easily accessible for maintenance

**Backflow Protection**

There shall be no cross connections between the potable water supply and any non-potable system or a system of unknown quality.

A connection to a sewer line may be direct or indirect. A direct connection may not exist between the sewerage system and any drains originating from equipment in which food, portable equipment, or utensils are placed, except if otherwise required by law.

When a ware washing machine is located within 5 feet of a trapped floor drain, the dishwasher waste outlet may be connected directly on the inlet side of a properly vented floor drain trap.

An indirect connection may be one of two types, air gap or air break:

1. For a potable water supply, an air gap means the unobstructed, vertical air space that separates a potable system from a non-potable system.
2. An air break is a waste line from a fixture that discharges used water or liquid waste to a drain where the waist line terminates below flood level.
**Potable Water Backflow Protection**

Inlets: 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. Any water inlet, faucet, etc. that does not meet this requirement is a submerged inlet. A water faucet that can have a hose attached to it is a submerged inlet.

Vacuum Breakers: Provide vacuum breakers on submerged inlets such as toilets, urinals, dish washing machine, garbage grinders and any threaded water outlets.

Carbonators: Carbonators must have double check valves plus equipment to meet any other specific Plumbing Code requirements.

**Floor Drains**

Number: A sufficient number of floor drains should be located throughout the establishment to facilitate cleaning.

Location: Floor drains should be located in areas that require frequent water flushing to clean the floor or equipment.

**Mop Sink / Service Sink**

At least 1 service sink or 1 curbed cleaning facility equipped with a floor 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.

**HYGIENE FACILITIES**

**Handwashing**

Handwashing is a critical factor to prevent contamination of food. It is imperative to have adequate numbers and conveniently placed handwashing sinks to ensure employees are washing hands.

- A handwashing sink, hand drying device or disposable towels, hand cleanser and waste receptacle shall be located for employees who work in food preparation, food dispensing, and ware washing areas.
- Nothing must block the approach to a handwashing sink
- Handwashing sinks must be located in or immediately adjacent to toilet rooms. Handwashing sinks may not be used for purposes other than handwashing.
• Each handwashing sink shall be provided with hot and cold water tempered by means of a mixing valve or a combination faucet to provide water at a temperature of at least 100°F
• If used, self-closing, slow-closing or metering faucets shall be designed to provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

Toilet Rooms

Properly functioning toilet facilities must be accessible to employees at all times. The public cannot use a toilet room if it requires them to access it through the kitchen.

The floors, walls, and ceiling shall be smooth and easily cleanable. The walls around toilets, urinals, toilet paper dispensers, soap dispensers, and paper towel dispensers should be water resistant and durable for frequent cleaning.

The minimum requirements for toilet facilities shall include:

• Toilet: At least one toilet and not fewer than the number of toilets required by law shall be provided
• Handwashing Sink: Each handwashing sink shall be provided with hot and cold water tempered by means of a mixing valve or a combination faucet to provide water at a temperature of at least 100°F. If used, self-closing, slow-closing or metered faucets shall be designed to provide a flow of water for at least 15 seconds without the need to reactivate the faucet.
• Handwashing Cleanser: Each handwashing sink or group of two must have a supply of dispensed, hand cleansing soap.
• Hand Drying Facility: Hand washing sinks for public use may have hot air hand drying devices. If employees share restrooms, it is recommended to provide dispensed, disposable paper towels.
• Waste Receptacle: Provide refuse containers for the disposal of paper towels. At least one covered waste receptacle shall be provided in toilet rooms used by females.
• Toilet Room Doors: Toilet room doors shall be tight-fitting and self-closing.
**STORAGE**

**Dry Storage**

The dry storage space needed depends on the menu, number of meals serviced between deliveries, frequency of deliveries, and the amount and type of single-service articles to be stored.

Food should not be stored under exposed sewer lines.

Stationary shelving needs to have a minimum 6 inch floor clearance.

Shelving, dollies, racks, pallets and skids shall be corrosion-resistant, non-absorbent and smooth.

Approved food containers with tight-fitting covers and dollies should be used for storing bulk foods such as flour, cornmeal, sugar, dried beans, rice, etc.

**Dry Storage Calculations**

Formulas can be used to estimate the amount of dry storage space that may be needed. To determine, you will need information on number of meals estimated to be served per day, days between deliveries and storage area availability. Calculations can be found in the Appendix.

**Poisonous or Toxic Materials Storage**

Designate an area for poisonous or toxic material storage that is away from food and clean utensils. These include detergents, sanitizers, related cleaning or drying agents and caustics, acids, polishes and other chemicals.

**Clean Equipment, Utensil and Linen Storage**

Designate areas for clean cooking utensils, cutting boards, glassware and dishware. Store them at least 6 inches off the floor in a clean, dry location where they will be protected from dust and splash.
**LAUNDRY**

**Location**
Install laundry in a separate room with a door to separate food service operations from any laundry area. We recommend that you provide a vented door grill to exhaust heat from the room.

**Clothes Dryer**
If you provide a clothes washing machine, you must also provide a dryer. Dryers must be vented to the outside.

**LIGHTING**

**Intensity**
The light intensity shall be at least 50 foot candles (540 lux) at a surface where a food employee is working with food or working with utensils or equipment.

The light intensity shall be at least 20 foot candles (215 lux) at a surface where food is provided for consumer self-service such as buffets and salad bars.

The light intensity shall be at least 10 foot candles (108 lux) at a distance of 30 inches above the floor, in walk-in refrigeration units and dry food storage areas and rooms during periods of cleaning.

**Protective Light Shielding**
Shielding such as plastic shields, plastic sleeves with end caps and/or shatterproof bulbs shall be provided for all artificial lighting fixtures located in areas where there is exposed food; clean equipment, utensils, and linens; or unwrapped single-service and single-use articles.

**FINISHES**

**Floors**
Floor finishes must be of durable, light-colored, waterproof, grease-resistant and easily cleanable material.

Example floor materials include:
- Quarry tile, ceramic tile
- Sealed curbed concrete
- Seamless poured epoxy, minimum 3/16 inch thick

**Walls**

Construct walls with a smooth and easily cleanable material that has a light-colored finish.

Example wall materials include:

- Stainless steel
- Ceramic tile
- Aluminum
- Fiber-glassed reinforced panels (FRP)
- Sealed concrete blocks or bricks

Wall finishes behind the cook line must be of stainless steel or its equivalent

**Ceilings**

Example ceiling materials may include wall finish material listed above along with the following:

- Easily cleanable, non-absorbent ceiling tiles
- Painted drywall
- Light colored

**Coving**

Coving is the floor material found at the base of walls (wall/floor junctures) and is required in most areas of the food establishment, such as:

- Food preparation, storage, handling, and packaging areas
- Utensil washing and storage areas
- Interior waste disposal areas
- Restrooms
- Hand washing areas
- Janitorial facilities
- Walk-in refrigerator and freezer units
- Bars (employee side)
- Customer self-serve areas where non-individually prepackaged foods or beverages are sold or dispensed (e.g. salad bars, buffets, beverage stations)
- Employee change and storage areas
- Wait stations

Coving is not required in areas used exclusively for dining, point-of-sale, or the storage of utensils or foods contained in the original un-opened container

**Floor Installation Diagrams**

**Example of quarry tile cove base.**

**Example of quarry tile cove base integral to concrete floor.**

**Example cove base; cabinet toe-kick**
PEST CONTROL

All openings to the outside shall be effectively protected against the entrance of insects and rodents. All roller doors, sliding or bi-fold doors, or similar movable wall systems that are not self-closing and create a continuous opening to the exterior must have an effective means of pest control.

Building

All masonry or cement foundations must be rodent proof. Seal all openings into the foundation and exterior walls, including openings and penetrations around wall and ceiling penetrations.

Cover all building vents with a minimum #16 mesh screen.

Windows

Windows that open to the outside must be properly protected with minimum #16 mesh screen, with the exception of service windows.

Drive-thru and walk-up service windows must have effective means to prevent pest entry, to include minimum #16 mesh screens, properly designed and installed air curtains, or other effective means such as self-closing devices (spring-loaded, bump pad, electronic opener, or gravity operated).

Delivery, Customer, and Toilet Room Doors

**Exterior doors:** All outside doors shall be self-closing and tight fitting. Install a door sweep and weather stripping to prevent the entrance of insects and rodents. *Note:* *Daylight shall not be visible around the perimeter of the door.*

**Garage Doors, Roller Doors, and Loading Docks:** Garage and roller type delivery doors must be protected against pests. Loading docks shall have properly installed tight fitting dock seals at all loading bays. If the location of one of these doors exposes the kitchen or other food service, air curtains will be required.

**Toilet Room (Restroom) doors:** All toilet rooms located in or adjacent to a food establishment shall be provided with tight fitting, self-closing doors. This requirement does not apply to a toilet room that is located outside a food establishment and does
not open directly into the food establishment such as a toilet room that is provided by the management of a shopping mall.

**Insect Control Devices, Design and Installation**

Insect control devices that are used to electrocute or stun flying insects shall be designed to retain the insect within the device. These devices must not be located above food preparation areas and installed to prevent the contamination of exposed food, clean equipment, utensils, and linens, from insect fragments.

**Open Air Dining**

Open air dining has become increasingly popular; however, the setup must still comply with the Food Code. Outer openings must be protected at all times from the entry of pests. According to the Food Code each air curtain must be properly designed and installed. Specification sheets must accompany each air curtain showing the maximum door width, air velocity, maximum mounting height, etc.

**GARBAGE AND REFUSE**

Each food facility is to secure their garbage service. Provide a sufficient amount of garbage containers that are sized to hold any garbage or refuse in a nuisance-free manner, until it can be picked up by a disposal company.

- Outside Storage: Place outside refuse containers and compactor systems on smooth surfaces of non-absorbent material such as concrete or machine-laid asphalt
- Enclosures: if you propose a garbage enclosure, construct it of durable, non-absorbent materials and a washable interior finish able to withstand frequent cleaning

**MECHANICAL VENTILATION**

**Mechanical Ventilation Requirements**

Commercial cooking or display equipment, which produces smoke, steam, grease, mists, particulate matter, condensation, vapors, fumes, odors, or create sanitation or indoor air quality problems, will require a hood.

Hoods shall be designed and installed to prevent grease and condensation from collecting on walls, ceilings, and dripping into food or onto food contact surfaces. All
hoods should comply with the current International Mechanical Code (IMC) and/or all local building and fire safety codes.

Balancing of the exhaust and make-up air must be ensured so that the system can be operated efficiently.

**Mechanical Ventilation Hood Systems**

Type I hoods are required over EQUIPMENT that produce grease, smoke, excessive steam, heat, condensation, particulate matter, odors, or create indoor sanitation or indoor quality problems. Examples of equipment requiring installation under a hood include: Kettles, pasta cookers, hot plates, salamanders, Mongolian-style grills, gas cooking EQUIPMENT, tableside cooking EQUIPMENT, such as Teppanyaki-style cooking, Tandoori ovens, rotisserie units, Panini grills, etc.

**Type I Hood over Cook Line**

The National Fire Protection Association provides a resource for food establishments to reduce the potential fire hazard of commercial cooking operations. Refer to the NFPA link below or your local/State Fire Protection regulations.


Type II hoods shall be installed over EQUIPMENT that produce steam, heat, mists, condensation, fumes, vapors, and non-grease laden FOODs.
Type II Hood over Warewashing Machine

Vapor Hood

SIDEWALK CAFÉ

A sidewalk café is the extension of the food service operations of a licensed food establishment and operates on the public way.

A first-time café permit application requires approval of the Design & Project Review Committee, with exception of applications to the City Council for a type 1 restaurant, an Enoteca or a Class K liquor license with an alcoholic liquor license outside the “core area” as defined in 3-4-1 Liquor Control Regulations of the City Code and desirous of selling alcohol on the sidewalk cafe premises.

Renewal applications are reviewed by Health and Law and, if the proposed set up of the café is not the same as the one approved and on file with the City, Engineering.

- The café set up (site plan) must provide for unobstructed passage for pedestrians of a minimum width of 6 feet between the café and any fixture on the sidewalk (parking meter, lamp pole, tree, etc.)
- All regulations concerning food safety apply.
- No animals other than service animals are allowed in the sidewalk café. This is true for the interior food establishment as well. Regulations Regarding Animals in Food Establishments
- No smoking is allowed in either the sidewalk café or the interior food establishment. Smoking is also prohibited within 25 feet of an entrance to an enclosed area in which smoking is prohibited.
- No amplified music is allowed outside of a restaurant.

For more information please visit: https://www.cityofevanston.org/residents/permits-licenses/sidewalk-cafe-permit
Appendix

**PLAN REVIEW FORMULAS**

**WALK-IN REFRIGERATED STORAGE**

\[
\text{Estimated Space Needed (Cu. ft.)} = \frac{\text{Volume per Meal [Cu. ft.]} \times \text{Number Meals Served between Deliveries}}{0.40}
\]

*NOTE: Only 40% of any walk-in unit actually provides usable space*

\[
\frac{\text{Estimated Space (Cu. ft.)}}{\text{Height of Cooler (ft.)}} = \text{Size of Cooler Needed (Sq. ft.)}
\]

Examples:

1. The number of meals between deliveries = 1000 (100 meals per day x 10 days between deliveries). Volume per meal = 0.1 cubic feet.

\[
0.1 \text{ ft}^3 \text{ vol.} \times 1000 \text{ meals} = 100 \text{ ft}^3
\]

\[
\frac{100 \text{ ft}^3}{0.40} = 250 \text{ ft}^3 \text{ Usable Space Needed}
\]

2. The usable space needed for the walk-in is 250 cubic feet. The cooler has a 6 foot high ceiling.

\[
\frac{250 \text{ ft}^3 \text{ usable space needed}}{6 \text{ ft ceiling height}} = 41 \text{ ft}^2 \text{ Sized Cooler Needed}
\]
REACH IN REFRIGERATED STORAGE

Estimated Space Needed (Cu. ft.) = \frac{\text{Volume per Meal [Cu. ft.]} \times \text{Number Meals Served between Deliveries}}{0.75}

NOTE: Only 75% of any reach-in unit actually provides usable space

Example:

1. The number of meals between deliveries = 1000 (100 meals per day \times 10 \text{ days between deliveries}). Volume per meal = 0.1 cubic feet.

\[
0.1 \text{ ft}^3 \text{ vol.} \times 1000 \text{ meals} = 100 \text{ ft}^3
\]

\[
\frac{100 \text{ ft}^3}{0.75} = 133.3 \text{ ft}^3 \text{ Estimated Space Needed}
\]
**PLAN REVIEW FORMULAS**

**DRY STORAGE**

Required Storage Area (sq. ft) = \[ \frac{\text{Volume per Meal (0.1 cu. ft.)} \times \text{Number Meals between Deliveries}}{\text{Avg. Height of Area (ft.)} \times \text{Fraction of Usable Floor Area}} \]

Example: 7 ft. high ceiling, shelves 6" off the floor, 18" from ceiling  
Usable Height 5 ft.

Usable Floor Space:  
Depends on door swings, overhead sewer lines, electrical boxes, etc.

Examples:

1. The number of meals between deliveries = 1,000 (100 meals per day X 10 days between deliveries). A small fraction (3/10ths) of usable storage space in a store room that has 5 feet in usable height

\[ \frac{0.1 \text{ cu. ft.} \times 1000 \text{ meals}}{5 \text{ ft} \times 0.3} = 66.67 \text{ ft}^2 \text{ Required Storage Area} \]

2. The number of meals between deliveries = 1,000 (100 meals per day X 10 days between deliveries). A larger fraction (6/10ths) of usable storage space in a store room that has 5 feet in usable height

\[ \frac{0.1 \text{ cu. ft.} \times 1000 \text{ meals}}{5 \text{ ft} \times 0.6} = 33 \text{ ft}^2 \text{ Required Storage Area} \]
LINEAR FEET OF SHELVING

\[
\text{Linear Feet of Shelving Required (ft.)} = \frac{\text{Volume per Meal (0.1 cu. ft.)} \times \text{Number Meals between Deliveries}}{D \times H \times C}
\]

\[D = \text{Depth of Shelves (ft.)}\]
\[H = \text{Clearance between shelves (ft.)}\]
\[C = 80\% \text{ effective capacity of shelf height}\]

Examples:

1. Assume 400 meals per day and a 10 day storage between deliveries = 4,000 meals.
   Volume of 0.1 cu. ft. per meal, shelf depth of 18 inches, clearance of 12 inches between shelves and 80% effective capacity of shelf height

\[
\frac{0.1 \text{ cu. ft.} \times 4000 \text{ meals}}{1.5 \text{ ft.} \times 1 \text{ ft.} \times 0.80} = 333 \text{ ft. Shelving Needed}
\]

2. Assume 400 meals per day and a 10 day storage between deliveries = 4,000 meals.
   Volume of 0.1 cu. ft. per meal, shelf depth of 18 inches, clearance of 18 inches between shelves and 80% effective capacity of shelf height

\[
\frac{0.1 \text{ cu. ft.} \times 4000 \text{ meals}}{1.5 \text{ ft.} \times 1.5 \text{ ft.} \times 0.80} = 222 \text{ ft. Shelving Needed}
\]