Bureau of Food Protection
788 East Woodoak Lane
Murray UT 84107
(801) 313-6620
www.slvhealth.org

Plan Review Guidelines

Introduction

The purpose of these guidelines is to provide information to use in developing plans that meet the requirements of the Salt Lake Valley Health Department, Bureau of Food Protection.

The objectives of a plan review are:

- To help ensure that the food establishment design, construction, equipment and equipment installation meet the minimum Health Department requirements.
- To create a food service facility that is easy to maintain, has efficient food flow patterns, and is designed to handle the maximum number of customers.

Food flow patterns should be evaluated by the designer for the preparation of foods to be served to be sure that the layout of the facility provides an adequate separation of raw ingredients from ready-to-eat foods and that food traffic patterns are not crossing paths with waste items and other sources of contamination.

The menu will dictate the space and equipment required to safely operate the food service facility. The menu will determine if the proposed receiving and delivery areas, storage area, preparation and handling areas, thawing, cooking and re-heating areas, and rapid cooling facilities and equipment are available and adequate to handle the proposed types and volumes of foods being served.

The following questions should be considered in designing plans:

- Will the menu offer food that requires extensive preparation? (*The number and placement of hand sinks becomes more important).*
- What hours will the food service facility be open? (*Increased equipment capacity and storage space should be considered for establishments with extended hours of operation).*
- Will food be cooked and immediately served, or prepared in advance for later service? (*Preparing food in advance requires more refrigeration space for thawing frozen foods, rapidly cooling hot foods, and storing cold foods).*
- How often will supplies be delivered? (*The delivery frequency is important in determining the amount of refrigerated, frozen, and dry food storage space).*
- What is the maximum number of employees working one shift? (*The number of employees is necessary to determine work/aisle space and the size of area necessary for orderly storage of employee personal belongings separate from food and clean equipment).*

General Requirements

Food service facility owners/contractors/design professionals are required to submit plans to the Bureau of Food Protection before constructing a new food service facility, converting an existing

structure for use as a food service facility, remodeling of a food service facility, or changing the type of food service or food operation.

Note: Remodeling is defined as change in design and equipment involving 50% or more of the food preparation area or significant changes from the original design or operation of the facility.

Plans must be drawn in a concise, detailed, and professional manner. While it is not a requirement that plans be professionally drawn, they must include sufficient information and detail to demonstrate compliance with Health Department requirements. Incomplete plans will not be reviewed. Construction must begin within 6 months (180 days) of plan approval. Please contact the Plan Review team at SLVHD, (801) 313-6620, if you require more time.

Plans must include the following:

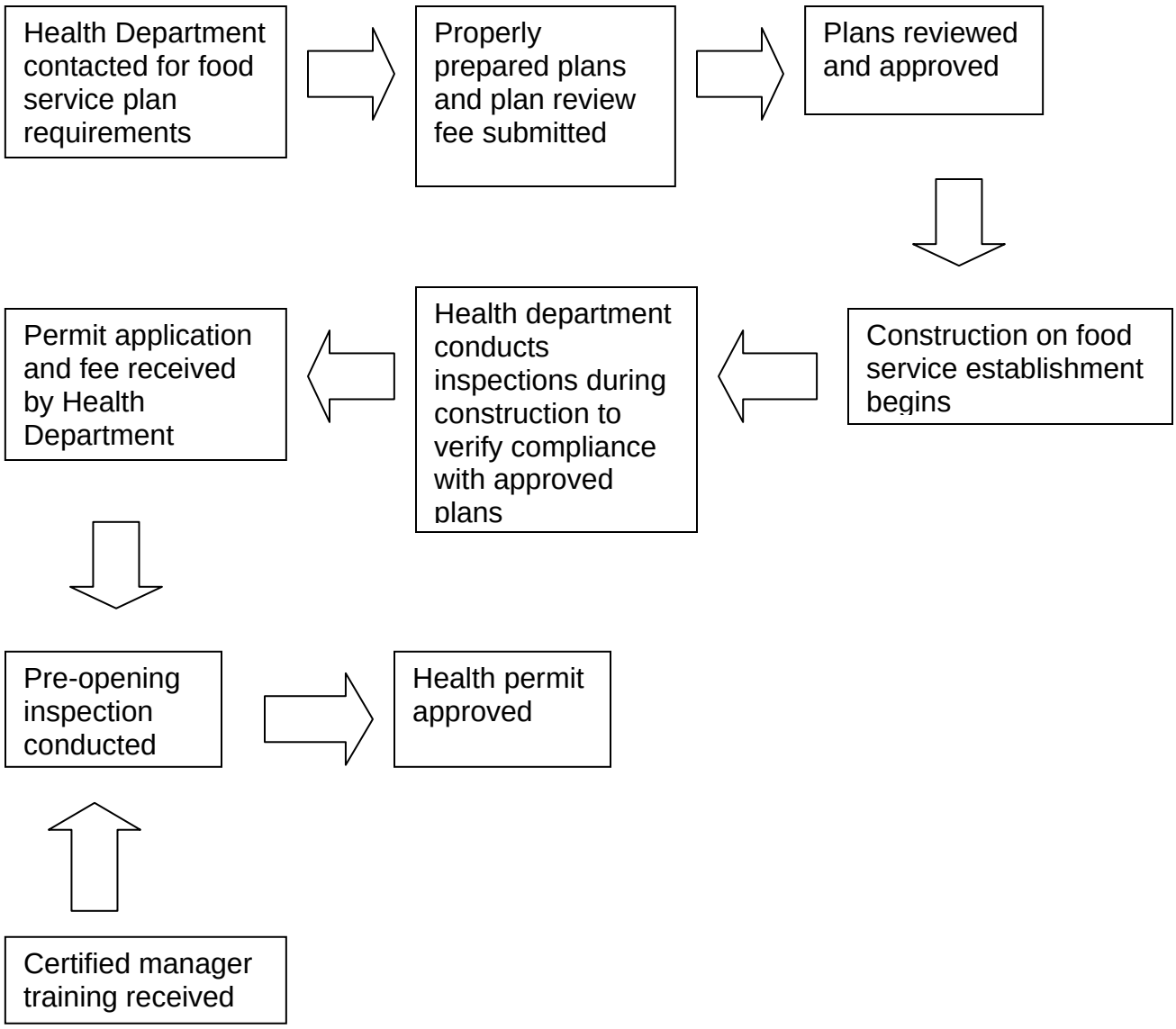
- ✓ Plan review application and fee.
- ✓ Site plan.
- ✓ Dimensional floor plan for the entire facility.
- ✓ Complete equipment schedule and specifications.
- ✓ Plumbing schedule.
- ✓ Mechanical schedule.
- ✓ Room finish schedule.
- ✓ Proposed menu.

Any changes from the approved plans made either before or during construction must be submitted to the Health Department for review and approval.

Note: Submitting of plans to a city or county Building Department does NOT ensure that they will also be submitted to the Health Department.

Building Departments	**Phone number**
Alta	363-5105
Bluffdale	858-0499
Draper	576-6520
Holladay	272-9450
Midvale	567-7210
Murray	270-2431
Riverton	208-3127
Salt Lake City	535-7752
Salt Lake County	468-2000
Sandy	568-7272
South Jordan	254-3742
South Salt Lake	483-6005
Taylorsville	955-2030
West Jordan	569-5050
West Valley	963-3283
Utah Dept. of Agriculture	538-7159

The following diagram represents the normal sequence from plan review to approval of permit.



The above flowchart demonstrates health department approval only. Requirements of city or county building, licensing and zoning departments must also be satisfied.

Equipment – General

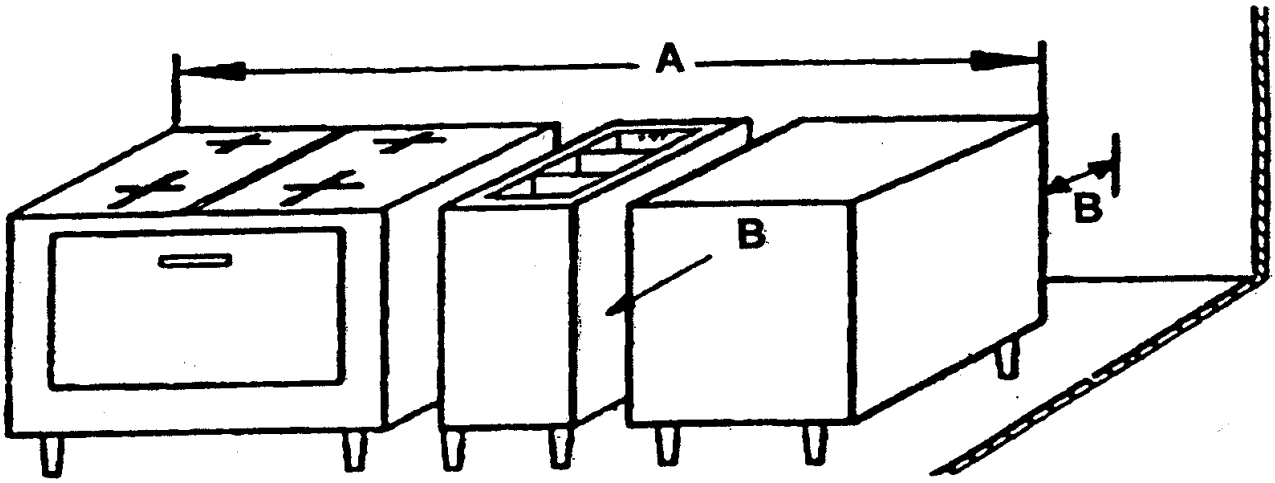
All food service equipment must be commercial grade and must meet the standards of the American National Standards Institute (ANSI)/ National Sanitation Foundation International (NSF) of design, materials and workmanship. An ANSI/NSF or other nationally recognized testing agency seal is usually a good indicator that the equipment meets Food Code requirements. In general, wood is prohibited from use in food preparation areas for table legs, shelving, etc.

Equipment must be installed to facilitate the cleaning of equipment and all adjacent areas. Equipment, including ice makers and ice storage equipment, should not be stored under exposed or unprotected sewer lines, open stairwells or other sources of contamination.

Table-mounted equipment
Unless portable, table mounted equipment should be installed on 4-inch legs or sealed to the table using silicone caulk. Pieces of table mounted equipment should be kept at least six inches apart to ensure access for cleaning, or they should be sealed together.

Fixed equipment
Fixed equipment should be installed with sufficient space between adjacent equipment, floors, walls, cabinets, and ceilings to facilitate proper cleaning, or immovable equipment should be sealed to adjacent fixed-in-place equipment, floors, walls, or ceilings with silicone caulk. Floor-mounted equipment that is not easily movable or mounted on wheels/casters must have legs that provide at least six inches clearance from the floor. This clearance should be measured from the lowest obstruction under the piece of equipment.

Note: If you can slide a business card between equipment and a wall or other equipment, it must be sealed.



Equipment Spaced Apart

Recommended Equipment Spacing From Walls, Provided Access Is Available From both Ends:

Equipment Length (A)	Space From Walls And Equipment (B)
4 feet or less	6 inches
4 feet to 8 feet	12 inches
8 feet or more	18 inches

Note: For long banks of equipment, consider integrating moveable equipment on castors with stationary equipment on legs to facilitate cleaning and service access. A keeper chain should be installed with all flexible utility connections.

If fixed equipment is installed on a raised floor platform, the platform should be a minimum of two inches high with a ¼ inch radius. Equipment should overhang the base by one to four inches. Equipment must be sealed to the floor using silicone caulk.

Conduit/utility lines
All conduits and exposed utility lines (plumbing, gas, electrical, refrigeration, etc.) must be kept at least 6 inches off the floor and installed so as to not interfere with cleaning. Any insulation on utility lines must be smooth, non-absorbent, and easy to clean.

Equipment should be installed to provide a minimum 36 inch aisle working space.

Refrigeration
Refrigeration and freezer facilities are required to maintain potentially hazardous foods during storage, transportation, display, and service. Refrigeration equipment must meet NSF Standard #7 or be of equivalent construction. Beverage cooling cases are not acceptable for the storage of potentially hazardous foods. If ice is to be used for cooling, the ice-making unit must be designed and sized to meet the anticipated demand.

Refrigeration and freezer storage involves four major areas:

1. Units for short-term holding of perishable and potentially hazardous food items conveniently located at points of food preparation (*Reach-in refrigerators).*

2. Refrigeration and freezer units for long-term storage located near delivery or receiving areas (*Walk-in coolers and walk-in freezers).*

3. Units for quick chilling of foods (*Blast chillers and rapid pull-down units).*

4. Display storage for customer service (*Salad bars and display cases).*

If potentially hazardous foods that require cooling are prepared a day or more in advance of intended service, a rapid cooling method capable of cooling the food from 135º F to 41º F within 6 hours is required (135º F to 70º F within 2 hours and 70º F to 41º F within 4 hours). This may be a blast chiller, ice bath, reducing the volume of food in an individual container to less than 4" deep, a loose covering on the container to facilitate heat transfer, preparing smaller batches closer to periods of service, or other approved method.

Note: Only 30% of refrigeration rated cooling capacity is available for cooling food.

All refrigeration units must have a numerically-scaled thermometer accurate to ± 3º F. The sensing unit must be located to measure the air temperature in the warmest part of the unit.

Refrigeration and freezer units, unless designed for such use, should not be located directly adjacent to cooking or other heat-producing equipment.

Refrigeration and freezer units should not be installed outside of the building if unpackaged foods will be transported from the facility to the food establishment.

When assessing the refrigeration needs, shelving space within refrigeration and freezer units should be designed to prevent cross-contamination of foods and provide maximum air flow.

Consideration must be given to separating raw meat, fish, and poultry from ready-to-eat foods such as produce and pre-prepared items.

A suggested formula to establish required refrigeration storage capacity is as follows:

Note: Only 40% of any walk-in actually provides useable space.

Total interior volume needed = $\frac{\text{Volume per meal (ft}^3\text{) x \# of meals}}{\text{.40 x height of unit}}$

Below are typical meal volumes for each of three types of refrigerated storage:

1. Meat and poultry	0.010 to 0.030 ft^3/meal
2. Dairy	0.007 to 0.015 ft^3/meal
3. Vegetables and fruit	0.020 to 0.040 ft^3/meal

Example:
To calculate the interior storage space required, divide the ft^3 (volume) by the height of the unit. Calculation is based on a meal volume of 250 meals/day, with a minimum of 4-day storage (1000 meals):

Meat refrigerated storage = $\frac{0.0300\ ft^3/meal \times 1000\ meals}{.40} = \frac{75\ ft^3}{6\ ft.} =$

12.5 ft^2 of usable interior space.

Vegetable refrigeration storage = $\frac{0.040\ ft^3/meal \times 1000\ meals}{.40} =$

$\frac{100\ ft^3}{6\ ft.} = 16.6\ ft^2$ of usable interior floor space

Dairy refrigerated storage = $\frac{0.015\ ft^3/meal \times 1000\ meals}{.40} =$

$\frac{37.5\ ft^3}{} = 6.25\ ft^2$ of usable interior floor space

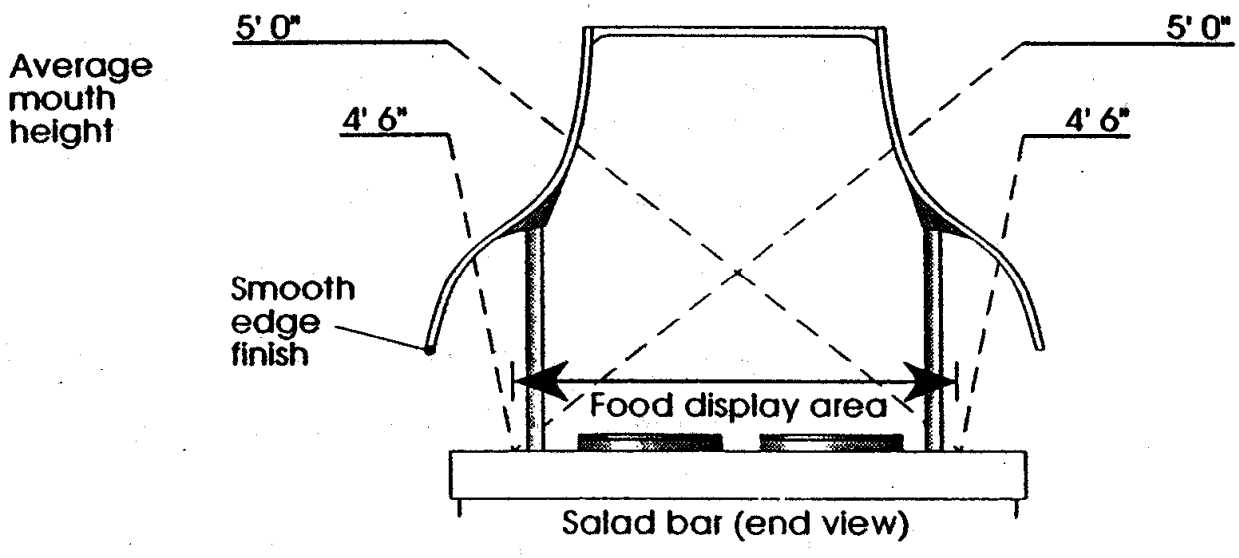
Total floor space required = 12.5 + 16.6 + 6.25 = 35.35 ft^2 of usable interior floor space.

Food Protection
While on display, during service, or while being held hot or cold, all food must be adequately protected from contamination by the use of packaging; service line, storage or salad bar protective devices (sneeze guard); display cases; or other effective means, including dispensers.

Separate areas should be designed and operated to segregate food handling operations involving raw and finished food products.

Where frozen desserts or other moist foods are being portioned and dispensed, running water dipper wells or other approved methods should be provided for the in-use storage of dispensing utensils.

Food guards
Food (sneeze) guards should be designed and installed to intercept a direct line between a customer's mouth and foods on display. On the average, the vertical distance from the customer's mouth to the floor is 4 ft. 6 inches to 5 feet. This average height must be adjusted for children in educational facilities or other special installations.



Waste lines
Waste lines and roof drains should not be positioned directly above food preparation areas, food service areas, food storage areas, and warewashing areas. If waste lines or roof drains are over food storage areas, seamless gutters or other protective devices must be installed under the pipes to divert leakage away from the food storage area.

Hot Holding/Reheating
If potentially hazardous foods are prepared and held for hot service, hot food holding facilities must be provided and must be capable of maintaining potentially hazardous foods at an internal temperature of 135º F or above during display, service, or hot holding periods. Heat lamps have not been found to be effective for this purpose.

If potentially hazardous foods that require re-heating prior to service are prepared in advance of intended service, re-heating equipment capable of raising the internal temperature of potentially hazardous foods to at least 165º F within 2 hours must be provided. Steam tables, bainmaries, warmers, crock pots, and similar hot food holding units are not effective for the rapid heating of potentially hazardous foods. Food product thermometers accurate to ± 2º F are required to monitor temperatures.

Note: Thermocouple thermometers are recommended due to increased accuracy and speed of reading, especially when dealing with thin foods and the quick monitoring of cooling temperatures.

Handwashing
Handwashing sinks must be provided and located convenient to all food preparation areas, utensil washing areas, toilet rooms, and customer areas of convenience stores. Handwashing sinks must be located within a reasonable distance (15 feet suggested distance, and no more than 25 feet) from each area of use and must not require entering another room for use. Additional hand sinks may be required, depending on the configuration of equipment and location of work

areas in the food service facility. Each handwashing sink must be provided with hot and cold water by means of a mixing valve. Each handwashing sink must be provided with hand cleaner, a hand drying device or single use sanitary towels in a permanently installed dispenser, and a waste receptacle.

Metering faucets
If used, self-closing or metering faucets must be adjusted to remain on a minimum of 15 seconds without the need for re-activation.

Note: Hand sinks used by food employees should have knee, foot, infrared sensor, or wrist operated faucets.

The handwashing sink must be accessible at all times. It should not be located where access may be easily blocked by waste containers, carts, etc. the handwashing sink may be used for no purpose other than hand washing. Sinks used for food preparation or equipment washing may not be used for handwashing.

Splash shields
Splash protection is required when handwashing sinks are located within 18 inches of food contact surfaces, food storage, shelves, food service areas, food preparation sinks, or warewashing sinks. The splash shield must protect food contact surfaces and warewashing surfaces from splash. Splash shields should be constructed of stainless steel or other durable water resistant materials.

Hand sanitizers
Hand sanitizers stations, if installed, must be located adjacent to hand washing sinks. Hand sanitizers may not be used as a replacement for adequate handwashing.

Dry Storage
The dry storage space required depends upon the menu, number of meals, quantities purchased, and frequency of delivery. The minimum space recommended is 25% of all kitchen areas, based on wall-to-wall dimensions. It must be sufficient to store food and equipment six inches off the floor.

The location of the storage room should be adjacent to the food preparation area and convenient to receiving. An exterior door should be near the dry storage area to minimize delivery traffic through food preparation areas. Storage room temperatures of 50º F to 70º F are recommended.

Shelves may be constructed of suitable finished wood, durable plastic or corrosion-resistant metal. The highest shelf for practical use should be no more than 7 feet off the floor. The lowest shelf should be at least 6 inches from the floor. Spacing between shelves should be 15 inches.

A suggested formula used in estimating required dry storage space is as follows:

$$\textbf{Required storage are } (ft^2) = \frac{\textbf{Volume per meal x \# of meals between deliveries}}{\textbf{Average height x fraction of useable storeroom floor of storeroom area}}$$

1. Volume per meal = 0.025 to 0.050 ft^3/meal served
2. Useable storeroom height = 4 to 7 feet

3. Storage time between deliveries = 3 to 14 days
4. Fraction of useable storeroom floor area = 0.3 to 0.6

Example:
Assume 100 meals per day and a 10-day storage between deliveries = 1000 meals for which to provide storage;

$$\text{Required storage area} = \frac{0.05\ ft^3 \times 1000\ \text{meals}}{5\ ft \times 0.30} = 33\ ft^2$$

Warewashing
Adequate facilities must be provided to store dirty dishes and equipment prior to washing and sanitizing. Storage facilities must be provided for the storage of cleaned and sanitized utensils and equipment at least 6 inches above the floor on fixed shelves or in enclosed cabinets protected from splash, dust, or other sources of contamination. Warewashing sinks and mechanical warewashing machines may not be directly connected to the sewer.

Manual warewashing
A 3-compartment sink meeting NSFI Standard #2 must be provided for manual washing and sanitizing of utensils and equipment.

Note: This is in addition to any mechanical warewasher.

Each compartment of the 3-compartment sink must be large enough to accommodate the largest piece of equipment. Each compartment must be provided with an adequate supply of hot and cold potable water. Two drainboards should be provided equal in size to that of the sink compartments.

Working supplies of cleaners and sanitizers must be stored in an approved location. A recommended storage location is on a wire shelf below the drainboards of the 3-compartment sink.

Mechanical warewashing
For mechanical warewashing, a warewashing machine meeting NSFI Standard #3 should be provided. The capacity of the warewashing machine should be based on the peak number and type of dishes, utensil, flatware, equipment, etc., that must be washed per hour.

Note: Only 70% of the listed NSFI capacity, in racks per hour, should be considered as an average working capacity.

Each 20 x 20-inch dishrack will accommodate approximately:

16 nine-inch dinner plates
25 water glasses
16 coffee cups
100 pieces of flatware

The place settings for four seats = 1 dishrack.

Chemical sanitization
The following requirements apply to chemical sanitizing warewashers:

- Additional drainboard/drying space may be required due to the increased drying time of equipment and dishes washed in a low temperature warewasher.
- Chemicals must be automatically fed into the machine;
- The chemical sanitizing feeder must be approved for the specific make and model of machine in question;
- An approved chemical test kit must be available and must be used; and
- A visual flow indicator must be provided to monitor the operation of the sanitizing agent feed.

Hot water sanitization
The following requirements apply to hot water sanitizing warewashers:

- A booster heater is required to raise the water temperature from 140º F to 180º F the booster heater should be located as close as possible to the warewasher to minimize heat loss.
- A maximum registering thermometer or other approved device is required to monitor warewasher performance.

Note: A high temperature warewasher may not be converted to a low temperature warewasher without being re-certified by the manufacturer.

Hot Water Requirements
The hot water supply must be sufficient to meet the continuous and peak hot water demands of the establishment. Food service facilities which do not contain critical plumbing fixtures (*mechanical warewashing machine, glass washers, or other high hot water demand equipment*) **may** have a water heater with a minimum of 50 gallons storage capacity and an input heating capacity of 50,000 BTU or 11 KW. **If** they have no more than the following equipment:

1. Three Handsinks
2. One mop sink
3. One 3-compartment sink (16 x 20 x 14" maximum)
4. One vegetable/food prep sink

In the absence of specific hot water usage figures for equipment, the following chart may be used to provide an approximation.

Equipment	High Use (gph)	Low Use (gph)
Vegetable sink	15	15
Single pot sink	20	15
Double pot sink	40	30
Triple pot sink	60	45
Pre-rinse spray	45	45
Bar 3-compartment sink	20	20
Bar 4-compartment sink	25	25
Glasswasher – chemical	60	60
Hand sink	5	5
Cook sink	10	10

Hot water filling faucet	15	15
Bain Marie	10	10
Coffee urn	5	5
Kettle stand	5	5
Garbage can washer	50	50
Clothes washer 9 – 12 lb	45	45
Clothes washer 16 lb	60	60
Employee shower	20	20
Dish table disposal trough	120	120
Utensil soaking sink	20	20
Mop sink	10	10
Hose bib	35	35
Warewasher	Manufacturer's Specifications	Manufacturer's specifications

High – To be used when multi-use eating utensils are utilized
Low – To be used in carry-out food operations where single service utensils are utilized

The following formula may be used to determine the BTU (gas) or KW (electric) demand for the food service establishment:

1. **Required BTU = $\frac{\text{Q x DR x 8.33}}{\text{0.75}}$**

2. **Required KW = $\frac{\text{Q x DR x 8.33}}{\text{3412}}$**

Q = Quantity of 140º F water from table
DR = Degree rise (needed temperature rise - 100º F)
8.33 = Weight of one gallon of water (lbs)
75% = Thermal efficiency of gas
3412 = Conversion factor for Kilowatts (KW)

Example:
A food service establishment has the following equipment and hot water demand (from table):

1. Triple pot sink 60 gph
2. Pre-rinse spray 45 gph
3. Lavatory (3) 15 gph
4. Vegetable sink 15 gph
5. Clothes washer 16 lb 60 gph
6. Coffee urn 5 gph

TOTAL 200 gph

Required BTU = $\frac{\text{Q x DR x 8.33}}{\text{.75}}$

$\frac{\text{200 x 100 x 8.33}}{\text{.75}}$ = 222,133 BTU

Floors, Walls, Ceiling
The following are general requirements for walls, floors, and ceilings in food service facilities:

- There must be coving at floor-wall junctures with a recommended ¼ inch radius and 4 inches in height that is compatible with both wall and floor covering.
- Studs, joists, and rafters may not be exposed in food preparation areas, equipment, and utensil washing areas, toilet rooms, and vestibules.
- Any acoustical ceiling tile (ACT) used in food preparation areas, equipment and utensil washing areas, toilet rooms, and vestibules must be smooth, non-absorbent, cleanable, and non-porous.
- All surfaces in preparation areas, equipment and utensil washing areas, toilet rooms, and vestibules must be light colored, smooth, non-absorbent, and easily cleanable.
- Walls behind or adjacent to sinks, warewashers, mop sinks, urinals, toilets, and drinking fountains must be covered with a durable waterproof material. Marlite, painted gypsum board and similar materials are **not** approved for this purpose.
- Carpeting is prohibited in preparation areas, equipment and utensil washing areas, toilet rooms, wait stations, storage rooms, and other areas exposed to moisture.
- Floor finishes must be of durable, light-colored, water-proof, grease-resistant, and cleanable materials extending at least 3 feet from the serving side of buffets, salad bars, and beverage stations.
- Concrete block, if used, must be rendered non-porous and smooth by the application of approved block filler, followed by the application of epoxy-type paint.
- Protective corner guards are recommended in all high traffic areas.
- Alternate materials must be submitted to the Health Department for evaluation.

The following table provides acceptable finishes for floors, walls, and ceilings by area:

Area	Floor	Wall	Ceiling
Cooking	Quarry tile; vinyl composition tile (VCT); poured epoxy	Stainless steel; aluminum; ceramic tile	Vinyl-wrapped acoustical ceiling tile (ACT); vinyl-roc; epoxy painted drywall
Food prep	Same as above	Same as above plus fiberglass reinforced panels (FRP); epoxy painted drywall; filled block and epoxy painted drywall; glazed surface	Same as above
Bar	Same as above	Same as above for areas behind sinks	Same as above
Food storage	Same as above	Same as above	Vinyl-wrapped ACT, epoxy painted drywall
Toilet room/dressing room	Quarry tile; sealed, poured, seamless concrete; VCT; poured epoxy	FRP; epoxy painted drywall; filled block and epoxy painted drywall; glazed	Vinyl-wrapped ACT; vinyl-roc; epoxy painted drywall

Garbage and refuse area - interior	Quarry tile, sealed, poured, seamless concrete; VCT; poured epoxy	FRP; epoxy painted drywall; filled block and epoxy painted drywall; glazed	Same as above
Mop/Service sink area	Quarry tile; poured, seamless, sealed concrete	Stainless steel; FRP, filled block, glazed surface, tile	Same as above
Warewashing area	Quarry tile; VCT; poured epoxy	Stainless steel; FRP, filled block, glazed surface, tile	Same as above

Plumbing
All plumbing must be designed, installed, and maintained according to the requirements of the International Plumbing Code. An adequate supply and pressure of hot water and cold water must be provided to meet the needs of the food service facility. Water must come from a public water supply or a health department approved private water supply. All sewage and liquid wastes must be disposed of by means of a public sewer or a Health Department approved individual waste water treatment system.

Cross connections
There shall be no cross connections between the potable water supply and any non-potable or questionable water supply. The potable water system must be installed to preclude the possibility of backflow.

Devices must be installed to protect against backflow and back-siphonage at all fixtures unless an air gap is provided. The air gap must be at least twice the diameter of the water supply inlet, but not less than one inch between the water supply and the fixture's flood level rim.

Water supplies to carbonators must be protected by a vented dual-check valve meeting the requirements of ASSE 1022.

Indirect waste connections
Indirect waste connections must be provided for equipment such as warewashing machines, 3-compartment warewashing sinks, food preparation sinks, pre-rinse sinks, bar sinks, ice machines, steam tables, salad bars, dipper wells, walk-in refrigerators or freezer condensate.

Floor drains
Floor drains should be located in areas that require frequent water flushing to clean the floor or equipment. Floor drains are required in toilet rooms. Floor drains may not be installed in walk-in refrigeration units.

Grease traps
Grease traps and interceptors, where required, must be accessible for cleaning. Water in excess of 140º F or food waste grinders may not discharge into a grease trap.

Note: Local sewer districts should be contacted for specific grease trap/interceptor requirements, i.e., size, location, type, etc.

Toilet Rooms/Dressing Rooms
Toilet facilities must be installed according to the requirements of the International Plumbing Code. The number of fixtures required is determined by the local building official based on the requirements of the Uniform Building Code, Appendix Chapter 29.

Toilet rooms must include a hand sink in or adjacent to the toilet room, be equipped with hot and cold running water, hand cleaner, and a hand drying device or single-use sanitary towels. Toilet rooms must be completely enclosed and have tight-fitting, solid, self-closing doors. Toilet rooms must be mechanically vented to the outside. Mechanical ventilation must be capable of providing a complete air change every 15 minutes.

Each toilet room must have a waste container. Women's toilet rooms must have a covered waste container for sanitary hygiene products. Toilet rooms must be accessible at all times. Customers may not pass through food preparation areas, storage areas, or dishwashing areas to use the toilet facilities.

Separate toilet rooms are not required for employees and customers.

If employees change clothes on site, a dressing room should be provided where they may change clothes and store personal possessions. This area cannot be in areas used for storing, preparing, or serving food; or for washing or storing utensils.

If dressing rooms are not required, suitable facilities must be provided for storing employee personal belongings.

Insect Control
Openings to the outside must be effectively protected against the entrance of rodents and insects by the installation of tight-fitting, self-closing doors; closed windows; self-closing serving windows at drive-throughs; screens; controlled air currents; vestibules or other approved methods.

Screened doors must be self-closing. Screening material must not be less than sixteen mesh to the inch.

Openings around pipes, conduits, or wiring entering the building must be adequately sealed. All foundations must be rodent proof.

Loading docks and delivery doors must be provided with effective air curtains or vestibules with self-closing doors.

Note: It is recommended that outside lighting around loading areas and entrances be sodium vapor to decrease insect attraction.

Lighting
Lighting in food service establishments must meet the following requirements[1]:

Area	Required Intensity
Walk-in refrigeration units, dry storage areas	110 lux (10 foot candles)[2]
Buffets, salad bars, inside equipment, handwashing, warewashing, equipment and utensil storage, toilet rooms	220 lux (20 foot candles)[2]
Food preparation areas, areas where employee safety is a factor (grills, fryers, slicers)	540 lux (50 foot candles)[2]

[1]Darker colored walls and floors may require additional lighting
[2]Measured 30 inches above the floor

Shielding
Protective shielding for light fixtures is required in all food preparation, display, service, storage, and utensil washing areas. Explosion tubes with end caps or shatterproof bulbs may be used. Heat lamps should be protected against breakage by surrounding and extending a shield beyond the bulb, leaving only the face of the bulb exposed. Shatterproof bulbs may be used instead of shielding.

Ventilation
Ventilation in food service facilities must comply with the requirements of the International Mechanical Code. A Type I hood (with filters) must be installed at or above all commercial food heat processing appliances that produce grease, vapors or smoke. A Type I or Type II (without filters) hood must be installed at or above all commercial food heat processing equipment that produces fumes, steam, odors, or heat. Hoods must be designed and installed in conformance with NFPA Bulletin 96.

When vented to the outside, the ventilation system may not create an unsanitary, harmful or unlawful discharge.

Removable filters must be of a size that allows for cleaning in a warewashing machine or pot sink.

Filters must be installed at an angle of not less than 45º from the horizontal. The inside edge of a canopy-type commercial cooking hood must overhang or extend a horizontal distance of not less than 6 inches beyond the edge of the cooking surface. The vertical distance between the lip of the hood and the cooking surface must not exceed 4 feet.

Waste Handling
Garbage and refuse containers, dumpsters, and compactor systems located outside the building must be stored on or above a smooth surface of non-absorbent material such as 4 inches of sealed concrete or sealed road-grade asphalt. All garbage or refuse containers must be durable, easily cleanable, non-absorbent, leak-proof, and provided with tight-fitting lids. Garbage and refuse containers must be located as far as possible from the food service facility doors and windows.

Inside garbage or refuse storage rooms must be constructed of easily cleanable, non-absorbent, washable materials and must be insect and rodent proof.

An adequate number of waste containers must be provided to accommodate the needs of the food service facility. Collection frequency must be sufficient to prevent the accumulation of refuse.

Janitorial
Janitorial stations must be provided for general cleanup activities in all food service facilities. Each station must include a curbed cleaning facility (built on-site or a listed curbed sink) or a wall-mounted janitorial sink. All threaded hose bibbs must be protected against backflow.

Note: Residential polyethylene or fiberglass laundry tubs are not approved.

Janitorial stations should be conveniently placed for maintaining food service areas. They must be on the same floor level as the food service area and within a reasonable distance of the intended area of use.

Space must be allowed adjacent to the mop sink for the storage of mop buckets and other cleaning equipment. Drying racks must be provided for mop heads.

Chemical dispensers must be placed so they will not interfere with maintenance equipment or use. Chemical dispensers must comply with Section 608.16.7 of the International Plumbing Code.

Laundry/linen storage
Storage areas should be provided for linens and aprons. Clean linens and aprons must be protected from contamination and stored away from soiled linens and aprons.
If a laundry room is provided, it must be separate from food service operations. If a clothes washing machine is provided, a dryer must also be provided unless laundered cloths are used wet.

Storage of Chemicals/Toxics
Areas must be designated for toxic material storage that is away from food and clean utensils. Separate facilities must be provided for storing pesticides (*secured cabinet).*

Americans with Disabilities Act (ADA)
Provisions of the Americans with Disabilities Act (ADA) should be taken into account in all food service facility design.

Utah Indoor Clean Air Act (UICAA)
Under provisions of the Utah Indoor Clean Air Act (UICAA), smoking is prohibited in all publicly owned buildings and offices except as provided in 26-38-3, subsection 2 of UICAA.

Contact the Plan Review team at Salt Lake Valley Health Department, (801) 313-6620, for further information.