

EL PASO COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT

301 S. UNION BLVD. • COLORADO SPRINGS, CO 80910-3123
(719) 575-8635 • FAX (719) 578-3188

Retail Food Establishment Plan Review Application

1. INSTRUCTIONS

- A. Fill out this form completely and accurately.
- If an individual other than the owner completes the form, a Letter of Authorization from the owner, delegating this responsibility, must be provided.
 - **LACK OF COMPLETE INFORMATION MAY DELAY THE REVIEW AND PLAN APPROVAL. PLEASE BE PREPARED WITH ALL NECESSARY PAPERWORK WHEN SCHEDULING A PLAN REVIEW APPOINTMENT.**
- B. Please call Environmental Health Services at (719) 575-8635 with any questions or to schedule an appointment.
- C. Pay the following plan review/pre-opening inspection fees:
- **Plan review application fee = \$100.00. [Non-refundable]. Fee is due when plan review application is submitted.**
 - **Plan review fee = \$42.00/hour, not to exceed \$580 [Minimum, 1 hour]. Total hourly review fee includes all aspects of plan review and also includes a pre-opening inspection.**
 - Fees are due upon final approval of the facility at the final pre-operational inspection.
 - Pre-opening inspections of new facilities will not be conducted until the Retail Food Establishment License application forms have been completed and the license fee has been paid.
 - **The Plan Review Application is valid for a period of one (1) year from the date of plan review.**

2. FACILITY INFORMATION

Date _____ Projected Opening Date _____

Name of Establishment _____ Phone _____

Address of Establishment _____ Fax _____

City, State, Zip _____

Colorado Sales Tax Account Number _____

Name of Owner _____ Phone _____

Address of Owner _____ Fax _____

City, State, Zip _____

Name of Contractor _____ Phone _____

Address of Contractor _____ Fax _____

Name of Architect _____ Phone _____

Address of Architect _____ Fax _____

New Establishment or Remodel (Circle One)

Seating Capacity (Indoor and Outdoor) _____

Total Square Feet of Establishment _____

Have these plans been submitted or do you intend to submit these plans to other counties in the State of Colorado?

____ Yes ____ No If yes, which county(ies) _____

3. MENU AND FOOD HANDLING PROCEDURES

Provide a complete menu (or proposed menu) for the facility. Answer the following questions pertaining to the menu. (All numbers in parentheses refer to sections of the Colorado Retail Food Establishment Rules and Regulations.)

A. List any foods that will be prepared more than 12 hours in advance of service.

B. List the foods and describe the methods of how hot foods will be cooled to 41°F or below. (3-503)

C. List the foods and describe the methods of how foods will be rapidly reheated to 165°F or above. (3-403B)

D. List the foods and indicate how hot foods will be held at 135°F or above. (3-401)

E. How will frozen foods be thawed? (3-501)

F. Will raw meats, poultry, and seafood be stored/displayed in the same refrigerator(s) and freezer(s) with cooked, ready-to-eat foods? Yes No

G. Will catering be conducted? Yes No

H. Will food be transported or delivered to another location? _____ Yes _____ No

If yes, what equipment will be provided to maintain food at proper temperatures during transport?

I. Will produce used be washed in the establishment, or will all produce be received prewashed?

J. Will vacuum packaging be conducted in the establishment? _____ Yes _____ No

If yes, provide the required HACCP Plan for each category of food to be vacuum packaged.

K. Do you have a Hazard Analysis Critical Control Point (HACCP) Plan/Food Handling Procedure Manual that describes preparation, cooking, reheating, cooking of foods and the handling of leftovers? _____ Yes _____ No If yes, please submit with plans.

4. FLOOR PLAN

Provide a detailed floor plan of the facility, drawn to scale. (See SAMPLE FLOOR PLAN below to ensure all required information is provided.) Include the location and identification of all equipment and areas (if applicable) listed below. Also provide the location of any outside facilities, such as dumpster units, grease traps, walk-in coolers or freezers, etc.

Sinks -

- a) Lavatory(ies)
- b) Vegetable/Food Preparation Sink(s)
- c) Utility/Mop Sink(s)
- d) Dump Sink(s)
- e) Warewashing Sink(s)
- f) Other

Wait Station(s)

- Toilet Facility(ies)
- Dry/Food Storage Area(s)
- Employee Break/Locker Area(s)
- Chemical Storage Area(s)
- Water Heater(s)
- Bar Service Area(s)
- Outdoor Cooking/Bar Area(s)
- Recycle/Damaged/Returned Goods Area(s)
- Grease Interceptor/Grease Trap
- Dipper Well(s)

Indoor/Outdoor Seating Areas

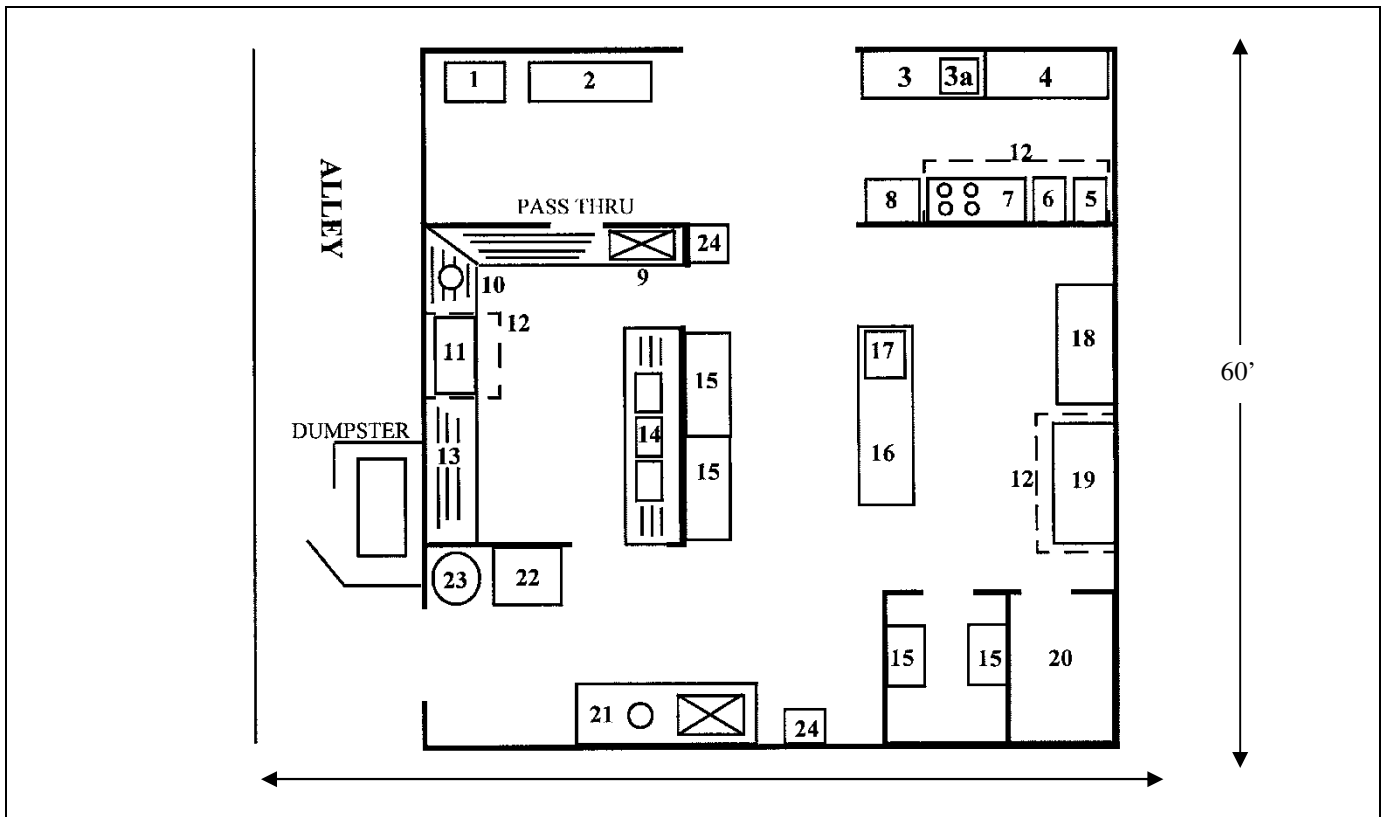
Laundry Facility Area

Floor Sinks and Floor Drains

Ice Bin(s)/Ice Machine(s)

Chemical Dispensing Unit(s)

SAMPLE FLOOR PLAN



NOTES:

1. Each piece of equipment is numbered to correspond to the Sample Equipment List on the following page.
2. This is not intended as a model layout, but only to illustrate a procedure for submitting plans and data for approval.

5. EQUIPMENT LIST

Provide a complete equipment list in the blank table on page 6. (See SAMPLE EQUIPMENT LIST below to ensure all required information is provided.) If possible, also provide a specification sheet for each piece of equipment listed.

Sample Equipment List					INSTALLATION METHODS					
					Floor Mounted			Table Mounted		
Equipment	Make & Model #	ID # or code on plans	New (N) or Used (U)	Plumbing Required? Yes or No	Casters	Approved Legs	Sealed In Place	Portable	Approved Legs	Sealed In Place
Reach-In Refrigerator	<i>Silver King #105</i>	1	N	No	X					
Salad & Sandwich Table	<i>Delfield #T16</i>	2	U	No	X					
S/S Work Table	<i>Eagle #55</i>	3	U	No		X				
Microwave Oven	<i>Amana #CRC10</i>	3a	N	No				X		
Steam Table	<i>Duke #E-305</i>	4	U	No	X					
S/S Work Table	<i>Eagle #35</i>	5	N	No		X				
Deep Fryer	<i>Frymaster #L16</i>	6	N	No	X					
4-Burner Range	<i>U.S. Range #4111X</i>	7	N	No	X					
Refrigerator/Freezer	<i>Beverage Air #PRF12</i>	8	U	No	X					
Utensil Soak Sink	<i>Eagle #462</i>	9	N	Yes		X				
Garbage Disposal with Pre-Rinse Hose	<i>Insinkarator #10</i>	10	N	Yes						X
Dishwasher	<i>Hobart #522</i>	11	N	Yes		X				
Hoods	<i>L&T #10, 20, 22</i>	12	N	No						
Drainboards	<i>Hobart #D1456</i>	13	N	No		X				
3-Compartment Sink	<i>LaCrosse #36CT</i>	14	U	Yes		X				
Wire Shelving	<i>Metro #XX3X</i>	15	N	No		X				
Baker's Table	<i>Wilder #300NF</i>	16	U	No		X				
10 Qt. Mixer	<i>Hobart #M16</i>	17	U	No						X
Refrigerator/Freezer	<i>Continental #SER-14</i>	18	N	No	X					
Baker's Oven	<i>Duke #613G1</i>	19	N	No	X					
Walk-in Cooler	<i>Cold Paks #14A</i>	20	U	No						
Vegetable Prep. Sink	<i>Eagle #515</i>	21	N	Yes		X				
Mop Sink	<i>Smith #12</i>	22	N	Yes						
Water Heater	<i>State #6-85CD</i>	23	N	Yes						
Handsinks	<i>Eagle #1</i>	24	N	Yes						

PLEASE NOTE AND FOLLOW THESE DIRECTIONS: *Read each statement below, then initial the box at the right, indicating you have read and understand the requirement. If an item asks for specific information, please fill it in as accurately as possible.*

6. INSTALLATION OF EQUIPMENT TO FACILITATE CLEANING

- A. Table-mounted equipment, unless portable, shall be sealed to the table or counter, or elevated on 4" legs. (4-302).
- B. Floor-mounted equipment, unless it is on commercially designed wheels or casters, shall be sealed to the floor or elevated on sanitary legs to provide at least a 6-inch clearance between the floor and equipment, except that equipment may be elevated to provide at least a 4-inch clearance between the floor and equipment if the floor under the equipment is not more than six (6) inches from cleaning access. Display shelving units, display refrigeration units, and display freezer units are exempt from this requirement if they are installed so that the floor beneath the units can be cleaned. (4-302B)
- C. The space between adjoining equipment and between equipment and adjacent walls shall be closed unless exposed to seepage, in which event it shall be sealed; or sufficient space shall be provided to facilitate easy cleaning between, behind, and beside all such equipment. (4-302C)
- D. The space required between adjoining equipment and between equipment and adjacent walls shall be based on the following distances: (See figures 1 and 2). When distance "A" is 2 feet or less, distance "B" must be at least 6 inches. When distance "A" is over 2 feet but less than 6 feet, distance "B" must be at least 12 inches. When distance "A" is 6 feet or more, then distance "B" must be at least 18 inches. (4-302C)
- E. When rollers or casters are installed on equipment, the space requirements between adjoining units may not apply. (4-302C)

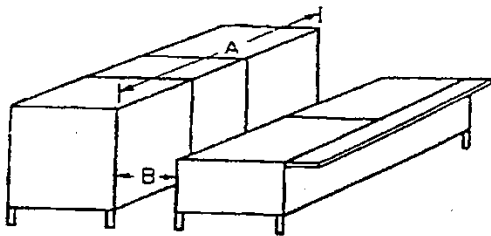


FIGURE 1

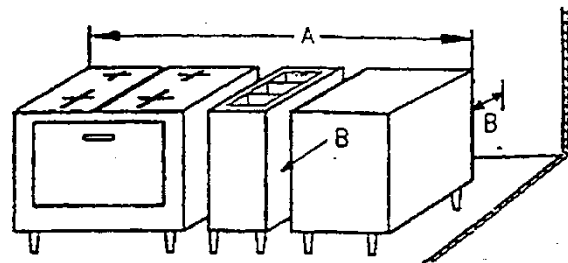


FIGURE 2

- F. Aisles and working spaces between units of equipment and between equipment and walls shall be unobstructed and of sufficient width to permit employees to perform their duties readily without contamination of food or food-contact surfaces by clothing or personal contact. All easily moveable storage equipment such as dollies, skids, racks, and open-ended pallets shall be positioned to provide accessibility to working areas. (4-302D)
- G. Kick plates shall be designed so that the areas behind them are accessible for inspection and cleaning by being removable or capable of being rotated open without unlocking equipment doors. (4-302E)

7. FINISH SCHEDULE

Provide a complete finish schedule for the facility in the blank table below. (Note SAMPLE ROOM FINISHES at the top of this table to ensure all required information is provided.)

ROOM FINISH SCHEDULE:

Room Name and Mark	Floors		Walls (Material and Finish)				Ceilings	
	Material	Base	North	South	East	West	Material	Finish
Sample Kitchen	Quarry tile	6" quarry tile	FRP wall panels, smooth	FRP wall panels, smooth	Painted sheetrock, smooth	Painted sheetrock, smooth	Vinyl acoustical tile	Smooth
Sample Walk-in cooler	Sealed Concrete	4" Vinyl	Galvanized Metal	Galvanized Metal	Galvanized Metal	Galvanized Metal	Galvanized Metal	Smooth
Sample Restroom	12" Commercial floor tile	4" vinyl	Painted concrete block, smooth	Painted concrete block, smooth	Painted concrete block, smooth	Painted concrete block, smooth	Vinyl acoustical tile	Smooth

8. FLOORS, WALLS AND CEILINGS

- A. Floors and floor coverings in all food preparation, food storage, warewashing areas, walk-in refrigeration units, dressing rooms, locker rooms, utility sink areas, toilet rooms, garbage rooms, and around permanently installed buffets, salad bars and soft drink dispensers shall be constructed of smooth, durable, nonabsorbent material and shall be maintained in good repair. Areas subject to spilling or dripping of grease or fatty substances shall be of grease-resistant material. (6-101A)
- B. Floors which are water flushed or which receive discharges of water or other liquid wastes or are in areas where pressure spray methods for cleaning are used, shall be provided with properly installed trapped drains and graded to drain. (6-101B)
- C. Carpeting in retail sales areas shall be of closely-woven construction, properly installed and easily cleanable. (6-102)
- D. Exposed utility service lines and pipes shall be installed in a way that does not obstruct or prevent cleaning of the floor. Installation of exposed horizontal utility service lines and pipes on the floor is prohibited (6-103)
- E. All floors installed in food preparation, food storage and warewashing areas, and in walk-in refrigerators, dressing or locker rooms, utility sink areas, and toilet rooms shall provide a coved juncture between the floor and wall. In all cases, the juncture between the floor and wall shall be sealed. (6-104)
- F. Mats and duckboards shall be designed to be removable and easily cleanable. (6-106)
- G. Walls, wall coverings and ceilings of walk-in refrigerating units, food preparation areas, food storage areas, and warewashing areas shall be smooth, nonabsorbent and easily cleanable. (6-201B)
- H. Attachments to walls and ceilings such as light fixtures, ventilation system components, vent covers, wall-mounted fans, decorative items, and other attachments shall be easily cleanable. (6-202A)
- I. Utility service lines or pipes shall not be unnecessarily exposed on walls or ceilings in walls in refrigeration units, food preparation areas, food storage areas, and warewashing areas. (6-202D)

9. DRESSING ROOMS AND LOCKER AREAS

- A. If employees routinely change clothes within a retail food establishment, rooms or areas shall be designated and used for that purpose. These designated rooms or areas shall not be used for food preparation, food storage, food display, warewashing, or storage of utensils and equipment. (2-405A)
- B. Lockers or other suitable facilities shall be provided and used for the orderly storage of employee clothing and other belongings. (2-405B)

10. PROTECTION OF FOOD FROM CONTAMINATION

- A. Food shall be prepared with minimal manual contact. This can be achieved by the use of suitable utensils, such as deli tissues, spatulas, tongs, or single-use gloves. (3-301)
- B. At all times, including while being stored, prepared, displayed, dispensed, packaged, or transported, food shall be protected from cross-contamination between foods and from potential contamination by insects, insecticides, rodents, rodenticides, other toxins, probe-type price tags or probe-type identification tags, unclean equipment and utensils, unnecessary handling, flooding, draining, overhead leakage or condensation, or other agents of public health significance. (3-302)
- C. During transportation, including transportation to another location for service or catering operations, food shall be protected from contamination and properly stored. Potentially hazardous foods being transported shall be maintained at proper temperatures. (3-302)
- D. Each time there is a change in processing between raw beef, raw pork, other raw meats, raw poultry, raw fish and molluscan shellfish or from raw to ready-to-eat foods, food-contact surfaces and utensils shall be cleaned and sanitized. Salads and other ready-to-eat foods may be prepared simultaneously in areas that are separated by a barrier or open space from areas used for processing potentially hazardous raw products. (3-303)
- E. An indirectly drained food preparation sink with an approved self-draining drain board or alternate approved methods shall be provided to prevent cross-contamination of clean raw fruits and vegetables. In establishments where vegetable preparation is limited to a few items and in limited quantity, the 3-compartment sink may be used for food preparation if the sink is indirectly drained and the sink and drainboard are cleaned and sanitized between changes in use. (3-305B)
- F. Consumer display and self-service of bulk food shall meet the requirements of section 25-4-13, C.R.S. (1998). (3-306)
- G. Dispensing utensils shall be stored in the food with the dispensing utensil handle extended out of the food, or stored clean and dry, in a running water dipper well; or stored at temperatures of 140°F and above, or 41°F and below. (3-306)
- H. The dispensing equipment actuating lever or mechanism and filling device of consumer self-service beverage dispensing equipment shall be designed to prevent contact with the lip-contact surface of glasses or cups that are being refilled. (3-308C)
- I. Containers of food shall be stored a minimum of six inches (6”) above the floor or stored on dollies, skids, racks, or open-ended pallets, provided such equipment is easily movable, either by hand or with the use of pallet moving equipment that is on the premises and used. (3-310A)
- J. Food may not be stored in locker areas (unless the food is completely packaged), in toilet rooms and their vestibules, in dressing rooms, in garbage rooms, in mechanical rooms, under sewer lines that are not shielded to intercept potential drips, under leaking water lines, (including leaking automatic fire sprinkler heads), under other sources of contamination, or in recycling rooms. (3-311)
- K. Food on display shall be protected from contamination by the use of packaging; food shields at counters, service lines, or salad bars; display cases; or other effective means of protection. (3-312)

- L. Condiments shall be protected from contamination by being kept in protective dispensers, in food displays provided with the proper utensils, in original containers that are designed for dispensing, or in individual packages or portions. (3-313)

11. MAINTENANCE OF PROPER FOOD TEMPERATURES

- A. Equipment for cooling, heating and holding food, cold and hot, shall be sufficient in number and capacity to provide required food temperatures. (3-401B)
- B. Food warmers and other hot food holding units shall not be used to reheat potentially hazardous foods unless the equipment is specifically designed for that purpose. (3-403A)

12. DESIGN CONSTRUCTION AND LOCATION OF EQUIPMENT

- A. All equipment and utensils shall be of commercial design as defined in the *Colorado Retail Food Establishment Rules and Regulations*. (4-101)
- B. Wood and wicker may not be used as a food-contact surface, except hard maple or an equivalently hard wood, may be used for cutting boards, cutting blocks, bakers' tables, bagel boards, and utensils such as rolling pins, doughnut dowels, salad bowls, pizza paddles, and chopsticks; and wooden paddles used in confectionery operations. (4-202J)
- C. Wicker and wicker-like materials can be used for service and display of prepackaged food. Service of bread or rolls in wicker or wicker-like materials is permissible if lined with dry liners or napkins which are replaced each time the container is refilled for a new customer. (4-203D)
- D. Newspapers, cloth, paper, cardboard, towels, contact paper, foil, oil cloth, or similar materials shall not be used as liners for shelves, drawers, or drain boards. (4-202L)
- E. Wood interior construction in walk-in cooler and freezer units is prohibited. (4-203A)
- F. Unfinished wood is not acceptable in food preparation, warewashing, equipment storage or food storage areas other than those areas used solely as dry food storage areas. (4-203B)
- G. Equipment containing bearings and gears requiring lubricants not made of safe materials shall be designed, constructed and maintained to ensure that the lubricant cannot leak, drip or be forced into food or onto food-contact surfaces. Equipment designed to receive lubrication of bearings and gears on or within food-contact surfaces shall be lubricated with approved, food-grade materials. (4-207)
- H. Beverage tubing and cold-plate beverage cooling devices shall not be installed in contact with stored ice. (4-208)
- I. Liquid waste drain lines may not pass through an ice machine or ice storage bin. (4-209)
- J. Cleaned and sanitized equipment, utensils, laundered linens, laundered clothing and single-service and single-use articles may not be located in locker areas, in toilet rooms and their vestibules, in dressing rooms, in garbage rooms, in mechanical rooms, under water and sewer lines that are not shielded to intercept potential drips, under leaking automatic fire sprinkler heads, or under lines on which water has condensed, under other sources of contamination, or in recycling rooms. (4-301A)

13. VENTILATION

- A. All rooms shall have sufficient ventilation to keep them free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes. (4-212)
- B. Equipment from which aerosols, obnoxious odors, noxious fumes, or vapors may originate shall be effectively vented to the outside air or vented through an approved ventilation system. (4-212B)
- C. When vented to the outside, ventilation system shall not create an unsightly, harmful, or unlawful discharge. (4-212)
- D. All ventilation systems shall comply with the 2000 Uniform Mechanical Code. (4-212)
- E. Ventilation hood systems and devices shall be designed to prevent grease or condensation from collecting on walls and ceilings, and from dripping into food or onto food-contact surfaces. (4-212A)
- F. Filters or other grease extracting equipment shall be easily removable for cleaning and replacement when not designed for in place cleaning. (4-212A)
- G. Intake and exhaust ducts shall be maintained to prevent the entrance of dust, dirt, and other contaminating materials. (4-212B)
- H. Fire prevention, extinguishing equipment and lighting systems shall be installed in a ventilation system or hood so as to not create a cleaning problem. (4-212C)

14. TESTING DEVICES

- A. Each mechanically refrigerated and each hot food storage unit storing potentially hazardous food shall be provided with a numerically scaled indicating thermometer. (4-401C)
- B. Ambient air thermometers shall have a numerical scale, printed record, or digital readout in increments no greater than 2°F and shall be accurate to ±3°F. (4-401C)
- C. Where it is impractical to install thermometers on equipment, such as heat lamps or insulated food carriers, a food product thermometer shall be available and used to check internal food temperature. (4-401F)
- D. Food product thermometers shall have a numerical scale, printed record, or digital readout in increments no greater than 2°F and shall be accurate to ±2°F. (4-401A)
- E. A test kit or other device that accurately measures the concentration in parts per million (mg/L) of the sanitizing solution shall be available and used. (4-402)

15. MANUAL CLEANING & SANITIZATION

- A. A sink with at least three compartments shall be provided for manually washing, rinsing, and sanitizing equipment and utensils. Each compartment of the sink shall be supplied with hot and cold potable running water. Sink compartments shall be self-draining and large enough to accommodate immersion of the largest equipment and utensils. (4-403A)

Provide the location of each 3-compartment sink in the facility, the size of the bowls for each sink and indicate whether the sink has a pre-rinse spray hose.

3-compartment sink #1 location _____	_____	_____	_____	_____
	length	width	depth	pre-rinse(y/n)
3-compartment sink #2 location _____	_____	_____	_____	_____
	length	width	depth	pre-rinse(y/n)
3-compartment sink #3 location _____	_____	_____	_____	_____
	length	width	depth	pre-rinse(y/n)
3-compartment sink #4 location _____	_____	_____	_____	_____
	length	width	depth	pre-rinse(y/n)
3-compartment sink #5 location _____	_____	_____	_____	_____
	length	width	depth	pre-rinse(y/n)

B. In manual warewashing operations, a thermometer shall be provided and readily accessible for frequently measuring the washing and sanitizing temperatures. The temperature of the wash solution shall be maintained at not less than 110°F unless a different temperature is specified on the cleaning agent manufacturer’s label instructions. (4-403A-5)

C. Approved self-draining drainboards, or utensil racks large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation, shall be provided for necessary utensil holding before cleaning and after sanitizing. Alternate approved methods may be used in lieu of the drain board sizing specified according to the following: (4-403A-6)

<u>Facility</u>	<u>Clean Drainboards</u>	<u>Soiled Drainboards</u>
Bars	18 Inches	18 Inches
Single Service	24 Inches	24 Inches
Multi-use Service	36 Inches	36 Inches

16. MECHANICAL CLEANING & SANITIZATION

A. Cleaning and sanitizing may be done by spray-type, immersion warewashing, or by any other type of machine or device if it is demonstrated that it thoroughly cleans and sanitizes equipment and utensils. Machines and devices shall be operated in accordance with manufacturer’s instructions. (4-403B)

B. 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. (4-403B.3)

C. Self-draining drainboards shall be provided and be large enough to accommodate all soiled and cleaned items. (4-403B-5)

D. Equipment and utensils shall be flushed or scraped and, when necessary, soaked to remove gross food particles and soil prior to being washed in a warewashing machine unless a pre-wash cycle is a part of the warewashing machine operations. (4-403B-6)

- E. A warewashing machine shall be provided with an easily accessible and readable data plate affixed to the machine which includes: a) Temperatures required for washing, rinsing, and sanitizing; b) Pressure required for the fresh water sanitizing rinse unless the machine is designed to use only a pumped sanitizing rinse; c) Conveyor speed required for conveyor machines or cycle time required for stationary-rack machines; and d) Required type and concentration of sanitizing solutions. (4-403B, 7a,b,c,d,f)

Provide the following information for each warewashing machine in the facility.

Dishwasher Location	Make & Model	Heat (H) or Chemical (c) Sanitization	Booster Heaters on Heat Sanitizing Machines		Manufacturer's Hot Water Requirements in Gallons per Hour	Drainboards and Drying Rack Sizes (length & width)		Pre-rinse hose (Y/N)	Soak Sink (Y/N)	Garbage Disposal (Y/N)	Garbage Disposal Location
			Make & Model	Recovery Rate at 40° F Rise		Clean Side	Soiled Side				
#1											
#2											
#3											

17. LAUNDRY FACILITIES

- A. If provided, laundry facilities must have an electric or gas clothes dryer. (4-501A)
- B. A clothes dryer is not required if laundry is limited to wiping cloths intended to be used moist, stored in an approved sanitizing solution or air-dried in a laundry room or other approved location. (4-501A)
- C. Laundry facilities shall not be located in food preparation areas. (4-501B)

18. EQUIPMENT & UTENSIL HANDLING & STORAGE

- A. Cleaned and sanitized utensils and equipment shall be stored at least 6 inches above the floor in a clean, dry location in a way that protects them from contamination by splash, dust, and other means. Equipment and utensils shall not be placed under sewer lines or water lines that are not protected to intercept potential drips, including leaking automatic fire protection sprinkler heads, or under lines on which water has condensed. (4-601B)

- B. Facilities for the storage of knives, forks and spoons shall be designed and used to present the handle to the employee or consumer. (4-601D)
- C. Single-service articles shall be stored at least 6 inches above the floor in closed cartons or containers which protect them from contamination. They shall not be placed under exposed sewer lines or water lines, except for automatic fire protection sprinkler heads that may be required by law. (4-602A)
- D. Single-service articles shall be handled and dispensed in a manner that prevents contamination of surfaces which may come in contact with food or with the mouth of the user. (4-602B)

19. WATER SUPPLY:

- A. All water supplies must comply with the Colorado Primary Drinking Water Regulations. (5-101)
- B. Provide the name of water system that supplies water to the facility. Is this a public or private water supply? (5-101) _____
- C. Adequate, uncontaminated, safe potable water for the needs of the retail food establishment shall be provided from a source constructed, maintained, and operated according to law. (5-101)
- D. Water under pressure of at least 15 pounds per square inch (psi) at the required temperature shall be provided to all fixtures and equipment that use water. (5-106)
- E. Hot water generation and distribution systems shall be sufficient to meet the peak hot water demands throughout the retail food establishment. See page 20 of this plan review form to calculate minimum hot water requirements of the facility. (5-107)
- F. A reservoir used to supply water to a device such as a produce fogger shall be installed and maintained in accordance with manufacturer's specifications, cleaned in accordance with manufacturer's specifications or according to the procedures specified in the *Colorado Retail Food Establishment Rules and Regulations* (5-212B), whichever is more stringent. (5-212A)

20. PLUMBING:

- A. Plumbing shall be sized, installed, and maintained in accordance with applicable state and local plumbing codes, ordinances, regulations, and standards. There shall be no cross-connection between the potable water supply and any non-potable water supply, nor any sources of contamination. (5-201A,B)
- B. The potable water system shall be installed to preclude the possibility of backflow. Devices shall be installed to protect against backflow at all fixtures and equipment where an air gap at least twice the diameter of the water system inlet is not provided between the water supply inlet and the fixture's flood level rim. No hose shall be attached to a faucet that is not equipped with a backflow prevention device. (5-202)
- C. A water filter, screen, or other water conditioning device installed on water lines shall be designed and located to facilitate disassembly for periodic servicing and cleaning. A water filter element shall be of the replaceable type. (5-203)

- D. When possible, a grease trap or grease interceptor should be located outside the establishment. When installed inside the establishment, a grease trap or grease interceptor shall be located away from the food preparation area, easily accessible for cleaning, and installed flush to the finish grade. (5-204)
- E. Warewashing machines, warewashing sinks, refrigerators, food/vegetable preparation sinks, steam kettles, potato peelers, ice bins and ice machines, and similar types of equipment in which food, portable equipment or utensils are placed shall be indirectly connected to the waste line and shall drain into an approved receptor of such size, shape, and capacity to prevent splashing or flooding. (5-205A)
- F. All floor drains and floor sinks shall be readily accessible for cleaning and inspection. (5-205A)
- G. Warewashing sinks connected to a grease interceptor must be directly connected to the plumbing waste system with a floor drain or floor sink installed within 5 feet immediately downstream of the sink waste line and no other fixtures connected to this waste line. (5-205C and per local Regional Building Department)
- H. Each walk-in refrigerator used for iced products, hanging meats or which requires flushing shall either be equipped with a floor drain installed only with indirect waste and discharged through an air gap into an approved receptor or constructed so all parts of the floor of such walk-in refrigerator shall be graded to drain to the outside of the refrigerator through a wastepipe, doorway or other opening. (5-206D)

21. HANDWASHING FACILITIES

- A. The number of restroom handwashing lavatories shall comply with the requirement of the plumbing code adopted by the local Regional Building Department. (5-208A)
- B. Handwashing lavatories in areas where foods and equipment are handled shall be conveniently located to be easily accessible to employees involved in food and utensil handling. Handwashing lavatories used for toilet rooms shall be located in the toilet rooms. (5-208B)
- C. Each handwashing lavatory facility shall be provided with hot (minimum of 90°F) and cold water. Any self-closing, slow-closing, or metering faucet used shall be designed to provide a flow of water for at least 15 seconds without the need to reactivate the faucet. (5-208C)
- D. A supply of hand-cleansing soap or detergent shall be available at each handwashing lavatory facility. A supply of dispensed sanitary towels, disposable towels, or a hand-drying device providing heated air shall be conveniently located near each lavatory facility. Common towels are prohibited. If disposable towels are used, easily cleanable waste receptacles shall be conveniently located near the lavatory facilities. (5-208D)

22. TOILET FACILITIES:

- A. Separate toilet facilities shall be required for each sex in establishments with seating capacity in excess of 15 patrons or more than 15 employees. These facilities shall be installed to comply with the requirements of the Plumbing Code adopted by the local Regional Building Department. (5-209B)

- B. Separate toilet facilities are not required for each sex in places of 15 or fewer seating capacity for patrons, or 15 or fewer employees where there is no seating capacity, provided the toilet is a single occupancy facility and the door can be secured from the inside. (5-209C)
- C. Retail food establishments with no space on the premises for consumption of food by patrons are required to provide toilet facilities only for employees. Patron facilities shall be available where parking is provided primarily for consumption of food on the premise. (5-209D)
- D. A supply of toilet tissue in a permanently mounted dispenser shall be provided at each toilet at all times. Easily cleanable receptacles shall be provided for waste materials. (5-209G)

23. UTILITY FACILITIES

- A. At least one utility sink or curbed cleaning facility shall be provided with a floor drain and hot and cold water and used for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water or similar liquid wastes. The use of handwashing lavatories, warewashing, or food preparation sinks for this purpose is prohibited. A utility sink cannot be used for handwashing. (5-210A)
- B. Suitable cleaning equipment and supplies, such as high pressure pumps, hot water, steam, and detergent, shall be provided as necessary for effective cleaning of equipment and receptacles for refuse, recyclables, and returnables. (5-210B)

24. SEWAGE:

- A. All sewage shall be disposed of by a sewage disposal system constructed, maintained and operated according to law. (5-211)
- B. Provide the name of the sewage system used by the facility Is this a public or private sewage system (5-211): _____
- C. All private sewage systems must comply within the El Paso County Department of Health & Environment Individual Sewage Disposal System Regulations. (5-211)

25. REFUSE, RECYCLABLES AND RETURNABLES:

- A. Garbage and refuse shall be held in durable, easily cleanable containers that do not leak and do not absorb liquids. Plastic bags and/or wet strength paper bags shall be used to line these containers. (5-301A)
- B. Outside dumpsters, compactors, and compactor systems shall be easily cleanable, insect and rodent-proof and shall be provided with tight-fitting lids, doors, or covers. (5-301C)
- C. Suitable facilities, detergent, and hot water or steam, shall be provided and used for cleaning all refuse containers. Liquid waste from compacting or cleaning operations shall be disposed of as sewage. (5-301E)
- D. Garbage or refuse storage rooms and recycling areas, if provided, shall be constructed of easily cleanable, nonabsorbent, washable materials, and shall be insect and rodent resistant. These areas shall be large enough to store all garbage and refuse containers. (5-302B)

E. Outside storage areas or enclosures, if provided, shall be large enough to store all the garbage and refuse containers. Dumpsters and compactor systems located outside, shall be stored on a smooth surface of nonabsorbent material, such as concrete or machine-laid asphalt. (5-302C)

F. An area designated for refuse, recyclables, returnables and redeeming machines for recyclables or returnables shall be located separate from food, equipment, utensils, linens, and single-serve and single-use articles. (5-304A)

26. LIGHTING

A. Permanently fixed artificial light sources shall be installed to provide at least 50 foot candles of light on all food preparation surfaces and at warewashing work levels. (6-301A)

B. Permanently fixed artificial light sources shall be installed to provide, at a distance of 30 inches from the floor, at least 20 foot candles of light in sales areas, utensil and equipment storage areas, and in lavatory and toilet areas; and at least 10 foot candles of light throughout walk-in refrigeration units, dry food storage areas, and in all other areas. (6-301B)

C. Light bulbs shall be shielded, coated, or otherwise shatter-resistant in areas where there is exposed food, clean equipment, utensils, linens, or unwrapped single-service and single-use articles. (6-302A)

27. MAINTENANCE OF FACILITIES

A. Maintenance and cleaning tools, such as brooms, mops and vacuum cleaners, shall be stored in a way that does not contaminate food, utensils, equipment, or linens. These items shall be stored in an orderly manner to facilitate the cleaning of the storage area. (6-402)

B. Outdoor walking and driving areas shall be surfaced with concrete, asphalt, gravel or other materials that have been effectively treated to minimize dust, facilitate maintenance, and minimize muddy conditions. These surfaces shall be graded to drain. (6-501B)

C. No retail food establishment operation shall be conducted in any area used as living or sleeping quarters. A retail food establishment operation shall be separated from any living or sleeping quarters by complete partitioning and solid, self-closing doors. (6-502)

28. POISONOUS AND TOXIC MATERIALS

A. Poisonous or toxic materials shall be stored so they do not contaminate food, equipment, utensils, linens, or single-service and single-use articles. (7-103)

B. Employees' medications, cosmetics and first aid supplies shall be stored in properly labeled containers and located so that food and food-contact surfaces of equipment, utensils, linens, single-service and single-use articles cannot be contaminated. (7-110)

29. INSECT AND RODENT CONTROL

- A. Openings to the outdoors shall be protected against the entry of insects and rodents by closed, tight-fitting windows and solid self-closing, tight-fitting doors. (8-101A)
- B. If windows or doors are kept open, the openings shall be protected against the entry of insects and rodents by 16 mesh to 1 inch screens, properly designed and installed air curtains, or other effective means. (8-101B)
- C. All foundations shall be rodent-proof. Openings between the floor and bottom of outer doors, when closed, shall be no greater than one-fourth inch (1/4"). (8-101E)
- D. Devices used to electrocute flying insects and that may impel insects or insect fragments shall be designed to have escape-resistant trays and installed so that the devices are not located over a food preparation area and dead insects and insect fragments are prevented from falling on or being impelled onto exposed food, clean equipment, utensils, linens, and unwrapped single-service and single-use articles. (8-103A)
- E. Devices used to trap insects by adherence may not be installed above exposed food, clean equipment, utensils, linens, or unwrapped single-service and single-used articles unless the device is designed to completely contain the trapped insects. (8-103B)

WORKSHEET FOR CALCULATING MINIMUM HOT WATER REQUIREMENTS

The following worksheet is provided to assist operators in calculating hot water usage and sizing of the water heater required for the operation.

I. Calculate Total Water Required by All Fixtures:

A. Three-compartment sink calculation of water usage:

1. Measure dimensions, in inches, of each compartment, if compartments are not the same dimensions see note below.

LENGTH = _____ WIDTH = _____ DEPTH = _____

2. Insert measurements into equation

$$\left(\frac{\text{Length}}{\text{Length}} \times \frac{\text{Width}}{\text{Width}} \times \frac{\text{Depth}}{\text{Depth}} \times 3 \times .375 \right) \div 231 = \frac{\text{Water Usage}}{\text{Water Usage}}$$

Note: If all compartment sizes of the sink are not the same, then 3 is taken out of the equation, and the above calculation is done for each compartment. The volumes are added to obtain the total gallons per hour of hot water used in the sink.

Enter number into the attached "Table to Calculate Total Water Required by All Fixtures," found in Part II on the following page.

B. Utensil soak sink calculation of water usage:

1. Measure dimensions, in inches, of the sink

LENGTH = _____ WIDTH = _____ DEPTH = _____

2. Insert measurements into equation

$$\left(\frac{\text{Length}}{\text{Length}} \times \frac{\text{Width}}{\text{Width}} \times \frac{\text{Depth}}{\text{Depth}} \times .375 \right) \div 231 = \frac{\text{Water Usage}}{\text{Water Usage}}$$

Enter number into the attached "Table to Calculate Total Water Required by All Fixtures," found in Part II.

C. Dishmachine and conveyor pre-rinse water usage:

Use manufacturer's rating in gallons per hour

Enter number into "Table to Calculate Total Water Required by All Fixtures" in Part II.

D. Clothes washer water usage:

Use manufacturer's rating or 32 GPH for 9-12 pound washer or 42 GPH for 16-pound washer.

Enter number into the attached "Table to Calculate Total Water Required by All Fixtures," in Part II.

- A. Use the gallon per hour rating for each of the remaining fixtures found in the "Table to Calculate Water Required by All Fixtures" and the number of fixtures in the operation to determine maximum hourly usage for each type of fixture in the operation.

II. Table to Calculate Total Water Required by All Fixtures:

Plumbing Fixture	Water Usage (gallons per hour)	Number of fixtures	Maximum hourly water Usage per type of fixture (gallons per hour)
Example: Warewashing machine	50	1	50
Example: Lavatory Sinks(s)	5	4	(5 x 4 =) 20
3-compartment sink			
3-compartment sink (bar)			
Utensil soak sink			
Warewashing machine			
Warewashing machine conveyor pre-rinse			
Clothes washer			
Hand operated pre-rinse sprayer	32		
Lavatory sink(s), include rest rooms	5		
Mop sink	7		
Garbage can washer	35		
Showers	14		
Hose bibb used for cleaning	35		
Total water (gph) required by all fixtures			

III. Calculate Maximum Hourly Hot Water Usage

If gas water heater is used go to step A; if electric, Step B.

- A. Gas Water Heater: If a gas water heater is to be used, calculate the maximum hourly hot water usage for the facility by adjusting the total water required by all fixtures for altitude. The altitude adjustment is 4% per 1000 feet of elevation, or 20% at 5000 feet.

Use the following equations to determine the maximum hourly hot water usage when a gas powered water heater is to be used:

$$(.04 \times \frac{\text{elevation of facility}}{1000}) + 1 = \text{adjustment factor}$$

$$\text{adjustment factor} \times \text{total water required by all fixtures} = \text{maximum hourly hot water usage}$$

For example, if the total gallon per hour usage for an establishment at an elevation of 5000 feet is 100 GPH, the adjustment factor is 1.2. Therefore, a water heater with 120 GPH recovery rate would be required.

Use this value in the equation, in Part IV, to calculate the minimum BTU rating of the water heater.

- B. Electric Water Heater: If an electric water heater is to be used, the maximum hourly usage for the operation is the same as the total water required by all fixtures. Use this value in the equation, in Part IV to calculate the minimum Kilowatt rating of the water heater.
- C. Maximum Hourly Hot Water Usage: _____

IV. Calculate the minimum BTU or Kilowatt rating of water heater:

- A. For gas water heater, calculate the minimum BTU rating:

$$\frac{(\text{Max Hourly Hot Water Usage as calculated above}) \times (100) \times (8.33)}{.75 \text{ efficiency rating}} = \text{Minimum BTU Rating}$$

Minimum BTU Rating: _____.

- B. For electric water heater, calculate the minimum Kilowatt rating:

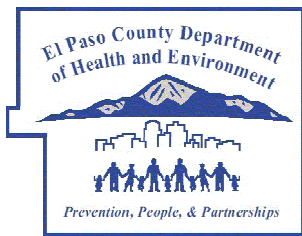
$$\frac{(\text{Max Hourly Hot Water Usage as calculated above}) \times (100) \times (8.33)}{3412} = \text{Minimum Kilowatt Rating}$$

Minimum Kilowatt Rating: _____.

- C. Select water heater based upon BTU or Kilowatt rating.

V. Provide the following information for each water heater in the facility.

Water Heater Location	Make & Model #	Tank Capacity	BTU or KW Rating	Recovery Rate at 100° F Rise
#1				
#2				
#3				



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Regulation Number 1 adopted by the Colorado Air Quality Control Commission on October 19, 1993, states the following:

“ . . . no owner or operator or a source shall allow or cause the emission into the atmosphere of any pollutant which is in excess of 20% opacity . . . ”

Exemptions from this regulation are for emissions from fireplaces, fireplace inserts and stoves provided such devices are burning only clean, dry wood or wood products and are used for non-commercial or recreational purposes.

Based on this requirement, this office requests that the owner or owner’s representative certify that the equipment installed in this facility will operate in a manner that is consistent with good air pollution practices. Specifically, a smoker, grill, charbroiler or barbecue will not be operated if the emissions vented into the ambient air exceed 20% opacity.

The undersigned understands that failure to meet the 20% opacity limit may cause the Air Quality Control office to initiate legal action to insure compliance with the Colorado Air Quality Regulations.

Signature _____ Date _____

Earth Moving Activity

Will there be, or has there been, earth moving activity at this site? ___No ___ Yes

If yes, does this activity encompass an acre or more?

 ___No ___ Yes

If yes, it is your responsibility to know if an **Earth Moving Activity Permit** has been obtained and what that permit number is.

Permit Number _____

Upon completion of all sections of this Plan Review Form, please sign and date below.

Signature _____ Date _____

Owner or Designated Representative