

DEPARTMENT OF VETERANS AFFAIRS

DESIGN INSTRUCTIONS TO ARCHITECTS AND ENGINEERS

LOCATION : VAMC,

PROJECT TITLE :

PROJECT NO. :

SCHEMATICS

DESIGN
DEVELOPMENT

CONSTRUCTION
DOCUMENTS

EQUIPMENT

EQUIPMENT DESIGN MANUAL FOR HOSPITAL PROJECTS
(June 2006)

FROM:

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Telephone Number:

EQUIPMENT DESIGN MANUAL
DEPARTMENT OF VETERANS AFFAIRS

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**EQUIPMENT DESIGN MANUAL
DEPARTMENT OF VETERANS AFFAIRS**

January 2006

1. GENERAL:

- 1.1 This design manual relates to food service, hospital casework and accessories, photographic processing, sterilization, laboratory washing, and other miscellaneous equipment. Refer to VA Program Guide 7610 (EQUIPMENT GUIDE LIST) and Program Guide PG-18-6 (LIST OF EQUIPMENT SYMBOLS) and Architectural, Electrical, HVAC, Plumbing, and Steam Design Manuals.
- 1.2 Show equipment on drawings using a scale of 1:50 (1/4" = inch) graphics for contractor furnished and installed equipment (CC), VA purchased and contractor installed equipment (VC) and VA purchased and installed equipment (VV).
 - A. CC equipment: Identify on the drawings using symbols, details and elevations that are designated in PG-18-6. Modified symbols may be provided for equipment not shown in PG-7610 and PG-18-6.
 - B. VC, VV, and relocated equipment: Provide an equipment schedule on the drawings indicating manufacturer's name, model number, utility requirements, and description of item.
- 1.3 Equipment utilities: Provide as indicated in PG-18-6, manufacturer's literature for CC equipment, or manufacturer's literature provided by VA medical center for VC, VV, and relocated equipment. Coordinate with mechanical, plumbing and electrical engineering drawings and specifications.
- 1.4 Sanitary Considerations: Food Service Equipment and the installation thereof shall be fabricated and installed in conformance with the National Sanitation Foundation Standards for Food Service Equipment (Latest Revisions).

2. EQUIPMENT SYMBOLS, DETAIL DRAWINGS, AND UTILITY REQUIREMENTS:

- 2.1 VA Program Guide PG-18-6 contains a list of equipment symbols, detailed drawings, and utility requirements for equipment as designated by the VA and specified in the 11000 series of the Master Specifications. Sections in the handbook coincide with the Master Specifications utilizing the same title and numerical designations. Requirements for identifying equipment are herein defined for each chapter and section:
 - A. Chapter 1. Food Service Equipment
 - Section 11401.... Custom Fabricated Food Service Equipment
 - Section 11410.... Food Cooking Equipment
 - Section 11411.... Food Service Warewashing Equipment
 - Section 11412.... Food Waste Machines
 - Section 11415.... Food Service Self-contained Refrigeration
..... Equipment
 - Section 11416.... Food Service Equipment-Utility Distribution
..... Systems
 - Section 11420.... Food Service Grease Extracting Ventilators

1. Symbols for this equipment are prefixed by the letter "K" except for Canteen Service Furnished Food Service Equipment.
2. Where choice of fuels is indicated in the Equipment Guide List, make determination as to which is the most economical. An exception is mobile caster mounted equipment shall be electrically operated.
3. Show details of all custom fabricated, and elevations and schematics of all other equipment such as cookers, ranges, kettles, ventilators, utility systems, refrigerators, warewashing equipment, waste machines, etc. Details, elevations and schematics shall be coordinated with the project being designed.
4. All equipment must comply with the requirements stated in the applicable section of the specifications.
5. Provide mineral-free water to steam generators producing clean steam used for cooking food. Existing water conditions at the VA medical center should be analyzed to determine the type of mineral-free water system to be provided.

B. Chapter 2. Hospital Casework and Accessories

Section 11475..... Photography Processing Equipment

Section 12303..... Countertops and Accessories

Section 11604..... Biohazard Safety Cabinets

Section 11610..... Laboratory Fume Hoods

Section 12301..... Metal Casework

Section 12347 Molded Plastic Casework

1. Metal Casework, Casework, and Accessories

- a. Symbols for this equipment are prefixed by "VL", "PH", or "TYPES".
- b. Identify each piece of equipment separately. Typical lay-outs and identification are not recommended.
- c. Each type of cabinets and other accessories, such as pegboards, counter tops, sinks, service fixtures, refrigerators, etc. shall be shown with separate details as identified in PG-18-6. Typical room or assembly elevations are not recommended.
- d. All gas, air, and vacuum service fixtures shall be shown on the laboratory furniture plans spaced a minimum of 300 mm (12-inch) on center and identified in sequence left to right (G-A-V).
- e. Locations of reagent grade water outlets must be identified on the plans.
- f. Electrical outlets for island and peninsulas shall be double face duplex receptacles.
- g. Clearly identify where countertops are to extend and where filler panels and finished backing panels are to be used.

- h. Use "AR" dimensions only in assemblies where total length is clearly defined, as between two walls. Do not use more than one "AR" item in any assembly.
 - i. Do not use wall cabinets where no equipment is shown under. Do not hang wall cabinets from ceiling.
 - j. Equipment must comply with the requirements stated in Specification Sections 12301 and 12303.
2. Fume hoods and Biohazard Cabinets
- a. Symbols for this equipment are prefixed by "H".
 - b. Coordinate exhaust requirements with HVAC mechanical drawings and specifications.
 - c. Provide details as shown in PG-18-6.
 - d. Equipment must comply with the requirements stated in Specifications Section 11604 and 11610.
3. Photographic Processing Equipment
- a. Symbols for this equipment are prefixed by "FL".
 - b. Provide utilities as required in PG-18-6.
 - c. Show details of each piece of equipment separately.
 - d. Equipment must comply with the requirements stated in Specification Section 11475.

C. Chapter 3. Sterilization Equipment

Section 11710 Sterilizers and Associated Equipment

1. Sterilizers and Associated Equipment

- a. Symbols for this equipment are prefixed by "VS".
- b. Provide proper loading and servicing clearances for all sterilizing equipment.
- c. Show location of sterilizers floor drains and sinks on the architectural plans and coordinate with the plumbing drawings.
- d. Coordinate ETO sterilizers exhaust requirements with the HVAC drawings.
- e. Provide mineral-free water to washer-sterilizer for final rinse.
- f. Use sterilizer enclosure panels (modular walls) for recessing sterilizers in SPD, glassware wash rooms, surgery, and other locations utilizing recessed units.
- g. Where pass-thru one wall sterilizers are used from infectious area to other areas, use a cross contamination seal at the wall end. Locate main controls in the contaminated area. Provide detail of cross contamination seal.
- h. Show elevations and details of sterilizers.
- i. Equipment must comply with the requirements stated in specification 11710.

D. Chapter 4. Laboratory Washing and Miscellaneous Equipment

Section 11491 Hydrotherapy Equipment

Section 11615 Laboratory Controlled Temperature Rooms

Section 11620 Laboratory Custom Fabricated Equipment

Section 11701 Solution Warming Cabinets

Section 11714 Medical Washing Equipment

Section 11781 Morgue Equipment

1. Hydrotherapy Equipment

- a. Symbols for this equipment are prefixed by "HT".
- b. Show elevations of each piece of equipment as shown in PG-18-6.
- c. Provide adequate clearances as shown in PG-18-6.
- d. Equipment must comply with the requirements stated in Specification 11491.

2. Laboratory Controlled Temperature Rooms (CTR)

- a. Symbol for this equipment will be defined with "CTR + Set Temperature". Rooms should not be identified as "refrigerator" or "freezer".

- b. Slab depression is not required for CTR. Do not use ramps at doors.
 - c. Provide separate room with floor drain to accommodate the water cooled compressor. Compressor Room should be no more than 4.5 m (15 linear feet) from the applicable CTR.
 - d. Show the CTR control panel location.
 - e. Show isometric view of CTR as shown in PG-18-6.
 - f. Equipment must comply with the requirements stated in Specification Section 11615.
3. Custom Fabricated Laboratory Equipment
- a. Symbols for this equipment are prefixed by "HW".
 - b. Completely detail each custom fabricated item.
 - c. Provide adequate clearances.
 - d. Equipment must comply with the requirements stated in Specification Section 11620.
4. Solution Warming Cabinets
- a. Symbols for this equipment are prefixed by "HW".
 - b. Show elevation detail as shown in PG-18-6.
 - c. Provide adequate loading and servicing clearances in compliance with PG-18-6.
 - d. Equipment must comply with the requirements stated in Specification Section 11701.
5. Medical Washing Equipment
- a. Symbols for this equipment is prefixed by "HW".
 - b. Recess equipment into mechanical spaces where possible utilizing metal modular walls paneling.
 - c. Provide adequate loading and servicing clearances in compliance with PG-18-6
 - d. Provide reagent grade III or better water for final rinse to glassware washers that are required to have a mineral free water cycle. Coordinate with plumbing drawings and specifications.
 - e. Provide details of pit for cart washers. Coordinate with the structural drawings and specifications.
 - f. Provide elevation drawings of all Medical Washing Equipment as shown in PG-18-6.
 - g. Equipment must comply with the requirements stated in Specification Section 11714.
6. Morgue Equipment

- a. Symbols for this equipment are prefixed by "ME".
- b. Show elevation details of each item as shown in PG-18-6.
- c. Provide adequate clearances in compliance with PG-18-6.
- d. Show location of all floor drains.
- e. Equipment must comply with the requirements stated in Specification Section 11781.

3. APPLICABLE MASTER SPECIFICATIONS INDEX:

SECTION	DATE	TITLE
11401	09-05M	Custom Fabricated Food Service Equipment
11410	09-05M	Food Service Cooking Equipment
11411	07-02M	Food Service Warewashing Equipment
11412	10-05M	Food Waste Machine
11415	11-05M	Food Service Self-Contained Refrigeration Equipment
11416	11-05M	Food Service Equipment-Utility Distribution Systems
11420	07-02M	Food Service Grease Extracting Ventilators
11475	07-02M	Photographic Processing Equipment
11491	07-02M	Hydrotherapy Equipment
11604	06-02M	Biohazard Safety Cabinets
11610	07-02M	Laboratory Fume Hoods
11615	11-94M	Laboratory Controlled Temperature Rooms and Refrigerators
11620	07-02M	Custom Fabricated Laboratory Equipment
11701	06-02M	Solution Warming Cabinets
11710	06-02	Sterilizers and Associated Equipment
11714	06-02M	Medical Washing Equipment
11781	07-02M	Morgue Equipment
12301	05-03M	Metal Casework
12303	04-05M	Countertops and Accessories
12347	08-02M	Molded Plastic Casework

Division 15 - Mechanical: plumbing, steam, and ventilation

Division 16 - Electrical: power, wiring, and connections

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