

DIVISION 12 - FURNISHINGS

Includes the following sections:

- 12 20 00 Window Treatments
- 12 35 53 Laboratory Casework
- 12 93 00 Site Furnishings

DESIGN CRITERIA

Stationary workstations in the office/laboratory setting should provide adequate surfaces for ergonomic arrangement of the computer keyboard/pointing device, monitor and document/work holders. Follow good ergonomic principles providing height adjustable work surfaces, openings adequate for leg and knee clearances and sufficient overhead space to allow adjustments to vertical equipment placement. In particular, care shall be given when designing fixed workstations for public contract work activities, such as cashiering, customer service counter and pharmacy. These workstations shall be less than 30 inches wide and adjustable for either seated or standing work. The BSR/HFES100 Draft Standard for Trial Use, "Human Factors Engineering of Computer Workstations" or ANSI/HFS100-1988 "American National Standard for Human Factors Engineering of Visual Display Terminal Workstations" shall be reviewed by the Design Professional.

WINDOW TREATMENTS 12 20 00

Provide white or off-white 1-inch wide horizontal blinds for all exterior windows.

LABORATORY CASEWORK 12 35 53

Lab Design shall comply with the UC Lab Safety Design Manual located at: <http://lsdm.ucop.edu/>.

GENERAL LABORATORY EQUIPMENT STANDARDS:

1. The Executive Architect is to verify all specific chemical resistance properties of the countertop surface material with the Project Manager. A list of chemicals to be used and stored in the room is needed to make a proper selection of the hood, fume exhaust duct work and storage. The user or lab programmer shall prepare an HVAC data sheet for each room. Obtain form from project manager.

QUALITY ASSURANCE

1. Single Source Responsibility: Laboratory casework, work surfaces and accessories included in this section shall be supplied by a single laboratory supplier. Proposals from brokers or multiple suppliers will not be accepted.
2. The supplier for work in this section shall use manufacturers with production facilities including all tools, equipment and special machinery necessary for specializing in the fabrication and installation of the type of equipment specified, with skilled personnel, factory trained workmen and an experienced engineering department. Each shall have

the demonstrated knowledge, ability and the proven capability to complete an installation of this size and type within the required time limits: Ten years or more experience in manufacture of laboratory casework and equipment of type specified. Ten installations of equal or larger size and requirements within the last five years.

DESIGN REQUIREMENTS:

1. Laboratory Cabinets: for cleanroom installations, wood casework is less common than metal or polypro, given the need for ongoing clean-ability. But for non-clean environments, wood is still preferred. For mobile tables, epoxy-coated metal frames are fine. They need to be designed so that they don't have crossbars in the front, so that cabinets or equipment may fit underneath.
2. Construction: All cabinets to be constructed of veneer core plywood. Particle board and medium density fiberboard (MDF) materials are not acceptable. Combination core plywood with an outer layer of MDF both sides is acceptable for door and drawer fronts.
3. Door and drawer design: Flush Overlay, slip match on door and drawer fronts. Door and drawer fronts to be constructed of combination core plywood/MDF board. This is the only application in which MDF is acceptable. Edge banding shall be solid 3 mm species to match veneer species.
4. Grain pattern on end panels to be vertical. Grain pattern on cabinet drawers and doors: Vertical matched grain (drawers and doors), book matched, center balanced.

MATERIALS & FINISHES

1. Exposed surfaces: Surfaces visible when drawers and solid doors are closed. Front edges of cabinet body members are visible or seen through a gap of greater than 1/8" with doors and drawers closed. Portions of cabinets visible when fixed appliances are installed.
2. Semi-exposed surfaces: Surfaces visible when doors and drawers are open. Surfaces visible behind clear glass doors. Interior surfaces of open units. Bottoms of cabinets 30" or more above finished floor. Tops of cabinets less than 78" above finished floor, or are visible from an upper floor or staircase after installation.
3. Unexposed surfaces: Surfaces not normally visible after installation. Bottoms of cabinets less than 30" above finished floor. Tops of cabinets over 78" above finished floor which are not visible from an upper level. Stretchers, blocking and/or components concealed by drawers.
4. Hardwood: Hardwood lumber, clean and free of defects. All lumber kiln dried to uniform moisture content of six (6) percent. Exposed material and semi-exposed material shall be of same species as veneer. Unexposed material shall be of hardwood of suitable for the intended purpose.
5. Plywood: Hardwood plywood featuring a balanced construction glued with water resistant resin glue.
6. Glass: Float Glass - 3mm (nominal 1/8") on framed glass doors on wall and upper cases and 6mm (nominal 7/32") on tall cases. Glass to be without imperfections or marred surfaces.
7. Finish: Highly chemical resistant acrylic urethane finish with built-in UV blocker applied over stain of selected color from manufacturer's standard color offering. Provide chemical resistant finish conforming to Woodwork Institute premium grade TR-6 finish, with no less than two topcoats. Finish shall be water resistant. Volatile organic compound levels shall comply with limits established in 1.04 Environmental Quality Assurance.

HARDWARE

1. Drawer and hinged door pulls shall be 4" aluminum wire pulls, all horizontally mounted, and centered on doors and drawers.
2. Hinges: Heavy duty exposed 3 knuckle non-mortise stainless steel satin finish hinge attached with sheet metal screws. Provide two hinges for doors up to 36" high. Three hinges for doors over 36" high.
3. Touch latch: All wall and tall cabinets shall have touch latch, Sugatsune MC-37. Each door of each cabinet shall be operable without having to open the adjacent door. Elbow catches shall not be provided on cabinets.
4. Bolts for tall storage cabinets shall be 3" long, shall have an 18" pull and an angle strike to secure inactive door on cabinets over 72" in height.
5. Drawer suspension: Mechanical slides shall be full extension with overtravel, 150 lb. dynamic, zinc plated Accuride or equal.
6. Pull out board suspension: 100 lb. full extension ball bearing with overtravel, zinc plated Accuride or equal.
7. Shelf supports: Seismic twin pin heavy duty clear plastic with 500 lb. rating. Provide Hafele catalog number 282.47.402.

WORK SURFACES

1. Phenolic Resin Work Surface: Provide "Top Lab" phenolic resin work surface (1" thickness) manufactured by Trespa, or approved equal, for all fixed wall laboratory casework tops, and moveable lab benches. Color: Silver Grey T03.4.0.

SITE FURNISHINGS**12 93 00****TRASH AND LITTER RECEPTORS**

Strategically design for trash and recycling systems throughout the interior and exterior of the building. Include in the design how each space shall be supported from an office to the office suite, floor, assembly areas, lobby, entrances, approach, outdoor gathering space, etc. Review the design and planned operations with the building occupants. Delineate the trash/recycling receptors that shall be included in the project and those to be provided by the occupants.

Exterior Receptors

Outdoor trash and recycling bin sets and associated signage shall be provided and installed by the University at building entrances, resting areas, patio areas, eating areas and walkways. Coordination of bin placement shall occur during the Construction Document Phase between University's Representative and Design Professional. Standard exterior receptors are listed below:

Dirt/Gravel/Open/Grass Areas:

1. Trash bin is CF 4510 – 45 gallon flat top barrel, no lid with DA 1855 – steel dome top for 55 gallon barrel, C 3555 – rigid plaster liner, CS 3600 - post with signs and brackets.
2. Mixed paper bin is CS 3035 – barrel with mixed paper labeled lid, C 3520 – rigid plastic liner with CS 3110 – side access door.

3. Cans and bottles bin is CS 3035 – barrel with cans and bottles labeled lid with C 3520 – rigid plaster liner and CS 3110 – side access door.

Interior Receptors

Provide built-in indoor recycling cabinets where appropriate for building design. Recycling cabinets are multi-purpose receptacles for cardboard, mixed paper, bottles and cans, and trash. Place recycling cabinets in convenient access areas and high traffic areas such as lobbies, anterooms to lecture halls, and main corridors.

Small Cabinet

Locate the small cabinet in lower traffic areas such as break or mail rooms. There are three compartments designated for mixed paper, bottles and cans, and trash and one open area for cardboard collection. Place one bin (11-inches wide by 20-inches deep by 30-inches high) in each labeled compartment. (See Detail A-01 in Drawings Section of CSDG.)

Minimum Clearances

1. Cabinet dimensions 65-inches wide by 28-inches deep by 36-inches high.
2. Cabinet door 14-inches wide.
3. Inside cabinet 34-inches high.

Large Cabinet

Locate the large cabinet in high traffic areas such as lobbies and anterooms to lecture halls. This design includes a 10 cubic feet addition for newspaper distribution and storage. There are three compartments designated for mixed paper, bottles and cans, and trash and one open area for cardboard collection. Place one bin (14-inches wide by 14-inches deep by 28-inches high) in each labeled compartment.

Minimum Clearances

1. Cabinet dimensions 90-inches wide by 25-inches deep by 36-inches high.
2. Cabinet door 16-inches wide.
3. Inside cabinet 34-inches high.

Details

Cabinet doors open to floor level so bins can slide into the cabinet. Toe kick is built into swinging cabinet door, which aids in keeping bin in place.

Proper signage is required to avoid contamination. Use 5-inches wide by 2-inches high laminate plaques to label cardboard, mixed paper, bottles and cans, and trash.