

## Design and Construction Standards

### Division 10 – Specialties

#### General

In general, follow the guidelines below when designing, specifying and installing accessories and specialty items, including display boards, signage, toilet room accessories, storage items, or other miscellaneous building components. Unless specifically indicated otherwise, these guidelines are not intended to restrict or replace professional judgment.

1. The Professional shall provide layouts of all Specialties to determine function and space use for the project. Submittals are required as outlined in the Professional Agreement for Services.
2. The Professional shall clearly define Contractor responsibilities relative to receiving, storage and installing all items in this Division. The Professional is to locate and coordinate all blocking, support and services for installation of all items in this Division.

#### Section 10 11 00 Visual Display Units

1. For all Chalkboards and all Marker boards, a lifetime warranty is required and shall indicate that under normal usage and maintenance, porcelain enamel steel chalkboards are guaranteed for the life of the building.
2. Chalkboards shall be specified and installed with the following characteristics:
  - a. All product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents. Writing surface shall be standard black.
  - b. Chalkboards shall be porcelain enamel steel and shall be manufactured in accordance with Porcelain Enamel Institute's specification. Porcelain enamel finish shall be fusion bonded to a 24-gauge steel substrate at temperature necessary to reduce steel and porcelain stresses and achieve superior enamel bond and hardness.
    - i. Face Sheet: 24-gauge steel
    - ii. Core Material: ¼" hardboard, 7/16" MDF or 3/8" particle board
    - iii. Panel Backing: aluminum foil or sheet moisture barrier
    - iv. Laminations: hot type neoprene contact adhesive to both surfaces with minimum of 80% coverage. Laminations shall be made by face sheet manufacturer.
    - v. Tray: Standard continuous, solid box type aluminum tray with ribbed section and injection molded end closures.
    - vi. Map Rail: Standard continuous, 2" map rail with cork insert and end stops at the top of each board. Furnish (4) map hooks every eight feet.

3. Marker boards shall be specified and installed with the following characteristics:
  - a. All product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents.
  - b. Marker boards shall be porcelain enamel steel and shall be manufactured in accordance with Porcelain Enamel Institute's specification. Porcelain enamel finish shall be fusion bonded to a 24-gauge steel substrate at temperature necessary to reduce steel and porcelain stresses and achieve superior enamel bond and hardness.
    - i. Face Sheet: 24-gauge steel
    - ii. Core Material: 1/4" hardboard, 7/16" MDF or 3/8" particle board
    - iii. Panel Backing: aluminum foil or sheet moisture barrier
    - iv. Laminations: hot type neoprene contact adhesive to both surfaces with minimum of 80% coverage. Laminations shall be made by face sheet manufacturer.
    - v. Tray: Standard continuous, solid box type aluminum tray with ribbed section and injection molded end closures.
    - vi. Mp Rail: Standard continuous, 2" map rail with cork insert and end stops at the top of each board. Furnish (4) map hooks every eight feet.
    - vii. Electronic Marker boards Construction Coordination: Necessary power, data, blocking and other support for technology equipment shall be included in the Construction Documents.
4. Tack boards shall be specified and installed with the following characteristics:
  - a. In public corridors and lobbies, the Professional shall make provisions for tack board and display areas as required by the project. These tack boards and display areas shall be integrated into the architectural design of the building. Typically, small tack boards are located outside each classroom, office, conference room and other areas of assembly for general memos and other information. Large tack boards and displays are located in public areas. The Professional shall be alerted to coordinate room signage, donor plaques, artwork and other graphics if these are scheduled to be in the same location. All product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents.
  - b. Tack boards shall be vinyl face, fabric faced or cork laminated to 1/2" thick mineral fiber board. Provide fabric and tackable core with flame spread rating of 25 or less when tested according to ASTM E-84.
  - c. Tack boards shall generally have a frame, either of finished wood, or aluminum. All corners shall be eased or radiused and no sharp edges are allowed.

**Section 10 12 00      Display Cases**

1. In public corridors and lobbies, the Professional shall make provisions for display cases as required by the project. These display areas shall be integrated into the architectural design of the building.
2. All product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents.

**Section 10 13 00      Directories**

1. Building Directories shall be provided near the main entrance(s) of each building, and the construction, style, and appearance shall be coordinated with the building signage. Refer to 10 14 00 Signage.

**Section 10 14 00      Signage**

1. The University has a standardized system for all campus room numbering and signage. The Professional shall follow the requirements outlined in the Architectural / Engineering Standards for Construction Documents for the development of all room numbers and signage for a project. All proposals require approval of the Physical Plant prior to finalization of the Construction Documents.
2. Special Plaques, Memorial Information, or Donor Recognition shall be developed with the Physical Plant on a case by case basis, appropriate to the location and information to be displayed. When possible, these specialty signs shall include the following characteristics:
  - a. When a Building Memorial Plaque is utilized in new or renovated buildings, the Professional shall make provisions for a wall area in the main lobby or in the vestibule to the main lobby to be used for installation of a memorial plaque. The wall area shall be architecturally designed to provide an aesthetic setting for the plaque and shall be adequately lighted. Consult with the Physical Plant if the plaque is to be part of the Construction Documents or will be provided by the University at a future date. The Professional shall provide adequate blocking or other materials to support the Plaque as part of the Construction Documents.
  - b. Personal Memorial, Donor Recognition, and Room Plaques shall be designed and installed based on the space they are to be displayed in. The Professional shall be aware of and make provisions (space, applicable blocking, utilities and lighting) in the building for donor recognition areas and room plaques.

**Section 10 21 00      Compartments and Cubicles**

1. Toilet compartments, urinal screens, and shower partitions shall be specified and installed with the following characteristics:
  - a. All product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents.
  - b. Toilet partition materials may vary depending on location and use, however shall generally be as follows:
    - i. Solid Color Reinforced Composite (SCRC) partitions are strongly preferred.
    - ii. Stainless steel may be used where warranted by location or abuse.
    - iii. Metal toilet partitions and Plastic laminate partitions are discouraged.
    - iv. Other materials used only with prior approval.
  - c. Anchors and fasteners: Vandal type screw anchors, toggle bolts, hollow wall anchors or other approved type to suit construction on which items are hung. Wood, lead and plastic plugs are prohibited
  - d. Door latches and pulls: Specify slide latches and pulls for out-swinging doors.
  - e. Support / Style: Toilet partitions shall be ceiling hung, securely fastened to ceiling structure. Where possible, provide anti-hang bars. Where ceiling mounted partitions are not feasible (due to existing conditions), partitions shall be floor mounted, over-head braced with anti-hang bars.
  - f. Stall Sizes and Parameters shall meet code requirements, however shall meet the minimum sizes and requirements as follows:
    - i. Standard Stall: Clear space between panels of 3'-0". Stall depth shall be 5'-0". Standard, ceiling hung partitions.
    - ii. ADA / Barrier Free Compliant Stalls / Partitions: Minimum clear interior stall space of 5'-0" x 5'-0" for out-swinging doors, or 5'-0" x 8'-0" with in-swinging doors. Door widths shall meet minimum required for barrier free access.
2. Other Compartments / Stalls of similar construction (e.g. showers, screens, locker partitions, changing rooms, etc.) shall match the standards for Toilet Compartments.

**Section 10 28 00      Toilet, Bath, and Laundry Accessories**

1. All Toilet Accessories must be reviewed and approved by the Physical Plant Buildings and Grounds Department to verify that accessories match the current equipment and handle the proper paper products, trash bags, etc. For the purposes of this Standard, items known at this time include those as listed in Section 10 28 00.
2. Designs: All product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents. The University has selected standard

products for use. All proposals shall require approval of the Physical Plant prior to finalization of the Construction Documents.

3. Commercial Toilet Accessories shall be as follows:
  - a. Toilet Tissue Holders: Style and manufacturer to be determined – verify with Buildings and Grounds.
  - b. Paper Towel Dispensers: Style and manufacturer to be determined – verify with Buildings and Grounds.
  - c. Soap Dispensers (no substitutions): Style and manufacturer to be determined – verify with Buildings and Grounds.
  - d. Sanitary Napkin Dispenser (no substitutions): Style and manufacturer to be determined – verify with Buildings and Grounds.
  - e. Sanitary Napkin Receptacle (no substitution): Style and manufacturer to be determined – verify with Buildings and Grounds.
  - f. Garment Hooks: Each toilet stall shall have a garment hook. The hooks shall be mounted on the partition; hooks in stalls for use by individuals with disabilities shall be on the partition, reachable from the water closet and approximately 54 in. above the floor. Hook can incorporate door bumper hook.
  - g. Shelves: Each toilet room shall have a shelf for books, purses, etc.
  - h. Mirrors: Specify framed mirrors without shelves. If possible, locate mirrors on walls opposite lavatories. Specify long mirrors, for use by persons with disabilities, with bottom 2 ft. above floor and with top located at same height as smaller mirrors. Check and coordinate mirror locations to prevent image reflection through room entrances.
  - i. Diaper Changing Station (Assembly areas opened to the public) Specify one Diaper Deck for diaper changing for each toilet room.

### **Section 10 40 00 Safety Specialties**

1. All Toilet Accessories must be reviewed and approved by the Physical Plant Manager responsible for Life Safety Systems to verify that accessories match the current University Standards.
2. Emergency Showers and Eye Washes – The locations of these safety devices should be within 50 feet or 10 seconds of a chemical or biological substance deemed hazardous. The use of the latest ANSI Z358 standard for these safety devices should be specified. ANSI requires the water to be tepid and/or tempered. The devices should not be obstructed or be located near other hazards such as electrical outlets and panels. Drench hoses are not allowed. Proper signage for emergency showers and eyewashes shall be posted.
3. AED –For all new building construction, at least 1 AED shall be installed. New AED's may be required for renovations or remodeling depending on the extent of the renovations. Contact Environmental Health and Safety for specifications and locations. In addition to AED and cabinet, wall signage will also need to be installed. All AED cabinets must be connected to DPS (Department of Public Safety).
4. General Requirements for Portable Extinguishers and Cabinets

- a. Designs: General Contractor shall furnish and install all portable fire extinguishers and cabinets. All portable fire extinguishers and components shall conform to National Fire Protection Association (NFPA) 10, latest edition. Each extinguisher shall be approved by Underwriter's Laboratory (UL) and bear their label.
  - b. Designs: All fire extinguishers are to be complete, tested, certified (tagged), and ready for use.
5. Fire Extinguisher Cabinets
- a. Provide signage for all portable fire extinguishers and cabinet locations as required in NFPA 10, Chapter 1.6-6, and Appendix A, A-1-6.6.
  - b. Cabinets shall be white baked enamel steel, with aluminum doors, lockable, with recessed handle, comparable to the preferred Duo Panel with Larsen-Loc as manufactured by Larsen's Manufacturing Company. Maintain the full fire rating and acoustical ratings of the structure walls.
  - c. Refer to NFPA 10, chapters 2, and 3. Use chapter 2 to determine the classification of potential fires and the rating or relative fire extinguishing effectiveness of various types of extinguishers. Chapter 3 assists in selection of extinguishers, which is dependent upon the character of anticipated fires, property construction and occupancy, the vehicle or hazard to be protected, ambient temperature conditions, and other factors.
  - d. Approvals: The locations of fire extinguishers cabinet are subject to the review and approval of the Physical Plant and designated University personnel.
  - e. Construction Coordination: Penetration of walls by cabinets or other penetrations, unless openings and voids are sealed with fireproof materials, are prohibited. Fire-rated walls must not have the rating reduced by penetrations or reduction of thickness.
6. Fire Extinguishers
- a. Refer to NFPA 10, chapters 2, and 3. Use chapter 2 to determine the classification of potential fires and the rating or relative fire extinguishing effectiveness of various types of extinguishers. Chapter 3 assists in selection of extinguishers, which is dependent upon the character of anticipated fires, property construction and occupancy, the vehicle or hazard to be protected, ambient temperature conditions, and other factors.
  - b. Approvals: The selection of fire extinguishers are subject to the review and approval of the Physical Plant and designated University personnel. Extinguishers meeting the described requirements, as manufactured by Amerex, Badger, and Buckeye, are acceptable.
  - c. Designs: All fire extinguishers shall conform to the following:
    - i. Carbon Dioxide Extinguishers: Red enameled-steel or aluminum equipped with valve, discharge hose and horn, squeeze-grip lever, and mounting bracket, if not cabinet installed. Minimum rating 5 BC.
    - ii. Multi-Purpose Extinguishers: Red enameled-steel, pressurized type equipped with pressure gauge, discharge nozzle, squeeze-grip lever,

- and mounting bracket, if not cabinet installed. These extinguishers are dry chemical for Class A, B, and C fires. Minimum rating 4A 60 BC, 10#.
- iii. Special Extinguishers: Fully equipped types for use on the specific Class D combustible metal hazards and Class K 6 liter for Food Service Operations.
  - iv. Special Locations: For computer rooms, expensive laboratory installations and similar locations, which must be protected from damage, provide Clean Agent with at least 9 lbs. 1A 10BC rating.
7. Safety and Security Mirrors are part of the Security Standards and installed in conjunction with Cameras, EAS devices, and other safety devices. Locations and installation shall be coordinated with the Physical Plant Manager responsible for Life Safety and the Department of Public Safety.

### **Section 10 55 00 Postal Specialties**

1. Most University buildings located on the Main Campus in Ypsilanti, Michigan do not have street addresses. Addresses are the building name.
2. Temporary Addresses and Postal Boxes: When necessitated by project size or duration, the Contractor shall coordinate with the Physical Plant and the U.S. Postal Service to determine a temporary street address and postal delivery location. This shall be utilized for materials deliveries and Contractor correspondence. The cost of these temporary elements are the responsibility of the Contractor.
3. For permanent, University Postal requirements, the postal specialties shall be designed, specified, and installed with the following characteristics:
  - a. All Postal Specialties and Devices shall be coordinated with the Physical Plant and the University Mail Department.
  - b. When included as part of the project scope, the Professional shall provide a primary Mail Room for US Mail and University Mail delivery and distribution adjacent to the building entrance or loading dock for each new building or building renovation. Room size shall be applicable to the number of departments serviced in the building and volume of delivery. Minimum room size shall be 100 square feet. Secondary Mail Rooms on upper floors may be required for applicable distribution.
4. Postal facilities, serviced by the U.S. Postal Service, are subject to inspection and approval by the Customer Service Section of the U.S. Postal Service. During the planning process, arrange for examination of construction documents for conformance to regulations and inspection of the installation(s) during construction.
5. All Postal product specifications, accessory items, colors, finishes, applications and details are to be reviewed and approved by the Physical Plant prior to the final development of the Construction Documents.

6. The Professional is to coordinate all requirements and services leading to Postal Equipment locations on the Construction Drawings. Penetration of walls or floors by chutes and boxes, unless openings and voids are sealed with fireproof materials, is prohibited. Fire-rated walls or floors must not have the rating reduced by penetrations or reduction of thickness.
7. Postal Equipment / Boxes shall have the following characteristics:
  - a. Central Mail Delivery Boxes
    - i. Individual Mail Boxes: Located at the Mail Room. U.S. Postal Standard Equipment sizes. Unless otherwise stipulated in the Program of Requirements, one box shall be provided for each faculty/staff member in the building. Boxes shall be installed for loading from inside Mail Area and unloading from corridor. Corridor door locks shall be fitted with Best cylinders, keyed to the University keying system. Fronts of boxes shall be numbered in sequence determined by the University. Rear of each box shall be provided with label holder, or equivalent, for identification.  
**Custom Millwork mail sorter boxes are prohibited.**
  - b. Departmental Mail Boxes: Located at the Mail Room. U.S. Postal Standard Equipment sizes. Unless otherwise noted in the Program of Requirements, one Department Box shall be provided for each Department. Size boxes for Department volume needs. Boxes shall be installed for loading from inside the Mail Room and unloading from the corridor. Corridor door locks shall be fitted with Best cylinders, keyed to the University keying system. Front of boxes shall be numbered in sequence determined by the University. Rear of box shall be provided with label holder, or equivalent for identification.  
**Custom Millwork mail sorter boxes are prohibited.**
  - c. Movable Equipment Sort Modules: For open mail distribution in secure department areas, adjustable Movable Equipment open mail sorters may be used for each faculty/staff member. Only adjustable mail system equipment which utilizes standard, legal and oversize shelf dividers suited for common sizes of mail shall be considered. **Custom millwork mail sorter units are prohibited.**
  - d. Mail Collection Boxes
    - i. U.S. Postal Service Standard Box: One standard wall-mounted box, officially approved by the U.S. Postal Service, shall be installed at a first floor Mail Room or in the main lobby or entrance way of each building. All regulation markings shall be provided. This box must be located within 100 feet of an entrance at which the Postal vehicle can be parked. Locks must conform to Postal Regulations. Depending upon who picks up the mail, a campus key may be provided.



**Section 10 57 00 Wardrobe and Closet Specialties**

1. Hat and Coat Racks shall be provided at all Conference Rooms and Offices. Other locations shall be coordinated by the Professional and reviewed with the Physical Plant prior to preparation of final Construction Documents.
  - a. Preferred Style/Manufacturer: Contact EMU Physical Plant
  - b. Wall and door mounted coat hooks and all blocking shall be included in the Construction Documents for offices and conference areas.
2. With the exception of wall and door mounted coat hooks, other Accessory items may be provided by the University. A list of University furnished items will be submitted to the Professional for appropriate Construction Document coordination of blocking or placement. Rough layouts, showing the placement of all accessories, must be submitted with the schematic and design development submittals.

**Section 10 57 00 Grills and Screens**

1. Refer to Division 23 HVAC for information regarding louvers and vents for air distribution systems. The HVAC Contractor shall be required to furnish and install all interior louvers and vents. If such items are an integral part of the exterior design of a building and are not connected directly to an air distribution system, specify that the General Contractor purchase and install them.

**End of Division 10 – Specialties**