

## 3.2 INTERIOR SPACE STANDARDS

### 3.2.1 GENERAL

#### 3.2.1.1 General

References:

- [Mason Master Plans](http://facilities.gmu.edu/masterplans/index.htm): <http://facilities.gmu.edu/masterplans/index.htm>
- [CPSM](#), Chapter 6 - Design & Procurement Criteria, Policies & Guidelines
- [Virginia Correctional Enterprises \(VCE\)](http://www.govce.net/store/): <http://www.govce.net/store/>
- [Office of Space Management website](http://facilities.gmu.edu/space/index.htm): <http://facilities.gmu.edu/space/index.htm>

Space planning for new and renovated university facilities shall generally follow the guidelines in the CPSM 2012 Edition, Revision 1, Section 6.1.1 – Guidelines for Space Planning and Section 6.1.2 – Building Efficiency Ratios. In addition to those outlined in the CPSM, the following space guidelines shall be used. The Design Team shall document specific space allocations based on these guidelines and the requirements of the project in design during the Programming and Schematic Design phases for review and acceptance by Mason. These space allocations will become the basis for the development of the project design. Guidelines for specific space types can be found in Sections 3.2.2 through 3.2.15 of the Design Manual.

This section is organized by space use categories as defined by the Postsecondary Education Facilities Inventory and Classification Manual (FICM): 2006 Edition. For definitions of space use categories, refer to <http://nces.ed.gov/pubs2006/2006160.pdf>, Chapter 4.

George Mason University contacts for matters related to interior space planning design are listed below:

- Director of Campus Planning
- Associate Director, Space Management
- Assigned Project Planner
- Assigned Interior Design Staff

#### 3.2.1.2 Facility Planning and Design

It is important that all facilities and spaces on all George Mason University Campuses reflect the spirit of the university, as well as the future vision of the institution as defined in Mason's Master Plan. This applies not only to the planning and placement of new facilities, but also to the quality of their interior spaces. When beginning any new project, it is the responsibility of the Design Team to become familiar with the Master Plan and to incorporate these principles and guidelines, as appropriate, into their design.

Interior spaces—just as the exterior and landscaping features of a facility—should reflect the campus context and the desired image of the university. For example, the Design Team should consider how elements such as building entrances, significant interior spaces, and interior circulation may respond to adjacent outdoor spaces and pedestrian walkways.

Many other factors will be considered in the planning of interior spaces. In planning all spaces on campus, it is a priority for George Mason University to create an environment that promotes learning and encourages collaboration. In designing successful interior spaces, the Design Team shall strive for the most efficient and effective use of space. Program adjacencies shall respond to allied uses and avoid conflicts with mechanical rooms or spaces that may generate auditory distractions. In terms of the quality of space, natural daylighting shall be maximized (e.g., locating workstations near the perimeter of the building's floor plate, and offices towards the center). Finish ceiling heights, as well as the level, quality, and durability of finish materials shall be appropriate to the type of activity programmed for the space.

Finally, as noted throughout the Design Manual, George Mason University places a high priority on the sustainability of its facilities and spaces, which shall remain a contributing factor throughout the design process.

### **3.2.1.3 Windows and Walls**

#### 3.2.1.3.1 General

- Design partitions to meet the applicable NC rating and/or the fire rating. All partitions shall extend a minimum of 6" above the ceiling, except where specifically noted otherwise.

#### 3.2.1.3.2 Interior Signage

- The Design Team shall provide room and area identification signage based on Mason sign standards. All interior and exterior assignable rooms shall be based on room numbering standards listed in Section 2.2.4 of the Design Manual for the following space types:
  - Lobby areas, entry areas, or foyer areas incapable of having furniture being placed in them
  - Elevators, elevator mechanical rooms, or adjoining rooms that are used as mechanical or electrical space only.
  - Corridors, hallways, or other walking paths
  - Restrooms of any sort.
  - Any mechanical, electrical, and/or telephone/data rooms.
  - Any open vertical shafts or spaces made for the passing of mechanical, plumbing, or other systems.
  - Janitors or service closets
  - Any classrooms, labs, and studios
  - Administrative office suites
  - Offices and administrative work spaces
  - Stairwells (corridor side)
  - Stairwell levels (inside stairwell)
  - Fire control room
  - Vestibules and exterior cavities

- The Design Team shall provide wayfinding signage for all public spaces based on Mason sign standards. This will include the following sign types:
  - Building identification
  - Building directory at primary and secondary building entrances
  - Building directory at elevators
  - Directional signage (wall mounted or suspended)
  - Projecting identification (stairs, restrooms, elevator, vending, etc)
  - Area identification (theaters, libraries, study nooks, etc.)
  - Regulatory signage
- In addition to those sign types and spaces previously outlined, the Design Team is responsible for coordinating applicable signage for rooms/areas that may require special signs due to outside code regulations. In these cases, the Mason sign standards may be altered to meet those regulations, but must be reviewed and approved by the Project Manager and Office of Facilities Administration.
- The signage standards shall be provided as indicated by Campus Planning.
- Initial signage needs and requirements will be determined in a signage kickoff meeting, which is to be conducted as early as practicable in the architectural design process.
- The Design Team shall provide preliminary sign location plans and message schedule to the Project Manager once room numbers have been assigned. The preliminary sign plan must be reviewed and approved by Campus Planning for adherence to sign standards and wayfinding rationale prior to preliminary drawing submission to BCOM. All such signage shall be included in this submission.
- The Design Team shall refine sign location plans and message schedule and provide finalized location plans and message schedule prior to completion of working/construction drawings. The refined sign plan must be reviewed, and approved, by Campus Planning prior to the completion of working/construction drawing submission to BCOM. All such signage will be included in this submission.

**3.2.1.4 Doors**

## 3.2.1.4.1 General

- Vision panels and side lights are encouraged.

**3.2.1.5 Accessibility**

## 3.2.1.5.1 General

- Drinking fountains located along a path of travel must be recessed when possible.
- A grab bar must be provided on at least one wall of each elevator cab.

- Interior and exterior signage marking permanent spaces must have both the name and number in raised letters and Braille in compliance with the applicable accessibility codes.

### **3.2.1.6 Furniture and Equipment**

#### 3.2.1.6.1 General

- Each assembly building shall be equipped with at least one Automated External Defibrillator (AED) as part of new construction contracts. The Environmental Health and Safety Office determines the location and type purchased. AED's must be mounted in a cabinet that is labeled and have a sign above the cabinet indicating the location of the AED. The Design Team shall coordinate with the Environmental Health and Safety Office in the selection of the make and model of the AED.
- Equipment shall be arranged to provide service clearances and maintenance access with a minimum disruption to workspace. The minimum width of an egress way in non-service or maintenance areas is 36 inches.
- Storage shelves shall be located in such a way that they do not permit the storage of items within 24 inches from the ceiling.
- Provide adequate space around equipment and furnishings. In general, 30" of free floor area is required for operations done while standing, and 36" of free floor area is required for seated operations, aisles, passageways, and doorways. These are minimums which should be increased depending on many variables including occupant traffic capacity, size of material used in an operation, and facility use.

### **3.2.1.7 Materials and Finishes**

The Design Team in conjunction with the Mason design staff will select colors of interior finishes early during construction. The Design Team shall obtain submissions from the Contractor on all manufacturers and products that the Contractor intends to use on the project. Using the standard or special colors from these manufacturers, the Design Team shall prepare a color board indicating the various spaces and the color schemes for each space or series of spaces. These color boards shall be submitted to the Mason Project Manager, Interior Designer, and Planner for review and approval at a point early in the construction process and no later than the date that structural elements of the building are 50% complete. Upon approval of the colors, the Design Team shall develop a detailed listing for the Contractor indicating the colors selected for each material and location on the project.

It should be noted that Mason is required to use certain vendors for the purchase of furnishings, furniture, and systems modules.

#### 3.2.1.7.1 General

The following guidelines apply to the selection of interior finishes for all space types throughout Mason's campuses:

- All paint, mastics, adhesives, sealants, and caulks must pass indoor air quality standards and be low VOC.
- All door frames shall have semi-gloss paint.
- All handrails shall have Direct to Metal (DTM) paint.

- For every paint color used, the Design Team shall provide one additional full can of paint per building for future maintenance purposes.

**3.2.1.7.2 Wall Finishes**

RESERVED

**3.2.1.7.3 Floor Finishes**

- Avoid solid and light colored carpeting. Use flecked colors and shades that do not show dirt and stains as readily.
- All carpet shall be solution-dyed.
- All building entrances shall have walk-of mats installed in accordance with manufacturer's recommendations and in compliance with Chapter 4.

**3.2.1.7.4 Ceiling Finishes**

RESERVED

**3.2.1.8 Building Systems****3.2.1.8.1 General**

- Interior direct and structure born vibration from vibrating mechanical equipment and elevators can cause occupant complaints and concern for safety. The structural engineer and mechanical engineer for the project should work together to design the building systems to achieve the minimum vibration from mechanical and elevator equipment as recommended in Chapter 48 "Sound and Vibration Control" from the ASHRAE Applications Handbook as indicated for Human Comfort in Office areas unless otherwise indicated by Mason. Where critical vibration-sensitive laboratory or process equipment requires a more stringent vibration criteria, the design should be coordinated between the users and the Design Team to meet the specification requirements of the specific equipment.
- Vibration sources (mechanical and electrical equipment such as pumps, chillers, fans, emergency generators, and transformers) shall be located away from activities sensitive to vibration, such as laboratory instruments.

**3.2.1.8.2 Plumbing**

- Refer to Section 3.3.3 – Plumbing Systems.
- Equip all areas, rooms, or spaces where chemicals will be used or mixed with an emergency shower and eyewash unit. Refer to Chapter 3.3.3 of the Design Manual for additional information regarding plumbing systems, including emergency shower requirements.

**3.2.1.8.3 Heating, Ventilating and Air Conditioning**

- Refer to Section 3.3.1 – HVAC Systems.
- Provide HVAC system in accordance with applicable codes and design guidelines referenced in Chapter 3.3.1 of the Design Manual.

## 3.2.1.8.4 Electrical

- Refer to Section 3.3.2 – Electrical Design Criteria.
- Provide GFCI circuit protection for electrical outlets on countertops and within 6 feet of a water source. If countertop is used for laboratory equipment, consider a surface-mounted raceway with outlets.
- Electrical outlets shall meet electrical requirements of specific pieces of equipment to include amperage demands and plug configuration for voltage requirements.

## 3.2.1.8.5 Communications

- Equip each floor with a campus phone that is accessible to all building occupants and provide a sign to identify its location.

**3.2.1.9 Acoustics**

## 3.2.1.9.1 General

The acoustical quality of an environment relies on several factors which can be controlled through the design of a building or space. Sound Transmission Class, or “STC,” refers to the amount of sound insulation provided in the construction of a wall, floor or ceiling. A higher STC rating translates into greater sound isolation between spaces.

The Noise Criteria, or “NC,” describes the amount of mechanical background noise that is audible within a space. A higher NC means a greater level of background noise.

A third means of controlling the acoustical quality of a space is using interior finishes—as well as manipulating the shape of the room itself—to absorb sound. It is important that all factors contributing to the acoustical environment are considered throughout the design process. In addition, the following general guidelines shall apply:

- Specific criteria for NC and STC ratings are noted where applicable in subsequent sections. All spaces shall be designed in accordance with ASHRAE, ANSI/ASA, and best practices. Any recommendations in the Design Manual which are more stringent than these requirements shall be applied.
- Interior-source background noise from mechanical systems in the spaces shall be calculated using the sound from all relevant HVAC sources and paths. Where ever possible, the mechanical system design shall comply with all requirements in Chapter 48 “Sound and Vibration Control” from the ASHRAE Applications Handbook and, unless otherwise noted, shall be designed to achieve the Noise Criterion (NC) ratings for the various spaces recommended by the ASHRAE Applications Handbook. The values listed in the ASHRAE Applications Handbook are intended as the system design goal.

**3.2.1.10 Security**

RESERVED