

**CHAPTER 6**  
**INTERIOR DESIGN**

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## 6.1 GENERAL

This chapter gives general guidance for the preparation of drawings, specifications, and design analyses as related to interior design aspects of military construction projects. Interior design is required on new building construction and renovation projects regardless of funding source or type of project. A Comprehensive Interior Design (CID) will be provided, unless otherwise directed, and includes the Structural Interior Design (SID) and the Furniture, Fixtures and Equipment (FF&E) Design. The two types of services cover different aspects of the interior environment and are funded through different sources.

### 6.1.1 STRUCTURAL INTERIOR DESIGN (SID)

The Structural Interior Design includes building related design elements and components generally part of the building itself, such as walls, ceilings, floor coverings, marker/bulletin boards, blinds, signage and built in casework. The interior designer's knowledge and involvement in the project from the programming stage forward affords maximum success in accomplishing the user's goals and requirements. The interior designer must be involved with the programming and space planning to help achieve the client's goals for space utilization, and with determining the desired interior finish materials and their respective aesthetic, durability and maintenance qualities or characteristics. In addition, the interior designer must provide a furniture footprint based on the project program. The SID will be performed by a qualified interior designer.

### 6.1.2 FURNITURE, FIXTURES & EQUIPMENT (FF&E)

The Furniture, Fixtures & Equipment is the selection, layout, specification and documentation of workstations, seating, storage, filing, visual display items, accessories, window treatments, and artwork including contract documentation to facilitate pricing, procurement and installation. The FF&E package is based on the furniture footprint developed in the SID portion of the interior design. Items such as markerboards, bulletin boards and some window treatments may be specified in either the SID or the FF&E.

## 6.2 APPLICABLE PUBLICATIONS

The following guidance applies to agencies of the U.S. Armed Services and their contractors that are preparing construction contract documents and Furniture, Fixtures & Equipment (FF&E) data for all new construction and renovation building projects. Chapter 6 applies to all types of construction regardless of funding. There are several user groups or agencies that require their own Interior Design Guidance. Listed below is the appropriate guidance to follow for the user group indicated. Certain specialized facilities, such as healthcare facilities, carry additional requirements. Also, see the Unified Facilities Criteria (UFC) or other criteria applicable to specialized facility types. When performing work for different activities, regional or installation requirements may differ from those included herein. Identify these regional differences at the beginning of the project delivery process.

### 6.2.1 US ARMY RESERVE COMMAND (USARC) GUIDANCE:

Request for Proposal Preparation:

AR SPECIFICATIONS LRL04 00 80 00.00 06 Special Clauses

<http://www.lrl.usace.army.mil/Missions/Engineering/Specs.aspx>

RST04DB 01 03 00.00 48 Design Submission Requirements After Award

<http://www.lrl.usace.army.mil/Missions/Engineering/Specs.aspx>

ARMY Reserve Design Process and Submittal Requirements Part B for Design/ Bid/Build:

<https://www.lrd.usace.army.mil/Mission/Military-Construction-Reserve/Design-Guides/>

ARMY Reserve Design Process and Submittal Requirements Part C for Design/ Build Projects:

<https://www.lrd.usace.army.mil/Mission/Military-Construction-Reserve/Design-Guides/>

Design/ Build Projects Specifications:

<http://www.lrl.usace.army.mil/Missions/Engineering/Specs.aspx>

Unified Facilities Criteria (UFC) for ARMY Reserve Facilities:

UFC 4-171-05:

[http://wbdg.org/ccb/DOD/UFC/INACTIVE/ufc\\_4\\_171\\_05.pdf](http://wbdg.org/ccb/DOD/UFC/INACTIVE/ufc_4_171_05.pdf)

## **6.2.2 AIR FORCE INTERIOR DESIGN REQUIREMENTS:**

UFC 3-120-10 Interior Design Requirements

[http://www.wbdg.org/ccb/DOD/UFC/ufc\\_3\\_120\\_10.pdf](http://www.wbdg.org/ccb/DOD/UFC/ufc_3_120_10.pdf)

ETL 07-4 Air Force Carpet Standards

[http://www.wbdg.org/ccb/AF/AFETL/etl\\_07\\_4.pdf](http://www.wbdg.org/ccb/AF/AFETL/etl_07_4.pdf)

## **6.2.3 AIR FORCE RESERVE COMMAND (AFRC) GUIDANCE:**

Interior Design for Air Force Reserve Command (AFRC) projects is to follow the Air Force Reserve Command Comprehensive Interior Design Policy Manual. Contact the Project Manager to receive a copy of the Air Force Reserve Command Comprehensive Interior Design Policy Manual. Section A.2 FF&E Submittal (BEST VALUE DETERMINATION) and Exhibit A.3.6 of the Air Force Reserve Command Comprehensive Interior Design Policy Manual is no longer required.

## **6.3 SUBMITTALS**

### **6.3.1 PRECONCEPT/PRE-PROJECT DEFINITION (10%) SUBMITTAL REQUIREMENTS**

During the PRECONCEPT/PRE-PROJECT DEFINITION design phase, the interior designer will meet with representatives of the using activity and the building design team to determine the design concept. The design concept must be described in the design analysis as required in the project delivery process. The design concept must meet the user's functional, physical, and aesthetic needs. The interior designer will produce programming documents including space utilization, personnel requirements, concept space plan, furniture foot print and FF&E list. The SID portion of the interior design is performed concurrently with the architectural design. Where furniture is planned, the conceptual design of the furniture is performed concurrently with the architectural design to insure coordination with building systems.

### **6.3.2 PROJECT DEFINITION DESIGN SUBMITTAL REQUIREMENTS FOR STRUCTURAL INTERIOR DESIGN (SID) CONCEPT AND FINAL DESIGN SUBMITTALS**

Prepare and submit for approval an interior and exterior building finishes scheme for an interim design submittal. The DOR shall meet with and discuss the finish schemes with the appropriate Government officials prior to preparation of the schemes to be presented. Present original sets of the schemes to reviewers at an interim design conference.

At the conclusion of the interim phase, after resolutions to the comments have been agreed upon between DOR and Government reviewers, the Contractor may proceed to final design with the interior finishes scheme presented.

The SID information and samples are to be submitted in 8 ½” x 11” format using three ring binders with pockets on the inside of the cover. When there are numerous pages with thick samples, use more than one binder. Large D-ring binders are preferred to O-ring binders. Use page protectors that are strong enough to keep pages from tearing out. Anchor large or heavy samples with mechanical fasteners, Velcro, or double-faced foam tape rather than rubber cement or glue. Fold out items must have a maximum spread of 25 ½”. Provide cover and spine inserts sheets identifying the document as “Structural Interior Design” package. Include the project title and location, project number, Contractor/A/E name and phone number(s), submittal stage and date.

Submit 4 copies (5 Copies for COS Project) of the SID information and samples in 8 ½” x 11” format using three ring binders with pockets on the inside of the cover upon completion of the interim phase and of the final architectural submittal or ten months prior to the contract completion date (whichever comes first). Use more than one binder when there are numerous pages with thick samples. Large D-ring binders are preferred to O-ring binders. Use page protectors that are strong enough to keep pages from tearing out for upholstery and finish boards. Anchor large or heavy samples with mechanical fasteners, Velcro, or double-faced foam tape rather than rubber cement or glue. Fold out items must have a maximum spread of 25 ½”. Provide cover and spine insert sheets identifying the document as “Structural Interior Design” package and include the project title and location, project number, Contractor/A/E name and phone number(s), submittal stage and date.

Structural Interior Design (SID) submittal requirements include, but are not limited to:

### **6.3.2.1 Narrative of the Structural Interior Design Objectives**

The SID shall include a narrative that discusses the building related finishes. Include topics that relate to base standards, life safety, sustainable design issues, aesthetics, durability and maintainability, discuss the development and features as they relate to the occupants requirements and the building design.

#### **6.3.2.1.1 Interior Color Boards**

Identify and key each item on the color boards to the contract documents to provide a clear indication of how and where each item will be used. Arrange finish samples to the maximum extent possible by room type in order to illustrate room color coordination. Label all samples on the color boards with the manufacturer’s name, patterns and colors name and number. Key or code samples to match key code system used on contract drawings.

Material and finish samples shall indicate true pattern, color and texture. Provide photographs or colored photocopies of materials or fabrics to show large overall patterns in conjunction with actual samples to show the actual colors. Finish samples must be large enough to show a complete pattern or design where practical.

Color boards shall include but not be limited to original color samples of the following:  
All walls finishes and ceiling finishes, including corner guards, acrylic wainscoting and wall guards/chair rail finishes

All tile information, including tile grout color and tile patterns.

- a. All flooring finishes, including patterns.
- b. All door, door frame finishes and door hardware finishes
- c. All signage, wall base, toilet partitions, locker finishes and operable/folding partitions and trim
- d. All millwork materials and finishes (cabinets, counter tops, etc.)
- e. All window frame finishes and window treatments (sills, blinds, etc.)

Color board samples shall reflect all actual finish textures, patterns and colors required as specified. Patterned samples shall be of sufficient size to adequately show pattern and its repeat if a repeat occurs.

### **6.3.2.1.2 Exterior Color Boards**

Prepare exterior finishes color boards in similar format as the interior finishes color boards, for presentation to the reviewers during an interim design conference. Provide original color samples of all exterior finishes including but not limited to the following:

- a. All Roof Finishes
- b. All Brick and Cast Stone Samples
- c. All Exterior Insulation and Finish Samples
- d. All Glass Color Samples
- e. All Exterior Metals Finishes
- f. All Window & Door Frame Finishes
- g. All Specialty Item Finishes, including trim

Identify each item on the exterior finishes color boards and key to the building elevations to provide a clear indication of how and where each item will be used.

### **6.3.2.1.3 Structural Interior Design Documents**

Structural interior design related drawings must indicate the placement of extents of SID material, finishes and colors and must be sufficiently detailed to define all interior work. The following is a list of minimum requirements.

### **6.3.2.1.4 Finish Color Schedule**

Provide finish color schedule(s) in the contract documents. Provide a finish code, material type, manufacturer, series, and color designations. Key the finish code to the color board samples and drawings.

### **6.3.2.1.5 Interior Finish Plans**

Indicate wall and floor patterns and color placement, material transitions and extents of interior finishes.

### **6.3.2.1.6 Furniture Footprint Plans**

Provide furniture footprint plans showing the outline of all freestanding and systems furniture for coordination of all other disciplines.

### **6.3.2.1.7 Interior Signage**

Include interior signage plans or schedules showing location and quantities of all interior signage. Key each interior sign to a quantitative list indicating size, quantity of each type and signage text.

### **6.3.2.1.8 Interior Elevations, Sections and Details**

Indicate material, color and finish placement.

## **6.3.3 PROJECT DEFINITION DESIGN SUBMITTAL REQUIREMENTS FOR FURNITURE FIXTURES & EQUIPMENT (FF&E) CONCEPT AND FINAL DESIGN SUBMITTALS (NOT FOR BARRACKS)**

Prepare and submit for approval a comprehensive FF&E scheme for an interim design submittal. The Contractor's interior designer, NOT A FURNITURE DEALER, shall develop the design. FF&E is the selection, layout, specification and documentation of furniture and includes but is not limited to workstations, seating, tables, storage and shelving, filing, trash receptacles, clocks, framed artwork, artificial plants, and other accessories. Contract documentation is required to facilitate pricing, procurement and installation. The FF&E package is based on the furniture footprint developed in the Structural Interior Design (SID) portion of the interior design. Develop the FF&E package concurrently



with the building design to ensure that there is coordination between the electrical outlets, switches, J-boxes, communication outlets and connections, and lighting as appropriate. In addition, coordinate layout with other building features such as architectural elements, thermostats, location of TV's, GF/GI equipment (for example computers, printers, copiers, shredders, faxes), etc. Locate furniture in front of windows only if the top of the item falls below the window and unless otherwise noted, do not attach furniture including furniture systems to the building. If project has SIPRNET and/or NIPRNET, coordinate furniture layout with SIPRNET and NIPRNET separation requirements. Verify that access required by DOIM for SIPRNET box and conduit is provided. The DOR shall interview appropriate Government personnel to determine FF&E requirements for furniture and furnishings prior to preparation of the scheme to be presented. Determine FFE items and quantities by, but not limited to: (1) the number of personnel to occupy the building, (2) job functions and related furniture/office equipment to support the job function, (3) room functions, (4) rank and grade. Present original sets of the scheme to reviewers at an interim design conference upon completion of the interim architectural submittal or three months prior to the submittal of the final FF&E package (whichever comes first).

Design may proceed to final with the FF&E scheme presented at the conclusion of the interim phase, after resolutions to the comments have been agreed upon between DOR and Government reviewers.

Provide 6 copies (7 Copies for COS Project) of the electronic versions of all documents upon completion of the final architectural submittal or ten months prior to the contract completion date (whichever comes first), to ensure adequate time for furniture acquisition. Provide six compact disks with all drawings files needed to view the complete drawings unbound and in the latest version AutoCAD. Provide six additional compact disks of all text documents in Microsoft Word or Excel.

Submit 4 copies (5 Copies for COS Project) of the final and complete FF&E information and samples in 8 ½" x 11" format using three ring binders with pockets on the inside of the cover upon completion of the final architectural submittal or ten months prior to the contract completion date (whichever comes first). Use more than one binder when there are numerous pages with thick samples. Large D-ring binders are preferred to O-ring binders. Use page protectors that are strong enough to keep pages from tearing out for upholstery and finish boards. Anchor large or heavy samples with mechanical fasteners, Velcro, or double-faced foam tape rather than rubber cement or glue. Fold out items must have a maximum spread of 25 ½". Provide cover and spine inserts sheets identifying the document as "Furniture, Fixtures & Equipment" package and include the project title and location, project number, Contractor/A/E name and phone number(s), submittal stage and date.

Design submittal requirements include, but are not limited to

### **6.3.3.1 Narrative of Interior Design Objectives**

Provide a narrative description of the furniture, to include functional, safety and ergonomic considerations, durability, sustainability, aesthetics, and compatibility with the building design.

### **6.3.3.2 Furniture Order Form**

Prepare one Furnishings Order Form for each item specified in the design. This form identifies all information required to order each individual item. In addition to the project name and location, project number, and submittal phase, the order form must include:

- a. Furniture item illustration and code
- b. Furniture item name
- c. Job name, location, and date
- d. General Services Administration (GSA) FSC Group, part, and section
- e. GSA Contract Number, Special Item Number (SIN), and contract expiration date
- f. Manufacturer, Product name and Product model number or National Stock Number (NSN)
- g. Finish name and number (code to finish samples)

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- h. Fabric name and number, minimum Wyzenbeek Abrasion Test double rubs (code to fabric samples)
- i. Dimensions
- j. Item location by room number and room name
- k. Quantity per room
- l. Total quantity

Special instructions for procurement ordering and/or installation (if applicable)

- a. Written Product Description: include a non-proprietary paragraph listing the salient features of the item to include but not limited to:
  - b. required features and characteristics
  - c. ergonomic requirements
  - d. functional requirements
  - e. testing requirements
  - f. furniture style
  - g. construction materials
  - h. minimum warranty

The following is an example for “m” features and characteristics, ergonomic requirements and functional requirements:

Chair Description:

- a. Mid-Back Ergonomic Task Chair
- b. Pneumatic Gaslift; Five Star Base
- c. Mesh Back; Upholstered Seat
- d. Height and Width Adjustable Task Arms:
  - e. Arm Height: 6”- 11” (+-1/2”)
  - f. Arm Width: 2”- 4” adjustment
- g. Height Adjustable Lumbar Support
- h. Adjustable Seat Height 16”-21” (+- 1”)
- i. Sliding Seat Depth Adjustment 15”-18” (+-1”)
- j. Standard Hard Casters (for carpeted areas)
- k. Overall Measurements:
  - l. Overall width: 25” - 27”
  - m. Overall depth: 25”- 28”
- n. Must have a minimum of the following adjustments (In addition to the above):
  - o. 360 Degree Swivel
  - p. Knee-Tilt with Tilt Tension
  - q. Back angle
  - r. Forward Tilt
  - s. Forward Tilt and Upright Tilt Lock

For projects with systems furniture, also provide a written description of the following minimum requirements:

- a. Type furniture systems (panel, stacking panels, spine wall, desk based system, or a combination)
- b. Minimum noise reduction coefficient (NRC)
- c. Minimum sound transfer coefficient (STC)
- d. Minimum flame spread and smoke development
- e. UL testing for task lighting and electrical system
- f. Panel widths and heights and their locations (this may be done on the drawings) Work surface types and sizes (this may be done on the drawings)

- g. Worksurface edge type
- h. Varying panel/cover finish materials and locations (locations may be shown on the drawings)
- i. Storage requirements
- j. Keyboard requirements
- k. Lock and keying requirements
- l. Accessory components (examples: tack boards, marker boards, paper management)
- m. Electrical and communication raceway requirement; type, capacity and location (base, beltline, below and/or above beltline)
- n. Locations of communication cables (base, beltline, below and/or above beltline, top channel)
- o. Types of electrical outlets
- p. Types of communication jacks; provided and installed by others
- q. Locations of electrical outlets and communication jacks (this may be done on the drawings)
- r. Type of cable (examples: Cat. 5, Cat. 6, fiber optic; UTP or STP, etc.) system needs to support; provided and installed by others

**6.3.3.2.1 Manufacturer & Alternate Manufacturer List**

Provide a table consisting of all the major furniture items in the order forms and two alternate manufacturers for each item. ALTERNATE MANUFACTURER ITEMS MUST BE SELECTED FROM GSA SCHEDULE AND MEET ALL THE SALIENT FEATURES OF THE ORIGINALLY SPECIFIED ITEM. Provide manufacturer name, address, telephone number, product series and product name for each item and the two alternate items. Major furniture items include, but are not limited to, casegoods, furniture systems, seating, and tables. Organize matrix by item code and item name.

**6.3.3.2.2 FF&E Procurement List**

Provide a table that lists all FF&E furniture, mission unique equipment and building Contractor Furnished/Contractor Installed (CF/CI) items. Give each item a code and name and designate whether item will be procured as part of the FF&E furniture, mission unique equipment or the building construction contract. Use the item code to key all FF&E documents including location plans, color boards, data sheets, cost estimate, etc. Divide the FF&E package into different sections based on this listing, applies to order forms and cost estimates.

**6.3.3.2.3 Points of Contact (POCs)**

Provide a comprehensive list of POCs needed to implement the FF&E package. This would include but not be limited to appropriate project team members, using activity contacts, interior design representatives, construction contractors and installers involved in the project. In addition to name, address, phone, fax and email, include each contact's job function. Divide the FF&E package into different sections based on this listing, applies to order forms and cost estimates.

**6.3.3.2.4 Color Boards**

Provide color boards for all finishes and fabrics for all FF&E items. Finishes to be included but not limited to paint, laminate, wood finish, fabric, etc.

**6.3.3.3 Itemized Furniture Cost Estimate (NOT USED FOR UEPH BARRACKS)**

Provide an itemized cost estimate of furnishings keyed to the plans and specifications of products included in the package. This cost estimate should be based on GSA price schedules. The cost estimate must include separate line items for general contingency, installation, electrical hook-up for systems furniture or other furniture requiring hardwiring by a licensed electrician, freight charges and any other related costs. Installation and freight quotes from vendors should be used in lieu of a percentage allowance when available. Include a written statement that the pricing is

based on GSA schedules. An estimate developed by a furniture dealership may be provided as support information for the estimate, but must be separate from the contractor provided estimate.

## **6.4 INTERIOR DESIGN DOCUMENTS**

### **6.4.1 OVERALL FURNITURE AND AREA PLANS (SHALL BE PROVIDED WITH UEPH BARRACKS)**

Provide floor Plans showing locations and quantities of all freestanding, and workstation furniture proposed for each floor of the building. Key each room to a large scale Furniture Placement Plan showing the furniture configuration, of all furniture. Provide enlarged area plans with a key plan identifying the area in which the building is located. Key all the items on the drawings by furniture item code. Do not provide manufacturer specific information such as product names and numbers on drawings, Drawings shall be non-proprietary. This is typical for FFE on all plans, including those mentioned below. Coordinate the overall furniture and area plans with the Life Safety Code Review to ensure adequate clearances are provided for egress. Provide a narrative of this coordination to accompany the Furniture and Area plans.

#### **6.4.1.1 Workstation Plans**

Show each typical workstation configuration in plan view. In addition, provide either elevations or an isometric view. Drawings shall illustrate panels and all major components for each typical workstation configuration. Identify workstations using the same numbering system as shown on the project drawings. Key components to a legend on each sheet which identifies and describes the components along with dimensions. Provide the plan, elevations and isometric of each typical workstation together on the same drawing sheet

#### **6.4.1.2 Panel Plans**

Show panel locations and critical dimensions from finished face of walls, columns, panels including clearances and aisle widths. Key panel assemblies to a legend which shall include width, height, configuration of frames, panel fabric and finishes (if there are different selections existing within a project); powered or non-powered panel and wall mount locations.

#### **6.4.1.3 Desk Plans**

Provide typical free standing desk configurations in plan view. In addition, provide either elevation or an isometric view and identify components to clearly represent each desk configuration

#### **6.4.1.4 Reflected Ceiling Plans**

Provide typical plans showing ceiling finishes and heights, lighting fixtures, heating ventilation and air conditioning supply and return, and sprinkler head placement for coordination of furniture.

#### **6.4.1.5 Electrical and Telecommunication Plans**

Show power provisions including type and locations of feeder components, activated outlets and other electrical components. Show locations and quantities of outlets for workstations. Clearly identify different outlets, i.e. electrical, LAN and telecommunication receptacles indicating each type proposed. Show wiring configuration, (circuiting, switching, internal and external connections) and provide as applicable.

#### **6.4.1.6 Artwork Placement Plans**

Provide an Artwork Placement Plan to show location of artwork, assign an artwork item code to each piece of artwork. As an alternative, artwork can be located on the Furniture Plans. Provide a schedule that identifies each piece by room name and number. Provide installation instructions; including mounting height.

#### **6.4.1.7 Window Drapery Plans**

Provide Interior Window Drapery Plans. Key each drapery treatment to a schedule showing color, pattern, material, drapery size and type, draw direction, location and quantities. This information will be required when window draperies are a part of the FF&E package.

#### **6.4.1.8 Portable Fire Extinguishers (NOT USED FOR BARRACKS)**

Provide a list of all required portable fire extinguishers, with descriptions (location, size, type, etc.) and total number per type.

### **6.5 FURNITURE SELECTION**

#### **6.5.1**

Specify Select furniture from the GSA Schedules. Specify furniture available open market when an item is not available on the GSA Schedules. Provide justification for items not available on the GSA Schedules.

#### **6.5.2**

To the greatest extent possible when specifying furniture work within a manufacturer's family of furniture for selections, example: Steelcase, Turnstone, Brayton International, Metro, and Vecta are all Steelcase companies. Each alternate should also be specified from a manufacturer's family of furniture, example: first set of alternates would be specified from Knoll's family of furniture and the second from Herman Miller family of furniture. It may be necessary to make some selections from other than a manufacturer's family of furniture if costs are not reasonable for particular items, some items are not available or appropriate for the facility or the items are not on GSA Schedule. If this occurs, consider specifying product from an open line that is accessible by numerous dealerships. Select office furniture including case goods, tables, storage, seating, etc. that is compatible in style, finish and color. Select furniture that complies with ANSI/BIFMA and from manufacturer's standard product line as shown in the most recent published price list and/or amendment and not custom product.

### **6.6 CONSTRUCTION**

#### **6.6.1**

Provide knee space at workstations and tables that is not obstructed by panels/legs that interfere with knee space of seated person and specify modesty panels at walls to be of a height or be hinged to allow access to building wall electrical outlets and communication jacks. Provide desks, storage and tables with leveling devices to compensate for uneven floor.

##### **6.6.1.1**

Unless otherwise noted, specify workstations and storage of steel construction. Provide high pressure laminate work surface tops constructed to prevent warpage (thermally fused worksurfaces are not acceptable). Provide user friendly features such as radius edges. Do not use sharp edges and exposed connections and ensure the underside of desks, tables and worksurfaces are completely and smoothly finished. Provide abutting worksurfaces that mate closely and are of equal heights when used in side-by-side configurations in order to provide a continuous and level worksurface.

##### **6.6.1.2**

Drawers shall stay securely closed when in the closed position and protect wires from damage during drawer operation. Include a safety catch to prevent accidental removal when fully open.

##### **6.6.1.3**

Unless otherwise noted, provide lockable desks and workstations, filing cabinets and storage. Key all locks within a one person office the same; key all one person offices within a building

differently. If an office or open office area has more than one workstation, key all the workstations differently, but key all locks within an individual workstation the same. Use tempered glass glazing when glazing is required. Use light-emitting diode (LED)/solid state lighting where task lighting is required in furniture.

### 6.6.2 FINISHES AND UPHOLSTERY

#### 6.6.2.1

Specify neutral colors for case goods, furniture systems, storage and tables. Specify desk work surfaces and table tops that are not too light or too dark in color and have a pattern to help hide soiling. Accent colors are allowed in break and lounge areas. Keep placement of furniture systems panel fabric accent colors to a minimum. All finishes shall be cleanable with ordinary household cleaning solutions.

#### 6.6.2.2

Use manufacturer's standard fabrics; including textile manufacturers fabrics that have been graded into the furniture manufactures fabric grades and are available through their GSA Schedule. Customers Own Material (COM) can be used in headquarter buildings in command suites with executive furniture. Coordinate specific locations with Corps of Engineers Interior Designer.

#### 6.6.2.3

Specify seating upholstery that meets Wyzenbeek Abrasion Test, 55,000 minimum rubs. Specify a soil retardant finish for woven fabrics if Crypton or vinyl upholstery is not provided for seating in dining areas. Use manufacturer's standard fabrics. This includes textile manufacturers fabrics that have been graded into the furniture manufactures fabric grades and are available through their GSA Schedule. Specify upholstery and finish colors and patterns that help hide soiling. Specify finishes that can be cleaned with ordinary household cleaning solutions.

### 6.7 ACCESSORIES

#### 6.7.1.1

Specify all accessories required for completely finished furniture installation. Provide filing cabinets and storage for office supplies. Provide tack surfaces at workstations with overhead storage. Provide tackable surfaces at workstations with overhead storage.

#### 6.7.1.2

Workstations are to be equipped with stable keyboard trays that have height adjustability, tilting capability, including negative tilt, have a mouse pad at same height as the keyboard tray that can accommodate both left and right handed users, and retractable under worksurface.

### 6.8 MISSION UNIQUE EQUIPMENT

Funding for FF&E furniture items and mission unique equipment (MUE) items are from two different sources. Separate the designs and procurement documentation for FFE items and MUE. MUE includes, but is not limited to, items such as commercial appliances, fitness equipment, IT equipment and supporting carts. The User will purchase and install mission unique equipment items, unless otherwise noted. Identify locations of known MUE items such as commercial appliances, etc. for space planning purposes.

## 6.9 SUSTAINABILITY

### 6.9.1

For all designs provided regardless of facility type, make every effort to implement all aspects of sustainability to the greatest extent possible for all the selections made in the FF&E package. This includes but is not limited to the selection of products that consider: **Material Chemistry and Safety of Inputs** (What chemicals are used in the construction of the selections?); **Recyclability** (Do the selections contain recycled content?); **Disassembly** (Can the selections be disassembled at the end of their useful life to recycle their materials?).

### 6.9.2

Make selections to the greatest extent possible of products that possess current McDonough Braungart Design Chemistry ([MBDC](#)) certification or other “third-party” certified Cradle to Cradle program, Forest Stewardship Council (FSC) certification, GREENGAURD certification or similar “third-party” certified products consisting of low-emitting materials.

## 6.10 FURNITURE SYSTEMS

### 6.10.1 GENERAL

Where appropriate, design furniture systems in open office areas. Coordinate style and color of furniture systems with other storage, seating, etc. in open office areas. Minimize the number of workstation typicals and the parts and pieces required for the design to assist in future reconfiguration and inventorying.

### 6.10.2 CONNECTOR SYSTEMS

Specify a connector system that allows removal of a single panel or spine wall within a typical workstation configuration without requiring disassembly of the workstation or removal of adjacent panels. Specify connector system with tight connections and continuous visual seals. When Acoustical panels are used, provide connector system with continuous acoustical seals. Specify concealed clips, screws, and other construction elements, where possible.

### 6.10.3 PANELS AND SPINE WALLS

Specify panels and spine walls with hinged or removable covers that permit easy access to the raceway when required but are securely mounted and cannot be accidentally dislodged under normal conditions. Panels shall be capable of structurally supporting more than 1 fully loaded component per panel per side. Raceways are to be an integral part of the panel and must be able to support lay-in cabling and have a large capacity for electrical and IT. Do not thread cables through the frame.

### 6.10.4 ELECTRICAL AND INFORMATION / TECHNOLOGY (IT)

Design furniture with electrical systems that meets requirements of UL 1286 when powered panels are required and UL approved task lights that meet requirements of NFPA 70. Dependent on user requirements and Section 01 10 00, paragraph 3 requirements, it is recommended that workstation electrical and IT wiring entry come from the building walls to eliminate the use of power poles and access at the floor. Design electrical and IT systems that are easily accessed in the spine wall and panels without having to move return panels and components. Electrical and IT management will be easily accessible by removable wall covers which can be removed while workstation components are still attached. Specify connector system that has continuation of electrical and IT wiring within workstations and workstation to workstation.

### 6.10.5 PEDESTALS

Specify pedestals that are interchangeable from left to right, and right to left, and retain pedestal locking system capability.

## **6.11 EXECUTIVE FURNITURE**

### **6.11.1**

Design for executive furniture in command areas, coordinate specific locations with Corps of Engineers Interior Designer. Use upgraded furniture, upholsteries and finishes in command suites. This includes but is not limited to wood casegoods, seating and tables. Select executive furniture casegoods from a single manufacturer and style line, to include workstations, credenzas, filing, and storage, etc.

### **6.11.2**

Specify furniture with wood veneer finish with mitered solid wood edge of same wood type. Other executive office furniture such as seating, tables, executive conference room furniture, etc. shall be compatible in style, finish and color with executive furniture casegoods.

## **6.12 SEATING**

### **6.12.1 GENERAL**

Specify appropriate chair casters and glides for the floor finish where the seating is located. All task seating shall support up to a minimum of 250 lbs.

### **6.12.2 DESK AND GUEST SEATING**

Select ergonomic desk chairs with casters, waterfall front, swivel, tilt, variable back lock, adjustable back height or adjustable lumbar support, pneumatic seat height adjustment, and padded, contoured upholstered seat and back. Desk and guest chair backs may be other than upholstered such as mesh fabric if it is ergonomically designed, forms to back and is comfortable. Depending on scale of desk chair provide seat pan forward and back adjustment to increase or decrease depth of seat pan. All desk chairs shall have an adjustable seat height range of 4 1/2", range to include 16 1/2-20". Select guest chairs that are compatible in style, finish and color with the desk chairs.

### **6.12.3 CONFERENCE ROOM SEATING**

At tables, select ergonomic conference seating with casters, non-upholstered arms, waterfall front, swivel, tilt, pneumatic seat height adjustment, and padded, contoured seat and back, unless otherwise noted. Select arm height and/or design that allows seating to be moved up closely to the table top. Conference chair backs may be other than upholstered such as mesh fabric if it is ergonomically designed, forms to back and is comfortable. Perimeter conference chairs shall be compatible in style, finish and color with conference seating at the tables.

### **6.12.4 LOUNGE, WAITING AND RECEPTION SEATING**

Select seating with arms and cushioned, upholstered seat and back. In heavy use areas, arms shall be easily cleaned such as non-upholstered arms or upholstered arms with wood arm caps unless otherwise noted.

### **6.12.5 BREAK ROOM SEATING**

Select stackable seating that is easily cleaned. Seating shall be appropriate for table and counter heights as applicable with non-upholstered arms if arms are required. Chairs shall have metal legs and composite materials for seats.

## **6.13 FILING AND STORAGE**

Select storage and shelving units that meet customer's functional load requirements for stored items. Specify counterweights for filing cabinets when required by the manufacturer for stability. File drawers shall allow only one drawer to be opened at a time. Provide heavy duty storage and shelving if information



is not available.

#### **6.14 TRAINING TABLES**

Training tables shall be reconfigurable, moveable and storable; lighter weight folding with dollies or casters as necessary. Plastic laminate self edges are unacceptable. Specify power and data requirements and dollies as required.

#### **6.15 FURNITURE WARRANTIES**

Training Specify manufacturer's performance guarantees or warranties that include parts, labor and transportation as follows:

- a. Furniture System, unless otherwise noted – 10 year minimum
- b. Furniture System Task Lights – 2 year minimum, excluding bulbs
- c. Furniture System Fabric – 3 year minimum
- d. Wood Desks - 10 year minimum
- e. Metal Desks – 12 year minimum
- f. Seating, unless otherwise noted - 10 year minimum
- g. Seating Mechanisms and Pneumatic Cylinders - 10 years
- h. Seating Fabric - 3 years minimum
- i. Wood Filing and Storage - 10 year minimum
- j. Tables, unless otherwise noted - 10 year minimum
- k. Table Mechanisms – 5 year minimum
- l. Table Ganging Device - 1 year minimum
- m. Items not listed above - 1 year minimum

---END OF SECTION---