

# Specification Section 12700 Systems Furniture

October 09, 2012

Revision 1

**SAND2012-XXXX P**

This document has undergone formal review and approval and been reviewed by a Derivative Classifier, and its contents have been deemed unclassified/unlimited release.



U.S. DEPARTMENT OF  
**ENERGY**





## Change Log

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**CONSTRUCTION STANDARD SPECIFICATION****SECTION 12700****SYSTEMS FURNITURE**

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## **CONSTRUCTION STANDARD SPECIFICATION**

### **SECTION 12700**

#### **SYSTEMS FURNITURE**

#### **PART 1 - GENERAL**

##### **1.01 SUMMARY**

- A. Section includes installation and disassembly of systems furniture.
- B. Work includes, but is not limited to, the following:
  - 1. Labor, equipment, and material to install systems furniture.
  - 2. Labor and equipment to install, or disassemble systems furniture.
  - 3. Labor, equipment, and material to:
    - a. Protect and transport components from Sandia National Laboratories' (SNL) warehouse, Vendor's warehouse, or other location specified by the Sandia Delegated Representative (SDR) to final installation location.
    - b. Dismantle, package, protect, and transport components to SNL's warehouse.

##### **1.02 REFERENCES**

- A. American National Standard Institute/Business and Institutional Furniture Manufacturers Association (ANSI/BIFMA)
  - M7.1 Standard Test Method For Determining Volatile Organic Compound (VOC) Emissions from office furniture systems, components and seating
  - X7.1 Standard for Formaldehyde and Total VOC (TVOC) Emissions of Low-Emitting Office Furniture Systems and Seating
- B. American Society for Testing and Materials (ASTM)
  - E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- C. GREENGUARD Environmental Institute (GREENGUARD)  
GREENGUARD Indoor Air Quality Program
- D. General Services Administration (GSA)

ABA Accessibility Standard for Federal Facilities

- E. National Fire Protection Association (NFPA<sup>®</sup>)  
70, National Electrical Code<sup>®</sup>
- F. Underwriters Laboratories Inc. (UL)  
Listing 1286, *Office Furnishings*

1.03 DEFINITIONS

Systems Furniture: Assembly of furniture, partitions, lighting, cabling, and wiring

1.04 SUBMITTALS

- A. Certification for Refurbished Products: Provide written documentation certifying that refurbished products comply with UL Listing 1286.
- B. Design Calculations for Wall Channels: Provide written documentation certifying that a licensed structural engineer has provided calculations and design for wall reinforcement that allows the use of wall channels.
- C. Sustainability Data: Provide manufacturer's documentation of Indoor Air Quality compliance indicating systems furniture products are:
  - 1. GREENGUARD Indoor Air Quality certified
  - OR -
  - 2. ANSI/BIFMA M7.1/X7.1 compliant

1.05 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: Provide fabric-covered panels with the following surface-burning characteristics as determined by testing identical products per ASTM E84 by UL, or another testing and inspecting agency acceptable to authorities having jurisdiction.
  - 1. Flame Spread: 25 or less
  - 2. Smoke Developed: 450 or less
- B. Electrical Fixtures, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
- C. Refurbished Steelcase Avenir Products: Provide certification that products comply with UL Listing 1286.

## PART 2 - PRODUCTS

### 2.01 MANUFACTURER

#### A. New Installations:

Haworth: Provide Haworth Premise Furniture Line with “X-Series” storage, unless indicated that the products are furnished by SNL.

1. Laminate Color: H-AE, Maple
2. Main Metal Color: TR-LE, Metallic Silver
3. Primary Panel Skin Color: FZ-1, Iowa Manowa
4. Secondary Panel Skins Color: ZR-4, Yippie Kio
5. End Panel, Base Cove, Misc. Non-metal Finish: TR-E, Smoke

- OR -

Steelcase: Provide Steelcase Answer Furniture Line with “Universal” storage.

1. Laminate Color: 2412, Natural Cherry
2. Primary Panel Skin Color: N005, Milano Olivine
3. Secondary Panel Skins Color: P382, Design Tex, Rain
4. Frame Trim Plastic: 6685, Champagne
5. Misc. Metal Paint: 4750, Champagne

#### B. Existing Installations: For modifications to existing Steelcase Avenir and Herman Miller systems furniture configurations, use one of the following types:

1. Haworth: Provide Haworth Premise Furniture Line, unless indicated that the products are furnished by SNL.

- OR -

2. Steelcase: Provide Steelcase Answer Furniture Line, unless indicated that the products are furnished by SNL.

### 2.02 SUSTAINABILITY REQUIREMENTS

#### A. Indoor Air Quality: Systems furniture products shall be:

1. GREENGUARD Indoor Air Quality certified

- OR -

2. ANSI/BIFMA M7.1/X7.1 compliant

2.03 ANCHORS AND ATTACHMENT DEVICES

1. Fasteners and Anchors: Approved by manufacturer for use in intended application to support fully-loaded partition components.
2. Do not use wood plugs, lead wool, lead lag-screw shields, or plastic threaded shields.

2.04 TOUCH-UP MATERIAL

Touch-up material: Manufacturer's recommended product

2.05 SEATING

Reference SNL's Just-in-Time (JIT) catalog for seating options from both furniture Vendors.

PART 3 - EXECUTION

3.01 EXAMINATION

Examine floors and conditions for compliance with requirements, installation tolerances, and other conditions affecting performance of systems furniture. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect existing work.
- B. Cleaning: Before installing systems furniture, vacuum floor and remove dust, dirt, and debris.

3.03 INSTALLATION

- A. General: Install systems furniture in accordance with manufacturer's installation instructions and requirements of this specification, ADA and ABA Accessibility Guidelines for Buildings and Facilities, Part II: *ABA Application and Scoping requirements and Contract Drawings*.
  1. Haworth: Haworth Premise Systems Furniture, Specification Guide
  2. Steelcase: Steelcase Systems Furniture Answer Solutions Specification Guide
- B. Coordinate with work of other trades that are affected by systems furniture installation.



1. Install systems furniture after floor coverings and suspended acoustical ceilings have been installed.
  2. Electrical/communication terminations shall be performed by a qualified electrician assigned to the task by SNL.
- C. Install panel runs level, plumb, and straight with perpendicular intersections.
- D. Install panels level with integral, concealed, adjustable devices with not more than ¼-inch between panel base and finish floor. Do not use shims. Install vertical and horizontal panel joints flush.
- E. Adjust panel components and hardware, ensuring that proper rigidity and balance are maintained.
- F. Furnish and install anchoring devices as required, and secure panels to walls using concealed fasteners.
- Attach partition components to existing building components with anchors approved for the application as recommended by manufacturer.
- G. Wall channels are permitted and must be installed in accordance with manufacturer's guidelines. The channels must be installed with the bottom of the channel starting at floor level. Any set of channels wider than 36 inches must be accompanied by a horizontal brace that is secured into the studs of the wall.
- H. Keep furniture assembly areas and egress paths clear of boxes, parts and debris. Do not block building exits or exiting corridors. Remove trash daily to avoid trip hazards and fire potential.
- I. Protect all existing site landscaping, building wall finishes, and flooring from damage during the furniture installation. The furniture installation Contractor shall repair or replace, at the contractor's cost, damage to SNL property during the furniture installation.

### 3.04 DISASSEMBLY

- A. Disassemble systems furniture using procedures, sequencing and workmanship to minimize damage to components.
- B. Deliver systems furniture to SNL's warehouse in approximately the same component assemblies as issued.
- C. Small components shall be boxed, taped to, or bagged with major assembly component, and each unit shall contain only one type of component set.
- D. Deliver assemblies on proper sized pallets, and stack to prevent damage and spills during transportation.
1. Place panels on pallets with cardboard, or other separators of sufficient thickness between panels to prevent damage.

2. Panels on pallets shall be graduated with larger panels on the bottom and smaller panels on top. Stack no more than twelve panels high. Work surfaces, bins, and accessory components shall be put on pallets to prevent damage.

### 3.05 REPAIR

Repair damaged or defaced work, or replace with new work as acceptable to SDR at no charge to SNL.

- A. Panels or system furniture parts that are damaged by Contractor shall be repaired or replaced at Contractor's expense.
- B. Repairs shall comply with requirements of Quality Assurance Article.

END OF SECTION