

SECTION 10670
STORAGE SHELVING

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Vinyl-coated ventilated shelving.
- B. Laminated closet systems.
- C. Specialty wardrobes.
- D. Adjustable shelf systems.
- E. Storage accessories.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete.
- B. Section 04220 - Concrete Masonry Units.
- C. Section 06100 - Rough Carpentry.
- D. Section 09260 - Gypsum Board Assemblies.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's catalog data, detail sheets, and specifications.
- C. Shop Drawings: Prepared specifically for this project; show dimensions of shelving and interface with other products.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.
- F. LEED Submittals
 - 1. Product Data for Credit IEQ 4.2 (1 Point): For paints and coatings having low-emitting materials with documentation indicating compliance with:
 - a. Product: Vinyl-coated shelving
 - 2. Product Data for Credit IEQ 4.4 (1 Point): For composite wood products, documentation indicating that product contains no added urea formaldehyde.
 - a. Product: MasterSuite island tops (Wilsonart)
 - 3. Product Data for Credit IEQ 4.5 (1 Point): For low emitting materials - furniture and furnishings.
 - a. Product: MasterSuite Island tops (Wilsonart).
 - b. Product: Vinyl-coated shelving.
 - 4. Product Data for Credit MR 4 (1 or 2 Points): For products having recycled content, documentation indicating percentages of 10% to 20% by total value of post-consumer and pre-consumer recycled content (Innovation in Design Credit +1 point for exemplary performance by achieving a total recycled-content value of 30% or more). Include statement indicating cost for each product having recycled content and comply with:
 - a. ISO 14021-1999 environmental labels and declarations self-declared environmental claims (type II environmental labeling).

- b. California Department of Health Services "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources using Small-Scale Environmental Chambers", including 2004 addenda.
 - c. Product: Wire shelving.
 - d. Product: MasterSuite.
 - e. Product: MasterSuite Island tops (Wilsonart).
 - f. Product: ExecutiveSuite.
5. Product Data for Credit MR 5 (1 or 2 Points): For building materials or products extracted, harvested or recovered within 500 miles of project site for 10% or 20% based on cost of total materials value. (Only the percentage by weight can contribute to the regional value if only a fraction of the product is extracted, harvested or recovered and manufactured locally.)
- a. Product: Wire shelving.
 - b. Product: MasterSuite.
 - c. Product: MasterSuite Island tops (Wilsonart).
 - d. Product: ExecutiveSuite.
6. Product Data for Credit MR6 (1 Point): Use rapidly renewable building materials and products for 2.5% of total value of all building materials and products (Innovation in Design credit +1 by achieving a rapidly renewable materials content of 5% or more).
- a. Product: MasterSuite Island tops
7. Product Data for Credit MR 7 (1 Point): Use minimum of 50% of wood-based materials and products that are certified in accordance with the Forest Stewardship Council's Principle and Criteria--Innovation in Design credit (+1 point) for exemplary performance by achieving an FSC-certified wood content of 95% or more of the project's total new wood.
- a. Chain-of-custody certificate #SCS-COC-001662 Stevens Industries, Inc. Manufacturer of wood veneer, melamine, plastic laminated panels, panel components and contract furniture.
 - b. Product: MasterSuite Island tops (Wilsonart)
 - c. Product: MasterSuite core.
 - d. Product: ExecutiveSuite core.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten years experience.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five years demonstrated experience in installing products of the same type and scope as specified.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 WARRANTY

- A. At project closeout, provide to Owner or Owner's Representative an executed copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: ClosetMaid Corp., which is located at: 650 S.W. 27th Ave.; Ocala, FL 34471; Toll Free Tel: 800-221-0641; Tel: 352-401-6338; Email: request info (lou.cuomo@emerson.com); Web: www.closetmaid.com
- B. Email: (lou.cuomo@emerson.com). Web: http://www.closetmaid.com.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- D. Substitutions: Not permitted.
- E. Provide all storage shelving from a single manufacturer.

2.2 MATERIALS

- A. Steel Wire: Basic cold drawn, Grade C-1006; average tensile strength over 100,000 psi (690 MPa); coated.
- B. Wire Coating: Proprietary heavy-duty polyvinyl chloride (PVC) formula resin, plasticizers, stabilizers, pigments, and other additives.
 - 1. Thickness: 7 to 17 mil (0.178 to 0.432 mm).
 - 2. Classification: No ingredients listed as hazardous per OSHA 29CFR1910.0017.

2.3 MANUFACTURED UNITS

- A. Coated Wire Shelving:
 - 1. SuperSlide/Linen: 1 inch (25 mm) spacing.
 - a. Color: White Wire.
 - b. Color: Satin Chrome.
 - c. Closet Rod Support: Part # 925.
 - d. 3/4 inch (19 mm) Closet Rod: Part # 2012.
 - e. Internal Closet Rod Cap: Part # 2081.
 - f. Pre-Loaded Side Wall Bracket: Part # 979.
 - g. Corner Closet Rod: Part # 5649/5748.
 - 2. Close Mesh: 5/8 inch (16 mm) spacing.
 - a. Color: White Wire.
 - b. Color: Satin Chrome.
 - 3. TotalSlide: 1 inch (25 mm) spacing.
 - a. Color: White Wire.
 - 4. Shelf & Rod: 1 inch (25 mm) spacing.
 - a. Color: White Wire.

5. Linen: 1 inch (25 mm) spacing.
 - a. Color: White.
- B. Laminated Systems: Thermal-Fused Melamine Laminated Particle Board System:
 1. Product: MasterSuite as manufactured by ClosetMaid Corp.
 - a. Storage Shelf Thickness: 3/4 inch (19mm).
 - b. Edge Banding: 0.039 inch (1 mm) PVC.
 - c. Hang Rod: 1 inch (25 mm) diameter by 20 gauge (0.91 mm) tubular steel.
 - d. Color: Warm Cognac.
 - e. Color: Antique White.
 - f. Color: Chocolate Pear.
 - g. Color: Candlelight.
 - h. Color: Clean White.
 2. Product: ExecutiveSuite as manufactured by ClosetMaid Corp.
 - a. Storage Shelf Thickness: 3/4 inch (19 mm).
 - b. Countertop Thickness: 1 inch (25.4 mm).
 - c. Edge Banding Exposed Surfaces: .02 inch (.5 mm) PVC.
 - d. Countertop Edge Banding: .10 inch (2.5 mm) PVC rounded.
 - e. Color: Warm Cognac.
 - f. Color: Antique White.
 - g. Color: Chocolate Pear.
 - h. Color: Candlelight.
 - i. Color: White.
 3. Product: MultiSuite as manufactured by ClosetMaid Corp.
 - a. Storage Shelf Thickness: 3/4 inch (19 mm).
 - b. Countertop Thickness: 1 inch (25.4 mm).
 - c. Edge Banding: 0.039 inch (1 mm) PVC.
 - d. Color: Hammered Grey.
 - e. Color: White.
- C. Accessories: As required and as manufactured by ClosetMaid Corp.
 1. Wall Clips.
 2. End Brackets.
 3. Support Brackets.
 4. Poles.
 5. Standards.
 6. Shelf Brackets.
 7. Pole Clips.
 8. Hang Track.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions:
 1. Prepared spaces are sized and located in accordance with shop drawings.
 2. Framing, reinforcement, and anchoring devices are correct type and are located in accordance with shop drawings.

- B. Installer's Examination:
 1. Examine conditions under which installation is to be performed; submit written notification if such conditions are unacceptable.
 2. Installation activities started before unacceptable conditions have been corrected is prohibited.
 3. Installation indicates installer's acceptance of conditions.

3.2 INSTALLATION

- A. Cut shelves 1/2 inch to 1-3/8 inches (12.7 to 35 mm) shorter than actual wall measurements; cap all exposed ends.
- B. Install shelving plumb and level at heights indicated in accordance with shop drawings and manufacturer's printed installation instructions.
- C. Place wall clips No. 910, 911 every 10 to 12 inches (254 to 305 mm) on level line.
- D. Install end brackets No. 932, 933, 914, 940, and 941 on same level line as wall clips, centered on the front rods of shelves. Support shelves 36 inches (914 mm) maximum with end brackets, support brackets, or poles.
- E. Drill holes where required using sharp bit; do not punch.
- F. Drywall: Drill 1/4 inch (6 mm) hole, insert No. 910 or 911 wall clip. Use No. 658 # 8 x 1 inch (25 mm) pin to expand anchor if unloaded.
- G. Wood: Drill 1/4 inch (6 mm) hole into wood, secure wall clip with No. 8 x 1 inch (25 mm) screw or secure pole clip No. 978 directly to wood with No. 8 x 1-1/4 inch (31 mm) screws.
- H. Concrete: Drill 1/4 inch (6 mm) hole with masonry bit, insert wall clip No. 911 or 978 with 250 anchor, secure with No. 8 x 1 inch (25 mm) screws.
- I. Standards and Brackets:
 1. Install standards vertically every 16 inches (406 mm) to a maximum of 24 inches (610 mm) on studs or hang from horizontal hang track.
 2. Hang track shall be secured to studs. Once standards are hung from track, secure with anchors to keep from moving.
 3. Attach shelf brackets with SuperSlide, Heavy Duty, Linen, Shelf and Rod and Close Mesh.
 4. For all 12-inch (305 mm), 16-inch (406 mm), and 20-inch (508 mm) decking.
- J. Attach shelf brackets with SuperSlide, Heavy Duty, Linen, Shelf and Rod and Close Mesh for 12-inch (305 mm) shelving and for 16 or 20 inches (406 or 508 mm) decking.
- K. Use lightning pole clip No. 978 for linen shelving, clip No. 977 for shelf and rod shelving.
- L. Shelf Supports:
 1. Place shelf support brackets No. 1164, 1166 or 1180 vertically to the shelf, attach with No. 954 or 955 wall anchors.
 2. Install down clips No 978, 981, or multi-purpose No. 612 with No. 250 anchor or secure to stud with 1-1/4 inch (31 mm) screws (preferred) on the back rod behind every support bracket.
 3. Spacing, 24 inches (610 mm) to 36 inches (914 mm) o.c. maximum.
- M. Attach No. 977 or 978 pole clips at same elevations as wall clips for a given shelf; use with No. 117, 118, 2117 or 2118 poles.
- N. Use No. 120 corner support brackets on all corner "butt" joints.
- O. For wall to wall installation, use lightning end bracket No. 932, 933, 940 or 941; drill 1/4 inch (6 mm) holes, and secure with No. 658 # 8 x 1 inch (25 mm) pins.
- P. SuperSlide Component Installation:
 1. Place hang bar supports No. 925 or 5672 every 24 to 36 inches (610 to 914 mm); place express support brackets (No. 1164) adjacent to supports.
 2. Use SuperSlide end bracket No. 979 or 980 at side wall where pole is used.
 3. Use 12 inch (305 mm) support brackets (No. 1164) for 12 inches or 16 inches (305 or 406 mm) deep shelves.

4. Place pole caps No. 2083 on cut ends of poles.
 5. Use pole connector No. 2085 to connect 3/4 inch (19 mm) poles; rest joints in brackets No. 925.
 6. For side wall installation, use end bracket No. 979 or 980.
 7. For open end installations, use down clips No. 978, 981, or 612 (612 stud installation recommended).
- Q. TotalSlide Component Installation:
1. Use end bracket No. 947 or 948 at side wall.
 2. Use 12 inch (305 mm) express support brackets (No. 1164) for 12 inches deep shelves.
 3. Place shelf stop (No. 969) on open ends.
 4. For support pole installation use No. 952 or 951 pole clips; use with No. 117, 118, 2117 or 2118 poles.
 5. For open end installations, use down clips No. 978, 981, or 612 (612 stud installation preferred).
- R. MasterSuite Component Installation: Install per manufacturer's instructions.
- S. MultiSuite Component Installation: Install per manufacturer's instructions.
- T. ExecutiveSuite Component Installation: Install per manufacturer's instructions.

3.3 CLEANING

- A. As work proceeds, maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris related to this work.
- B. Upon completion of installation, clean all surfaces that have become soiled during installation.

END OF SECTION