

RESIDENCE HALL FURNITURE

UNIVERSITY CONTACT:

Facilities Management
(302) 831-3338

I. GENERAL INFORMATION:

A variety of furniture is required for the residence halls. Styles and materials used are based not only on the purpose, but also the architecture of the buildings. Specific materials are set forth.

1. WARRANTY

- a. A written guarantee of five (5) years against failure of both materials and workmanship is required.

2. REFERENCES

- a. Successful bidders may need to provide a list of recent jobs to verify issues related to quality, service, organization, delivery and installation.

3. BIDS

- a. Award of the bid will be determined by price, quality of product, service, and ability to conform to a delivery schedule. Ability to warehouse a portion of the order until construction is completed may also be a factor where applicable.

4. SAMPLES

- a. After the review of bids, selected bidders must provide samples. Samples should be sent to: University of Delaware, Receiving Department, 222 S. Chapel Street, Newark DE 19716; Attn.: Mark Mankin. The University will retain possession of all samples from the successful bidder for comparison until such time the order has been received.

5. SUBSTITUTIONS

- a. Alternate materials and methods of construction other than specified will be considered and evaluated. If not conforming to all specifications, bid must clearly identify what exceptions are being taken and where, with alternate method clearly explained in bid package.

6. DELIVERIES

- a. A detailed delivery schedule will be provided after the award of the bid. The successful bidder is expected to comply with said schedule. Bid should state how long furniture will be held at no charge to the university in the event of construction delays. In the event of delays, state all charges that would be incurred, at what time and for how long. The bidder must agree not to ship any item without prior authorization of the universities contract administrator.
- b. All furniture is to be delivered, installed and set up in the designated area by the successful bidder. Installers must be clearly identified by uniform, shirts or hats and supervised by successful bidder or moving company professional. All packing materials must be removed and legally disposed of off site.

7. COMMUNICATION/PROJECT MANAGER

- a. The successful bidder must designate a "contact" person to direct all communication between the factory and university. It is expected that this person will give periodic updates on production progress and delivery schedules.

II. PRODUCTS:

A. GENERAL

1. MATERIALS

- a. All panels, drawer fronts, and exposed rails are to be full length, F.A.S. Grade Northern grown solid oak except where noted. Internal rails, glue blocks, corner blocks, screw cleats, and spiral grooved dowels shall be made from Appalachian highland or northern grown hardwoods. All materials shall be selected to be free of any defects that might impair strength, appearance or serviceability and be properly kiln dried to a 5-7% moisture content through manufacturing.
- b. All exposed wood parts including tops, end panels, drawer fronts, stretchers and connecting rails shall be no less than 3/4" thick to the finished size.
- c. Unexposed solid wood members shall be northern grown hardwood or Appalachian highland hardwood of the following species: red and white oak, poplar, pecan, hickory, sugar maple or ash and shall be free of defects that might impair strength or serviceability.
- d. Plywood - Oak veneer plywood must be a plain-sliced oak hardwood Grade "A" veneer with northern grown hardwood core. Rotary cut veneers are **not** acceptable. **No exposed edges.**

- e. MDF - "medium density fiber-core," may be used as the center core material when oak veneer is being used for large panels, such as wardrobe doors or sides. It must be a 45-pound density board and is **not** the same as "particle board" or "chip board."

2. CASES/FRAME

- a. All joints and connections shall be made in such a manner as to allow for shrinkage and swelling without splitting or opening. Joints shall be made with wood dowels, square mortise and tenon, or flat tenon and groove. In addition, all joints shall be glued and screwed with high torque wood screws.
- b. Where needed for additional strength, stress joints shall be reinforced using hardwood corner blocks, glued and screwed.
- c. All cases shall be braced at each drawer level with front, back and two intermediate (front and back) cross rails, 4-sided framing at each drawer level.
- d. All drawer rails, exposed and unexposed, shall be minimum 1- 1/2 x 3/4" thick.
- e. All case backs (back panels) shall be minimum 3-ply oak plywood, #1 oak face and sound back, no less than 5.2 mm thick (7/32"). Wood panels are to be sealed and finished to match the cabinet. Back panels shall be grooved (dadoed) into the case end panels and the bottom back rail unless otherwise noted. The bottom back rail is mortised, glued and screwed to the end panels.
- f. All cases shall be constructed with a 2-1/2" minimum solid oak recessed kick rail tenoned to the case end panels and reinforced to the end panels with two wood corner blocks, glued and screwed. All cases shall have a lower back exposed case rail.

3. DRAWERS

- a. All drawers shall be 5-sided with removable drawer fronts. All drawer boxes shall consist of a front, back and sides constructed of solid maple, poplar, aspen, birch or sycamore not less than 7/16" thick. No plywood drawer sides. The drawer box front, back and sides shall be joined with full 1/2" dovetails on 1" centers, glued and clamped. **No** French dovetails.
- b. Drawer bottoms to be as case backs; minimum 3-ply oak plywood, #1 oak face and sound back, no less than 5.2 mm (7/32") thick.
- c. All drawer bottoms shall be fitted into groves (dadoed) in sides, front and back, fastened and reinforced with a minimum of 8 wood glue blocks and mechanically fastened.

- d. All drawer bottoms over 30" (wardrobe) shall be reinforced on the under side with a 2-1/2" x 3/4" solid wood cleat running down the center and secured into the drawer box front and back by tenon and groove, glued and blocked. Alternate methods of reinforcing the large drawer bottom must be specified and approved.
- e. All drawer fronts including wardrobe shall be 3/4" solid oak (no substitutes) with routed finger pulls, both top and bottom. Routed finger pulls shall not traverse entire drawer length, leaving 1" to 2" of drawer face material on edges. Drawer fronts shall be removable from the drawer box for ease of replacement. Each front will be secured to the front of the drawer box with at least (5) #8 screws for replacement. Drawer fronts will partially overlap the exposed drawer rails by approximately 1/4".
- f. All fronts to have drawer parting rails at each drawer level. Care should be taken to construct drawers with maximum drawer depths (top and bottom) as drawer opening allows.
- g. All interior drawer surfaces shall be sealed, sanded and lacquered for a smooth, lint-free surface.
- h. All drawers shall be provided with 100 lb. test, ball bearing drawer slides, (KV or equal, must provide sample) with stops to prevent accidental removal. Accuride is NOT acceptable.

4. DRAWER LENGTHS (FRONT TO BACK)

- a. Desk - minimum 18"
- b. Dresser section of wardrobe - minimum 20"
- c. Wardrobe bottom drawers - minimum 20"
- d. Dresser - minimum 16"

5. LAMINATE TOPS

- a. Top core shall be 3/4" thick high density particle board with a minimum average density equal to 47 lbs. per cubic foot.
- b. Top surface shall be a matching high pressure plastic laminate minimum .050" thick Wilsonart or equal, with balanced backing sheet.
- c. Top edges shall be manufactured to withstand bumping, and prevent delamination. Exact specification to be determined and approved.

- d. Top to be secured to the case with #8 screws driven through the internal rails and penetrating no less than 1/2" into underside of the top. Screws are to be installed through each of the front and back rails and through cross rails positioned along the inside panel edge. Tops of desks can be removed and replaced if necessary.

6. FLOOR GLIDES

- a. Floor glides for desks and dressers shall be nylon 3/4" in diameter and have an adjustable height of 1". Floor glides for wardrobes shall be metal with nylon tip, 1-1/4" in diameter minimum, with an adjustable height of at least 1". Sample to be approved.
- b. Wardrobe glides may need to be adjustable from the top through holes in the bottom of case.

7. FINISH

- a. Finish to be natural oak. All surfaces, including unexposed interiors and end grains are to be sealed with a high solids sealer (Lilly Catalyzed Sealer, or equal), or water-based products. Specify product to be used.
- b. A minimum of two top coats shall be a high quality clear catalytic lacquer (Lilly Catalyzed Lacquer or equal), or water-based finish. Proper sealing is essential, due to experience with splitting side panels.

III. COMPONENTS (exact size may vary according to room dimensions)

1. STUDENT DESK

- a. Overall dimensions: 42" W x 24" D x 30" H.
- b. Full length 41" front and back top spanner rails.
- c. Knee stretcher rail to be substantially supportive, minimum 5/4" thick x 3 1/2" high.
- d. Panel ends, not open legs.
- e. There must be a front and back rail under the lap drawer for additional support.
- f. Pedestal section to have (3) drawers of equal size.
- g. Minimum (6) hardwood corner blocks in case (pedestal) section and (2) in knee hole section, screwed and glued at stress points.

- h. Lap drawer front to be wrist rest.
- I. Adjustable nylon glides, (6) per desk.
- j. Pedestal (drawers) to be on left side when facing desk.

2. DRESSER

- a. Dimensions - 30" W x 40" H x 20" D.
- b. Drawers (5) must be equal in size.
- c. Solid oak sides and drawer fronts, no substitutes.
- d. Laminate top.
- e. Adjustable nylon glides, (4) per chest.

3. WARDROBE/DRESSER COMBINATION (Christiana Towers)

- a. Full length bottom drawer, with (3) built-in drawers on bottom left of wardrobe cavity.
- b. Dimensions - 36" W x 24.5" D x 80" H.
- c. All exposed components must be solid oak.
- d. Large bottom drawer must be supported to prevent sagging.
- e. Wardrobe doors should not cover drawer fronts.
- f. If using 1/4" plywood backer, use (5) back rails. Top and bottom back rails to be a minimum of 1 -1/2" thick and 3" wide. Middle cross rails to be evenly spaced, 3/4" thick, minimum 3" wide, and positioned on back side of case back (not inside of cavity and exposed when wardrobe is open).
- g. Back to be recessed 3/4" from back side panel edge to allow for back cross rails and corner blocks. Back cross rails should be corner blocked for firm support. Bottom corner blocks should be substantial, and 1-3/4" thick, minimum, screwed and glued.
- h. Back must be constructed of 1/4" oak plywood. Good side must face inside of cavity. Back panel is slid into dadoed groves on side panels and top and bottom rails. Backs must be finished for a clean look.
- i. Top and floor of wardrobe cavity to be 3/4" high pressure laminate. Top to be attached with a minimum of 12 equally spaced screws through top apron rail

- and full length screw cleats on three other sides.
- j. Beside the top and floor of the wardrobe cavity, there must be a “bottom/base” attached on all four sides under the large drawer for stability.
 - k. Doors and sides must be 3/4" oak plywood, #1 oak face both sides, no less than (7) ply sound grade hardwood interplies interlines; or oak veneer over MDF. All edges must have solid oak edge banding that meets the universities approval. Reveal on doors must be 3/16".
 - l. All hinged door closures must be heavy-duty magnetic type; Epcos Magna Tite #592 or Amerock #BP9798AW or equivalent. Hinges must be heavy duty, 270 degree, three per long door, two per short door, and 2-3/4" long. (samples to be approved).
 - m. Hinged door must have (2) towel hooks per unit mounted on the right inside door, and an acrylic mirror, 14" x 20" long, mounted securely on the inside left “short” door. Mounting brackets enable the mirror to be easily replaced. Door handles to be specified and approved, must pull on 4" centers.
 - n. Clothes rod should be positioned no lower than 4" below wardrobe top.
 - o. Heavy duty towel bar to be installed on right door (Russell Complex only).

4. WARDROBE W/2 BOTTOM DRAWERS

- a. Dimensions - 36"W x 24" D x 78" H.
- b. Interim cavity must be approximately 56" H.
- c. Bottom drawers (2) must be equal in size (see above for additional requirements).

5. BED ENDS

- a. All bed ends must be identical.
- b. Bed end uprights to be 2-1/4" square finished size minimum; joints must be mortise and tenon; uprights to be 36" high. **Each upright (post) is not to have an excess of three (3) laminations.** Each joint must be reinforced with screws.
- c. Spreaders to be a minimum 1 1/4" x 3 1/2" finished size solid oak, and mortise and tenon, (3) per bed end.

- d. Each bed end is assembled with (2) vertical uprights and (3) horizontal spreaders. The approximate distance from floor to the bottom of each spreader is as follows:

Bottom spreader - 7-1/2"
Middle spreader - 18- 3/4"
Top spreader - 30"
Space between rails - 7-3/4"

- e. Ends of uprights are to be shaped to provide stacking capability **without** the use of metal bunk pins and sleeves.
- f. Bed ends must be made to accept a spring unit made to accommodate a 36" x 80" institutional mattress. Bed end width cannot exceed 38" and total length of bed not to exceed 86". Length may vary depending on individual room dimensions. The bed ends are to have three equally spaced holes on 4" centers to provide three spring height settings. Drillings from the floor to holes are 17", 21", and 25".
- g. Bed end to be manufactured for adjustable sleeping surfaces without use of bolts and nuts unless otherwise specified. Sample to be approved.

5. SPRING UNIT

- a. Minimum must be 2' x 1-1/2" x 5/32" angle iron. Preferred brand is Del-Weld vs. Legett & Platt.
- b. Must have (2) center stabilizing bars (stretcher braces) made of 16 gauge, 1 inch O.D. steel tubing, or equivalent, bowed through the middle to allow for spring deflection.
- c. Attachment system must be compatible with adjustable sleep heights.
- d. All springs must have a minimum of 16, 9-1/2 gauge sinuous wire springs attached to the side frame rails.
- e. All springs shall have a minimum of 5 evenly spaced connecting wire links between each spring to laterally stabilize the springs.
- f. All springs shall have a minimum of 5-12 gauge tightly wound helical springs attaching each end spring to the end frame rails.

6. SPARE PARTS

- a. Drawer boxes - provide (10) each; desk, dresser and wardrobe.
- b. Bed ends - provide (10) sets.
- c. Spring unit - provide (10).
- d. Drawer tracks/guides - provide (10)

IV. APPROVED MANUFACTURES/SUPPLIERS

New England Woodcraft, Inc.
Box 165
Forest Dale, VT 05745
Attention: Jeff Thurston
(802) 247-8211

DCI
c/o Quality Products & Services
P.O. Box 1388
West Chester, PA 19380
Attention: Jerry Behney
(610) 696-2200

Mastercraft Specialties, Inc.
800 Maple Street
Red Lion, PA 17356
Attention: Dean P. Norris, National Sales Manager
(717) 244-8508
Fax: (802) 247-8042

John Savoy Incorporated
300 Howard Street
Montoursville, PA 17754
Attention: James Junikiewicz
(800) 233-8953
Fax: (570) 368-3280

COPE Industries, Inc.
27 Shoreham Depot Road
Orwell, VT 05760
C/O: Rob Felkl
Ph: (802) 897-5012
Cell: (802) 345-6907
Fax: (802) 897-5011

DO'S AND DON'TS

DO'S:

DO Order extra parts; e.g., drawer fronts, drawer boxes, bed ends, spring units and drawer guides/tracks.

DO Designate a contact person to give updates on production progress, delivery schedules, etc.

DO Consult with Housing Carpenter staff regarding repair history of current furniture, make adjustment in specs based on their professional input and information.

DON'TS:

DO NOT Order furniture until square footage for **each** room is determined to ensure furniture can be arranged in an attractive and functional manner. Exact sizes of beds, dressers, and wardrobes to be determined based on size of rooms to be refurbished.

--END SECTION--