DIVISION 06 – WOOD, PLASTICS AND COMPOSITES

Historic: Competency of Bidder Clauses should be included. Pre-design documents should identify historic woodwork

Follow the Secretary of Interior's Guidelines for Rehabilitation of Historic Buildings. Historic wood species may not be available in quantity to replace existing wood components. Retaining and repairing wood trim and components is preferred. Clear finishes are not reversible –they cannot be removed without damage to the wood. Careful evaluation of proper finish coats is required.

Sustainability: For composite wood materials, meet the requirements of LEED for Schools. Composite wood, as defined by the California Air Resources Board, Airborne Toxic Measure to Reduce Formaldehyde Emissions from Composite Wood Products Regulation, must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.

Use of regional wood materials from within a 100-mile radius is encouraged..

The use of reused, recycled and refurbished materials should be prioritized as possible.

Provide new wood products that originate in certified well-managed forests that comply with Forest Stewardship Council (FSC) standards, Sustainable Forestry Initiative (SFI) or American Tree Farm System (ATFS).

Wood treatments containing Creosote, Arsenic or Pentachlorophenol are prohibited. Where appropriate investigate use of borate treated wood, naturally moisture resistant woods such as cedar, or provide detailing to avoid the need for treated wood.

06-10-00 Rough Carpentry

A. Wood Materials
   1. Wood framing: Douglas Fir or equivalent, Standard or Better per WWPA.
   2. Wall sheathing: D CDX or better plywood, ½ inch thick, No. 1.
   3. Sub floors and Roof sheathing: C or better plywood, 3/4 inch Species No. 1. Provide topping slab whenever possible as the District has had significant challenges with flooring directly applied over plywood.
   4. Sub floor underlayment: Group 1, APA Exposure 1, Underlayment Grade plywood.
   5. Blocking or Backing: 1 inch thick AC, fire resistive, plywood 12 inches by stud width for door hardware, toilet accessories, hand towel and soap dispensers. Coordinate with divisions 08, 10, 11 and 12.

B. See above for FSC and locally sourced requirements.

C. Reclaimed softwood lumber shall be classified as reused wood.

D. Provide low emitting adhesives. All adhesives and sealants installed inside of the weatherproofing system and applied on-site shall meet:
   1. The testing and product requirements of the California Department of Public Health (CDPH) Standard Method v1.1–2010 using the applicable exposure scenario. Product certifications that demonstrate compliance include GREENGUARD (GG) Gold, Collaborative for High Performance Schools (CHPS) (excluding CHPS approved third-party certifications), and SCS Indoor Advantage Gold.
   2. VOC limits: All adhesives and sealants wet-applied on site must meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005,

Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.

E. Provide product Data for composite wood and agrifiber products indicating the product is documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.

F. Binders & glues to be formaldehyde free, no or low VOC.

G. Any treated lumber used where people may come into direct contact or food growing may occur, must meet red list requirements of the Living Building Challenge.

H. Provide new wood products that originate in certified well-managed forests that comply with Forest Stewardship Council standards, Sustainable Forestry Initiative (SFI) or American Tree Farm System (ATFS).

I. Wood treatments containing Creosote, Arsenic or Pentachlorophenol are prohibited. Where appropriate investigate use of borate treated wood, naturally moisture resistant woods such as cedar, or provide detailing to avoid the need for treated wood.

06-11-00 Wood Framing

A. Stud spacing 16 inches on center unless otherwise approved by owner.

B. Roof Sheathing

1. Structural I, CDX (42/20, 5 ply), ½-inch No. 1.
2. Overhangs, (exposed face), B Exterior grade. Increase thickness to avoid nails penetration.

06-40-00 Wainscot

A. Pre-finished materials, easily cleaned, impact resistant in corridor areas.

B. Metal protection at exposed columns, corners, etc. No vinyl.

06-41-00 Architectural Wood Casework

A. Consider moveable casework to allow more flexibility, particularly in classrooms and media spaces. Moveable casework should be equally durable and ensure seismic safety.

B. Low emitting materials: All adhesives and sealants installed inside of the weatherproofing system and applied on-site shall meet:

1. The testing and product requirements of the California Department of Public Health (CDPH) Standard Method v1.1–2010 using the applicable exposure scenario. Product certifications that demonstrate compliance include GREENGUARD (GG) Gold, Collaborative for High Performance Schools (CHPS) (excluding CHPS approved third-party certifications), and SCS Indoor Advantage Gold.
2. VOC limits: All adhesives and sealants wet-applied on site must meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.

C. Cabinets and countertops to provide for ADA access. Forward approach required where feasible, particularly at plumbing fixtures. Provide forward approach access to work area for all counters intended for work. Review ADA accessible requirements and recommendations with District.

D. Accessible counters at high school and all counters at middle schools shall meet current ADA standards. K-5 classrooms to be 30” AFF per PPS Adult and Elementary Accessibility Standards. All new middle school and grades 6-8 classroom counters to be 34” AFF.

E. Cabinets
   1. Match or coordinate with existing cabinet finishes when adjacent.
   2. Construction shall be plywoodor particleboard to meet Architectural Woodwork Institute AWS custom grade standards. Plywood only shall be used at wet locations.
   3. Exposed surfaces to be exposed wood or plastic laminate. The District recognizes plastic laminate cabinetry cannot be recycled at the end of life and therefore wood finishes would be preferred.
      a. For wood surfaces:
         i. Use white maple plywood for clear finish and either white maple, birch or other approved hardwood for other applications
      b. For plastic laminate:
         i. Exterior exposed cabinet faces. Vertical grade high pressure laminate. 0.028-inch thickness.
         ii. Interior exposed and semi exposed surfaces. High-pressure laminate .028 inches thick.
   4. Base cabinet backs, ¼" pre-finished tempered hardboard, ¾" formaldehyde free plywood or ¾" particleboard. Use moisture-resistant material at wet locations.
   5. Upper cabinets, backs pre-finished ½" particleboard or ¾" formaldehyde free plywood.
   6. Exposed edges shall be solid hardwood, PVC edge banding or plastic laminate. No exposed plywood end grains.
   7. Concealed edges shall be sealed or banded.
   8. Shelving shall be hardwood plywood with solid hardwood edge. Provide 500 pound capacity clips minimum. Minimum 3/4" thickness with supports minimum every 30".

F. Countertops – typical locations
   1. Match or coordinate with existing finishes when adjacent.
   2. Finishes should typically be solid surface such as epoxy, or laminate over wood.
   3. Backsplashes and edges to be integral. Provide 6" minimum backsplash at all wet locations; provide minimum 4" in all other locations.
   4. Laminate counters:
      a. Install over ¾" APA, B-C Grade fir plywood or premium industrial grade particle board with minimum density of 45lbs per cubic foot. Use moisture-resistant particle board or exterior grade plywood with exterior glue at wet locations, such as those with or near sinks/showers.
      b. Laminate shall be 0.039" thick.
      c. Sink locations: Laminate counters shall be post-formed with integral backsplash and front edge. Provide raised drip edge.

G. Countertops for science classrooms
   1. Follow requirements above with the following exceptions:
   2. 6-8 science classes may use laminate or solid surface.
   3. High school chemistry countertops and other work surfaces shall be solid surface epoxy.
   4. Non-chemistry high school science classrooms may use plastic laminate.
      a. Provide post formed counters with integral backsplash and edge condition.

H. Doors
   1. ¾" premium industrial grade particleboard, ¾" MDF or agrifiber.

2. Front surface high-pressure laminate with edges trimmed matching color of door front.
3. Hardware and Hinges:
    a. Institutional, 5-knuckle overlay hinges or continuous piano type hinge – commercial quality.
    b. Door hinge quantity for knuckle hinges:
        i. Two hinges for doors up to 36 inches high, 24" wide.
        ii. Three hinges for doors up to 48 included high, 24 inch wide.
        iii. Four hinges for doors up to 82 inches high, 24 inch wide.
    c. Pulls: 1 ¼" protrusion min. "D" handle (loop) stainless steel, satin sheen for standard casework, confirm handles meet ADA.
    d. Roller latch for non-locking cabinets.

I. Drawers
1. Paper storage and file drawers; special attention to design and load is required.
2. Drawer Guides/Slides:
    a. Drawers sized for load capacity of the drawer, full extension
    b. Integral metal roller guides with positive front and rear drawer stops preferred. Drawer face shall not be used as a drawer stop.
    c. Ball bearing slides.
        i. Mounting: Side.
        ii. Example products include: Knape & Vogt, and Accuride.
    d. Load Capacity:
        i. Desk Drawers: 100 pounds per pair.
        ii. Bins and file drawers: 150 pounds per pair.
3. Drawer sides: ½" plywood.
4. Drawer fronts and backs ¾" plywood tongue and groove into sides.
5. Front surface high pressure laminate to match cabinet construction.
6. Visible interior surfaces overlaid with plastic laminate.
7. Bottom- ¼" tempered hardboard or ½" thick particleboard, fitted into sides with continuous dado joint.

J. Pulls: 1 ¼" protrusion min. "D" handle (loop) stainless steel, satin sheen for standard casework. Must meet ADA requirements.

K. Security; "Schlage" keyway or district approved equal, keyed to room entry lockset. See hardware section. Provide one tall cabinet per classroom with lock and one drawer per classroom with lock.

L. Installation
1. Layout the anchoring system based on existing field conditions encountered.
2. Anchoring for a typical upper capable of supporting 200 lbs. per linear foot.