

## **SECTION 06100 - ROUGH CARPENTRY**

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

#### **1.1 SUMMARY**

- A. This Section includes the following:
  - 1. Framing with dimension lumber.
  - 2. Rooftop equipment bases and support curbs.
  - 3. Wood blocking, cants, and nailers.
  - 4. Wood furring and grounds.

#### **1.2 DEFINITIONS**

- A. Rough Carpentry: Carpentry work not specified in other Sections and not exposed, unless otherwise indicated.
- B. Exposed Framing: Dimension lumber not concealed by other construction.
- C. Lumber grading agencies, and the abbreviations used to reference them, include the following:
  - 1. NELMA - Northeastern Lumber Manufacturers Association.
  - 2. NLGA - National Lumber Grades Authority.
  - 3. SPIB - Southern Pine Inspection Bureau.

#### **1.3 SUBMITTALS**

- A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.
- B. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
  - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.

2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664.
  3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
- C. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the American Lumber Standards Committee Board of Review.
- D. Certification: Provide certification that all architectural wood materials originate from, 'sustainable managed forests'. Forests and forest product manufacturers may be certified by Scientific Certification Systems (SCS), RainForest Alliance's, SmartWood Program or another certifying body approved by Architect.

#### 1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.
- B. Source Limitations for Fire-Retardant-Treated Wood: Obtain each type of fire-retardant-treated wood product through one source from a single producer.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

### **PART 2 - PRODUCTS**

#### 1.6 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.
1. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
  2. Provide dressed lumber, S4S, unless otherwise indicated.
  3. Provide dry lumber with 19 percent maximum moisture content at time of dressing for 2-inch nominal thickness or less, unless otherwise indicated.

#### 1.7 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Chemical Treatment: Acceptable chemical treatments include Kodiack, and ALKALINE Copper Quaternary Compound (AQC-TYPE D). Other Borate-based products are acceptable. CCA, ACA, ACZA, Pentachlorophenol (Penta/PCP) and Creosote based products will not be accepted.
- B. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.
- C. Application: Treat all rough carpentry, unless otherwise indicated.
  - 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
  - 2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
  - 3. Wood framing members less than 18 inches above grade.

#### 1.8 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Where fire-retardant-treated materials are indicated, provide materials that comply with performance requirements in AWPA C20 (lumber) and AWPA C27 (plywood). Identify fire-retardant-treated wood with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.
  - 1. Use treatment for which chemical manufacturer publishes physical properties of treated wood after exposure to elevated temperatures, when tested by a qualified independent testing agency according to ASTM D 5664, for lumber and ASTM D 5516, for plywood.
  - 2. Use treatment that does not promote corrosion of metal fasteners.
  - 3. Use Exterior type for exterior locations and where indicated.
  - 4. Use Interior Type A High Temperature (HT), unless otherwise indicated.
- B. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not bleed through, contain colorants, or otherwise adversely affect finishes.

1.9 DIMENSION LUMBER

- A. General: Provide dimension lumber of grades indicated according to the American Lumber Standards Committee National Grading Rule provisions of the grading agency indicated.

1.10 MISCELLANEOUS LUMBER

- A. General: Provide lumber for support or attachment of other construction, including the following:

1. Rooftop equipment bases and support curbs.
2. Blocking.
3. Cants.
4. Nailers.
5. Furring.
6. Grounds.

- B. For items of dimension lumber size, provide Construction, Stud, or No. 2 grade lumber with 19 percent maximum moisture content and any of the following species:

1. Mixed southern pine; SPIB.
2. Hem-fir or Hem-fir (north); NLGA, WCLIB, or WWPA.
3. Spruce-pine-fir (south) or Spruce-pine-fir; NELMA, NLGA, WCLIB, or WWPA.
4. Eastern softwoods; NELMA.

- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine, No. 2 grade; SPIB.
2. Hem-fir or Hem-fir (north), Construction or 2 Common grade; NLGA, WCLIB, or WWPA.
3. Spruce-pine-fir (south) or Spruce-pine-fir, Construction or 2 Common grade; NELMA, NLGA, WCLIB, or WWPA.
4. Eastern softwoods, No. 2 Common grade; NELMA.

1.11 SHEATHING

- A. Plywood Wall Sheathing: Exterior, Structural I sheathing.

1. Thickness: As indicated.

1.12 PLYWOOD BACKING PANELS

- A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2 inch thick.

1.13 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
  - 1. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: CABO NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.
- F. Lag Bolts: ASME B18.2.1..
- G. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
  - 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
  - 2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

1.14 MISCELLANEOUS MATERIALS

- A. Building Paper: Asphalt-saturated organic felt complying with ASTM D 226, Type I (No. 15 asphalt felt), unperforated.

## ***PART 2 - EXECUTION***

### 1.15 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
- B. Do not use materials with defects that impair quality of rough carpentry or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- C. Apply field treatment complying with AWPA M4 to cut surfaces of preservative-treated lumber and plywood.
- D. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  - 1. CABO NER-272 for power-driven fasteners.
  - 2. Published requirements of metal framing anchor manufacturer.
  - 3. Table 23-II-B-1, "Nailing Schedule," and Table 23-II-B-2, "Wood Structural Panel Roof Sheathing Nailing Schedule," in the Uniform Building Code.
  - 4. Table 2305.2, "Fastening Schedule," in the BOCA National Building Code.
  - 5. Table 2306.1, "Fastening Schedule," in the Standard Building Code.
  - 6. Table 602.3(1), "Fastener Schedule for Structural Members," and Table 602.3(2), "Alternate Attachments," in the International One- and Two-Family Dwelling Code.
- E. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; predrill as required.
- F. Use finishing nails for exposed work, unless otherwise indicated. Countersink nail heads and fill holes with wood filler.

### 1.16 WOOD GROUND, SLEEPER, BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for screeding or attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated. Build anchor bolts into masonry during installation of masonry work. Where possible, secure anchor bolts to formwork before concrete placement.

- C. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

END OF SECTION 06100

## **SECTION 06402 - INTERIOR ARCHITECTURAL WOODWORK**

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

#### **1.1 SUMMARY**

A. This Section includes the following:

1. Plastic-laminate cabinets.
2. Strawboard cabinets.
3. Wood veneer cabinets.
4. Plastic-laminate countertops.
5. Epoxy-resin countertops.
6. Wood sills.

#### **1.2 DEFINITIONS**

A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items, unless concealed within other construction before woodwork installation.

#### **1.3 SUBMITTALS**

- A. Material Safety Data (MSD): MSD Sheets are required for all materials with detailed information on content, product safety, and potentially harmful characteristics. MSD Sheets shall be submitted by Contractor to the Architect for review prior to delivery or use of such materials on the project site. Product approval will depend, in part, upon meeting the environmental requirements of this specification, based upon MSD information submitted to the Architect for review.
- B. Product Data: For each type of product indicated, including cabinet hardware and accessories, and finishing materials and processes.
- C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
1. Show details full size.
  2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
  3. Show locations and sizes of cutouts and holes for plumbing fixtures, and other items installed in architectural woodwork.
- D. Samples for Initial Selection: Manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available for each type of material indicated.



1. Plastic laminates.

E. Samples for Verification: For the following:

1. Plastic-laminate-clad panel products, 8 by 10 inches, for each type, color, pattern, and surface finish, with separate samples of unfaced panel product used for core.
2. Exposed cabinet hardware and accessories, one unit for each type and finish.

F. Product Certificates: Signed by manufacturers of woodwork certifying that products furnished comply with requirements.

G. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

H. Certification: Provide certification that all architectural wood materials originate from, 'sustainable managed forests'. Forests and forest product manufacturers may be certified by Scientific Certification Systems (SCS), RainForest Alliance's, SmartWood Program or another certifying body approved by Architect.

#### 1.4 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed architectural woodwork similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

B. Fabricator Qualifications: A firm experienced in producing architectural woodwork similar to that indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

C. Quality Standard: Comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork, construction, finishes, and other requirements.

D. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

## 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed and indicate measurements on Shop Drawings.

## 1.7 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

## **PART 2 - PRODUCTS**

### 1.8 MATERIALS

- A. General: Provide materials that comply with requirements of the AWI quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. Products: Comply with the following:
  - 1. Cabinet Substrate Material – Where Indicated: “Agri-board” (strawboard).
  - 2. Veneer Plywood: Certified plywood.
    - a. Veneer Species and Cut: White maple quarter sliced.
  - 3. Plywood for Underlayment for Plastic Laminate: Certified plywood.
  - 4. Wood Sills: Solid maple.
  - 5. Clear Tempered Float Glass for Shelves: ASTM C 1048, Kind FT, Condition A, Type I, Class 1, Quality q3; with exposed edges seamed before tempering, 6 mm thick, unless otherwise indicated.

- C. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated, or if not indicated, as required by woodwork quality standard.
  - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering high-pressure decorative laminates that may be incorporated into the Work include, but are not limited to, the following:
    - a. Formica Corporation.
    - b. Pioneer Plastics Corp.
    - c. Westinghouse Electric Corp.; Specialty Products Div.
    - d. Wilsonart International; Div. of Premark International, Inc.
- D. Adhesive for laminated plastic to be water based, low VOC type. Urea formaldehyde based bonding agents will not be allowed. Acceptable manufacturers/products include:
  - 1. AFM Enterprises, Almighty Adhesive.
  - 2. Franklin International: 'Titebond' Water-based Contact Cement.

#### 1.9 CABINET HARDWARE AND ACCESSORIES

- A. Hinges: Concealed, overlay, self-closing, all metal, 175 degree opening, independent screw action. Hinge plate shall be zinc die cast, T-type, fully adjustable. Provide number of hinges per door as recommended by hinge manufacturer based on door dimensions.
  - 1. Product and Manufacturer – Basis of Design: 1200 Series as manufactured by Grass America, Inc. or equal as manufactured by Hafele America Company.
- B. Cabinet Pulls: Solid metal (aluminum) wire type, mounted with 2 screws, with bases, fastened from back.
  - 1. Product and Manufacture: Catalog No. 4484 as manufactured by Stanley Hardware or equal as manufactured by Hettich America Corp., or Hafele America.
    - a. Finish: Satin, anodized.
- C. Standards and Supports (Brackets) - Concealed:
  - 1. Product and Manufacturer: No. 255 Standards and No. 256 Supports (Brackets), Knape & Vogt or equal.
- D. Drawer Slides:
  - 1. File Drawers: Full extension, side mounted, heavy-duty; 150 pound load rating.
    - a. Product and Manufacturer: Model 4005 as manufactured by Accuride.

2. All Other Drawers: Full extension, side mounted, heavy-duty; 110 pound load rating.

a. Product and Manufacturer: Model 417 as manufactured by Accuride.

E. Locks: Lever type lock, with cylinder and rosette, for vertical mounting. Closure travel 90-degrees. Provide strike plates for each lock.

1. Description: Disc 5 tumbler; die cast.

2. Lever Direction: Standard, unless otherwise required to suit casework indicated.

3. Finish: Nickel-plated.

4. Keying: Provide 2 keys per lock. Key locks alike per room.

F. Grommets: Cast plastic liner with cap.

1. Product and Manufacturer: MM4 and MM4A Grommet; Doug Mockett & Company, Inc.

a. Color: Matte black.

#### 1.10 INSTALLATION MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

#### 1.11 FABRICATION, GENERAL

A. Interior Woodwork Grade: Provide Premium grade interior woodwork complying with the referenced quality standard.

B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.

C. Fabricate woodwork to dimensions, profiles, and details indicated.

1. Notify Architect seven days in advance of the dates and times woodwork fabrication will be complete.

2. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- D. Shop cut openings, to maximum extent possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
1. Seal edges of openings in countertops with a coat of varnish.

#### 1.12 PLASTIC-LAMINATE CABINETS

- A. Quality Standard: Comply with AWI Section 400 requirements for laminate cabinets.
- B. Grade: Premium.
- C. AWI Type of Cabinet Construction: As indicated.
- D. Core Material: Plywood.
- E. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate complying with the following requirements:
1. Horizontal Surfaces Other Than Tops: HGL.
  2. Vertical Surfaces: VGS.
  3. Edges: VGS.
- F. Materials for Semiexposed Surfaces: Provide surface materials indicated below:
1. Surfaces Other Than Drawer Bodies: High-pressure decorative laminate, Grade VGS.
  2. Drawer Sides and Backs: Melamine (thermoset decorative overlay), unless otherwise indicated.
  3. Drawer Bottoms: Melamine (thermoset decorative overlay), unless otherwise indicated.
- G. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
1. Provide Architect's selections from laminate manufacturer's full range of colors and finishes in the following categories:
    - a. Solid colors and patterns.

1.13 PLASTIC-LAMINATE COUNTERTOPS

- A. Quality Standard: Comply with AWI Section 400 requirements for high-pressure decorative laminate countertops.
- B. Grade: Premium.
- C. High-Pressure Decorative Laminate Grade: HGS.
- D. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
  - 1. Provide Architect's selections from manufacturer's full range of colors and finishes in the following categories:
    - a. Solid colors and patterns.
- E. Edge Treatment: Same as laminate cladding on horizontal surfaces.
- F. Core Material: Plywood.

1.14 WOOD CABINETS AND WINDOW SILLS - TRANSPARENT FINISH

- A. Veneer Wood Species and Cut for Exposed Plywood and Solid Wood Surfaces: Maple, quarter sliced.
  - 1. Grain Matching: As indicated.
  - 2. Matching of Veneer Leaves: Book match.
  - 3. Vertical Matching of Veneer Leaves: End match.
  - 4. Veneer Matching within Panel Face: Running match.
  - 5. Veneer Matching within Room: Provide cabinet veneers in each room or other space from a single flitch with doors, drawer fronts, and other surfaces matched in a sequenced set with continuous match where veneers are interrupted perpendicular to the grain.
  - 6. Comply with veneer and other matching requirements indicated for blueprint-matched paneling.
- B. Semiexposed Surfaces: Provide surface materials indicated below:
  - 1. Surfaces Other Than Drawer Bodies: Match species and cut indicated for exposed surfaces.
  - 2. Drawer Sides and Backs: Solid-hardwood lumber, stained to match species indicated for exposed surfaces.
  - 3. Drawer Bottoms: Melamine (thermoset decorative overlay), unless otherwise indicated.

### 1.15 EPOXY COUNTERTOPS

- A. Location: Labs and Studios.
- B. Epoxy Countertops: Factory molded of modified epoxy-resin formulation with smooth, nonspecular finish.
  - 1. Physical Properties:
    - a. Flexural Strength: Not less than 10,000 psi.
    - b. Modulus of Elasticity: Not less than 2,000,000 psi.
    - c. Hardness (Rockwell M): Not less than 100.
    - d. Water Absorption (24 Hours): Not more than 0.02 percent.
    - e. Heat Distortion Point: Not less than 260 deg F.
  - 2. Chemical Resistance: Epoxy-resin material has the following ratings when tested with indicated reagents according to NEMA LD 3, Test Procedure 3.4.5:
    - a. No Effect: Acetic acid (98 percent), acetone, ammonium hydroxide (28 percent), benzene, carbon tetrachloride, dimethyl formamide, ethyl acetate, ethyl alcohol, ethyl ether, methyl alcohol, nitric acid (70 percent), phenol, sulfuric acid (60 percent), and toluene.
    - b. Slight Effect: Chromic acid (60 percent) and sodium hydroxide (50 percent).
  - 3. Color: Black.
  - 4. Countertop Fabrication: Fabricate with factory cutouts for sinks and with butt joints assembled with epoxy adhesive and prefitted, concealed metal splines.
    - a. Countertop Configuration: Flat, 1-inch thick, with rounded edge and corners, and with drip groove and integral coved backsplash.

## **PART 3 - EXECUTION**

### 1.16 PREPARATION

- A. Condition woodwork to average prevailing humidity conditions in installation areas before installation.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

### 1.17 INSTALLATION

- A. Quality Standard: Install woodwork to comply with AWI Section 1700 for the same grade specified in Part 2 of this Section for type of woodwork involved.

1. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
  2. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces and repair damaged finish at cuts.
  3. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation.
- B. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
  2. Maintain veneer sequence matching of cabinets with transparent finish.
- C. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
1. Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
  2. Apply sealant to space between backsplash and wall with sealant specified in Division 7 Section "Joint Sealants."

#### 1.18 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces.

END OF SECTION 06402