

SECTION 06 4115

ARCHITECTURAL CABINERY

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
  - 1. Specially fabricated cabinet units.
  - 2. Hardware.

1.03 REFERENCES

- A. Definitions:
  - 1. Cabinets, Casework, Cabinetry: Refers to items specified in this Section.
- B. Reference Standards:
  - 1. ANSI/AWI 0641.
  - 2. BHMA A156.9 - American National Standard for Cabinet Hardware.

1.04 PREINSTALLATION CONFERENCES

- A. Preinstallation Conference: Conduct conference at Project site minimum fourteen days prior to installation.
- B. Attendees shall include contractor, cabinetry installer, manufacturer technical representative, and installers of adjacent materials and systems.

1.05 SUBMITTALS

- A. Product Data:
  - 1. Provide date for prefabricated items.
  - 2. Provide data for hardware accessories.
- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
  - 1. Scale of Elevations: 3/4 inch equals 1 foot, minimum.
  - 2. Scale of Sections: 1-1/2 inches equals 1 foot, minimum.

3. Scale of Details: 3 inches equals 1 foot, minimum.
  4. Provide the information required by AWI/AWMAC/WI (AWS).
  5. Include written documentation of manufacturer compliance with AWI/AWMAC/WI (AWS) certification program and product label.
  6. Indicate compliance with Aesthetic and Structural grade indicated.
  7. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
  8. Show locations and sizes of cutouts and holes for items installed in architectural cabinets.
- C. Samples for Verification:
1. Submit actual samples of architectural cabinet construction, minimum 12 inches (300 mm) square, illustrating proposed cabinet, countertop, and shelf unit substrate and finish.
  2. Submit actual sample items of proposed pulls, hinges, shelf supports including standards and support pins, and locksets, demonstrating hardware design, quality, and finish.
  3. Submit actual samples of laminate finishes as indicated. Minimum 3 by 5 inches in size.
- D. Certificate: Submit labels and certificates required by quality assurance and quality control programs.

#### 1.06 CLOSEOUT SUBMITTALS

- A. Special Installer Warranty: Executed warranty meeting specified requirements.
- B. Special Manufacturer Warranty: Executed warranty meeting specified requirements.
- C. Special Manufacturer Finish Warranty: Executed warranty meeting specified requirements.
- D. Maintenance Data: Provide manufacturer parts lists, operation, and maintenance instructions for the materials of this Section.

#### 1.07 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.
  1. Company with at least five projects in the past 5 years with value of cabinetry within 20 percent of cost of cabinetry for this Project.
  2. Company with at least five projects in the past 5 years with value of cabinetry exceeding the cost of cabinetry for this Project.
  3. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.

B. Quality Certification:

1. Provide labels or certificates indicating that the installed work complies with AWI/AWMAC/WI (AWS) requirements for grade or grades specified.
2. Provide designated labels on shop drawings as required by certification program.
3. Provide designated labels on installed products as required by certification program.
4. Submit certifications upon completion of installation that verifies the work is in compliance with specified requirements.
5. Replace, repair, or rework all work for which certification is refused.

1.08 MOCKUPS

A. Mockup: Provide a mockup for evaluation of installation, finishes, and workmanship.

1. Provide mock-up of typical base cabinet, wall cabinet, and countertop, including hardware, finishes, and plumbing accessories.
2. Locate as directed by Architect.
3. Size: Minimum one fabricated unit in configuration directed by Architect.
4. Do not proceed with installation beyond mockup until the mockup installation is approved by Architect. Correct deficiencies and refinish mock-up area as required to produce acceptable work.

B. Subject to compliance with requirements, approved mockups may become part of the completed Work if accepted to remain by Architect and if undisturbed at time of Substantial Completion. Remove mockup when directed by Architect.

C. Approval of mockups does not constitute approval of deviations from the Contract Documents unless Architect specifically approves such deviations in writing.

1.09 DELIVERY, STORAGE, AND HANDLING

A. Protect units from moisture damage.

B. Deliver materials only when the project is ready for installation and the general contractor has provided a clean storage area.

C. Maintain indoor temperature and humidity within the range recommended by the manufacturer or North American Architectural Woodwork Standards for the location of the project.

D. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

### 1.10 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.
- B. Field Measurements: Where cabinets are 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 cabinets by field measurements before being enclosed/concealed by construction, and indicate measurements on Shop Drawings.

### 1.11 WARRANTY

- A. Special Installer Warranty: Furnish a written warranty signed by the installer guaranteeing materials and workmanship for the Work of this section.
  - 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer Warranty: Provide manufacturer's warranty covering manufacturing and material defects, where items fail to perform as designed and manufactured.
  - 1. Warranty Period: Ten years from date of Substantial Completion.
- C. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace cabinetry materials that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Warranty Period: Ten years from date of Substantial Completion.

## PART 2 PRODUCTS

### 2.01 CABINETS, CUSTOM FABRICATED UNITS

- A. Final cabinetry finishes and configurations are to be determined. Refer to Drawings for additional requirements.
- B. Quality Standard: Complying with ANSI/AWI 0641 - Current Edition, except where noted otherwise.
  - 1. Aesthetic - Laminate Finished: Premium Grade.
    - a. Structural: Performance Grade Duty Level 4.
- C. Exterior Surfaces:
  - 1. Laminate Finish:

- a. Exposed Surfaces: High Pressure Decorative Laminate (HPDL) or High Pressure Laminate (HPL).
  - b. Concealed Surfaces: Match exposed surfaces, except where indicated otherwise.
2. Toe Kick: As indicated on Drawings.
- D. Interior Surfaces:
1. Interior Permanently Exposed Surfaces at Laminate Surfaced Cabinetry: High Pressure Decorative Laminate (HPDL) or High Pressure Laminate (HPL) or Melamine as indicated on Drawings. ---
- E. Cabinet Design: As indicated on drawings.
- F. Adjustable Shelf Loading: 40 lbs. per sq. ft. minimum.
- G. Cabinet Style: As indicated for each location.

## 2.02 MATERIALS, CUSTOM FABRICATED UNITS

- A. General: Performance and technical requirements shall be in accordance with basis of design product selections. Requirements of this Section establish minimum requirements.
- B. Cabinetry shall be constructed with solid wood or plywood boxes, stiles, rails, doors and drawer fronts; full overlay.
- C. Sustainability:
1. Wood fabricated from old growth timber is not permitted.
- D. Cabinet Materials:
1. Doors and Drawer Faces - Laminate Finish: Water resistant MDF finished with thermally fused, HPL or HPDL laminate finish on all exposed surfaces.
    - a. For use where indicated on Drawings.
    - b. Thickness: 3/4 inch.
  2. For top, bottom, sides and drawers: Minimum 3/4 inch thick 9-ply closed grain plywood. Refer to Countertops specification sections for countertop substrates.
  3. Cabinet Backs: Minimum 1/4 inch thick closed grain plywood.
  4. Base Cabinets: Provide minimum 3/4 inch 9-ply closed grain plywood top. Provide pressure treated, or marine grade, water resistant tops. Comply with additional requirements indicated on Drawings; where conflict exists, the more stringent requirement shall apply.
  5. Melamine Shelving: Exterior grade plywood finished with thermally fused, melamine impregnated, decorative paper and complying with requirements of NEMA LD 3, Grade

VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10. Melamine finish on all exposed surfaces. ---

- a. For use only where indicated on Drawings.
  - b. Provide melamine finish on all six sides of shelving.
  - c. Thickness: 3/4 inch.
6. MDF: Minimum ANSI A208.2, Grade 130, and as required to meet performance duty level specified.
- E. Glue: All glue shall be Type-II water resistant glue.
- F. Products shall contain no urea-formaldehyde.

### 2.03 LAMINATE MATERIALS

- A. General: Laminate materials for use where indicated on Drawings.
1. Product Basis of Design Selections: As indicated on Drawings. Where not indicated, as selected by Architect. Coordinate with project Interior Design requirements.
  2. Performance and Technical Requirements: As indicated by basis of design product selections.
- B. High Pressure Laminate (HPL) or High Pressure Decorative Laminate (HPDL) Cladding for Exposed Surfaces: Coordinate with product selections.
1. Horizontal Surfaces: NEMA LD 3, Grade HGS, 0.048 inch (1.2 mm) nominal thickness.
  2. Postformed Surfaces: NEMA LD 3, Grade HGP, 0.039 (1.0 mm) nominal thickness.
  3. Vertical Surfaces: NEMA LD 3, Grade HGS, 0.048 inch (1.2 mm) nominal thickness.
- C. Melamine Laminate: Melamine impregnated, decorative paper thermally fused directly to rigid board complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10. Minimum 0.020 inch (0.5 mm) nominal thickness. ---
- D. Color, Sheen and Texture: As indicated on Drawings. Where not indicated, as selected by Architect.

### 2.04 COUNTERTOPS

- A. Countertops: As indicated on Drawings.
1. Refer to Section 12 3600 - Countertops.

### 2.05 ACCESSORIES

- A. Adhesive: Type recommended by fabricator to suit application.
- B. Fasteners: Size and type to suit application.

- C. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.
- D. Grommets: Where indicated provide standard plastic or painted metal grommets for cut-outs, in color to match adjacent surface.
  - 1. Final color selection by Architect from manufacturer full range.
- E. Wood Blocking: Refer to the requirements of project rough carpentry specification section.

## 2.06 HARDWARE

- A. Final requirements are to be determined.
- B. General: Provide anti-ligature and tamper resistant hardware in all Patient areas. Refer to Drawings for additional requirements.
- C. Hardware: BHMA A156.9, types as recommended by fabricator for quality grade specified.
  - 1. Specified products indicate minimum standards. Refer to Drawings for final selections.
- D. Shelf Supports: Provide type indicated on Drawings in accordance with the following. Where not indicated, as selected by Architect from one of the following. Final requirement to be determined.
  - 1. Adjustable Shelf Supports - Standards: Standard side-mounted system using recessed metal shelf standards and coordinated shelf rests, satin chrome finish, for nominal 1 inch (25 mm) spacing adjustments. Heavy Duty Grade.
  - 2. Adjustable Shelf Supports - Pins: Standard side-mounted system using multiple holes for pin supports and coordinated shelf rests, satin chrome finish, for nominal 1 inch (25 mm) spacing adjustments. Heavy Duty Grade.
    - a. Vinyl coated.
    - b. Basis of Design: 348 Series by Knape and Vogt Manufacturing Co.  
[www.knapeandvogt.com](http://www.knapeandvogt.com)
- E. Drawer and Door Pulls:
  - 1. Final selections are to be determined.
  - 2. Finish: As indicated on Drawings. Where not indicated, as selected by Architect.
- F. Cabinet Locks: Keyed cylinder, three keys per lock, master keyed, steel with satin finish. Meeting ANSI/BHMA A156.11, E07121.
- G. Drawer Locks: Keyed cylinder, three keys per lock, master keyed, steel with satin finish. Meeting ANSI/BHMA A156.11, E07041.

- H. Access Panel Locks: Keyed cylinder, three keys per lock, master keyed, steel with satin finish. Meeting ANSI/BHMA A156.11, E07121.
- I. Door and Drawer Silencers: BHMA A156.16, L03011.
- J. Catches: Push-in magnetic catches, BHMA A156.9, B03131.
- K. Drawer Slides: BHMA A156.9.
  - 1. Type: Full extension.
  - 2. Type: Extension types as indicated.
  - 3. Static Load Capacity: Heavy Duty grade. Minimum 75 lb capacity.
  - 4. Mounting: Side mounted.
  - 5. Stops: Integral type. Designed for silenced stops; in and out.
  - 6. Features: Provide self closing/stay closed type.
- L. Hinges, Non-Continuous: Heavy-duty institutional type five knuckle, hospital tip, .095 gauge, 170-degree swing. Hinge wings shall overlap interior cabinet side and back of door. Self closing, frameless concealed hinge. Shall exceed ANSI/BHMA 156.9, B01602.
  - 1. Designed for silenced open and close.
  - 2. Color and style selected by Architect.
- M. Hinges, Continuous: Heavy-duty continuous hinge to exceed ANSI/BHMA A156.26 standard for Continuous Hinges.
  - 1. Includes "piano" style hinges.
  - 2. Rating: Heavy Duty.
  - 3. Material: Stainless Steel.
  - 4. Mounting Configuration: As indicated on Drawings.
- N. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
  - 1. As indicated on Drawings. Coordinate with project Interior Design requirements.
- O. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.

## 2.07 FABRICATION

- A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.



- B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.
- C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.
- D. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on-site dimensions. Seal cut edges.

### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify location and sizes of utility rough-in associated with work of this section.
- C. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.
- D. Field Measurements: Check actual project field dimensions before manufacturing cabinetry and coordinate with shop drawings.
- E. Verify locations of necessary concealed framing and supports with respective trades.
- F. Proceed with installation only after unsatisfactory conditions have been corrected. Installation of materials of this section indicates acceptance of substrates and conditions.

#### 3.02 INSTALLATION

- A. Install work in accordance with AWI/AWMAC/WI (AWS) requirements for grade indicated.
- B. Use fixture attachments in concealed locations for wall mounted components.
- C. Use concealed joint fasteners to align and secure adjoining cabinet units.
- D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch (0.79 mm). Do not use additional overlay trim for this purpose.
- E. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.
- F. Assemble cabinets and complete fabrication at Project site to extent that it was not completed in the shop.
- G. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with cabinet surface.

1. Mechanical fasteners used at exposed and semi-exposed surfaces, excluding installation attachment screws and those securing cabinets end to end, shall be countersunk.
- H. Install cabinets level, plumb, and true in line using concealed shims.
1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
  2. Install cabinets without distortion so doors and drawers fit openings 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.
  3. Maintain veneer sequence matching of cabinets with transparent finish. -td
  4. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch penetration into wood framing, blocking, or hanging strips or No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish or toggle bolts through CMU backing walls.

### 3.03 ADJUSTING AND CLEANING

- A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean cabinets on exposed and semiexposed surfaces. Touch up finishes to restore damaged or soiled areas.
- D. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to the material finishes. Thoroughly rinse surfaces and dry
- E. Restore components damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by the Architect, remove damaged materials and replace with new materials

### 3.04 PROTECTION

- A. Protect installed materials to prevent damage by other trades. Use materials that may be easily removed without leaving residue or permanent stains.

END OF SECTION