SECTION 060000 - WOODS, PLASTICS, AND COMPOSITES

PART 1 – GENERAL

1.1 SUMMARY

A. This section addresses woods, plastics, and composites.

See:

061000 for Rough Carpentry

064100 for Architectural Wood Casework

064116 for Plastic-Laminate-Clad <u>UMN Waste Receptacle Millwork</u>

B. Abbreviations:

FM - University Facilities Management MN B3 - Minnesota Building, Benchmarks and Beyond

1.2 RELATED REQUIREMENTS

A. Performance

1. Follow Industry Standards: Architectural Woodwork Institute (AWI), current edition as it applies to sections noted above including Finish Carpentry work.

B. Sustainability

1. Reference MN B3 Website; Guideline I.1: Low Emitting Materials for product requirements.

SECTION 061000 - ROUGH CARPENTRY

PART 1 – GENERAL

1.1 SUMMARY

- **A.** The entirety of Division 06, Section 060000 applies to this section.
- **B.** This section addresses wood grounds, furring, nailers, blocking, and sleepers.
- **C.** All miscellaneous lumber fabrication shall be from dimension lumber and shall have a moisture content of 19% maximum.
- **D.** Blocking to support other work is an important element of rough carpentry work. Architect of Record must ensure that a clear scope of blocking indicated in the contract documents. Common items that may need concealed wood blocking include, but are not limited to:
 - 1. Miscellaneous metals such as handrails
 - 2. Finish carpentry, millwork, including office shelving.
 - 3. Casework and fixed furnishings, including laboratory bench casework and accessories.
 - **4.** Roofs, roof flashings, equipment curbs, roofing accessories and skylights
 - 5. Windows
 - **6.** Chalkboards and tackboards
 - 7. Toilet partitions and accessories
 - **8.** Signage and graphics
 - **9.** Fire extinguishers and cabinets
 - 10. AV Equipment and Projection screens
 - 11. Window treatment such as blinds, shades, and drapes
 - **12.** Electrical framing such as mounting boards for telephone, fire alarm, and electrical panels

SECTION 064100 – ARCHITECTURAL WOOD CASEWORK

PART 1 – GENERAL

1.1 SUMMARY

- **A.** The entirety of Division 06, Section 060000 applies to this section.
- **B.** This section includes:
 - 1. shop-fabricated cabinets, cases, fixtures
 - 2. cabinet hardware
 - 3. counter tops
- **C.** Abbreviations:

ASTM - American Society for Testing and Materials

AWI - American Woodworkers Institute

HPDL – High Pressure Decorative Laminate

ISO - International Organization for Standardization

MSDS – Material Safety Data Sheets

PVC - Polyvinyl Chloride

1.2 RELATED REQUIREMENTS

- **A.** Industry Standards: Follow the most recent editions of the AWI "Quality Standards," Builders' Hardware Manufacturers Association guidelines and the American Institute of Architects "Environmental Resource Guide."
- **B.** Shop drawings and MSDS documents are required.
 - 1. Shop drawings shall indicate physical dimensions and details/profiles of all elements of work, including location of different grades, species and/or finishes.
 - **a.** Drawings shall provide dimensions, details and specific directions for all blocking, infrastructure clearances and attachment methods required for installation of the work.
 - **b.** Drawings shall also indicate dimensions, details and specific directions for all cutouts or easements required for equipment, accessories, utilities, or service access.
- C. Manufacturers shall be AWI-certified.
- **D.** Custom grade work shall be specified for typical applications. Premium grade work shall be specified for hospital/clinic patient areas, chemical and biological laboratories, and particular selected items of architectural importance.
- **E.** Plastic Laminate Construction:
 - 1. Interior of closed cabinetry may be finished with thermally fused laminates (melamine or polyester), unless there is storage of liquids and/or chemicals. In those instances, the respective cabinet interiors must be finished with HPDL.
 - 2. Plastic laminate construction shall be high-pressure applications only.
 - 3. All HPDL work shall follow the AWI "Quality Standards".

- **4.** HPDL casework shall be of fully balanced construction with face grade laminate or 0.20 cabinet liner/backer sheet minimum. HPDL shall be GP50-0.50, except PF42.
- **5.** HPDL and Solid Surface materials must meet the GREENGUARD Environmental Institute GOLD Certification for indoor Air Quality.
- **6.** All edge treatments shall be pressure-glued and match the casework face, that is, GP50-0.50 or PF42-0.42, laminate. All edges/ends of all shelving and other casework components shall be considered visible and shall be laminated in laboratories or wet areas
- 7. Edge bands for counter and laminate work surfaces may be of the following materials:
 - **a.** Plastic T-Molding or PVC (or equal material) edge band as per AWI 3.4.7 3.4.10 Edges, Exposed and Semi-Exposed are acceptable in either Premium or Custom Grade.
 - **b.** HPDL self-edge to match surface body and follow pattern application per AWI.
 - **8.** HPDL post form tops require an exception request submittal for approval.

PART 2 - MATERIALS

2.1 COUNTERTOP MATERIALS

- **A.** Countertops and substrates shall be specified according to application.
 - 1. General office areas, food and beverage space counter tops within office suites as well as wet areas with sinks in general office areas shall be solid surface specified in appropriate use nominal thickness of 1/2" or 3/4".
 - a. Materials approved are Dupont Corian Endura or Wilsonart Acrylic Solid Surface.
 - 2. The above solid surface materials as well as proposed solid surface or quartz alternates must meet the following minimum requirements:
 - a. Standard MN Fire code Class I finish product
 - **b.** Greenguard UL 2818 Gold rating or greater
 - c. Flexural strength; ASTM D790 10,000psi or greater for ½" material
 - d. Hardness Barcol Impressor ASTM D2583 rating of 56 or greater
 - e. Boiling Water Resistance ISO 4586 rating of no effect
 - f. 10 year commercial use warranty
 - 3. Specialty areas in categories of public space, public restrooms, built-in waste receptacles, etc. May use alternate products provided they meet the requirements above, are applicable to the environment and presented with specifications for review and approval by Capital Project Management Team.
 - 4. Laboratory and clinical areas exposed to chemicals and extreme temperature fluctuations require an analysis of the exposure agent to the counter and sink material attributes. The materials listed in table 1.1 have been evaluated for specific environments and are considered acceptable solutions.
 - **5.** Additional Laboratory requirements related to counters and sinks are found in UMN Facility Services, CPM Building Standards, Division 13-10.
 - **6.** Countertops that have water service, sinks or anticipated wet processes as well as windowsills shall be manufactured from a water-resistant, exterior-grade MDF substrate that do not contain formaldehyde such as Medite Corp.'s Medite II or Medex or other similar formaldehyde-free products.
 - a. All visible surfaces are to be solid surface. All semi-concealed and concealed surfaces

shall be laminated and sealed against moisture penetration.

2.2 INTEGRAL SINKS

- **A.** Integral sinks of resin material must be a minimum of 3.0 cm thick and of same manufacturer of the countertop manufacturer.
 - 1. Installation must meet manufacture guidelines that secure appropriate warranties for performance.
 - 2. Integral sinks must be chemically bonded to the counter top.
- **B.** Alternate drop in or undermount stainless steel sinks may be used.

TABLE 1.1

LAB	COUNTERTOP MATERIAL			INTEGRAL SINK MATERIAL		
MATERIALS	Epoxy Resin	Phenolic Resin	Stainless Steel	Epoxy Resin	Polypropylene	Stainless Steel
Chemicals	Х	Х	Х	X	Х	Х
Natural Gas Supply (open flame)	Х			Х		Х
Dry Ice	Х	Х			Х	

SECTION 064116 – Plastic-Laminate-Clad Architectural Cabinets

PART 1 – GENERAL

1.1 SUMMARY

- **A.** The entirety of Division 06, Section 060000 applies to this section.
- **B.** This section includes:
 - 1. Requirements for UMN Standard Waste Receptacle cabinet enclosures.
 - **2.** Appendix drawing for millwork unit.
- **C.** Related requirements:
 - 1. The University Facilities Management (FM) Waste Recovery requirements must be followed, and standard receptacles used on all projects.
 - 2. Receptacle enclosures may only be used in high traffic public corridors and/or large assembly and large public facing conference rooms.
 - **3.** Request for public space enclosure of containers must be reviewed and approved by FM Services Waste Management and the Capital Project Management Team.
 - **4.** Planning for waste receptacle locations must reference "Program Information/Requirements", Section 14.1 14.7.
 - **5.** Refer to Building Standards Division 06 for all other requirements.

1.2 COORDINATION

- **A.** Standard University waste receptacle units:
 - **1.** Current University waste receptacle standard dimensions must be confirmed when completing standard millwork drawings.
 - 2. Containers are to be enclosed without the standard issue tops.
- **B.** Finishes for these units must be UMN Interior Finish Standard materials found in Division 09.

APPENDIX FOLLOWS

Building Standards | 2 Issue Date: July 2023

