DIVISION 6 – WOOD & PLASTICS

This division contains the following elements:

1.1 General
1.2 Structural Wood.
1.3 Architectural Woodwork.
1.4 Plastics.
1.5 Pre-finished Wall Paneling.

1.1 GENERAL

A. Elements of this division shall comply with the latest edition of the Florida Building Code (FBC), the State Requirements for Educational Facilities (SREF) and any other applicable building, fire, or safety codes.

B. Termites, moisture, and heat are factors to be considered in the use, selection and treatment of woods.

C. The use of adhesives containing formaldehyde or other Volatile Organic Compounds (VOCs) that are harmful to people or the environment is prohibited in M-DCPS Projects.

D. Laminated plastics shall not contain toxic adhesives. Recycled materials are preferred over virgin materials.

E. Do not specify wood treatments that may be dangerous to health and the environment, and which may create toxic fumes when exposed to combustion.

F. Oriented strand board and particleboard are not allowed for use in M-DCPS projects.

G. Fire retardant treated wood is not permitted in occupied educational facilities. See FBC for additional requirements.

H. Wood construction shall be limited to program required P.E. shelters, miscellaneous blocking, trim, stage and gymnasium flooring, and casework.

1.2 STRUCTURAL WOOD

A. Structural wood products shall not be used for floors, walls, roofing systems at any project except at M-DCPS designated historical buildings, or other locations as may be specifically indicated in these Design Criteria and only when approved by M-DCPS on a per condition basis.

B. Wind loading design shall comply with the FBC applicable to the project. Submit to the Building Code Consultant (BCC) calculations signed and sealed by a Florida registered professional engineer, establishing wind velocity pressure values in accordance with FBC ASCE-7.

C. Roof designs shall comply with Factory Mutual (FM) requirements for Class I rated assembly and FM uplift classifications as determined by FBC ASCE-7.

1.3 ARCHITECTURAL WOODWORK

A. Wood cabinet design shall use industry standard modules and not deviate from these modular dimensions.

B. Comply with the more stringent of the accessibility requirements as indicated in FBC, ADA, the Design Criteria or the Educational Specifications.

C. The following, but not limited to, applicable codes and standards shall be used if lacking specific reference in the FBC regarding Architectural Woodwork:
   1. American Society for Testing and Materials (ASTM)
   2. American National Standard Institute/ American Hardboard Association ANSI/AHA A135.4 – Basic Hardwood.

D. Design and specify architectural woodwork according to Architectural Woodwork Institute (AWI) custom grade standards for quality of labor and materials.

E. Provide sides, tops, bottoms, and backs for cabinets. Provide fronts, shelving, grommets and drawers according to M-DCPS Design Standards. Specify grade, thickness, face finish and other related items for each component of cabinet design according to AWI custom grade standards.

F. Specify plywood, any closed grain hardwood, or closed grain softwood except flat grain Douglas fir, yellow pine, flat grain redwood, or sitka spruce.

G. Cabinets in public, staff or student occupied spaces shall be constructed of birch, red oak, white oak or plastic laminate covered wood.

H. For paint finishes, specify medium density overlay exterior plywood on both faces complying with AWI section 200 for custom grade edge treatment.

I. Transparent finishes and paint finishes shall comply with AWI custom grade finishes.

J. Cabinets to receive plastic laminate finish shall have 3/4" thick 7 ply closed grain hardwood plywood with Type II water-resistant glue for case members, tops, bottoms, sides, backs, dividers, shelves, doors and drawer fronts.

K. Counter tops shall have radius corners. Sharp corners are not permitted.

L. Design and detail cabinets, blocking, fasteners, and supports for an assumed load of each shelf stacked to full paper capacity.
   1. Provide minimum 3/4" thick plywood construction at shelving and shelving divider walls at intervals not to exceed 3 feet on center.
   2. Provide minimum 1" thick plywood construction at shelving and shelving divider walls at intervals exceeding 3 feet on center.

M. Caulk between exposed cabinet surfaces and adjacent walls.

N. Coordinate cabinet hardware with the school's master keying system.
   1. Provide disc tumbler type locks at doors and drawers at locations according to the Educational Specifications.
   2. Provide locks with two sets of five primary tumblers and one set of four secondary tumblers.
   3. Specify controlled key blanks and registered key plan to maintain security.
   4. All cabinet locks (drawers and doors) within a new Facility shall be keyed to one Grand Master. All cabinet locks within a room shall be keyed alike but shall be keyed different from any other room.
   5. As part of the Project's "Closeout", transmit the school Administration Staff two (2) sets of cabinet keys for each room.

1.4 PLASTICS

A. Plastic laminate shall conform to NFPA, UL and NEMA LD3-1993 for high pressure laminate.

B. Plastic laminate minimum material thicknesses shall be as follows:
   1. 0.050" - Exposed surfaces and edges of drawer fronts, door fronts, counter tops, backsplash and all other remaining exposed exterior horizontal and vertical surfaces.
   2. 0.027" - Exposed interior surfaces of door backs, cabinet sides, backs, shelving and all other remaining exposed interior horizontal and vertical surfaces.

C. Solid plastic counter tops are accepted for use.

D. Recycled plastics may be used for site furnishings. Provide adequate bracing and support to minimize deflection.

1.5 PRE-FINISHED WALL PANELING

A. Pre-finished wall paneling is not allowed at new construction.

B. Pre-finished wall paneling is allowed at renovation work when needed to match existing conditions. Approval by M-DCPS Facilities Design and Standards is required on a per condition basis. Wall paneling shall be rated for flame spread and smoke development class as set forth by FBC.

END OF DIVISION