SECTION 12304
PLASTIC LAMINATE FACED CASEWORK

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes:
   1. Plastic laminate faced casework.
   2. Countertops, backsplashes, filler panels and scribe.
   3. Hardware and accessory items.

B. Related Sections:
   1. Section 06100 - Rough Carpentry: Blocking.
   2. Section 06200 - Finish Carpentry.
   5. Division 16 - Electrical: Electrical fixtures and connections.

1.2 REFERENCES:

A. AWI (Architectural Woodwork Institute) Quality Standards.

B. NEMA (National Electrical Manufacturer's Association) LD3-High Pressure Decorative Laminates.

1.3 SUBMITTALS:

A. Submit shop drawings, product data, and samples under provisions of Section 01300.

1.4 QUALITY ASSURANCE:

A. Manufacturer: Company specializing in manufacture of institutional and commercial plastic laminate casework with minimum of five years experience.

B. Installer Qualifications: Installer with 5 years experience who has successfully completed installations of plastic laminate faced casework similar in material, design, and extent to that indicated for this project.

C. Mock-Up:

1. Provide full-size base cabinet complete with drawers, hinged door, adjustable shelf, and countertop.
2. Approved mock-up will establish a minimum standard of quality for this work.
PART 2 - PRODUCTS

2.1 MANUFACTURERS:

A. LSI Corporation of America, Inc.
B. Sidney Millwork Company.
C. TMI Systems Design Corporation.
D. Approved substitution.

2.2 MATERIALS:

A. Vertical Surface High Pressure Plastic Laminate:
   1. High pressure plastic laminate for exterior cabinet surfaces shall meet NEMA GP-28 standard for vertical grade.

B. High Pressure Plastic Laminate Balancing Sheet:
   1. Heavy gage high pressure plastic laminate backing sheet shall be textured surface and meet NEMA CL-20 or BK-20 standards.

C. Countertop High Pressure Plastic Laminate:
   1. High pressure plastic laminate, satin or textured finish, minimum .050" thickness, meeting NEMA GP-50 standard.
   2. Heavy gauge, neutral colored backing sheet for balanced construction meeting NEMA BK-20 standard.

D. Polyester Laminated Particleboard:
   1. Thermosetting polyester resin impregnated decorative overlay or low pressure melamine liner bonded to 45 lbs. density particleboard.
   2. Particleboard shall be of balanced construction with moisture content not to exceed 8 percent.
   3. Polyester laminate shall be 9 to 11 mils in thickness, 62 percent resin content and colorfast.

2.3 HARDWARE:

A. Provide manufacturer's standard, complying with ANSI A156.9, epoxy finish hardware units, unless otherwise indicated.
B. Hinges: Institutional type, 5 knuckle. Provide two hinges for each door up to 4 ft. high and three hinges for each door over 4 ft. high.

C. Pulls: Recessed ABS plastic for drawers and swing doors, mounted from back. Provide 2 pulls for drawers over 24" wide.

D. Magnetic Catch: BHMA B03162 or B43162, double type. Provide 2 catches on doors over 4 ft. high.

E. Drawer Guides:
   1. Accuride No. 2037-A, 50 pound capacity, Blum 230E, 100 pound capacity, or approved substitute bottom mount type of correct size for drawer depth.
   2. Accuride No. 4032, 150 pound capacity, Blum 430E, 100 pound capacity, or approved substitute full extension type for file drawers, lateral file drawers, knee space drawers, and where indicated.
   3. Provide 1 pair for each drawer.
   4. Include life time warranty.

F. Adjustable Shelf Supports: 4 per shelf. Provide predrilled holes in cabinet sides spaced at 1.25" o.c. and not more than 1.5" from shelf edges, 2 pin, self-locking shelf clip.

G. Index Followers: Steel rod and plate. Provide for all file drawers.

H. Drawer and Cupboard Locks: Half-mortise type, disc tumbler and cam bolt, round cylinder only exposed, plated finish, with strike.
   1. Provide National Lock "RemovaCore" or approved substitute with a minimum of 50 lock changes.

I. Coat Rods: 1.25" diameter chrome plated or stainless steel tubing.

J. Label Holders: Provide where indicated, size to receive standard label cards approximately 1" x 2" nominal size, finished to match other exposed hardware.

2.4 FABRICATION:
A. Sub-Base:
   1. Integral base or continuous base of 3/4" unfinished fir plywood.
   2. Resilient base shall be furnished and applied by others.

B. Cabinet Top and Bottom - Wall and Base:
2. Wall cabinet bottoms and tops are 0.75" thick.

3. Continuous 3/4" subtop for all lower base cabinets shall be phenolic overlay neutral color.

C. Edging:

1. Exposed edges of door and drawer fronts and countertops shall be covered with 3mm P.V.C., hot melt glue applied.

2. Exposed edges of cabinet box, front edge of shelves and top of drawer boxes shall be covered with 1mm P.V.C., hot melt glue applied.

D. Cabinet Ends:

1. Polyester or low pressure melamine laminated particleboard interior side, 3/4" thick with phenolic neutral colored backer sheet on concealed side.

2. Exposed Ends: GP-28 with CL-20 high pressure laminate on interior for balanced construction.

E. Fixed and Adjustable Shelves:

1. Polyester or low pressure melamine laminated particleboard two sides.

2. Thickness: 3/4" thick for shelving up to 30" wide. 1" thick for shelving 30" wide and over.

F. Cabinet Backs:

1. Standard Cabinet Back:
   1/4" thick putty colored prefinished hardboard for use on all cabinets with or without doors.

2. Rear, unexposed, side of back shall be mechanically fastened or to receive continuous hot melt glue at joint between back and sides/top/bottom for sealing against moisture and vermin.

G. Doors and Drawer Fronts:

1. Plastic Laminated Doors and Drawer Fronts: 13/16" thick for all hinged doors.

2. Core Material: 3/4" thick, 45 lb. density particleboard bonded on exterior with high pressure laminate and with putty colored heavy gauge balancing sheet on interior face.

PROVIDE FINISHED BACKS AND SIDES ON CABINETS LIKELY TO BE RELOCATED.
H. Drawers:

1. Drawer fronts shall be applied to drawer sub-front. High pressure plastic laminate exterior side with heavy gage backing sheet on face. Total thickness of 13/16".

2. Sides and back of drawers to be 1/2" thick putty colored polyester or low pressure melamine laminated particleboard.

3. Drawer sides to be dadoed or dowelled to receive front and back, glued and pinned together.

4. Drawer bottom shall be prefinished putty color 1/4" thick hardboard, housed and glued, into front, sides and back, or 1/2" thick particleboard mechanically fastened to front.

I. Countertops:

1. High pressure plastic laminate bonded to particleboard core.

2. Interior side to be properly balanced with heavy gauge neutral colored backing sheet.

3. Edge Banding: 3mm PVC hot melt glue applied.

2.5 WORKMANSHIP:

A. Exterior Exposed Vertical Surfaces:

1. Finished with high pressure plastic laminate as indicated. Laminate plastic to particleboard core with balancing sheet using a rigid type adhesive.

2. Fabricate using cold press method. Use properly tempered material under controlled humidity and temperature conditions prior to gluing.

B. Cabinet Parts:

1. Accurately machine with interlocking dadoes and rabbets or dowels.

2. Glue and screw or dowel all joints.

C. End panels shall be dadoed and rabbeted or dowelled to receive bottom and top. Back shall be housed into cabinet sides, top and bottom or mechanically fastened to ensure rigidity and a fully closed cabinet.

D. Drawer bottom shall be fully housed into sides, back and subfront or mechanically fastened. Sides of drawers to be fully dadoed or dowelled to receive drawer back, locked in fully to sides, fastened with glue and mechanical fasteners or dowelled.

E. Hanging rails shall be applied to back side of all wall, base and tall cabinets for extra rigidity and to facilitate installation.

F. All cases shall be square, plumb and true.
G. Provide removable back panels and closure panels for plumbing access.

PART 3 - EXECUTION

3.1 TOLERANCES:

A. Install the work plumb and level with no distortions to a tolerance of 1/8” in 8 feet for plumb and level (including countertops) and with 1/32” maximum offsets in revealed adjoining surfaces.

B. Shim as required.

3.2 ADJUSTING:

A. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Doors and drawers with distortions or which do not fit openings properly after alignment are not acceptable.

END OF SECTION 12304