SECTION 105123 - PLASTIC-LAMINATE-CLAD LOCKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

B. Refer to Medical Equipment List for more information. Coordinate install with Owner.

1.2 SUMMARY

A. Section Includes:

1. Plastic-laminate-clad wood lockers.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of locker.

B. Shop Drawings: For plastic-laminate-clad wood lockers.

1. Include plans, elevations, sections, and attachment details.
2. Show details full size.
3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
4. Show locations and sizes of cutouts and holes for items installed in lockers.
5. Show locker fillers, trim, base, sloping tops, and accessories.
6. Show locker identification system and numbering sequence.

C. Samples for Initial Selection: For each type of the following:

1. High-pressure decorative laminates.

D. Samples for Verification: For the following products:

1. Plastic-laminate-clad panels, not less than 8 by 10 inches, for each type, color, pattern, and surface finish.

2. Thermoset decorative-overlay-surfaced panels, not less than 8 by 10 inches, for each type, color, pattern, and surface finish.
3. Corner pieces of locker front frame joints between stiles and rail, as well as exposed end pieces, not less than 18 inches wide by 18 inches high by 6 inches deep.
4. Exposed cabinet hardware and accessories, one unit for each type and finish.
5. Carpet, not less than 8 by 10 inches, for each type, color, and pattern.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For adjusting, repairing, and replacing locker doors and latching mechanisms to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Locker doors, complete with specified door hardware. Furnish no fewer than five doors of each type and color installed.
2. Units of the following locker hardware items equal to 10 percent of amount installed for each type and finish installed, but no fewer than five units:

    a. Hinges.
    b. Pulls.
    c. Shelf rests.
    d. Cylinder locks.
    e. Blank identification plates and holders.
    f. Hooks.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver lockers until painting and similar operations that could damage lockers have been completed in installation areas. If lockers must be stored in other-than-installation areas, store only in areas where environmental conditions are the same as those in final installation location, and comply with requirements specified in "Field Conditions" Article.

B. Deliver master and control keys to Owner by registered mail or overnight package service.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install lockers until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F and relative humidity between 25 and 55 43 and 70 or 20 and 50 percent during the remainder of the construction period.

B. Field Measurements: Where lockers are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings.

1. Locate concealed framing, blocking, and reinforcements that support lockers by field measurements before being enclosed, and indicate measurements on Shop Drawings.

C. Established Dimensions: Where lockers are indicated to fit to other construction, establish dimensions for areas where lockers are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.9 COORDINATION

A. Coordinate sizes and locations of concealed wood support bases.

1. Requirements are specified in Section 061000 "Rough Carpentry." and Section 061053 "Miscellaneous Rough Carpentry."

B. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of work specified in other Sections to ensure that lockers can be supported and installed as indicated.

C. Hardware Coordination: Distribute copies of approved hardware schedule specified in Section 087100 "Door Hardware" to fabricator of lockers; coordinate Shop Drawings and fabrication with hardware requirements.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of lockers that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures.
b. Faulty operation of locks or hardware.

c. Deterioration of wood, finishes, and other materials beyond normal use.

2. Warranty Period: Three years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Accessibility Standard: For lockers indicated to be accessible, comply with applicable provisions in the ABA standards of the Federal agency having jurisdiction and ICC A117.1.

2.2 PLASTIC-LAMINATE-CLAD WOOD LOCKERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Hollman, Inc.

B. Construction Style: Manufacturer's standard Flush overlay Reveal overlay Flush inset Flush inset with face frame As indicated.

1. Reveal Dimension: 1/2 inch As indicated Insert dimension.

C. Final Assembly: Manufacturer's standard factory knocked-down assembly.

D. Locker Body: Fabricated from particleboard fire-retardant-particleboard-core panels covered on both sides with thermoset decorative overlay.

1. Side Panels: 3/4 inch 5/8 inch Manufacturer's standard 3/4 or 5/8 inch thick.
2. Back Panel: 1/2 inch 3/8 inch Manufacturer's standard 1/2 or 3/8 inch thick.
3. Top Panel: 3/4 inch 5/8 inch Manufacturer's standard 3/4 or 5/8 inch thick.
4. Bottom Panel: 3/4 inch 5/8 inch Manufacturer's standard 3/4 or 5/8 inch thick.
5. Exposed Panel Edges: Thermoset decorative overlay to match panel 1-mm-thick PVC 3-mm-thick PVC Vinyl T-molding High-pressure decorative laminate, Grade HGS, to match panels High-pressure decorative laminate, Grade VGS, to match panels.

E. Plastic-Laminate-Clad Wood Doors: High-pressure decorative laminate, Grade VGS, over both sides of particleboard fire-retardant-particleboard medium-density-fiberboard fire-retardant-fiberboard core.

1. Thickness: 3/4 inch 5/8 inch Manufacturer's standard 3/4 or 5/8 inch thick.
2. Panel Edges: 1-mm-thick PVC 3-mm-thick PVC Vinyl T-molding High-pressure decorative laminate, Grade VGS, to match panels 1/4-inch- thick, solid wood High-pressure decorative laminate, Grade HGP, postformed with 3/8-inch radius.

F. End Panels: Match style, material, construction, and finish of plastic-laminate-clad wood doors.

G. Shelves: Fabricated from particleboard fire-retardant-particleboard-core panels covered on both sides with thermoset decorative overlay; fixed fixed unless otherwise indicated adjustable fixed and adjustable, as indicated.

1. Thickness: 3/4 inch 5/8 inch.
2. Exposed Edges: Thermoset decorative overlay to match panels 1-mm-thick PVC 3-mm-thick PVC High-pressure decorative laminate, Grade VGS, to match panels.

H. Corners and Filler Panels: 3/4-inch- thick panels. Match style, material, construction, and finish of plastic-laminate-clad wood doors.

I. Continuous Finish Base: Plastic-laminate-clad, 3/4-inch- thick panel that matches door faces; fabricated in lengths as long as practical to enclose base and base ends of lockers.

J. Plastic-Laminate Colors, Patterns, and Finishes:

1. As selected by Architect from plastic-laminate manufacturer's full range of solid colors with core same color as surface wood grains.

2.3 MATERIALS

A. Composite Wood: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.

1. Thermoset Decorative Panels: Particleboard or medium-density fiberboard 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.
2. Medium-Density Fiberboard: ANSI A208.2, Grade 130.
3. Particleboard: ANSI A208.1, Grade M-2.

B. High-Pressure Decorative Laminate: NEMA LD 3, grades as follows:

1. Horizontal Surfaces: Grade HGS.
2. Postformed Surfaces: Grade HGP.
3. Vertical Surfaces: Grade HGS.

C. Fire-Retardant-Treated Materials: Where fire-retardant-treated materials are indicated, use materials impregnated with fire-retardant chemical formulations indicated by a pressure process or other means acceptable to authorities having jurisdiction to produce products with fire-test-response characteristics specified.

1. Do not use material that is warped, discolored, or otherwise defective.

2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants in solution to distinguish treated material from untreated material.
3. Fire-Retardant Particleboard: Panels made from softwood particles and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 25 or less according to ASTM E84:

    a. Panels 3/4 Inch Thick and Less: ANSI A208.1, Grade M-2, except for the following minimum properties: density, 45 lb/cu. ft.; modulus of rupture, 1600 psi; modulus of elasticity, 300,000 psi; internal bond, 80 psi; and screw-holding capacity on face and edge, 250 and 225 lbf, respectively.
    b. Panels 13/16 to 1-1/4 Inches Thick: ANSI A208.1, Grade M-1, except for the following minimum properties: density, 44 lb/cu. ft.; modulus of rupture, 1300 psi; modulus of elasticity, 250,000 psi; linear expansion, 0.50 percent; and screw-holding capacity on face and edge, 250 and 175 lbf, respectively.

4. Fire-Retardant Fiberboard: Medium-density panels according to ANSI A208.2, made from softwood fibers, synthetic resins, and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 200 or less according to ASTM E84.

D. Furring, Blocking, Shims, and Hanging Strips: Fire-retardant-treated softwood lumber, kiln dried to less than 15 percent moisture content.

E. Anchors: Material, type, size, and finish as required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

F. Wood Support Base: 2-by-4-inch nominal-size lumber treated with manufacturer's standard preservative-treatment, nonpressure pressure process.

2.4 HARDWARE

A. Cylinder Lock: Built-in, flush cam locks with five-pin tumbler keyway, keyed separately and master keyed. Furnish two change keys for each lock and two Insert number master keys.

1. Key Type: Flat Grooved, with minimum 2-by-2.68-inch key head for accessible lockers.
2. Bolt Operation: Manually locking deadbolt or automatically locking spring bolt.

B. Built-in Combination Lock: Key-controlled, three-number dialing combination locks; capable of at least five combination changes made automatically with a control key.

C. Digital Keypad Lock: Battery-powered electronic keypad with reprogrammable manager and owner codes that override access. Three consecutive incorrect code entries shall disable lock for three minutes.

1. Designed for permanently assigned access via entry of user's four-digit code.
2. Designed for shared or temporary access by multiple users, with user-defined code to lock and unlock. Provide LED indicator to show when lock is in use.

D. Frameless Hinges (European Type): Fully concealed, self closing, nickel plated steel with not less than 125 degrees of opening.

1. Provide 2 hinges for doors 42" high and less.
2. Provide three hinges for doors more than 42" high.

E. Wire Pulls: Back mounted; 4 inches long, 5/16 inch in diameter.

F. Shelf Rests: BHMA A156.9, B04013.

G. Hooks: Manufacturer's standard, ball-pointed aluminum or steel; brass finished chrome finished epoxy coated finished to match other locker hardware. Attach hooks with at least two fasteners.

1. Provide two single-prong wall hooks for each compartment of double-tier lockers.

H. Coat Rods: 1-inch- 3/4-inch- diameter steel; brass finished chrome finished nickel plated finished to match other locker hardware.

1. Provide coat rod for each compartment of double-tier interlockinglockers.
2. Provide coat rod in lieu of ceiling hook for lockers 24 inches high or taller.

I. Exposed Hardware Finish:

1. Polished chrome Polished brass Satin chrome Satin brass unless otherwise indicated.

2.5 ACCESSORIES

A. Mirrors: ASTM C1036, Type I, Class 1, Quality q2; with second (back) surface coated with successive layers of chemically deposited silver, copper, and protective organic coating to produce coating system according to performance requirements in ASTM C1503 for mirror-quality glazing.

1. Glass Thickness: 3 mm 5 mm minimum unless otherwise indicated.
2. Frame: Solid wood.

B. Protective Mats: 1/8-inch- thick, solid rubber.

C. Number Identification Plates: 1-1/2-inch- diameter, etched, embossed, or stamped, brass aluminum stainless-steel plastic plates with black numbers and letters at least 1/2 inch high. Identify lockers in sequence indicated on Drawings. Finish plates to match other locker hardware.

D. Name Identification Plates and Plate Holders: [1-inch-high by 4-inch-wide] <Insert dimensions>, etched, embossed, or stamped, [brass] [aluminum] [stainless-steel] [plastic] plates with black letters at least 1/2 inch high. Identify lockers as indicated on Drawings.[Finish nameplates and holders to match other locker hardware.]
   a.

2.6 FABRICATION

A. Fabricate each locker with shelves, an individual door and frame, an individual top, a bottom, and a back, and with common intermediate uprights separating compartments.

   1. Fabricate lockers to dimensions, profiles, and details indicated.
   2. Ease edges of corners of solid-wood members to 1/16-inch radius.

B. Fabricate lockers square, rigid, without warp, and with finished faces flat and free of dents, scratches, and chips. Accurately factory machine components for attachments. Make joints tight and true.

   1. Fabricate lockers using manufacturer's standard construction, with joints made with dowels, dados, or rabbets. Dado side panels to receive shelving except where indicated to be adjustable.
   2. Fabricate lockers with joints that are dadoed or rabbeted, glued full length, and stapled. Dado side panels to receive shelving except where indicated to be adjustable.

C. Accessible Lockers: Fabricate as follows:

   1. Locate bottom shelf no lower than 15 inches above the floor.
   2. Where hooks, coat rods, or additional shelves are provided, locate no higher than 48 inches above the floor.

D. Venting: Fabricate lockers with space between doors and locker assembly of not less than 1/4 inch.

E. Number Identification Plates: Inlay number plates flush in each locker door, near top, centered.

F. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible, before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

1. 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 the parts fit as intended, and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
2. Use only manufacturer's nuts, bolts, screws, and other devices for assembly.

G. Shop cut openings, to maximum extent possible, to receive hardware, 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.

H. Attach PVC edging to panels by thermally fusing edging to panels after panel fabrication.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine walls and floors or support bases, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Verify that furring is attached to concrete and masonry walls that are to receive lockers.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Condition lockers to average prevailing humidity conditions in installation areas before installation.

B. Before installing lockers, examine factory-fabricated work for completeness and complete work as required, including removal of packing.

3.3 INSTALLATION

A. Install wood support base with 1/2-inch- thick, plywood top.

B. Knocked-Down Lockers: Assemble with manufacturer's standard fasteners, with no exposed fasteners on face frames.

C. Install lockers level, plumb, and true; use concealed shims.

D. Connect groups of lockers together with manufacturer's standard fasteners, through predrilled holes, with no exposed fasteners on face frames. Fit lockers accurately together to form flush, tight, hairline joints.

E. Install lockers without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings, providing unencumbered operation. Complete installation of hardware and accessory items as indicated.

1. Installation Tolerance: No more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line. Shim as required with concealed shims.

F. Locker Anchorage:

1. Fasten lockers through wood locker base, at ends, and not more than 36 inches o.c. with No. 8 flush-head wood screws sized for 1-inch penetration into wood base.
2. Fasten lockers through back, near top and bottom, at ends with No. 8 pan-head sheet metal screws through metal backing or metal framing behind wall finish and spaced not more than 16 inches o.c.

G. Scribe and cut corner and filler panels to fit adjoining work using fasteners concealed where practical. Repair damaged finish at cuts.

H. Attach sloping-top units to lockers, with end panels covering exposed ends.

I. Install number identification plates after lockers are in place.

1. Attach number identification plate on each locker door, near top, centered, with at least two screws with finish matching the plate.
2. Attach name identification plate holder on each locker door, centered below number plate, with at least two screws, with finish matching the name identification plate holder.
3. Insert name identification plate into matching nameplate holder on each door.

J. Provide protective mat at each shoe shelf.

K. Fixed Locker Benches: Provide no fewer than two pedestals for each bench, uniformly spaced not more than 72 inches apart. Securely fasten tops of pedestals to undersides of bench tops, and anchor bases to floor.

L. Movable Locker Benches: Place benches in locations indicated on Drawings.

3.4 ADJUSTING

A. Clean, lubricate, and adjust hardware. Adjust doors to operate easily without binding. Verify that integral locking devices operate properly.

3.5 PROTECTION

A. Protect lockers from damage, abuse, dust, dirt, stain, or paint. Do not permit use during construction.

B. Touch up marred finishes, or replace lockers that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by locker manufacturer.

END OF SECTION