

SECTION 10 21 13.17
PHENOLIC CORE TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Phenolic core compartment partitions for following applications:
 - a. Toilet enclosures.
 - b. Privacy screens.
 - c. Urinal screens.
- B. Related Requirements:
 - 1. Division 03 Section "Cast in Place Concrete" for compartment anchorage to concrete substrates.
 - 2. Division 04 Section "Unit Masonry" for compartment anchorage to masonry substrates.
 - 3. Division 05 Section "Metal Fabrications" for miscellaneous structural and support metal components required to secure compartments.
 - 4. Division 06 Section "Rough Carpentry" for compartment anchorage to frame walls.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM A 240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
 - 2. ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - 3. ASTM A 743/A 743M - Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.
 - 4. ASTM B 86 - Standard Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings.
 - 5. ASTM B 221 - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
 - 6. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. International Code Council (ICC)/American National Standards Institute (ANSI):
 - 1. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities, as applicable to toilet compartments designated as accessible.
- C. United States Department of Justice:
 - 1. ADA - Americans with Disabilities Act, Excerpt from 28 CFR Part 36 - ADA Standards for Accessible Design.
- D. GREENGUARD Environmental Institute (GREENGUARD):
 - 1. GREENGUARD certified low emitting products.

1.3 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data sheets for each type of product indicated. Include fabrication details, description of materials and finishes.
 - 1. Product Test Reports: When requested by Architect, submit documentation by qualified independent testing agency indicating compliance of products with requirements.

- B. Shop Drawings: Include overall product dimensions, floor plan, elevations, sections, details, and attachments to other work. Include choice of options with details.
 - C. Samples for Selection: Furnish samples of manufacturer's full range of colors for initial selection.
 - D. Samples for Verification: Furnish physical sample of material in selected color.
 - 1. Size: 2 by 2 inch (52 by 52 mm) minimum, in type of finish specified.
 - E. LEED Submittals:
 - 1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include breakout costs for each product with recycled content.
 - 2. Laboratory Test Reports for Credit IEQ 4: For adhesives, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- 1.4 INFORMATIONAL SUBMITTALS
- A. Warranty: Sample of special warranty.
- 1.5 CLOSEOUT SUBMITTALS
- A. Maintenance and cleaning instructions.
- 1.6 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Approved manufacturer listed in this section, with minimum [5] years experience in the manufacture of toilet compartments.
 - B. Manufacturer Qualifications: Approved manufacturer listed in this section, with minimum [5] years experience in the manufacture of toilet compartments. Manufacturers seeking approval must submit the following in accordance with Instructions to Bidders and Division 01 requirements:
 - 1. Product data, including test data from qualified independent testing agency indicating compliance with requirements.
 - 2. Samples of each component of product specified.
 - 3. List of successful installations of similar products available for evaluation by Architect.
 - C. Installers Qualifications: Experienced Installer regularly engaged in installation of toilet compartments for minimum 3 years.
 - D. Source Limitations: Obtain toilet compartment components and accessories from single manufacturer.
 - E. Accessibility Requirements: Comply with requirements of ICC/ANSI 117.1, and with requirements of authorities having jurisdiction.
 - F. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: 55-60.
 - 2. Smoke-Developed Index: 165-250.
 - G. Indoor Environmental Quality Certification: Provide certificate indicated that products have been certified under the following programs, or a comparable certification acceptable to Owner:
 - 1. GREENGUARD Indoor Air Quality Certified.
 - 2. GREENGUARD Certified for Children and Schools.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver toilet compartments to site until building is enclosed and HVAC systems are in operation.
 - 1. Deliver toilet compartments in manufacturer's original packaging.
 - 2. Store laying flat.

1.8 WARRANTY

- A. Special Manufacturer's Warranty: Provide manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship during the following period after substantial completion:
 - 1. Phenolic Core Toilet Partitions: Against delamination: 3 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Manufacturer: Subject to compliance with requirements, provide products of **Bradley Corporation, Mills Metals Division, Menomonee Falls, WI 53051**.
 - 1. Contact Information: (800)272-3539, fax (262)251-5817; Email info@BradleyCorp.com; Website www.bradleycorp.com.

2.2 MATERIALS

- A. Phenolic Core: Compressed cellulose impregnated with phenolic resins. Provide smooth material, without creases or ripples.
- B. Zinc Aluminum Magnesium and Copper Alloy (Zamac): ASTM B 86.
- C. Stainless Steel Sheet: ASTM A 240 or A 666, 300 series.
- D. Stainless Steel Castings: ASTM A 743/A 743M.
- E. Aluminum: ASTM B 221.

2.3 PHENOLIC CORE TOILET COMPARTMENTS

- A. Toilet Compartment Type:
 - 1. Floor mounted overhead braced..
 - a. Basis of Design Product: Bradley, Mills Partitions, Sentinel, Series 400.
 - 2. Floor anchored.
 - a. Basis of Design Product: Bradley, Mills Partitions, Floor Braced, Series 500.
 - 3. Ceiling hung.
 - a. Basis of Design Product: Bradley, Mills Partitions, Ceiling Hung, Series 600.
 - 4. Floor and ceiling anchored.
 - a. Basis of Design Product: Bradley, Mills Partitions, Floor to Ceiling, Series 700.
- B. Sight Screen Type:
 - 1. Floor mounted overhead braced.
 - a. Basis of Design Product: Bradley, Mills Partitions, Floor Braced, Series 400.
 - 2. Floor anchored.
 - a. Basis of Design Product: Bradley, Mills Partitions, Floor Braced, Series 500.
 - 3. Floor and ceiling anchored.
 - a. Basis of Design Product: Bradley, Mills Partitions, Floor to Ceiling, Series 700.
 - 4. Aluminum post mounted.
 - a. Basis of Design Product: Bradley, Mills Partitions.
- C. Urinal Screen Style:

1. Wall hung with stirrup bracket:
 - a. Basis of Design Product: Bradley, Mills Partitions.
 - b. Provide stainless steel stirrup bracket for mounting to wall.
 2. Floor braced pilaster:
 - a. Basis of Design Product: Bradley, Mills Partitions.
 - b. Floor mounted, requiring concrete floor, minimum 3 inches thick for anchoring.
 - c. Where indicated on Drawings, modify to become floor-to-ceiling mounted by changing mounting pilaster.
 3. Floor to ceiling pilaster:
 - a. Basis of Design Product: Bradley, Mills Partitions.
 4. Aluminum post mounted:
 - a. Basis of Design Product: Bradley, Mills Partitions.
- D. Door, Panel, and Pilaster Construction, General: All edges are black, machined and finished smooth with a 45-degree chamfered edge.
1. Provide exposed surfaces free of pitting, visible seams and fabrication marks, stains, telegraphing of core material, or other imperfections.
 2. Core Material: Manufacturer's standard solid resin core of thickness required to provide finished thickness for doors, panels and pilasters.
 3. No-Sight Feature: Rabbeted edge on doors and pilasters at hinge and latch side to provide full privacy.
- E. Door Construction: 3/4 inch (19 mm) thick.
- F. Panel Construction: 1/2 inch (13 mm) thick.
- G. Pilaster Construction: 3/4 inch (19 mm) thick.
1. Provide pilaster with stainless steel mechanical fasteners for leveling.
- H. Headrail: Extruded anodized aluminum headrail with anti-grip profile. Provide clamps for attachment to pilaster and stainless steel brackets to secure to wall.
- I. Shoes: 4 inches (102 mm) high minimum, Type 304 stainless steel with No. 4 satin brushed finish. Provide concealed retainer clips to attach to pilaster.
- J. Urinal-Screen Construction: Matching toilet compartment panel construction
- K. Urinal-Screen Post: Manufacturer's standard post design of [material matching the thickness and construction of pilasters] or [1-3/4-inch- (44-mm-) square, aluminum tube with satin finish]; with shoe [and sleeve (cap)] matching that on the pilaster.
- L. Brackets (Fittings):
1. Stirrup Type: Ear or U-brackets; stainless steel.
 2. Full-Height (Continuous) Type: Manufacturer's standard design; stainless steel.
- M. Phenolic Core Finish: Manufacturer's standard impregnated, with [one color][two colors] in each room.
1. Color: As selected by Architect from manufacturer's full line.
- 2.4 HARDWARE
- A. Hardware: Manufacturer's stainless steel castings with satin brushed finish, including stainless steel tamper-resistant fasteners:
1. Hinges: Self-closing surface mounted, through bolted, with gravity cams, adjustable to hold doors open at any angle up to 90 degrees, with emergency access by lifting door.
 2. Door Latch and Keeper: Surface-mounted, indicator slide latch with emergency egress requires no twisting motion and complies with all Federal ADA guidelines. Keeper is mounted to the pilaster. Theft resistant fasteners are supplied with all the hardware.

3. Coat Hook: Combination hook and rubber-tipped stop, sized to prevent door from hitting compartment-mounted accessories. Provide wall bumper where door abuts wall. Provide formed L-shaped hook without stop at outswing doors. Mount with stainless steel through-bolts.
4. Door Pull: Standard unit on outside of inswing doors. Provide pulls on both sides of outswing doors.

2.5 FABRICATION

- A. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.
- B. Floor-Anchored Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment brackets at pilasters for structural connection to floor. Provide shoes at pilasters to conceal anchorage.
- C. Ceiling-Hung Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment brackets at pilasters for connection to structural support above finished ceiling. Provide assemblies that support pilasters from structure without transmitting load to finished ceiling. Provide sleeves (caps) at tops of pilasters to conceal anchorage.
- D. Floor-and-Ceiling-Anchored Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment at tops and bottoms of pilasters. Provide shoes and sleeves (caps) at pilasters to conceal anchorage.
- E. Urinal-Screen Posts: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment at tops and bottoms of posts. Provide caps, shoes, and covers at posts to conceal anchorage.
- F. Door Size and Swings: Unless otherwise indicated, provide 26-inch- (660-mm-) wide, inswinging doors for standard toilet compartments and 36-inch- (914-mm-) wide, out-swinging doors with a minimum 32-inch- (813-mm-) wide clear opening for compartments designated as accessible.
- G. Provide extended height panels as indicated on the Drawings as a stacked panel with an H-bracket joinery to panel below.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine work area to verify that measurements, substrates, supports, and environmental conditions are in accordance with manufacturer's requirements to allow installation.
 1. Proceed with installation once conditions meet manufacturer's requirements.

3.2 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.
- B. Install toilet partitions and screens in spaces with operating, temperature controlled HVAC systems. Shield partitions and screens from direct sunlight.
- C. Clearances: Install with clearances indicated on Drawings. Where clearances are not indicated, allow maximum 1/2 inch (13 mm) between pilasters and panels, and 1 inch (25 mm) between panels and walls.

- D. Stirrup Brackets: Secure panels to walls and to pilasters with no fewer than [two brackets attached][three brackets attached at midpoint and] near top and bottom of panel. Locate wall brackets so holes for wall anchors occur in masonry or tile joints. Align brackets at pilasters with brackets at walls.

3.3 ADJUSTING

- A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 15 degrees from closed position when unlatched. Set hinges on out-swinging doors[and doors in privacy screens] to return doors to fully closed position.

3.4 FINAL CLEANING

- A. Remove packaging and construction debris and legally dispose of off-site.
- B. Clean partition and screen surfaces with materials and cleansers in accordance with manufacturer's recommendations.

END OF SECTION