

**SECTION 10 28 00**  
**TOILET, BATH, AND LAUNDRY ACCESSORIES**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

A. SUMMARY:

1. Section Includes: Toilet and bath accessories at dressing rooms, toilets, baths, locker rooms and other areas indicated on drawings.

**1.2 RELATED REQUIREMENTS**

- A. Ceramic Toilet and Bath Accessories: Section 09 30 13, CERAMIC/PORCELAIN TILING.
- B. Shower Curtain Break Away Pendant Chain Hooks: Section 10 21 23, CUBICLE CURTAIN TRACKS.

**1.3 APPLICABLE PUBLICATIONS**

- A. Comply with references to extent specified in this section.
- B. American Society of Mechanical Engineers (ASME):
  1. B18.6.4-98(R2005) - Thread Forming and Thread Cutting Tapping Screws and Metallic Drive Screws inch.
- C. American Welding Society (AWS):
  1. D10.4-86(2000) - Welding Austenitic Chromium-Nickle Stainless Steel Piping and Tubing.
- D. ASTM International (ASTM):
  1. A269/A269M-15 - Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
  2. A312/A312M-15b - Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes.
  3. A653/A653M-15 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  4. A666-15 - Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  5. A1011/A1011M-14 - Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
  6. B30-14a - Copper Alloys in Ingot Form.
  7. B75/B75M-11 - Seamless Copper Tube.
  8. B221-14 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

9. B221M-13 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).
  10. B456-11e1 - Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
  11. B824-14 - General Requirements for Copper Alloy Castings.
  12. C1036-11e1 - Flat Glass.
  13. C1048-12e1 - Heat-Strengthened and Fully Tempered Flat Glass.
  14. D635-14 - Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
  15. F446-85(2009) - Grab Bars and Accessories Installed in the Bathing Area.
- E. Federal Specifications (Fed. Spec.):
1. A-A-3002 - Mirror, Glass.
  2. FF-S-107C(2) - Screws, Tapping and Drive.
  3. WW-P-541/8B(1) - Plumbing Fixtures (Accessories, Land Use).
- F. National Architectural Metal Manufacturers (NAAMM):
1. AMP 500-06 - Metal Finishes Manual.

#### **1.4 SUBMITTALS**

- A. Submittal Procedures: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Submittal Drawings:
1. Show size, configuration, and fabrication, anchorage and installation details.
  2. Show mounting locations and heights.
- C. Manufacturer's Literature and Data:
1. Description of each product.
  2. Installation instructions.
- D. Samples:
1. Full sized, complete assembly of each product specified.
  2. Approved samples may be incorporated into project.
- E. Certificates: Certify each product complies with specifications.
1. Soap dispensers: Certify soap dispensers are fabricated of material that will not be affected by liquid soap, aseptic detergents, and hexachlorophene solutions.
- F. Qualifications: Substantiate qualifications comply with specifications.
1. Manufacturer.
- G. Operation and Maintenance Data:
1. Care instructions for each exposed finish product.

## **1.5 QUALITY ASSURANCE**

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.

## **1.6 DELIVERY**

- A. Deliver products in manufacturer's original sealed packaging.
- B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, color, production run number, and manufacture date.
- C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.

## **1.7 STORAGE AND HANDLING**

- A. Store products indoors in dry, weathertight facility.
- B. Protect products from damage during handling and construction operations.

## **1.8 WARRANTY**

- A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Aluminum: ASTM B221M (ASTM B221), Alloy 6063-T5 and Alloy 6463-T5.
- B. Stainless Steel:
  - 1. Plate Or Sheet: ASTM A666, Type 304, 0.8 mm (0.031 inch) thick unless otherwise specified.
  - 2. Tubing: ASTM A269/A269M, Grade TP 304, seamless or welded.
  - 3. Pipe: ASTM A312/A312M; Grade TP 304.
- C. Steel Sheet: ASTM A653/A653M, zinc-coated (galvanized) coating designation G90.
- D. Chrome Plating (Service Condition Number SC 2): ASTM B456.
- E. Brass Castings: ASTM B30.
- F. Copper:
  - 1. Tubing: ASTM B75/B75M.
  - 2. Castings: ASTM B824.
- G. Glass:
  - 1. ASTM C1036, Type 1, Class 1, Quality q2, for mirrors, and for mirror doors in medicine cabinets.
  - 2. ASTM C1036, Type 1 Class 1 Quality q3, for shelves in medicine cabinets.

3. ASTM C1048, Kind FT, Condition A, Type 1, Class 1 for glass and mirrors in Mental Health and Behavior Patient Care Units, and Security Examination Rooms.

## **2.2 PRODUCTS - GENERAL**

- A. Provide each product from one manufacturer.
- B. Products Used Within Mental Health and Behavioral Patient Care Units:
  1. Provide accessories free of anchor points.
  2. Design accessories for attachment with tamper resistant hardware.

## **2.3 PAPER TOWEL DISPENSERS**

- A. Surface mounted type with sloping top.
- B. Dispensing capacity for 300 sheets of any type of paper toweling.
- C. Fabricate of stainless steel.
- D. Provide door with continuous hinge at bottom, and spring tension cam lock or tumbler lock, keyed alike, at top, and refill sight slot in front.

## **2.4 COMBINATION PAPER TOWEL DISPENSER AND DISPOSAL UNITS - NOT USED**

## **2.5 WASTE RECEPTACLES - NOT USED**

## **2.6 TOILET TISSUE DISPENSERS**

- A. Double roll surface mounted type.
- B. Mount on continuous backplate.
- C. Removable spindle ABS plastic or chrome plated plastic.
- D. Wood rollers are not acceptable.

## **2.7 GRAB BARS**

- A. Fed. Spec. WW-P-541/8B, Type IV, bars, surface mounted, Class 2, grab bars and complying with ASTM F446.
- B. Fabricate from stainless steel or nylon coated steel, use one type throughout project:
  1. Stainless steel: Grab bars, flanges, mounting plates, supports, screws, bolts, and exposed nuts and washers.
  2. Nylon Coated Steel: Grab bars and flanges complete with mounting plates and fasteners.
- C. Mounting: All Grab Bars should be mounted to blocking or other suitable wall carrier to support 300 lbs. force.
  1. Concealed type.
- D. Bars:
  1. Fabricate to 38 mm (1-1/2 inch) outside diameter.

- a. Stainless steel, minimum 1.2 mm (0.05 inch) thick.
- b. Nylon coated bars, minimum 1.5 mm (0.06 inch) thick.
2. Fabricate in one continuous piece with ends turned toward walls.
  - a. Swing up grab bars and grab bars continuous around three sides of showers may be fabricated in two sections, with concealed slip joint between.
3. Continuously weld intermediate support to grab bar.
- E. Flange for Concealed Mounting:
  1. Minimum 2.65 mm (0.1 inch) thick, maximum 79 mm (3-1/8 inch) diameter by 13 mm (1/2 inch) deep, with minimum three set screws for securing flange to back plate.
  2. Insert grab bar through center of flange and continuously weld perimeter of grab bar flush to back side of flange.
- F. Back Plates:
  1. Minimum 2.65 mm (0.1046 inch) thick metal.
  2. Fabricate in one piece, maximum 6 mm (1/4 inch) deep, with diameter sized to fit flange. Provide slotted holes to accommodate anchor bolts.
  3. Provide spreaders, through bolt fasteners, and cap nuts, where grab bars are mounted on partitions.

## **2.8 SHOWER CURTAIN RODS**

- A. Stainless steel tubing, minimum 1.27 mm (0.050 inch) wall thickness, 32 mm (1-1/4 inch) outside diameter.
- B. Flanges, stainless steel rings, 66 mm (2.6 inch) minimum outside diameter, with 2 holes opposite each other for 6 mm (1/4 inch) stainless steel fastening bolts. Provide set screw within curvature of each flange for securing rod.

## **2.9 CLOTHES HOOKS, ROBE OR COAT**

- A. Fabricate hook units from chromium plated brass with satin finish, or stainless steel, using 6 mm (1/4 inch) minimum thick stock, with edges and corners rounded smooth to thickness of metal, or 3 mm (1/8 inch) minimum radius.
- B. Fabricate each unit as a double hook on a single shaft, integral with or permanently fastened to wall flange, provided with concealed fastenings.

## **2.10 TOWEL BARS**

- A. Fed. Spec. WW-P-541/8B, Type IV, Bar, Surface mounted; Class 1, towel.

- B. Stainless steel, or chromium plated copper alloy.
- C. Bar Length: 450 and 600 mm (18 and 24 inches) as shown.
- D. Finish brackets and supports to match bar.

#### **2.11 METAL FRAMED MIRRORS**

- A. Fed. Spec. A-A-3002 metal frame; chromium finished steel.
- B. Mirror Glass:
  - 1. Minimum 6 mm (1/4 inch) thick.
  - 2. Set mirror in a protective vinyl glazing tape.
- C. Frames:
  - 1. Channel or angle shaped section with face of frame minimum 9 mm (3/8 inch) wide. Fabricate with square corners.
  - 2. Metal Thickness 0.9 mm (0.035 inch).
  - 3. Filler:
    - a. Where mirrors are mounted on walls having ceramic tile wainscots not flush with wall above, provide fillers contoured to conceal void between back of mirror and wall surface.
    - b. Fabricate fillers from same material and finish as mirror frame.
  - 4. Attached Shelf for Mirrors:
    - a. Fabricate shelf of same material and finish as mirror frame.
    - b. Make shelf maximum 150 mm (6 inches) in depth, and extend full width of mirror.
    - c. Close ends and front edge of shelf to same thickness as mirror frame width.
    - d. Form shelf for aluminum framed mirror as integral part of bottom frame member.
    - e. Form stainless steel shelf with concealed brackets to attach to mirror frame.
- D. Back Plate:
  - 1. Fabricate backplate for concealed wall hanging from zinc-coated, or cadmium plated 0.9 mm (0.036 inch) thick sheet steel, die cut to fit face of mirror frame.
  - 2. Provide set screw type theft resistant concealed fastening system for mounting mirrors.
- E. Mounting Bracket:
  - 1. Designed to support mirror tight to wall.
  - 2. Designed to retain mirror with concealed set screw fastenings.

**2.12 MEDICINE CABINETS - NOT USED.**

**2.13 FOOT OPERATED SOAP DISPENSER - NOT USED**

**2.14 SOAP DISHES - NOT USED**

**2.15 PAPER CUP DISPENSER - NOT USED**

**2.16 MOP RACKS**

A. Minimum 1016 mm (40 inches) long with five holders.

B. Clamps:

1. Minimum of 1.3 mm (0.05 inch) thick stainless steel bracket retaining channel with hard rubber serrated cam; pivot mounted to channel.

2. Clamps to hold handles from 13 mm (1/2 inch) minimum to 32 mm (1-1/4 inch) maximum diameter.

C. Support:

1. Minimum 1 mm (0.04 inch) thick stainless steel hat shape channel to hold clamps away from wall as indicated.

2. Drill wall flange for 3 mm (1/8 inch) fasteners above and below clamp locations.

D. Secure clamps to support with oval head machine screws or rivets into continuous reinforcing back of clamps.

**2.17 STAINLESS STEEL SHELVES (TYPE 44)**

A. Shelves:

1. Fabricate shelves of 1.2 mm (0.0478 inch) thick sheet to size and design indicated on Drawings.

2. Fabricate shelves of hollow metal type construction, forming a depression indicated, with closed fronts, backs, ends and bottoms. Reinforce shelves with 1.2 mm (0.05 inch) thick sheet steel hat channel stiffeners, full depth, welded to underside of top at bracket locations.

3. Miter cuts, where made at corners of shelves, continuously welding.

B. Form brackets of 3 mm (1/8 inch) thick steel as shown. Drill brackets for 6 mm (1/4 inch) anchor bolts.

C. Weld or Screw brackets to shelves.

**2.18 STAINLESS STEEL SHELVES (TYPES 45, 45C) - NOT USED**

**2.19 STAINLESS STEEL SHELVES AT WHEELCHAIR LAVATORY**

A. Side wall mounted:

1. Fabricate to size and shape indicated of 1.2 mm (0.05 inch) thick sheet.
  2. Turn up edges and weld corners closed.
  3. Fabricate brackets and weld to shelf. Drill brackets for 6 mm (1/4 inch) anchor bolts.
- B. Back wall mounted:
1. Fabricate to size and shape shown of plate and tube.
  2. Turn up edges and weld corners of shelf.
  3. Weld tube to back plate and shelf, weld back plate to shelf, filler plate to tube, and corners of shelf with continuous welds.
  4. Drill back plate for 6 mm (1/4 inch) anchor bolts.

## **2.20 FABRICATION - GENERAL**

- A. Welding, AWS D10.4.
- B. Grind, dress, and finish welded joints to match finish of adjacent surface.
- C. Form exposed surfaces from one sheet of stock, free of joints.
- D. Provide steel anchors and components required for secure installation.
- E. Form flat surfaces without distortion. Keep exposed surfaces free from scratches and dents. Reinforce doors to prevent warp or twist.
- F. Isolate aluminum from dissimilar metals and from contact with building materials as required to prevent electrolysis and corrosion.
- G. Hot-dip galvanized steel or stainless steel, anchors and fastening devices.
- H. Shop assemble accessories and package with components, anchors, fittings, fasteners and keys.
- I. Key items alike.
- J. Provide templates and rough-in measurements.
- K. Round and deburr edges of sheets to remove sharp edges.

## **2.21 FINISH**

- A. Steel Paint Finish:
1. Powder-Coat Finish: Manufacturer's standard two-coat finish system consisting of the following:
    - a. One coat primer.
    - b. One coat thermosetting topcoat.
    - c. Dry-film Thickness: 0.05 mm (2 mils) minimum.
- B. Nylon Coated Steel: Nylon coating powder formulated for fluidized bonding process to steel to provide hard smooth, medium gloss finish,

minimum 0.3 mm (0.012 inch) thick, rated as self-extinguishing when tested according to ASTM D635.

- C. Stainless Steel: NAAMM AMP 500; No. 4 polished finish.
- D. Aluminum Anodized Finish: NAAMM AMP 500.
  - 1. Clear Anodized Finish: AA-C22A41; Class I Architectural, 0.018 mm (0.7 mil) thick.
  - 2. Color Anodized Finish: AA-C22A42 or AA-C22A44; Class I Architectural, 0.018 mm (0.7 mil) thick.
- E. Chromium Plating: ASTM B456, satin or bright as specified, Service Condition No. SC2.

## **2.22 ACCESSORIES**

- A. Fasteners:
  - 1. Fasteners in Mental Health and Behavioral Patient Care Units: Tamper resistant hot-dipped galvanized or stainless steel.
  - 2. Exposed Fasteners: Stainless steel or chromium plated brass, finish to match adjacent surface.
  - 3. Concealed Fasteners:
    - a. Shower, Bathtubs, and High Moisture Areas: Stainless steel.
    - b. Other Locations: Steel, hot-dipped galvanized.
  - 4. Toggle Bolts: For use in hollow masonry or frame construction.
  - 5. Sex bolts: For through bolting on thin panels.
  - 6. Expansion Shields: Lead or plastic for solid masonry and concrete substrate as recommended by accessory manufacturer to suit application.
  - 7. Screws:
    - a. ASME B18.6.4.
    - b. Fed. Spec. FF-S-107, Stainless steel Type A.
- B. Adhesive: As recommended by manufacturer to suit application.

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

- A. Examine and verify substrate suitability for product installation.
  - 1. Verify blocking to support accessories is installed and located correctly.
- B. Verify location of accessories with Contracting Officer's Representative.

### **3.2 INSTALLATION**

- A. Install products according to manufacturer's instructions and approved submittal drawings.
  - 1. When manufacturer's instructions deviate from specifications, submit proposed resolution for Contracting Officer's Representative consideration.
- B. Install grab bars according to ASTM F446.
- C. Set work accurately, in alignment and where indicated, parallel or perpendicular as required to line and plane of surface. Install accessories plumb, level, free of rack and twist.
- D. Toggle bolt to steel anchorage plates in frame partitions and hollow masonry. Expansion bolt to concrete or solid masonry.
- E. Install accessories to function as designed. Perform maintenance service without interference with performance of other devices.
- F. Position and install dispensers, and other devices in countertops, clear of drawers, permitting ample clearance below countertop between devices, and ready access for maintenance.
- G. Align mirrors, dispensers and other accessories even and level, when installed in battery.
- H. Install accessories to prevent striking by other moving, items or interference with accessibility.
- I. Install accessories in Mental Health and Behavioral Units with tamper resistant screws that are flush mounted so that they will not support a rope or material for hanging.

### **3.3 CLEANING**

- A. After installation, clean toilet accessories according to manufacturer's instructions.

### **3.4 PROTECTION**

- A. Protect accessories from damage until project completion.

### **3.5 SCHEDULE OF ACCESSORIES: SEE DRAWINGS**

- - E N D - -