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SECTION 102813.19 - HEALTHCARE TOILET ACCESSORIES

TIPS:

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PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Healthcare safety hooks.
2. Healthcare shelves.
3. Combination healthcare shelves with safety hooks.
4. Healthcare toilet tissue holders.
5. Healthcare paper towel holders.
6. Healthcare soap dishes.
7. Healthcare mirrors.
8. Healthcare grab bars.

B. Related Requirements:

1. Section 102800 "Toilet, Bath, and Laundry Accessories" for nonhealthcare toilet accessories.
2. Section 102813.63 "Detention Toilet Accessories" for accessories designed for installation in detention facilities.

1.2 COORDINATION

- A. Coordinate healthcare toilet accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Coordinate installation of anchorages for healthcare toilet accessories. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in adjoining construction. Deliver such items to Project site in time for installation.
- C. Coordinate size and location of recesses in wall construction to receive recessed healthcare toilet accessories.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at **[Project site]** <Insert location>.

1.4 ACTION SUBMITTALS

- A. Product Data:
 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
 2. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
- B. Samples for Verification: For each type of healthcare toilet accessory indicated.
 1. Approved full-size Samples will be returned and may be used in the Work.
- C. Product Schedule: For healthcare toilet accessories. Indicate types, quantities, sizes, and installation locations by room of each accessory required. **[Use same designations indicated on Drawings.]**
- D. Delegated Design Submittals: For **[grab bars]** **[and]** **[shower seats]**, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 1. Include structural design calculations indicating compliance with specified structural-performance requirements.

E. Sustainable Design Submittals:

1. Product Data: For sealants, indicating VOC content.
2. Laboratory Test Reports: For sealants, indicating compliance with requirements for low-emitting materials.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Location of each built-in anchor supporting healthcare toilet accessories, including anchors to be installed as Work of other Sections, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Locations, dimensions, and profiles of wall and floor reinforcements.
2. Locations and installation details of built-in anchors.
3. Elevations of each healthcare toilet accessory showing dimensions of accessory, preparations for receiving anchors, and locations of anchorage.
4. Details of attachment of each healthcare toilet accessory to built-in anchors.

B. Examination reports documenting inspection of substrates, areas, and conditions.

C. Anchor inspection reports documenting inspections of built-in and cast-in anchors.

D. Field quality-control certification signed by Contractor.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For healthcare toilet accessories.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Extra Stock Material: Furnish extra materials[, **from the same production run,**] to Owner that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Security Fasteners: Furnish no fewer than 1 box for each 50 boxes or fraction thereof, of each type and size of security fastener installed.
2. Tools: Provide [**two**] <Insert number> sets of tools for installing and removing security fasteners.

1.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace healthcare toilet accessories that fail in materials or workmanship within specified warranty period.

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

- a. Structural failures including deflection exceeding **1/4 inch (6.3 mm)**.
 - b. Faulty operation of hardware.
 - c. Deterioration of metals, metal finishes, and other materials.
 - d. **<Insert failure modes>**.
2. Warranty Period: [**Two**] **<Insert number>** years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Source Limitations: Obtain [**healthcare toilet accessories**] [**each type of healthcare toilet accessory**] from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Design healthcare grab bars and associated fasteners to resist **250 lbf (1112 N)** concentrated load applied in any direction and at any point.

2.3 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; Models as specified below or comparable product by one of the following:
1. AJW Architectural Products.
 2. American Specialties, Inc.
 3. Bobrick Washroom Equipment, Inc.
 4. Bradley Corporation.
 5. GAMCO Specialty Accessories; a division of Bobrick.
 6. Tubular Specialties Manufacturing, Inc.
 7. **<Insert manufacturer's name>**.

2.4 HEALTHCARE SAFETY HOOKS

- A. Individual, Straight, Safety Hook **<Insert drawing designation>**: Single stainless steel straight hook held by **0.078-inch- (1.98-mm-)** thick, stainless steel mounting plate approximately **5 inches (127 mm)** square. Provide [**adjustable**] pivoting assembly that maintains pressure on hook and automatically snaps down when load exceeds [**20 lbf (89.0 N)**] **<Insert load>**.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1830A-SLPT[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].

- B. Multiple, Straight, Safety Hook Strip <Insert drawing designation>: Minimum **19 inches (483 mm)** long by **6-1/2 inches (165 mm)** high, with four stainless steel straight hooks, held by **0.078-inch- (1.98-mm-)** thick, stainless steel mounting plate. Provide [**adjustable**] pivoting assemblies that maintains pressure on hooks and automatically snaps down when load exceeds [**20 lbf (89.0 N)**] <Insert load>.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1828A-SLPT[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].

2.5 HEALTHCARE SHELVES

- A. Surface-Mounted Healthcare Shelf <Insert drawing designation>: Minimum **7 inches high by 8-7/8 inches deep (178 mm high by 225 mm deep)** by **20 inches (508 mm)** long; formed from **0.078-inch (1.98-mm)** nominal-thickness stainless steel sheet; including welded side gussets and minimum **1-inch (25.4-mm)** back flange.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1826-SLPT[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].
- B. Surface-Mounted Healthcare Vanity Shelf <Insert drawing designation>: Minimum **18 inches high by 3 inches deep (460 mm high by 76 mm deep)** by **12 inches (305 mm)** wide; formed from **0.062-inch (1.57-mm)** nominal-thickness stainless steel sheet; including flanged sloping top, sides, and back.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1182[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].
- C. Recessed Healthcare Shelf <Insert drawing designation>: Minimum inside dimensions of **16 inches wide by 5 inches high by 4 inches deep (406 mm wide by 127 mm high by 102 mm deep)**; formed from **0.062-inch- (1.57-mm-)** thick, stainless steel sheet; with **1-1/2-inch- (38.1-mm-)** wide, flanged front edge.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1820FA[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].

2.6 COMBINATION HEALTHCARE SHELVES WITH SAFETY HOOKS

- A. Healthcare Shelf with Multiple, Straight Safety Hooks <Insert drawing designation>: Minimum 11-1/2 inches high by 8-7/8 inches (140 mm high by 203 mm) deep by 20 inches (508 mm) long; formed from 0.078-inch (1.98-mm) nominal-thickness stainless steel sheet; including welded side gussets and minimum 1-inch (25.4-mm) back flange; with back punched for fastening to wall with security fasteners and wall anchors. Provide four auto-release straight clothes hooks held by 0.078-inch- (1.98-mm-) thick, stainless steel mounting plate. Provide [adjustable] pivoting assemblies that maintains pressure on hooks and snaps down when load exceeds [10 lbf (44.5 N)] [15 lbf (66.7 N)] [20 lbf (89.0 N)] <Insert load>.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1824A-SLPT[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [White powder coating] [Polished stainless steel].

2.7 HEALTHCARE TOILET TISSUE HOLDERS

- A. Recessed, Healthcare Circular Toilet Tissue Holder <Insert drawing designation>: Minimum 5-inch diameter by 4-1/2 inches (127-mm diameter by 114 mm) deep with 7-inch- (178-mm-) square face; formed from 0.062-inch- (1.57-mm-) thick, stainless steel sheet.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1840FA[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [White powder coating] [Polished stainless steel].
- B. Semirecessed, Healthcare Spindle Button Toilet Tissue Holder <Insert drawing designation>: Minimum 7-5/8 inches high by 8-3/4 inches wide (193 mm high by 224 mm wide) by 2-7/8 inches (73 mm) deep, with 5-5/8-inch- (142-mm-) high recess; formed from 0.062-inch- (1.57-mm-) thick, stainless steel sheet; with two spring-loaded spindle button holder assemblies.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1845B or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: White powder coating.
- C. Surface-Mounted, Healthcare Spindle Button Toilet Tissue Holder <Insert drawing designation>: Minimum 10 inches high by 10-3/4 inches wide (254 mm high by 273 mm wide) by 4-1/2 inches (114 mm) deep, with 6-5/8-inch- (168-mm-) high recess; formed from 0.062-inch- (1.57-mm-) thick, stainless steel sheet, including flanged sloping top, sides, and back; with two spring-loaded spindle button holder assemblies.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1847B or comparable product.

2. Mounting: Front mounting with security fasteners and wall anchors.
3. Finish: White powder coating.

2.8 HEALTHCARE PAPER TOWEL HOLDERS

- A. Semirecessed, Healthcare Spindle Button Paper Towel Holder <Insert drawing designation>: Minimum 9 inches high by 15-1/4 inches wide (228 mm high by 387 mm wide) by 3-1/2 inches (89 mm) deep, with 7-inch- (142-mm-) high recess; formed from 0.062-inch- (1.57-mm-) thick, stainless steel sheet; with two spring-loaded spindle button holder assemblies.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1846B[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [White powder coating] [Polished stainless steel].
- B. Surface-Mounted, Healthcare Spindle Button Paper Towel Holder <Insert drawing designation>: Nominal 10 inches high by 16-5/8 inches wide (252 mm high by 422 mm wide) by 4-3/8 inches (110 mm) deep, with 6-5/8-inch- (167-mm-) high recess; formed from 0.062-inch- (1.57-mm-) thick, stainless steel sheet, including flanged sloping top, sides, and back; with two spring-loaded spindle button holder assemblies.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1848B or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: White powder coating.
- C. Surface-Mounted, Healthcare C-Fold Paper Towel Holder <Insert drawing designation>: Minimum 13-3/4 inches high by 2-1/2 inches (349 mm high by 64 mm) deep by [4 inches (102 mm)] [8 inches (203 mm)] [12 inches (305 mm)] wide, with [single] [double] [triple] vertical storage bay[s]; formed from 0.062-inch- (1.57-mm-) thick, stainless steel sheet, including flanged sloping top, sides, and back.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1181[-1] [-2] [-3] [-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [White powder coating] [Polished stainless steel].

2.9 HEALTHCARE SOAP DISHES

- A. Recessed, Healthcare Soap Dish: Minimum inside dimensions of 5-1/2 inches wide by 3-1/2 inches high by 2-5/8 inches (140 mm wide by 89 mm high by 67 mm) deep with 3/4-inch (19-mm) lip around entire face; formed from [0.062-inch- (1.57-mm-)] [0.050-inch- (1.27-mm-)] thick, stainless steel sheet.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1832-PF[-SS] or comparable product.
 2. Mounting: Rear mounting with plaster flange anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].
- B. Surface-Mounted, Healthcare Shower Caddy <Insert drawing designation>: Minimum **18-3/4 inches high by 3 inches deep (476 mm high by 76 mm deep)** by **8 inches (203 mm)** wide; formed from **0.062-inch (1.57-mm)** nominal-thickness stainless steel sheet; including flanged sloping top, sides, and back, with integral recessed soap dish.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1183[-SS] or comparable product.
 2. Mounting: Front mounting with security fasteners and wall anchors.
 3. Finish: [**White powder coating**] [**Polished stainless steel**].

2.10 HEALTHCARE MIRRORS

- A. Large, Framed, Healthcare Mirror with Square Corners: Formed from a single sheet of **0.078-inch- (1.98-mm-)** thick, stainless steel; enclosed in a metal frame.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model [WH1811] [WH1813]-SLPT[-SS] or comparable product.
 2. Size: [**13 by 17 inches (330 by 432 mm)**] [**13 by 23-5/8 inches (330 by 600 mm)**].
 3. Mounting: Front mounting with security fasteners and wall anchors.
 4. Frame Finish: [**White powder coating**] [**Polished stainless steel**].
- B. Large, Framed, Healthcare Mirror with Sloping Edges and Square Corners: Formed from a single sheet of **0.078-inch- (1.98-mm-)** thick, stainless steel; enclosed in a metal frame.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model [WH1850] [WH1851] [WH1852] [WH1853] [WH1854]-SLPT[-SS] or comparable product.
 2. Size: [**13 by 16 inches (330 by 406 mm)**] [**16 by 26 inches (406 by 660 mm)**] [**18 by 24 inches (457 by 610 mm)**] [**20 by 37 inches (508 by 940 mm)**] [**27 by 37 inches (686 by 940 mm)**].
 3. Mounting: Bottom mounting with security fasteners and wall anchors.
 4. Frame Finish: [**White powder coating**] [**Polished stainless steel**].
- C. Large, Framed, Healthcare Mirror with Sloping Edges and Round Corners: Formed from a single sheet of **0.078-inch- (1.98-mm-)** thick, stainless steel; enclosed in a solid surface polymer resin frame.

https://www.whitehallmfg.com/uploads/fileLibrary/corterra-colors-2016-WH_lores.pdf Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model [WH1860] [WH1861] [WH1862] [WH1863] [WH1864][-OCC] or comparable product.

2. Size: [14-1/2 by 17-1/2 inches (368 by 445 mm)] [17-1/2 by 27-1/2 inches (445 by 699 mm)] [19-1/2 by 25-1/2 inches (495 by 648 mm)] [21-1/2 by 38-1/2 inches (546 by 978 mm)] [28-1/2 by 38-1/2 inches (724 by 978 mm)].
3. Mounting: Bottom mounting with security fasteners and wall anchors.
4. Frame Finish: [Blanco] <Insert color selection>.

D. Large, Integrally Framed, Healthcare Mirror with Round Corners: Mirror and integral frame formed from 1/4 inch (6 mm) thick, stainless steel sheet; with round corners.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1817 or comparable product.
2. Size: Nominal 11 by 17 inches (286 by 438 mm).
3. Mounting: Front mounting with security fasteners and wall anchors.

2.11 HEALTHCARE GRAB BARS

A. Grab Bars: 1-1/2-inch- (38-mm-) OD stainless steel tubing; with closure strip and 3-inch- (76-mm-) diameter end flanges formed from 0.078-inch- (1.98-mm-) thick, stainless steel. All-welded construction.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1109-[1] [2] [4] [5] [6] [7] or comparable product.
2. Length: As indicated by Model No. designation.
3. Mounting: Front mounting with security fasteners and wall anchors.

B. L-Shaped, Two-Wall Grab Bars: 1-1/2-inch- (38-mm-) OD stainless steel tubing; [left] [right] oriented; with closure strip and 3-inch- (76-mm-) diameter end flanges formed from 0.078-inch- (1.98-mm-) thick, stainless steel. All-welded construction.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1109-3-[L] [R] or comparable product.
2. Length: As indicated by Model designation.
3. Mounting: Front mounting with security fasteners and wall anchors.

C. V-Shaped Grab Bars: 1-1/2-inch- (38-mm-) OD stainless steel tubing; with V-shaped closure strip, wall plate, and end plates formed from 0.078-inch- (1.98-mm-) thick, stainless steel. All-welded construction.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International; BestCare Model WH1140-[24] [30] [36] [42] [48] or comparable product.
2. Length: As indicated by Model No. designation.
3. Mounting: Front mounting with security fasteners and wall anchors.

2.12 MATERIALS

- A. Stainless Steel Material: ASTM A666 or ASTM A240/A240M, austenitic stainless steel sheet, Type 304.
- B. Stainless Steel Sheet, Strip, Plate, and Flat Bars: ASTM A666 or ASTM A240/A240M, austenitic stainless steel, Type 304.
- C. Stainless Steel Tubing: ASTM A1016/A1016M, austenitic stainless steel, Type 304, seamless.
- D. Stainless Steel Finishes:
 - 1. Powder-Coated Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils (0.05 mm).
 - 2. Polished Finish: Remove tool and die marks and stretch lines, or blend into finish. Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - a. Run grain of directional finishes with long dimension of each piece.
 - b. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
- E. Solid-Surface Polymer Resin Frames: ANSI Z124.3 and ANSI Z124.6 load ratings; ICPA SS-1 approved; with Class A fire-resistance rating.

2.13 FABRICATION

- A. Coordinate dimensions and attachment methods of healthcare toilet accessories with those of adjoining construction to produce integrated assemblies with closely fitting joints and with edges and surfaces aligned unless otherwise indicated.
- B. Shear and punch metals cleanly and accurately. Remove burrs.
- C. Form edges and corners to be free of sharp edges and rough areas.
- D. Form metal in maximum lengths to minimize joints. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
- E. Weld corners and seams continuously to comply with referenced AWS standard and the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

5. Weld before finishing components to greatest extent possible. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- F. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to secure healthcare toilet accessories rigidly in place and to support expected loads. Build in straps, plates, and brackets as needed to support and anchor fabricated items to adjoining construction. Reinforce formed-metal units as needed to attach and support other construction.
- G. Cut, reinforce, drill, and tap healthcare toilet accessories to receive hardware, security fasteners, and similar items.
- H. Form exposed work true to line and level with accurate angles and surfaces. Grind off and ease edges unless otherwise indicated.
- I. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Use exposed security fasteners of type indicated or, if not indicated, flat-head (countersunk) security fasteners. Locate joints where least conspicuous.

2.14 INSTALLATION ACCESSORIES

- A. Security Fasteners: Operable only by tools produced by fastener manufacturer or other licensed fabricator for use on specific type of fastener. Drive-system type and head style as required for assembly, installation, and strength, and as follows:
 1. Drive-System Type: [**Pinned Torx-Plus**] [**Pinned Torx**] <Insert system>.
 2. Fastener Strength: **120,000 psi (827 MPa)**.
 3. Stainless Steel Fasteners: **ASTM F879 (ASTM F879M)**, Group 1 CW.
- B. Concealed Bolts: ASTM A307, Grade A unless otherwise indicated.
- C. Cast-in-Place Anchors in Concrete: Fabricated from corrosion-resistant materials capable of sustaining, without failure, a load equal to [**four**] <Insert safety factor> times the load imposed, as determined by testing in accordance with ASTM E488/E488M, conducted by a qualified testing agency; of type indicated below:
 1. Threaded or wedge type; galvanized ferrous castings, either ASTM A47/A47M malleable iron or ASTM A27/A27M cast steel. Provide bolts, washers, and shims as needed; hot-dip galvanized in accordance with ASTM A153/A153M or ASTM F2329/F2329M.
- D. Embedded Plate Anchors: Fabricated from mild steel shapes and plates, minimum **3/16 inch (4.8 mm)** thick; with minimum **1/2-inch- (12.7-mm-)** diameter, headed studs welded to back of plate.
- E. Built-in Masonry Anchors: Fabricated from [**0.134-inch (3.42-mm) nominal-thickness steel sheet**] [**1/4-inch (6-mm) nominal-thickness steel plate**] [**1/2-inch (12.7-mm) nominal-thickness steel plate**] into [**6-inch- (152-mm-)**] [**8-inch- (203-mm-)**] deep blocks matching size of concrete masonry units[; **with weld nuts attached on inside to receive field-bolted attachments**].

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of healthcare toilet accessories.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations of healthcare toilet accessory connections before healthcare toilet accessory installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of healthcare toilet accessories.
- D. Inspect built-in and cast-in anchor installations before installing healthcare toilet accessories to verify that anchor installations comply with requirements. Prepare inspection reports.
 - 1. Remove and replace anchors where inspections indicate that they do not comply with specified requirements. Reinspect after repairs or replacements are made.
 - 2. Perform additional inspections to determine compliance of replaced or additional work. Prepare inspection reports.
- E. Verify locations of healthcare toilet accessories.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing healthcare toilet accessories to in-place construction. Include threaded fasteners for **[concrete]** **[and]** **[masonry]** inserts, security fasteners, and other connectors.
- B. Provide temporary bracing or anchors in formwork for items that are to be built into **[concrete]** **[or]** **[masonry]** or similar construction.
- C. Security Fasteners: Install healthcare toilet accessories using security fasteners with head style appropriate for installation requirements, strength, and finish of adjacent materials.
- D. Grab Bars: Install to withstand a downward load of not less than **250 lbf (1112 N)** per ASTM F446.

3.3 FIELD QUALITY CONTROL

- A. Inspect installed products to verify compliance with requirements. Prepare inspection reports and indicate compliance with and deviations from the Contract Documents.
- B. Remove and replace healthcare work where inspections indicate that work does not comply with specified requirements.

- C. Perform additional inspections to determine compliance of replaced or additional work. Prepare inspection reports.
- D. Prepare field quality-control certification that states installed products and their installation comply with requirements in the Contract Documents.

3.4 ADJUSTING AND CLEANING

- A. Remove temporary labels and protective coatings.
- B. Adjust safety hooks to release with application of [8 lbf (35.6 N)] [15 lbf (66.7 N)] [20 lbf (89.0 N)] <Insert value> load.
 - 1. Verify tightness of accessible connections by calibrated torque driver.
- C. Touchup Painting: Immediately after erection, clean bolted connections and abraded areas of shop paint, and paint exposed areas with same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
- D. Touchup Painting: Cleaning and touchup painting of bolted connections and abraded areas of shop paint are specified in Section 099123 "Interior Painting."

END OF SECTION 102813.19