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SECTION 224216.13 - COMMERCIAL LAVATORIES

TIPS:

To view non-printing **Editor's Notes** that provide guidance for editing, click on MasterWorks/Single-File Formatting/Toggle/Editor's Notes.

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PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Enameled, cast-iron, counter-mounted lavatories.
2. Vitreous-china, counter-mounted lavatories.
3. Enameled, cast-iron, wall-mounted lavatories.
4. Vitreous-china, wall-mounted lavatories.
5. Powder-coated, stainless steel, ligature-resistant, wall-mounted lavatories.
6. Solid surface, wall-mounted, ligature-resistant lavatories with integral basins.
7. Precast GFRC, wall-mounted lavatories.
8. Precast GFRC, freestanding lavatories.

9. Lavatory systems.
10. Manually operated lavatory faucets.
11. Automatically operated lavatory faucets.
12. Supply fittings.
13. Waste fittings.
14. Lavatory supports.

B. Related Requirements:

1. Section 224100 "Residential Plumbing Fixtures" for residential lavatories.
2. Section 224300 "Healthcare Plumbing Fixtures" for healthcare lavatories.
3. Section 224600 "Security Plumbing Fixtures" for security lavatories.

1.2 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 lavatories.
2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

B. Sustainable Design Submittals:

1. Product Data: For water consumption.
2. Plumbing Fixtures: Provide the following:
 - a. Manufacturer cut sheet indicating water consumption.
 - b. WaterSense certification for residential fixtures, commercial water closets, commercial urinals, and commercial showers.

C. Shop Drawings: Include diagrams for power, signal, and control wiring of automatic faucets.

1.3 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Counter cutout templates for mounting of counter-mounted lavatories.

1.4 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For lavatories and faucets to include in operation and maintenance manuals.

1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
 - a. Servicing and adjustments of automatic faucets.

1.5 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. Faucet Washers and O-Rings: Equal to [10] <Insert number> percent of amount of each type and size installed.
 2. Faucet Cartridges and O-Rings: Equal to [5] <Insert number> percent of amount of each type and size installed.

PART 2 - PRODUCTS

2.1 ENAMELED, CAST-IRON, COUNTER-MOUNTED LAVATORIES

- A. Lavatory - Flat Rim, Enameled, Cast Iron, Flush Counter Mounted <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Commercial Enameling Company.
 - b. Kohler Co.
 - c. <Insert manufacturer's name>.
 2. Fixture:
 - a. Standard: ASME A112.19.1/CSA B45.2.
 - b. Type: For flush mounting with kit.
 - c. Nominal Size: Rectangular, [18 by 15 inches (457 by 381 mm)] [20 by 18 inches (508 by 457 mm)].
 - d. Faucet-Hole Punching: [Three holes, 2-inch (51-mm)] [Three holes, 4-inch (102-mm)] centers.
 - e. Faucet-Hole Location: Top.
 - f. Color: [White] <Insert color>.
 - g. Mounting Materials: With stainless steel ring and sealant.
 3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
- B. Lavatory - Self-Rimming, Enameled, Cast Iron, Counter Mounted <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Kohler Co.
 - b. Zurn Industries, LLC.
 - c. <Insert manufacturer's name>.

2. Fixture:
 - a. Standard: ASME A112.19.1/CSA B45.2.
 - b. Type: Self-rimming for above-counter mounting.
 - c. Nominal Size: Oval, [20 by 17 inches (508 by 432 mm)] [24 by 18 inches (610 by 457 mm)] <Insert dimensions>.
 - d. Faucet-Hole Punching: [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers].
 - e. Faucet-Hole Location: Top.
 - f. Color: [White] <Insert color>.
 - g. Mounting Material: Sealant.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.

C. Lavatory - Enameled, Cast Iron, Undercounter Mounted <Insert drawing designation>:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Kohler Co.
 - b. <Insert manufacturer's name>.
2. Fixture:
 - a. Standard: ASME A112.19.1/CSA B45.2.
 - b. Type: For undercounter mounting.
 - c. Nominal Size: Oval, [24 by 18 inches (610 by 457 mm)] <Insert dimensions>.
 - d. Faucet-Hole Punching: No holes.
 - e. Faucet-Hole Location: On countertop.
 - f. Color: [White] <Insert color>.
 - g. Mounting Materials: Sealant and undercounter mounting kit.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.

2.2 VITREOUS-CHINA, COUNTER-MOUNTED LAVATORIES

- A. Lavatory - Self-Rimming, Rectangular, Vitreous China, Counter Mounted <Insert drawing designation>:
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Gerber Plumbing Fixtures LLC.
 - b. Kohler Co.
 - c. Mansfield Plumbing Products LLC.
 - d. TOTO USA, INC.
 - e. <Insert manufacturer's name>.

2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: Self-rimming for above-counter mounting.
 - c. Nominal Size: Rectangular, [21 by 19 inches (533 by 483 mm)] [24 by 20 inches (610 by 508 mm)] <Insert dimensions>.
 - d. Faucet-Hole Punching: [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers].
 - e. Faucet-Hole Location: Top.
 - f. Color: [White] <Insert color>.
 - g. Mounting Material: Sealant.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.

B. Lavatory - Self-Rimming, [Oval] [Round], Vitreous China, Counter Mounted <Insert drawing designation>:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Crane Plumbing, L.L.C.
 - b. FNW; Ferguson Enterprises, Inc.
 - c. Gerber Plumbing Fixtures LLC.
 - d. Kohler Co.
 - e. Mansfield Plumbing Products LLC.
 - f. Peerless Pottery Sales, Inc.
 - g. Sloan Valve Company.
 - h. TOTO USA, INC.
 - i. Zurn Industries, LLC.
 - j. <Insert manufacturer's name>.
2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: Self-rimming for above-counter mounting.
 - c. Nominal Size:
 - 1) Oval, [19 by 17 inches (483 by 432 mm)] [20 by 17 inches (508 by 432 mm)] <Insert dimensions>.
 - 2) Round, [19 inches (483 mm)] <Insert dimension>.
 - d. Faucet-Hole Punching: [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers].
 - e. Faucet-Hole Location: Top.
 - f. Color: [White] <Insert color>.
 - g. Mounting Material: Sealant.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.

C. Lavatory - Oval, Vitreous China, Undercounter Mounted <Insert drawing designation>:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Gerber Plumbing Fixtures LLC.
 - b. Kohler Co.
 - c. Mansfield Plumbing Products LLC.
 - d. Peerless Pottery Sales, Inc.
 - e. Sloan Valve Company.
 - f. TOTO USA, INC.
 - g. Zurn Industries, LLC.
 - h. <Insert manufacturer's name>.
2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: For undercounter mounting.
 - c. Nominal Size: Oval, [19 by 16 inches (483 by 406 mm)] [22 by 14 inches (559 by 356 mm)] [23 by 15 inches (584 by 381 mm)] <Insert dimensions>.
 - d. Faucet-Hole Punching: No holes.
 - e. Faucet-Hole Location: On countertop.
 - f. Color: [White] <Insert color>.
 - g. Mounting Material: Sealant and undercounter mounting kit.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.

2.3 ENAMELED, CAST-IRON, WALL-MOUNTED LAVATORIES

A. Lavatory - Enameled, Rectangular, Cast Iron, Wall Mounted <Insert drawing designation>:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Kohler Co.
 - b. Zurn Industries, LLC.
 - c. <Insert manufacturer's name>.
2. Fixture:
 - a. Standard: ASME A112.19.1/CSA B45.2.
 - b. Type: Straight-front apron with straight back.
 - c. Nominal Size: Rectangular, [19 by 17 inches (483 by 432 mm)] [20 by 18 inches (508 by 457 mm)].
 - d. Faucet-Hole Punching: [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers].
 - e. Faucet-Hole Location: Top.
 - f. Color: [White] <Insert color>.

- g. Mounting Material: Wall bracket.
- 3. Faucet: **<Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>**.
- 4. Support: **[Type III lavatory carrier].[Include rectangular, steel uprights] <Insert carrier>**.
- 5. Lavatory Mounting Height: **[Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1]**.

2.4 VITREOUS-CHINA, WALL-MOUNTED LAVATORIES

A. Lavatory - Rectangular, Vitreous China, Wall Mounted, with Back **<Insert drawing designation>**:

- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Briggs Plumbing Products, Inc.
 - b. Gerber Plumbing Fixtures LLC.
 - c. Kohler Co.
 - d. Mansfield Plumbing Products LLC.
 - e. Peerless Pottery Sales, Inc.
 - f. Sloan Valve Company.
 - g. Zurn Industries, LLC.
 - h. **<Insert manufacturer's name>**.
- 2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: For wall hanging.
 - c. Nominal Size: Rectangular, **[18 by 16 inches (457 by 406 mm)] [20 by 18 inches (508 by 457 mm)] <Insert dimensions>**.
 - d. Faucet-Hole Punching: **[One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers]**.
 - e. Faucet-Hole Location: Top.
 - f. Color: **[White] <Insert color>**.
 - g. Mounting Material: Chair carrier.
- 3. Faucet: **<Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>**.
- 4. Support: **[Type I, exposed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier with escutcheons].[Include rectangular, steel uprights]**.
- 5. Lavatory Mounting Height: **[Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1]**.

B. Lavatory - Ledge Back, Rectangular, Vitreous China, Wall Mounted **<Insert drawing designation>**:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Briggs Plumbing Products, Inc.
 - b. Gerber Plumbing Fixtures LLC.
 - c. Kohler Co.
 - d. Mansfield Plumbing Products LLC.
 - e. Peerless Pottery Sales, Inc.
 - f. Sloan Valve Company.
 - g. **<Insert manufacturer's name>**.
 2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: For wall hanging.
 - c. Nominal Size: Rectangular, [**19 by 17 inches (483 by 432 mm)**] [**20 by 18 inches (508 by 457 mm)**] **<Insert dimensions>**.
 - d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2-inch (51-mm) centers**] [**Three holes, 4-inch (102-mm) centers**].
 - e. Faucet-Hole Location: Top.
 - f. Color: [**White**] **<Insert color>**.
 - g. Mounting Material: Chair carrier.
 3. Faucet: **<Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>**.
 4. Support: [**Type I, exposed-arm lavatory carrier**] [**Type II, concealed-arm lavatory carrier**] [**Type II, concealed-arm lavatory carrier with escutcheons**]. [**Include rectangular, steel uprights**] **<Insert carrier>**.
 5. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].
- C. Lavatory - Wheelchair, Rectangular, Vitreous China, Wall Mounted **<Insert drawing designation>**:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Gerber Plumbing Fixtures LLC.
 - b. Kohler Co.
 - c. Mansfield Plumbing Products LLC.
 - d. Peerless Pottery Sales, Inc.
 - e. Sloan Valve Company.
 - f. Zurn Industries, LLC.
 - g. **<Insert manufacturer's name>**.
 2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: Slab or wheelchair.
 - c. Nominal Size: Rectangular, 27 by 20 inches (686 by 508 mm).

- d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2-inch (51-mm) centers**] [**Three holes, 4-inch (102-mm) centers**] [**Three holes, 5- to 6-inch (127- to 150-mm) centers**].
 - e. Faucet-Hole Location: Top.
 - f. Color: [**White**] <Insert color>.
 - g. Mounting: For concealed-arm carrier.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 4. Support: [**Type II, concealed-arm lavatory carrier**] [**Type II, concealed-arm lavatory carrier with escutcheons**]. [Include rectangular, steel uprights].
 5. Lavatory Mounting Height: [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].
- D. Lavatory - Corner Type, Vitreous China, Wall Mounted <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Sloan Valve Company.
 - b. <Insert manufacturer's name>.
 2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1.
 - b. Type: Three-sided-front apron with three-sided back.
 - c. Nominal Size: Corner, **16 by 16 inches (406 by 406 mm)**.
 - d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2-inch (51-mm) centers**].
 - e. Faucet-Hole Location: Back wall.
 - f. Color: [**White**] <Insert color>.
 - g. Mounting Materials: Wall brackets.
 3. Faucet: Manufacturer's standard; factory installed.
 4. Support: [**Type III lavatory carrier with two hanger plates made for corner lavatories**] [Include rectangular, steel uprights] <Insert carrier>.
 5. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].
- 2.5 POWDER-COATED, STAINLESS STEEL, LIGATURE-RESISTANT, WALL-MOUNTED LAVATORIES
- A. Lavatory, Ligature-Resistant, Wall-Mounted, Powder-Coated, Stainless Steel <Insert drawing designation>:
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model [**WH3740**] [**WH3740BAR**], or comparable product by one of the following:
 - a. Bradley Corporation.

- b. Willoughby Industries.
 - c. <Insert manufacturer's name>.
2. Fixture:
- a. Standard:
 - 1) ASME A112.19.3/CSA B45.4 for stainless steel receptor.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - b. Type: Wall hung, ligature-resistant, [**bariatric-rated**,]with integral basin, rear overflow, countertop, backsplash and ligature-resistant sidesplash on each side. Include trap enclosure to conceal piping connections.
 - c. Material:
 - 1) Lavatory Assembly: 16 gauge, Type 304 stainless steel.
 - 2) Trap Enclosure: 18 gauge, Type 304 stainless steel with access cover secured with vandal-resistant fasteners.
 - d. Finish: Powder-coated, white.
 - e. Bowl: D-shaped.
 - f. Overall Countertop Size: **19 by 21.5 inches (483 by 546 mm)**, with rounded front.
 - g. Faucet-Hole Punching: Three holes, **4-inch (102-mm)** centerset.
 - h. Faucet-Hole Location: Rear deck.
 - i. Drain: Ligature-resistant fitting and opening with **1-1/2-inch (38-mm)** O.D. P-trap.
3. Faucet: <Insert ligature-resistant lavatory faucet designation from "Automatically Operated Lavatory Faucets" or "Manually Operated Lavatory Faucets" Article>.
4. Height to Rim: [**Standard, in accordance with ICC A117.1**] [**Child**] <Insert height to rim>.
5. Mounting: [**Field-furnished, tamper-resistant, wall mounting fasteners**] [**Factory-furnished mounting carrier**] [**Factory-furnished bariatric mounting carrier**].
6. Accessories:
- a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.
- B. Lavatory - Powder-Coated, Stainless Steel, Ligature-Resistant, Corner Mounted, with Backsplash and Sidesplash <Insert drawing designation>:
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model [**WH3741L**] [**WH3741R**], or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. <Insert manufacturer's name>.

2. Fixture:
 - a. Standard:
 - 1) ASME A112.19.3/CSA B45.4 for stainless steel receptor.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - b. Type: Wall hung, corner-mounted, ligature-resistant, with integral basin, rear overflow, countertop, backsplash and ligature-resistant sidesplash on each side. Include trap enclosure to conceal piping connections.
 - c. Material:
 - 1) Lavatory Assembly: 16 gauge, Type 304 stainless steel.
 - 2) Trap Enclosure: 18 gauge, Type 304 stainless steel with access cover secured with vandal-resistant fasteners.
 - d. Finish: Powder-coated, white.
 - e. Bowl: D-shaped.
 - f. Overall Countertop Size: 29 by 21.75 inches (737 by 552 mm), with rounded front corner.
 - g. Faucet-Hole Punching: Three holes, 4-inch (102-mm) centerset.
 - h. Faucet-Hole Location: Rear deck.
 - i. Drain: Fitting with grid strainer and 1-1/2-inch (38-mm) O.D. P-trap.
3. Faucet: <Insert ligature-resistant lavatory faucet designation from "Automatically Operated Lavatory Faucets" or "Manually Operated Lavatory Faucets" Article>.
4. Height to Rim: [Standard, in accordance with ICC A117.1] [Child] <Insert height to rim>.
5. Mounting: [Field-furnished, tamper-resistant, wall mounting fasteners] [Factory-furnished mounting carrier] [Factory-furnished bariatric mounting carrier].
6. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: 30 to 125 psig (207 to 862 kPa).
 - 2) Field Adjustable Temperature: Set to 105 deg F (41 deg C).

2.6 SOLID SURFACE, WALL-MOUNTED, LIGATURE-RESISTANT LAVATORIES WITH INTEGRAL BASINS

- A. Lavatory - Solid Surface, Wall-Mounted, Ligature-Resistant, with Integral D-Shaped Basin <Insert drawing designation>:
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model WH3775;<Insert drawing designation for product> or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.

- c. **<Insert manufacturer's name>**.
 2. Basin and Countertop:
 - a. Standard:
 - 1) ANSI Z124.3 and ANSI Z124.6.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - b. Certifications: GREENGUARD by Underwriters Laboratories or other accredited testing laboratory.
 - c. Type: Solid-surface, wall-mounted, ligature-resistant lavatory with integral backsplash and sidesplashes on both sides. Include trap enclosure to conceal piping connections.
 - d. Basin: D-shaped.
 - e. Overall Countertop Size: [**20.13 by 21.75 inches (511 by 552 mm)**] **<Insert dimension>**, with round front.
 - f. Faucet-Hole Punching: Three holes, **4-inch (102-mm)** centerset.
 - g. Faucet-Hole Location: Top.
 - h. Drain Type: Ligature-resistant fitting and opening with **1-1/2-inch (38-mm)** O.D. P-trap.
 - i. Color: [**White, matte**] **<Insert color from basis-of-design manufacturer's standard selections>**.
 3. Bottom Enclosure: 18-gauge, Type 304 stainless steel, white powder coat finish. Provide access opening secured with vandal-resistant fasteners.
 4. Faucet: **<Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>**.
 5. Height to Rim: [**Standard, in accordance with ICC A117.1**] [**Child**] **<Insert height to rim>**.
 6. Mounting: [**Field-furnished, tamper-resistant, wall mounting fasteners**] [**Factory-furnished mounting carrier**].
 7. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.
- B. Lavatory - Solid Surface, Wall-Mounted, Ligature-Resistant, Corner-Mounted, with Integral D-Shaped Basin **<Insert drawing designation>**:
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model [**WH3776L**] [**WH3776R**], or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. **<Insert manufacturer's name>**.

2. Basin and Countertop:
 - a. Standard:
 - 1) ANSI Z124.3 and ANSI Z124.6.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - b. Certifications: GREENGUARD by Underwriters Laboratories or other accredited testing laboratory.
 - c. Type: Solid-surface, corner-mounted, ligature-resistant lavatory with integral backsplash and sidesplashes on both sides. Include trap enclosure to conceal piping connections.
 - d. Basin: D-shaped.
 - e. Overall Countertop Size: **29 by 21.75 inches (737 by 552 mm)**, with rounded front.
 - f. Faucet-Hole Punching: Three holes, **4-inch (102-mm)** centerset.
 - g. Faucet-Hole Location: Top.
 - h. Drain Type: Ligature-resistant fitting and opening with **1-1/2-inch (38-mm)** O.D. P-trap.
 - i. Color: **[White, matte]** <Insert color from basis-of-design manufacturer's standard selections>.
 3. Bottom Enclosure: 18-gauge, Type 304 stainless steel, white powder coat finish. Provide access opening secured with vandal-resistant fasteners.
 4. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 5. Height to Rim: **[Standard, in accordance with ICC A117.1]** **[Child]** <Insert height to rim>.
 6. Mounting: **[Field-furnished, tamper-resistant, wall mounting fasteners]** **[Factory-furnished mounting carrier]**.
 7. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.
- C. Lavatory - Solid Surface, Wall-Mounted, Ligature-Resistant, Offset Vanity, with Integral D-Shaped Basin <Insert drawing designation>:
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model **[WH3778L]** **[WH3778R]**, or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. <Insert manufacturer's name>.
 2. Basin and Countertop:
 - a. Standard:

- 1) ANSI Z124.3 and ANSI Z124.6.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - b. Certifications: GREENGUARD by Underwriters Laboratories or other accredited testing laboratory.
 - c. Type: Solid-surface, wall-mounted, ligature-resistant, offset lavatory counter with integral backsplash and sidesplashes on both sides. Include trap enclosure to conceal piping connections.
 - d. Basin: D-shaped.
 - e. Overall Countertop Size: **29 by 21.75 inches (737 by 552 mm)**, with rounded front.
 - f. Faucet-Hole Punching: Three holes, **4-inch (102-mm)** centerset.
 - g. Faucet-Hole Location: Top.
 - h. Drain Type: Ligature-resistant fitting and opening with **1-1/2-inch (38-mm)** O.D. P-trap.
 - i. Color: **[White, matte]** <Insert color from basis-of-design manufacturer's standard selections>.
3. Bottom Enclosure: 18-gauge, Type 304 stainless steel, white powder coat finish. Provide access opening secured with vandal-resistant fasteners.
 4. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 5. Height to Rim: **[Standard, in accordance with ICC A117.1]** **[Child]** <Insert height to rim>.
 6. Mounting: **[Field-furnished, tamper-resistant, wall mounting fasteners]** **[Factory-furnished mounting carrier]**.
 7. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.
- D. Lavatory - Solid Surface, Wall-Mounted, Ligature-Resistant, Bariatric, with Integral D-Shaped Basin <Insert drawing designation>:
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model WHD-BSN, or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. <Insert manufacturer's name>.
 2. Basin and Countertop:
 - a. Standard:
 - 1) ANSI Z124.3 and ANSI Z124.6.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.

- b. Certifications: GREENGUARD by Underwriters Laboratories or other accredited testing laboratory.
 - c. Type: Solid-surface, wall-mounted, ligature-resistant, bariatric lavatory counter with integral backsplash and sidesplashes on both sides. Include trap enclosure to conceal piping connections.
 - d. Basin: D-shaped.
 - e. Overall Countertop Size: **24 by 20 inches (610 by 508 mm)**, with rounded front.
 - f. Faucet-Hole Punching: Three holes, **4-inch (102-mm)** centerset.
 - g. Faucet-Hole Location: Top.
 - h. Drain Type: Ligature-resistant fitting and opening with **1-1/2-inch (38-mm)** O.D. P-trap.
 - i. Color: **[White, gloss]** <Insert color from basis-of-design manufacturer's standard selections>.
- 3. Bottom Enclosure: 18-gauge, Type 304 stainless steel, white powder coat finish.
 - 4. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 - 5. Height to Rim: **[Standard, in accordance with ICC A117.1]** **[Child]** <Insert height to rim>.
 - 6. Mounting: **[Field-furnished, tamper-resistant, wall mounting fasteners]** **[Factory-furnished mounting carrier for bariatric applications]**.
 - 7. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.

2.7 PRECAST GFRC, WALL-MOUNTED LAVATORIES WITH INTEGRAL BASIN(S)

- A. Lavatory - Precast GFRC, Wall-Mounted, Rectangular Countertop Deck with Integral Ramp Basin(s) <Insert drawing designation>:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
 - 2. Basin(s) and Countertop:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Number of Stations: **[One]** **[Two]** **[Three]** **[Four]**.
 - d. Overall Countertop Size (per Station): **[30 by 21 by 5 inches (762 by 533 by 127 mm)]** <Insert dimension>.
 - e. Basin I.D.: **[20 by 13 by 5 inches (508 by 330 by 127 mm)]** **[18 by 12 by 5 inches (457 by 305 by 127 mm)]** **[14 by 10 by 5 inches (356 by 254 by 127 mm)]**.

- f. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, **2-inch (51-mm) centers**] [Three holes, **4-inch (102-mm) centers**] <Insert hole pattern>.
 - g. Faucet-Hole Location: [Top] [Wall mount].
 - h. Drain Type: Slot drain.
 - i. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - j. Mounting: Concrete wall brackets.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Connection: **1-1/4-inch (32-mm)** fine thread tailpiece.
 - c. Finish: [Polished chrome] [Brushed nickel] [Oil-rubbed bronze].
 5. Support: Manufacturer's standard product.
 6. Lavatory Mounting Height: [Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].
- B. Lavatory - Precast GFRC, Wall-Mounted, Rectangular Countertop Deck with Integral Rectangular Basin(s) <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
 2. Basin(s) and Countertop:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Number of Stations: [One] [Two] [Three] [Four].
 - d. Overall Countertop Size (per Station): [**30 by 21 by 5 inches (762 by 533 by 127 mm)**] <Insert dimension>.
 - e. Basin I.D.: **20 by 13 by 5 inches (508 by 330 by 127 mm)**.
 - f. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, **2-inch (51-mm) centers**] [Three holes, **4-inch (102-mm) centers**] <Insert hole pattern>.
 - g. Faucet-Hole Location: [Top] [Wall mount].
 - h. Drain Type: **1-1/4-inch (32-mm)** grid drain assembly.
 - i. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - j. Mounting: Concrete wall brackets.
 3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 4. Waste Fittings:

- a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: **1-1/4-inch (32-mm)** grid drain assembly.
 - c. Finish: [**Polished chrome**] [**Brushed nickel**] [**Oil-rubbed bronze**].
5. Support: Manufacturer's standard product.
 6. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].
- C. Lavatory - Precast GFRC, Wall-Mounted, Rectangular Countertop Deck with Integral Half-Trough Basin(s) <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
 2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Number of Stations: [**One**] [**Two**] [**Three**] [**Four**].
 - d. Overall Countertop Size (per station): [**30 by 21 by 5 inches (762 by 533 by 127 mm)**] <Insert dimension>.
 - e. Basin I.D.: [**20 by 13 by 5-1/2 inches (508 by 330 by 140 mm)**] [**16 by 14 by 5-1/2 inches (406 by 356 by 140 mm)**].
 - f. Faucet-Hole Punching (per Station): [**Zero holes**] [**One hole**] [**Three holes, 2-inch (51-mm) centers**] [**Three holes, 4-inch (102-mm) centers**] <Insert hole pattern>.
 - g. Faucet-Hole Location: [**Top**] [**Wall mount**].
 - h. Drain Type: **1-1/4-inch (32-mm)** grid drain assembly.
 - i. Color: [**White linen**] [**Concrete**] [**Charcoal**] [**Limestone**] [**Graphite**] [**Pewter**] [**Dusk**] [**Taupe**] <Insert color>.
 - j. Mounting: Concrete wall brackets.
 3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: **1-1/4-inch (32-mm)** grid drain assembly.
 - c. Finish: [**Polished chrome**] [**Brushed nickel**] [**Oil-rubbed bronze**].
 5. Support: Manufacturer's standard product.
 6. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].

2.8 PRECAST GFRC, WALL-MOUNTED, SINGLE-BASIN, MULTI-STATION LAVATORY

A. Lavatory - Precast GFRC, Two-Station, Wall-Mounted, Rectangular Countertop Deck with Single Integral Ramp Basin <Insert drawing designation>:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Overall Countertop Size: [60 by 21 by 5 inches (1525 by 533 by 127 mm)] [72 by 21 by 5 inches (1829 by 533 by 127 mm)] <Insert dimension>.
 - d. Basin I.D.: [48 by 13 by 5 inches (1219 by 330 by 127 mm)] [50 by 12 by 5 inches (1270 by 305 by 127 mm)] [50 by 13 by 5 inches (1270 by 330 by 127 mm)] [60 by 13 by 5 inches (1524 by 330 by 127 mm)].
 - e. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers] <Insert hole pattern>.
 - f. Faucet-Hole Location: [Top] [Wall mount].
 - g. Drain Type: Slot drain.
 - h. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - i. Mounting Material: Concrete wall brackets.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: 1-1/2-inch (38-mm) slip joint connection.
 - c. Finish: [Polished chrome] [Brushed nickel] [Oil-rubbed bronze].
5. Support: Manufacturer's standard product.
6. Lavatory Mounting Height: [Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].

B. Lavatory - Precast GFRC, Three-Station, Wall-Mounted, Rectangular Countertop Deck with a Single Integral Ramp Basin <Insert drawing designation>:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.

2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Overall Countertop Size: [72 by 21 by 5 inches (1829 by 533 by 127 mm)] [90 by 21 by 5 inches (2286 by 533 by 127 mm)] <Insert dimension>.
 - d. Basin I.D.: [60 by 13 by 5 inches (1524 by 330 by 127 mm)] [72 by 13 by 5 inches (1829 by 330 by 127 mm)] [80 by 12 by 5 inches (2032 by 305 by 127 mm)] [84 by 12 by 5 inches (2134 by 305 by 127 mm)].
 - e. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers] <Insert hole pattern>.
 - f. Faucet-Hole Location: [Top] [Wall mount].
 - g. Drain Type: Slot drain.
 - h. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - i. Mounting Material: Concrete wall brackets.
 3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: 1-1/2-inch (38-mm) slip joint connection.
 - c. Finish: [Polished chrome] [Brushed nickel] [Oil-rubbed bronze].
 5. Support: Manufacturer's standard product.
 6. Lavatory Mounting Height: [Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].
- C. Lavatory - Precast GFRC, Four-Station, Wall-Mounted, Rectangular Countertop Deck with Single Integral Ramp Basin <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
 2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Overall Countertop Size: [106 by 21 by 5 inches (2692 by 533 by 127 mm)] [120 by 21 by 5 inches (3048 by 533 by 127 mm)] <Insert dimension>.
 - d. Basin I.D.: [96 by 12 by 5 inches (2438 by 305 by 127 mm)] [110 by 12 by 5 inches (2794 by 305 by 127 mm)].
 - e. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers] <Insert hole pattern>.

- f. Faucet-Hole Location: [Top] [Wall mount].
 - g. Drain Type: Slot drain.
 - h. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - i. Mounting Material: Concrete wall brackets.
- 3. Faucet: <Insert lavatory faucet designation from "Manually Operated Faucets" or "Automatically Operated Lavatory Faucets" Article>.
 - 4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: 1-1/2-inch (38-mm) slip joint connection.
 - c. Finish: [Polished chrome] [Brushed nickel] [Oil-rubbed bronze].
 - 5. Support: Manufacturer's standard product.
 - 6. Lavatory Mounting Height: [Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].

2.9 PRECAST GFRC, FREESTANDING LAVATORIES, MULTI-STATION

- A. Lavatory - Precast GFRC, Two-Station, Freestanding, Rectangular Countertop Deck with Integral Ramp Basin <Insert drawing designation>:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
 - 2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Overall Countertop Size: [68 by 22 by 5 inches (1727 by 559 by 127 mm)] <Insert dimension>.
 - d. Basin I.D.: [48 by 13 by 5 inches (1219 by 330 by 127 mm)] [50 by 12 by 5 inches (1270 by 305 by 127 mm)] [50 by 13 by 5 inches (1270 by 330 by 127 mm)] [60 by 13 by 5 inches (1524 by 330 by 127 mm)].
 - e. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers] <Insert hole pattern>.
 - f. Faucet-Hole Location: [Top] [Wall mount].
 - g. Drain Type: Slot drain.
 - h. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - i. Mounting Material: Concrete sink steel base.
 - 3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.

4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: **1-1/2-inch (38-mm)** slip joint connection.
 - c. Finish: [**Polished chrome**] [**Brushed nickel**] [**Oil-rubbed bronze**].
 5. Support: Concrete sink steel base.
 6. Lavatory Height: Handicapped/elderly in accordance with ICC A117.1.
- B. Lavatory - Precast GFRC, Three-Station, Freestanding, Rectangular Countertop Deck with Integral Ramp Basin **<Insert drawing designation>**:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. **<Insert manufacturer's name>**.
 2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Overall Countertop Size: [**72 by 22 by 5 inches (1829 by 559 by 127 mm)**] [**84 by 22 by 5 inches (2134 by 559 by 127 mm)**] [**98 by 22 by 5 inches (2489 by 559 by 127 mm)**] **<Insert dimension>**.
 - d. Basin I.D.: [**60 by 13 by 5 inches (1524 by 330 by 127 mm)**] [**72 by 13 by 5 inches (1829 by 330 by 127 mm)**] [**80 by 12 by 5 inches (2032 by 305 by 127 mm)**] [**84 by 12 by 5 inches (2134 by 305 by 127 mm)**].
 - e. Faucet-Hole Punching (per Station): [**Zero holes**] [**One hole**] [**Three holes, 2-inch (51-mm) centers**] [**Three holes, 4-inch (102-mm) centers**] **<Insert hole pattern>**.
 - f. Faucet-Hole Location: [**Top**] [**Wall mount**].
 - g. Drain Type: Slot drain.
 - h. Color: [**White linen**] [**Concrete**] [**Charcoal**] [**Limestone**] [**Graphite**] [**Pewter**] [**Dusk**] [**Taupe**] **<Insert color>**.
 - i. Mounting Material: Concrete sink steel base.
 3. Faucet: **<Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>**.
 4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: **1-1/2-inch (38-mm)** slip joint connection.
 - c. Finish: [**Polished chrome**] [**Brushed nickel**] [**Oil-rubbed bronze**].
 5. Support: Manufacturer's concrete sink steel base.
 6. Lavatory Height: Handicapped/elderly in accordance with ICC A117.1.
- C. Lavatory - Precast GFRC, Four-Station, Freestanding, Rectangular Countertop Deck with Integral Ramp Basin **<Insert drawing designation>**:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Trueform Concrete, LLC.
 - b. <Insert manufacturer's name>.
2. Fixture:
 - a. Standard: CSA B45.8/IAPMO Z403 and ICC A117.1.
 - b. Type: Straight front and side aprons with straight back.
 - c. Overall Countertop Size: [107 by 22 by 5 inches (2718 by 559 by 127 mm)] [128 by 22 by 5 inches (3251 by 559 by 127 mm)] <Insert dimension>.
 - d. Basin I.D.: [96 by 12 by 5 inches (2438 by 305 by 127 mm)] [110 by 12 by 5 inches (2794 by 305 by 127 mm)].
 - e. Faucet-Hole Punching (per Station): [Zero holes] [One hole] [Three holes, 2-inch (51-mm) centers] [Three holes, 4-inch (102-mm) centers] <Insert hole pattern>.
 - f. Faucet-Hole Location: [Top] [Wall mount].
 - g. Drain Type: Slot drain.
 - h. Color: [White linen] [Concrete] [Charcoal] [Limestone] [Graphite] [Pewter] [Dusk] [Taupe] <Insert color>.
 - i. Mounting Material: Concrete sink steel base.
3. Faucet: <Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>.
4. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Type: 1-1/2-inch (38-mm) slip joint connection.
 - c. Finish: [Polished chrome] [Brushed nickel] [Oil-rubbed bronze].
5. Support: Manufacturer's concrete sink steel base.
6. Lavatory Height: Handicapped/elderly in accordance with ICC A117.1.

2.10 LAVATORY SYSTEMS

- A. Lavatory System - Alcove Wall-Mounted, Single or Multiple Stations, Solid Surface, Ligature-Resistant, with Integral Basin <Insert drawing designation>:
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing, BestCare model [WH3821] [WH3822] [WH3823] [WH3824], or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. <Insert manufacturer's name>.
 2. Basin and Countertop:

- a. Standard:
 - 1) ANSI Z124.3 and ANSI Z124.6.
 - 2) ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - b. Certifications: GREENGUARD by Underwriters Laboratories or other accredited testing laboratory.
 - c. Type: Solid-surface, ligature-resistant, alcove wall-mounted lavatory with backsplash and sidesplashes on both sides. Include trap enclosure to conceal piping connections.
 - d. Number of Stations: **[One] [Two] [Three] [Four]**.
 - e. Overall Countertop Size: **<Insert dimensions>**.
 - 1) Submit dimensional layout of mounting alcove location, based on field measurements.
 - f. Basin Shape: **[D-shaped, 14.75 by 13.38 by 4 in. (375 by 340 by 102 mm)] [Sloped, 17 by 14 by 4 in. (432 by 356 by 102 mm)] [Square, 14 by 14 by 4 in. (356 by 102 mm)] [Rectangular, 17 by 14 by 4 in. (432 by 356 by 102 mm)]**.
 - g. Faucet-Hole Punching: **[Single hole] [Three holes, 4-inch (102-mm) centerset] [Three holes, 8-inch (203-mm) centerset]**.
 - h. Faucet-Hole Location: Top.
 - i. Backsplash: **[Left side, right side, rear] <Insert required splash locations>**.
 - j. Color: **[White, matte] <Insert color from basis-of-design manufacturer's standard selections>**.
 - k. Drain Type:
 - 1) Standard: ASME A112.18.2/CSA B125.2.
 - 2) Drain: Ligature-resistant fitting and opening.
 - 3) Waste: **1-1/2-inch (38-mm) O.D. [plastic] [brass] P-trap for [each individual wash station] [single combined outlet for all wash stations in fixture]**.
3. Bottom Enclosure: 18-gauge, Type 304 stainless steel, **[No. 4, satin] [white, powder coat]** finish, and solid surface inserts of **<Insert color from basis-of-design manufacturer's standard selection>**, secured with vandal-resistant fasteners.
 4. Faucet: **<Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article>**.
 5. Height to Rim: **[Standard, in accordance with ICC A117.1] [Child] <Insert height to rim>**.
 6. Mounting: Field-furnished, tamper-resistant, wall mounting fasteners.
 7. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.

2.11 MANUALLY OPERATED LAVATORY FAUCETS

- A. Lavatory faucets intended to convey or dispense water for human consumption are to comply with the U.S. Safe Drinking Water Act (SDWA), with requirements of the Authority Having Jurisdiction (AHJ), and with NSF 61/NSF 372, or be certified in compliance with NSF 61/NSF 372 by an American National Standards Institute (ANSI) accredited third-party certification body, that the weighted average lead content at wetted surfaces is less than or equal to 0.25 percent.
- B. Lavatory Faucets - Manual Type: [**Single-Control Mixing**] [**Single-Control Nonmixing**] [**Two-Handle Mixing**], [**Commercial**] [**General Duty**], <Insert drawing designation>:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. CHG; Component Hardware Group, Inc.
 - b. Chicago Faucets; Geberit Company.
 - c. Delta Faucet Company.
 - d. Elkay.
 - e. Gerber Plumbing Fixtures LLC.
 - f. GROHE America, Inc.
 - g. Just Manufacturing.
 - h. Kohler Co.
 - i. Moen Incorporated.
 - j. Speakman Company.
 - k. T&S Brass and Bronze Works, Inc.
 - l. Zurn Industries, LLC.
 - m. <Insert manufacturer's name>.
 2. Standard: ASME A112.18.1/CSA B125.1.
 3. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and fixture receptor.
 4. Body Type: [**Centerset**] [**Widespread**] [**Single hole**] <Insert type>.
 5. Body Material: Commercial, solid-brass, or die-cast housing with brazed copper and brass waterway.
 6. Finish: [**Polished chrome plate**] <Insert finish>.
 7. Maximum Flow Rate: [**0.5 gpm (1.5 L/min.)**] <Insert value>.
 8. Maximum Flow: [**0.25 gal. (0.95 L)**] <Insert value> per metering cycle.
 9. Mounting Type: [**Deck, exposed**] [**Deck, concealed**] [**Back/wall, exposed**] [**Back/wall, concealed**].
 10. Valve Handle(s): [**Single lever**] [**Knob**] [**Knob, nonmetallic**] [**Cross, three arm**] [**Cross, four arm**] [**Wrist blade, 4 inches (102 mm)**] [**Elbow, 6 inches (150 mm)**] [**Push button**] <Insert type>.
 11. Spout: [**Rigid**] [**Swing**] [**Rigid, gooseneck**] [**Swivel, gooseneck**] type.
 12. Spout Outlet: [**Aerator**] [**Laminar flow**] [**Spray**] <Insert type>.
 13. Operation: [**Compression, manual**] [**Noncompression, manual**].
 14. Drain: [**Not part of faucet**] <Insert type>.

2.12 AUTOMATICALLY OPERATED LAVATORY FAUCETS

- A. Lavatory faucets intended to convey or dispense water for human consumption are to comply with the U.S. Safe Drinking Water Act (SDWA), requirements of the Authority Having Jurisdiction (AHJ), and with NSF 61/NSF 372, or be certified in compliance with NSF 61/NSF 372 by an American National Standards Institute (ANSI) accredited third-party certification body, that the weighted average lead content at wetted surfaces is less than or equal to 0.25 percent.
- B. Lavatory Faucets - Automatic Type, Ligature-Resistant, Electronic Sensor-Operated: **[Battery-Powered]** **[Electric-Powered]**, **[Single-Temperature]** **[Dual-Temperature]** **[Obround Baseplate]** **[Widespread Baseplate]**, **<Insert drawing designation>**:
1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International model **[WH3375-SO]** **[WH3375-SO-BAT]** **[WH3375-HC-SO]** **[WH3375-HC-SO-BAT]** **[WH3376-WSF-SO]** **[WH3376-WSF-SO-BAT]**; **<Insert drawing designation for product >** or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. **<Insert manufacturer's name>**.
 2. Standards:
 - a. ASME A112.18.1/CSA B125.1 and UL 1951.
 - b. ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 3. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 4. General: Dual-temperature; include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punching; coordinate outlet with spout and fixture receptor.
 5. Faucet, **4-inch (102-mm)** Centerset:
 - a. Deck Punching Type: Three holes for **4-inch (102-mm)** centerset.
 - b. Body Material: Commercial, solid-brass.
 - c. Finish: Polished chrome plate.
 - d. Spout: Integrated into ligature-resistant body shape.
 - e. Spout Outlet: Multi-stream, non-aerated.
 - f. Sensor: Infrared, 9 V dc, with 20-second maximum run-time feature.
 - g. Maximum Flow Rate: **0.5 gpm (1.9 L/min.)**.
 - h. Mounting Type: Deck, concealed.
 6. Faucet, **[6-inch (153-mm)]** **[8-inch (204-mm)]** Centerset:
 - a. Deck Punching Type: Three holes for **[6-inch (152-mm)]** **[8-inch (205-mm)]** centerset.
 - b. Body Material: Stainless steel.

- c. Spout: Ligature-resistant, stainless steel, deck mount, conical body type.
 - d. Spout Outlet: Multi-stream, non-aerated.
 - e. Finish: Polished, mirror finish.
 - f. Sensor: Infrared, 9 V dc, with 20-second maximum run-time feature.
 - g. Supply Type: Single temperature.
 - h. Trim: Widespread.
 - i. Maximum Flow Rate: **0.35 gpm (1.3 L/min.)**.
 - j. Mounting Type: Deck, concealed.
- 7. Control Valve: 9 V dc latching solenoid valve assembly, complete with check stop, strainer, wall mounting plate, and 1/2 NPS flex hose connector(s).
 - 8. Control Valve Power Supply: 9 V dc, with **[plug-in transformer] [box for 6 type AA dry cells]**.
 - 9. Accessories:
 - a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.
 - 10. Spout Outlet: **[Aerator] [Laminar flow] [Spray] <Insert type>**.
 - 11. Drain: **[Not part of faucet] <Insert type>**.
 - 12. Power Supply: 9 V dc, with **[plug-in transformer] [box for 6 type AA dry cells]**.
- C. Lavatory Faucets - Manual Type, Ligature-Resistant: **[Pneumatic] [Piezoelectric] Push Buttons, [Single-Temperature] [Dual-Temperature] [Obround Baseplate] [Widespread Baseplate] <Insert drawing designation>**:
- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Whitehall Manufacturing; Morris Group International model **[WH3376] [WH3376-8IN] [WH3376-PPZ] [WH3376-PPZ-8IN] [WH3376-WSF] [WH3376-WSF-PPZ] [WH3377] [WH3377-8IN] [WH3377-PPZ] [WH3377-PPZ-8IN] [WH3377-WSF] [WH3377-WSF-PPZ] [WH3378-HC] [WH3378-HC-PPZ]**; **<Insert drawing designation for product >** or comparable product by one of the following:
 - a. Bradley Corporation.
 - b. Willoughby Industries.
 - c. **<Insert manufacturer's name>**.
 - 2. Standards:
 - a. ASME A112.18.1/CSA B125.1 and UL 1951.
 - b. ICC A117.1, CSA B651, ADA Standard for Accessible Design.
 - 3. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - 4. General: Coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and fixture receptor.
 - 5. Faucet, **4-inch (102-mm) Centerset**:

- a. Deck Punching Type: Three holes for **4-inch (102-mm)** centerset.
 - b. Body Material: Commercial, solid brass.
 - c. Finish: Polished chrome plate.
 - d. Spout: Integrated into ligature-resistant body shape.
 - e. Spout Outlet: Multi-stream, non-aerated.
 - f. Maximum Flow Rate: **0.5 gpm (1.9 L/min.)**.
 - g. Push Buttons: Hemispherical [**Pneumatic, with adjustable timing from zero to 60 seconds**] [**Piezoelectric, with programmable timing from zero to 100 seconds**].
 - h. Supply Type: Dual temperature.
 - i. Mounting Type: Deck, concealed.
6. Faucet, [**4-inch (102-mm)**] [**6-inch (153-mm)**] [**8-inch (204-mm)**] Centerset:
- a. Deck Punching Type: Three holes for [**4-inch (102-mm)**] [**6-inch (152-mm)**] [**8-inch (205-mm)**] centerset.
 - b. Body Material: Stainless steel.
 - c. Spout: Ligature-resistant, stainless steel, deck mount, conical body type.
 - d. Spout Outlet: Multi-stream, non-aerated.
 - e. Finish: Polished, mirror finish.
 - f. Push Buttons: Hemispherical, [**pneumatic, with adjustable timing from 0 to 60 seconds**] [**piezoelectric, with programmable timing from 0 to 100 seconds**].
 - g. Supply Type: [**Single**] [**Dual**] temperature.
 - h. Trim: [**Obround base plate, Type 304 stainless steel**] [**Widespread push button(s)**].
 - i. Maximum Flow Rate: **0.35 gpm (1.3 L/min.)**.
 - j. Mounting Type: Deck, concealed.
7. Control Valve: 9 V dc latching solenoid valve assembly, complete with check stop, strainer, wall mounting plate, and 1/2 NPS flex hose connector(s).
8. Control Valve Power Supply: 9 V dc, with [**plug-in transformer**] [**box for 6 type AA dry cells**].
9. Drain: Provide field-installed drain.
10. Body Type: [**Two holes on 4-inch (102-mm) centers.**] [**Two holes on 8-inch (205-mm) centers.**] [**Three holes on 3-inch (76-mm) centers.**] [**Three holes on 4-inch (102-mm) centers.**] <Insert type>.
11. Body Material: Commercial, solid-brass, or die-cast housing with brazed copper and brass waterway.
12. Finish: [**Polished chrome plate**] <Insert finish>.
13. Maximum Flow Rate: [**0.5 gpm (1.5 L/min.)**] <Insert value>.
14. Mounting Type: Deck.
15. Spout: Ligature-resistant, rigid type.
16. Accessories:
- a. Mixing Valve: ASSE 1070-compliant, temperature balanced valve.
 - 1) Supply Pressure: **30 to 125 psig (207 to 862 kPa)**.
 - 2) Field Adjustable Temperature: Set to **105 deg F (41 deg C)**.

17. Spout Outlet: [Aerator] [Laminar flow] [Spray] <Insert type>.
18. Drain: [Not part of faucet] <Insert type>.
19. Power Supply: 9 V dc, with [plug-in transformer] [box for 6 type AA dry cells].

2.13 SUPPLY FITTINGS

- A. NSF Standard: Comply with NSF 61 and NSF 372 for supply-fitting materials that will be in contact with potable water.
- B. Standard: ASME A112.18.1/CSA B125.1.
- C. Supply Piping: Chrome-plated-brass pipe or chrome-plated copper tube matching water-supply piping size. Include chrome-plated-brass or stainless steel wall flange.
- D. Supply Stops: Chrome-plated-brass, one-quarter-turn, ball-type or compression valve with inlet connection matching supply piping.
- E. Operation: [Loose key] [Wheel handle] <Insert type>.
- F. Risers:
 1. [NPS 3/8 (DN 10)] [NPS 1/2 (DN 15)].
 2. [Chrome-plated, rigid-copper-pipe and brass straight or offset tailpieces] [Chrome-plated, soft-copper flexible tube] [ASME A112.18.6/CSA B125.6, braided- or corrugated-stainless steel, flexible hose] riser.

2.14 WASTE FITTINGS

- A. Standard: ASME A112.18.2/CSA B125.2.
- B. Drain: Grid type with NPS 1-1/4 (DN 32) offset and straight tailpiece.
- C. Trap:
 1. Size: [NPS 1-1/2 by NPS 1-1/4 (DN 40 by DN 32)] [NPS 1-1/4 (DN 32)].
 2. Material:
 - a. Chrome-plated, [two-piece, cast-brass trap and swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall] [two-piece, cast-brass trap and ground-joint swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall] [one-piece, cast-brass trap with swivel 0.029-inch- (73-mm-) thick tubular brass wall bend] <Insert trap type>; and chrome-plated, brass or steel wall flange.
 - b. Stainless steel, two-piece trap and swivel elbow with 0.012-inch- (0.30-mm-) thick stainless steel tube to wall, and stainless steel wall flange.

2.15 LAVATORY SUPPORTS

- A. Lavatory Carrier:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Jay R. Smith Mfg Co; a division of Morris Group International.
 - b. Josam Company.
 - c. MIFAB, Inc.
 - d. Wade; a subsidiary of McWane Inc.
 - e. WATTS.
 - f. Zurn Industries, LLC.
 - g. <Insert manufacturer's name>.
2. Standard: ASME A112.6.1M.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine roughing-in of water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before lavatory installation.
- B. Examine counters and walls for suitable conditions where lavatories will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install lavatories level and plumb in accordance with roughing-in drawings.
- B. Install supports, affixed to building substrate, for wall-mounted lavatories.
- C. Install accessible wall-mounted lavatories at handicapped/elderly mounting height for people with disabilities or the elderly, in accordance with ICC A117.1.
- D. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons if required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
- E. Seal joints between lavatories, counters, and walls using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color. Comply with sealant requirements specified in Section 079200 "Joint Sealants."
- F. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible lavatories. Comply with requirements in Section 220719 "Plumbing Piping Insulation."

3.3 PIPING CONNECTIONS

- A. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
- B. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
- C. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."

3.4 ELECTRICAL CONNECTIONS

- A. Connect wiring in accordance with Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- B. Ground equipment in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."
- C. Install electrical devices furnished by manufacturer, but not factory mounted in accordance with NFPA 70 and NECA 1.
- D. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.
 - 1. Nameplate to be laminated acrylic or melamine plastic signs, as specified in Section 260553 "Identification for Electrical Systems."
 - 2. Nameplate to be laminated acrylic or melamine plastic signs with a black background and engraved white letters at least [1/2 inch (13 mm)] <Insert dimension> high.

3.5 ADJUSTING

- A. Operate and adjust lavatories and controls. Replace damaged and malfunctioning lavatories, fittings, and controls.
- B. Install new batteries in battery-powered, electronic-sensor mechanisms.

3.6 CLEANING AND PROTECTION

- A. After completing installation of lavatories, inspect and repair damaged finishes.
- B. Clean lavatories, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
- C. Provide protective covering for installed lavatories and fittings.
- D. Do not allow use of lavatories for temporary facilities unless approved in writing by Owner.

END OF SECTION 224216.13