

SECTION 224100
PLUMBING FIXTURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Provisions Specification Sections, apply to this Section.
- B. Plumbing Code of New York State applies to this section.
- C. Item 599.0618NNWE Control House Plumbing.

1.02 SUMMARY

- A. Section Includes:
 - 1. Lavatories.
 - 2. Faucets
 - 3. Water closets.

1.03 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. Shop Drawings: Include diagrams for power, signal, and control wiring.

1.04 INFORMATIONAL SUBMITTALS

- A. Manufacturer's Warranty

1.05 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For plumbing fixtures and faucets to include in operation and maintenance manuals.

1.06 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 1 of each type and size installed.
 - 2. Faucet Cartridges and O-Rings: Equal to 1 of each type and size installed.
 - 3. Toilet Seats: Equal to 1 of each type installed.

1.07 WARRANTY

- A. Provide Manufacturer's standard warranty and agree to repair or replace components that fail in materials or workmanship within specified warranty period.

PART 2 - PRODUCTS

2.01 LAVATORIES

- A. Lavatory:
 - 1. Enameled Cast Iron Wall-Mount Lavatory:
 - a. Basis-of-Design Product: Subject to compliance with requirements, provide American Standard Regalyn Wall-Mount Lavatory or comparable product by one of the following Manufacturers subject to compliance with requirements:
 - 1) American Standard America
 - 2) Eljer, Inc.
 - 3) Kohler Co.
 - 4) TOTO USA, INC.
 - 5) Or approved equal.
 - b. Standard: ASME A112.19.2/CSA B45.1 for vitreous-china lavatories.
 - c. Rectangular Nominal Size 20 by 18 inches (508 by 457 mm).
 - d. Faucet-Hole Punching: Faucet holes on 4" centers.
 - e. Color: White.
 - 2. Faucet: Comply with the requirements in "Lavatory Faucets" Article.
 - 3. Supply Fittings: Comply with requirements in "Supply Fittings" Article.
 - 4. Waste Fittings: Comply with requirements in "Waste Fittings" Article.

2.02 LAVATORY FAUCETS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet materials that will be in contact with potable water.
- B. Lavatory Faucets : Two-handle mixing valve.
 - 1. General-Duty, Copper- or Brass-Underbody Faucets:
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - b. Basis-of-Design Product: Subject to compliance with requirements, provide American Standard Monterrey 7500 or comparable product by one of the following:
 - 1) American Standard America.
 - 2) Delta Faucet Company.
 - 3) Eljer, Inc.
 - 4) Moen Incorporated.
 - 5) Or approved equal.
 - 2. Standard: ASME A112.18.1/CSA B125.1.
 - 3. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.
 - 4. Body Material: General-duty, copper or brass underbody with brass cover plate.
 - 5. Finish: Polished chrome plate.
 - 6. Maximum Flow Rate: 1.5 gpm (5.7 L/min.).

7. Centers: 4 inches
8. Mounting: Deck, exposed.
9. Valve Handle(s): Wrist blade, 6 inches
10. Inlet(s): NPS 3/8 (DN 10) tubing
11. Spout: Rigid/Swivel, gooseneck.
12. Spout Outlet: Aerator
13. Drain: Grid.

2.03 WATER CLOSETS

- A. Water Closets : Two piece round toilet system, vitreous china.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 2. Basis-of-Design Product: Subject to compliance with requirements, provide Saniflush 083 Two-Piece Round Toilet System with 005 Toilet Tank or comparable product by one of the following:
 - a. Saniflo SFA
 - b. American Standard America.
 - c. Eljer, Inc.
 - d. Kohler Co.
 - e. TOTO USA, INC.
 - f. Zurn Industries, LLC; Commercial Brass and Fixtures.
 - g. Or approved equal.
 3. Bowl:
 - a. Standards: ASME A112.19.2/CSA B45.1 and ASME A112.19.5.
 - b. Material: Vitreous china.
 - c. Type: Close-Couple Toilet
 - d. Height: 16 3/4" (without seat).
 - e. Rim Contour: Elongated.
 - f. Water Consumption: 1.28 gal. (4.8 L)
 - g. Water spot: 4 1/2" x 3 3/4"
 4. Tank:
 - a. Material: Vitreous china.
 5. Toilet Seat: Includes soft-close toilet set with mounting hardware
 6. Supply Fittings:
 - a. Standard: ASME A112.18.1/CSA B125.1.
 - b. Supply Piping: Chrome-plated-brass pipe or chrome-plated-copper tube matching water-supply piping size. Include chrome-plated wall flange.
 - c. Stop: Chrome-plated-brass, one-quarter-turn, ball-type or compression stop with inlet connection matching water-supply piping type and size.

2.04 SUPPLY FITTINGS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet materials that will be in contact with potable water.
- B. Standard: ASME A112.18.1/CSA B125.1.
- C. Kitchenette Faucet and Lavatory Supply Fittings:

1. Supply Piping: Chrome-plated-brass pipe or chrome-plated-copper tube matching water-supply piping size. Include chrome-plated wall flange.
2. Stops: Chrome-plated-brass, one-quarter-turn, ball-type or compression stop with inlet connection matching water-supply piping type and size.
 - a. Operation: Wheel handle.
3. Risers:
 - a. Size: NPS 3/8 (DN 10) for lavatories.
 - b. Material: Chrome-plated, soft-copper flexible tube riser.

2.05 WASTE FITTINGS

- A. Standard: ASME A112.18.2/CSA B125.2.
- B. Drain: Grid type with NPS 1-1/4 (DN 32) offset tailpiece for accessible lavatories.
- C. Trap:
 1. Size: NPS 1-1/4 (DN 32).
 2. Material: Chrome-plated, two-piece, cast-brass trap and swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall; and chrome-plated-brass or -steel wall flange.

2.06 GROUT

- A. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- B. Characteristics: Nonshrink; recommended for interior and exterior applications.
- C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.01 EXAMINATION

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

3.02 INSTALLATION

- A. Install plumbing fixtures level and plumb according to roughing-in drawings.
- B. Install floor-mounted water closets on closet flange attachments to drainage piping.

- C. Install counter-mounting fixtures in and attached to casework.
- D. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation.
 - 1. Exception: Use ball, gate, or globe valves if supply stops are not specified with fixture.
- E. Install toilet seats on water closets.
- F. Install faucet flow-control fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
- G. Install traps on fixture outlets.
 - 1. Exception: Omit trap on fixtures with integral traps.
- H. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons if required to conceal protruding fittings
- I. Seal joints between plumbing fixtures, counters, floors, and walls using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color.

3.03 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.

3.04 ADJUSTING

- A. Operate and adjust plumbing fixtures and controls. Replace damaged and malfunctioning fixtures, fittings, and controls.
- B. Adjust water pressure at faucets to produce proper flow.

3.05 CLEANING AND PROTECTION

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

END OF SECTION