

SECTION 224000
PLUMBING FIXTURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Water closets.
- B. Urinals.
- C. Lavatories.
- D. Sinks.
- E. Service sinks.
- F. Electric water coolers.
- G. Drinking fountains.
- H. Showers.
- I. Bathtubs.
- J. Wash fountains.
- K. Eyewash fountains.
- L. Emergency showers.
- M. Floor drains.
- N. Roof drains.
- O. Wall hydrants.

1.2 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Division 01- Summary of Work: Owner furnished fixtures.
- B. Division 01- Food Services Equipment: Supply of kitchen fixtures for placement by this Section.

1.3 RELATED SECTIONS

- A. Division 06 - Custom Casework: Preparation of counters for sinks.
- B. Division 06 - Custom Casework: Lavatory tops.
- C. Division 07 - Joint Sealers: Seal fixtures to walls and floors.
- D. Division 11 - Food Services Equipment.
- E. Division 11 - Laboratory Equipment.

- F. Section 22 05 19 - Plumbing Specialties.
- G. Section 22 05 29 - Supports and Anchors for Plumbing Systems.
- H. Section 22 11 16 - Plumbing Piping.
- I. Section 22 34 36 - Plumbing Equipment.

1.4 REFERENCES

- A. ANSI/ASME A112.6.1 - Supports for Off-the-Floor Plumbing Fixtures for Public Use.
- B. ASME A112.18.1 - Finished and Rough Brass Plumbing Fixture Fittings.
- C. ANSI/ASME A112.19.1 - Enameled Cast Iron Plumbing Fixtures.
- D. ANSI/ASME A112.19.2 - Vitreous China Plumbing Fixtures.
- E. ANSI/ASME A112.19.3 - Stainless Steel Plumbing Fixtures (Designed for Residential Use).
- F. ANSI/ASME A112.19.4 - Porcelain Enameled Formed Steel Plumbing Fixtures.
- G. ANSI/ASME A112.19.5 - Trim for Water-Closet Bowls, Tanks, and Urinals (Dimensional Standards).
- H. IAPMO/ANSI Z124.1 - Plastic Bathtub Units.
- I. IAPMO/ANSI Z124.2 - Plastic Shower Receptors and Shower Stalls.
- J. ANSI Z358.1 - Emergency Eyewash and Shower Equipment.
- K. ANSI/ARI 1010 - Drinking-Fountains and Self-Contained, Mechanically-Refrigerated Drinking-Water Coolers.

1.5 SUBMITTALS

- A. Submit under the provisions of Division 01.
- B. Product Data: Provide catalogue illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
- C. Manufacturer's Installation Instructions: Indicate assembly and support requirements.

1.6 OPERATION AND MAINTENANCE DATA

- A. Submit under the provisions of Division 01.
- B. Maintenance Data: Include fixture trim exploded view and replacement parts lists.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 22 05 00.
- B. Accept fixtures on site in factory packaging. Inspect for damage.

- C. Protect installed fixtures from damage by securing areas and by leaving factory packaging in place to protect fixtures and prevent use.

1.8 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.
- B. Confirm that millwork is constructed with adequate provision for the installation of countertop lavatories and sinks.

PART 2 PRODUCTS

2.1 MANUFACTURERS OFFERING EQUIVALENT PRODUCTS

- A. Water Closets:
 - 1. Kohler.
 - 2. Zurn.
 - 3. American Standard.
 - 4. Toto.
- B. Water Closet Seats:
 - 1. Church.
 - 2. Olsonite.
 - 3. Beneke.
 - 4. Bemis.
 - 5. Centoco.
 - 6. Zurn.
 - 7. Toto.
- C. Urinals:
 - 1. Kohler.
 - 2. Zurn.
 - 3. American Standard.
 - 4. Toto.
- D. Flush Valves:
 - 1. Sloan Royal XL.
 - 2. Zurn Aqua-Vantage AV.
- E. Lavatories:
 - 1. Kohler.
 - 2. Zurn.
 - 3. American Standard.
 - 4. Toto.
- F. Lavatory Faucets:
 - 1. Symmons.
 - 2. Zurn.
 - 3. Elkay.
 - 4. American Standard.
 - 5. Kohler.
- G. Stainless Steel Sinks:
 - 1. Elkay.
 - 2. Just.

- H. Sink Faucets:
 - 1. Symmons.
 - 2. Zurn.
 - 3. Elkay.
 - 4. American Standard.
 - 5. Chicago Faucet.
 - 6. T&S Brass.
- I. Lavatory and Sink P-trap and Stop Valves:
 - 1. McGuire.
 - 2. Engineered Brass Company.
 - 3. Zurn.
- J. Handicap Lavatory or Sink P-trap/Supplies Pre-Molded Insulation:
 - 1. Truebro.
 - 2. Pro Wrap.
- K. Janitor Sink:
 - 1. Stern Williams.
 - 2. Fiat.
- L. Tub/Shower Units:
 - 1. Aqua-Glass.
 - 2. Aqua-Bath.
 - 3. Aquarius.
- M. Shower Valves:
 - 1. Symmons.
 - 2. Leonard "Pam II" Series.
- N. Drinking Fountains:
 - 1. Sunroc.
 - 2. Oasis.
 - 3. Elkay.
 - 4. Halsey Taylor.
 - 5. Acorn/Aqua.
- O. Floor Drains or Wall Hydrants:
 - 1. J.R. Smith.
 - 2. Zurn.
 - 3. Josam.
 - 4. Wade.
 - 5. Sioux Chief.
 - 6. MiFab.
 - 7. Watts.
- P. Trap Primer Valves:
 - 1. Precision Plumbing Products.
 - 2. MiFab.
 - 3. Sioux Chief.

2.2 SEE PLUMBING FIXTURE SCHEDULE

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that walls and floor finishes are prepared and ready for installation of fixtures.
- B. Verify that electric power is available and of the correct characteristics.

3.2 PREPARATION

- A. Rough-in fixture piping connections in accordance with minimum sizes indicated in fixture rough-in schedule for particular fixtures.

3.3 INSTALLATION

- A. Install in accordance with the manufacturer's instructions.
- B. Install each fixture with trap, easily removable for servicing and cleaning.
- C. Provide chrome plated rigid or flexible supplies to fixtures with loose key stops, reducers, and escutcheons.
- D. Install components level and plumb.
- E. Install and secure fixtures in place with wall supports, wall carriers and bolts.
- F. Seal fixtures to wall and floor surfaces with sealant as specified in Division 07, color to match fixture.
- G. Solidly attach water closets to floor with lag screws.
- H. Provide pre-molded insulation on P-trap and exposed water piping for lavatories and sinks designated for handicapped use. Coordinate location of handicapped lavatories with architectural plans.
- I. Install plumbing connections to kitchen equipment as shown on the plumbing drawings and on kitchen equipment supplier drawings including providing of piping, valves, fittings, etc. not provided by kitchen equipment supplier. Reference Division 11.

3.4 INTERFACE WITH OTHER PRODUCTS

- A. Review millwork shop drawings. Confirm location and size of fixtures and openings before rough-in and installation.

3.5 ADJUSTING

- A. Adjust work under the provisions of Division 01.
- B. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

3.6 CLEANING

- A. Clean work under the provisions of Division 01.
- B. At completion clean plumbing fixtures and equipment.

3.7 PROTECTION OF FINISHED WORK

- A. Protect finished Work under the provisions of Division 01.
- B. Do not permit use of fixtures.

END OF SECTION