SECTION 22 40 00

PLUMBING SPECIALTIES

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Zurn Industries LLC; Engineered Water Solutions.  
This section is based on the products of Zurn Industries LLC, which is located at:  
511 W. Freshwater Way  
Milwaukee, WI 53204  
Toll Free Tel: 855-663-9876  
Email: [request info (zurn-info@zurn.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Zurn+Industries+LLC&coid=50102&rep=&fax=&message=RE:%20Spec%20Question%20(15410zur):%20%20&mf=)  
Web: <http://www.zurn.com>   
  
 [ [Click Here](https://www.arcat.com/arcatcos/cos50/arc50102.html) ] for additional information.  
  
Zurn Engineered Water Solutions is a recognized leader in commercial, municipal, and industrial markets. Zurn manufactures the largest breadth of engineered water solutions in the industry, including a wide spectrum of sustainable plumbing products.  
Zurn delivers total building solutions for new construction and retrofit applications that enhance any building's environment.  
Knowledge - Technically competent factory field team and rep network.  
Reliability - innovative, value-add designs are focused on the end user and installer to provide ease of installation and low life-cycle costs.  
Serviceability - with over 50 distribution centers across the U.S. and in all major markets, you can count on getting product when you need it!  
Accountability and Service - One company to provide a total building solution for drainage and point-of-use water control products.  
Plumbing fixtures listed in this specification may fall under jurisdiction of the Federal Reduction of Lead in Drinking Water Act (42 USC 300G). Effective January 4, 2014: Wetted surfaces of valves, fittings or fixtures contacting potable water must have a weighted-average lead content of no more than 0.25 percent. The specifier should be aware of requirements by authorities having jurisdiction and specify lead free products when necessary. For additional information online: [www.zurn.com/leadfree](http://www.zurn.com/leadfree).

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Commercial Lavatories.
    2. Commercial Service Basins.
    3. Commercial Service Sinks.
    4. Clinic Sinks.
    5. Plaster Interceptors.
    6. Scrub Sinks.
    7. Commercial, Vitreous-China Water Closets.
    8. Residential Water Closets.
    9. Toilet Seats.
    10. Commercial Urinals.
    11. Waterless Urinals.
    12. Commercial Showers.
    13. Commercial Lavatory Faucets.
    14. Sink Faucets.
    15. Commercial and Residential Shower Faucets.
    16. Bedpan Washers.
    17. Faucet Supply Fittings.
    18. Sink and Lavatory Waste Fittings.
    19. Urinal Flushometer Valves.
    20. Water Closet Flushometer Valves.
    21. Water Closet Waste Carriers.
    22. Support Fixtures.
  1. RELATED SECTIONS:

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 23 05 00 - Common Work Results for HVAC.
    2. Section 22 10 00 - Plumbing Piping.
    3. Section 22 14 26.13 - Roof Drains.
    4. Section - .
    5. Section 40 10 00 - Gas and Vapor Process Piping.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American Society of Mechanical Engineers (ASME):
       1. ASME A112.6.1M - Supports for Off-the-Floor Plumbing Fixtures for Public Use.
       2. ASME A112.6.7 Sanitary Floor Sinks
       3. ASME A112.18.1/CSA B125.1 - Plumbing Supply Fittings.
       4. ASME A112.18.2/CSA B125.2 - Plumbing Waste Fittings.
       5. ASME A112.18.6/CSA B125.6 - Flexible Water Connectors.
       6. ASME A112.19.1/CSA B45.2 - Enameled Cast Iron and Enameled Steel Plumbing Fixtures.
       7. ASME A112.19.2/CSA B45.1 - Vitreous China Plumbing Fixtures and Hydraulic Requirements for Water Closets and Urinals.
       8. ASME A112.19.3/CSA B45.4 - Stainless Steel Plumbing Fixtures (Designed for Residential Use).
       9. ASME A112.19.5 / CSA B45.15 - Flush Valves and Spuds for Water Closets, Urinals, and Tanks.
       10. ASTM A1045 Standard Specification for Flexible Poly (Vinyl Chloride) (PVC) Gaskets used in Connection of Vitreous China Plumbing Fixtures to Sanitary Drainage Systems.
       11. ASME A112.4.3. - Plastic Fittings for Connecting Water Closets to the Sanitary Drainage System.
       12. ASME B1.20.1 - Pipe Threads, General Purpose, Inch.
    2. American Society of Safety Engineers (ASSE):
       1. ASSE 1016 / ASME A112.1016 / CSA 125.16- Performance Requirements for Automatic Compensating Valves for Individual Showers and Tub/Showers Combinations.
       2. ASSE 1037/ASME A112.1037/CSA B125.37 - Performance Requirements for Pressurized Flushing Devices for Plumbing Fixtures.
    3. ASTM International (ASTM):
       1. ASTM A1045 Standard Specification for Flexible Poly (Vinyl Chloride) (PVC) Gaskets used in Connection of Vitreous China Plumbing Fixtures to Sanitary Drainage Systems.
    4. International Code Counsel:
       1. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
    5. National Science Foundation:
       1. NSF 61 - Drinking Water System Components - Health Effects.
    6. Safe Drinking Water Act:
       1. Section 1417(d) of the Safe Drinking Water Act
    7. Plumbing and Drainage Institute:
       1. PDI-WH 201 - Water Hammer Arresters.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Each fixture type.
        1. Include dimensions, finishes, construction information, capacities, operation instructions and accessories.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph if equipment does not include wiring.

* + - 1. Control, signal and power wiring diagrams.
    1. Maintenance data for all products.
       1. Repair kit information for all fixtures.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications:
        1. Minimum 5 years manufacturing similar products.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph below if the Contractor is not to be responsible for the design of fire-suppression standpipes.

* + 1. Installer Qualifications:
       1. Minimum 2 years installing similar products.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if the Contractor is not required to be responsible for the engineering design.

* + - 1. Installer's responsibilities:
         1. Design, fabrication, and installation for fixtures and connections.
         2. Professional engineering services to assume engineering responsibility.

Working plans.

Calculations.

Field test report.

* + 1. Regulatory Compliance Requirements:
       1. Utility company supplying the water.
          1. Tapping of water mains.
          2. Backflow prevention.
       2. Authorities having jurisdiction: Materials, installation, and testing.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
        1. Protect internal parts, valve ends, and specialties against corrosion, dirt, and damage.
        2. Store valves set in closed position.
        3. Storage:
           1. Indoors: Higher than ambient dew point temperature.
           2. Outdoors: Watertight enclosures off ground.
     2. Handling: Comply with manufacturer's recommendations. Avoid damaging components.
        1. Large Valves: Operating handles or stems are not rigging points for slings.

\*\* NOTE TO SPECIFIER \*\* Delete article below if interruption of water distribution is not necessary.

* 1. PROJECT CONDITIONS
     1. Interruption of Fire-Suppression Water-Service Piping:
        1. Arrange temporary water-distribution service.
        2. Notify Owner or Owner's representative no fewer than two business days in advance of proposed interruption of service.
           1. Proceed upon written permission.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Zurn Industries LLC, which is located at: 511 W. Freshwater Way; Milwaukee, WI 53204; Toll Free Tel: 855-663-9876; Email: [request info (zurn-info@zurn.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Zurn+Industries+LLC&coid=50102&rep=&fax=&message=RE:%20Spec%20Question%20(15410zur):%20%20&mf=); Web: <http://www.zurn.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
  1. COMMERCIAL LAVATORIES
     1. Enameled, Cast Iron Counter Mounted Lavatory: Oval, self-rimming.
        1. Basis-of-Design Zurn Industries, LLC;
           1. Model Z5810 Series.
           2. Model Z5820 Series.
           3. Nominal Size:

Oval, 20 by 17 inches (508 by 432 mm).

Oval, 22 by 18 inches (559 by 457 mm).

Round, 19 inches (483 mm).

* + 1. Vitreous China Counter Mounted Lavatory: Oval or round, self-rimming.
       1. Basis-of-Design Zurn Industries, LLC;
          1. Model Z5110 Series.
          2. Model Z5120 Series.
          3. Nominal Size:

Oval, 20 by 17 inches (508 by 432 mm).

Round, 19 inches (483 mm).

* + 1. Vitreous China Undercounter Mounted Lavatory: Oval.
       1. Basis-of-Design Zurn Industries, LLC;
          1. Model Z5220.
       2. Nominal Size: Oval.
          1. 19 by 16 inches (483 by 406 mm).
    2. Enameled, Cast Iron Wall Mounted Lavatory: Rectangular.
       1. Basis-of-Design: Zurn Industries, LLC;
       2. Model Z5830 Series.
       3. Model Z5840 Series.
       4. Nominal Size: Rectangular.
          1. 19 by 17 inches (483 by 432 mm).
          2. 20 by 18 inches (508 by 457 mm).
    3. Vitreous China Wall-Mounted Lavatory:
       1. Basis-of-Design: Zurn Industries, LLC; With Back
          1. Model Z5340 Series.
          2. Model Z5360 Series:
       2. Basis-of-Design: Zurn Industries, LLC; With Ledge Back.
          1. Model Z5340 Series.
          2. Model Z5360 Series.
       3. Basis-of-Design: Zurn Industries, LLC; Slab Type:
          1. Model Z5310 Series
       4. Basis-of-Design: Zurn Industries, LLC; Wheelchair.
          1. Model Z5320 Series.
          2. Nominal Size: Rectangular.

19 by 16 inches (483 by 406 mm).

20 by 18 inches (381 by 457 mm).

23 by 20 inches (584 by 381 mm).

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - 1. Lavatory Attributes:
         1. Standard: ASME A112.19.2/CSA B45.1.
         2. Faucet-Hole Punching:

One hole.

Three holes, 4-inch (102-mm) centers.

Three holes, 8-inch (203-mm) centers.

* + - * 1. Faucet-Hole Location:

Top.

\*\*NOTE TO SPECIFIER\*\* Use subparagraph below for undercounter mounting

On Countertop.

* + - * 1. Color: White.
        2. Mounting Material:

Sealant.

Undercounter mounting kit.

Wall bracket.

Chair Carrier (wheelchair accessible).

\*\*NOTE TO SPECIFIER\*\* Coordinate chosen support options with specification data in the "Support Fixtures" Article. See product data for full range of features for each product.

* + - * 1. Support Fixture: ASME A112.6.1M, Type II, lavatory carrier.

Include rectangular, steel uprights.

Basis-of-Design: Zurn Industries, LLC;

Model Z1231.

Model Z1231-EZ.

Model Z1231-EZR.

\*\*NOTE TO SPECIFIER\*\* Insert faucet designation from "Commercial Lavatory Faucets" Article.

* + - * 1. Faucet: \_\_\_\_\_\_.
    1. Security Vitreous-China Wall Mounted Lavatories:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5310 Series.
          2. Model Z5320 Series.

\*\*NOTE TO SPECIFIER\*\* Models Z5340, Z5350, and Z5360 Series must be mounted with support fixture model Z1224, Type III.

* + - * 1. Model Z5340 Series.
        2. Model Z5350 Series.
        3. Model Z5360 Series.
      1. Lavatory Attributes:
         1. Standard: ASME A112.19.2/CSA B45.1.
         2. Material: Vitreous china.
         3. Bowl: Oval or rectangular bowl, soap depression, and wall bracket.
         4. Supply Valves: Factory-installed push-button, self-closing, chrome-plated brass faucets; Hot- and Cold-Water.
         5. Drain: Grid with NPS 1-1/2 (DN 40) tailpiece.
      2. Waste Fittings: ASME A112.18.2/CSA B125.2.
         1. Trap NPS 1-1/4 (DN 32) minimum waste.

\*\*NOTE TO SPECIFIER\*\* Coordinate chosen support options with specification data in the "Support Fixtures" Article. See product data for full range of features for each product.

* + - 1. Support Fixture: ASME A112.6.1M, Type II lavatory carrier.
         1. Basis-of Design Product: Zurn Industries LLC;

Model Z1231.

Model Z1231-EZ.

Model Z1231-EZR.

* + - 1. Support Fixture: ASME A112.6.1M, Type III lavatory carrier.
         1. Basis-of Design Product: Zurn; Model Z1224.
  1. COMMERCIAL SERVICE BASINS
     1. Service Basin: Plastic, floor mounted.
        1. Basis-of-Design: Zurn Industries, LLC;
           1. Model Z1996-24.
           2. Model Z1996-36.

\*\*NOTE TO SPECIFIER\*\* Coordinate faucet options with specification data in the "Commercial Lavatory Faucet" Article. See product data for full range of features for each product. Recommended faucet features are integral shank stops, vacuum breaker, hose outlet, and pail hook.

* + - * 1. Faucet:

Model Z812-XL-TWM.

Model Z871-XL-TWM.

Model Z841-XL Series.

Model Z842-XL Series.

Model Z843-XL Series.

* + - 1. Mounting: On floor and flush to wall.
      2. Service Basin Attributes:
         1. Standard: CSA B45.5/IAPMO Z124.
         2. Material: Cast polymer.
         3. Nominal Size:

24 by 24 by 10 inches (610 by 915 mm by 255 mm).

36 by 24 by 10 inches (915 by 915 by 255 mm).

\*\*NOTE TO SPECIFIER\*\* In subparagraph below, verify availability, and indicate side(s).

* + - * 1. Tiling Flange:

On one side.

On two sides.

On three sides.

\*\*NOTE TO SPECIFIER\*\* Indicate front dimension on rectangular basins if rim guard is to be only on front side.

* + - * 1. Rim Guard: On top surfaces.

Front.

All.

* + - * 1. Color: \_\_\_\_\_\_.
        2. Drain: With Grid

NPS 2 (DN 50).

NPS 3 (DN 80).

* 1. COMMERCIAL SERVICE SINKS
     1. Service Sink with Back: Enameled, cast iron, trap standard mounted
        1. Basis-of-Design: Zurn Industries, LLC;
           1. Model Z5880 Series.
           2. Model Z5890 Series.

\*\*NOTE TO SPECIFIER\*\* Though no Zurn products are available for the product type listed below the Zurn faucets mentioned in the attributes portion of the specification may still be used on this product type.

* + 1. Service Sink with Back: Vitreous china, trap standard mounted.
       1. Basis-of-Design: Zurn Industries, LLC; None.
    2. Service Sink with Front Apron and raised Back: Enameled, cast iron, floor mounted.
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5850 Series.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - * 1. Service Sink Attributes:

\*\*NOTE TO SPECIFIER\*\* Coordinate faucet options with specification data in the "Commercial Lavatory Faucet" or "Sink Faucets" Article. See product data for full range of features for each product. Recommended faucet features are integral shank stops, vacuum breaker, hose-thread outlet, and pail hook is recommended.

* + - * 1. Faucet: Zurn.

Model Z812-XL-TWM.

Model Z871-XL-TWM.

Model Z841-XL Series.

Model Z842-XL Series.

Model Z843-XL Series.

\*\*NOTE TO SPECIFIER\*\* Not required for floor mounted sinks.

* + - * 1. Fixture:

Standard: ASME A112.19.1/CSA B45.2.

Back:

Two faucet holes.

\*\*NOTE TO SPECIFIER\*\* Specify a wall-mounted faucet and wall brace if choosing the subparagraph below.

Plain.

* + - * 1. Nominal Size:

22 by 18 inches (560 by 457 mm).

24 by 20 inches (610 by 508 mm).

28 by 28 inches

* + - * 1. Color: White.
        2. Mounting: P-trap standard with grid strainer inlet, cleanout, and floor flange.

NPS 2 (DN 50).

NPS 3 (DN 80).

* + - * 1. Rim Guard: On front and sides.
  1. CLINIC SINKS
     1. Vitreous-china, flushing-rim, Wall-Mounted Clinic Sinks:
        1. Basis-of-Design: Zurn Industries, LLC; Model Z5410 Series.
           1. Outlet: Back.
           2. Blowout type.
           3. Nominal Size: 22 by 19 inches (559 by 483 mm).
     2. Vitreous-china, flushing-rim, Floor-Mounted Clinic Sinks:
        1. Basis-of-Design: Zurn Industries, LLC; Model Z5420.
           1. Outlet: Bottom.

NPS 4 (DN 100).

NPS 3 (DN 80).

* + - * 1. Siphon-jet type.
        2. Nominal Size: 27 by 20 inches (685 by 510 mm).

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - 1. Clinic Sink Attributes:
         1. Standard: ASME A112.19.2/CSA B45.1.
         2. Color: White.
         3. Rim Guard: Stainless steel, on front.
      2. Flushometer Valve: Zurn Industries LLC;
         1. Model Z6017AV.
         2. Model Z60842AV.

\*\*NOTE TO SPECIFIER\*\* Delete subparagraph below if not required.

* + - * 1. Faucet: Zurn; Model Z842-XL.
        2. Supply Fittings: Zurn, Model Z8808-XL.

\*\*NOTE TO SPECIFIER\*\* Applies to floor-mounted sink.

* + - * 1. Sink Base Height: 10 inches (254 mm).
        2. Support: ASME A112.61M, Type IV, carrier model Z1229.

\*\*NOTE TO SPECIFIER\*\* Accessory to Plaster Sinks.

* 1. SOLIDS INTERCEPTORS
     1. Basis-of-Design: Zurn Industries, LLC;
        1. Model Z1180, round.
        2. Model Z1181, square.
        3. Removable cover: Cast-iron or steel body.
           1. Acid-resistant-enameled coating interior and exterior.
           2. Metal Screen or strainer: Removable, corrosion-resistant metal.

Inlet and outlet:

NPS 1-1/2 (DN 40).

NPS 2 (DN 50).

* 1. SCRUB SINKS
     1. Vitreous China, Wall-Mounted, Scrub Sinks:
        1. Basis-of-Design: Zurn Industries, LLC; Model Z5460 Series.
        2. Standard: ASME A112.19.2/CSA B45.1.
        3. Nominal Size: Back ledge, single faucet hole.
           1. 28 by 22 inches (710 by 560 mm).
        4. Color: White.
        5. Drain: Grid, NPS 1-1/2 (DN 40).

\*\*NOTE TO SPECIFIER\*\* Coordinate "Faucet" Subparagraph below with "Sink Faucets" Article.

* + - 1. Faucet: Zurn, Model \_\_\_\_\_\_.

\*\*NOTE TO SPECIFIER\*\* Coordinate "Supply Fittings" Subparagraph below with "Faucet Supply Fittings" Article.

* + - 1. Supply Fittings: Zurn, Model \_\_\_\_\_\_.

\*\*NOTE TO SPECIFIER\*\* Coordinate "Waste Fittings" Subparagraph below with "Sink and Lavatory Waste Fittings" Article.

* + - 1. Waste Fittings: Zurn, Model \_\_\_\_\_\_.
      2. Support: ASME A112.6.1M, Type III sink carrier, model Z1224.
  1. COMMERCIAL, VITREOUS-CHINA WATER CLOSETS

\*\*NOTE TO SPECIFIER\*\* Add "-WS1" to model numbers in options below to designate flush volume of 1.6 gal (6 L) per flush.   
\*\*NOTE TO SPECIFIER\*\* Add "-HET" to designate 1.28 gal (4.8 L) per flush.  
\*\*NOTE TO SPECIFIER\*\* Coordinate Flushometers below with specification data in the "Water Closet Flushometer Valve" Article. See product data for full range of features for each product.  
\*\*NOTE TO SPECIFIER\*\* Coordinate "Waste Fixtures" below with specification data in the "Water Closet Waste Carriers" Article. See product data for full range of features for each product.

* + 1. Commercial: Floor-Mounted, Bottom-outlet, Top Spud:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5655-BWL Standard Height.
          2. Model Z5665-BWL ADA Height.
          3. Model Z5654-BWL Standard Height with a 14 inch (356 mm) rough in.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10 year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
    2. Commercial: Floor-Mounted, Bottom-Outlet, Child's:
       1. Basis-of-Design: Zurn Industries, LLC; Model Z5675-BWL.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10-year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
    3. Commercial: Wall-Mounted, Top Spud, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC; Model Z5615-BWL.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10-year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
    4. Commercial: Floor-Mounted, Back Outlet, Top Spud:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5630-BWL.
          2. Model Z5635-BWL.
          3. Model Z5640-BWL.
          4. Model Z5645-BWL.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10-year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
          8. Support:

Model Z1203-94.

Model Z1204-94.

\*\*NOTE TO SPECIFIER\*\* Though no Zurn products are available for the product type listed below the Zurn products mentioned with the product type and in the attributes portion of the specification may still be used on this product type.

* + 1. Commercial: Wall-Mounted, Blowout, Back Spud, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC; None.
       2. Flushometer Valve:
          1. Model Z6000AV.
          2. Model ZTR6200.
          3. Model ZER6000AV-CPM.
          4. Model ZTR6200EV-LL.
          5. Model ZEMS6000AV.
          6. Model ZEMS6000AV-IS.
       3. Support; Standard Adjustable Blowout Style Water Closet Carriers:
          1. Horizontal Waste Fitting:

Model Z1203-N.

Model Z1203-N-XH.

Model Z1203-N-XB.

* + - * 1. Vertical Waste Fitting:

Model Z1204-N.

Model Z1204-N-XH.

Model Z1204-N-XB.

\*\*NOTE TO SPECIFIER\*\* Though no Zurn products are available for the product type listed below the Zurn products mentioned with the product type and in the attributes portion of the specification may still be used on this product type.

* + 1. Commercial: Wall-Mounted, Blowout, Top Spud, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC; None.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model ZER6000AV-CPM Battery Powered Diaphragm.
          3. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          4. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
       3. Support; Standard Adjustable Blowout Style Water Closet Carriers:
          1. Horizontal Waste Fitting:

Model Z1203-N.

Model Z1203-N-XH.

Model Z1203-N-XB.

* + - * 1. Vertical Waste Fitting:

Model Z1204-N.

Model Z1204-N-XH.

Model Z1204-N-XB.

* + 1. Healthcare: Floor-Mounted, Bottom Outlet, top or Back Spud. Accessible:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5656-BWL Standard height.
          2. Model Z5666-BWL Ada Height.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10-year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
    2. Healthcare: Floor-Mounted, Back Outlet, Back or Top Spud, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5636-BWL.
          2. Model Z5646-BWL.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10-year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
       3. Support Waste Carriers:
          1. Model Z1203-94.
          2. Model Z1204-94.
    3. Healthcare: Wall-Mounted, Top or Back Spud, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC; Z5616-BWL.
       2. Flushometer Valve:
          1. Model Z6000AV Manual.
          2. Model Z6200 Manual Piston.
          3. Model ZTR6200 Battery Powered Solenoid Sensor.
          4. Model ZER6000AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6200EV-LL 10 year battery powered piston operated, solenoid activated.
          6. Model ZEMS6000AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6000AV-IS is hardwired diaphragm side mounted sensor.
       3. Support: High Performance, Adjustable Siphon Jet Water Closet Carriers:
          1. Horizontal Waste Fitting:

Model Z1201-NL3.

Model Z1201-NR3.

Model Z1201-ND3.

Model Z1201-NL4.

Model Z1201-NR4.

Model Z1201-ND4.

Model Z1201-HL4.

Model Z1201-HR4.

Model Z1201-HD4.

* + - * 1. Vertical Waste Fitting:

Model Z1202-N4.

Model Z1202-ND4.

Model Z1202-H4.

Model Z1202-HD4.

Model Z1202-1NL4.

Model Z1202-1NR4.

Model Z1202-1ND4.

Model Z1202-2N4.

Model Z1202-2ND4.

Model Z1202-1HL4.

Model Z1202-1HR4.

Model Z1202-1HD4.

* + 1. Commercial: Floor-Mounted, Bottom Outlet, Back Spud:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5657-BWL Standard height.
          2. Model Z5667-BWL ADA Height.
       2. Flushometer Valve:
          1. Model Z6152AV Manual.
          2. Model ZER6152AV Battery Powered Diaphragm.
          3. Model ZEMS6152AV hardwired diaphragm in wall sensor.
    2. Commercial: Wall-Mounted, Back Spud, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC; Z5617-BWL.
       2. Flushometer Valve:
          1. Model Z6152AV Manual.
          2. Model ZER6152AV Battery Powered Diaphragm.
          3. Model ZEMS6152AV hardwired diaphragm in wall sensor.
       3. Support: High Performance, Adjustable Siphon Jet Water Closet Carriers.
          1. Horizontal Waste Fitting:

Model Z1201-NL3.

Model Z1201-NR3.

Model Z1201-ND3.

Model Z1201-NL4.

Model Z1201-NR4.

Model Z1201-ND4.

Model Z1201-HL4.

Model Z1201-HR4.

Model Z1201-HD4.

* + - * 1. Vertical Waste Fitting:

Model Z1202-N4.

Model Z1202-ND4.

Model Z1202-H4.

Model Z1202-HD4.

Model Z1202-1NL4.

Model Z1202-1NR4.

Model Z1202-1ND4.

Model Z1202-2N4.

Model Z1202-2ND4.

Model Z1202-1HL4.

Model Z1202-1HR4.

Model Z1202-1HD4.

* + - * 1. Bariatric, Adjustable Siphon Jet Water Closet Carriers:

Horizontal Waste Fitting:

Model Z1203-N-XH.

Model Z1203-N-XB.

* + - * 1. Vertical Waste Fitting:

Model Z1204-N-XH.

Model Z1204-N-XB.

\*\*NOTE TO SPECIFIER\*\* Though no Zurn products are available for the product type listed below the Zurn products mentioned with the product type and in the attributes portion of the specification may still be used on this product type.

* + 1. Security: Floor-Mounted, Back Outlet, Blowout:
       1. Basis-of-Design: Zurn Industries, LLC; None.
       2. Flushometer Valve:
          1. Model ZP6800 Series.
          2. Model ZH6600 Series.
          3. Model Z6600 Series.
          4. Model ZEMS6000AV Series.
       3. Support Waste Carrier:
          1. Z1203-N-F
          2. Z1204-N-F
    2. Security: Floor-Mounted, Back Outlet, Siphon Jet, Top Spud:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5635-BWL.
          2. Model Z5645-BWL.
       2. Flushometer Valve:
          1. Model ZP6800 Series.
          2. Model ZH6600 Series.
          3. Model Z6600 Series.
          4. Model ZEMS6000AV Series.
       3. Support Waste Carrier:
          1. Z1203-N-F
          2. Z1204-N-F

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - 1. Vitreous-China Water Closet Attributes:
         1. Standards: ASME A112.19.2/CSA B45.1 and ASME A112.19.5.
         2. Material: Vitreous china.
         3. Type: Siphon jet.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to Model Z5675-BWL

* + - * 1. Reverse trap.
        2. Style: Flushometer valve.
        3. Height:

Standard.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to Model Z5675-BWL

Child.

Handicapped/elderly, complying with ICC/ANSI A117.1.

* + - * 1. Rim Contour:

Elongated.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to Model Z5675-BWL

Modified elongated.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to healthcare applications

Elongated with bedpan lugs or slots.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to security applications

Elongated with integral trap and contoured seat.

Regular.

* + - * 1. Water Consumption:

1.28 gal. (4.8 L)

1.6 gal. (6 L) per flush.

* + - * 1. Spud Size and Location: NPS 1-1/2 (DN 40).

Back.

Top.

* + - * 1. Color: White.
        2. Bowl-to-Drain Connecting Fitting: ASTM A1045 or ASME A112.4.3.

\*\*NOTE TO SPECIFIER\*\* Coordinate "Toilet Seats" below with specification data in the "Toilet Seats" Article. See product data for full range of features for each product.

* + - * 1. Toilet Seat: Z5955 Series.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to Model Z5675-BWL

IAPMO/ANSI Z124.5, Type A (residential), Shape 3 (elongated rim), open front, without cover, and shaped to match bowl.

* 1. RESIDENTIAL WATER CLOSETS
     1. Floor-mounted, Floor Outlet, Close-Coupled (Gravity Tank), Vitreous China:
        1. Basis-of-Design: Zurn Industries, LLC;
           1. Model Z5530.
           2. Model Z5540.
           3. Model Z5550.
           4. Model Z5551.
           5. Model Z5552.
           6. Model Z5553.
           7. Model Z5590.
     2. Floor-mounted, Floor Outlet, Close Coupled (Flushometer Tank), Vitreous China:
        1. Pressure Assist Toilets, 1.1-Gal./Flush (3.8-L/Flush) Water Closets:
           1. Basis-of-Design: Zurn Industries, LLC;

Model Z5561.

Model Z5571.

Model Z5576.

* + - 1. Pressure Assist Toilets, 1.6/1.1-Gal./Flush (6/3.8-L/Flush) Dual Flush Water Closets:
         1. Basis-of-Design: Zurn Industries, LLC:

Model Z5562.

Model Z5572.

Model Z5576.

* + - 1. Pressure Assist Toilet, 1.6-Gal./Flush (6-L/Flush) Water Closets:
         1. Basis-of-Design: Zurn Industries, LLC;

Model Z5560.

Model Z5570.

Model Z5575.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - * 1. Residential Water Closet Attributes:
        2. Standards: ASME A112.19.2/CSA B45.1.
        3. Bowl Type: Siphon jet.
        4. Height:

Standard.

Child.

Handicapped and elderly.

* + - * 1. Rim Contour:

Elongated.

Regular.

\*\*NOTE TO SPECIFIER\*\* Retain first option in "Water Consumption" Subparagraph below unless special, low-consumption design is required.

* + - * 1. Water Consumption:

Water saving.

Low.

* + - * 1. Color: White.

\*\*NOTE TO SPECIFIER\*\* Coordinate "Toilet Seats" below with specification data in the "Toilet Seats" Article. See product data for full range of features for each product.

* + - 1. Toilet Seat: Model Z5955 Series.
      2. Supply Fittings:
         1. Standard: ASME A112.18.1/CSA B125.1.
         2. Supply Piping: Chrome-plated brass pipe or copper tube.

Chrome-plated wall flange.

* + - * 1. Stop: Quarter-turn, Chrome-plated-brass, ball valve or compression stop.

Inlet connection type and size: match supply piping.

Operation:

Loose key.

Wheel handle.

* + - * 1. Riser:

Size:

NPS 3/8 (DN 10).

NPS 1/2 (DN 15).

Material:

Chrome-plated, soft-copper flexible tube.

ASME A112.18.6 / CSA B125.6, braided- or corrugated-stainless-steel flexible hose.

* 1. TOILET SEATS
     1. Basis-of-Design: Zurn Industries, LLC; Z5955 Series:
        1. Standard: IAPMO/ANSI Z124.5.
        2. Material: Plastic.
        3. Type:
           1. Standard.
           2. Heavy duty.
        4. Shape:
           1. Elongated rim, open front.
           2. Elongated rim, closed front.
        5. Hinge:
           1. Check.
           2. Self-sustaining.
           3. Self-sustaining, check.
           4. Self-raising.
        6. Hinge Material: Noncorrosive metal.
        7. Seat Cover:
           1. Required.
           2. Not required.
        8. Color: White.
  2. COMMERCIAL URINALS

\*\*NOTE TO SPECIFIER\*\* Add "-WS1" to model numbers in options below to designate flush volume of 1.6 gal (6 L) per flush.   
\*\*NOTE TO SPECIFIER\*\* Add "-HET" to designate 1.28 gal (4.8 L) per flush.  
\*\*NOTE TO SPECIFIER\*\* Coordinate Flushometers below with specification data in the "Urinal Flushometer Valve" Article. See product data for full range of features for each product.  
\*\*NOTE TO SPECIFIER\*\* Coordinate "Waste Fixtures" below with specification data in the "Water Closet Waste Carriers" Article. See product data for full range of features for each product.

* + 1. Stall, Washout Type:

\*\*NOTE TO SPECIFIER\*\* Though no Zurn products are available for the product type listed below the Zurn products mentioned with the product type and in the attributes portion of the specification may still be used on this product type.

* + - 1. Basis-of-Design: Zurn Industries, LLC; None.
      2. Flushometer Valve:
         1. Model Z6003AV Manual diaphragm.
         2. Model Z6203 Manual Piston.
         3. Model ZTR6203 Battery Powered Solenoid Sensor.
         4. Model ZER6003AV-CPM Battery Powered Diaphragm.
         5. Model ZTR6203EV-LL 10-year battery powered piston operated, solenoid activated.
         6. Model ZEMS6003AV hardwired diaphragm in wall sensor.
         7. Model ZEMS6003AV-IS is hardwired diaphragm side mounted sensor.
    1. Wall-Hung, Back Outlet, Blowout:

\*\*NOTE TO SPECIFIER\*\* Though no Zurn products are available for the product type listed below the Zurn products mentioned with the product type and in the attributes portion of the specification may still be used on this product type.

* + - 1. Basis-of-Design: Zurn Industries, LLC; None.
      2. Flushometer Valve:
         1. Model Z6003AV Manual diaphragm.
         2. Model Z6203 Manual Piston.
         3. Model ZTR6203 Battery Powered Solenoid Sensor.
         4. Model ZER6003AV-CPM Battery Powered Diaphragm.
         5. Model ZTR6203EV-LL 10-year battery powered piston operated, solenoid activated.
         6. Model ZEMS6003AV hardwired diaphragm in wall sensor.
         7. Model ZEMS6003AV-IS is hardwired diaphragm side mounted sensor.
    1. Wall-Hung, Back Outlet, Siphon Jet, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC; Model Z5730.
       2. Flushometer Valve.
          1. Model Z6003AV Manual diaphragm.
          2. Model ZTR6203 Battery Powered Solenoid Sensor.
          3. Model ZER6003AV-CPM Battery Powered Diaphragm.
          4. Model ZTR6203EV-LL 10-year battery powered piston operated, solenoid activated.
          5. Model ZEMS6003AV hardwired diaphragm in wall sensor.
          6. Model ZEMS6003AV-IS is hardwired diaphragm side mounted sensor.
    2. Wall-Hung, Back Outlet, Washout, Accessible:
       1. Basis-of-Design: Zurn Industries, LLC;
          1. Model Z5708-U.
          2. Model Z5738-U.
          3. Model Z5755-U.
          4. Model Z5758-U.
          5. Model Z5765-U.
       2. Flushometer Valve:
          1. Model Z6003AV Manual diaphragm.
          2. Model Z6203 Manual Piston.
          3. Model ZEG6003EV Battery Powered Solenoid Sensor.
          4. Model ZTR6203 Battery Powered Solenoid Sensor.
          5. Model ZER6003AV-CPM Battery Powered Diaphragm.
          6. Model ZTR6203-LL 10-year battery powered piston operated, solenoid activated.
          7. Model ZEMS6003AV hardwired diaphragm in wall sensor.
          8. Model ZEMS6003AV-IS is hardwired diaphragm side mounted sensor.
    3. Wall-Hung, Bottom Outlet, Washout or Wall-Hung, Bottom Outlet, Wash Down:
       1. Basis-of-Design: Zurn Industries, LLC:
          1. Model Z5720.
       2. Flushometer Valve:
          1. Model Z6003AV Manual diaphragm.
          2. Model Z6203 Manual Piston.
          3. Model ZTR6203 Battery Powered Solenoid Sensor.
          4. Model ZER6003AV-CPM Battery Powered Diaphragm.
          5. Model ZTR6203-LL 10-year battery powered piston operated, solenoid activated.
          6. Model ZEMS6003AV hardwired diaphragm in wall sensor.
          7. Model ZEMS6003AV-IS is hardwired diaphragm side mounted sensor.

\*\*NOTE TO SPECIFIER\*\* Use below for wash down option.

* + - * 1. ASME A112.6.1M, Type II, Urinal carrier, model Z1221 or Z1222.
      1. Waste Fitting: Two-piece trap and swivel elbow and wall flange.
         1. Stainless steel.
         2. Chrome plated brass.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - 1. Commercial Urinal Attributes:
         1. Standards: ASME A112.19.2/CSA B45.1.
         2. Material: Vitreous-china.
         3. Type: Siphon jet.

Extended shields.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below refers to Model only.5720

* + - * 1. Drain: Removable dome strainer with NPS 1-1/2 (DN 40) tailpiece; chrome-plated.
        2. Strainer or Trap-way: With integral trap.
        3. Water Consumption:

0.125 gal (0.47 L) per flush.

0.5 gal (1.9 L) per flush.

1.0 gal (3.8 L) per flush.

* + - * 1. Spud Size and Location: NPS 3/4 (DN 20);

Back.

Top.

* + - * 1. Outlet Size and Location: NPS 2 (DN 50); back.
        2. Color: White.

\*\*NOTE TO SPECIFIER\*\* The subparagraph below may not be applicable to stall type urinals.

* + - 1. Mounting Fixture:
         1. Model Z1221 - Plate Type System wall urinal.
         2. Model Z1222 - Plate Type system with bearing plate.
  1. WATERLESS URINALS
     1. Wall hung, back outlet, waterless, vitreous china, designed for liquid-trap-seal operation:
        1. Basis-of-Design: Zurn Industries, LLC: Model Z5795.
        2. Waterless Urinal attributes:
           1. Standard: ASME A112.19.2/CSA B45.1, without water.
           2. Trap-Seal Method: Liquid seal.
           3. Outlet Size: Flange, NPS 2 (DN 50).

Location: Back.

* + - * 1. Trap-Sealing Liquid: Proprietary.
        2. Color: White.
      1. Waste Fitting:
         1. Standard: ASME A112.18.2/CSA B125.2.
         2. Size: NPS 2 (DN 50).
      2. Mounting Fixture:
         1. Model Z1221 - Plate Type System wall urinal.
         2. Model Z1222 - Plate Type system with bearing plate.
  1. COMMERCIAL SHOWERS
     1. Institutional Wall-Mounted Shower.
        1. Basis-of-Design: Zurn Industries, LLC; Z7500.
        2. Prefabricated Stainless-steel, wall-mounted, surface-enclosure shower fixture with individual nozzle.
        3. Standards:
           1. ASME A112.18.1/CSA B125.1.
           2. ASSE 1016 / ASME A112.1016 / CSA B125.16.
        4. Number of Shower Nozzles: One.
        5. Height to Nozzles:
           1. Model 66 inches (1675 mm).
           2. Model 72 inches (1830 mm).
        6. Mixing valve with hot and cold water operation:
           1. Thermostatic.
        7. Control: Thermostatic mixing valve with individual, tempered-water supply and hand lever operation.
        8. Flow Control: Per shower head:
           1. 1.25 gpm (4.7 L/m).
           2. 1.5 gpm (5.7 L/m).
           3. 1.75 gpm (6.62L/m).
           4. 2 gpm (7.6 L/min.).
           5. 2.5 gpm (9.5 L/min.).
        9. Soap Dish: Per shower head.
        10. Supplies:
            1. Copper tubing: Model NPS 1/2 (DN 15).
        11. Shroud: Stainless steel of size to cover supplies and vent piping.
            1. Vertical extension.
            2. Horizontal extension.
        12. Drain Fitting Outlet:
            1. Model NPS 3 (DN 80).
            2. Model NPS 4 (DN 100).
            3. Vent at column base:

NPS 2 (DN 50)

* 1. COMMERCIAL LAVATORY FAUCETS
     1. Sold Brass Manual Lavatory Faucets:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model Single control mixing Z810-XL Series.
           2. Model Single control mixing Z822-XL Series.
           3. Single control mixing Z824-XL Series.
           4. Model Z811-XL Series 4 inch (102 mm) Centerset Quarter Turn Faucets.
           5. Model Z812-XL Series 4 inch (102 mm) Centerset Quarter Turn Faucets.
           6. Model Single Basin Z827-XL Series.
           7. Model Metering Faucet Z861-XL Series.
           8. Model Metering Faucet Z863-XL Series.
           9. Model Metering Faucet Z865-XL Series.
           10. Model Metering Faucet Z866-XL Series.
           11. Model Metering Faucet Z867-XL Series.
     2. Solid Brass, Automatic Lavatory Faucets: electronic-sensor-operated:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model Z6950-XL (automatic-type, battery-powered).
           2. Model Z6930-XL (automatic-type, battery-powered).
           3. Model Z6913-XL (automatic-type, battery-powered).
           4. Model Z6915-XL (automatic-type, battery powered).

\*\*NOTE TO SPECIFIER\*\* Model Z6920-XL is commonly used in healthcare applications.

* + - * 1. Model Z6920-XL (automatic-type, battery-powered).
        2. Model Z6930-XL-CWB (automatic-type, hard-wired).
        3. Model Z6913-XL-CWB (automatic-type, hard-wired).
        4. Model Z6915-XL-CWB (automatic-type, hard-wired).
        5. Model Z6918-XL (automatic-type, battery-powered).
        6. Model Z6918-XL-ADM (automatic-type, battery-powered).
        7. Model Z6920-XL (automatic-type, hard-wired).

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to "Sold Brass Manual Lavatory" and "Solid Brass, Automatic Lavatory Faucets" listed above in this article except where indicated.

* + - 1. Standard:
         1. ASME A112.18.1/CSA B125.1.
         2. NSF/ANSI 61.
      2. General: Indicators: Hot- and cold-water.
      3. Body: Commercial, solid brass.
         1. 4 inch (102 mm) Centerset.
         2. 8 inch (203 mm) Centerset.
         3. Widespread.
         4. Single hole.
      4. Finish: Polished chrome plate.
      5. Maximum Flow Rate:
         1. 0.35 gpm (0.95 L/min).
         2. 0.5 gpm (1.5 L/m).
         3. 1.0 gpm (3.8 L/m).
         4. 1.5 gpm (5.7 L/m).
         5. 2.2 gpm (8.3 L/m).
      6. Mounting Type:
         1. Deck, exposed.
         2. Deck, concealed.
         3. Back/wall, exposed.
         4. Back/wall, concealed.

\*\*NOTE TO SPECIFIER\*\* Subparagraph below does not apply to automatic operations.

* + - 1. Valve Handle(s):
         1. Single lever.
         2. Lever Handles, 2-1/2 inches (63.5 mm).
         3. Cross, four arm.
         4. Wrist blade, 4 inches (102 mm).
         5. Elbow, 6 inches (152 mm)
         6. Push button.
      2. Spout Type:
         1. Rigid.
         2. Swing.
         3. Rigid, gooseneck.
         4. Swivel, gooseneck.
      3. Spout Outlet:
         1. Aerator.
         2. Laminar flow.
         3. Spray.

\*\*NOTE TO SPECIFIER\*\* Subparagraph below does not apply to automatic operations.

* + - 1. Operation:
         1. Quarter-Turn Heavy Duty Ceramic.
         2. Single Control Ceramic Cartridge.
         3. Drain: Model Not part of faucet.
    1. Brass, Laminar-Flow, Commercial Faucet-Spout Outlets:

\*\*NOTE TO SPECIFIER\*\* Spout outlets in this article are non-aerating, produce less splashing than conventional faucet spouts, and help reduce bacteria growth. Most commonly used on commercial lavatories, healthcare sinks, residential sinks, and bathtubs,

* + - 1. Basis-of-Design: Zurn Industries, LLC:
         1. Model AquaSense 20J.
         2. Model AquaSense 20K.
         3. Model AquaSpec -4 faucet suffix.
         4. Model AquaSpec -14 faucet suffix.
         5. Model AquaSpec -18 faucet suffix.
         6. Model AquaSpec -19 faucet suffix.
         7. Model AquaSpec -21 faucet suffix.
         8. Model AquaSpec -22 faucet suffix.
      2. Standards:
         1. ASME A112.18.1/CSA B125.1.
         2. NSF/ANSI 61.
      3. Non-aerating, laminar stream.
      4. For attachment to faucet outlets: External or internal thread.
      5. Flow-rate range within flow-rate of faucet.
      6. Finish: Chrome-plated.
  1. SINK FAUCETS
     1. Manual Type Mixing Valve: Commercial, Solid-Brass Faucets:

\*\*NOTE TO SPECIFIER\*\* Models Z811-XL Series, Z812-XL Series, Z825-XL Series, Z827-XL Series, Z831-XL Series are commonly used in healthcare applications.

* + - 1. Basis-of-Design: Zurn Industries, LLC:
         1. Model Z810-XL Series.
         2. Model Z811-XL Series.
         3. Model Z812-XL Series.
         4. Model Z831-XL Series.
         5. Model Z812-XL-TWM.
         6. Model Z825-XL.
         7. Model Z827-XL.
         8. Model Z831-XL.
         9. Model Z871-XL-TWM.
         10. Model Z841-XL Series.
         11. Model Z842-XL Series.
         12. Model Z843-XL Series.
      2. Standards:
         1. ASME A112.18.1/CSA B125.1
         2. NSF/ANSI 61.
      3. Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and sink receptor.

\*\*NOTE TO SPECIFIER\*\* Option in "Body Type" Subparagraph below must match fixture hole punching.

* + - 1. Body Type:
         1. 4 inch (203 mm) Centerset.
         2. Widespread.
         3. Single hole.
      2. Body Material: Solid brass.
      3. Finish:
         1. Chrome plated.
         2. Rough Chrome.
         3. Polished Chrome.

\*\*NOTE TO SPECIFIER\*\* First option in "Maximum Flow Rate" Subparagraph below generally applies to sinks. Second option applies to service sinks.

* + - 1. Maximum Flow Rate:
         1. 0.35 gpm (1.3 L/m).
         2. 0.5 gpm (1.9 L/m).
         3. 1.0 gpm (3.8 L/m).
         4. 1.5 gpm (5.7 L/m).
         5. 2.2 gpm (8.3 L/m).
         6. 2.5 gpm (9.5 L/m).
      2. Handle(s):
         1. Lever handles, 2-1/2 inches (63.5 mm).
         2. Cross, four arm.
         3. Wrist blade, 4 inches (102 mm).
         4. Elbow, 6 inches (152 mm).
         5. Push Button.
         6. Foot pedal.
         7. Knee action.
      3. Mounting Type:
         1. Deck, concealed.
         2. Deck, exposed.
         3. Back/wall, exposed.
      4. Spout Type:
         1. Low profile.
         2. Rigid, solid brass.
         3. Rigid, solid brass with wall brace.
         4. Swing, round tubular.
         5. Swing, shaped tube.
         6. Swing, solid brass.
         7. Rigid gooseneck.
         8. Swivel gooseneck.
      5. Operation: Quarter Turn Heavy Duty Ceramic.

\*\*NOTE TO SPECIFIER\*\* Retain first option in "Vacuum Breaker" Subparagraph below for service-sink and other faucets with hose-thread outlet.

* + - 1. Vacuum Breaker: For hose outlet.
      2. Spout Outlet:
         1. Aerator.
         2. Laminar flow.
         3. Hose thread according to ASME B1.20.7.
         4. Plain end.
         5. Spray.
      3. Supply Fittings: Zurn - Model Z8808-XL.
      4. Waste Fittings: Zurn.
         1. Model Z8746 Series.
         2. Model Z8743 Series.
         3. Model Z8746 Series.
  1. COMMERCIAL AND RESIDENTIAL SHOWER FAUCETS
     1. Commercial Shower Faucets:
        1. Basis-of-Design: Zurn Industries, LLC:

\*\*NOTE TO SPECIFIER\*\* TempGard-1 and TempGard-3 are also used in residential applications

* + - * 1. Model TempGard 1.
        2. Model TempGard 3.

\*\*NOTE TO SPECIFIER\*\* Z7100 Series and Z7300 Series are also used in healthcare applications.

* + - * 1. Model Z7100 Series.
        2. Model Z7300 Series.
      1. Single-handle, pressure-balance mixing valve with hot- and cold-water indicators; check stops; and shower head.
      2. Faucet Attributes:
         1. Standards:

ASME A112.18.1/CSA B125.1.

ASSE 1016 / ASME A112.16 / CSA B125.16.

* + - * 1. Body Material: Solid brass.
        2. Finish: Polished chrome plate.
        3. Maximum Flow Rate: 2.5 gpm (9.5 L/min.) unless otherwise indicated.
        4. Mounting:

Concealed.

Exposed.

* + - * 1. Operation: Single-handle control.

Push-pull.

Twist or rotate.

* + - * 1. Antiscald Device:

Integral with mixing valve.

Separate unit.

* + - * 1. Check Valve Stops: Integral or attached.

Hot and cold supply.

* + - 1. Supply Connections: NPS 1/2 (DN 15).
      2. Shower Head: Zurn, Model Z7000 Series.
         1. S1.
         2. S5.
         3. S6.
         4. S7.
         5. S8.
         6. S9.
         7. S10.
         8. Shower Head Attributes:

Standard: ASME A112.18.1/CSA B125.1.

Type:

Ball joint with arm and flange.

Without ball joint, but with arm and flange.

Ball joint and head integral with mounting flange.

Integral with mounting flange.

Shower Head Material:

Metallic with chrome-plated finish.

ABS Plastic with chrome-plated finish.

Spray Pattern:

Adjustable.

Fixed.

Integral Volume Control.

\*\*NOTE TO SPECIFIER\*\* Retain "Shower-Arm, Flow-Control Fitting" Subparagraph below only if option retained in "Type" Subparagraph above includes arm and flange.

Shower-Arm, Flow-Control Fitting:

1.5 gpm (5.7 L/m).

2.0 gpm (7.6 L/m).

\*\*NOTE TO SPECIFIER\*\* Verify availability of feature in "Temperature Indicator" Subparagraph below if required.

Temperature Indicator: Integral with faucet.

* 1. BEDPAN WASHERS

\*\*NOTE TO SPECIFIER\*\* See "Water Closet Flushometer Valves" Article for flushometer-valve-mounted bedpan washers.

* + 1. Bedpan Washers: Wall-Mounted:
       1. Basis-of-Design: Zurn Industries, LLC:
          1. Model Z873 Series.
          2. Model Z877 Series.

\*\*NOTE TO SPECIFIER\*\* Bedpan Washers: Wall-Mounted, Foot Controlled:

* + - 1. Basis-of-Design: Zurn Industries, LLC:
         1. Model Z851 Series.
         2. Model Z855 Series.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - 1. Bedpan Washer Attributes:

\*\*NOTE TO SPECIFIER\*\* Not all of the models listed above meet this referenced standard.

* + - * 1. Standard: ASME A112.18.1/CSA B125.1.

Hose Assembly: Rubber or vinyl hose, self-closing, hand-held spray nozzle, wall bracket, and hook; hose length to be 48 inch (1220 mm).

* + - * 1. Vacuum Breaker: ASSE 1001, atmospheric, wall mounted.
        2. Shutoff Valve: Wall-mounted, upstream of vacuum breaker.
        3. Connecting Piping: Concealed.
        4. Finish: Polished chrome-plated finish on exposed metal parts.
        5. Supply Connection: NPS 1/2 (DN 15).

\*\*NOTE TO SPECIFIER\*\* Subparagraph below applies to foot control feature only.

* + - * 1. Control Mounting:

Floor.

Wall.

Single-pedal.

Double-pedal, hot- and cold-water.

* 1. FAUCET SUPPLY FITTINGS
     1. Basis-of-Design: Zurn Industries, LLC;
        1. Model Z8808-XL.
        2. Standard:
           1. ASME A112.18.1/CSA B125.1.
           2. NSF 61.
        3. 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.
        4. Supply Stops: Chrome-plated brass, one-quarter-turn, ball-type or compression valve with inlet connection matching supply piping.
        5. Operation:
           1. Loose-key.
           2. Wheel-handle.
        6. Risers:
           1. NPS 3/8 (DN 10).
           2. NPS 1/2 (DN 15).
           3. Material:

Chrome-plate, rigid copper pipe.

Chrome-plated, soft-copper flexible tube.

ASME A112.18.6 / CSA B125.6, braided- or corrugated-stainless-steel flexible hose.

* 1. SINK AND LAVATORY WASTE FITTINGS
     1. Basis-of-Design: Zurn Industries, LLC: Drain:
        1. Model Z8746 Series Grid type with NPS 1-1/2 (DN 40) offset.
        2. Model Z8743 Series.
        3. Model Z8746 Series.
     2. Standard: ASME A112.18.2/CSA B125.2.
     3. Trap: Two-piece trap and swivel elbow and wall flange.
        1. Size: NPS 1-1/2 (DN 40).
        2. Stainless steel.
        3. Chrome plated brass.
  2. URINAL FLUSHOMETER VALVES
     1. Lever-Handle, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model Z6003AV-ULF, 0.125 gal (0.47 L) per flush.
           2. Model Z6003AV-EWS, 0.5 gal (1.9 L) per flush.
           3. Model Z6003AV-WS1, 1.0 gal (3.8 L) per flush.
     2. Solenoid-Actuator, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. ModelZR6003AV-WS1, 1.0 gal (3.8 L) per flush.
     3. Hydraulic-Actuator, Push-Button, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZH6002AV-ULF, 0.125 gal (0.47 L) per flush.
           2. Model ZH6003AV-EWS, 0.5 gal (1.9 L) per flush.
           3. Model ZH6003AV-WS1, 1.0 gal (3.8 L) per flush.
     4. Lever-Handle, Piston Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model MetroFlush Z6200-WS1, 1.0 gal (3.8 L) per flush.
           2. Model MetroFlush Z6200-EWS, 0.5 gal (1.9 L) per flush.
     5. Hard-Wired, Solenoid-Actuator, Piston Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZEMS6203-EWS, 0.5 gal (1.9 L) per flush.
     6. Battery-Powered, Solenoid-Actuator, Piston Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZTR6203-ULF, 0.125 gal (0.5 L) per flush.
           2. Model ZTR6203-EWS, 0.5 gal (1.9 L) per flush.
           3. Model ZTR6203-WS1, 1.0 gal (3.8 L) per flush.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - 1. Urinal Flushomatic Attributes:
         1. Standard: ASSE 1037/ASME A112.37/CSA B125.37.
         2. Maximum Pressure Rating: 125 psig (860 kPa).
         3. Features: Include integral check stop and backflow-prevention device.
         4. Material: Brass body with corrosion-resistant components.
         5. Exposed Flushometer-Valve Finish: Chrome plated.

\*\*NOTE TO SPECIFIER\*\* Keep subparagraph below for flushometer-valve components are concealed.

* + - * 1. Panel Finish: Chrome plated or stainless steel.
        2. Style:

Exposed.

Concealed.

* + - * 1. Consumption: Per flush.

0.125 gal. (0.47 L).

0.5 gal. (1.9 L).

1.0 gal. (3.8 L.

* + - * 1. Minimum Inlet:

NPS 3/4 (DN 20).

NPS 1 (DN 25).

* + - * 1. Minimum Outlet:

NPS 3/4 (DN 20).

NPS 1-1/4 (DN 32).

* 1. WATER CLOSET FLUSHOMETER VALVES
     1. Lever-Handle, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model Z6000AV-WS1, 1.6 gal (6 L) per flush volume.
           2. Model Z6000AV-HET, 1.28 gal (4.8 L) per flush volume:
     2. Solenoid-Actuator, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZR6000AV-WSI, 1.6 gal (6 L) per flush.
           2. Model ZR6000AV-WS1-DF, 1.6/1.1 gal (6/4.125 L) per flush.
     3. Hydraulic-Actuator, Push-Button, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZH6000AV-HET, 1.28 gal (4.8 L) per flush.
           2. Model ZH6000AV-WS1, 1.6 gal (6 L) per flush.
     4. Lever-Handle, Push-Button, Diaphragm Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZP6800 Series; electronic push button actuator.
           2. Model ZH6600 Series; hydraulic push button actuator.
           3. Model Z6600 Series.
           4. Model ZEMS6000 AV Series; electronic actuator.
     5. Lever-Handle, Piston Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model Z6200-WS1, 1.6 gal (6 L) per flush.
           2. Model Z6200-HET, 1.28 gal (4.8 L) per flush.
     6. Hard-Wired, Solenoid-Actuator, Piston Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC: Model ZEMS6200.
     7. Battery-Powered, Solenoid-Actuator, Piston Flushometer Valves:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model ZTR6200EV-ONE, 1.1 gal (4.2 L) per flush
           2. Model ZTR6200EV, 1.28 gal (4.8 L) per flush.
           3. Model ZTR6200EV-LL, 1.28 gal (4.8 L) per flush.
           4. Model ZTR6200-WS1, 1.6 gal (6 L) per flush.
           5. Model ZTR6200-WS1-LL, 1.6 gal (6 L) per flush.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - * 1. Water Closet Flushometer Attributes:

Standard: ASSE 1037/ASME A112.37/CSA B125.37.

Maximum Pressure Rating: 125 psig (860 kPa).

Features: Include integral check stop and backflow-prevention device.

Material: Brass body with corrosion-resistant components.

Exposed Flushometer-Valve Finish: Chrome plated.

\*\* NOTE TO SPECIFIER \*\* Retain "Panel Finish" Subparagraph below for concealed flushometer-valve components.

Panel Finish: Chrome plated or stainless steel.

Style:

Exposed.

Concealed.

\*\* NOTE TO SPECIFIER \*\* ZP6800 Series ZH6600 Series Z6600 Series ZEMS6000AV Series; applicable to water closet applications.

Consumption: Per flush.

1.6 gal. (6 L).

1.28 gal. (4.8 L).

1.1 gal. (4.2 L).

Minimum Inlet: NPS 1 (DN 25).

Minimum Outlet: NPS 1-1/4 (DN 32).

* 1. WATER CLOSET WASTE CARRIERS
     1. High Performance, Adjustable Siphon Jet Water Closet Carriers:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Horizontal Waste Fitting:

Model Z1201-NL3.

Model Z1201-NR3.

Model Z1201-ND3.

Model Z1201-NL4.

Model Z1201-NR4.

Model Z1201-ND4.

Model Z1201-HL4.

Model Z1201-HR4.

Model Z1201-HD4.

* + - * 1. Vertical Waste Fitting:

Model Z1202-N4.

Model Z1202-ND4.

Model Z1202-H4.

Model Z1202-HD4.

Model Z1202-1NL4.

Model Z1202-1NR4.

Model Z1202-1ND4.

Model Z1202-2N4.

Model Z1202-2ND4.

Model Z1202-1HL4.

Model Z1202-1HR4.

Model Z1202-1HD4.

* + 1. Bariatric, Adjustable Siphon Jet Water Closet Carriers:
       1. Basis-of-Design: Zurn Industries, LLC:
          1. Horizontal Waste Fitting:

Model Z1203-N-XH.

Model Z1203-N-XB.

* + - * 1. Vertical Waste Fitting:

Model Z1204-N-XH.

Model Z1204-N-XB.

* + 1. Standard, Adjustable Blowout Style Water Closet Carriers:
       1. Basis-of-Design: Zurn Industries, LLC:
          1. Horizontal Waste Fitting:

Model Z1203-N.

Model Z1203-N-XH.

Model Z1203-N-XB.

* + - * 1. Vertical Waste Fitting:

Model Z1204-N.

Model Z1204-N-XH.

Model Z1204-N-XB.

\*\*NOTE TO SPECIFIER\*\* The attributes listed below are common to all products in this article except where indicated.

* + - * 1. Water Closet Waste Carrier Attributes:

Standard: ASME A112.6.1M.

Load Rating:

H = 300 lbs (227 kg).

N = 300 lbs (136 kg).

XH = 750 lbs (340 kg).

XB = 1,000 lbs (454 kg).

Waste-fitting to match drainage piping material and arrangement. Couplings gaskets, faceplate, and feet; Hardware to match fixture.

Wide space installation: Extension coupling.

Connection Type:

No-Hub "N".

Hub and Spigot "H".

Flow Direction:

Right "R".

Left "L".

Double "D".

Waste Pipe Diameter:

3 in (76 mm).

4 in (102 mm).

Must specify a B suffix for Blowout Style Faceplate.

Faceplate: B (blowout style faceplate).

Water Consumption: Per flush.

1.1 gal (4.2 L).

1.28 gal (4.8 L)

1.6 gal (6 L).

Water-Closet Mounting Height:

Standard.

Child.

Handicapped/elderly according to ICC A117.1.

Coupling/Waste Orifice Diameter: 3 in (76 mm).

Foot Type:

Select standard foot type for N, bariatric foot type for XH and XB.

Universal (standard or pre-fab installations).

Bariatric.

Material: Cast Iron.

* 1. SUPPORT FIXTURES
     1. Lavatory, Support Fixtures:
        1. Basis-of-Design: Zurn Industries, LLC:
           1. Model Z1224 - Plate Type System; Lavatory Back Carrier.

Lavatory support system with top support plate.

Dura-Coated rectangular steel uprights with welded feet.

Adjustable support plate., and mounting fasteners.

* + - * 1. Model Z1231 - Concealed Arm System, with Alignment Truss Carrier.

Lavatory support system with concealed arms.

Dura-Coated rectangular steel uprights with welded feet.

Cast iron adjustable headers, concealed arms, steel sleeves, alignment truss, and mounting fasteners.

* + - * 1. Model Z1231-EZ - Concealed Arm System with Adjusting Bars Carrier.

Lavatory support system with concealed arms.

Dura-Coated rectangular steel uprights with welded feet.

Cast iron adjustable headers, concealed arms, steel sleeves, adjusting bars, and mounting fasteners.

* + - * 1. Model Z1231-EZR - Concealed Arm System with Adjustable Uprights and Header Plates.

Wall Hung Lavatory Support System.

Dura-Coated upright supports; structural carbon-steel square tubing.

Welded steel plate mounting feet with separate bolt patterns:

Anchors complying with OSHPD spacing requirements.

3/8 inch (10 mm).

1/2inch (13 mm).

Lower and upper EZ-installation plates, marked with an indexed ruler guide;

Accurate adjustability, upright spacing, from 15 inch (381 mm) to 22 inch (560 mm).

Individual slotted header plates with integral welded arm sleeves.

Provides 2 inch (51 mm) additional horizontal adjustment per plate.

Total horizontal adjustment range is 11 inches (279 mm) to 26 inches (660 mm).

Arms: Dura-Coated cast iron with leveling screws and elastomeric locking devices.

Factory assembled: Uprights, EZ-installation plates, and header plates.

Complies with ASME Standard A112.6.1M at any adjustment position.

* + - * 1. Model Z1236 - Exposed Arm System Carrier.

Lavatory support system with exposed arms.

Dura-Coated rectangular steel uprights with welded feet.

Cast iron adjustable headers, acid resistant epoxy coated cast iron arms, alignment truss, and mounting fasteners.

* + 1. Urinal Support Fixtures:
       1. Basis-of-Design: Zurn Industries, LLC:
          1. Model Z1221 - Plate Type Systems wall urinal.

Dura-Coated rectangular steel uprights, welded feet, adjustable support plate, and mounting fasteners.

* + - * 1. Model Z1222 - Plate Type system with bearing plate.

Dura-Coated carbon structural steel rectangular tubing uprights.

Welded base feet, slotted floor anchor holes.

Lower bearing plate, vertically adjustable to accommodate bearing jack placement.

Upper Universal hanger plate, pre-notched for back spud inlet.

Designed for various hardware positions and fixtures.

Includes mounting fasteners and hardware.

Carrier system exceeds load and deflection requirements as outlined in ASME Standard A112.6.1M.

1. EXECUTION
   1. EXAMINATION
      1. Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions that may be detrimental to proper or timely completion.
         1. Rough-in for water-supply, sanitary drainage and vent piping systems: Verify locations; pipe and connection.
         2. Walls and partitions: Suitable thickness.
      2. Fixture and Valve Interiors: Clean and free of foreign matter, and corrosion. Remove packing used to prevent disc movement.
         1. Operate valves from fully open to fully closed positions.
         2. Verify guides and seats are clean and free of foreign matter, and corrosion.
      3. Threads on Valves Fittings and Fixtures: Inspect valve and mating pipe for form and cleanliness.
      4. Mating Flange Faces: Inspect for conditions that may cause leaking.
         1. Bolting: Proper size, length, and material.
         2. Gaskets: Proper size and material composition suitable for application; defect and damage free.
      5. Replace defective fixtures and valves with new.
      6. Do not proceed until unsatisfactory conditions have been corrected.
   2. INSTALLATION
      1. All Fixtures: level and plumb.
         1. For children: install at height required.
      2. Attach all support framing to building substrate per manufacturer's written instructions.
      3. Wall-mounted fixtures: Install off-the-floor carrier supports. Install accessible, wall-mounted water closets according to ICC/ANSI A117.1.
      4. Water-supply piping: Ball or gate shutoff valves on supply to each fixture connected to domestic-water piping. See section 23 05 00 - Common Work Results for HVAC "Common Work Results for Plumbing Piping."
         1. Locations: easily accessible.
      5. Fixture drain outlets: Install trap and waste piping to be connected to sanitary drainage system.
      6. Escutcheons and wall flanges: Wall piping penetrations finished locations.
      7. Joints between fixtures and walls: Seal with silicone sealant:
         1. Sanitary, one-part, mildew-resistant. Match colors.
      8. Flushometers:
         1. Water-supply fitting on supply to water closet.
         2. Supply piping: Attach to supports or substrate in space behind fixture.
         3. Accessible water closets: Handle on lever-handle flushometer to be mounted on open side of water closet. Be sure actuators accessible to with disabilities.
         4. Fresh batteries in battery-powered, electronic-sensor mechanisms.
   3. FIELD QUALITY CONTROL

\*\* NOTE TO SPECIFIER \*\* Revise this article to suit requirements of authorities having jurisdiction.

* + 1. Test and inspect per authorities having jurisdiction.
    2. Piping Tests: prior to covering and after curing and setting of concrete thrust blocks. Fill and pressurize pipeline to test pressure a minimum of 24 hours before testing.
       1. Use potable water.
    3. Hydrostatic Tests:
       1. Test Pressure: One-and-one-half times the working pressure for two hours.
          1. Increase pressure at increments of 50-psig (350-kPa).

Inspect joints.

* + - * 1. Maintain test pressure for one hour, minimum.
        2. Decrease test pressure to zero psig (zero kPa).
        3. Increase pressure at increments of 50-psig (350-kPa).

Inspect joints.

* + - * 1. Maintain test pressure for one hour, minimum.
        2. Allowable leakage: 2 quarts (1.89 L) per hour per 100 joints.
      1. Remake leaking joints with new materials and repeat test until leakage is within allowed limits.
    1. Prepare test and inspection reports.
  1. IDENTIFICATION
     1. Comply with requirements for identification specified in Section 23 05 53 - Identification for HVAC Piping and Equipment "Identification for Plumbing Piping Systems."
     2. Comply with requirements for identification specified in Section - "Identification for Electrical Systems."
  2. ADJUSTING
     1. Flow regulators: Proper flow of water through fixtures.
     2. Flushometer valves: Adjust water pressure.
     3. Replace damaged fixtures, fittings, and controls
  3. CLEANING
     1. Remove paint spots, dirt, and debris. Damaged finish to match original finish.
     2. Clean fixtures, according to manufacturer's written instructions.
     3. Provide protective covering for installed fixtures.
     4. Not to be uses for temporary facilities without written approval by Owner.

END OF SECTION