SECTION 224600 - SECURITY PLUMBING FIXTURES

1. GENERAL
   * + 1. RELATED DOCUMENTS

Retain or delete this article in all Sections of Project Manual.

* + - * 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
      1. SUMMARY
         1. Section Includes:

Combination units.

Water closets.

Urinals.

Lavatories.

Drinking fountains.

Showers.

Service sinks.

Supports.

* + - * 1. Related Requirements:

Retain subparagraphs below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.

Section 224213.13 "Commercial Water Closets."

Section 224213.16 "Commercial Urinals."

Section 224216.13 "Commercial Lavatories."

Section 224216.16 "Commercial Sinks."

Section 224223 "Commercial Showers."

Section 224233 "Wash Fountains."

Section 224300 "Healthcare Plumbing Fixtures."

Section 224500 "Emergency Plumbing Fixtures" for emergency showers.

Section 224713 "Drinking Fountains" for standard drinking fountains.

* + - 1. DEFINITIONS

Retain terms that remain after this Section has been edited for a Project.

* + - * 1. Accessible Service Space: Service area in secure space behind wall-mounted fixtures.
        2. Back-Access Fixture: Security plumbing fixture designed to mount on wall sleeve built into wall or on wall, so installation and removal of fixture, piping, and other components are accessible only from service space behind wall.
        3. Front-Access Fixture: Security plumbing fixture designed to mount on wall with installation and removal from fixture side of wall, and with piping and other components accessible only from access panel in fixture.
      1. SUBMITTALS
         1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
         2. Manufacturer’s installation instructions shall be provided along with product data.
         3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
         4. Product Data: For each type of product.

Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for security plumbing fixtures.

Include rated capacities, operating characteristics, and furnished specialties and accessories.

* + - 1. CLOSEOUT SUBMITTALS
         1. Maintenance Data: For security plumbing fixtures and components to include in maintenance manuals.
      2. MAINTENANCE MATERIAL SUBMITTALS
         1. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

Flushometer-Valve Repair Kits: Equal to [**10**] <**Insert number**> percent of quantity of each type installed, but no fewer than [**one**] [**six**] <**Insert number**> of each type.

Toilet Seats: Equal to [**five**] <**Insert number**> percent of quantity of each type installed.

1. PRODUCTS

See Editing Instruction No. 1 in the Evaluations for cautions about named manufacturers and products. For an explanation of options and Contractor's product selection procedures.

Do not use the same plumbing-fixture designation as is used for a plumbing fixture in another plumbing Section.

* + - 1. COMBINATION UNITS

Copy "Combination Units" paragraph below and re-edit for each type of back-access, cabinet combination unit required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each combination unit.

* + - * 1. Combination Units <**Insert drawing designation**>: Back access, [**off**] [**on**] floor, cabinet, with water closet and lavatory.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2786) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acorn Engineering Company; a Division of Morris Group International](http://www.specagent.com/Lookup?uid=123457200051).

Willoughby Industries, Inc.

Approved equivalent.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Cabinet: [Rectangular apron] [Five-sided apron with two angled sides] [Four-sided apron with angled left side] [Four-sided apron with angled right side] <Insert configuration>, with backsplash.

Water-Closet Bowl Location: [Centered on front] [Left of center on front] [Right of center on front] [On angled left side] [On angled right side] <Insert location> of apron.

Toilet-Paper Holder: Recessed; stainless steel located [**above water closet and centered in front**] [**in front**] [**right of center in front**] [**left of center in front**] [**in angled right side**] [**in angled left side**] [**in right side**] [**in left side**] <**Insert location**> of apron.

Accessories:

Toothbrush Holders: One on [**each**] [**left**] [**right**] side of backsplash.

Towel Hooks: [**One**] [**Two**] on [**each**] [**left**] [**right**] side of fixture.

Bubbler: On [**backsplash**] [**deck**].

Mounting: Bolts through wall sleeve into accessible service space.

Water Closet:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Bowl:

Type: Elongated, with back inlet, integral trap, and [**blowout**] [**siphon-jet**] design with back outlet and contoured seat.

Retain "Seat Surface" subparagraph below for integral seat; delete if toilet seat is required.

Seat Surface: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 7 polished finish.

Retain "Punching" subparagraph below if separate toilet seat is required.

Punching: Two holes for installation of separate toilet seat.

Outlet Connection: [**3 inch**] [**4 inch**], horizontal with cleanout and slip joint.

Flushometer Valve: <**Insert designation**>.

Retain "Toilet Seat" subparagraph below and coordinate with "Toilet Seats" Article if toilet seat is required. Toilet seat is usually not provided. Specify hole punching in bowl for separate seat, and delete requirement for polished finish on bowl seat surface if retaining seat.

Toilet Seat: <Insert designation>.

Lavatory:

Standard: ASME A 112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Location: In top of cabinet.

Receptor: [**Oval**] [**or**] [**rectangular**] bowl with integral soap depression.

Hot- and Cold-Water and Bubbler Supply Valves: Mechanical-metering type with push-button actuation and individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Filler Spout: [**Backsplash**] [**or**] [**deck**] mounted.

Drain: Integral punched grid with 1-1/4 inch minimum waste and trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture. Include steel bars or other design to prevent escape if fixture is removed.

Copy "Combination Units" paragraph below and re-edit for each type of front-access, on-floor, cabinet combination unit required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each combination unit.

* + - * 1. Combination Units <**Insert drawing designation**>: Front access, on floor, cabinet, with water closet and lavatory.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2787) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acorn Engineering Company; a Division of Morris Group International](http://www.specagent.com/Lookup?uid=123457200057).

I-Con Systems, Inc.

Willoughby Industries, Inc.

Approved equivalent.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Cabinet: [Rectangular apron] [Five-sided apron with two angled sides] [Four-sided apron with angled left side] [Four-sided apron with angled right side] <Insert configuration>, with backsplash and access panel.

Water-Closet Bowl Location: [**Centered on front**] [**Left of center on front**] [**Right of center on front**] [**On angled left side**] [**On angled right side**] <**Insert location**> of apron.

Toilet-Paper Holder: Recessed; stainless steel located [**above water closet and centered in front**] [**in front**] [**right of center in front**] [**left of center in front**] [**in angled right side**] [**in angled left side**] [**in right side**] [**in left side**] <**Insert location**> of apron.

Accessories:

Toothbrush Holders: One on [**each**] [**left**] [**right**] side of backsplash.

Towel Hooks: [**One**] [**Two**] on [**each**] [**left**] [**right**] side of fixture.

Bubbler: On [**backsplash**] [**deck**].

Mounting: Bolts through wall sleeve into accessible service space.

Water Closet:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Bowl:

Type: Elongated, with back inlet, integral trap, and [**blowout**] [**siphon-jet**] design with back outlet and contoured seat.

Retain "Seat Surface" subparagraph below for integral seat; delete if toilet seat is required.

Seat Surface: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 7 polished finish.

Retain "Punching" subparagraph below if separate toilet seat is required.

Punching: Two holes for installation of separate toilet seat.

Outlet Connection: [**3 inch**] [**4 inch**], horizontal with cleanout and slip joint.

Flushometer Valve: <**Insert designation**>.

Retain "Toilet Seat" subparagraph below and coordinate with "Toilet Seats" Article if toilet seat is required. Toilet seat is usually not provided. Specify hole punching in bowl for separate seat, and delete requirement for polished finish on bowl seat surface if retaining seat.

Toilet Seat: <Insert designation>.

Lavatory:

Standard: ASME A 112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Location: In top of cabinet.

Receptor: [**Oval**] [**or**] [**rectangular**] bowl with integral soap depression.

Hot- and Cold-Water and Bubbler Supply Valves: Mechanical-metering type with push-button actuation and individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Filler Spout: [**Backsplash**] [**or**] [**deck**] mounted.

Drain: Integral punched grid with 1-1/4 inch minimum waste and trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Retain "Wall Sleeve" subparagraph below for formed wall openings for piping. A wall sleeve is not required.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture. Include steel bars or other design to prevent escape if fixture is removed.

* + - 1. STAINLESS-STEEL WATER CLOSETS

Copy "Water Closets" paragraph below and re-edit for each type of back-access, cabinet water closet required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each water closet.

* + - * 1. Water Closets <**Insert drawing designation**>: Back access, [**on**] [**off**] floor, [**back**] [**floor**] outlet, cabinet.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Cabinet: [Rectangular apron] [Five-sided apron with two angled sides] [Four-sided apron with angled left side] [Four-sided apron with angled right side] <Insert configuration>, with backsplash.

Water-Closet Bowl Location: [**Centered on front**] [**Left of center on front**] [**Right of center on front**] [**On angled left side**] [**On angled right side**] <**Insert location**> of apron.

Toilet-Paper Holder: Recessed; stainless steel located [**above water closet and centered in front**] [**in front**] [**right of center in front**] [**left of center in front**] [**in angled right side**] [**in angled left side**] [**in right side**] [**in left side**] <**Insert location**> of apron.

Mounting: Bolts through wall sleeve into accessible service space.

Water Closet:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Bowl:

Retain one of two "Type" subparagraphs below. First subparagraph is for back-outlet water closets.

Type: Elongated, with back inlet, integral trap, and [**blowout**] [**siphon-jet**] design with back outlet and contoured seat.

Retain "Type" subparagraph below for bottom-outlet water closets. Outlet piping at floor may be visible for off-floor water closets.

Type: Elongated, with back inlet, integral trap, and siphon-jet design with bottom outlet and contoured seat.

Retain "Back-Outlet Connection" or "Bottom-Outlet Connection" subparagraph below.

Back-Outlet Connection: [**3 inch**] [**4 inch**], horizontal with cleanout and slip joint.

Bottom-Outlet Connection: [**3 inch**] [**4 inch**], vertical.

Retain "Seat Surface" subparagraph below for integral seat; delete if toilet seat is required.

Seat Surface: ASTM A480, No. 7 polished finish.

Retain "Punching" subparagraph below if separate toilet seat is required.

Punching: Two holes for installation of separate toilet seat.

Flushometer Valve: <**Insert designation**>.

Retain "Toilet Seat" subparagraph below and coordinate with "Toilet Seats" Article if toilet seat is required. Toilet seat is usually not provided. Specify hole punching in bowl for separate seat, and delete requirement for polished finish on bowl seat surface if retaining seat.

Toilet Seat: <**Insert designation**>.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture. Include steel bars or other design to prevent escape if fixture is removed.

Retain "Configuration" subparagraph below for accessible units.

Configuration: Modify wall sleeve for water-closet mounting height according to ICC A117.1 “Accessible and Usable Buildings and Facilities”.

Design Consultant to review code references and verify that the referenced sections/tables are current. Note that code references shall be based on the current version of the Uniform Code.

Copy "Water Closets" paragraph below and re-edit for each type of back-access, off-floor, back-outlet, compact water closet required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each water closet.

* + - * 1. Water Closets <**Insert drawing designation**>: Back access, off floor, back outlet, compact.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2790) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acorn Engineering Company; a Division of Morris Group International](http://www.specagent.com/Lookup?uid=123457200063).

Willoughby Industries, Inc.

Approved equivalent.

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch-- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Bowl:

Type: Elongated, with back inlet, integral trap, and blowout design with contoured seat.

Length to Wall: Approximately 19 inches.

Retain "Seat Surface" subparagraph below for integral seat; delete if toilet seat is required.

Seat Surface: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 7 polished finish.

Retain "Punching" subparagraph below if separate toilet seat is required.

Punching: Two holes for installation of separate toilet seat.

Mounting: Bolts through wall sleeve into accessible service space.

Flushometer Valve: <**Insert designation**>.

Retain "Toilet Seat" subparagraph below and coordinate with "Toilet Seats" Article if toilet seat is required. Toilet seat is usually not provided. Specify hole punching in bowl for separate seat, and delete requirement for polished finish on bowl seat surface if retaining seat.

Toilet Seat: <**Insert designation**>.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture. Include steel bars or other design to prevent escape if fixture is removed.

Retain "Configuration" subparagraph below for accessible units.

Configuration: Modify wall sleeve for water-closet mounting height according to ICC A117.1 “Accessible and Usable Buildings and Facilities”.

Design Consultant to review code references and verify that the referenced sections/tables are current. Note that code references shall be based on the current version of the Uniform Code.

Copy "Water Closets" paragraph below and re-edit for each type of back-access, extended-bowl water closet required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each water closet.

* + - * 1. Water Closets <**Insert drawing designation**>: Back access, [**off**] [**on**] floor, [**back**] [**floor**] outlet, extended bowl.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2791) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Bowl:

Retain one of two "Type" subparagraphs below. First subparagraph is for back-outlet water closets.

Type: Elongated, with back inlet, integral trap, and [**blowout**] [**siphon-jet**] design with back outlet and contoured seat.

Retain "Type" subparagraph below for bottom-outlet water closets. Outlet piping at floor may be visible for off-floor water closets.

Type: Elongated, with back inlet, integral trap, and siphon-jet design with bottom outlet and contoured seat.

Length to Wall: Minimum of 25 inches.

Retain "Back-Outlet Connection" or "Bottom-Outlet Connection" subparagraph below.

Back-Outlet Connection: [**3 inch**] [**4 inch**], horizontal with cleanout and slip joint.

Bottom-Outlet Connection: [**3 inch**] [**4 inch**], vertical.

Retain "Seat Surface" subparagraph below for integral seat; delete if toilet seat is required.

Seat Surface: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 7 polished finish.

Retain "Punching" subparagraph below if separate toilet seat is required.

Punching: Two holes for installation of separate toilet seat.

Mounting: Bolts through wall sleeve into accessible pipe space.

Flushometer Valve: <**Insert designation**>.

Retain "Toilet Seat" subparagraph below and coordinate with "Toilet Seats" Article if toilet seat is required. Toilet seat is usually not provided. Specify hole punching in bowl for separate seat, and delete requirement for polished finish on bowl seat surface if retaining seat.

Toilet Seat: <Insert designation>.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture. Include steel bars or other design to prevent escape if fixture is removed.

Retain "Configuration" subparagraph below for accessible units.

Configuration: Modify wall sleeve for water-closet mounting height according to ICC A117.1 “Accessible and Usable Buildings and Facilities”.

Design Consultant to review code references and verify that the referenced sections/tables are current. Note that code references shall be based on the current version of the Uniform Code.

Copy "Water Closets" paragraph below and re-edit for each type of front-access, extended-bowl water closet required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each water closet.

* + - * 1. Water Closets <**Insert drawing designation**>: Front access, [**off**] [**on**] floor, [**back**] [**floor**] outlet, extended bowl.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2792) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Bowl:

Retain one of two "Type" subparagraphs below. First subparagraph is for back-outlet water closets.

Type: Elongated, with back inlet, integral trap, and [**blowout**] [**siphon-jet**] design with back outlet, contoured seat, and access panel.

Retain "Type" subparagraph below for bottom-outlet water closets. Outlet piping at floor may be visible for off-floor water closets.

Type: Elongated, with back inlet, integral trap, and siphon-jet design with bottom outlet, contoured seat, and access panel.

Length to Wall: Minimum of 25 inches.

Retain "Back-Outlet Connection" or "Bottom-Outlet Connection" subparagraph below.

Back-Outlet Connection: [**3 inch**] [**4 inch**], horizontal with cleanout and slip joint.

Bottom-Outlet Connection: [**3 inch**] [**4 inch**], vertical.

Retain "Seat Surface" subparagraph below for integral seat; delete if toilet seat is required.

Seat Surface: ASTM A480, No. 7 polished finish.

Retain "Punching" subparagraph below if separate toilet seat is required.

Punching: Two holes for installation of separate toilet seat.

Mounting: Bolts from fixture-mounted flanges into wall.

Flushometer Valve: <**Insert designation**>.

Retain "Toilet Seat" subparagraph below and coordinate with "Toilet Seats" Article if toilet seat is required. Toilet seat is usually not provided. Specify hole punching in bowl for separate seat, and delete requirement for polished finish on bowl seat surface if retaining seat.

Toilet Seat: <**Insert designation**>.

Retain "Wall Sleeve" subparagraph below for formed wall openings for piping. A wall sleeve is not required.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture. Include steel bars or other design to prevent escape if fixture is removed.

* + - 1. FLUSHOMETER VALVES

Copy "Flushometer Valves" paragraph below and re-edit for each type of diaphragm flushometer valve required. Insert number to complete designation.

* + - * 1. Flushometer Valves <**Insert designation**>: [**Lever handle**] [**Push button**], diaphragm.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2797) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Advanced Modern Technologies Corporation - AMTC](http://www.specagent.com/Lookup?uid=123457200193).

[Sloan Valve Company](http://www.specagent.com/Lookup?uid=123457200089).

[Zurn Industries, LLC](http://www.specagent.com/Lookup?uid=123457200090).

Approved equivalent.

Standard: ASSE 1037 “Performance Requirements for Pressurized Flushing Devices for Plumbing Fixtures”.

Minimum Pressure Rating: 125 psig.

Features: Integral check stops and backflow-prevention device.

Material: Brass body with corrosion-resistant components.

Exposed Flushometer-Valve Finish: Chrome plated.

Panel Finish: Chrome plated or stainless steel.

In "Style" subparagraph below, retain "Concealed" option for back-spud or inlet water closets and urinals, and retain "Exposed" option for top-spud or inlet water closets and urinals.

Style: [Concealed] [Exposed].

In "Consumption" subparagraph below, retain first option for blowout water closets; second option for siphon-jet water closets; first option for blowout urinals; and third, fourth, or fifth option for washout urinals. Verify consumption requirements with manufacturer.

Consumption: [**3.5 gal.**] [**1.6 gal.**] [**1.5 gal.**] [**1.0 gal.**] [**0.5 gal.**] per flush.

Minimum Inlet: 1 inch.

Minimum Outlet: 1-1/4 inch.

* + - 1. TOILET SEATS

Coordinate this article with fixtures in "Combination Units" and "Stainless-Steel Water Closets" articles.

Copy "Toilet Seats" paragraph below and re-edit for each type of toilet seat required. Insert number to complete designation.

* + - * 1. Toilet Seats <Insert drawing designation>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2802) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457200151).

[Kohler Co](http://www.specagent.com/Lookup?uid=123457200156).

[Zurn Industries, LLC](http://www.specagent.com/Lookup?uid=123457200160).

Approved equivalent.

Standard: IAPMO Z124.5 “Interim Guide Criteria for Plastic Toilet (Water Closet) Seats”.

Material: Plastic.

* + - * 1. Type: Commercial [**standard**] [**heavy duty**].

Shape: Elongated rim, [**open**] [**closed**] front.

Hinge: Check.

Hinge Material: Noncorroding metal.

Seat Cover: [Required] [Not required].

Color: [**White**] [**Black**].

* + - 1. URINALS

Copy "Urinals" paragraph below and re-edit for each type of back-access, back-outlet, single urinal required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each urinal.

* + - * 1. Urinals <**Insert drawing designation**>: Back access, back outlet, single.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2803) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acorn Engineering Company; a Division of Morris Group International](http://www.specagent.com/Lookup?uid=123457200093).

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: [**Blowout**] [**Washout**], with [**back**] [**top**] inlet.

Drain: Strainer with 2 inch tailpiece and trap.

Mounting: Bolts through wall sleeve into accessible service space.

Flushometer Valve: <**Insert designation**>.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture.

Copy "Urinals" paragraph below and re-edit for each type of front-access, back-outlet, single urinal required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each urinal.

* + - * 1. Urinals <**Insert drawing designation**>: Front access, back outlet, single.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2804) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: [**Blowout**] [**Washout**], with [**back**] [**top**] inlet and access panel.

Drain: Strainer with 2 inch tailpiece and trap.

Mounting: Bolts from fixture-mounted flanges into wall.

Flushometer Valve: <**Insert designation**>.

Retain "Wall Sleeve" subparagraph below for formed wall openings for piping. A wall sleeve is not required.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture.

Copy "Urinals" paragraph below and re-edit for each type of back-access, back-outlet trough urinal required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each urinal.

* + - * 1. Urinals <**Insert drawing designation**>: Back access, back outlet, trough.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2806) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Washout, with [back] [top] inlet, and [**36 inches**] [**48 inches**] [**60 inches**] [**72 inches**] [**96 inches**] wide.

Drain: Strainer with 2 inch tailpiece and trap.

Mounting: Bolts through wall sleeve into accessible service space.

Flushometer Valve: <**Insert designation**>.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture.

Copy "Urinals" paragraph below and re-edit for each type of bottom-outlet, stall urinal required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each urinal.

* + - * 1. Urinals <**Insert drawing designation**>: Bottom outlet, stall.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2807) Subject to compliance with requirements, provide products by one of the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Washout, with [**back**] [**top**] inlet.

Drain: Strainer with 2 inch outlet.

Mounting: Bolts through wall into accessible service space.

Flushometer Valve: <**Insert designation**>.

* + - 1. STAINLESS-STEEL LAVATORIES

Copy "Lavatories" paragraph below and re-edit for each type of back-access lavatory required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each lavatory.

* + - * 1. Lavatories <**Insert drawing designation**>: Back access.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2808) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Receptor: [**Oval**] [**or**] [**rectangular**] bowl with integral soap depression and backsplash.

Hot- and Cold-Water and Bubbler Supply Valves: Mechanical-metering type with push-button actuation, individual check stops, and [**backsplash-**] [**or**] [**deck-**]mounted filler spouts complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Drain: Integral punched grid with 1-1/4 inch minimum horizontal waste and trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Accessories:

Toothbrush Holders: One on [**each**] [**left**] [**right**] side of backsplash.

Towel Hooks: [**One**] [**Two**] on [**each**] [**left**] [**right**] side of fixture.

Bubbler Location: On [**backsplash**] [**deck**].

Mounting: Bolts through wall into accessible service space.

Copy "Lavatories" paragraph below and re-edit for each type of front-access lavatory required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each lavatory.

* + - * 1. Lavatories <**Insert drawing designation**>: Front access.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2809) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acorn Engineering Company; a Division of Morris Group International](http://www.specagent.com/Lookup?uid=123457200110).

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: IAPMO PS 61 “Interim Guide Criteria for Material and Property Standard for Fabricated Stainless Steel Security Water Closets”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Receptor: [**Oval**] [**or**] [**rectangular**] bowl with integral soap depression, backsplash, and access panel.

Hot- and Cold-Water and Bubbler Supply Valves: Mechanical-metering type with push-button actuation, individual check stops, and [**backsplash-**] [**or**] [**deck-**]mounted filler spouts complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Drain: Integral punched grid with 1-1/4 inch minimum horizontal waste and trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Accessories:

Toothbrush Holders: One on [**each**] [**left**] [**right**] side of backsplash.

Towel Hooks: [**One**] [**Two**] on [**each**] [**left**] [**right**] side of fixture.

Bubbler Location: On [**backsplash**] [**deck**].

Mounting: Bolts from fixture-mounted flanges into wall.

* + - 1. DRINKING FOUNTAINS

Copy "Drinking Fountains" paragraph below and re-edit for each type of back-access drinking fountain required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each drinking fountain.

* + - * 1. Drinking Fountains <**Insert drawing designation**>: Back access.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2812) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Receptor: Bowl with backsplash.

Bubbler Supply Valve: Push-button actuation and [**backsplash-**] [**or**] [**deck-**]mounted filler spouts complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Drain: Integral punched grid with 1-1/4 inch tailpiece.

Waste Fittings: 1-1/4 inch minimum waste and trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Mounting: Bolts through wall into accessible service space.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture.

Copy "Drinking Fountains" paragraph below and re-edit for each type of front-access drinking fountain required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each drinking fountain.

* + - * 1. Drinking Fountains <**Insert drawing designation**>: Front access.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2813) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Receptor: Bowl with backsplash.

Bubbler Supply Valve: Push-button actuation and [**backsplash-**] [**or**] [**deck-**]mounted filler spouts complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Drain: Integral punched grid with 1-1/4 inch tailpiece.

Waste Fittings: 1-1/4 inch minimum waste and trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Mounting: Bolts from fixture-mounted flanges into wall.

* + - 1. SHOWERS

Showers in first two "Showers" paragraphs below require a floor drain and, if accessible, a hand-held showerhead, a separate seat, and a grab bar.

Copy first "Showers" paragraph and re-edit for each type of back-access, recessed shower required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each shower.

* + - * 1. Showers <**Insert drawing designation**>: Back access, recessed.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2815) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Wall, with showerhead and soap dish.

[**Tempered**] [**Hot- and Cold**]-Water Supply Valves: Mechanical-metering type with individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Shower: [**Hose with vandal-resistant, hand-held**] [**Vandal-resistant, fixed-type**] [**Vandal-resistant, swivel-type**] head.

Soap Dish: Recessed, stainless steel.

Mounting: Bolts through wall sleeve into accessible service space.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture.

Copy first "Showers" paragraph below and re-edit for each type of front-access, recessed shower required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each shower.

* + - * 1. Showers <**Insert drawing designation**>: Front access, recessed.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2817) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

[Bradley Corporation](http://www.specagent.com/Lookup?uid=123457200121)

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Wall, with showerhead and soap dish.

[**Tempered**] [**Hot- and Cold**]-Water Supply Valves: Mechanical-metering type with individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Shower: [**Hose with vandal-resistant, hand-held**] [**Vandal-resistant, fixed-type**] [**Vandal-resistant, swivel-type**] head.

Soap Dish: Recessed, stainless steel.

Access to Internal Components: Vandal-resistant access panels.

Mounting: Bolts from fixture-mounted flanges into wall.

Copy first "Showers" paragraph below and re-edit for each type of front-access, surface-mounted shower required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each shower.

* + - * 1. Showers <**Insert drawing designation**>: Front access, surface mounted.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2818) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

I-Con Systems, Inc.

[Metcraft Industries, Inc](http://www.specagent.com/Lookup?uid=123457200177).

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Wall, with showerhead and soap dish.

[**Tempered**] [**Hot- and Cold**]-Water Supply Valves: [**Pneumatic**] [**Mechanical-metering**] [**Electric-solenoid**] type with individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Soap Dish: Recessed, stainless steel.

Access to Internal Components: Vandal-resistant access panels.

Mounting: Bolts from fixture-mounted flanges into wall.

Copy first "Showers" paragraph below and re-edit for each type of back-access, accessible, cabinet shower required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each shower.

* + - * 1. Showers <**Insert drawing designation**>: Back access, accessible, cabinet.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2820) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Cabinet [**42 or 44 by 36 inches**] [**48 by 36 inches**] <**Insert dimensions**> with floor[**and top**], and with stainless-steel soap dish, towel hook, drain, seat, and grab bar.

[**Tempered**] [**Hot- and Cold**]-Water Supply Valves: Mechanical-metering type with individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Shower: Hose with vandal-resistant, hand-held head.

Drain: Grid with 2 inch outlet.

Waste Fittings: 2 inch waste to wall; trap complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Mounting: Bolts through wall into accessible service space.

Copy "Showers" paragraph below and re-edit for each type of back-access, cabinet shower required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each shower.

* + - * 1. Showers <**Insert drawing designation**>: Back access, cabinet.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2822) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Type and Configuration: Cabinet [**30 by 30 inches**] [**32 by 32 inches**] [**36 by 36 inches**] <**Insert dimensions**> with floor[**and top**], and with stainless-steel soap dish, towel hook, and drain.

[**Tempered**] [**Hot- and Cold**]-Water Supply Valves: Mechanical-metering type with individual check stops complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Shower: [**Vandal-resistant, fixed**] [**Fixed**] [**Swivel**]-type head.

Drain: Grid with 2 inch outlet.

Waste Fittings: 2 inch elbow waste complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Mounting: Bolts through wall into accessible service space.

* + - 1. SERVICE SINKS

Copy "Service Sinks" paragraph below and re-edit for each type of back-access, off- or on-floor service sink required.

Insert number to complete drawing designation. Use these designations on Drawings to identify each service sink.

* + - * 1. Service Sinks <**Insert drawing designation**>: Back access, [**off**] [**on**] floor.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2823) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Acorn Engineering Company; a Division of Morris Group International.

Willoughby Industries, Inc.

Approved equivalent.

Fixture:

Standard: ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures”.

Material: 0.078-inch- minimum-thick stainless steel; corrosion-resistant metal for internal piping and bracing.

Finish: ASTM A480 “Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip”, No. 4 polished finish on exposed surfaces.

Receptor: Rectangular bowl with high backsplash.

Nominal Size: [**20 by 19 inches**] [**24 by 19 inches**] <**Insert dimensions**>.

Hot- and Cold-Water Supply Valves: Push-button actuation and backsplash-mounted filler spout with [**hose**] [**plain**] end complying with ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Drain: Grid with 2 inch outlet.

Waste Fittings: 2 inch elbow waste complying with ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Mounting: Bolts through wall into accessible service space.

Wall Sleeve: Galvanized-steel frame of dimensions required to match fixture.

* + - 1. SUPPORTS
         1. Water Closet Carrier:

Standard: ASME A112.6.1 “Floor-Affixed Supports for Off-The-Floor Plumbing Fixtures for Public Use”.

Description: Waste-fitting assembly as required to match drainage piping material and arrangement with faceplates, couplings gaskets, and feet; bolts and hardware match fixture.[**Include additional extension coupling, faceplate, and feet for installation in wide pipe space.**]

* + - * 1. Type III Lavatory Carrier:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=12554) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Jay R. Smith Mfg Co; a division of Morris Group International](http://www.specagent.com/Lookup?uid=123457200143).

[Josam Company](http://www.specagent.com/Lookup?uid=123457200146).

[WATTS; A Watts Water Technologies Company](http://www.specagent.com/Lookup?uid=123457200144).

[Zurn Industries, LLC](http://www.specagent.com/Lookup?uid=123457200142).

Approved equivalent.

Standard: ASME A112.6.1M “Floor-Affixed Supports for Off-The-Floor Plumbing Fixtures for Public Use”.

1. EXECUTION
   * + 1. EXAMINATION
          1. Examine roughing-in for water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before fixture installation.
          2. Examine walls and floors for suitable conditions where fixtures will be installed.
          3. Proceed with installation only after unsatisfactory conditions have been corrected.
       2. INSTALLATION
          1. Install security plumbing fixtures level and plumb according to roughing-in drawings.
          2. Install back-access, stainless-steel fixtures as follows:

Install wall sleeve in wall if indicated.

Install fixture on wall sleeve or wall, as indicated, with access from accessible service space.

Extend supply piping from service space to fixture.

Install soil and waste piping from fixture and extend into service space.

Install fixture trap in service space instead of below fixture drain.

* + - * 1. Install front-access, stainless-steel fixtures as follows:

Install fixture support or mounting bracket.

Install fixture on support; mount components inside of or attached to fixture.

Extend supply piping from pipe space to fixture.

Install trap below fixture and extend soil and waste piping into pipe space.

* + - * 1. Install vitreous-china fixture service space as follows:

Install fixture support in service space.

Use combination support and waste fitting assembly for water closet.

Use chair carrier for lavatory.

Install fixture on support.

Install components in service space.

* + - * 1. Install fixture outlets with gasket seals.
        2. Install fixtures designated "accessible" according to ICC A117.1 “Accessible and Usable Buildings and Facilities” for heights, dimensions, and clearances.

Design Consultant to review code references and verify that the referenced sections/tables are current. Note that code references shall be based on the current version of the Uniform Code.

Retain first paragraph below if toilet seats are required.

* + - * 1. Install toilet seats on [**water closets**] [**and**] [**combination units**] if seats are indicated.

Coordinate first paragraph below with Drawings. Indicate on Drawings those fixtures that are required to be accessible.

* + - * 1. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible fixtures. Comply with requirements in Section 220719 "Plumbing Piping Insulation."
        2. Seal joints between fixtures, floors, 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."
        3. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons if required to conceal protruding fittings.
      1. CONNECTIONS

Coordinate piping installations and specialty arrangements with Drawings and with requirements specified in piping systems. If Drawings are explicit enough, these requirements may be reduced or omitted.

* + - * 1. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
      1. ADJUSTING
         1. Operate and adjust flushometer valves and flow-control valves on fixtures.
      2. CLEANING AND PROTECTION
         1. After installing fixtures, inspect and repair damaged finishes.
         2. Clean fixtures, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
         3. Provide protective covering for installed fixtures and fittings.
         4. Do not allow use of fixtures for temporary facilities unless approved in writing by Director’s Representative.

END OF SECTION 224600