

## DIVISION 22 PLUMBING

### Section 22 42 00 – Commercial Plumbing Fixtures

#### PART 1: GENERAL

- A. The design guidelines contained herein include the requirements for plumbing fixtures at Texas State University and is not intended to be a guide specification.
- B. Work Included: Provide water conserving plumbing fixtures, trim, and accessories specified. Fixtures shall be complete with carriers, trim brass, flush valves, seats, stops, and other required accessories as specified herein or required. Trim for all sinks, lavatories, urinals, water closets, and showers shall comply with applicable water conservation standards. Refer to Construction Standard 1-03\_ Codes-Rules-Laws and Requirements which govern this section.

#### PART 2: PRODUCTS

##### 2.01 Acceptable Standard Manufacturers:

###### A. FIXTURES:

1. Lavatory: wall hung, vitreous china lavatory, with rectangular basin, splash lip, front overflow, fabricated for concealed arm supports, and having two soap depressions. Drill lavatories for 4" center faucets. Provide concealed arm carriers, trap, and supplies and stops.

Basis-of-Design: Manufacturer-Kohler Company, model K-2032.

Note: Lavatory Intragal to Solid Polymen Counter Top are approved.

2. Lavatory: undercounter mounted, 19" x15" oval shaped, white vitreous china fixture, support clips for under counter mounting.

Basis-of-Design: Manufacturer-Kohler Company, model K-2211.

3. Water Closets: Public Buildings: Low Consumption, vitreous china, floor outlet, floor mounted, water saving, siphon jet elongated closet bowl, with 1-1/2" top spud; quiet flushing action, with self-draining jets and large passageway. Provide carriers, seat, and flush valve as specified in the Articles below.

Basis-of-Design: Water Closets (non-ADA compliant), Manufacturer- Kohler Company, model K-96053, 1.28 gpf, Elongated, white color.

Basis-of-Design: ADA Compliant Water Closets, manufacturer-Kohler Company, model #K-96057, 1.28 gpf, white color.

CAMPUS HOUSING - BASIS of DESIGN; Tank Type Water Closet. Manufacturer-Kohler Company, model K3422 elongated, white color.

4. Urinals: Wall hung, back outlet, washout, accessible where indicate on drawings.

Basis-of-Design: Manufacturer—Kohler Company, model #K5016-ET-0, 0.5 gpf, (ADA compliant), and white color.

- a. Provide required number of ADA urinals and locate at ADA mounting height.
- b. Provide clean-outs at each urinal, minimum of 6" above the flood-level rim of the fixture with cover to chromed plated (cover to be chromed plated). Approved manufacturer – MIFAB Series C11660-RD.

B. FAUCETS:

1. Public Buildings: ADA compliant, Self – closing type, 4" center only, chrome plated cast brass, cold water only is standard.

Basis-of - Design: (cold water) Manufacturer – Chicago Faucet, model 857-665PSHAB.

Basis-of -Design: (hot water) Manufacturer – Chicago Faucet, model 802-V665cp.

Approved Hot and Cold Water Metering Lavatory Faucet – Chicago Model #802-V665ABCP.

CAMPUS HOUSING – BASIS of DESIGN: ADA compliant, manual operated, 4" center only, chrome plated brass cast, 4" spout with constant flow aerator, single-wing handles indexed "HOT" and "COLD" and 1¼" chrome plated pop-up waste. Manufacturer – Delta, model 525 MPLI

2. Shower Faucet - ADA Compliant

Basis – of – Design: Manufacturer – Delta 1343 WS

- a. Provide built in shut off stops, washerless, mixer type shower and tub valve with metal blade handle.
- b. Valve shall open to cold water first and then through warm with metal blade handle.
- c. Valve shall open to cold water first and then through warm (mix) to hot.
- d. Faucet shall have all operating parts separately replaceable from outside the wall, rotating cylinder type operating mechanisms, equipped with replaceable nonmetallic seats contained in stainless steel lined sockets.
- e. Valve shall be equipped with pressure balance spool and sleeve device of Type 302 stainless steel which will maintain a preset high temperature limit; check stop (with an adjustable stop to prevent the possibility of the valve being turned to full hot water).
- f. Provide with handheld shower head with swivel fitting, 60" flexible stainless steel hose, in-line vacuum breaker, and 24" chrome plated shower head slide guide set at 42" and 66" above the shower unit floor.

C. FLUSHOMETER VALVES:

1. Water Closet Flush Valve: ADA compliant, battery powered, side mount sensor operated water closet flushometer.

Basis of Design: Manufacturer – Sloan Valve Company, Royal Optima SMO, model 111-1.28 HET Flush Valve and Sensor.

2. Urinal Flush Valve: Auto Flush chrome plated,  $\frac{3}{4}$ " I.P.S. screwdriver operated combination angle check and stop valve with protective cap, adjustable tailpiece, vacuum breaker flush connection and spud coupling for  $\frac{3}{4}$ " top spud flanges.

a. Basis- of-Design: Manufacturer - Sloan Royal 186 SMO-0.5-OR Royal Sensor Flushometer

#### D. FIXTURE SUPPORTS:

1. Lavatory Supports (Hollow Tile or CMU Walls): adjustable cast iron, with thin concealed arms and sleeves, and complete with escutcheons and mounting fasteners.
2. Need to add a carrier for normal plumbing chase in walls.

#### E. FITTINGS, TRIM, AND ACCESSORIES:

1. Toilet Seats: elongated, solid white plastic closed back/open front, less cover, and having stainless steel check hinge and replaceable bumpers.

a. Bemis Mfg. Co. Model #2L2155T 2" Lift

2. P-Traps:

a. Non ADA-cast brass, 1-1  $\frac{1}{2}$ " adjustable "P" trap, on all Lavatory and Electric Drinking Fountain, with cleanout and waste to wall. Approved manufacturer - Kohler, model K9000.

b. ADA requirements – P-trap designed to provide knee clearance for wheelchairs, per ADA. Approved manufacturer - Kohler K-7131-A-CP.

3. Grid Strainer – 1  $\frac{1}{4}$ " offset, by Kohler, model K13885.

#### F. DRINKING FOUNTAIN:

1. Elkay EZH20 System, Model LZSTL8WSSP - Next Generation Water Bottle Refilling Station, Bi-Level, Stainless. Alternative (where bi-level station is not required) – Elkay LZS8WSL.
2. Elkay EZH20 System, Model LZSTL(R)8WS or LZ8WS - Cooler/Bottle Filing Station (for Residential Life use).
3. Elkay, Model #EHFSA8L or #EZS8L, stainless steel housing.

#### G. HAMMER ARRESTERS

1. Approved manufacturer – Sioux Chief HydraRester Series

#### H. THERMOSTATIC MIXING VALVES

1. Approved manufacturer – HydroGuard XP Master Tempering Valves Series LFMM430.

**I. FLOOR SINKS**

1. Approved manufacturer – MIFAB Series FS1740, 12" X 12" X 10" (without weepholes)

**J. MOP SINKS**

1. Approved manufacturer for faucet – Chicago Faucets Model #. 305-VBRRCF
2. Approved manufacturer for basin – Stern Williams Serviceptor SB-900, 24" X 24" X 12".

**K. TRAP PRIMERS**

1. Approved manufacturer for IN-WALL electronic trap primer configurations – Precision Plumbing Products Prime-Time Electronic Trap Priming Assembly FLUSH MOUNT Models PT-4, PT-6, PT-8, PT-10, PT-12, PT-1320, PT-2130.
2. Approved manufacturer for EXPOSED electronic trap primer configurations – Precision Plumbing Products Prime-Time Electronic Trap Priming Assembly SURFACE MOUNT Models PTS-4, PTS-6, PTS-8, PTS-10, PTS-12, PTS-1320, PTS-2130
3. Approved manufacturer for water closet flush valve-type trap primers – Sloan Vacuum Breaker Trap Primer "TP" Variation Series VBF-72-A
4. Approved manufacturer for lavatory drain-type trap primers – Sioux Chief 200/213/206 series TrapEase trap Primer tailpiece.

**PART 3: EXECUTION****3.01 Installation:**

- A. Install a stop valve in an accessible location in the water connection to each fixture. Ensure rough-ins of hot & cold lavatory cutoff valves do not conflict with adjacent tailpieces.
  1. Approved manufacturer – Brass Craft ½" Nom Compression x 3/8" O.D. Compression Outlet ¼" turn Angle Stop.
- B. Install escutcheons at each wall, floor, and ceiling penetration in exposed finished locations and within cabinets and millwork.
  1. Approved manufacturer – BrassCraft ½" Nom (5/8 in. O.D.) (.625 I.D.) Iron Pipe Shallow Escutcheon.
- C. Install braided polymer supply lines for connections from angle stops to lavatory faucets.
  1. Accepted manufacturer – BrassCraft 3/8" Comp x ½" FIP
- D. Seal fixtures to walls and floors using silicone sealant. Match sealant color to fixture color.

**3.02 Field Quality Control:**

- A. Test fixtures to demonstrate proper operation upon completion of installation and after units are water pressurized. Replace malfunctioning units, then retest.

END OF SECTION 22 42 00