SECTION 22 40 00 - PLUMBING FIXTURES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Water closets.
   B. Urinals.
   C. Lavatories.
   D. Under-lavatory pipe supply covers.

1.02 RELATED REQUIREMENTS
   A. Section 22 05 00 – Common Work Results for Plumbing
   B. Section 22 10 05 – Plumbing Piping.
   C. Section 22 11 16 – Domestic Water Piping
   D. Section 22 13 00 – Facility Sanitary Sewerage
   E. Section 22 30 00 – Plumbing Equipment
   F. Section 22 45 00 – Emergency Plumbing Fixtures
   G. Section 22 47 00 – Drinking Fountains and Water Coolers

1.03 SUBMITTALS
   A. Product Data: Provide catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS
   A. Potable Water Systems: Provide plumbing fittings and faucets that comply with NSF 61 and NSF 372 for maximum lead content; label pipe and fittings.

2.02 WATER CLOSETS
   A. At Student Apartments:
1. Toilet shall be 1.28 GPF vitreous china round front bowl, with direct flow priming jet and reverse trap. Hydraulic performance exceeding ANSI A112.19.2 requirements,

2. Seat: All plastic, closed front with cover, stainless steel hinge,

3. Campus Preference:
   a. 1.28 HET Floor Mount Floor Discharge - American Standard 2234.001.020 1.1 - 1.6
   b. 1.28 HET Floor Mount Floor Discharge (ADA) - American Standard 3461.001.020 1.1 - 1.6

B. Public Restrooms (including dormitories):
   2. Flush Valve: Exposed (top spud).
   4. Toilets shall be 1.28 GPF, wall hung with support carrier, vitreous china, elongated, flush valve type exceeding ANSI A112.19.2 requirements,
   5. Campus Preference:
      a. American Standard 2257.101.020 with Afwall 1.1 - 1.6 (1.28)
      b. 1.28 GPF HET manual Toilet (No Piston Valve) - Zurn Z6000 AV Model
      c. 1.28 GPF HET Sensor Toilet (No Piston) - ZER6000 CPM Model

C. Alternate water closet for single stall public rest rooms where light use is expected: Toilet shall be 1.28 GPF with hydro-pneumatic pressure assisted flush, vitreous china, floor mounted, elongated bowl, exceeding ANSI A112.19.2 requirements. Seat: All plastic, open front elongated without cover; stainless steel hinge.

D. Not Recommended Models:
   1. Toilet: Zurn Z5615 Series, Zurn Z5655 Series, and Zurn Z5665 Series 1.28 GPF Elongated vitreous china toilet. The toilet bowls are too shallow for proper water scouring when flushed.
   2. Toilet Seat: Elongated Open Front Seat - Bemis 1955SSCT

E. Flush Valves: ASME A112.18.1, diaphragm type, complete with vacuum breaker stops and accessories.
1. Sensor-Operated Type: Solenoid or motor-driven operator, low voltage hard-wired, infrared sensor with mechanical over-ride or over-ride push button.
2. Exposed Type: Chrome plated, escutcheon, integral screwdriver stop.
3. University Preferred Manufacturer and Model: Zurn ZTS6200EV high efficiency flushometer valve.

2.03 WALL HUNG URINALS

   1. Flush Volume: 1.0 gallons (3.7 liters), maximum.
   2. Flush Valve: Exposed (top spud).
   4. Trap: Integral.

B. Flush Valves: ASME A112.18.1, diaphragm type, complete with vacuum breaker stops and accessories.
   1. Sensor-Operated Type: Solenoid or motor-driven operator, low voltage hard-wired, infrared sensor with mechanical over-ride or over-ride push button.
   2. Exposed Type: Chrome plated, escutcheon, integral screwdriver stop.
   3. University Standard Manufacturer: Zurn

C. Carriers:
   1. ASME A112.6.1M; cast iron and steel frame with tubular legs, lugs for floor and wall attachment, threaded fixture studs for fixture hanger, bearing studs.
   2. University Preferred Manufacturers: Zurn, Josam, Mifab and J.R. Smith

D. Campus Standards, as appropriate for use/scope:
   1. American Standard Washbrook 0.125 GPF FloWise Washout Top Spud Urinal, Model No. 6590001.020.
   2. Zurn Z5758 “The Retrofit Pint” 0.125 GPF Ultra Low Consumption Urinal System (21" - 24" Footprint)
   3. Zurn-ZER 6003-CPM Model Sensor Operated Battery Powered Flush Valve for %" Urinals (Note: Hard-wired is standard for new construction.)

2.04 TRAP ADAPTERS:
A. Campus Standard: Use when waste line has a tubular trap. Purpose is to allow for easier maintenance.


2.05 LAVATORIES AND FAUCETS

C. Vitreous China Wall Hung Basin: ASME A112.19.2; vitreous china wall hung lavatory, 20” by 18” inch minimum, with 4 inch (100 mm) high back, rectangular basin with splash lip, and front overflow.

1. University Preferred Manufacturers and Models:
   a. Student Housing: Zurn Z5361, 20” by 18”, high back

D. Vitreous China Counter Top Basin: ASME A112.19.2; vitreous china self-rimming counter top lavatory, 19” round, with drillings on 4-inch (100 mm) centers, front overflow, soap depression, seal of putty, caulking, or concealed vinyl gasket.

1. University Preferred Manufacturer and Model:
   a. Student Housing: Zurn Z5120 - Series, 19” round

E. Faucets:

1. Student Housing at lavatories: Heavy duty commercial grade single handle faucet; deck mounted with 4” centerset, chrome plated finish, vandal resistant handle, brass body, washerless design, rotating ball control mechanism with replaceable nonmetallic seats and stainless steel socket, vandal resistant 0.5 GPM flow restrictors spray outlet, left rod operated metal drain.
   a. Preferred Manufacturer and Model: Moen CA83005 Non-mixing Electronic Faucet (0.325 GPM Vandal Resistant Flow).

2. Student Housing at Kitchen Sink: Heavy duty commercial grade, single handle faucet, deck mounted with 8” centers, 8” swing spout, chrome plated finish, vandal resistant handle, brass body, rotating stainless steel ball control mechanism with replaceable non-metallic seats and stainless-steel socket, vandal resistant 2 GPM flow restrictor aerator.

3. Campus Preferred Faucets, Public Restrooms:
   a. Moen 8413 F03 Comm 4” cc .35 GPM
b. Moen 8551 Sensored

4. Faucet Maintenance:
   a. Use 0.375 GPM Tamper Resistant Laminar Flow Control for existing lavatory faucets: Neoperl 40.7059.733

2.06 UNDER-LAVATORY PIPE SUPPLY COVERS

A. General:
   1. Insulate exposed drainage piping including hot, cold and tempered water supplies under lavatories or sinks per ADA Standards.
   2. Construction: 1/8-inch (3.2 mm) PVC with antimicrobial, antifungal and UV resistant properties.
      a. Comply with ASME A112.18.9 for covers on accessible lavatory piping.

PART 3 EXECUTION

3.01 INSTALLATION
   A. Install components level and plumb.

END OF SECTION 22 40 00