SECTION 22 40 00 – PLUMBING FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vitreous china elongated water closets equipped with secondary overflow protection.
2. Patented leak-prevention flush mechanisms, fill valves, trim, and installation accessories.
3. Sink and vanity units.
4. Trench drains and accessories

1.2 REFERENCES

A. ASME A112.19.2 - Ceramic Plumbing Fixtures.
B. CSA B45-02 (Supplement No. 1-2004) - Ceramic Plumbing Fixtures.
C. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities (ADA Compliant).
D. EPA WaterSense - Tank-Type High-Efficiency Toilet Specification.
E. IAPMO / UPC - Uniform Plumbing Code Compliance.
F. IGC 252-07 - Test Method for Secondary Overflow Protection.

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's technical data sheets, dimensional layouts, rough-in requirements, and certifications for water closets and trim.
B. Operation and Maintenance Data: Submit maintenance instructions, troubleshooting guides, and cleanout procedures for the secondary drain system.
C. Project Care Documentation: Provide specific guidance for facility staff regarding the testing of the overflow bypass in senior living environments.
D. Warranty Documentation: Submit copy of manufacturer's standard 5-year limited warranty.

1.4 QUALITY ASSURANCE

A. Water Efficiency: Provide fixtures certified to EPA WaterSense standards with a maximum flush volume of 1.28 GPF (4.8 LPF).
B. Accessibility and Senior Care Design: Provide fixtures engineered specifically to accommodate individuals with physical disabilities, mental disabilities, or visual impairments. Fixtures must comply with ADA requirements for bowl height and trip lever location when installed according to accessibility guidelines.

1.5 WARRANTY

A. Manufacturer's standard 5-year limited warranty ensuring durability and trust across all internal flushing components and vitrified casting.

PART 2 - PRODUCTS

2.1 WATER CLOSETS

A. Manufacturer: Penguin Toilets; Penguin PAQ Deluxe (Featuring AquaMizer® Technology) or Approved Equal.
B. Description: Two-piece, floor-mounted, close-coupled, gravity-feed toilet assembly with an integrated secondary drain system or Approved Equal.
C. Material: High-quality vitreous china with a fully glazed Sani-Glaze trapway for optimal hygiene and waste removal or Approved Equal

D. Bowl Configuration: Elongated comfort bowl, comfort/chair height (minimum 16-1/8 inches floor to rim, excluding seat), designed for senior living and accessible facilities.
E. Rough-In: 24-inch standard centerline dimension from the finished wall.
F. Minimum Operating Pressure: 15 PSI minimum operating pressure for reliable performance.
G. Flushing Performance: Minimum 1,000-gram MaP score for superior waste removal performance.
H. Water Consumption: High-efficiency 1.28 gallons per flush (4.8 liters per flush).
I. Integrated Safety Systems: Exclusive Penguin Protection secondary drain system embedded within the vitreous china casting or Approved Equal.

1. Mechanism: System must route excess rising water away to a secondary internal trapway, preventing toilet overflows and flood damage.

2.2 FIXTURE TRIM AND COMPONENTS

A. Flush Valve: Patented AquaMizer® 3-inch Flushing System engineered to reduce facility water use and eliminate flush-valve leaks or Approved Equal.
B. Fill Valve: Precision-engineered AquaMizer® Fill Valve optimized for leak prevention and rapid, quiet tank refills or Approved Equal.
C. Trip Lever: Chrome tank lever positioned on the accessible side of the tank to satisfy ADA compliance guidelines.
D. Toilet Seat: Approved, heavy-duty elongated, soft closing toilet seat matching fixture color, provided with concealed mounting hardware.

2.3 LAVATORIES, VANITIES, AND MIRRORs

A. 24" Floating ADA Vanity with Ceramics Sink& Mirror Cabinet Combination:

1. Manufacturer: Findepot: Bathroom Vanity Set (4 Piece): Color: Oak, Size: 24", Material: Resin Stone and Engineered Wood, Vanity overall dimensions: 23.98" W x 24" x H 19"D.
2. Mirror Cabinet with Open Shelves: 22.8" W x 25.5" H x 5.3" D.
3. Manufacturer Part Number: BV13
4. Moisture Resistant
5. Wall Mounted
6. Vanity Cabinet: 2 doors with 1 shelf
7. Mirror Cabinet with Open Shelves

B. Culture Marble Shelf Inserts installed on open wood shelves of the Findepot Bathroom Vanity Set.

1.Countertek's Marblux® Cultured Marble or Approved Equal.

C. Faucet / Fittings

1. Single Deck Faucet

a. Manufacturer: American Standard or Approved Equal.
b. Model: Aspirations™ Single Control Petite Monoblock Faucet.
c. Model Number: 7061131: Metal body and lever hand with metal push pop-up drain or Approved Equal.
c. Dimensions: 4 7/8" H x 5 1/2" D with 4" spout reach. Note that dimensions are critical to verify distance between vanity top and bottom of mirror/shelf cabinet to accommodate the faucet height and be fully operational with single lever by residents.
d. 1.2 gpm flow
e. WaterSense certification
f. ADA compliance

g. Adjustable temperature limit stop
h. Ceramic cartridge

2. Accessible Handheld Shower System
   a. Manufacturer: Delta or Approved Equal
   b. Shower Valve Trim: Ashlyn® Monitor® 17 Series Valve-Only Trim, Model T17064, Chrome; ADA-compliant dual-function pressure-balance control with separate volume/on-off handle and temperature adjustment control.
   c. Rough-In Valve: MultiChoice® Universal High-Flow Shower Rough, Model R10000-UNWSHF, shower-only configuration with integral service stops.
   d. Handheld Shower and Adjustable Grab/Slide Bar: ActivTouch® 9-Setting Hand Shower with Traditional Slide Bar/Grab Bar, Model 51900, Chrome; adjustable handheld mounting position, flexible hose, multiple spray functions and handset-operated pause feature.
   e. Handheld Shower Supply: 90-degree wall elbow, Model 50560, Chrome.
   f. Operation: Provide shower system allowing resident to independently control water volume/on-off and temperature at wall-mounted valve. Handheld shower shall be vertically adjustable for seated or standing bathing and shall provide one-handed spray selection and temporary pause control at handset.
   g. Installation: Install grab/slide bar with structural blocking and anchorage in accordance with manufacturer's requirements and accessibility requirements. Coordinate mounting heights and locations with controls, grab bars and accessible reach ranges indicated on Drawings.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that closet flange centerline is roughed-in at the specified 24-inch distance from the finished wall surface.
B. Examine floor surfaces to ensure they are level, smooth, rigid, and ready to support the fixture weight without deflection in high-use senior living environments.

3.2 INSTALLATION

A. Install water closets at locations indicated on drawings, adhering strictly to final rough-in dimensions.
B. Secure closet bolts to the floor flange assembly. Center the fixture squarely against the finished wall.
C. Install a heavy-duty wax setting ring evenly around the waste horn. Set the bowl firmly using a uniform downward pressure to compress the seal.
D. Tighten flange nuts evenly to secure the fixture. Do not overtighten nuts to prevent fracturing the vitreous china base.
F. Connect the tank to the local domestic water supply using a flexible stainless steel braided supply line and an isolation angle stop valve.

3.3 ADJUSTING AND CLEANING

A. Adjust the AquaMizer® fill valve control within the tank to match the designated 1.28 GPF manufacturer specification line.
B. Run multiple test flushes to confirm swift clearing action, full trap seal restoration, and a completely leak-free structural connection at the floor flange and tank-to-bowl gasket.
C. Clean all exterior surfaces using non-abrasive sanitizing cleaners prior to turning the facility rooms over to operations.