

SECTION 221310

PLUMBING SPECIALTIES

Part 1 GENERAL

1.1 STIPULATIONS

- A. The specifications sections “General Conditions of the Construction Contract”, “Special Conditions”, and “Division 1 – General Requirements” form a part of this Section by this reference thereto and shall have the same force and effect as if printed herewith in full.

1.2 SECTION INCLUDES

- A. Work in this Section includes the following:

1. Cleanouts
2. Floor Drains
3. Trench Drains
4. Hose Bibbs
5. Freeze Proof Hose Bibb
6. Backflow Preventors
7. Water Hammer Arrestors
8. Trap-Seal Primer Device
9. Water Meters
10. Gas Pressure Regulators

Part 2 PRODUCTS

2.1 CLEANOUTS

- A. Cleanouts shall be of coated cast iron construction with scoriated nickle bronze tops, (unless noted), vandalproof screws. Floor cleanouts shall be adjustable to finished floor after concrete is set. Cleanouts on exposed piping shall consist of threaded ferrules with threaded bronze plugs. Cleanouts shall be as manufactured by Jones Spec, Josam, J.R. Smith, Wade or Zurn.
- B. Cleanout types shall be as follows:
1. Finished Floor Cleanouts

Josam
J.R. Smith
Wade
Zurn

W -6000-5
ZN-1400-2

2. Wall Cleanouts

Josam
Smith
Wade
Zurn

ZANB-1468

2.2 FLOOR DRAINS

FD-1 Dura-coated cast-iron light duty floor drain with Type "B" 5-inch round nickel-bronze strainer, adjustable to finished floor. Floor drain shall be ZN-415-5B-P as manufactured by Zurn Industries, Inc. Wade 1100-TY-STDS-1

2.3 TRENCH DRAINS

a. Trench Drains TD-1:

(1). Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

- (a). Zurn Plumbing Products Group; Specification Drainage Operation
- (b). Josam Company; Josam Div.
- (c). Smith, Jay R. Mfg. Co.; Division of Smith Industries, Inc.
- (d). Tyler Pipe; Wade Div.

(2). Standard: ASME A112.6.3 for trench drains.

(3). Material: Ductile or gray iron.

(4). Flange: Anchor

(5). Clamping Device: Required.

(6). Outlet: Bottom

(7). Grate Material: Ductile iron

(8). Grate Finish: Not required.

(9). Top Loading Classification: Heavy Duty.

2.4 HOSE BIBBS

A. HB-1 Hose Bibb

1. Angle pattern hose bibb consisting of a brass body, vacuum breaker-backflow preventor with 3/4-inch male hose thread nozzle, tee-handle and 3/4-inch copper water tube inlet. Hose bibb shall be Model 24C as manufactured by Woodford Manufacturing Co.

2.5 BACKFLOW PREVENTORS

- A. Backflow preventors shall be installed where shown on the drawings and conform to the type required by the local water authority.
- B. Units shall be supported in accordance with manufacturer's recommendations.
- C. Acceptable Manufacturers: Watts, FEBCO, Wilkins.

- D. Reduced Pressure Backflow Preventors - ANSI/ASSE 1013; bronze body with bronze and plastic internal parts and stainless steel springs; two (2) independently operating, spring loaded check valves with replaceable seats; diaphragm type differential pressure relief valve located between check valves; non-threaded vent outlet; assembled with two (2) gate valves, strainer, and test cocks.
- E. Double Check Valve Assemblies - ANSI/ASSE 1015; corrosion resistant internal parts and stainless-steel springs; two independently operating check valves, assembled with two (2) gate valves, strainer, and test cocks.

2.6 WATER HAMMER ARRESTORS

- A. Water Hammer Arrestors shall be of Type "L", Type "K" copper or stainless-steel bellows or plunger type construction conforming to PDI WH-201. Sioux Chief Series 650, PPP, Inc., Series SWA or SC, JR Smith, Josam, or Zurn.

2.7 TRAP-SEAL PRIMER DEVICE,

- A. Supply-Type, Trap-Seal Primer Device:

- 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - a. Sioux Chief Manufacturing Company, Inc.
 - b. Precision Plumbing Products, Inc.
 - c. Watts; a division of Watts Water Technologies, Inc.; Watts Regulator Company.
- 2. Standard: ASSE 1018.
- 3. Pressure Rating: 125 psig minimum.
- 4. Body: Bronze.
- 5. Inlet and Outlet Connections: NPS 1/2 threaded, union, or solder joint.
- 6. Gravity Drain Outlet Connection: NPS 1/2 threaded or solder joint.
- 7. Finish: Chrome plated, or rough bronze for units used with pipe or tube that is not chrome finished

2.8 WATER METERS

- A. Water meters shall conform to AWWA C-700 and have a working pressure rating of 150 pounds per square inch gauge (psig). Meters shall be designed to measure flow in one direction only.
- B. Positive displacement disc type meters up to 2-inch size shall be as manufactured by Hersey measurement Company, Sensus or accepted substitution.
- C. Compound type water meters 2-inch size and larger shall have integral test plug for inline testing as manufactured by Sensus or accepted substitute.

2.9 HOSE ASSEMBLIES

- A. Description: Compatible hose, clamps, couplings, and splicers suitable for compressed-air service, of nominal diameter indicated, and rated for 300-psig minimum working pressure, unless otherwise indicated.
 - 1. Hose: Reinforced double-wire-braid, CR-covered hose for compressed-air service.

2. Hose Clamps: Stainless-steel clamps or bands.
3. Hose Couplings: Two-piece, straight-through, threaded brass or stainless-steel O-ring or gasket-seal swivel coupling with barbed ends for connecting two sections of hose.
4. Hose Splicers: One-piece, straight-through brass or stainless-steel fitting with barbed ends for connecting two sections of hose.

2.10 GAS PRESSURE REGULATORS

- A. Gas pressure regulators shall be diaphragm actuated with cast iron body, aluminum diaphragm chamber, and all internal parts designed for use with natural gas. Regulators shall be adjustable, with automatic loading, automatic low-pressure cut-off, and full internal relief. The regulator shall be adjusted for outlet pressure indicated on the drawings. The outlet pressure shall not vary more than 1-inch w.c. from the set point at specified capacity. The regulator shall be capable of complete shut-off in the event the supply pressure is interrupted, or the gas demand exceeds the regulator capacity and shall remain off until the regulator is manually reset. The regulator shall have a weatherproof, bug proof, screened vent cap installed in the vent tapping. Regulators shall be:

Regular	3/4" - 1-1/4"	1-1/2" - 2"
Rockwell	143-4	243-12-4
Fisher	1823B	-----
Singer	S-104	S-204
With Full Relief	3/4" - 1-1/4"	1-1/2" - 2"
Rockwell	143-6	143-12-6
Fisher	1883B	-----
Singer	S-106	S-206

Part 3 EXECUTION

3.1 INSTALLATION

- A. All materials, equipment and accessories shall be installed in strict accordance with manufacturer's recommendations.
- B. Provide isolation valves for all fixtures, equipment, and accessories.
- C. All floor drains shall be flush with floor and per manufacturers recommendations.

END OF SECTION