SECTION 40 05 08

WALL PIPES, FLOOR PIPES, AND PIPE SLEEVES

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install all floor pipes, pipe sleeves, wall pipes, other wall pieces, and escutcheons to complete the Work.

B. Coordination:
   1. Review installation procedures under this and other Sections and coordinate with the installation of floor pipes, pipe sleeves, wall pipes, other wall pieces and escutcheons that must be installed with or within formwork, walls, partitions, ceilings and panels.

C. Related Sections:
   1. Section 03 30 00, Cast-In-Place Concrete.
   2. Section 07 92 00, Joint Sealants.

1.2 REFERENCES

A. Standards referenced in this Section are listed below:
   1. American National Standards Institute, (ANSI).
      a. ANSI B16.1, Cast-Iron Pipe Flanges and Flanged Fittings.
      b. ANSI B16.4, Gray-Iron Threaded Fittings.
   2. American Water Works Association, (AWWA).
      a. AWWA C104 (ANSI A21.4), Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
      b. AWWA C110 (ANSI A21.10), Ductile-Iron and Gray-Iron Fittings, for Water.
      c. AWWA C111 (ANSI A21.11), Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
      d. AWWA C115 (ANSI A21.15), Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
      e. AWWA C151 (ANSI A21.51), Ductile-Iron Pipe, Centrifugally Cast, for Water.
      f. AWWA C200, Steel Water Pipe 6-Inches and Larger.

1.3 QUALITY ASSURANCE

A. Component Supply and Compatibility:
   1. Obtain all equipment included in this Section regardless of the component manufacturer from a single wall pipes, floor pipes and pipe sleeves manufacturer.
   2. The wall pipes, floor pipes and pipe sleeves manufacturer to review and approve or to prepare all Shop Drawings and other submittals for all components furnished under this Section.
   3. All components shall be specifically constructed for the specified service conditions and shall be integrated into the overall assembly by the wall pipes, floor pipes and pipe sleeves manufacturer.

1.4 SUBMITTALS

A. Action Submittals: Submit the following:
   1. Shop Drawings:
      a. Detailed drawings and data on all wall and floor pipe, and pipe sleeves. Submit and coordinate these with Shop Drawings required for all piping systems.

1.5 DELIVERY, STORAGE AND HANDLING

A. Comply with the requirements of Section 33 05 05, Buried Piping Installation, and Section 40 05 05, Exposed Piping Installation.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Wall and Floor Pipes:
   1. Material: Same as specified for the piping connected to wall or floor pipe, unless otherwise noted.
   2. End Connections: As shown.
   3. Thickness: Same as specified for the piping connected to wall or floor pipe.
   4. Collars: Provide collars at mid-point of wall for anchorage and watertightness.
   5. Pipes ends shall be flush with wall face, unless otherwise shown.
   6. Drill and tap flanged ends and mechanical joint bells for studs. Provide studs of same material as connected piping, except submerged and buried studs shall be of Type 316 stainless steel. For stainless steel bolting, use graphite-free anti-seize compound to prevent galling.

B. Pipe Sleeves:
   1. Ferrous and Plastic Pipe: Use standard weight galvanized steel pipe, unless otherwise shown.
   2. Copper Pipe: Use Type K hard drawn copper pipe, unless otherwise shown.

C. Cast Wall Sleeves:
   1. Material: Stainless steel Type 304 shall be used for non-submerged wall sleeves. Carbon steel shall be used for submerged wall sleeves. All wall sleeves shall be furnished with integral wall collar.
   2. Dimensions: As required for mechanical joint pipe to pass through sleeve or as shown. Length as required.

D. Link Seals: Provide link type mechanical seals suitable for 20 psi working pressure, corrosive service and accessible from one side, with glass-reinforced nylon pressure plate and stainless steel bolts and nuts. For stainless steel bolting, use graphite-free anti-seize compound to prevent galling.
   1. Products and Manufacturers: Provide one of the following:
      a. Link-Seal, as manufactured by Thunderline Corporation.
      b. Or equal.

E. Wall and Ceiling Plates:
   1. Bare pipes passing through walls and ceilings in finished rooms: Provide escutcheon plates of cast brass or cast-iron nickel plated, clevis or split ring and hinged with set screws.
   2. Provide plated escutcheon plates of 18-gauge steel for insulated pipes passing through walls and ceilings in finished rooms.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Wall and Floor Pipes: Install as shown and in accordance with approved Shop Drawings.

B. Pipe Sleeves:
   1. Use sleeves wherever pipes pass through walls, partitions, floors, and roofs, unless otherwise shown.
   2. Extend all sleeves through floor slabs a minimum of 2-inches above finished floor.
   3. Anchor sleeves to concrete and masonry walls as shown or otherwise approved.
   4. All sleeves through walls shall be flush with wall face.
   5. All pipe joints and annular spaces in exterior walls or walls subjected to hydrostatic pressure shall be completely watertight.

   6. Use link type seals to seal sleeve against hydrostatic pressure. Size sleeves to provide annular space required to suit the link type mechanical seals that are used.

7. Do not install sleeves and pipes through structural members, unless specifically shown and approved by ENGINEER.
8. Size sleeves to provide annular space as follows:

Pipe Size	Sleeve ID Minus Pipe Or Insulation OD
Less than 2-inches	1/2-inches to 3/4-inches
2-inches to 4-inches	3/4 inches to 1-1/4-inches.
6-inches to 12-inches	1-1/4 inches to 2-inches
Over 12-inches	2-inches to 3-inches

C. Install wall and ceiling plates in accordance with the manufacturer's recommendations and approved Shop Drawings.

+ + END OF SECTION + +