This master should be used by designers working on Port of Portland construction projects and by designers working for PDX tenants (“Tenants”). Usage notes highlight a few specific editing choices, however the entire section should be evaluated and edited to fit specific project needs.

SECTION 220553 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

1. GENERAL
   * + 1. DESCRIPTION
          1. This section describes the identification of valves, piping, and equipment components of the mechanical systems to indicate their function and system served.
       2. REFERENCES
          1. ANSI: American National Standards Institute

ANSI A13.1: Scheme for the Identification of Piping Systems

* + - * 1. OSPSC: Oregon State Plumbing Specialty Code
      1. SUBMITTALS
         1. Product Data: For all products specified herein.
         2. Valve Tag Directory: Submit for approval prior to fabrication of valve tags.
         3. Equipment Nameplate Directory: Submit for approval prior to fabrication of labels.
         4. Include copy of valve tag and equipment nameplate directories in each set of operation and maintenance manuals.

1. PRODUCTS

Fill in abbreviated name of project in the blank below. Check with the PE, if necessary.

* + - 1. VALVE IDENTIFICATION
         1. Valve Tags:

General: Identify valves with metal tags. Legends shall be stamped or embossed. Tags shall indicate the function of the valve and its normal operating position; for example:

\_\_\_\_\_\_ (SPECIFIC PROJECT IDENTIFIER)

56 HW (NUMBER AND CONTENT OF PIPE)

ISOLATION (VALVE FUNCTION)

NO (NORMAL OPERATION POSITION)

Size: Valve tags 2-inch diameter with 1/4-inch-high letters.

Material: Use 0.050 or 0.064-inch brass tags.

Automatic Valves and Regulating Valves: Use 1/16-inch-thick laminated 3-ply plastic, center ply white, outer ply red, “lamicoid,” or equal. Form letters by exposing center ply.

Existing Buildings and Systems: Contact the Port for coordination with existing building tagging system and supplementary information required for any specific system before valve tagging begins.

* + - * 1. Valve Tag Directory: Include tag number, location, exposed or concealed, service, valve size, valve manufacturer, valve model number, tag material, and normal operating position of valve.
      1. PIPING MARKERS
         1. Acceptable Manufacturers: Marking Systems, Inc. (MSI), Seton, W. H. Brady, or equal.
         2. Label pipes with all-vinyl, self-sticking labels or letters. For pipe covering sizes up to and including 3/4-inch outside diameter, select labels with 1/2-inch letters. For sizes from 3/4- to 2‑inch outside diameter, 3/4-inch letters; above 2 inches outside diameter, 2-inch letters. The pipe markers shall be identified and color coded as follows with black directional arrows.

Grease waste is considered as all piping from concessions space up to the point of connection to an exterior grease interceptor, regardless of whether a point of use interceptor is installed.

|  |  |  |
| --- | --- | --- |
| **SERVICE** | **PIPE MARKER** | **BACKGROUND COLOR** |
| Nonpotable Cold Water | “NONPOTABLE COLD WATER DANGER-UNSAFE WATER” | Yellow |
| Nonpotable Hot Water | “NONPOTABLE HOT WATER DANGER-UNSAFE WATER” | Yellow |
| Cold Water | “DOMESTIC COLD WATER”\* | Green |
| Tempered Water | “TEMPERED WATER”\* | Yellow |
| Hot Water | “DOMESTIC HOT WATER SUPPLY” \* | Yellow |
|  | “DOMESTIC HOT WATER RETURN” \* | Yellow |
| Natural Gas | “NATURAL GAS” | Yellow |
| Sanitary Waste | “SANITARY WASTE” | Green |
| Storm Drain | “STORM DRAIN” | Green |
| Overflow Drain | “OVERFLOW DRAIN” | Green |
| Vent | “VENT” | Yellow |
|  |  |  |
| Gas Vent | “GAS VENT” | Yellow |
| Grease Waste | “GREASE WASTE” | Green |
| Vacuum Grease Waste | “VACUUM GREASE WASTE” | Green |
| Liquefied Grease Waste | “LIQUEFIED GREASE WASTE” | Green |

\* Directional arrow applied adjacent to pipe marker indicating direction of flow.

* + - 1. EQUIPMENT IDENTIFICATION
         1. Nameplates:

Tag all pumps, air supply units, fans, converters, and miscellaneous items of mechanical equipment with engraved nameplates. Nameplates shall be 1/16-inch-thick, 3 x 5 laminated 3-ply phenolic plastic, center ply white, outer ply black. Form letters by exposing center ply.

Identify unit with code number as shown on drawings and area served.

* + - * 1. Equipment Nameplate Directory: List pumps, air handlers, terminal units, and other equipment nameplates. Include Port- and Contractor-furnished equipment. List nameplate designation, manufacturer’s model number, location of equipment, area served or function, disconnect location, and normal position of HOA switch.

1. EXECUTION
   * + 1. VALVE IDENTIFICATION
          1. Valve Tags:

Attach to valve with a brass chain.

Number valves per direction of the Port.

* + - * 1. Valve Tag Directory: Post final copy in operation and maintenance manual.
        2. Concealed Valves: Affix color coded “dot” to walls or ceilings wherever valves are concealed. Colors shall be as follows:

Domestic CW Green

Domestic HW Yellow

Plumbing Cleanouts Black

* + - 1. PIPING MARKERS
         1. Unless recommendations of ANSI A13.1 are more stringent, apply labels or letters after completion of pipe cleaning, insulation, painting, or other similar work, as follows:

Every 20 feet along continuous exposed lines.

Every 10 feet along continuous concealed lines.

Adjacent to each valve and stubout for future.

Where pipe passes through a wall, into and out of concealed spaces.

On each riser.

On each leg of a “T.”

Locate conspicuously where visible.

* + - * 1. Further, apply labels or letters to lower quarters of the pipe on horizontal runs where view is not obstructed or on the upper quarters when pipe is normally viewed from above. Apply arrow labels indicating direction of flow.
        2. Spray a protective coating of clear epoxy over markers and arrows in corrosive atmosphere areas.
        3. Comply with OSPSC regarding identification of non-potable piping systems.
      1. PIPING MARKERS ON EXISTING PIPING
         1. Remove existing “Sanitary,” “Waste,” and “Sanitary Waste” piping labels for all piping serving food and beverage concessions and relabel as “Grease Waste.” Re-label between the point of connection to tenant fixtures and the exterior grease interceptor.
      2. EQUIPMENT IDENTIFICATION
         1. Nameplates: Attach to prominent area of equipment, either with sheet metal screws, brass chain, or contact cement as applicable.
         2. Nameplate Directory: Post final copy in operation and maintenance manual.

END OF SECTION 220553