SECTION 15030

piping identification systems

# general

## work of this section

### The Work of this Section includes providing identification devices for all exposed piping and piping in accessible chases and areas above ceilings with panels, and valves using color bands, lettering, flow direction arrows, and related permanent identification devices, and all appurtenant works.

## reference codes and standards

### The Work of this Section shall comply with the codes and standards indicated in Section 15000.

## submittals

### The following shall be submitted in compliance with Sections 01300 and 15000

#### Samples of all types of identification devices to be used in the Work.

#### List of suggested wording for all valve tags.

# products

## identification of exposed piping

### Metallic, thermoplastic & fiberglass exposed piping and piping in accessible chases and areas above ceilings with panels shall be completing painted for identification purposes, except stainless steel & insulated pipes which shall have painted the color bands and arrows, refer bullet D. below. Piping shall be identified with lettering or tags designating the service of each piping system, shall have flow directional arrows, and shall be completely painted and color coded as scheduled below.

### Each pipe identification shall consist of color coding in accordance with Paragraph 3.04 IDENTIFICATION SCHEDULE, a painted label and a directional flow arrow. The painted label and directional arrow shall be placed between color bands. When more than one color band is used, the different color bands shall be painted adjacent to one another. Piping identification shall be located in accordance with Paragraph 3.03 PIPE IDENTIFICATION LOCATION.

### **Color Bands and Arrows:** Pipe color bands shall be painted on the pipe. Paper or plastic banding of pipe shall not be acceptable. Arrows shall be of the same color as the lettering and shall point away from the lettered labels in the direction of the flow. Chlorinated service shall be identified by a yellow second band. Color band size shall be as follows:

| **Pipe Size** | **Color Band Size** |
| --- | --- |
| Less than 1" diameter | 1" wide |
| 1" to 12" diameter | one (1) pipe diameter wide |
| Greater than 12" diameter | 12" wide |
| **Yellow Second Band:** |  |
| Less than 1" diameter | ½" wide |
| 1" to 12" diameter | ½ pipe diameter |
| Greater than 12" diameter | 6" wide |

### For stainless steel pipes, insulated lines wrapped with aluminum sheathing, stainless steel sheathing, or gray fabric, the background color shall be applied to a 24 inch length of pipe section and color band centered within the 24 inch field of background color.

### **Paint Colors:** Paint colors shall conform to the following designations:

|  |  |
| --- | --- |
| **Color** | **Federal Number** |
| Light Blue | 15200 |
| Dark Blue | 15102 |
| Red | 11105 |
| Yellow | 13655 |
| Orange | 12246 |
| White | 17875 |
| Light Brown | 10219 |
| Dark Brown | 10080 |
| Light Green | 34540 |
| Green | 14187 |
| Black | 17038 |
| Silver | 17178 |
| Grey | 16314 |
| Purple | 27144 |
| Purple\* | Pantone 512C |

**Notes:** For Reclaimed Water per Riverside County Reclaimed Water Advisory Committee.

### **Lettering:** Contents identification labels shall be stenciled directly on pipes. Black identification letters shall be used where the background pipe color is light, and white identification letters where the background color is dark. The size of the letters for identification labels shall be as follows:

|  |  |
| --- | --- |
| **Pipe Outside Diameter** | **Letter Size** |
| 5/8" to 1" | 5/16" high |
| 1" to 3" | 3/4” high |
| Over 3" | 2" high |

## IDENTIFICATION OF EXPOSED VALVES, SHORT PIPE LENGTHS AND PIPE/TUBE 1/2” AND SMALLER

### Identifying devices for valves, and the sections of pipe that are too short or too small to be identified with color bands, lettered labels, and arrows shall be identified with metal tags as specified herein.

### Metal tags shall be of anodized aluminum with printed lettering. The minimum tag thickness shall be 1/16 inch; the minimum size of 2½ inch by 2½ inch with 5/32 inch diameter corner holes. Color shall be red with white lettering. Minimum lettering height shall be ¼ inch. All tags shall be designed to be firmly attached to the valves or short pipes or to the structure immediately adjacent to such valves or short pipes.

## existing identification systems

### In installations where existing piping identification systems have been established, the Contractor shall continue to use the existing system. Where existing identification systems are incomplete, use the existing system as far as practical and supplement with the indicated system. The objective is to fully identify all new piping, valves, and appurtenances to the level indicated herein.

## manufacturers

### XPRESS Tags

### Seton Corp.

### Or Approved Equal

# execution

## general

### All markers and identification tags shall be installed in accordance with the manufacturer's printed instructions, and shall be neat and uniform in appearance. All such tags or markers shall be readily visible from all normal working locations.

## valve tags

### Valve tags shall be attached to the valve or structure by means of 1/8” 316 stainless steel wire rope, 316 stainless steel compression sleeve and carabiner style connector or adhesive and 316 stainless steel fasteners respectively.

### Wording on the valve tags shall include both the valve number and a description of the exact function of each valve, e.g., "DHWR-BALANCING," "CLS THROTTLING", "RAS-PUMP SHUT-OFF," etc.

## pipe identification location

### Each exposed pipe shall be identified at intervals of maximum 30 feet, and at least one time in each room.

### Piping shall also be identified at a point approximately within 2 feet of all turns, walls, valves, and on the upstream side of all distribution fittings or branches. Sections of pipe that are too short to be identified with lettered markers, and directional arrows shall be tagged and identified similar to valves.

### For pipe runs of 50 feet or less the distance between bands shall be 30 inches. For pipe runs of 50 feet or more, spacing between bands shall be 72 inches.

## exposed pipe identification schedule

### Application of the pipe identification systems shall conform to the DISTRICT color codes, some of color codes listed below. The Contractor shall coordinate with the DISTRICT for color code, and shall submit color code and color samples for approval prior painting. Marker lettering shall conform to that listed under "function and identification column”.

|  |  |  |  |
| --- | --- | --- | --- |
| **Service Abbreviation** | **Function & Identification** | **Identification Color** | **Remarks/Suggested Color** |
| N/A | All Chemical Pipes | Yellow |  |
| PW | Potable Water | Light Blue |  |
| UW | Utility Water | Purple |  |
| N/A | All Other Pipes | Light Brown |  |

end of section