

STANDARD SPECIFICATIONS

SECTION 15151

DOMESTIC AND RECYCLED WATER FACILITIES IDENTIFICATION

PART 1 - GENERAL

A. Description

All domestic water systems and appurtenances shall be identified as herein described. All recycled water systems shall be identified as described in the "Rules and Regulations for Users of Reclaimed Water," unless the issue is not covered. In which case recycled water systems and appurtenances shall be identified and herein described.

This section describes special identification, markings, materials and their installation procedures for potable and off-site recycled water facilities.

All water systems and appurtenances must be marked as described herein to avoid confusion with other utilities and between each other.

B. Related Work Specified Elsewhere

All related work specified elsewhere, or in other codes or standards, will be as last revised, unless a specific date of issuance is called out in opposition to later revision date(s).

Other sections of the technical specifications, not referenced below, shall also apply to the extent required for proper performance of this work.

- 1. Painting and Coating: 09900
- 2. Ductile Iron Pipe & Fittings: 15056
- 3. PVC Pressure Distribution Pipe: 15064
- 4. Combination Air and Vacuum Release Valves: 15089
- 5. Manual Valves: 15100
- 6. Fire Hydrants: 15139
- 7. Water Meters: 15150

C. Approved Manufacturers

1. Warning Tape and Pipe Sleeves

- a. Griffolyn Company, Inc.
10020 Mykawa Road
P.O. Box 33248
Houston, TX 77033
Phone: (713) 943-0070 or (800) 231-6074

- b. Terra Tape, Division of Reef Industries
P. O. Box 33310
Houston, TX 77233
Phone: (800) 231-2417
- c. T. Christy Enterprises, Inc.
655 E. Ball Road
Anaheim, CA 92805
Phone: (714) 507-3300

2. Warning Labels and Signs

In all cases the warning labels or signs must be approved prior to installation. Failure to receive prior approval may result in the owner, applicant, or customer removing such sign(s) and providing approved replacement(s). All costs will be at the applicant's, owner's or customer's expense. Failure to comply with these requirements as set forth herein will result in termination of service as provided for in the District's Rules and Regulations, Sections 600.

3. Witness Markers

Carsonite Water line Markers
Carsonite International
1301 Hot Springs Road
Carson City, NV 89706
Phone (800) 648-7974

D. Identification

- 1. The use of stenciled pipe will be accepted as an alternative to the use of warning tape.
- 2. DIP carrying recycled water shall be encased within a purple 8-mil polyethylene sleeve with the words "RECYCLED WATER" stenciled with 2-inch black letters.
- 3. PVC or DIP carrying domestic water, and located in the vicinity of recycled water piping, shall have the words "DOMESTIC WATER" stenciled with 2-inch blue letters. Lettering shall be on both sides of the pipe in at least three places in a 18-foot section of pipe (total six places per section of pipe).
- 4. PVC pipe carrying recycled water shall be purple in color with black letters. The stenciling shall appear on both sides of the pipe with the marking "RECYCLED WATER" in 5/8-inch letters repeated every 12 inches.
- 5. All service lines shall be encased within a color coded 8-mil polyethylene sleeve. Sleeve shall be blue in color for all domestic water services and purple in color for all recycled water services.

E. Valve Boxes

1. All valve boxes for recycled water facilities shall have circular valve box covers with the inscription "RECYCLED " cast thereon per Section 15100, and shall be painted purple. Valve boxes for domestic water systems shall be as specified in Section 15100.
2. All valve boxes installed in unpaved areas (open space areas) shall be marked with a witness pole; in addition to the above referenced markings.

F. Color and Painting Schedule

1. Recycled water facilities shall be painted purple per Section 09900.
2. Domestic water facilities shall be blue, with the exception of fire hydrants which shall be painted as specified in Section 15139.
3. Witness poles for recycled water lines, valves and appurtenances shall be purple.
4. Witness poles for domestic water lines, valves and appurtenances shall be blue.

G. Restriction of Public Access

1. All off-site recycled water facilities shall be restricted from public access so that the general public cannot draw water from the system. Facilities such as air release assemblies, blow-off hydrants, blow offs on strainers, and other such facilities, shall be restricted from public access.
2. Recycled water facilities, both above and below grade, shall be housed in an approved lockable container colored purple. A sign reading "CAUTION: RECYCLED WATER" shall be installed, its size approved by the District representative. Other means of restricting public access may be approved by the District representative.

H. Warning Signs and Labels

1. The District requires warning labels to be installed on all appurtenances in vaults, such as, but not limited to, air release valves, blow offs, and meters, and on designated facilities, such as, but not limited to, controller panels and wash down or blow off hydrants on water trucks and temporary construction services.
2. Each pump and every pipe shall be identified with a painted label. In the fenced pump station area, at least one sign shall be posted on the fence which can be readily seen by all operations personnel utilizing the facilities.
3. Painted labels may, at the District representative's discretion be acceptable in lieu of plastic labels.

I. Domestic Water Piping

1. All domestic water piping shall be installed with domestic water identification.
2. All PVC domestic water piping shall be blue or shall be white with blue stenciling appearing on both sides of the pipe with the marking "DOMESTIC WATER" in 5/8-inch letters repeated every 12 inches.
3. Blue warning tape identifying it as a domestic water line and stating "CAUTION: DOMESTIC WATER-LINE BURIED BELOW" may be used as an alternate to blue or stenciled pipe. The tape shall run continuously for the entire length of the main line piping. The tape shall be attached to the top of the pipe with plastic tape banded around the warning tape and pipe every 5 feet on center.

PART 2 - MATERIALSA. Buried Piping Warning Tape

The plastic warning tape shall be an inert plastic film specifically formulated for prolonged underground use and shall be prepared with black printing on a purple field having the words, "CAUTION: RECYCLED WATER-LINE." Warning tape for domestic water pipeline shall be blue with black printing having the words, "CAUTION: DOMESTIC WATER-LINE BURIED BELOW." The minimum thickness shall be 4 mils and the overall width of the tape shall be 12 inches (for 8-inch pipe) and 6 inches (for 6-inch and smaller pipe).

B. Warning Labels

Labels shall be inert plastic film specifically formulated for prolonged exposure and shall be prepared with black printing on a purple field having the words: "CAUTION: RECYCLED WATER FACILITY." The minimum thickness shall be 4 mils for adhesive backed labels and 10 mils for tag type labels. Tag type labels shall have reinforced tie holes and shall be attached with heavy-duty nylon fasteners. The size, type of label and location will be dictated by each individual application and subject to acceptance by the Districts representative. The minimum size shall be 1/2-inch letters.

PART 3 - EXECUTIONA. Installation of Pipe Warning Tape

Warning tapes shall be installed directly on the top of the pipe longitudinally and shall be centered. The warning tape shall be installed continuously for the length of the pipe and shall be fastened to each pipe length by plastic adhesive tape banded around the pipe and warning tape at no more than 5-foot intervals. Taping attached to the sections of pipe before installing in the trench shall have 5-foot minimum overlap for continuous coverage.

B. Installation of Warning Labels

Warning labels shall be firmly attached to all appurtenances using heavy-duty nylon fasteners.

C. Installation of Witness Markers

Witness markers shall be installed over pipe in unpaved areas, open space areas, at appurtenances, including but not limited to valves, air release/vacuum breaks, dead ends, inflection points, tees, and at intervals not greater than 200 feet.

Witness markers shall be embedded into the soil at least 18-inches and shall be equipped with a barb or other such device to secure it in the surrounding soil.

END OF SECTION