

## City of Roseville Recycled Water Special On-Site Irrigation Notes

1. The installation of the recycled water system shall conform to the regulations for the construction of recycled water systems within the City of Roseville and the accompanying plans and specifications.
2. All on-site recycled and potable water piping installed on this project shall be identified in accordance with the City of Roseville Construction Standards for recycled water infrastructure and the irrigation specifications.
3. City of Roseville Environmental Utilities Department shall be notified two days prior to the start of construction at (916) 774-5750 and each workday thereafter until completion of project for commercial irrigation systems. City of Roseville Parks Department shall be notified two days prior to the start of construction at (916) 746-1758 for landscape corridors and parks. A pre-construction materials inspection must be arranged prior to the start of construction.
4. No facility is to be backfilled until inspected by the City of Roseville Environmental Utilities Department and/or Parks Department Inspector.
5. All recycled water infrastructure, both on-site and off-site shall be inspected by City of Roseville Environmental Utilities and/or Parks Department. For inspection of recycled water system contact Environmental Utilities at 774-5750 forty-eight (48) hours in advance. Points of inspection are:
  - a. Pre-construction materials inspection.
  - b. Irrigation system installation before lines are covered.
  - c. Pressure testing.
  - d. System cross connection control test.
  - e. System coverage test.
6. All recycled water piping shall be purple colored PVC unless otherwise specified. Where purple PVC is not used, pipe shall be identified (marked) in accordance with the City of Roseville Construction Standards.
7. Marking on the purple colored PVC pipe shall include the following:

“CAUTION: RECYCLED WATER- DO NOT DRINK”. Nominal pipe size. PVC—1120. Pressure rating in pounds per square inch at 73 degrees. ASTM designations such as 1785, 2241, 1672, 3139. Printing shall be placed continuously on two sides of the pipe.
8. All recycled water sprinkler control valves, valve risers, sprinkler risers, and swing joints shall be tagged with identification tags or adhesive labels.
  - a. Tags shall be weatherproof plastic, 3” x 4”, purple color with the words “WARNING: RECYCLED WATER- DO NOT DRINK” imprinted on one side, and “AVISA: AGUA IMPURA- NO TOMAR” on the other side. Imprinting shall be permanent and black in color. Use tags as manufactured by T. Christy Enterprises or approved equal.
  - b. One tag shall be attached to each valve as follows:

1. Attach to valve stem directly or with plastic tie-wrap, or
2. Attach to solenoid wire directly or with plastic tie-wrap.

c. Recycled water warning labels or stickers that are consistent with City of Roseville Construction Standards for recycled water infrastructure and the irrigation specifications must be attached to all piping not in compliance.

d. All sprinkler heads must be designed for recycled water usage, with purple recycled water warning caps.

e. Sprinkler risers and swing joints shall be identified with purple adhesive 3" X 3" labels. Each label shall state "Recycled Water – Do Not Drink" in English and Spanish.

9. All recycled water control valve boxes shall be purple and have a warning label permanently molded into or affixed onto the lid with rivets, bolts, etc. Warning labels shall be constructed of a purple weatherproof material with the warning permanently stamped or molded into the label. The warning shall contain the following information:

a. "NON-POTABLE" or "RECYCLED WATER".

b. "DO NOT DRINK" in English and Spanish.

10. Recycled water quick coupling valves shall have a purple rubber or vinyl cover. The cover shall be of a locking type and have a warning permanently stamped or molded as follows: "RECYCLED WATER- DO NOT DRINK" in English and Spanish.

11. Plastic warning tape shall be used on all potable water piping, potable water warning tape shall be a minimum of 3 inches wide and shall run continuously for the entire length of each line. The tape shall be attached to the top of the pipe with nylon tie-wrap banded around the warning tape and the pipe every five feet on center. Warning tape for the potable water piping shall be blue in color with words "CAUTION: POTABLE WATER LINE BURIED BELOW" imprinted in minimum 1-inch high letters, black in color. Imprinting shall be continuous and permanent.

12. All pressure main line piping from the recycled water system shall be installed to maintain 10 feet minimum horizontal separation from all potable water piping. Where recycled and potable water pressure main line piping cross, the recycled water piping shall be installed 12" below the potable water piping OD to OD. Where the recycled water pressure main line must pass above potable water piping, the recycled water piping shall be installed in a class 200 purple colored PVC sleeve which extends a minimum of five feet on either side of the potable water piping. A 12" vertical separation OD to OD must be maintained. Conventional (white) PVC pipe may be used for sleeving material if it is taped with three-inch wide purple warning tape, which reads "RECYCLED WATER- DO NOT DRINK".

13. All pressure main line piping from the recycled water system shall be installed to maintain a ten foot minimum horizontal separation from all sanitary sewer lines. Where recycled and sewer cross, the recycled water piping shall be installed a minimum of one foot above sewer.

14. For on-site reclaimed water piping, the minimum depth from finish grade to top of pipe shall be as follows:

a. Intermittent pressure lines (All sizes)..... 12"

b. Constant pressure lines 2.5" and smaller..... 18"

c. Constant pressure lines 3" and larger..... 24"

15. Pressure and cross connection testing for On-Site Recycled water systems
  - a. All testing of recycled water systems must be performed utilizing a **potable water source** via a construction water connection per City of Roseville Construction Standards. **No recycled water may enter a recycled water system until all testing is successfully completed.**
  - b. The source of potable water used for testing must have a meter and an approved back flow prevention device. These can be obtained through the City of Roseville.
  - c. The contractor shall provide a means to plumb in pressure and cross connection testing apparatus at the point of highest elevation, for both potable and constant pressure recycled water systems.
  - d. The constant pressure recycled water system including all appurtenances shall be tested at 125 PSI at highest point of elevation for 1 hour with no detectable leakage.
  - e. Pressure testing must be successfully completed prior to cross connection testing.
  - f. The recycled water system shall be tested for cross-connection in accordance with Uniform Plumbing Code Appendix J prior to use.
  - g. For projects being performed in phases, a cross connection test shall be performed on each phase independently, before it is put into service. The potable water source used for testing each phase must be independent of other previously completed phases.
  - h. At the time a cross connection test is to be performed, construction on both the potable and the recycled water systems being tested must be complete, and both systems fully operational and functioning as designed.
  - i. Cross connection testing shall be performed on the system by City forces with the assistance of the Contractor. The test will be coordinated through the Environmental Utilities or Parks Department Inspector. Forty-eight (48) hours notice is required before the test. Depending on the complexity of the site, a preliminary field meet may also be required.
16. Coverage test
  - a. Adjust spray heads to eliminate overspray onto native oak areas and into areas not under the control of the customer. For example: pool decks, private patios, streets and sidewalks.
17. Meter Installation

Once the on-site recycled water system has been properly inspected and passed pressure and cross connection testing, a meter may be installed. The meter must be purchased from The City of Roseville and installed by city forces. Coordinate meter purchase and installation with the Environmental Utilities or Parks Department Inspector.
18. No connection shall be made to the City's existing recycled water system until the new facilities have been successfully pressure and cross connection tested. Taps to the existing recycled system will be made by City forces only.
19. Failure to comply with any or all of the above guidelines violates the City of Roseville design and construction standards for recycled water infrastructure and will result in termination of service until the appropriate corrective steps have been taken.