

## **DIABLO WATER DISTRICT**

## General Water Notes

- 1. Water system shall be installed in accordance with the standards and specifications of Diablo Water District (District). Contractor to have the October 2022 Specification Book on site at all times. This can be seen online at <a href="www.diablowater.org">www.diablowater.org</a> under documents. Copies of the standards and specifications are available at the District's office at 87 Carol Lane, Oakley, CA, phone: (925) 625-3798, and shall be on site at all times.
- Anyone who takes water from the District's water system without proper metering shall be subject to the District's tampering charge, fees and costs as per the District's Regulations and may be subject to criminal prosecution pursuant to California Penal Code Section 498 or other applicable statutes.
- 3. The Developer/Contractor shall submit to the District the soil corrosion analysis and design as required by the District's specifications after rough grading of the site has been completed. No work on the District's water system shall commence until the District has given its approval of the soil analysis and corrosion protection design.
- 4. All water mains shall be AWWA C900 Class 150 PVC unless otherwise noted on these plans. All plastic PVC water mains and services shall include a 12-gauge, single strand, copper wire taped to the top of the pipe. Top of curb shall be stamped with a "W" to mark the location of the water lateral. Water mains larger than 12-inches shall be DIP unless otherwise noted.
- 5. Water lines shall have a minimum cover of 3 feet, and not more than 4.5 feet (unless preapproved by the District) from finish roadway and shall have continuous warning tape installed 18" above all water mains, service lines, hydrant lines and blow-off lines, unless otherwise noted. Warning tape shall be blue, 2" wide, plastic printed continuously with the words "CAUTION BURIED WATER LINE BELOW".
- 6. Basic separation requirements for water mains and sanitary sewers: New water mains and new supply lines shall not be installed in the same trench as and shall be installed from outside to outside of pipe at least 10-feet horizontally from and one foot vertically above, any parallel pipeline conveying untreated sewage, disinfected secondary recycled water, and hazardous fluids.
- 7. Basic separation requirements for water mains and storm drainage and recycled water pipelines: New water mains and new supply lines shall be installed from outside to outside of pipe at least 4-feet horizontally from, and one foot vertically above, any parallel pipeline conveying non-potable water such as, but not limited to, storm drainage and disinfected tertiary recycled water.
- 8. If crossing a sanitary sewer or storm drain pipeline or recycled water pipeline, a new water main shall be constructed no less than 45-degrees to and at least one foot above that pipeline. No connection joints shall be made in the water main within eight horizontal feet of the pipeline being crossed.
- 9. Special construction requirements for water mains: where a water main is to be located parallel to or cross a sanitary sewer or storm drain pipeline or recycled water pipeline with less that the required separation, the installation and materials shall conform to the State of California, Division of Drinking Water, California Regulations Related to Drinking Water, and shall be subject to the approval of the Division of Drinking Water.



- 10. Maintain 5.0' minimum separation between water services and sanitary sewer laterals.
- 11. Public Fire hydrants shall have 1-4 ½" & 2-2 ½" outlets, and each hydrant shall be isolated from the main line by a 6" gate valve and shall receive two (2) coats of Rust-oleum V7400 Safety Yellow paint.
  - Valve can lids for 6" fire hydrant shut-off valve shall be painted with Krylon Interior/Exterior Flat White Blanco Mate #1502 as per fire department requirements.
- 12. Use Mueller streamline PVC coated copper for service line and ARV piping.
- 13. Contractor shall install curb stops and meter boxes acceptable to the District at each lot immediately prior to jumper being removed. At the expense of the Developer/Contractor, pad locks will be installed by the District at each angle stop.
- 14. Use 304 stainless steel nuts and bolts for all bolt-ups as well as gate valve bonnets and stuffing box nuts and bolts. Bolts shall be marked 'F-593C' or 'F-593D' only. Heads with two slash marks are not to be used.
- 15. The Contractor shall always maintain water service to all residences during construction.
- 16. No work shall commence until all submittals have been approved.
- 17. Thrust blocks (or other pipe joint restraints) shall be provided at all angle points on the water system. Thrust blocks for treated water pipelines (W) shall be per the DWD details.
- 18. Work hours shall be Monday through Thursday 7:00 a.m. to 4:30 p.m., and Friday 7:00 a.m. to 3:00 p.m., except for District observed holidays. Any requests for working outside these times must be submitted to the District inspector at least 48 hours in advance. It is recommended that requests for Saturday work be made by the close of business the Wednesday prior. Requests for Saturday work may be approved or denied depending on inspector availability. A request for work during a District holiday shall not be permitted.
- 19. All joint trench utilities shall cross underneath all water facilities. Developer shall coordinate with joint trench designer to avoid any other conflicts including meter box locations and separation of water and sewer service pipes. Developer to ensure at least 5 inches of separation from water service pipes to the service utilities in the joint trench. If these criteria cannot be met, the Developer/Contractor shall install a red concrete cap over the joint trench facilities.
- 20. All Butterfly Valves (BFVs) shall be epoxy lined and coated. Lining shall be certified by the factory to be holiday free.
- 21. All hot taps shall be performed by Tap Master, Inc. of Concord, California, phone: 925-439-7975. Tapping sleeve shall be stainless steel type JCM 432 or approved equivalent.
- 22. No trees shall be planted, or light/utility poles installed, within 10' of any water mains, fire services, or fire hydrant laterals. Measurement shall be taken as the clear distance between the root ball and water main or the light/utility pole foundation and water main. Thorny plants or bushes or shrubs shall NOT be planted around fire hydrants, water meters, and back flow preventors that limit access.
- 23. All locator wires shall be tested, and test results shall be included in the Cathodic Protection Test Report.



- 24. All water meters shall be provided with a 520M-FlexNet MTX Unit. Meter boxes for meters less than 1-1/2 inch in size shall have Christy B12P001-F (FlexNet) lids. All meter box lids shall have drilled holes for FlexNet 520M Units.
- 25. Water Meters 5/8" in size shall be Sensus 5/8" x 3/4" SRII Low Lead, 1 cubic foot, labeled 5/8" x 3/4". Water Meters 1" in size shall be Sensus 1" SRII Low Lead, 1 cubic foot. Flow meters 1-1/2" through 4" in size shall be Sensus OMNI C2 compound meters (cubic feet).
- 26. JDH Corrosion Consultants, Inc., 1100 Willow Pass Court, Concord, CA, 925-927-6630, shall conduct all final cathodic protection test reports at the expense of the Developer/Contractor.
- 27. Install a ball shut-off valve and box on customer's side after backflow device for new construction as required by the City of Oakley's specifications.
- 28. The Developer/Contractor shall provide the Global Positioning System (GPS) coordinates and elevations of all aboveground facilities (including meter boxes, backflows, fire hydrants, CP test stations, G5 and G12 boxes) and underground valves, meters, blowoffs and fittings (including saddles and corporation stops), as determined by the District, in a shapefile data format as defined by ESRI. GPS coordinates of existing water facilities and all other utilities that are exposed during any construction activity shall also be provided. All GPS coordinates shall be to within an accuracy of ten (10) centimeters and shall include Latitude, Longitude and Elevation.
- 29. The Contractor shall re-chlorinate and retest any lines that do not pass the first or subsequent round of bacteriological testing or as directed by the District.
- 30. All materials and products shall be NSF 61 certified that are in contact with and/or potentially in contact with potable water, including surfaces within the air space of the water.
- 31. If a District water meter is not available for use as a temporary jumper, the Contractor may submit a meter which must include a current certificate of calibration. Meter must be for potable use only. Contractors using their water meter for the temporary jumper must have yearly calibration tests performed and shall submit the report to the District.
- 32. Prior to any new connection to existing water main, Contractor shall confirm the outside diameter and material of the existing main.
- 33. All Ductile Iron Pipe (DIP) water mains shall use Field Lok 350 gaskets and Megalugs shall be installed on all Mechanical Joint (MJ) fittings.
- 34. Prior to installing sections of pipe, contractor shall ensure the connection elevations are confirmed prior to the installation.
- 35. All residential buildings shall implement flow-through (Passive Purge) fire protection systems in accordance with DWD General Requirements Section 3.26.