

## NEVADA IRRIGATION DISTRICT

### **DEVELOPER REQUIREMENTS FOR TREATED WATER SYSTEM EXTENSIONS**

#### GENERAL

An owner requesting treated water service to lands which do not otherwise have service available must comply with the District's Regulations Relating to Water Service. These requirements serve to implement those regulations. The owner is referred to here as the "Developer."

#### Intent

The intent of the District's regulations and these requirements are to ensure orderly development of the treated water system and the use of high-quality materials, proper installation, and acceptable project management. The goal is to extend the useful life of the District's treated water system, reduce overall maintenance costs, and provide dependable service to existing and future customers.

#### Developer Guidelines

The District has compiled a set of "Developer Guidelines for Water System Extensions". They are included here as Appendix A. The outline is intended as a broad guide for compliance with the District's regulations and is not a step-by-step procedural guide.

#### Conveyance Agreement

All facilities to be offered for dedication to the District must be governed by a Conveyance Agreement. A form of the Agreement is included here as Appendix B. The Agreement will be binding on both the District and the Developer which will require among other things that plans and specifications comply with these requirements and District Standards. Other requirements include prepayment of capacity fees, plan check and inspection fees, bonding and insurance, lien releases, and conveyance of the facilities to the District. The Developer will hold harmless and indemnify the District from acts arising out of the Developer's performance under the terms of the Agreement and that of his engineer and contractor.

Water service will be available only after all the terms of the Conveyance Agreement have been fulfilled and the facilities accepted by the District's Board of Directors.

#### Developer's Responsibility

The Developer is responsible for compliance with the regulations and implementation of these requirements. This includes responsibility for the preparation and content of the plans and specifications, construction of the facilities, and fulfillment of the terms of the Conveyance Agreement. The Developer is responsible for overseeing and directing the Developer's engineer and contractor. The District or its employees shall not act as, nor shall the Developer rely upon same to act as, an agent or protectorate of the Developer.

Other parcels in the area may want water and the Developer might want to include them in planning for the project.

## PLANS AND SPECIFICATIONS

The plans and specifications must be prepared by a civil engineer registered in the state of California. These documents will be reviewed by District staff for compliance and must be approved by the District's Chief Engineer.

### Facility Design

Design of the facilities will be governed by District regulations. In part, the regulations require a minimum nominal water main diameter of eight inches, with noted exceptions. The District Engineer will determine broad design concepts. District treated water system master plans will be consulted. The Developer's design engineer shall employ sound water works design using current standards to achieve a reliable, long-lasting facility with operational flexibility. The plans and specifications shall include all applicable District standard specifications and details.

The District Engineer may restrict the use of polyvinyl chloride (PVC) water main materials by allowing only ductile iron pipe. Reasons may include, but are not be limited to, expected system pressure surges in excess of 35 psi, expected system cyclic pressure surges of 50 percent over, or 25 percent over to 25 percent under normal working pressure which might occur more than 8 times per day, unusual loading configurations, or expected rocky soils. PVC will not be allowed in areas where the soil is contaminated by, or has a potential for contamination by hydrocarbons. If PVC is not otherwise restricted and is the preferred water main material, the District Engineer may require the use of an incrementally larger size pipe to compensate for restricted inside diameters when compared to ductile iron pipe.

### Environmental Requirements

The Developer is responsible for preparing environmental documents per the California Environmental Quality Act (CEQA). Approved environmental documents must be delivered to the District Engineering Department for review prior to the Chief Engineer signing the Improvement Plans.

### Improvement Plans

The improvement plans must incorporate the following:

- Plan sheet size: 24" x 36", inked on Mylar (or Mylar second original) and electronic pdf (or tif) and CAD files.
- Minimum printing size: 1/8" (For CAD drawings: 1/10").
- Elevation data: USGS (stated on plans).
- Plan Cover Sheet with signature blocks and a 200-scale map of the area or subdivision.
- Plan view: minimum scale of 50' per inch.
- Profile: horizontal scale same as plan view and a minimum vertical scale of 10' per inch.
- Water main profile and vertical alignment data, including all other utilities and structures.
- Maximum system hydraulic grade line stated on each alignment profile sheet.
- All applicable property and easement lines.
- Limits of pipeline material, size, and class.
- Limits of polyethylene encasement for ductile iron pipe.
- All other improvements, existing or proposed, affecting the water facilities.
- Details of fittings and joint configurations.
- All appropriate District standard details.
- All other necessary details and instructions.

- Quality: Plans must be scanable such that reproductions, full-sized and reduced, are easily readable. Provide sharp contrast between line work and background.

### Standard Specifications and Details

The District has prepared Standard Specifications and Details governing construction of the treated water system. These Standards are administered in accordance with District regulations. They include Special Conditions and Technical Provisions and are augmented by Standard Details. They are available to engineers and suppliers working with the District at an appropriate fee.

All treated water system expansions must comply with District Standard Specifications and Details. Project specifications must include all applicable Standards. The Developer is responsible for preparation of the remaining contract documents such as Bid Forms and General Conditions and any Special Conditions or Technical Provisions required for the project that are not included in the District Standards.

Items not included in the District Standard Specifications or Details must be designed by the Developer's engineer and plans and specifications prepared for the District Engineer's approval.

District Standard Specifications and Details may not be revised without a written request and prior District approval.

The Developer shall provide prospective bidders, contractors, and subcontractors copies of the Standard Specifications and Details and shall not rely on the District to provide copies.

District Standard Specifications and Details will require periodic revisions to assure use of the most current and acceptable construction materials and methods and changes in construction law and regulations. Updates will be administered according to District regulations. The most current revisions will apply.

## CONSTRUCTION

The treated water facilities called for in the approved plans and specifications must be constructed by a contractor with a valid California Class A or C-34 license.

The Developer's engineer shall act as a project manager during construction to ensure compliance with the plans and specifications and shall be available to provide technical assistance when required. The Developer shall identify, in writing, the project manager if different than the Developer's design engineer.

### Construction Management

The Developer must maintain control over his contractor's activities by providing effective construction management. To help ensure proper control of the work and materials, compliance with applicable laws, and acceptable prosecution and progress, the Developer shall include in the General Conditions of the construction contract or shall otherwise provide for or ensure that the Developer's contractor will:

- Designate in writing his authorized field representative on a current basis. (Copies to be sent to the District Engineer).
- Comply with field surveys and construction staking provided by the Developer or Developer's engineer.

- Cooperate with District forces on and off the job site.
- Prohibit work on any part of the water system facilities before 7 a.m. and after 5 p.m. and further prohibit such work on Saturdays, Sundays, and adopted District holidays. (Note: Work performed during these prohibited times may be rejected.)
- Maintain a set of plans and specifications at the job site for use by the District Engineer.
- Observe all applicable laws including, but not limited to, hours of labor, equal opportunity, contractor's licensing, vehicle code, worker's compensation, air pollution, water pollution, use of pesticides, Clean Air and Water acts, protection of underground infrastructure, payment of taxes, permits and licenses, and patent infringements.
- Observe and practice all applicable safety regulations and laws.
- Provide for and maintain public convenience and public safety.
- Provide for and practice safe and legal use of explosives.
- Provide for and practice fire prevention measures.
- Salvage District facilities from the job as directed by the District Engineer, and protect and deliver same to the District's yard in Grass Valley.
- Remove promptly from the work site all work or materials having been rejected or deemed unauthorized or unsuitable by the District Engineer.
- Dismiss and remove from the job site employees of the contractor or subcontractors who, in the opinion of the District Engineer, are incompetent, intemperate, unsafe, abusive, threatening, or otherwise unsatisfactory.
- Suspend work due to unfavorable weather, unsafe act or acts, or other conditions as directed by the District Engineer.
- Cease all construction operations at the location of the discovery of surface or subsurface cultural resources and secure the services of a qualified archeologist to make recommendations to the State Historical Preservation Officer and comply with further directions of the State Officer or the District Engineer.

### Submittals

All materials and equipment not in conformance with the District-approved plans and specifications that are delivered to the work site and all work incorporating such nonconforming materials and equipment will be rejected. Preapproval of materials and equipment through the submittal process may avoid delays in the work.

The Developer shall provide or perform, or cause the Developer's contractor to provide or perform, the following for all submittals:

- Coordinate submittals so that related items are provided in groups. (Uncoordinated submittals will be returned without consideration.)
- Describe in writing any variations from the specifications.
- Review submittals for legibility, accuracy, completeness, and compliance with the specifications.
- Route through Developer's engineer for comments.
- Indicate Developer's contractor and engineer's approval on each copy of individual submittals.
- Provide at least two conforming copies (three copies if one is to be returned).
- Allow at least 30 days for review by the District Engineer.
- Prohibit work incorporating materials or equipment requiring approved submittals until a favorable review from the District Engineer has been received.

### Inspection

Each phase of the work, as defined in the technical provisions of the standard specifications, must pass inspection by the District Engineer before commencing work on the next phase. The Developer shall cause the Developer's contractor to comply with the following:

- Notify the District Engineer two working days prior to the start or restart of any construction that might affect or deal directly with the water system facilities.
- Cooperate with the District Engineer during inspection activities including, but not limited to, furnishing facilities, labor, material, or equipment reasonably needed to perform safe and convenient inspections and tests.
- Ensure that each phase of work, as identified in the technical provisions of the specification, passes inspection prior to attempting the next phase of work.

**Note:** Failure to pass inspection may cause rejection of subsequent phases of work.

### Clearing and Grubbing

The Developer must dictate to the contractor provision governing the clearing and grubbing phase of the work. The Developer shall include in the technical provisions of the construction contract, or shall otherwise provide for and ensure that the Developer's contractor will:

- Remove all stumps and roots left by the clearing operation if within 10 feet of a District facility or within the work area, whichever is greater.
- Backfill and properly compact to the original ground elevation, prior to starting work in the area, all depressions created by the removal of the stumps and roots.
- Dispose of all debris within the work area resulting from the clearing, grubbing, or demolition work.

### Measurement and Payment

Each section of the Technical Provisions in the District Standard Specifications includes a subsection governing measurement and payment to the contractor. Use of these subsections by the Developer is optional. The Developer is responsible for making all measurements for payment and making all payments to the contractor for the work.