

SECTION 1445

PRIVATE PLUMBING

1445.0100 GENERAL

1445.0101 Description of Work. The work under this section shall consist of furnishing all labor, materials, equipment and incidental fittings required for the installation of private plumbing, all in accordance with the details shown on the plans and the requirements of these specifications and of the Uniform Plumbing Code. Where there is conflict between the plans and specifications and the Uniform Plumbing Code, the more stringent requirements shall apply. The Contractor shall, under this section, relocate meters and meter boxes; install new meters and meter boxes; install new service lines and abandon existing water lines as called for in the specifications or shown on the approved plans.

1445.0102 Permits The Contractor is required to obtain permits for private plumbing and electrical grounding work from the following jurisdictions, as required:

City of Tucson - Development Services Center (520) 791-5550

Pima County - Development Services - (520) 740-6511

City of South Tucson - (520) 792-2424

A permit will be required for each address receiving private plumbing.

Cost of permits shall be included in the bid item for private plumbing.

1445.0103 Plumbing Coordination

Tucson Water shall assign a person (referred to hereafter as the Plumbing Coordinator) to meet with property owners to obtain a signed Right of Entry and prepare a drawing of the proposed route for the new private plumbing showing the point of connection and new meter location.

The Plumbing Coordinator shall be available to the Engineer's representative and the property owners for the duration of the contract. The Coordinator shall be available to meet with property owners before or after normal work hours and on weekends.

Before construction, the Coordinator shall verify the location, size and meter number of each existing meter. This information will be compared with the plans and other Tucson Water documentation to provide the Engineer any errors or omissions found.

On properties where only a service stub is required, the Coordinator shall verify the size of the existing service stub and provide a drawing showing the new location. If there is no existing service to the property and a new service line is to be installed then the drawing should state: "NO EXISTING - NEW SERVICE".

Locations for the new meter and private plumbing as shown on the approved plans are approximate and adjustment in the field shall be made as required.

SECTION 1445

A drawing will be made showing the new meter location and the route for the private plumbing. This drawing will be attached to the Right of Entry form.

1445.0200 PRODUCTS

1445.0201 Materials.

Approved private plumbing pipe material shall be high-density polyvinylchloride (PVC) pipe. (In any case, electrical grounding shall be maintained per code.)

New private plumbing pipelines shall be one (1) inch minimum in diameter and any new private plumbing pipeline over one hundred (100) feet in length shall be upsized per the following table:

<u>Existing line size</u>	<u>Upsize to</u>
1"	1 1/2"
1 1/2"	2"
2"	2 1/2"

If lengths of lines and/or diameters are different than those shown above, the Water Inspector will be contacted for direction.

For new private plumbing pipelines over two hundred (200) feet in length, the estimated length and pipe diameter required will be shown on the plans and/or called out by the Engineer.

1445.0300 EXECUTION

1445.0301 General. The Contractor or his sub-contractor (hereafter known as Plumber) shall furnish and install all labor and materials required to connect private plumbing to the Tucson Water distribution system per Uniform Plumbing Code and/or Tucson Water Standards and Specifications whichever is the most stringent.

1445.0302 Installation.

The Contractor is responsible to restore the work area to its original conditions. Therefore, the Contractor shall videotape the work area prior to commencing the work to establish a record of pre-construction conditions. The videotapes must identify the work site address and features such as vegetation, fences, permanent and temporary structures. The Contractor must provide one copy of each videotape to the Owner with the monthly pay request. Each videotape must be labeled and accompanied by a list of addresses contained in the video.

The Contractor will make service taps and run service lines to the locations shown on the approved plans, Plumbing Coordinator drawings or as instructed by the Engineer's representative.

The Contractor will install new meter boxes and bricks (provided by Tucson Water) or salvage and relocate existing meter boxes and bricks to the new meter location as directed by the Engineer's

SECTION 1445

representative. The costs for installation and relocation shall be included in bids for service renewals, service stubs or private plumbing.

Service taps and work on private property will not begin until: the Contractor has received a Right of Entry form with drawing attached; informed the Engineer of any errors and omissions; and given 48 hours advance notification to the property owner and Engineer's representative.

The Contractor shall submit detailed as-built drawings for all private plumbing work indicating the point of connection with distances. These as-built drawings must be submitted prior to the release of any retention money. The costs for as-built drawings shall be included in the bid item for private plumbing.

The Contractor will coordinate his work with all work done on private property by the Plumber.

After the new private plumbing is connected and in service, the Contractor will abandon services and cut and plug water mains as shown on the approved plans or directed by the Engineer's representative. The cost for this work will be included in the bid items for private plumbing per linear foot of pipe.

1445.0303 Workmanship. All work shall meet or exceed the uniform plumbing code standards adopted by the permitting agency. This includes any electrical grounding construction necessary to meet code. Costs for electric grounding construction shall be bid as a separate item.

All obstructions shall be protected from damage by the Contractor and Plumber during construction and until completion of work. Obstruction replacement shall be per Section 0107.1200 of these Standard Contract specifications. All damaged improvements and obstructions are to be replaced in kind and shall be included in the total base bid cost or at the Contractor's own expense

The Plumber will not begin the private plumbing work until: he has a copy of the drawing attached to the Right of Entry; informed the Contractor of any errors or omissions; proper notice has been given to property owners, Engineer's representative and the permitting agency.

All work on private plumbing shall be done by persons licensed and bonded to perform the work. The Plumber must have at least five (5) years experience with similar work. Proof of experience and certification shall be furnished to Tucson Water at least two (2) weeks prior to commencement of any work.

Private plumbing normal working hours shall be from 7:00 A.M. to 5:00 P.M. Monday through Friday. If the Plumber desires to perform any work beyond normal working hours, or on Saturday, Sunday or national holiday, he shall have the Contractor request in writing to the Engineer to do so and receive approval before he starts such work.

Private Plumbing work shall include installation of: private water lines; in-line ball valve with box; ball valve at new meter site; new or relocated water meter; anti-siphon valves on hose bibs or any other item required by the Plumbing Codes.

New plumbing will extend from the new meter location to a point of connection on existing plumbing as shown on the Plumbing Coordinator drawing or instructed by the Engineer's representative.

SECTION 1445

NOTE: It is the intent of Tucson Water to minimize the time that trenches are open on private property. Therefore, trenches should only be opened the same day when pipe is going to be installed, and trenches should not be opened on Fridays or before three-day Holiday weekends when the trenches would have to stay open three, four or more days for inspection.

In any case that a trench must be left open for a prolonged period, the Plumber must keep the occupant informed and take any steps necessary to minimize inconvenience to the occupant and insure access. In some cases this may mean that portions of the trench must be backfilled and then dug out again for the required inspection. Any property damage caused by prolonged trench openings will be repaired or replaced by the Contractor at his own expense.

Inspection of work on private property shall be conducted by the permitting agency with advance notice prior to inspection per their standard notification procedure.

The Plumber shall flush lines after pressure test and prior to connecting to existing plumbing. The Contractor shall coordinate with the property owner to flush the house interior plumbing at the time of connection.

The Plumber shall cut and plug the exist plumbing from the old meter location at a point inside private property as directed by the Engineer's representative.

1445.0304 Work Notices Prior to starting work in easements, the Contractor shall give two (2) weeks advance notice to all affected property owners and to all public and/or private agencies, which utilize the easements for travel.

The Contractor shall give two (2) working days advance notice to the affected property owner and the Engineer's representative that work is going to be done on the specified property. **Written notices to property owners shall be furnished by the Contractor.** If the occupant of the property is not the property owner, the occupant will also be notified two (2) working days in advance.

The Contractor and the Plumber will attempt to inform the occupant whenever they are working on private property or impacting their water service.

Upon request, the Contractor shall furnish documentation to the Engineer that prior notice was given to affected property owners or agencies.

1445.0305 Grading in Easements Upon completion of all water work in easements, the easement shall be graded to a reasonably smooth and uniform surface. Easements shall be graded to drain properly and shall follow the contour of the land. Where the easement is used as a walkway through the neighborhood, particularly by residents using canes or walkers, care must be taken so that the regraded easement can be traversed without difficulty. Easements subject to vehicular travel must be compacted to the specifications required for alleys.