

Preferred General Requirements

Prefer utilization of Xeriscaping and minimal Irrigation System. Contractor shall be responsible for plant establishment and one year maintenance. If an Irrigation System is not utilized, include hose bibs strategically located on the site as coordinated with the OFPC Project Manager and Plant Services. Use 50 feet as standard. Use of wells on separate meter in lieu of City water is preferred. Coordinate the use of existing wells with the OFPC Project Manager. Before including wells into system, consult with Director, Environmental Services, OFPC, to determine if any ground water problems exist.

Irrigation

When an Automatic Sprinkler Irrigation System is provided (such as required for all athletic fields, Football, baseball and softball) use tip of spray area to tip of spray area coverage. All sprinkler lines shall be self-draining. The Irrigation System shall be designed and operated to prevent or minimize runoff of irrigation water onto roadways, driveways, walks, etc. All Work and materials shall be in accordance with applicable codes.

The Irrigation Contractor shall alert the Landscape Contractor of all line and head locations. The Landscape Contractor shall use due caution so the Irrigation System is not damaged during landscape installation operations. The Landscape Contractor shall be responsible for any damage incurred during landscape operation.

Piping

All piping shall be from virgin parent material with **supple curves**. The pipe shall be homogenous throughout and free from visible cracks, holes, foreign materials, blisters, deleterious wrinkles and dents. All pipes shall be National Sanitation Foundation (NSF) approved. **Piping on pressure side of irrigation control valves:**

Shall be Polyvinyl Chloride (PVC) Schedule 40 with a minimum class rating of 200, sized to maintain a flow velocity of less than five feet (5') per second (FPS). Piping on a non-pressure side or irrigation control valves shall be: Polyvinyl Chloride (PVC); Schedule 40. All pipe located under paving or traffic areas shall be sleeved. Pipe for sleeving: High impact, Polyvinyl Chloride (PVC) 2110, minimum Schedule 40.

Fittings

Threaded PVC nipples shall be Schedule 80.

Shut-off Valves

Isolation valves shall be installed on all main lines. Up to three inches (3") size: 125 pound bronze construction, non-rising stem type, sized to line.

Quick Coupling Valves (where applicable)

Furnish two valve keys fitted with three-quarter inch (3/4") swivel hose ends. All quick coupling valve keys and hose swivels shall be of the same Manufacturer as the quick couples. Shall be set a minimum of twelve inches (12") from walks, curbs or paved areas where applicable or as otherwise noted, Quick coupling valves shall be housed in valve boxes. Valves shall be installed on a three (3) elbow PVC Schedule 80 swing joint assembly.

Valve Boxes

To be injection-molded of polyesters and fibrous inorganic temperature resistant components, box and lid to be green. Lids should be locking type. Remote Control Valve shall be rectangular or round in shape and sized to provide adequate clearance to operate and service valve.

Shut-off Valves and Quick Coupler Valves shall be round, approximately nine inches (9") inside diameter by ten inches (10"). Valve boxes shall be set flush with finish grade in lawn areas and one half inch (1/2") above finish grade in ground cover and shrub bed areas.

Sprinkler Heads

All sprinkler heads shall be Nelson pop-up type heads. **NOTE: To avoid damage from vehicular traffic, sprinkler heads shall not be located in close proximity to un-curbed paved areas.**

Automatic Controller

A fully automatic controller must have the following features:

- a. Master on/off switch that permits system shutdown with programming maintained.
- b. Independent station programming.
- c. Independent station timing.
- d. Manual operation option.
- e. Variable day cycle.
- f. Battery powered models not permitted.

Wall mounted installation, unless otherwise specified. Controller shall be mounted inside a locking rust resistant box to protect from vandalism, weather.

Rain Shut-off Devices

Devices should be mounted where roof run-off will not affect operation. Electric Conduit and Fittings (where applicable), underground plastic conduit: Direct burial Class III, FS W-C1094.

Remote Control Valves

Remote controlled valves shall be electrically operated, normally closed, 24 volt AC, 2 Ampere, Constructed of corrosion resistant cyclac and stainless steel, capable of manual operation, and shall be self-flushing. The valve shall have a throttling device for system balancing and shall comply with all Code and Permitting Requirements.

Well Systems

A physical test of well production shall be done prior to system design to assure proper zone sizing. Well should be of sufficient size and depth to deliver sufficient water and pressure to operate largest zone in system. A pressure sustaining, pressure regulating master valve shall be installed at the pump location.

END OF SECTION 02810