City of Southlake

Landscape Irrigation Guidelines

These guidelines are for information purposes only.
The contractor is obligated to comply with all adopted codes and ordinances.

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Background:

The Texas Legislature adopted **House Bill 1656** requiring the Texas Commission on Environmental Quality (TCEQ) to adopt rules for Landscape irrigators for the purpose of conserving water. **The TCEQ** subsequently revised **chapter 344 of the TEXAS ADMINISTRATIVE CODE** and now requires all new landscape irrigation systems and certain altered systems to comply with the new rules. The complete Chapter 344 is available at
http://www.tceq.state.tx.us/assets/public/compliance/compliance_support/regulatory/irrigation/forms_li/rulesforregguid_063008.pdf
Cities over 20,000 population, including Southlake, are required to enforce the minimum standards and specifications for designing, installing and operating irrigation systems in accordance with section 1903.53, Occupations Code, and any rules adopted by the TCEQ under that section.

IRRIGATION PERMITS AND INSPECTIONS

1. A permit is required before installation or alteration of an irrigation system. Ordinary repairs such as replacing a head or minor section of piping shall be done according to the code, but a permit is not required. The submittal of plans and plan review is not required for obtaining an irrigation permit.

2. One set of as-built plans with the licensed professional's seal affixed shall be submitted upon completion of the work in accordance with Section 344.61 of the TCEQ Rules. If the plan is larger than 11 x 17, an electronic copy in PDF must also be submitted. The city will review plans to verify all the required information is shown. Ordinance 895-A requires rain and freeze sensors.

3. Before construction commences, the city-issued permit card shall be posted on an approved sign board located near the public street where it is visible to vehicular traffic. The permit card shall remain in place until the project is completed and final approval is granted by the city inspector.

4. Prior to final inspection of the system, the following must be submitted:

(a.) Backflow test report on file with Public Works. ORIGINAL COPIES ONLY SHALL BE SUBMITTED TO PW OPERATIONS at 1950 E. Continental Ave.

(b.) Copy of the final "walk through" check list signed by irrigator and the owner.

(c.) As-built plans shall be submitted for review by a plans examiner. *Allow 72 hours after submittal to allow ample time for plan review*.

5. Final inspection (Residential Systems) Upon receipt and approval of the above items, the permit holder is eligible to request an irrigation final. The inspector will check the installation of the backflow protection, wye–strainer, isolation valve, rain / freeze sensor, and visual inspection of head placement. The licensed irrigator or other representative does not need to be present for the final inspection.

6. Final Inspection (Commercial Systems), In addition to the Residential requirements, Commercial systems will be inspected by the Landscape Administrator or the Landscape/ Zoning Official for compliance with the Landscape and Zoning requirements.

7. The permit holder is responsible to obtain final inspections and approvals. Failure to maintain records can result in a formal complaint to be filed with TCEQ.

8. Replacement of a backflow device and / or an isolation valve on an existing irrigation system requires a *Plumbing Permit*.

Irrigation Submittal Requirements

Irrigation Plan Requirements per Texas standards for designing, installing, and maintaining landscape irrigation systems, Section 344.61 Texas Administrative Code:

1. The irrigation plan must include complete coverage of the area to be irrigated. If a system does not provide complete coverage of the area to be irrigated, it must be noted on the irrigation plan.

2. All irrigation plans used for construction must be drawn to scale. The plan must include, at a minimum, the following information:

(1) The irrigator's seal, signature, and date of signing;

(2) All major physical features and the boundaries of the areas to be watered;

(3) A North arrow;

(4) A legend;

(5) The zone flow measurement for each zone;

(6) Location and type of each:
- (A.) Controller;
- (B.) Sensor (for example, but not limited to, rain, moisture, wind, flow, or freeze);

(7) Location, type, and size of each:
- (A.) Water source, such as, but not limited to a water meter and point(s) of connection;
- (B.)Backflow prevention device;
- (C.) Water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip, or micro-sprays;
- (D.) Valve, including, but not limited to, zone valves, master valves, and isolation valves;
- (E.) Pressure regulation component; and
- (F.) Main line and lateral piping.

(8) The scale used; and

(9) The design pressure.

Homeowner Checklist

Irrigation System
□ Winterization
□ Return to normal service

Sprinkler Heads
□ Heads missing
□ Heads broken
□ Heads clogged
□ Heads spray pattern appropriate
□ Heads leaking
□ Heads spraying in a fine mist
□ Uniform coverage of the irrigated area
□ Spray pattern blocked or misdirected
□ System spraying onto sidewalks, decks, buildings, driveways or the street

Controller
□ Cabinet is clean and dry
□ System wiring is secured at terminations.
□ Wiring jacket is not cut or worn
□ Battery replacement as needed
□ Day and time displayed is correct
□ Wiring for rain/freeze sensor (or other technology) is properly connected
□ Controller programmed for the appropriate season
□ Controller programmed for any water conservation measures that may be in affect from your water purveyor

Valves
□ Inspect valve covers and valve boxes
□ Inspect valve electrical connections

Back Flow Prevention Device
□ Tested, as needed or required

Drip/Micro Irrigation
□ Emitters connected to flex line
□ Flex line connected to riser
□ Micro adjustment nozzle connected to flex line and nozzle intact
□ Service filter strainer periodically
□ Ensure proper operation of automatic flush valve
□ Confirm operational pressures

IRRIGATION SYSTEM CHECKLIST

Installation Completion Date: _____

Address: _____

The following items have been provided and explained to the irrigation system owner or system owner's representative.

□ Manufacturer's manual for the controller
□ Seasonal watering schedule
□ List of components that require maintenance and the recommended frequency of maintenance is attached
□ Permanent sticker has been attached to the controller indicating the warranty period for the irrigation system and contact information
□ As-built plans indicating the actual installation and components of the system
□ Location and operation of the isolation valve

_____ _____
Irrigation system owner/representative Date

This irrigation system has been installed in accordance with all applicable state and local laws, ordinances, rules, regulations or orders. I have tested the system and determined that it has been installed according to the Irrigation Plan and is properly adjusted for the most efficient application of water at this time.

_____ _____
Irrigator Date

_____ _____
Irrigation Technician Date

Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) (MC-178), P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's web site is: www.tceq.state.tx.us.

Irrigator Seal