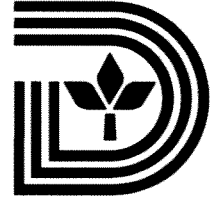


Memorandum



CITY OF DALLAS

DATE November 21, 2008

TO Members of the Economic Development Committee:
Ron Natinsky (Chair), Tennell Atkins (Vice Chair), Dwaine Caraway, Jerry R. Allen, Sheffie Kadane, Mitchell Rasansky, Linda Koop, and Steve Salazar

SUBJECT New Requirements for Landscape Irrigation Systems and Amendments to the Dallas Electrical Code

Attached are the briefing materials on the New Requirements for Landscape Irrigation Systems and Amendments to the Dallas Electrical Code to be presented to the Economic Development Committee on Monday, December 1, 2008.

Please contact me if you need additional information.

A handwritten signature in black ink, appearing to read 'A.C. Gonzalez'.

A.C. Gonzalez
Assistant City Manager

- C: Honorable Mayor and Members of the City Council
Mary K. Suhm, City Manager
Deborah A. Watkins, City Secretary
Thomas P. Perkins, Jr., City Attorney
Craig D. Kinton, City Auditor
Judge C. Victor Lander
Ryan S. Evans, First Assistant City Manager
Forest Turner, Interim Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Ramon F. Miguez, P.E., Assistant City Manager
David K. Cook, Chief Financial Officer
Theresa O'Donnell, Director of Development Services
Helena Stevens-Thompson, Assistant to the City Manager

New Requirements for Landscape Irrigation Systems and Amendments to the Dallas Electrical Code

Presented to
Economic Development Committee
December 1, 2008



Purpose

- To present the new requirements for landscaping irrigation systems effective January 1, 2009
 - To comply with new state law requirements
 - Highlights of new Appendix J
- To present the amendments to the Dallas Electrical Code
 - Adoption of 2008 National Electrical Code with local amendments

Background

- HB 1656 requires municipalities with a population of 20,000 or more to adopt ordinances that require:
 - Standards for the design, installation and maintenance of landscape irrigation systems
- New Appendix J of the Dallas Plumbing Code regulates irrigation systems to comply with state law in a manner that will promote **water conservation**

Background

- In the next 50 years, Texas faces a critical water shortage
- Even with further development of conventional and alternative supplies of water, Texas is still looking at a water deficit of more than 16 percent
- Consumers and landscape irrigation contractors must work together to ensure wise and efficient use of water to irrigate landscapes
- With few exceptions, irrigation systems are installed without any local permitting or inspection requirements, leaving consumers unprotected from systems that are poorly designed or that use excessive amounts of water

Highlights of Appendix J

- The new provisions will:
 - Affect both residential and commercial properties
 - Require irrigation permits for new installations and additions of sprinkler heads and/or zone valves to existing irrigation systems
 - Require installer of an irrigation system to be licensed as required by the commission (TCEQ) and to get the required inspections as determined by the jurisdiction

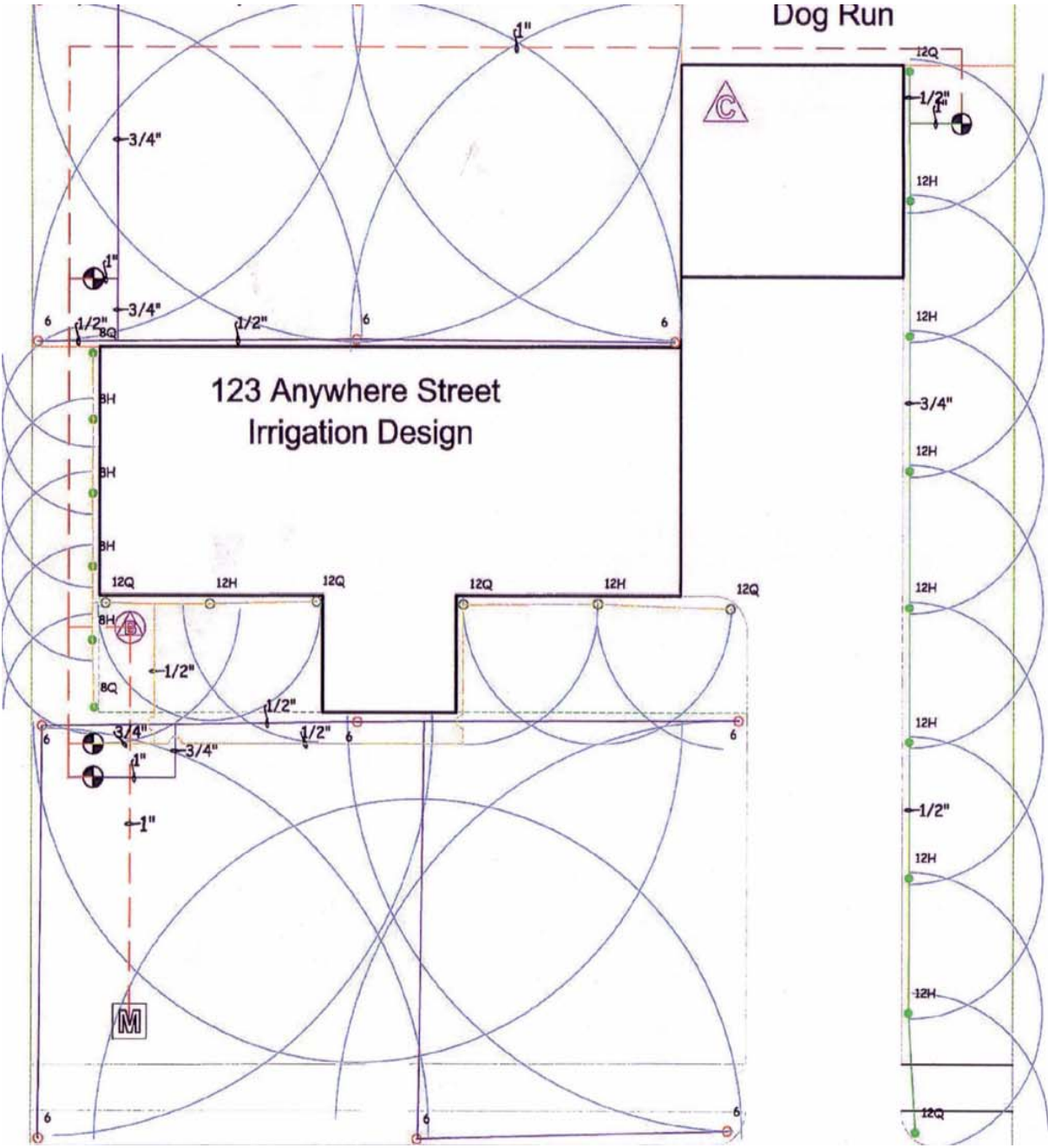
Plan Requirements

- All **irrigation plans** used for irrigation system installation must be drawn to scale and include:
 - All major physical features and the boundaries of the area to be watered, and
 - Dated seal and signature of either a licensed irrigator or a landscape architect
- Exceptions:
 - Seal not required for property that is owned and occupied solely as a person's homestead
 - Seal not required for irrigation plans submitted by a licensed and registered plumbing contractor

Dog Run

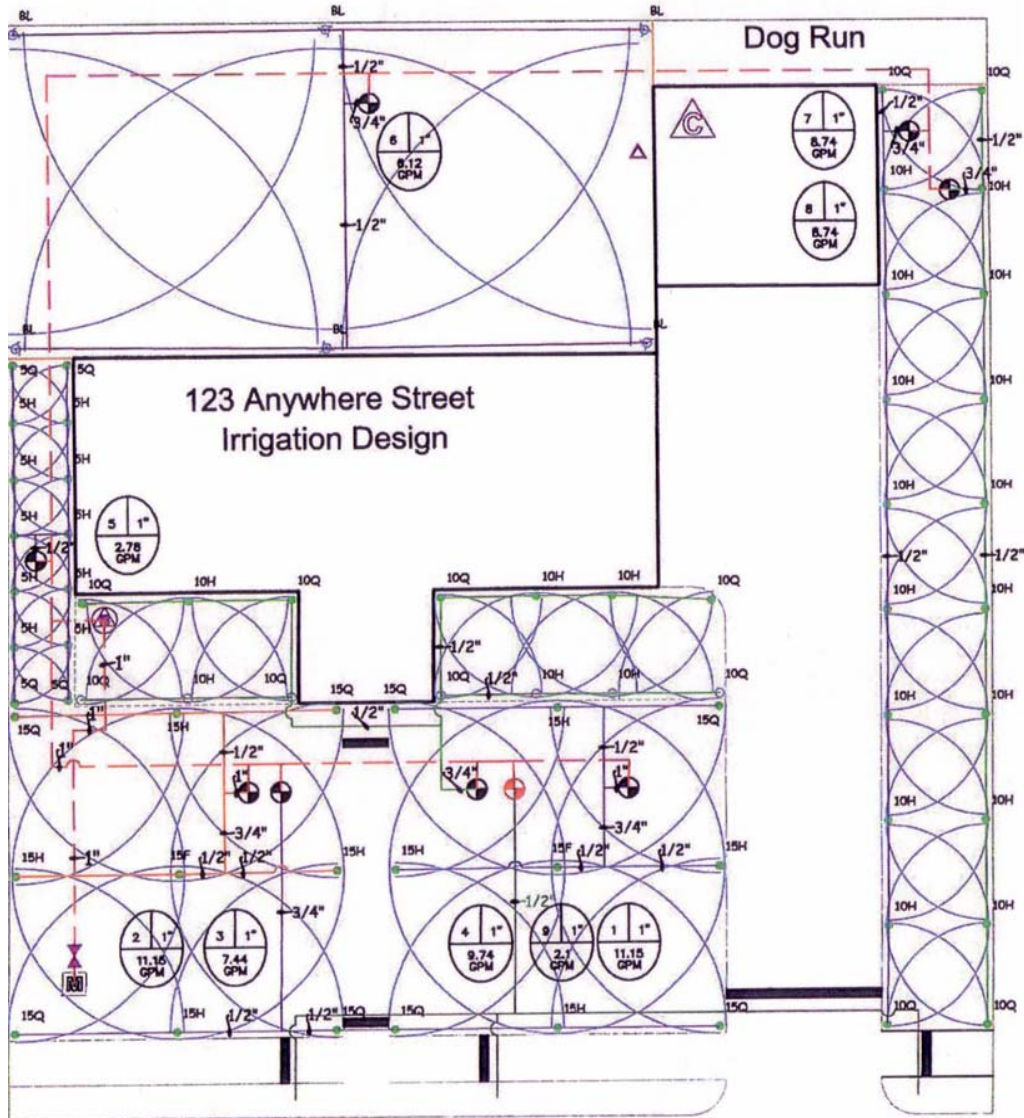
Irrigation

Symbol	Description
●	8H -04
●	8Q -04
●	12H -04
●	12Q -04
○	12H -Riser
○	12Q - Riser
○	Rotor-06
⊗	Backflow Preventer
⊗	Zone Valve 1"
△	Controller 4 Station
■	5/8 inch meter
— (blue)	Lateral - Class 200 1"
— (green)	Lateral - Class 200 3/4"
— (yellow)	Lateral - Class 315 1/2"
— (red dashed)	Mainline - Class 200 1"



123 Anywhere Street
Irrigation Design

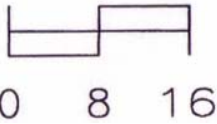




New Water Source

Water Meter Information
 Meter Size: 5/8 inch meter
 Static Pressure: 60
 Change in Elevation: 5

Service Line Information
 Pipe Category: Type K Copper
 Pipe Size: Type K Copper 1"
 1/2"



Notes:
 Use Pressure Regulation Bodies
 Spray Heads

Design and Installation Requirements

- Any irrigation system **connected to** a public or private **potable water system** must be connected through a TCEQ-approved backflow protection method
- Backflow prevention devices must be installed in accordance with approved standards or manufacturer's requirements
- Sprinkler heads must not exceed recommended radius or spacing of the devices

Design and Installation Requirements

- New irrigation systems **may not** utilize above ground sprinkler heads in landscaped areas that are less than 60 inches in width or length
- Misting must be kept to a minimum and may not be used as an irrigation method for shrubs and groundcover

Design and Installation Requirements

- If pop-up sprays or rotary sprinkler heads are used in a new irrigation system, the sprinkler heads must direct flow away from any adjacent surface and **may not be installed closer than 6 inches from a hardscape**, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers or stones set with mortar

Design and Installation Requirements

- All automatically controlled irrigation systems must include sensors designed to inhibit operation of the irrigation system during periods of moisture, rainfall or freezing temperatures
- All **existing** automatic irrigation systems must include a sensor designed to inhibit operation of the irrigation system during periods of moisture, rainfall or temperatures of 37° or below

Design and Installation Requirements

- All new irrigation systems and major maintenance, alterations, repairs or service, must meet the new ordinance
- All new irrigation system installations require the installation of a programmable irrigation controller. The programmable irrigation controller must be equipped with an emergency back-up power supply in the event of a primary power failure

Design and Installation Requirements

- When maintenance, alteration, repair or service of an irrigation system is required and performed and rain and freeze sensors or approved backflow device are not present, the backflow device and or sensors must be installed, permitted, tested and inspected.

Design and Installation Requirements

- Installer must provide a certificate of compliance to the building official and the property owner or the property owner's representative stating that the requirements have been completed
- Reclaimed water, storm water, gray water or water wells may be utilized in landscape irrigation systems
 - These systems must not be directly connected to the potable water supply

2008 National Electrical Code

- Adoption to update to most current electrical construction code
- Amendments to:
 - General Provisions
 - Standards and Requirements

Background

- Electrical fires cause an estimated 485 deaths annually and injure almost 2,300 more individuals
- Home electrical fires accounted for an estimated 67,800 fires and \$868 million in property losses in 2003
- Research by Underwriter's Laboratories (UL) identified an electrical hazard call "arcing fault" that could lead to the ignition of a fire as one possible cause of residential fires

Highlights of requirements

- Arc-fault circuit-interrupter (AFCI) protection
 - AFCI is a device intended to provide protection from the effects of arc faults by de-energizing a circuit when an arc fault is detected
 - Require use of the Arc-Fault Circuit-Interrupter circuit breaker supplying to 120 volt, 15 to 20 amp receptacles in dwelling units

Highlights of requirements



- Requirement for all dwelling unit 125 volt, 15-20 amp receptacles to be of the tamper-proof type
- Requirement for all receptacles installed in a wet or damp location to be listed weather-resistant type