## **CHAPTER 28**

## LANDSCAPE AND IRRIGATION IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY

#### INTRODUCTION

The purpose of this chapter is to promote consistently sound design of landscape and irrigation improvements within the Public Right-of-Way that is in accordance with City standards.

## Section 1. GOVERNING REGULATIONS

Following are overviews of several of the most important City regulatory documents pertaining to landscape design in the Public Right-of-Way. The list is not intended to be exhaustive, and the user is cautioned that these regulations are subject to change at any time. The competent designer must maintain a constant familiarity with these and other pertinent regulations as they evolve.

#### Comprehensive City Zoning Code (Article 14-16 R.O.A. 1994)

This document contains important regulations relating to landscape requirements, obstructions of sight distances within the right-of-way, and proximity of landscape elements to the traveled way.

### Landscape Ordinance (Article 7-14-40 R.O. 1974)

This Ordinance includes, among other requirements, the requirement for the installation of landscaping to provide a visually attractive streetscape.

### Street Tree Ordinance (Article 6-6 R.O.A. 1994)

This Ordinance requires the installation of trees along major streets.

### **Regulations for Street Tree Planting**

These regulations are companion to the Street Tree Ordinance and govern plantings encouraged or required by the Ordinance. (EPC Resolution, adopted February 10, 1983)

### Water Conservation Landscaping and Water Waste Ordinance (Article 6-1 R.O.A. 2015)

This Ordinance requires the implementation of water conservation measures to reduce water use and reduce water waste.

<u>City of Albuquerque Standard Specifications for Public Works Construction 1986 through Update No.</u> <u>9, including the Standard Details.</u>

#### Section 2. DESIGN CRITERIA

# 2.1 General

The City of Albuquerque, City Engineer or designee reserves the right to inspect irrigation and landscaping improvements within the public right-of-way.

In median landscapes, a parking area dedicated for maintenance vehicles shall be provided adjacent to the irrigation controller. Parking area shall be 23' length, 12' width with 12' wide flares on each side. Parking area shall be integrally colored concrete (beige-tone), 6" thick.

In median landscapes, a swale shall be provided continuously along the length of median to retain water within the landscape areas. Maximum slope of swale shall be 10% gradient. Maximum depth of swale shall be eight inches below top of curb.

Median noses shall be paved with colored concrete (beige or tan tone) with a broom finish and troweled edges at joints and perimeter.

A 4" depth of gravel mulch shall be installed throughout the landscape areas with minimum four ounce, need punched polypropylene weed barrier fabric under. Fabric ends shall be overlapped 3". Edges of fabric shall be turned down 6". Top of landscape mulch shall be 1" below top of curb. Gravel shall be a 'warm tone' color (brown or brownish-red). Sizes of gravel may vary.

Boulders shall be 12 CF to 18 CF moss rock, buried min. 6" below bottom of gravel mulch.

## 2.2 Irrigation

An automatic irrigation system shall be provided for the landscape improvements.

In medians, the irrigation controller, backflow preventer and related equipment shall be located adjacent to the designated maintenance parking pad on the side of oncoming traffic. In roadside landscapes, the irrigation controller, backflow preventer and related equipment shall be located minimum six feet from back of curb, or as approved by the City.

Main line and lateral lines shall be located a minimum of five feet away from trunks of trees.

Valve boxes shall be located so edge of valve box is minimum two feet from the edge of the mature spread of a shrub and minimum six feet from the edge of a tree root ball.

A minimum of 36 inches shall be provided between adjacent valve boxes.

Irrigation system shall be a bubbler system. Drip irrigation is not acceptable. Bubblers shall be as follows:

Tree: 3 each 1.0 GPM bubblers

Vertical Shrub: 2 each 0.5 GPM bubblers

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Shrub: 1 each 0.5 GPM bubbler

Yucca and other very low water-use shrubs: 1 each 0.25 bubbler

Bubblers shall be located three feet from the center of the tree trunk, triangulated around the root ball. Where a tree is located on a slope, two of the bubblers shall be located on the high side of the tree.

Bubblers shall be located 12" to 18" from the center of the shrub. Where a shrub is located on a slope, bubblers shall be located on the high side of the shrub.

One bubbler shall be installed at each grounding rod at the irrigation controller.

Backflow preventer shall be a reduced pressure principle backflow prevention device.

Backflow preventer enclosure shall be a 'Hotrok' or equal insulated enclosure with hinged lid, clasp for lock and L-shaped metal clasp reinforcement. Mounted on a 4" slab of concrete with 4" lip on all sides and concrete even with gravel. Also two sleeves need to be installed on vertical nipples for RP before concrete is poured.

Irrigation controller shall be a Rain Bird LXMEF controller as directed by the City of Albuquerque, Solid Waste Department, Clean City Division and per City standards.

Irrigation controller shall be installed in a UL rated Enclosure per City standards and approved by the City of Albuquerque, Solid Waste Management Department, Clean City Division. Enclosure shall be powder coated, color tan. Mounted on a 6" slab of concrete with 4" lip on all sides sloped away from controller.

A master valve and flow sensor shall be provided per City standards. Communication wire for the flow sensor shall be black communication cable (with internal control wire and ground) dedicated to the flow sensor.

Automatic control valves shall be Rain Bird PEB plastic body 24-volt automatic valve per City standards.

All valves shall be installed in valve boxes per City standards.

Electric service shall be provided to the irrigation controller and backflow preventer.

Where there are significant changes in elevation, in-line check valves shall be installed on lateral lines as required to evenly distribute low head drainage.

An air relief valve shall be installed at each high point on the main line.

#### 2.3 Planting

All right-of-way landscapes will be pursuant to the attached prototype design templates and master plant list. The templates and plant list are subject to change at any time. The competent designer must

maintain a constant familiarity with these and other pertinent regulations as they evolve. The plant list is not intended to be exhaustive. Other species may be used, if approved by the City of Albuquerque.

Trees shall be minimum 2" caliper, installed per City standards.

Shrubs shall be minimum 1 gallon, installed per City standards.

A two foot clear zone (area free of mature spread of plants, and other improvements) shall be provided at back of curb.

Minimum distance between shrubs shall be 4'-0"

Minimum distance between a tree and the edge of a manhole collar shall be 8'-0"

#### 2.4 Reference

Any questions regarding Chapter 28 are to be directed to the City of Albuquerque Department of Municipal Development.