



TOWN OF MARANA LANDSCAPING & IRRIGATION DESIGN MANUAL 2024





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TOWN OF MARANA LANDSCAPING & IRRIGATION DESIGN MANUAL

Introduction

Background

Development of a landscaping and irrigation design manual has been called out as a task in the Town of Marana's Strategic Plan 5 document (Focus Area 4: Healthy Lifestyles). Additionally, this manual has been developed to assist applicants in the preparation of Landscape Plans as one of the components of the various submissions required in support of development applications to the Development Services Department. It is intended to provide a quick reference guide of clear and consistent landscape and irrigation standards and to provide guidance and assistance in the realization of high-quality landscaping, while minimizing impacts to the natural environment.

Purpose

The goal of the manual is to outline general guidelines for the provision of Landscape Works for development proposals, both private and public, in the Town of Marana. Appropriate Landscape Works is recognized as being an essential component to any site development, and we at the Town of Marana see it as a critical item in the success of any development. Landscape Works should integrate the built environment with the natural environment, enhance the visual character of neighborhoods and streetscapes, and contribute to the long-term success of new developments. Our objective is to achieve excellence in the design and implementation of Landscape Works, through sustainable and sensitive development, and to provide guidance for capital improvement projects and maintenance activities for both public property and right-of-way. **More specific objectives include the following:**

- Comply with the goals and strategies of the Strategic Plan 5.
- Assist owners, developers, and applicants in the preparation of quality landscape plans for various development application scenarios.
- Encourage open communication between owners, developers, and applicants with the Town of Marana.
- Encourage landscape planning and design that protects, supports, and enhances existing cultural and natural landscape features.
- Encourage landscape planning and design that supports and enhances urban design qualities of a proposed development.
- Encourage a uniform landscape and design that complements the surrounding areas and existing infrastructure.
- Support best practices for water management, conservation, and efficiency.
- Outlines the requirements for the submission of drawings, drawing formats and uniform and consistent content.

The guidelines contained herein describe minimal acceptable landscape and irrigation standards for site development. Please refer to the Town Code Landscape Requirements (in Chapter 17-11) and other documents in the appendices for all comprehensive requirements and standards.

Best Landscaping & Irrigation Practices

<i>Landscaping & Irrigation Best Practice No.</i>	<i>Best Practices</i>	<i>Affected Stakeholders</i>
1	Assure Overall Quality of the Landscape Area and Irrigation System	<ul style="list-style-type: none"> • All Stakeholders
2	Design the Landscape Area and Irrigation System for the Efficient and Uniform Distribution of Water	<ul style="list-style-type: none"> • Water Purveyor • General Contractor • Irrigation Contractor • Irrigation Designer • Irrigation Consultant • End User or Owner
3	Install the Landscape Area and Irrigation System to Meet the Design Criteria	<ul style="list-style-type: none"> • Water Purveyor • General Contractor • Irrigation Contractor • Irrigation Designer • Irrigation Consultant • End User or Owner
4	Maintain the Landscape Area and Irrigation System for Optimum Performance	<ul style="list-style-type: none"> • Water Purveyor • Irrigation Contractor • Irrigation Designer • Maintenance Contractor • End User or Owner
5	Manage the Landscape Area and Irrigation System to Respond to the Changing Requirement for Water	<ul style="list-style-type: none"> • Water Purveyor • Irrigation Contractor • Irrigation Designer • Maintenance Contractor • End User or Owner

Sustainable Landscaping & Irrigation Management Practices

- Preserve limited and valuable natural resources such as water and soil.
- Encourage utilization of non-potable and/or reclaimed water.
- Reduce waste generation and pollution.
- Support the natural growth habit and longevity of plant material.
- Create more beautiful, healthy, and efficiently maintained landscapes.

Design considerations are:

- Develop a sustainable design with a collaborative communication process with the designer, builder, and maintainer.
- Plant appropriate plants that are well adapted to site conditions.
- Consider the design and functionality of hardscaping, plants, and trees.
- Design the irrigation system to work efficiently and accurately for specific landscape elements.
- On a case-by-case basis, the design of the irrigation system will be, as directed by the Town, considered as temporary irrigation during the establishment period only.

Landscape Types

Natural Undisturbed Desert

Natural undisturbed desert is an acceptable form of landscaping. Wherever the undisturbed natural desert landscape cannot be preserved, landscape design and construction shall promote the use of transplanted on-site desert plants, container-grown native plants, and seeded plants and organic cover. **(Town Code Landscape Requirement 17-11-7 E. 6.)**



Xeriscape

Xeriscape design principles and plant selection based on function, water requirement and most suitable environmental exposure of the plant materials shall be included in all proposals. (Town Code Landscape Requirement 17-11-7 E. 7.)

Seven Principles of Xeriscaping

1. Plan and design for smart water use

Before you plant anything, determine the water resources for your landscape and how to use them properly. You'll also want to take into consideration budget, function, aesthetics, and expected maintenance.

2. Improve soil quality

Quality soil retains moisture, which encourages plant growth. Incorporating organic matter into your soil can help improve its quality. However, you must understand the type of soil that will help plants in your region thrive. Some native plants don't require much organic matter, while others can drown in soil that retains too much moisture.

3. Reduce turf and other water-wasting plants

The main goal of xeriscaping is to reduce water waste, which means reducing the size of lawns. Look to replace lawns with drought-tolerant grass that's best suited for your region. You can also replace all or part of your lawn with low-water groundcovers that are drought-tolerant and require little to no fertilizer.

4. Choose the right plants

Pick plants that are drought-tolerant, but also have aesthetic appeal. Select plants that are native to your region or thrive in your type of climate. It's recommended that you select a good mix of plants at various heights that bloom throughout the year. Don't forget that different plants require different amounts of sunlight, so plant accordingly.

5. Water efficiently

No, xeriscaping does not mean you'll never have to water again. However, it does aim to ensure you water wisely and never overwater. Choose drip irrigation systems that directly water the roots and avoid wasteful sprinklers that leave excess water on the sidewalk or street. Aim to water plants deeply at their roots and do so infrequently to help them develop long, healthy drought-tolerant root systems.

6. Mulch

It's recommended that you use two to three inches of natural mulch. Mulch helps prevent evaporation and prevents weed growth. It's also a way to improve the aesthetics of your landscape.

7. Maintain your landscape

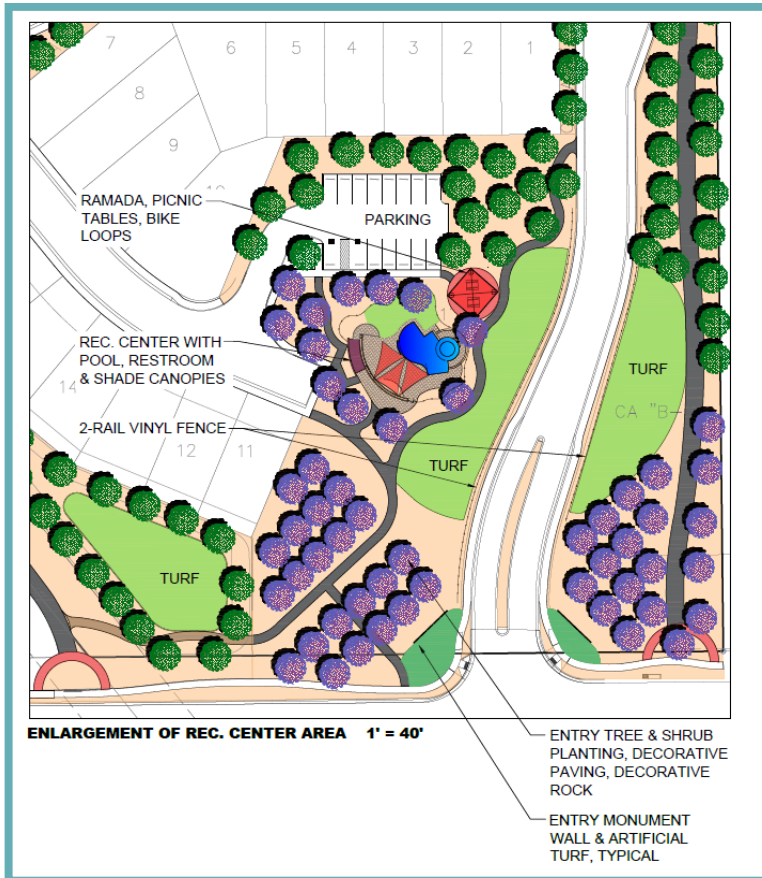
When you do the right amount of planning and research, you'll end up with an attractive, low maintenance yard. But even xeriscaped landscapes still require some maintenance. Pull weeds, prune shrubs and trees, rake, and replace mulch as needed.

Xeriscape (cont'd)



Oasis Exception

An oasis area is a zone of planting where non-drought tolerant plants materials and turf are allowed. Turf use shall not exceed 20% of the total landscaped area. This area must be located near an area of high pedestrian use such as an entry, a recreation area, break area, clubhouse, courtyard, seating, or dining area. (Town Code Landscape Requirement 17-11-7 E. 9. f.)



Site Types

Overview

'Site Type' in this document refers to the character and use of a property. Site types covered by this manual include:

- Parks (Private and Public)
- Open Space
- Streetscapes
- Single Family Residential
- Multi-Family Residential
- Hotel/Motel
- Commercial/Retail
- Industrial
- Town Rights of Way

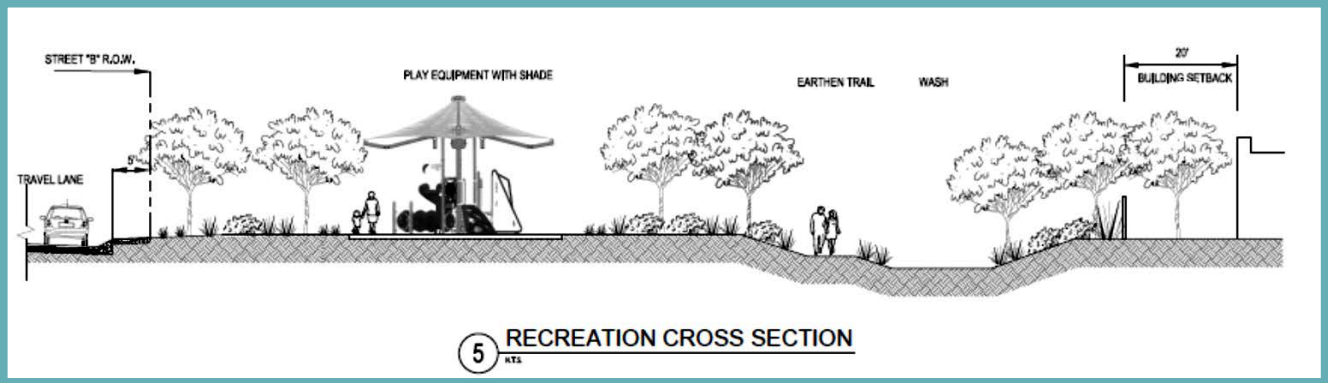
**The following drawings, diagrams, or pictures for each site type are for illustrative purposes only.*

Parks (Private and Public)

Pocket Parks, Neighborhood Parks, Municipal Parks, Sports Parks.

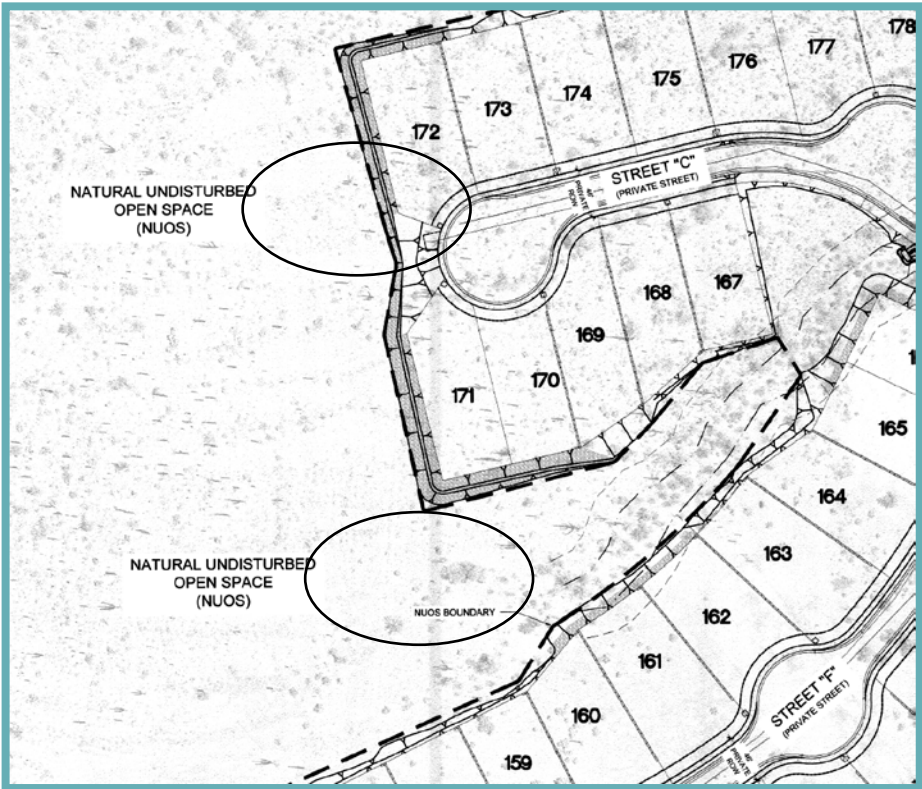


Parks (cont'd)



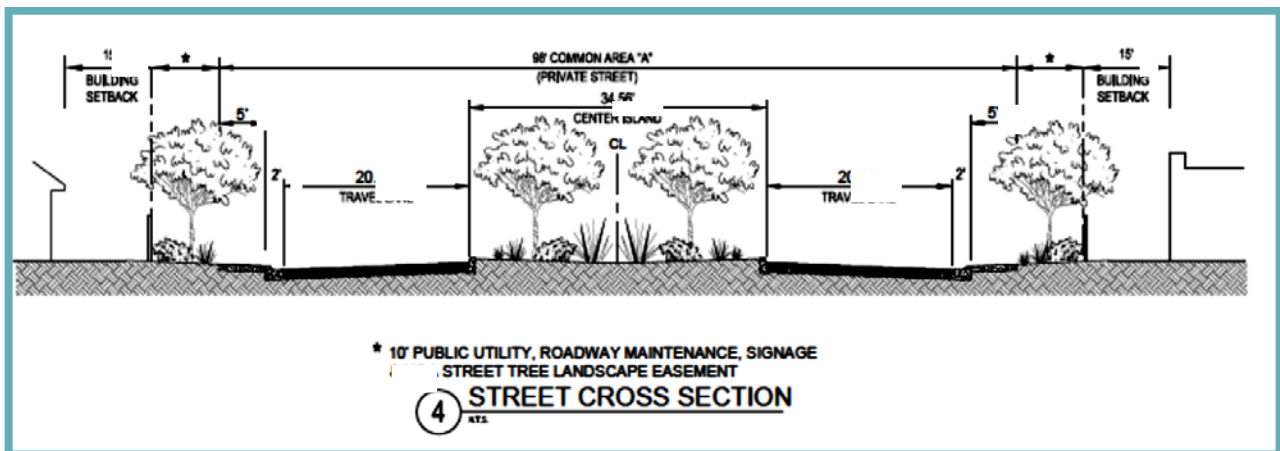
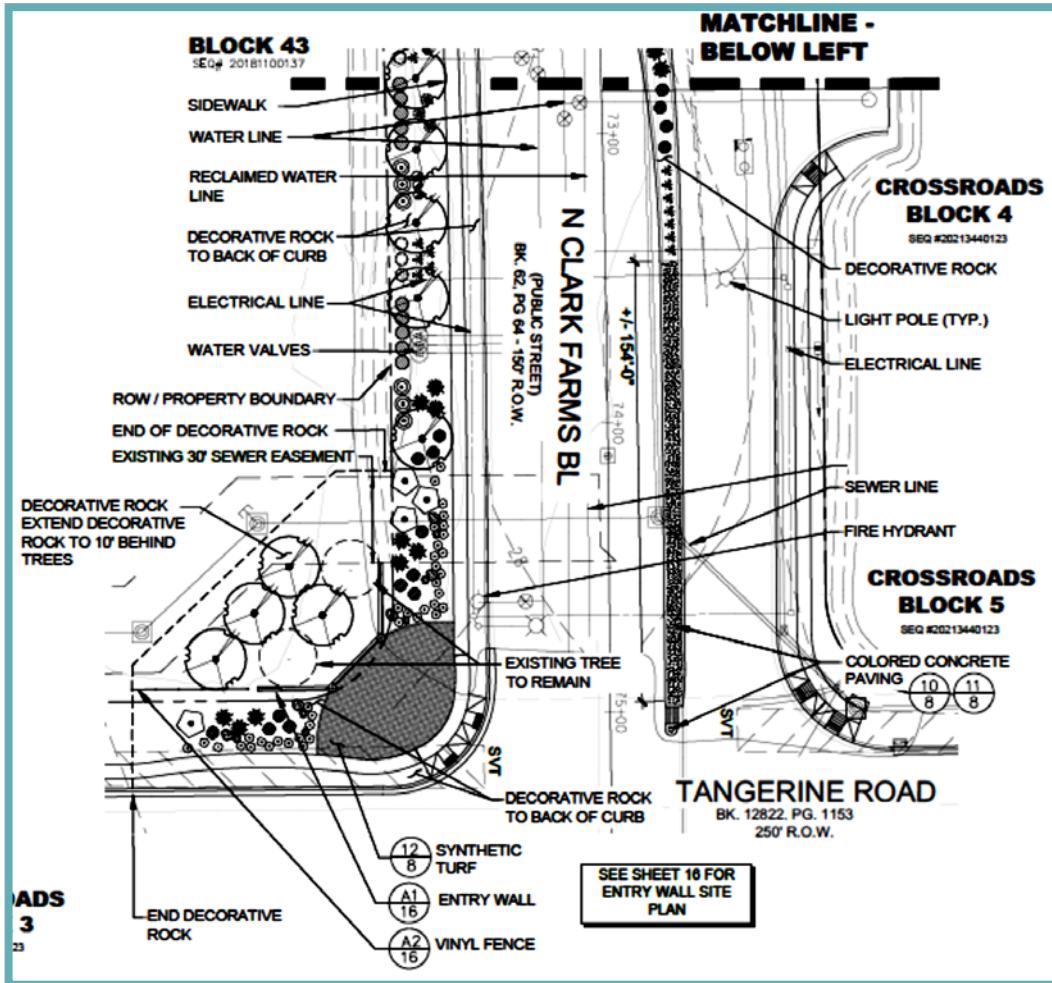
Open Space

Natural Undisturbed, Detention Basins, Drainage Channels, Trails, Preservation Areas, Equestrian Facilities.



Streetscapes (includes Town Rights-Of-Way)

Entries and Entry monuments, Medians and Parkways, Setbacks, Adjacent Slopes.

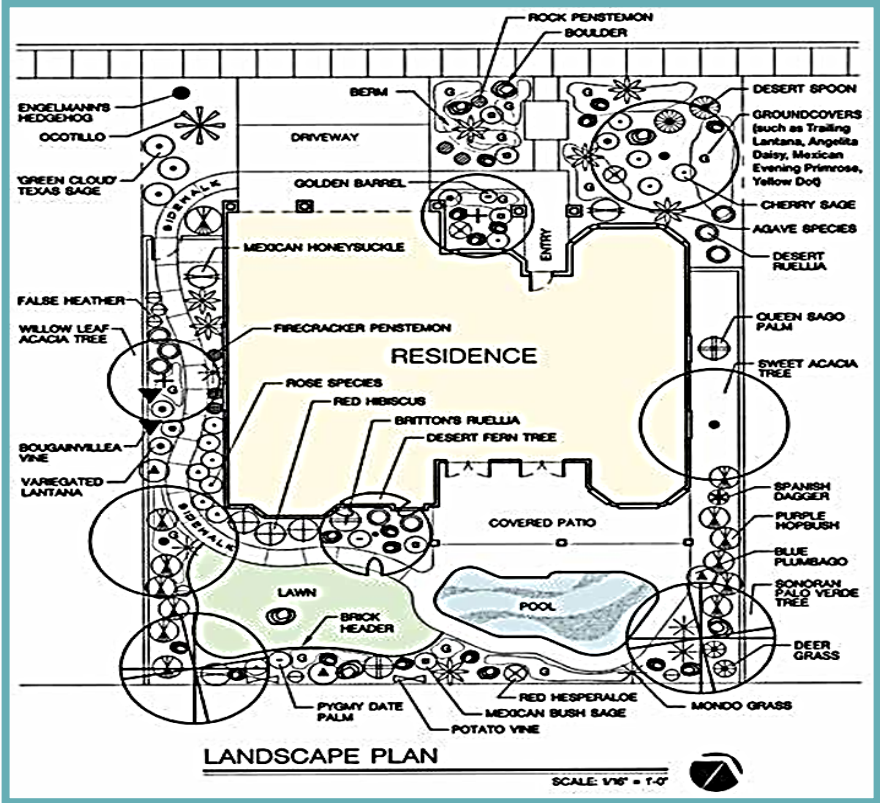


Streetscapes (cont'd)



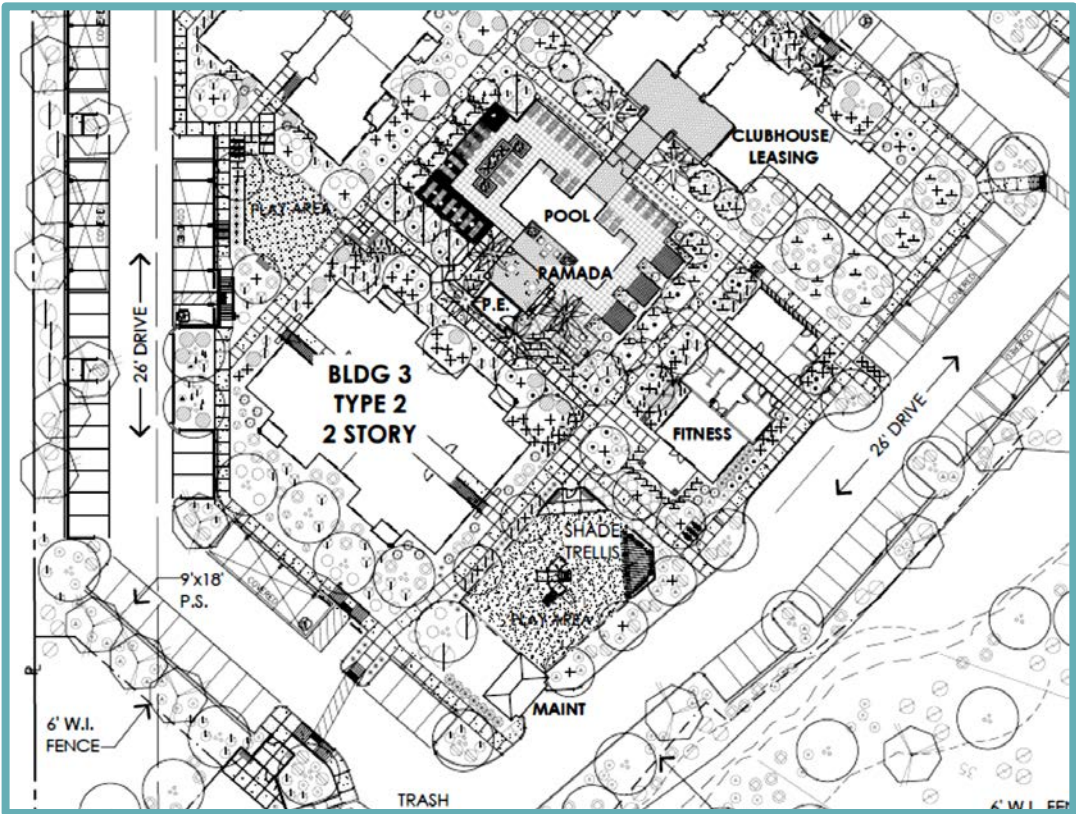
Single Family Residential

- All detached or attached residential structures characteristic of a primary residence.
- Duplexes, Triplexes, Condominiums, Townhomes, as well as mobile and manufactured homes on individual parcels.



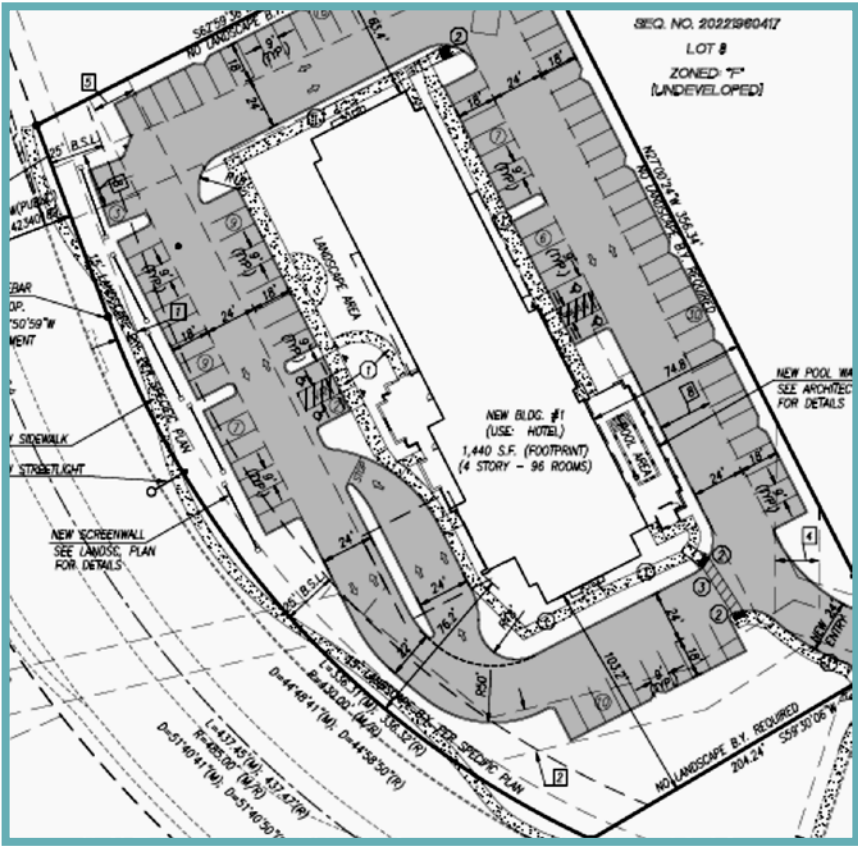
Multi-Family Residential

Refers to development where more than a single residential unit occurs on a single lot. This includes Apartments, Student Housing, and Mobile Home Parks.



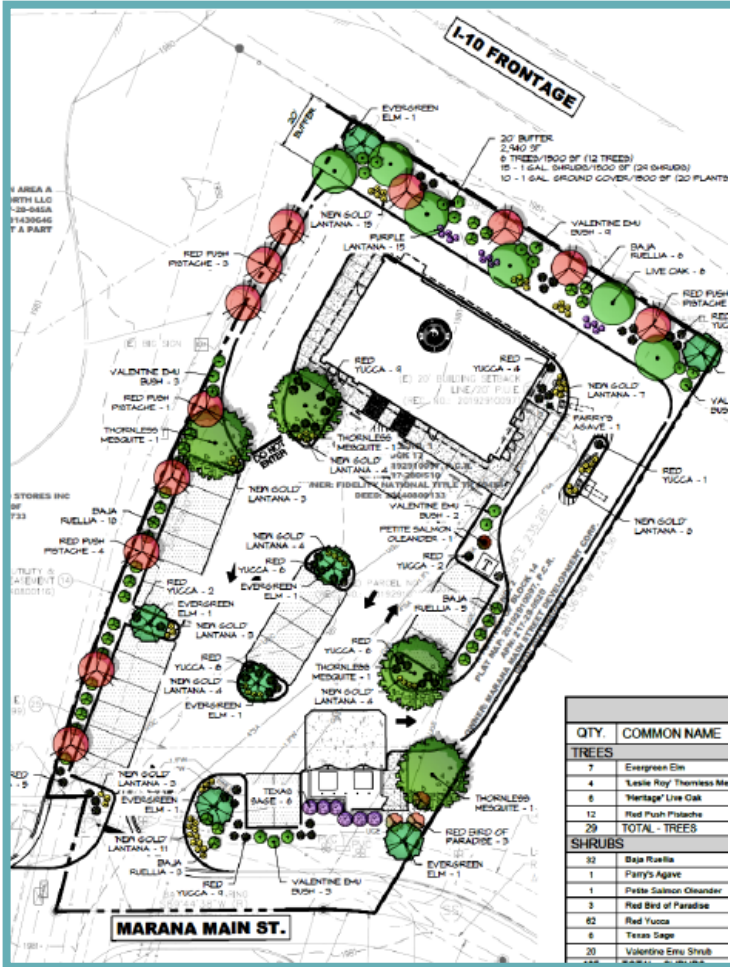
Hotel/Motel

Refers to temporary lodging facilities including hotels, motels, time shares/fractional shares, and recreation vehicle parks.



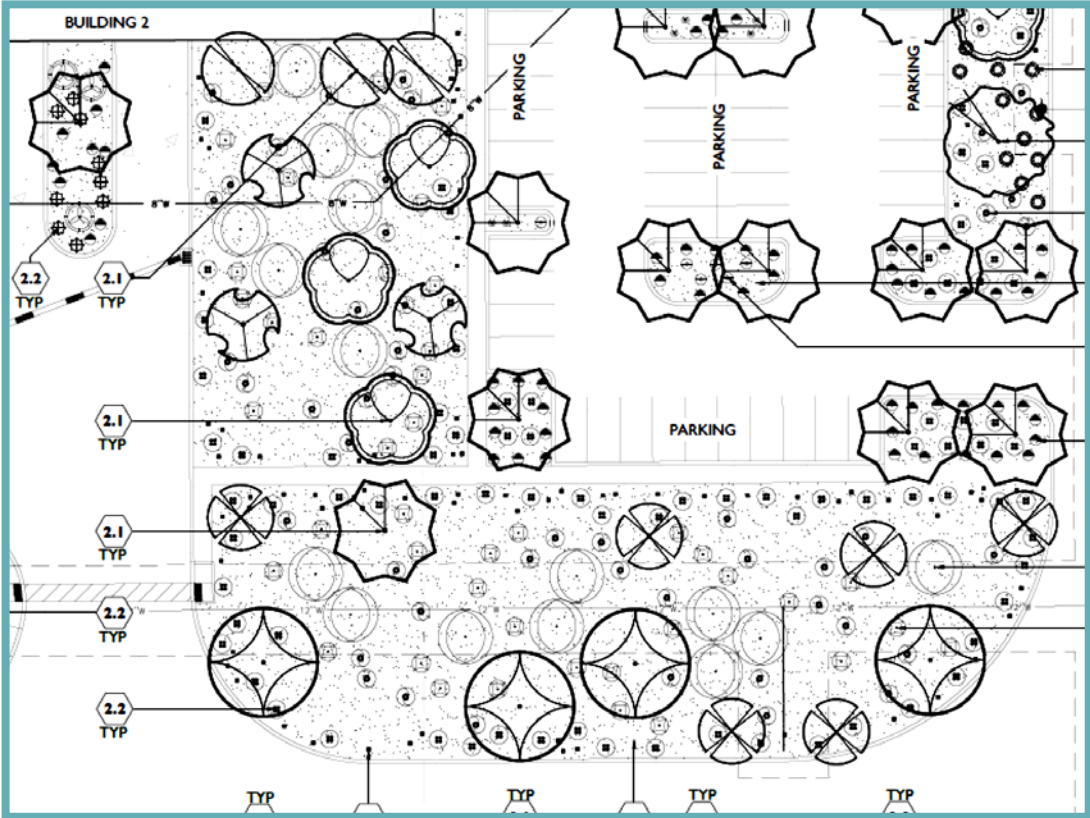
Commercial/Retail

Includes myriad land uses providing retail sales, discount sales, and related services. High Traffic retail includes, but not limited to, fast food restaurants, service stations, convenience stores, and high-turnover restaurants.

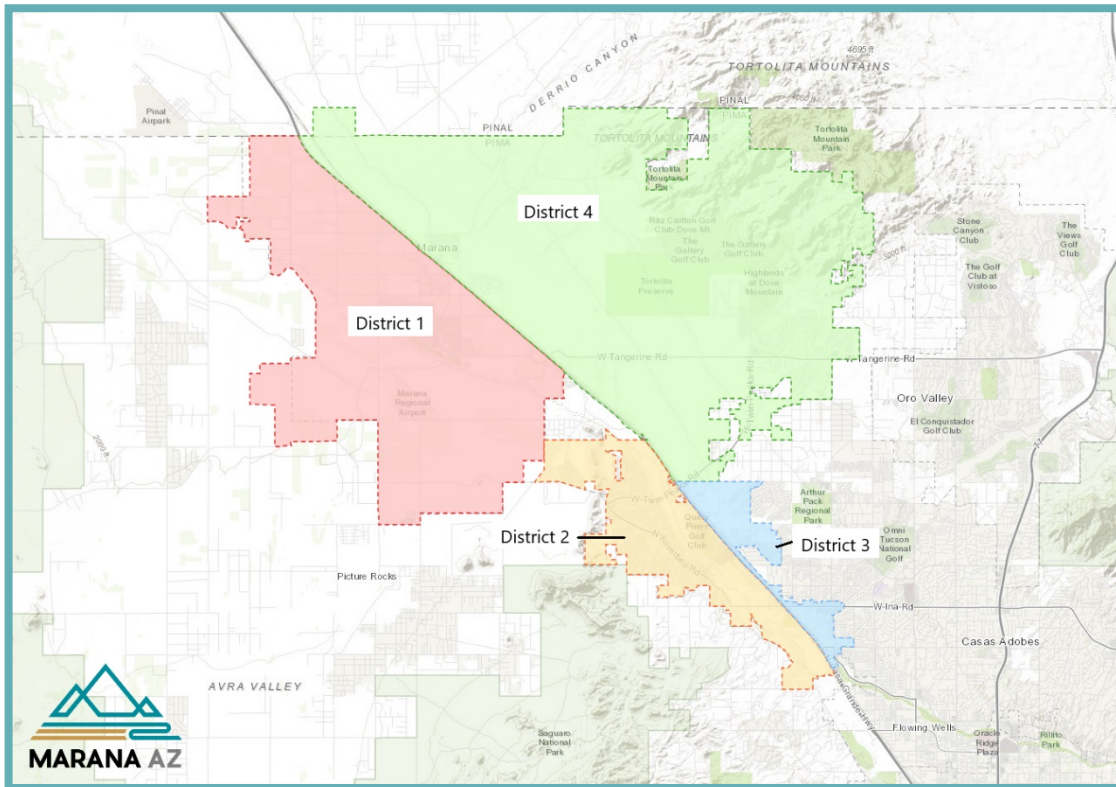


Industrial

Includes all light and heavy industry, industrial parks, manufacturing, warehousing, mini-storage, and utilities.



Rights-of-Way



The Town of Marana has four distinct districts for rights-of-way and design features used in the right-of-way. The map below lays out the borders of each district.

Each District has its distinct landscaping guidelines for the right-of-way:

- **District 1:** Utilizes Natina guardrails and Apache Red decomposed granite (DG).
- **District 2:** Utilizes bare galvanized steel guardrails, brown handrails, and Apache Red decomposed granite (DG).
- **District 3:** Utilizes bare galvanized steel guardrails, and Apache Red decomposed granite (DG).
- **District 4:** Utilizes Natina guardrails, a blend of steel and brown colored handrails, and Santa Fe Gold decomposed granite (DG).

All interchanges, excluding Twin Peaks, will utilize the base color of Koala Brown and accent it with Mayan Brick. All interchanges will also use Apache Red decomposed granite (DG) in their right-of-way.

Newly Annexed areas will fall under the nearest district geographically in terms of landscaping and right-of-way design guidelines.

Districts 1-4

District 1



District 2



District 3



District 4



Appendices (Links to Documents)

Town Code Landscape Requirements

Chapters 17-11-7, 17-11-8, 17-11-8, & 17-11-10

[17-11-7 Landscape requirements](#)

[17-11-8 Landscaping standards for off street parking areas](#)

[17-11-9 Roadway landscape standards](#)

[17-11-10 Maintenance](#)

Landscape Plan Application Checklist

[Landscape Plan Checklist PDF](#)

Development Plan Application Checklist

[Development Plan Package Checklist PDF](#)

Arizona Department of Water Resources (ADWR)

[Low Water Use & Drought Tolerant Plant List PDF](#)

Pima Association of Governments (PAG)

Landscape Irrigation Specifications

808 Landscape Irrigation System (9/29/2014, Final)

[2015 PAG Specifications Section 808 PDF](#)

Town of Marana Parks and Recreation Master Plan

[Town of Marana Parks & Recreation Master Plan 2020-2030 PDF](#)