



Silver|leaf™

ARCADIA

Landscape and Lighting Design Guidelines

# Exterior Lighting Design

The lighting philosophy for Arcadia at Silverleaf is to achieve overall reduced light levels throughout the Community by strategically illuminating landscape and outdoor spaces. The objective is to preserve the night sky ambiance, yet permit lighting as required for safety and aesthetics. Another objective is to allow provisions for intermittent use of enhanced lighting that achieves a quality of illumination for entertaining purposes that closely reflects the custom character. This section will establish a concise and consistent methodology of design and construction of lighting components.

## Design Philosophy and Objectives

The following guidelines serve as criteria for lighting the residential environment of Arcadia at Silverleaf and have been developed to direct the Homeowner, Builder, and designer in selecting appropriate lighting fixtures. These guidelines outline lighting criteria that will provide proper aesthetics and functionality for the residential exterior environment. The issues addressed identify specific needs that can be integrated into a cohesive and pleasing lighting composition for the Homeowner and Community. These guidelines further serve to guide future development and maintenance for the lighting environment of Arcadia at Silverleaf. The Owner, Builder, or lighting designer needs to assess the visual importance of each element in the exterior environment, and define the nighttime use of the areas.

When identifying areas of the outdoor environment to be illuminated, the following should be considered:

- The lighting philosophy for Arcadia at Silverleaf is to integrate quality lighting solutions into the Community that will be minimally obtrusive yet provide functional value.
- The key to achieving this goal is to minimize overall light levels within the Community and strategically illuminate areas for nighttime functions, security, and enhancement of nighttime experience within the Community.
- Lighting should in general be used only where needed; however, the Custom Home architecture can be enhanced by exterior illumination when executed artfully for special entertaining purposes.

The following definitions relate to lighting design:

- **Function:** The activities and uses for the intended area.
- **Safety:** The level of comfort and security.
- **Aesthetics:** The look and feel desired for the landscaped grounds and the custom character.

## Lighting Design Objectives and Criteria

The lighting design must meet the following objectives after identifying areas to be illuminated. The following objectives apply to either the normal daily lighting concepts or to the enhanced lighting concepts, which are addressed separately.

### Normal Daily Lighting Concepts

The following are objectives that apply to normal daily lighting concepts for the Arcadia at Silverleaf Custom Character. Individual Homes are required to utilize the following concepts as part of their lighting design.

#### *Yards and Landscape Areas*

- Integrate lighting hardware with hardscape and landscape features. Lighted accentuation of formal tree layouts along guest arrival areas will be considered.
- Utilize moonlighting effects by placing fixtures in the tree canopy in addition to ground-mounted fixtures.
- Locate light fixtures only where needed for general purpose or security lighting.
- Select lighting hardware that blends with the landscape and architectural character of the Home.
- In general, minimize environmental impact and observe the Dark Sky Philosophy. Attain low overall light levels versus inconsistent accents.
- Conserve energy.

#### *Architectural Exterior Facades*

- Limited use of ground-mounted uplights or downlights located in eaves to illuminate architectural facades.
- Wall-hung or ceiling-hung ornamental coach lights with translucent glass and bulbs at a maximum wattage of forty (40) are acceptable at primary and secondary entrances.
- Decorative ceiling-hung lights with opaque shades that cast light downward are acceptable in arcades.

### Enhanced Lighting Concepts

The following are objectives that apply to enhanced lighting for the Arcadia at Silverleaf character. The intent is to provide an enhanced level of illumination for entertainment purposes beyond the daily condition described in the normal daily lighting concepts. Individual Homes are not required to utilize the following enhanced lighting concepts, but these guidelines are offered for those interested in providing a nighttime ambiance to the landscaped grounds or the Home that is beyond the normal daily allowable standards. A computerized control system must be used in conjunction with these concepts to control the use of the following enhanced lighting criteria, thereby preventing the undesirable condition of Homes using these concepts for more than intermittent entertaining purposes. The selected control system needs to be clearly noted on lighting plans submitted for review. The selected settings will be subject to a nighttime inspection upon completion of the Home, and the Covenant Commission representative may request alterations to the settings. Ongoing review of the frequency of enhanced lighting conditions will occur, especially if the Covenant Commission receives a complaint.

#### *Yards and Landscape Areas*

- Integrate lighting hardware with hardscape and landscape features. Lighted accentuation of formal tree layouts along guest arrival areas will be considered.
- Utilize moonlighting effects by placing fixtures in the tree canopy in addition to ground-mounted fixtures.
- Locate light fixtures selectively for enhancement of trees and planting areas, and for limited accentuation of site wall surfaces.
- Select lighting hardware that blends with the landscape and the architectural character of the Home.
- Attain consistent, moderate overall light levels versus inconsistent bright accents.

#### *Architectural Exterior Facades*

- The use of additional ground-mounted uplights or downlights located in eaves to illuminate architectural facades will be considered for intermittent use.
- Selective accenting of accessory structures such as Garden gazebos, trellises, arbors, arched arcades, and so on, will be considered for intermittent use.

### Quantity of Illumination

DC Ranch promotes a Dark Sky Philosophy by encouraging a minimal approach to nighttime outdoor lighting, other than that allowed in the Arcadia at Silverleaf enhanced lighting concepts. The amount of illumination from individual light fixtures is controlled to minimize light pollution and maximize visual comfort.

### Quality of Illumination

Lighting is the fourth dimension of architecture. Sensitively integrated, quality lighting conveys the spirit of a Home or exterior environments. A quality lighting design sets the mood, enhances the space, and achieves specific needs such as safety and energy conservation. A quality design requires significant time and consideration to meet all of the objectives as outlined within the lighting design guidelines. Well-crafted and durable lighting fixtures are recommended for use in Homes in the Arcadia at Silverleaf Community.

### Shielding and Diffused Light

At night the eye becomes sensitive to sources of light that are unshielded or not adequately diffused. The most effective way to control uncomfortable brightness is to shield light sources so they cannot be seen in your normal field of view. Another effective technique is to diffuse the light source with a translucent medium; however, it is essential that the translucent medium be adequately diffused so that an image or silhouette of the light source is not Visible through the medium when the light source is operating.

All light fixtures should be well-shielded to conceal the light source and eliminate glare or have translucent glass shades that significantly reduce glare. This reduces light “hot spots” and greatly enhances the overall look and feel of the nighttime environment.

Light fixtures with good optical control enable light to be distributed in the most effective and efficient manner. Cut-off fixtures emit light from zero (0) (down) to ninety (90) (horizontal) degrees and have no light above the horizontal. Use of shielded outdoor light fixtures is required except for decorative wall sconces and wall-mounted or ceiling-mounted lights, for which translucent glass and maximum forty (40) watt bulbs must be used.

### Safety and Security

Effective security lighting can be achieved by placing lights only where needed, instead of overlighting around the Home. The objective of security lighting is to provide visibility that enhances a sense of safety. Security lighting does not necessarily mean large amounts of illumination, but rather strategically placed fixtures. The result should be an effective yet efficient lighting scheme.

Security lighting must be completely shielded (no exposed lamps allowed). Glare should be avoided when considering security lighting; therefore, care must be taken when aiming such lighting. Placing lights at door locations, pathways, and driveways wired to a combination photocell/infrared sensor can act as a deterrent to intruders.

### Combination Photocell/Infrared Sensors

The use of building-mounted security lighting is discouraged. Building-mounted security lights that function as floodlights must be controlled by a combination photocell/infrared sensor. These devices have two (2) sensors, one for light sensing and one for concentrated heat detection (warm-blooded mammals). The infrared sensor can only turn on the light at night, avoiding nuisance operation during the daytime and minimizing operation of security lighting at night.

### Light Trespass

Light fixtures should be selected and aimed to deliver light only for the intended location and purpose. Care must be taken to prevent unwanted light spill.

Light trespass is defined as unwanted light received in adjacent properties and excessive brightness occurring in the normal field of vision. The following recommendations will help control light trespass:

- Select luminaires that have tightly controlled intensity distributions using cut-off reflectors and refractors.
- Contain light within the design area (property) by carefully selecting, locating, mounting, and aiming the luminaires.
- Use well-shielded luminaires or select hardware that can be shielded.
- Keep aiming angles high so the light beam falls within the intended area.
- Aim lighting fixtures away from streets and neighboring properties.

### Aiming Light Fixtures

Placement and aiming of light fixtures are crucial elements of a successful lighting design. Aiming should be exercised in a manner in which glare to surrounding properties is avoided. When uplighting large plants and trees, fixtures should not be aimed below an angle of sixty (60) degrees, measured from the horizontal axis. Where uplighting is proposed, the beam spread of the lamp must be selected to focus all available light on the object being illuminated. For example, do not use a wide beam lamp (flood) to uplight a tall, narrow tree; a narrow beam lamp (spot) is appropriate for this application. However, a wide beam lamp would be effective and appropriate for uplighting a large palo verde or mesquite tree.

### Light Sources

Various light sources are permitted for the exterior environment at Arcadia at Silverleaf. Light sources should be selected for quality and quantity of light provided.

### Color of Light

Slight differences in the color composition of light are measured using the color temperature scale. Warm light sources have low color temperatures (2,700°K – 3,000°K) and feature more light in the red/orange/yellow range. Cool light sources have a higher color temperature (4,000°K) and feature more light in the green/blue/purple range. A neutral or midrange color temperature (3,500°K) enhances most colors equally.

The following lists lamp types that have a range of light colors acceptable for use in Arcadia at Silverleaf:

- **Incandescent:** A-lamps, T-lamps, R-lamps, and candelabra-based lamps are the warmest in color and have a “soft” output, but are not as compact as some halogen sources.
- **Halogen:** These are available in both one-hundred-twenty (120) volt and twelve (12) volt configurations. An example of a one-hundred-twenty (120) volt halogen source is a PAR lamp. Some examples of a twelve (12) volt halogen source are an MR-11, an MR-16, or a bi-pin, which would typically be used for landscape lighting.
- **Compact Fluorescent:** These are available in warm (2,700°K) and cool (3,500°K) color temperatures, and typically have long life properties (10,000 hours).

High-intensity discharge sources like metal halide and high pressure sodium are not permitted and do not comply with the maximum lumen output. Because lamp technology changes rapidly, lamp resources not currently approved by the Covenant Commission may be approved; however, any additional source must first be submitted to the Covenant Commission for review.

### Energy Conservation

New lighting techniques and equipment, as well as more efficient light sources, provide the tools to meet the requirements for the outdoor environment and decrease energy costs. Maintenance is essential to energy efficiency.

Some lamp (bulb) manufacturers have improved lamp technology. Lamp sources now have high efficiencies, excellent color rendering properties, long life, and lower wattages, and some are available at low costs. Most lamp sources are available in an energy-saving configuration. Most energy-efficient sources have:

- Longer rated life
- Lower wattages
- Lower energy consumption

### Typical Fixtures and Applications

Lighting hardware should be selected for its quality, ease of maintenance, and maximum useful life. The goal is to use the appropriate number and type of fixtures for a particular application. Criteria for specific applications and examples of fixtures are described in this section. Other fixtures that meet the lighting criteria described in this section may also be approved.

### Quality of Lighting Fixtures

Quality lighting hardware is recommended for Arcadia at Silverleaf because it is durable, UL listed, tested for various environments it could be exposed to, and warranted for a minimum of one (1) year. The lighting hardware finishes recommended at Arcadia at Silverleaf are natural materials such as copper, solid brass, bronze, and wrought iron and must match the architectural Style of the Home. All light fixtures must comply with the shielding criteria. To conform with the natural setting of the Arcadia at Silverleaf desert landscape, the lighting is to be concealed, shielded, and low-wattage, and the quantities of fixtures should be minimized. Natural hardware finishes blending with the rustic color palette of the project site, including copper, dull brass, and bronze, are preferred.



### Approved Fixtures and Characteristics

The following sections include types of approved lighting fixtures with descriptions of each.

#### Wall Sconces and Lanterns

Wall sconces and lanterns are intended to provide low-level general illumination at doorways, gates, and patios. Providing comfortable illumination and controlling glare are the most important features of this type of luminaire.

Shielded luminaires provide the most effective glare control and minimize spill light to the night sky. Diffused luminaires allow more light to spill to the night sky; however, they provide more uniform illumination and therefore better visibility in areas such as entries, patios, and driveways. Transparent lenses (e.g., “seeded” glass lenses), lightly sandblasted clear glass, and acrylic prismatic lenses do not adequately diffuse the lamp image. The best diffusers include thick translucent colored glass where the color is integral to the glass or lenses that have a combination perforated screen and translucent diffuser.

#### Garden Lights

Garden lights provide illumination for paths, walkways, Gardens, and patio perimeters. Aesthetically, they are most effective when installed next to colorful flowers and/or plants. Luminaires mounted thirty (30) inches above grade are more effective than luminaires mounted closer to the ground. To avoid a contrived appearance, luminaires must not be installed in a row along the edge of a path or driveway, unless they support formal tree or hardscape design elements.

#### Step Lights

Step lights provide task illumination for stairways and doorways and are most effective when the light source is completely shielded. Luminaires mounted thirty (30) inches above grade are more effective than those mounted closer to the ground. Luminaires with fluorescent lamps and louvers use less energy and require less maintenance.

### Trees and Specimen Plants

Ground-mounted twelve (12) volt halogen accent lights are the most effective way to uplight trees and specimen plants, and simultaneously minimize light spill to the night sky. These luminaires combine efficient use of a twelve (12) volt halogen lamp in a fixture package that provides a high degree of glare control.

The largest trees allowed in Arcadia at Silverleaf can be effectively illuminated with a maximum of three (3) luminaires. Smaller specimens can be attractively lighted with one (1) luminaire, if viewed from a single direction. Tree-mounted twelve (12) volt halogen downlights provide a pleasant way to accent plant material under trees while providing low-level area illumination.

#### Security Lighting

Installing wall-mounted security floodlights is not encouraged; however, when desired by the Homeowner, twelve (12) volt MR-16 floodlights are required. These floodlights are very compact and, when painted to match the wall to which they are mounted, can be unobtrusive.

#### Underwater Lighting

Underwater lamps are preferred because they incorporate the functionality and energy efficiency of twelve (12) volt halogen lamps. They can be used in a wide variety of applications including pools, fountains, and custom water features. Thoughtful placement of these lamps is important to avoid a source of glare to adjacent properties.

#### Sport Court Lighting

Pole-mounted lighting fixtures with cut-off shielding that comply with these guidelines are allowable for the purpose of illuminating allowable sport courts on an as-needed basis with written approval from the Covenant Commission. Wall-mounted sport court lighting fixtures are not allowed.

#### Fixtures to Avoid

Homes in Arcadia at Silverleaf are designed to be elegant and built with authentic and durable materials. Fixtures that are not properly shielded, are made of low-quality materials, or are not complementary to the character of the Home Style are not allowed.

## Section Six - Landscape Design





## Design Philosophy

There are abundant opportunities to create exceptional outdoor living environments within Home Sites in Arcadia at Silverleaf. With a favorable climate most parts of the year, comfortable outdoor rooms can extend the living environment of the main Home.

The Arcadia at Silverleaf philosophy is centered on the ideas that Homes should “live” to the street and that a coherent and rich landscape fabric ties the neighborhood together. Special attention must be paid to landscaped areas that are within public view. Individual Home landscape designs are part of the larger neighborhood composition, rather than stand-alone statements. For this reason, no one design should dominate the landscape, but should instead provide subtle uniqueness that is appropriate to the overall environment. The end result should be individual Homes interwoven together along with the open spaces to give these neighborhoods a sense of place.

The following guidelines establish principles for achieving design excellence in the landscape environment. The following criteria are essential to realizing this goal:

- Use of appropriate materials and finishes that complement the architectural Style of your Home.
- Appropriate plant selections, quantities, associations, and placement.
- Blending of architectural or hardscape elements into landforms.
- Complementing and enhancing the architectural experience through the use of well-placed trees and shrubs.
- Enhancing the pedestrian environment by selecting appropriate plants that offer shade, interest, and accessibility.
- Creating individuality while respecting the desire for overall cohesiveness.
- Seamless shaping and attention to drainage.

## The Custom Home Landscape Character

The landscaped yard plays an important role in the creation of the Home environment by providing functional and pleasing outdoor living spaces as well as enhancing and completing the architectural character. The enhanced landscape also increases the quality of outdoor spaces and, together with hardscape elements, creates outdoor rooms that are extensions of interior spaces. These outdoor rooms are appealing because they blend with the floor plan of a Home. Yards will be an extension of individual expression, with no two looking or feeling alike. Plant selections, quantities, associations, and placement combine to maximize the effects of form, color, and texture.

## Accenting the Architectural Style of the Home

Plantings and hardscape elements within the Private and Transitional Zones, which are described in detail later in this section, should relate closely to the character of the Home. Homes designed to be less formal and more rustic in nature can be complemented with a more naturalistic landscape aesthetic. Use of appropriate materials and finishes that complement the architectural Style of the Home is essential. The created landscape should follow the same discipline of proportion, scale, textures, patterns, colors, and rhythm that is used to create the architectural Style of the Home. The ability of plants and landscape features to accentuate the functional and visual quality of the Home cannot be overstated.

*Rectilinear lawn emphasises formality of streetscape character*

*Driveway placed between existing trees in streetscape*



Formal landscape character along street complements formal character of Home



Yards and Gardens are considered an integral component of the Home environment. To gain maximum benefit from the landscape design, the landscape must be considered during the concept phase of the Home. Layering is encouraged on Lots to provide spatial depth and variety in the massing forms. With layering, masses of plants are arranged behind one another in combinations of height, texture, and color, to form a hierarchy. The density and color intensity of planting arrangements should vary within yards and from yard to yard. Focal areas should be identified and can be given more prominence by the use of accent plants, increased density of shrubs or color, or a greater variety of plants. Emphasis can be placed on pedestrian and vehicular entry locations, walkways, gate areas, portals, or doors.

### Plant Massing

Massing of plants is encouraged to achieve more substantial forms within the yard and Garden. Shrubs can be massed into formal hedges or more free-form groupings. In either case, individual plants are indistinguishable from within the grouping. This type of massing is in contrast to the dispersed plant arrangements found in the natural desert.

### Layering

Layering is encouraged to provide spatial depth and variety in the massing forms. With layering, masses of plants are arranged behind one another in combinations of height, texture, and color, to form a hierarchy.

### Accenting

The density and color intensity of planting arrangements should vary within yards and Gardens. Focal areas should be identified and can be given more prominence by using accent plants, by increasing the density of shrubs or color, or by increasing the variety of plants used. Emphasis can be placed on pedestrian and vehicular entry locations, walkways, gate areas, portals, or doors.

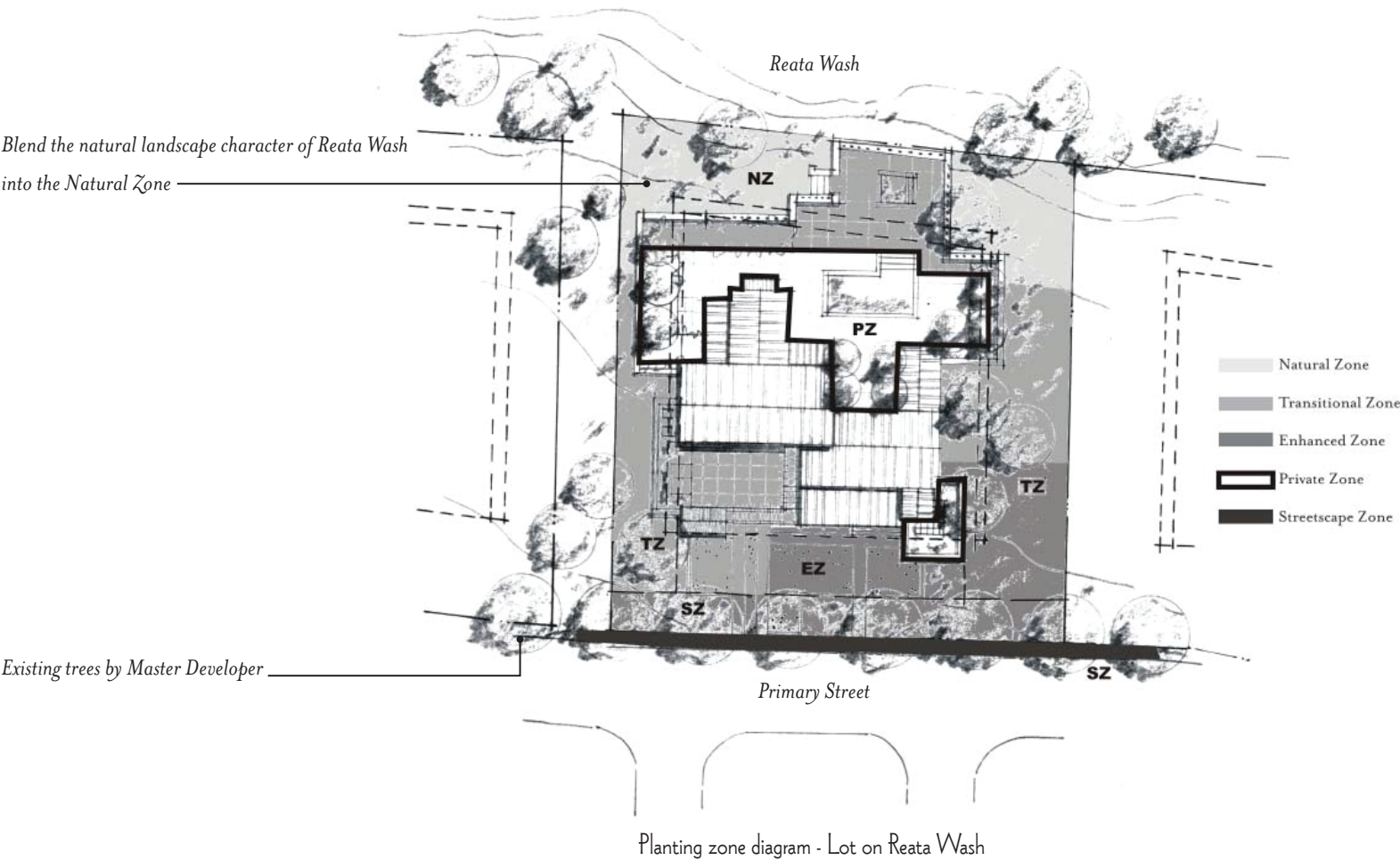
## Landscape Design Considerations

### Landscape Architect/Designer Selection

The Landscape Architect plays an important role in the design team, and often is the coordinator of the entire exterior design of hardscape and softscape. Careful evaluation and selection of this member of the design team must be made to ensure the highest quality of design and construction. Landscape design of yards, courtyards, and Gardens should be completed by a registered Landscape Architect (or a custom residential landscape designer that can demonstrate recent relevant experience in similar environments).

### Landscape Zones

Front, side, and rear yards can be divided into landscape zones that define the type, quantity, and manner of plantings that may occur. Zones are designated by their proposed use, level of privacy, and visibility from streets and neighboring Residences. Though each zone is guided by different but complementary design criteria, it is essential that a unified landscape character be presented on each Home Site. Successful transition areas between each zone will either blend without abrupt changes or have abrupt changes using vertical elements for separation. The Owner's Landscape Architect must determine which of the zones to apply to which portions of the Lot. The Arcadia at Silverleaf Approved Plant List contains a full listing of approved plants allowed in each zone. The following is a list of the five (5) to six (6) zones that may apply to each Lot.





Natural Zone

The Natural Zone is intended to mimic the native desert in its plant variety, pattern, composition, and density. For this reason, the Natural Zone will differ from area to area to account for local differences in the desert landscape. In most cases, each Lot has been mass graded, in which case all existing vegetation has been salvaged or removed. On Lots adjacent to Reata Wash, a thorough revegetation must occur throughout the entire Lot, and it must transition into the existing landscape character of Reata Wash. The Landscape Architect must study and determine the conditions on each site to calculate the requirements for this zone. The Natural Zone can be thought of as a revegetation zone. The following are guidelines for the Natural Zone:

Within Lots along the natural landscape edge of Reata Wash:

- Plant density is based on site-survey field analysis.
- Refer to the Approved Plant List for plants that are allowed in this zone.
- Increasing the density of native plants against the house or walls to add color and texture is allowed.
- Turf is not allowed in the Natural Zone.

Within Lots in the interior of Arcadia at Silverleaf:

- This zone does not apply.

Transitional Zone

The Transitional Zone will have more diverse species of plants to create an enhanced desert character. Plant selections can include plants that are native to the Sonoran Desert Region. Plant massing in this zone should be less formal and layered than those found in the Enhanced Zone. The following guidelines apply to the Transitional Zone:

- Turf is not allowed in the Transitional Zone.
- Refer to the Approved Plant List for plants that are allowed in this zone.

Within Lots along the natural landscape edge of Reata Wash:

- This zone is located in the front and rear part of the Home within arrival courts, front entries, and rear yards, and will be partially Visible from the street, neighboring Lots, and points of view within the Community.

Within Lots in the interior of Arcadia at Silverleaf:

- This zone is located in the front part of the Lot along driveways, and surrounding the front portions of the Home. It will be Visible from the street, neighboring Lots, and from points of view within the Community. This zone will not be located in the rear yard area.

Enhanced Zone

The Enhanced Zone will have significantly more diverse species of plants compared to the Transitional Zone. Plant selections can include plants that are native and those that are adapted to the Sonoran Desert region. Plant massing in this zone can be more formal and layered than that found in the Transitional Zone, and relates closely to the site architecture. The following guidelines apply to the Enhanced Zone:

- Refer to the Approved Plant List for plants that are allowed in this zone.
- Turf is allowed in the Enhanced Zone.

Within Lots along the natural landscape edge of Reata Wash:

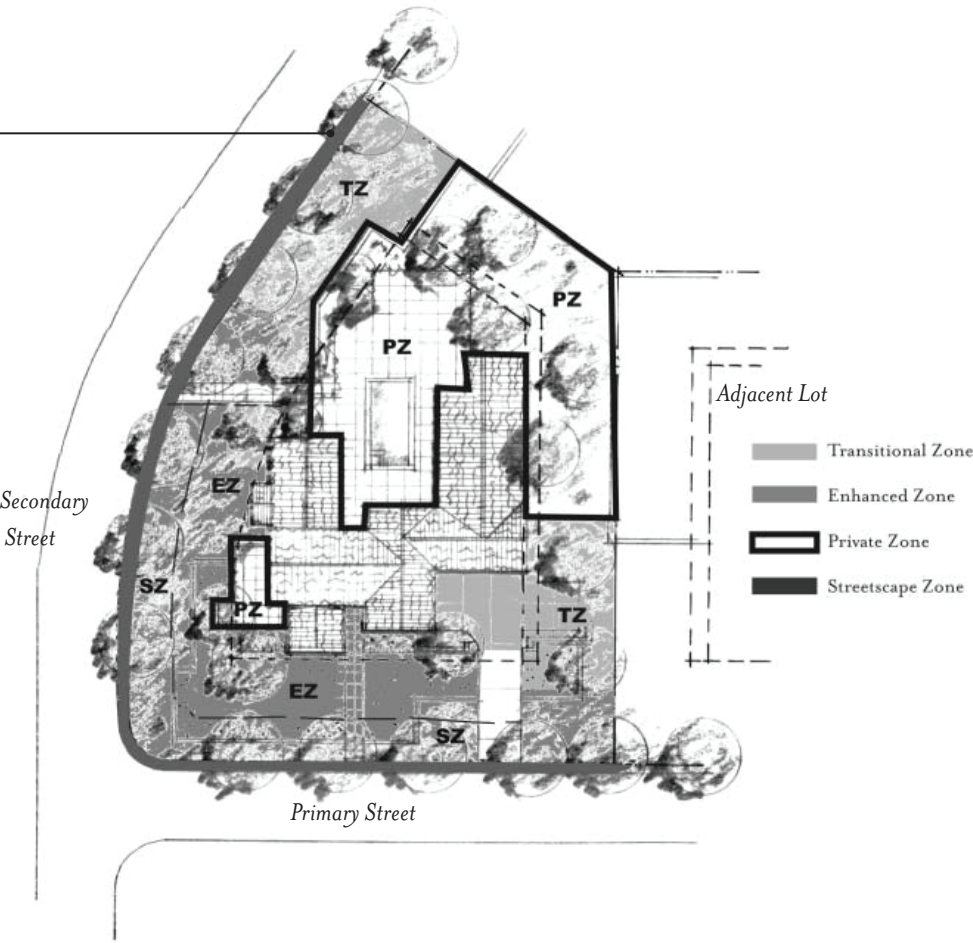
- This zone is located in the front and rear part of the Home within arrival courts, front entries, and rear yards, and will be partially Visible from the street, neighboring Lots, and from points of view within the Community.

Within Lots in the interior of Arcadia at Silverleaf:

- This zone is located in the front part of the Lot surrounding the front portions of the Home. It will be Visible from the street, neighboring Lots, and from points of view within the Community. This zone will not be located in the rear yard area.

Existing trees in Streetscape

Zone by Master Developer



Planting zone diagram

**Private Zone**

The Private Zone contains the most diverse and adapted desert plant species that may include plants from coastal/arid regions and non-native plants. Plant massing in this zone can be formal and layered as in the Transitional Zone, and relates closely to the architecture. This zone will be applied in areas that are contained behind walls or architectural edges of significant height to conceal the view of non-native plants from a distance. The following guidelines apply for the Private Zone:

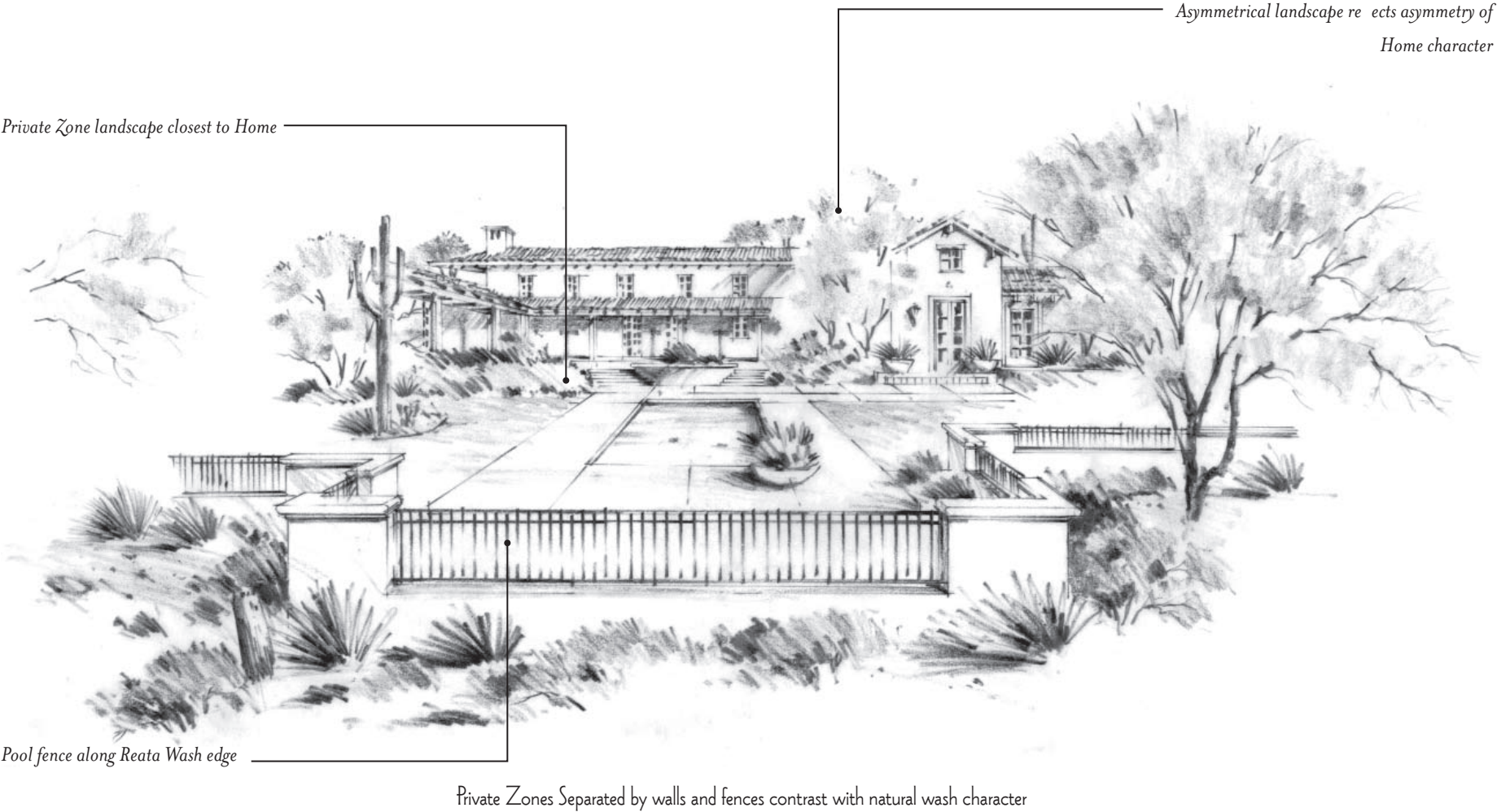
- Refer to the Approved Plant List for plants that are allowed in this zone.
- This zone may not be Visible from the street or from afar and may be only minimally Visible from neighboring Lots.
- Exotic and lush plantings within this zone must generally be contained within building walls or freestanding walls with a minimum height of five (5) feet, as measured from the inside.
- Non-native trees that will grow higher than the roof ridgelines, or will become Visible from the street and neighboring Lots upon maturity, will be allowed within Arcadia at Silverleaf and must be selected from the Approved Plant List.
- Turf is permitted in this zone.

**Streetscape Zone**

The Streetscape Zone is the area adjacent to the street edge on all Lots. Prior to design, all utility and neighborhood service locations must be verified. The following guidelines apply to the Streetscape Zone:

- This zone is located along the street edge for the entire length of the Lot (12' from back of curb).
- Trees are preprogrammed and installed by the Developer.
- Understory planting of this zone using plants from the Streetscape Zone and Transitional Zone palettes is the responsibility of the Owner.
- A minimum of one (1) shrub per sixteen (16) feet of area within the Streetscape Zone is required.

- Turf may be allowed within the Streetscape Zone, but must be located outside of the right-of-way.
- Each Lot has a proposed driveway location that does not interrupt the street tree spacing. Driveway location can shift, but street tree locations are considered fixed.
- Proposed driveway locations have sleeves (provided by Developer) below ground and no shrubs/groundcovers. If driveway location changes at Owners request, the Owner is responsible for replacement of sleeves and landscape.





The Use of Turf

The decision to use turf as a ground cover is appropriate for the character of outdoor rooms being created, but should be tempered to avoid excessive turf coverage in non-functional areas. Turf should generally be used as an extension of outdoor spaces such as porches and patios. In most cases, the shape of turf areas, formal and informal, should complement the Style of the Home. Yards, courtyards, and Garden areas are considered extensions of interior spaces and can enhance the quality of the living environment when designed for comfort, visual appeal, and functional uses. On a case-by-case basis, as part of the landscape design review, the Covenant Commission will review and approve turf area by coverage amount, minimum dimensions, and location on each Lot. Turf usage must meet the following general criteria:

- The appropriate amount of allowable turf will generally be in a range of ve (5) percent to ten (10) percent of the total gross Lot area. Turf area coverage less than ve (5) percent of the total gross Lot area is allowed.
- Turf will be permitted in front within the Enhanced Zone and rear yards, and may be Visible from neighboring Lots, streets, and/or the Reata Wash. On Lots adjacent to parks, the use of turf is encouraged for the front yard.
- All turf must be a hybrid Bermuda grass species, in sod form, and overseeded with perennial Ryegrass.
- Turf must be irrigated by a permanent, automatic system.
- Turf is not allowed to extend into the banks or bottom of drainage washes.
- Planting turf on sloped terrain should be avoided. Turf on level to slightly sloped grades is allowed. Turf on slopes steeper than 8:1 are not acceptable unless con ned to small areas or screened from view by Adjacent Lots.
- Minimum dimension of turf in any direction is twelve (12) feet wide.
- To avoid staining from irrigation overspray, turf areas shall not terminate on the low side of any vertical hardscape element. At-grade planters separating turf from walls are required.
- All site retaining walls must be properly waterproofed where turf irrigation occurs on the high side.
- No turf will be allowed in the right-of-way.

Minimum Tree and Shrub Requirements

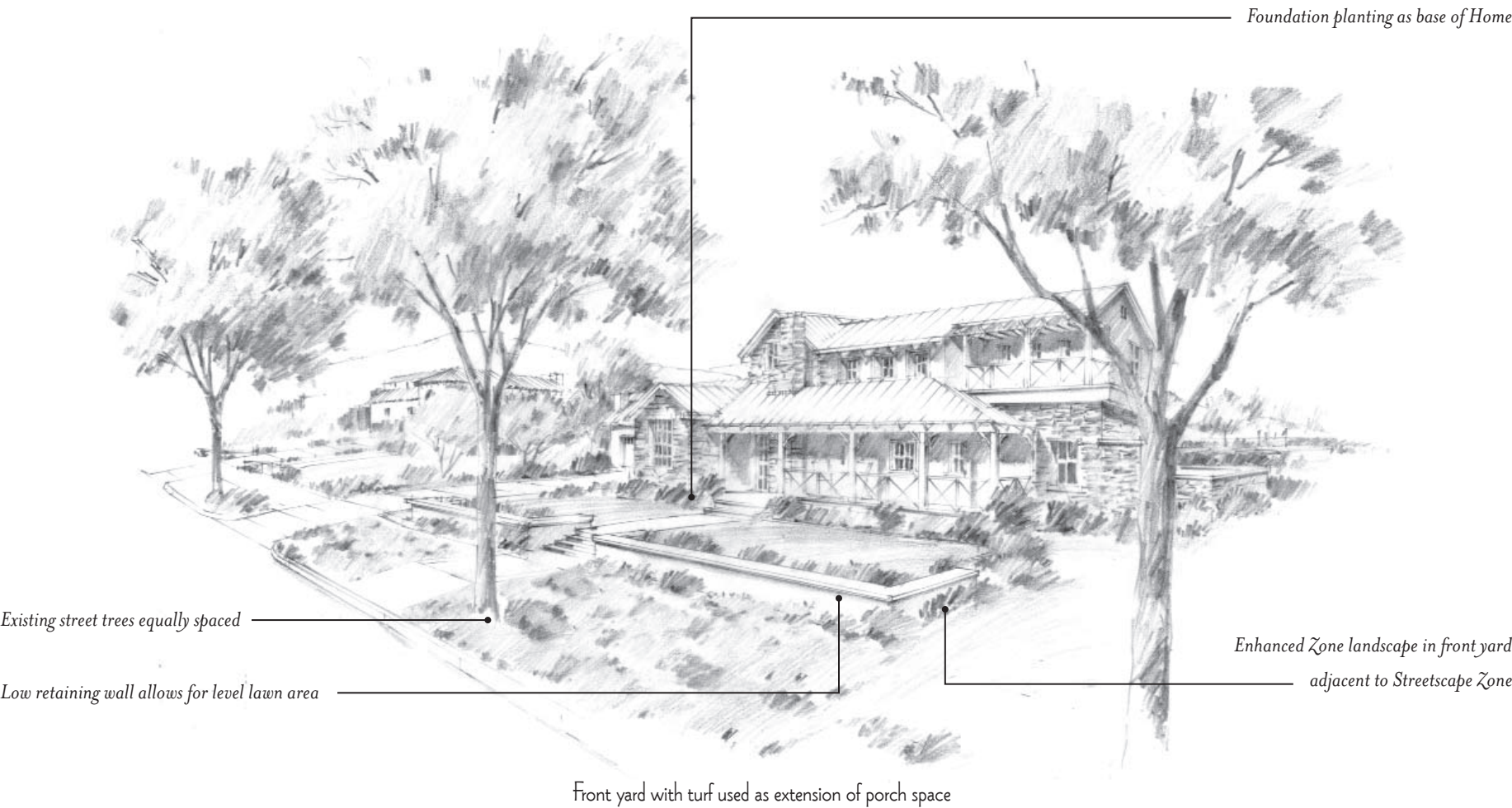
Within all landscape areas there are minimum amounts of trees and shrubs required. The Homeowner is required to provide complete landscape improvements on the entire Lot. For all Lots, the required amount includes:

- One (1) tree per every one thousand ve hundred (1,500) square feet of landscape area. Minimum tree size allowed is twenty-four (24) inch box. Fifty (50) percent or more of all trees provided shall be thirty-six (36) inch box or larger.
- One (1) -one (1) gallon minimum size shrub per every twenty- ve (25) square feet of landscape area, except the Streetscape requires one (1) plant per every sixteen (16) square feet.
- Appropriate distribution of all plantings, including minimum tree and shrub planting, is required to avoid areas of sparse coverage.

Ground Plane Treatments

All landscape areas not covered by buildings, pavements, or turf shall be covered with inert materials organic in character. The intent of the ground plane cover is to provide a topdress that is visually appealing and supports the general horticultural health of the surrounding plants.

- In the Streetscape, Transition, and Enhanced Zones, the topdressing material shall be one-half (1/2) inch minus in size and “Madison Gold” color, or DC Ranch Desert Pavement (collected from the site). Rounded pea gravel and larger washed granite may not be used for landscape or driveway treatments.
- In Private Zones, decomposed granite is allowed and subject to Covenant Commission approval. If used, decomposed granite should be earth-tone tan or brown in color and shall be three-quarter (3/4) inch or one-half (1/2) inch minus in size and. Screened material is not allowed.



- In the Natural Zone on Lots along Reata Wash, desert cobble topdress must be installed to return the disturbed or graded areas to a natural appearance. Desert cobble is material salvaged from on-site including the top one-half (1/2) inch of native soil and rock. Decomposed granite is not allowed. The intent of this requirement is to re-create the natural desert cobble floor.
- Ground plane treatments that are composed of materials high in color or textural contrast to the natural landscape are not allowed.
- Washed river rock or crushed rock are not allowed as a ground plane treatment. Native granite indigenous to the site is allowed.

## Landscape Boulders

The use of boulders as part of the site and landscape design is not recommended for Arcadia at Silverleaf due to the absence of native desert on the Lot, but will be allowed on a case-by-case basis. If boulders are proposed as part of the landscape design, then special attention to the scale, proportions, and arrangements of the boulders is required.

- Boulder placement should appear natural, and have approximately two-thirds (2/3) of the boulder buried.
- Boulders should be placed horizontally, not vertically.
- Boulders appear natural when clustered, not lined in geometric alignments or in evenly scattered arrangements.
- Boulders may not be placed “on top” of walls or pool edges.
- Only surface select boulders, consistent with the character of locally found boulders, may be used. Broken, crushed, or marred surface boulders may not be Visible on any portion of a Lot.

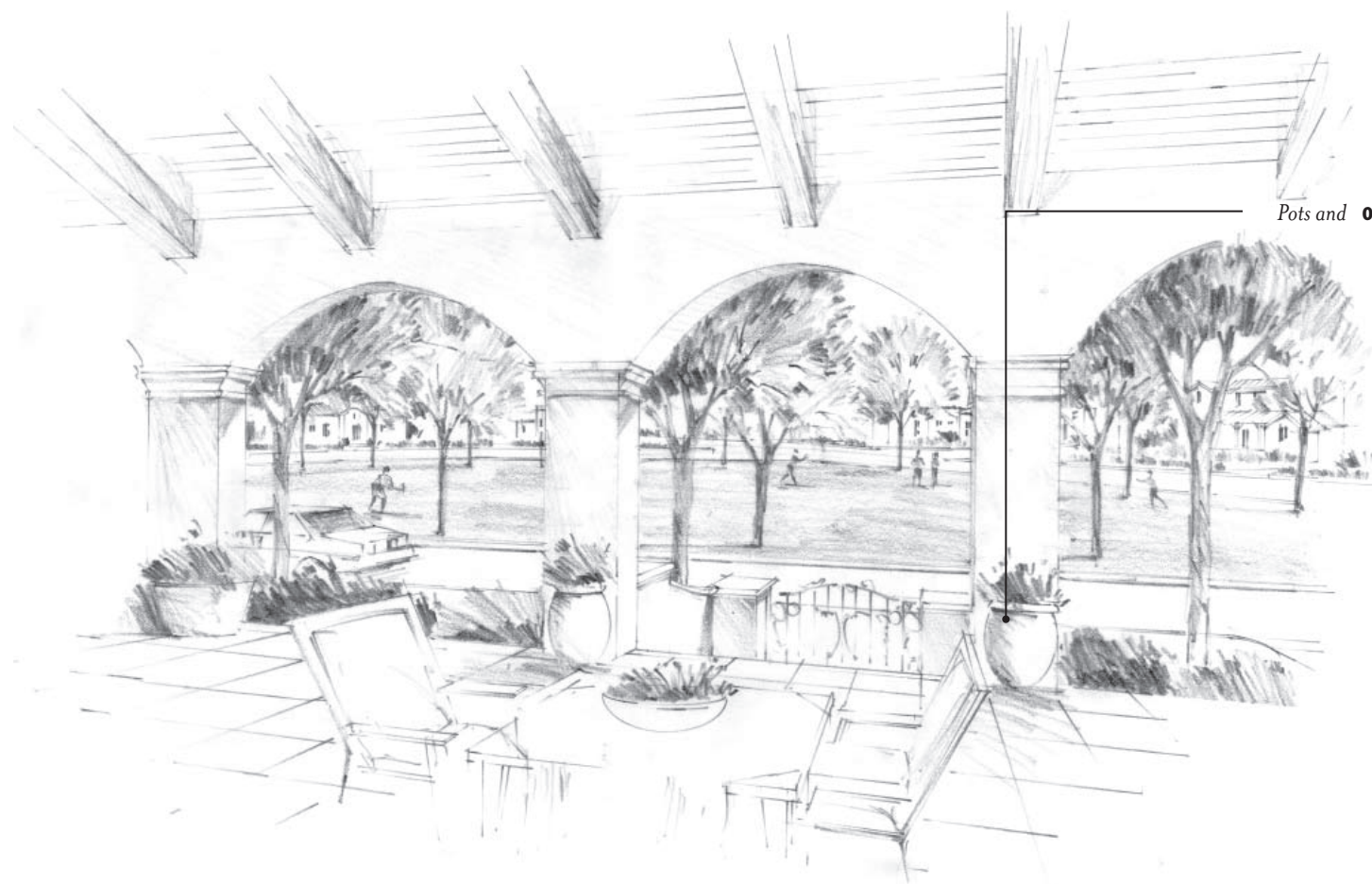
## Landscape Drainage

Proper landscape drainage ensures that water can easily flow from the yards without compromising the aesthetic quality of the designed landscape or adjacent native desert. For this reason, riprap, river rock, or rock-lined channels or swales are not allowed. Alternate stabilization methods may be considered but are subject to approval. Drainage solutions should utilize one or a combination of the following systems:

- Direct and retain water into planters utilizing depressions and mounds to contain the water.
- Drainage flows interrupted by development must be redirected to original wash flows, along historical flow patterns, within the building envelope.

## Pots and Plant Containers

All pots and plant containers shall be selected in colors, materials, and forms that complement the Home’s architectural Style. Placement can occur in focal locations to enhance terrace areas and shall be in scale with the location relative to the architecture. Irrigation lines must be provided to the pots to sustain the plants, and container drainage should also be provided.



Pots and flowers as accents for color and texture

View from front porch to neighborhood park

Approved Plant List

Each Home's landscape design must adhere to the practice of utilizing native, arid, and low water use plant materials, as identi ed in the list of acceptable plants provided in this section. The plant list is organized by species type: trees, accents, shrubs, groundcovers, and vines, and by which landscape zone each plant may be placed in. The use of non-native species is restricted to areas enclosed by the Home and courtyard walls.

Plant species listed in this Arcadia at Silverleaf plant list are subject to change. The current list of approved plants is available from the Ranch Offices.

Prohibited Plant List

The plant materials set forth in the Prohibited Plant List include species with characteristics that are undesirable by reason of profuse and noxious pollen, excessive height, weed-like characteristics of excessive growth, and/or high water demands. Under no circumstances is it permissible to plant any prohibited plant within Arcadia at Silverleaf.

The following is a list of prohibited plants that are not allowed in Arcadia at Silverleaf. This list may change over time. Obtain a current copy of the Prohibited Plant List from a Covenant Commission representative.

List of Prohibited Plants

- All Palms (except Sago Palm and Mediterranean Fan Palm)
- All Pine species
- Cypress (Cupressus)
- False Cypress (Chamaecyparis)
- Juniper or Cedar (Juniperus)
- Fountain Grass (Pennisetum setaceum)
- Mexican Blue Palo Verde (Parkinsonia aculeatra)
- Desert Broom (Bacchuris sarthroides)



ADWR			Mature Size		Size	Natural Zone	Transitional and Streetscape Zones	Enhanced Zone	Private Zone
	Botanical Name	Common Name	(H x W)						
	TREES								
X	Acacia abyssinica	Abyssinian Acacia	20'-25'	20-25'	M			x	x
X	Acacia aneura	Mulga	20'	12'	M			x	x
X	Acacia berlandieri	Berlandier Acacia	15'	15'	S			x	x
X	Acacia constricta	Whitethorn Acacia	10'	15'	S	x		x	x
X	Acacia craspedocarpa	Leatherleaf Acacia	18'	10'	M			x	x
X	Acacia crassifolia	Butterfly-leaf Acacia	10'-15'	10'-15'	S			x	x
X	Acacia gerrardii	Gray-thorn Acacia	25'	25'	M			x	x
X	Acacia greggii	Catclaw Acacia	10'	15'	S	x	x	x	x
X	Acacia rigidula	Black-brush acacia	10'-15'	7'-9'	S				x
X	Acacia roemeriana	Roemer Acacia	20'	25'	M				x
X	Acacia saligna	Willow Acacia	15'-25'	10'-20'	M				x
X	Acacia schaffneri	Twisted Acacia	15'-25'	15'-25'	M				x
X	Acacia smallii (farnesiana)	Sweet Acacia	15'-20'	15'-20'	M		x	x	x
X	Acacia tortillia	Umbrella Thorn	20'-30'	30'	L				x
X	Acacia willardiana	Palo Blanco	20'	10'	M			x	x
	Albizia julibrissin	Mimosa	20'-40'	40'	L				x
	Apple 'Anna'	Anna Apple Tree	15'	15'	S				x
X	Bauhinia congesta	Anacacho Orchid Tree	6'-12'	6'-12'	S				x
X	Bauhinia congesta 'Lunarioides'	Pink Orchid Tree	6'-12'	6'-12'	S				x
X	Caesalpinia cacalaco	Cascalote	15'-20'	15'	M			x	x
X	Caesalpinia mexicana	Mexican Bird of Paradise	10'-15'	6'-12'	S			x	x
X	Canotia holacantha	Crucifixion Thorn	15'	10'	S		x	x	x
X	Cercidium 'Desert Museum'	Hybrid Palo Verde	25'	15'	M		x	x	x
X	Cercidium floridum	Blue Palo Verde	30'	30'-40'	L	x	x	x	x
	Cercidium microphyllum	Foothills Palo Verde	20'	25'	M	x	x	x	x
X	Cercidium praecox	Palo Brea	20'	25'	M		x	x	x
X	Cercis canadensis v. mexicana	Mexican Redbud	20'	20'	M				x
X	Chilopsis linearis	Desert Willow	25'	20'	M	x	x	x	x
X	Chitalpa tashkentensis hybrid	Chitalpa	20'-30'	20'-30'	M				x
X	Cordia boissieri	Anacahuita	10'	10'	S			x	x
	Eysenhardtia orthocarpa	Kidneywood	18' max.	3'-10'	S				x
X	Forestiera neomexicana	Desert Olive	12'	8'	S				x
	Fraxinus greggii	Littleleaf Ash	15'	15'	S				x
	Jacaranda mimosifolia	Jacaranda	25'-40'	15'-30'	L			x	x
	Lagerstroemia indica	Crape Myrtle	5'-15'	5'-15'	S				x
X	Leucaena retusa	Golden Ball Lead Tree	15'	20'	M				x
X	Lysiloma candidum	Baja Lysiloma	10'-30'	10'-30'	M			x	x
X	Lysiloma microphylla v. thornberi	Desert Fern	15'-20'	12'	M			x	x
X	Olneya tesota	Ironwood	30'	30'	L	x	x	x	x

**Legend**

**L = Large** (>25' for trees; >4' for shrubs; >5' for accents)

**M = Medium** (15'- 25' for trees; 30" - 4' for shrubs)

**S = Small** (up to 15' for trees; up to 30" for shrubs; up to 5' for accents)

**G = Groundcover**

**V = Vine**

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ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Streetscape and Transitional Zones	Enhanced Zone	Private Zone
X	Pithecellobium flexicaule v. thorny	Texas Ebony	20'	20'	M			x	x
X	Pithecellobium mexicanum	Mexican Ebony	20'-30'	15'-25'	M		x	x	x
X	Pithecellobium pallens	Tenaza	15'	15'	S			x	x
X	Prosopis alba 'Phoenix'	Argentine Mesquite	30'	30'	L		x	x	x
X	Prosopis chilensis	Chilean Mesquite	30'	30'	L		x	x	x
X	Prosopis glandulosa 'Maverick'	Texas Honey Mesquite	30'	20'	L		x	x	x
X	Prosopis nigra	Black Mesquite	20'-30'	20'-30'	L		x	x	x
X	Prosopis pubescens	Screwbean Mesquite	20'	20'	M		x	x	x
X	Prosopis juliflora	Native Mesquite	30'	30'	L	x	x	x	x
X	Punica granatum 'Wonderful'	Pomegranate	10'	5'-10'	S				x
	Robinia neomexicana	New Mexico Locust	25'	20'	M				x
X	Sophora secundiflora	Texas Mountain Laurel	15-20'	8-10'	S			x	x
X	Sophora secundiflora 'Silver Peso'	Texas Mountain Laurel	15-20'	8-10'	S			x	x
X	Tipuana tipu	Tipu Tree	25'-40'	30'-60'	L				x
X	Ungnadia speciosa	Mexican Buckeye	15'	15'	S				x
X	Ulmus parvifolia	Evergreen Elm	35'	35'	L		Approved as street tree		
X	Vitex angus-castus	Chaste Tree	20'-25'	15'-25'	M				x
ACCENTS									
X	Agave americana	Century Plant	6'	6'	L		x	x	x
X	Agave angustifolia	Agave	3-5'	6-8'	L		x	x	x
X	Agave attenuata	Ghost Agave	11/2' - 4'	2-4'	S		x	x	x
X	Agave deserti	Desert Agave	11/2'	2'	S	x	x	x	x
X	Agave desmettiana	Agave	3'	3'	S		x	x	x
X	Agave geminiflora	Twin-flowered Agave	2-3'	2-3'	S		x	x	x
X	Agave macrocartha	Agave	11/2'	2'	S		x	x	x
X	Agave murpheyi	Hohokam Agave	3'	3'	S		x	x	x
X	Agave ocahui	Agave	11/2'	3'	S		x	x	x
X	Agave parryi v. huachuensis	Parry's Agave	3'	3'	S	x	x	x	x
X	Agave parryi v. truncata	Parry's Agave	2'	2'	S	x	x	x	x
X	Agave schidigera 'Durango Delight'™	Schidigera Agave	2'	2'	S		x	x	x
X	Agave stricta	Rabo de Leon	3-6'	3-6'	S		x	x	x
X	Agave toumeyana	Toumey's Agave	1'	2'	S	x	x	x	x
X	Agave victoriae-reginae	Queen Victoria Agave	11/2 - 2'	11/2 - 2'	S		x	x	x
X	Agave vilmoriana	Octopus Agave	6'	6'	L		x	x	x
X	Agave weberi	Smooth-leaf Agave	5'	6'	L		x	x	x
X	Aloe barbadensis	Aloe Vera	3'	3'	S			x	x
	Aloe hybrid 'Blue Elf'	Blue Elf Aloe	1'	1'	S			x	x
X	Aloe saponaria	Tiger Aloe	1'	1'	S			x	x
X	Aloe species	Aloe	varies	varies	S			x	x

**Legend**

**L = Large** (>25' for trees; >4' for shrubs; >5' for accents)

**M = Medium** (15' - 25' for trees; 30" - 4' for shrubs)

**S = Small** (up to 15' for trees; up to 30" for shrubs; up to 5' for accents)

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**V = Vine**

ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Transitional and Streetscape Zones	Enhanced Zone	Private Zone
X	Aloe striata	Coral Aloe	11/2'	11/2'	S			x	x
X	Asclepias subulata	Desert Milkweed	3 1/2'	4'	S		x	x	x
	Beaucarnea recurvata	Ponytail Palm	6-8' max.	3-4'	L				x
X	Bulbine frutescens	Bulbine	11/2'	3'	S			x	x
X	Carnegiea gigantea	Saguaro	40'	2'	L	x	x	x	x
X	Cereus hildmannianus	Hildmann's Cereus	15'	10'	L				x
X	Cereus hildmannianus v. monstrose	Curiosity Plant	15'	10'	L				x
X	Cereus peruvianus	Night Blooming Cereus	12-18'	15'	L			x	x
	Cyperus alternifolius	Umbrella Plant	4'	3'	L				x
X	Dasyliion acrotliche	Green Desert Spoon	4'	5'	L		x	x	x
X	Dasyliion longissimum	NCN	10'	6'	L		x	x	x
X	Dasyliion wheeleri	Desert Spoon	6'	5'	L	x	x	x	x
	Dioon edule	Mexican Sago	3'	3-5'	S				x
X	Echinocactus grusonii	Golden Barrel Cactus	2'	4'	S			x	x
X	Echinocactus horizontalonius	Turk's Head	1'	11/2'	S				x
X	Echinocereus engelmannii	Engelmann's Hedgehog	11/2'	3'	S	x	x	x	x
X	Echinocereus pectinatus v. rigidissimus	Rainbow Cactus	1'	1/2'	S	x			x
X	Euphorbia antisiphilitica	Candelilla	1'	3'	S			x	x
	Euphorbia milii	Crown of Thorns	3-4'	3-4'	S			x	x
	Euphorbia myrsinites	Euphorbia	1/2'	1'	S				x
X	Euphorbia rigida	Gopher Plant	2'	4'	S			x	x
	Euphorbia tirucalli	Pencil Bush	2'	1/2'	S				x
X	Ferocactus acanthodes	Fire Barrel	4'	2'	S	x	x	x	x
X	Ferocactus wislizenii	Fishhook Barrel	3'	2'	S	x	x	x	x
X	Fouquieria splendens	Ocotillo	15'	10'	L	x	x	x	x
X	Hesperaloe funifera	Coahuilan Hesperaloe	6'	6'	L		x	x	x
X	Hesperaloe parviflora	Red Hesperaloe	3'	4'	S		x	x	x
X	Hesperaloe parviflora (yellow)	Yellow Hesperaloe	3'	4'	S		x	x	x
X	Lophocereus schottii	Senita Cactus	10'	4'	L			x	x
X	Lophocereus schottii v. monstrosus	Totem Pole Cactus	10'	4'	L			x	x
X	Mammillaria microcarpa	Pincushion Cactus	1/2'	1/2'	S		x	x	x
X	Opuntia acanthocarpa	Buckhorn Cholla	5'	5'	S	x	x	x	x
X	Opuntia basilaris	Beavertail Prickly Pear	11/2'	4'	S		x	x	x
X	Opuntia bigelovii	Teddybear Cholla	5'	2'	S	x		x	x
X	Opuntia chlorotica	Pancake Prickly Pear	6'	6'	L				x
X	Opuntia engelmannii	Engelmann's Prickly Pear	3'	4'	S	x	x	x	x
X	Opuntia ficus-indica	Indian Fig Prickly Pear	15'	6'	L			x	x
X	Opuntia fulgida	Chainfruit Cholla	10'	8'	L	x	x	x	x
X	Opuntia imbricata	Tree Cholla	6-8'	10'	L			x	x
X	Opuntia leptocaulis	Christmas Cactus	3'	3'	S	x	x	x	x

**Legend**

**L = Large** (>25' for trees; >4' for shrubs; >5' for accents)

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**S = Small** (up to 15' for trees; up to 30" for shrubs; up to 5' for accents)

**G = Groundcover**

**V = Vine**

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ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Streetscape and Transitional Zones	Enhanced Zone	Private Zone
X	Opuntia microdasys	Bunny Ears	2'	5'	S			x	x
X	Opuntia robusta	Prickly Pear	8'	8'	L		x	x	x
X	Opuntia santa-rita	Purple Prickly Pear	3'	4'	S		x	x	x
X	Opuntia spinosior	Cane Cholla	8'	8'	L		x	x	x
X	Opuntia violacea v. macrocentra	Santa Rita Prickly Pear	5'	4'	S		x	x	x
X	Pedilanthus macrocarpus	Lady's Slipper	2'	3'	S			x	x
X	Stenocereus marginatus	Mexican Fence Post	8'	5'	L			x	x
X	Stenocereus thurberi	Organ Pipe Cactus	15'	12'	L			x	x
X	Trichocereus species	Trichocereus	varies	varies	S			x	x
X	Yucca aloifolia	Spanish Bayonet	10'	10'	L			x	x
X	Yucca angustifolia	Narrow-leaf Yucca	2'	4'	S			x	x
X	Yucca baccata	Banana Yucca	3'	6'	S	x	x	x	x
X	Yucca brevifolia	Joshua Tree	20'	15'	L			x	x
X	Yucca elata	Soaptree Yucca	15'	10'	L		x	x	x
X	Yucca filimentosa	Adam's Needle	4'	8'	L			x	x
X	Yucca rigida	Blue Yucca	8'	3'	L			x	x
X	Yucca pallida	Yucca	1 - 11/2'	1 - 2 1/2'	S			x	x
X	Yucca rostrata	Beaked Yucca	12'	5'	L			x	x
X	Yucca rupicola hybrid	Twisted-leaf Yucca	2'	3'	S			x	x
X	Yucca thompsoniana	Thompson's Yucca	4'	4'	S			x	x
	Yucca whipplei	Our Lord's Candle	2'	3-5'	S			x	x
SHRUBS									
X	Abutilon palmeri	Indian Mallow	3'	4'	M			x	x
X	Acacia schottii	Schott Acacia	4'	5'	L			x	x
	Acanthus mollis	Acanthus	5'	6'	L			x	x
X	Aloysia wrightii	Wright Lippia	6'	5'	L				x
	Alyogyne huegelii	Blue Hibiscus	8'	6'	L			x	x
X	Ambrosia ambrosioides	Canyon Ragweed	3'	4'	M	x	x	x	x
X	Ambrosia deltoidea	Bursage	2'	3 1/2'	S	x	x	x	x
X	Ambrosia dumosa	White Bursage	2'	3'	S		x	x	x
X	Anigozanthos flavidus	Kangaroo Paw	3-5'	3'	M				x
X	Anisacanthus quadrifidus v. brevilobus	Mountain Flame	5'	5'	L		x	x	x
X	Anisacanthus quadrifidus v. wrightii	'Mexican Flame' TM							
		Flame Honeysuckle	5'	5'	L		x	x	x
X	Anisacanthus thurberi	Desert Honeysuckle	4'	4'	M		x	x	x
	Aquilegia chrysantha	Golden-spurred Columbine	3'	3'	M				x
X	Atriplex canescens	Fourwing Saltbush	5'	8'	L		x	x	x
	Atriplex lentiformis	Quail Brush	8'	12'	L		x	x	x
	Bebbia juncea	Chuckwalla's Delight	4'	3'	M	x		x	x
X	Bougainvillea 'Rosenka'	Bush Bougainvillea	3'	5-8'	M				x

**Legend**

**L = Large** (>25' for trees; >4' for shrubs; >5' for accents)

**M = Medium** (15' - 25' for trees; 30" - 4' for shrubs)

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**G = Groundcover**

**V = Vine**

ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Transitional and Streetscape Zones	Enhanced Zone	Private Zone
X	Brickellia coulteri	Brickellia	3'	3'	M			x	x
	Buchloe dactyloides	Buffalo Grass	4'	1'	M			x	x
	Buddleia marrubifolia	Wooly Butterfly Bush	5'	5'	L		x	x	x
	Buxus japonica	Japanese Boxwood	4-5'	4-5'	L				x
X	Caesalpinia gilliesii	Desert Bird of Paradise	5'	5'	L		x	x	x
X	Caesalpinia pulcherrima	Red Bird of Paradise	6-10'	6-10'	L		x	x	x
X	Calliandra californica	Baja Red Fairy Duster	5'	5'	L		x	x	x
X	Calliandra eriophylla	Fairy Duster	3 1/2'	4-5'	M	x	x	x	x
	Carissa grandiflora 'Tuttlei'	Compact Natal Plum	3'	5'	M				x
	Caryopteris x. clandonensis 'Blue Knight'	Blue Mist	3'	4'	M			x	x
X	Cassia artemisioides	Feathery Cassia	6'	6'	L			x	x
X	Cassia nemophila	Desert Cassia	6'	6'	L			x	x
X	Cassia oligophylla	Outback Cassia	5'	5'	L			x	x
X	Cassia phyllodenia	Silver-leaf Cassia	6'	6'	L			x	x
X	Celtis pallida	Desert Hackberry	8'	10'	L	x	x	x	x
X	Chrysactinia mexicana	Damianita	2'	2'	S		x	x	x
X	Cordia parvifolia	Small Leaf Cordia	5'	8'	L		x	x	x
	Coreopsis bigelovii	Desert Coreopsis	1'	1'	S				x
	Coreopsis lanceolata	Lanceleaf Coreopsis	2'	2'	S				x
	Coreopsis tinctoria	Calliopsis	3'	3'	M				x
	Coursetia glandulosa	Coursetia	8'	12'	L				x
	Cuphea llavea	Bat Faced Cuphea	3 1/2'	4'	M			x	x
	Dalea frutescens 'Sierra Negra'™	Sierra Negra Dalea	3'	5'	M		x	x	x
X	Dalea pulchra	Indigo Bush	4'	5'	M		x	x	x
X	Dalea versicolor var. sessilis	Wislizenus Dalea	5'	5'	L		x	x	x
	Dicliptera suberecta	Velvet Honeysuckle	3'	3'	M			x	x
	Dietes bicolor	Fortnight Lily	3'	3'	M				x
	Dietes vegeta	Fortnight Lily	3'	3'	M				x
X	Dodonaea viscosa	Hopbush	12'	10'	L			x	x
X	Dodonaea viscosa 'Purpurea'	Purple Hopbush	12'	6'	L			x	x
X	Ephedra fasciculata	Joint Fir	4'	6'	M	x			x
X	Ephedra trifurca	Mormon Tea	6'	8'	L	x	x	x	x
	Equisetum laevigatum	Horsetail	3'	2'	M				x
X	Eremophila glabra	Emu Bush	8'	6'	L			x	x
X	Eremophila glabra 'Valentine'	Valentine Emu Bush	4'	6'	M			x	x
X	Ericameria laricifolia 'Aguirre'™	Turpentine Bush	3'	3'	M	x	x	x	x
X	Eriogonum fasciculatum v. poliofolium	Wild Buckwheat	11/2'	2'	S	x	x	x	x
X	Eriogonum wrightii	Wright Buckwheat	11/2'	2'	S		x	x	x
	Euryops pectinatus	Golden Euryops	3'	3'	M			x	x

Legend

L = Large (>25' for trees; >4' for shrubs; >5' for accents)

M = Medium (15'- 25' for trees; 30" - 4' for shrubs)

S = Small (up to 15' for trees; up to 30" for shrubs; up to 5' for accents)

G = Groundcover

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ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Streetscape and Transitional Zones	Enhanced Zone	Private Zone
	Euryops pectinatus 'Viridus'	Euryops Daisy	3'	3'	M				x
	Fallugia paradoxa	Apache Plume	3-8'	3-5'	M		x	x	x
	Fatsia japonica	Japanese Aralia	5-8'	3-5'	L				x
	Fatshedera lizei	Aralia Ivy	4-6'	10'	L				x
	Feijoa sellowiana	Pineapple Guava	18'	8'	L				x
	Gardenia jasminoides 'Veitchii'	Gardenia	3'	3-4'	M				x
X	Gaura lindheimeri	Gaura	3'	4'	M		x	x	x
X	Gutierrezia sarothrae	Snakeweed	11/2'	2'	S	x	x	x	x
X	Hamelia patens	Firebush	6'	5'	L				x
	Hibiscus rosa-chinensis	Tropical Hibiscus	6'	4'	L				x
X	Hymenoxis acaulis	Angelita Daisy	1'	1'	S		x	x	x
X	Hyptis emoryi	Desert Lavender	10'	8'	L	x	x	x	x
X	Justicia brandegeana	Shrimp Plant	3'	3'	M				x
X	Justicia californica	Chuparosa	6'	6'	L	x	x	x	x
X	Justicia ovata (candicans)	Red Justicia	3'	3'	M		x	x	x
X	Justicia spicigera	Mexican Honeysuckle	3'	4'	M		x	x	x
X	Lantana camara	Bush Lantana	varies	varies	M			x	x
X	Larrea tridentata	Creosote Bush	8'	6'	L	x	x	x	x
X	Leucophyllum candidum 'Thunder Cloud'™	Thunder Cloud Sage	3'	3'	M			x	x
X	Leucophyllum frutescens	Texas Sage	6'	6'	L			x	x
X	Leucophyllum frutescens 'Compacta'	Compact Texas Sage	5'	5'	L			x	x
X	Leucophyllum frutescens 'Green Cloud'	Green Cloud Sage	6'	6'	L			x	x
X	Leucophyllum frutescens 'White Cloud'	White Cloud Sage	6'	6'	L			x	x
X	Leucophyllum hybrid 'Rain Cloud'	Rain Cloud Sage	6'	4'	L			x	x
X	Leucophyllum laevigatum	Chihuahuan Sage	4'	4'	M		x	x	x
X	Leucophyllum langmaniae 'Lynn's Legacy'	Lynn's Legacy Sage	5'	5'	L			x	x
X	Leucophyllum langmaniae 'Rio Bravo'™	Rio Bravo Sage	5'	5'	L			x	x
X	Leucophyllum pruinsum 'Sierra Bouquet'™	Sierra Bouquet Sage	6'	6'	L			x	x
X	Leucophyllum revolutum 'Sierra Magic'™	Sierra Magic Sage	4'	4'	M			x	x
X	Leucophyllum zygophyllum	Blue Ranger	3'	3'	M			x	x
	Lilium species	Day Lily	varies	varies	S				x
	Limonium perezii	Statice	2'	2'	S				x
	Liriope species	Lilyturf	11/2'	1'	S				x
	Lobelia laxiflora	Loose Flowered Lobelia	1'	2'	S				x
X	Lotus rigidus	Deer Vetch	3'	3'	M	x	x	x	x
X	Lupinus sparsiflorus	Lupine	11/2'	1'	S	x	x	x	x
X	Lupinus species	Lupine	varies	varies	S			x	x
X	Lycium andersonii	Wolfberry	6'	6'	L	x	x	x	x
X	Lycium exsertum	Desert-Thorn	8'	8'	L		x	x	x
X	Lycium fremontii	Fremont Lycium	6'	6'	L	x	x	x	x
X	Maytenus phyllanthioides	Mangle Dulce	12'	12'	L		x	x	x

**Legend**  
  
L = **Large** (>25' for trees; >4' for shrubs; >5' for accents)  
M = **Medium** (15' - 25' for trees; 30" - 4' for shrubs)  
S = **Small** (up to 15' for trees; up to 30" for shrubs; up to 5' for accents)  
G = **Groundcover**  
V = **Vine**

ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Transitional and Streetscape Zones	Enhanced Zone	Private Zone
	Menodora scabra	Menodora	11/2'	11/2'	S				x
	Mimosa dysocarpa	Mimosa	5'	8'	L				x
	Mimulus cardinalis	Monkey Flower	11/2'	3'	S			x	x
	Mirabilis bigelovii	Mirabilis	2'	2'	S				x
	Muhlenbergia capillaris 'Regal Mist'™	Regal Mist Muhley	3'	3'	M			x	x
X	Muhlenbergia dumosa	Bamboo Muhley	4'	3'	M			x	x
X	Muhlenbergia emersleyi 'El Toro'™	Bull Grass	3'	3'	M			x	x
X	Muhlenbergia lindheimeri 'Autumn Glow'™	Autumn Glow Muhley	4'	4'	L			x	x
X	Muhlenbergia rigida	Deer Grass	4'	4'	L			x	x
X	Muhlenbergia rigida 'Nashville'™	Nashville Grass	2'	2'	S			x	x
X	Myrtus communis 'Boetica'	Twisted Myrtle	4-6'	4'	L			x	x
	Nandina domestica	Heavenly Bamboo	5'	4'	L				x
X	Nasella tenuissima	Mexican Feather Grass	2'	2'	S			x	x
X	Nolina bigelovii	Beargrass	8'	6'	L			x	x
X	Nolina microcarpa	Beargrass	5'	8'	L			x	x
	Ophiopogon japonicus	Mondo Grass	1'	1'	S				x
	Osmanthus fragrans	Sweet Olive	8-10'	8-10'	L				x
X	Penstemon baccharifolius	Rock Penstemon	2'	2'	S		x	x	x
X	Penstemon eatonii	Firecracker Penstemon	2'	2'	S	x	x	x	x
X	Penstemon grandiflorus	Penstemon	3 1/2'	1'	M		x	x	x
X	Penstemon palmeri	Palmer's Penstemon	3'	4'	M	x	x	x	x
X	Penstemon parryi	Parry's Penstemon	2'	2'	S	x	x	x	x
X	Penstemon pseudospectabilis	Desert Penstemon	5'	2'	M	x	x	x	x
X	Penstemon superbus	Superb Penstemon	2'	2'	S	x	x	x	x
X	Penstemon wrightii	Penstemon	3'	3'	M		x	x	x
	Pervsika 'Blue Spire'	Russian Sage	3'	3'	M				
X	Plumbago capensis	Cape Plumbago	4'	8'	M				x
X	Plumbago scandens 'Summer Snow'™	Summer Snow Plumbago	3'	4'	M				x
X	Portulacaria afra	Elephant Food	2-3'	3'	S			x	x
X	Psilostrophe cooperi	Cooper's Paperflower	2'	2'	S	x	x	x	x
X	Psilostrophe tagetina	Wooly Paperflower	11/2'	11/2'	S			x	x
	Punica granatum 'Nana'	Dwarf Pomegranate	3'	3'	M				x
	Raphiolepis indica	Indian Hawthorn	4-5'	4-5'	M				x
	Rhus microphylla	Littleleaf Sumac	8'	12'	L				x
X	Rosmarinus officinalis	Rosemary	4'	4'	M			x	x
X	Ruellia brittoniana	Ruellia	4'	5'	M		x	x	x
X	Ruellia peninsularis	Baja Ruellia	4'	4'	M		x	x	x
X	Salvia chamaedryoides	Mexican Blue Sage	2'	2'	S		x	x	x
X	Salvia clevelandii	Chaparral Sage	4'	5'	M		x	x	x
X	Salvia coccinea	Cherry Red Sage	5'	3'	L		x	x	x
X	Salvia farinacea	Mealy-Cup Sage	2'	2'	S				x

**Legend**

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**M = Medium** (15'- 25' for trees; 30" - 4' for shrubs)

**S = Small** (up to 15' for trees; up to 30" for shrubs; up to 5' for accents)

**G = Groundcover**

**V = Vine**

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ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Streetscape and Transitional Zones	Enhanced Zone	Private Zone
X	Salvia farinacea 'Texas Violet'™	Mealy-Cup Sage	3'	3'	M				x
X	Salvia greggii	Autumn Sage	2 1/2'	2 1/2'	S		x	x	x
X	Salvia leucantha	Mexican Bush Sage	4'	4'	M		x	x	x
X	Salvia leucophylla	Purple Sage	3-4'	5'	M			x	x
X	Salvia microphylla 'Sierra Madre'	Salvia	4'	5'	M			x	x
X	Santolina chamaecyparissus	Lavender Cotton	1-2'	2-3'	S			x	x
X	Santolina virens	Green Santolina	2'	2'	S			x	x
X	Senna covesii	Desert Senna	1 1/2'	2'	S		x	x	x
	Senna lindheimeriana	Lindheimer Senna	3'	2'	M				x
	Senna goldmannii	Goldmann's Senna	6'	4'	L				x
	Senna wislizenii	Shrubby Senna	10'	6'	L			x	x
X	Simmondsia chinensis	Jojoba	6'	6'	L	x	x	x	x
X	Sphaeralcea ambigua	Desert Globemallow	3'	3'	M	x	x	x	x
	Strelitzia reginae	Bird of Paradise	4'	varies	M				x
X	Tagetes lemmoni	Mt. Lemmon Marigold	5'	6'	L		x	x	x
X	Tecoma stans	Yellow Bells	15'	10'	L		x	x	x
X	Tecoma stans 'Gold Star'	Gold Star	4'	4'	M		x	x	x
X	Teucrium fruticans 'Compacta'	Compact Bush Germander	3'	2-3'	M				x
X	Trixis californica	Trixis	2 1/2'	2 1/2'	S	x	x	x	x
	Tulbaghia violacea	Society Garlic	2'	2'	S				x
X	Vaquelinia californica	Arizona Rosewood	15'	10'	L			x	x
X	Viguiera deltoidea	Goldeneye	4'	5'	M	x	x	x	x
	Xylosma congestum 'compacta'	Compact Xylosma	8-10'	8-10'	L				x
X	Zauschneria californica	California Fuchsia	1 1/2'	3'	S			x	x
X	Zexmenia hispida 'Devil's River'	Zexmenia	3'	3'	M		x	x	x
	Zizyphus obtusifolia	Graythorn	10'	10'	L	x	x	x	x
GROUNDCOVERS									
X	Acacia redolens 'Desert Carpet'™	Desert Carpet Acacia	2'	15'	G		x	x	x
X	Aizoaceae species	Ice Plant	varies	varies	G			x	x
X	Aloysia species	Lippia	8"	4'	G			x	x
	Aptenia cordifolia	Hearts and Flowers	6"	varies	G				x
	Armeria maritima	Common Thrift	1'	varies	G				x
X	Asparagus densiflorus 'Sprengerii'	Asparagus Fern	2 1/2'	5'	G				x
X	Baccharis hybrid 'Starr Thompson'™ Thompson	Baccharis	3'	4-5'	G		x	x	x
X	Bahia absinthifolia	Bahia	1'	2'	G	x	x	x	x
X	Baileya multiradiata	Desert Marigold	1'	1'	G	x	x	x	x
X	Berlandiera lyrata	Chocolate Flower	1'	2'	G		x	x	x
	Calylophus hartwegii 'Sierra Sundrop'	Calylophus	2'	3'	G			x	x
X	Convolvulus cneorum	Bush Morning Glory	2'	4'	G				x

**Legend**

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ADWR	Botanical Name	Common Name	Mature Size (H x W)		Size	Natural Zone	Transitional and Streetscape Zones	Enhanced Zone	Private Zone
X	Convolvulus mauritanicus	Ground Morning Glory	3'	G				x	
X	Dalea capitata 'Sierra Gold' TM	Sierra Gold Dalea	1'	3'	G			x	x
	Dalea greggii	Trailing Indigo Bush	2'	4'	G		x	x	x
	Dichondra micrantha	Dichondra	6"	varies	G				x
	Drosanthemum speciosum 'Rosa'	Ice Plant	11/2'	1'	G			x	x
X	Dyssodia pentachaeta	Dyssodia	1'	1'	G	x	x	x	x
	Erigeron 'Profusion'	Profusion Fleabane Daisy	1'	4'	G		x	x	x
X	Erigeron divergens	Spreading Fleabane	1'	2'	G		x	x	x
X	Eupatorium greggii 'Boothill'	Boothill	11/2'	2'	G		x	x	x
X	Gazania rigens 'Sun Gold'	Gazania	1'	1'	G			x	x
	Jasminum sp.	Jasmine	varies	varies	G				x
X	Lantana montevidensis	Trailing Purple Lantana	1'	6'	G			x	x
X	Lantana montevidensis	Trailing White Lantana	1'	6'	G			x	x
X	Lantana montevidensis	Trailing Yellow Lantana	1'	6'	G			x	x
	Marsilea macropoda	Water Clover	6"	varies	G				x
X	Melampodium leucanthum	Blackfoot Daisy	1'	2'	G		x	x	x
	Mesembryanthemum species	Ice Plant	varies	varies	G				x
X	Oenothera berlandieri	Mexican Evening Primrose	1'	3'	G		x	x	x
X	Oenothera caespitosa	Tufted Primrose	1'	2'	G		x	x	x
X	Oenothera stubbii	Saltillo Primrose	1'	1'	G		x	x	
X	Rosmarinus officinalis 'Irene'	Dwarf Rosemary	2'	4'	G				x
X	Ruellia brittoniana 'Katie'	Katie Ruellia	1'	2'	G			x	x
X	Salvia sp. 'Quicksilver' TM	Quicksilver Salvia	2'	6'	G			x	x
	Stachys byzantina	Lamb's Ears	11/2'	2'	G				x
X	Stachys coccinea	Betony	1'	2'	G			x	x
	Thymus species	Thyme	varies	varies	G				x
	Trachelospermum asiaticum	Asiatic Jasmine	varies	varies	G				x
	Trachelospermum jasminoides	Star Jasmine	1-2'	4-5'	G				x
X	Verbena gooddingii	Goodding's Verbena	1'	3'	G	x	x	x	x
X	Verbena peruviana	Peruvian Verbena	1'	4'	G	x	x	x	x
X	Verbena rigida	Sandpaper Verbena	1'	4'	G		x	x	x
X	Verbena tenera	Moss Verbena	1'	3'	G			x	x
	Verbena tenuisecta 'Edith'	Edith Verbena	1'	3'	G			x	x
	Vinca major	Vinca	11/2'	1'	G				x
X	Wedelia trilobata	Wedelia	18"	6'	G			x	x
X	Zephyranthes candida	Rain Lily	1'	11/2'	G			x	x
	Zinnia acerosa	Desert Zinnia	1/2'	1'	G	x	x	x	x
X	Zinnia grandiflora	Little Golden Zinnia	1/2'	1'	G			x	x

Legend

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	VINES								
X	Antigonon leptopus	Queen's Wreath	40'	20'	V	x	x	x	x
X	Bougainvillea 'Barbara Karst'	Bougainvillea	15-20'	6-10'	V			x	x
X	Bougainvillea 'California Gold'	Orange Bougainvillea	varies	varies	V			x	x
X	Bougainvillea 'Jamaica White'	White Bougainvillea	varies	varies	V			x	x
X	Bougainvillea 'San Diego Red'	Bougainvillea	15-25'	6'	V			x	x
	Bougainvillea spectabilis	Bougainvillea	varies	varies	V			x	x
X	Cissus trifoliata	Native Grape Ivy	varies	varies	V	x	x	x	x
X	Clematis drummondii	Virgin's Bower	varies	varies	V				x
	Clytostoma callistegioides	Violet Trumpet Vine	varies	varies	V				x
	Distictis buccinatoria	Blood-red Trumpet Vine	20-30'	varies	V				x
	Distictis 'Rivers'	Royal Trumpet Vine	varies	varies	V				x
	Ficus pumila	Creeping Fig	varies	100'	V			x	x
	Gelsemium sempervirens	Yellow Flowering Jessamine	varies	6-8'	V				x
X	Hardenbergia comptoniana	Lilac Vine	10'	varies	V				x
X	Kennedia nigricans	Black Yellow Vine	varies	varies	V				x
	Lonicera sempervirens	Trumpet Honeysuckle	varies	varies	V				x
X	Macfadyena unguis-cati	Cat's Claw Vine	20'	15'	V		x	x	x
X	Mascagnia lilacina	Lilac Orchid Vine	varies	varies	V		x	x	x
	Mascagnia macroptera	Yellow Orchid Vine	6'	varies	V		x	x	x
X	Maurandya antirrhiniflora	Snapdragon Vine	8-10'	varies	V				x
X	Merremia aurea	Yellow Morning Glory Vine	15'	10'	V				x
	Passiflora caerulea	Passion Flower	20-30'	varies	V				x
X	Podranea ricasoliana	Pink Trumpet Vine	20'	10'	V			x	x
X	Rosa banksiae	Lady Bank's Rose	20'	15'	V			x	x
	Solanum jasminoides	Potato Vine	30' max.	varies	V				x
	Vigna caracalla	Snail Vine	10-20'	varies	V				x

Approved Native Seed List

BOTANICAL NAME	COMMON NAME
Aster bigelovii	Purple Aster
Baileya multiradiata	Desert Marigold
Bebbia juncea	Sweet Shrub
Brickellia coulter	Brickellia
Dichelostemma pulchellum	Bluedicks
Dyssodia pentachaeta	Golden Dyssodia
Erigeron divergens	Spreading Fleabane
Eschscholtzia mexicana	Mexican Poppy
Ipomopsis longiflora	Pale Blue Trumpets
Kallstroemia grandiflora	Arizona Poppy
Lupinus sparsiflorus	Desert Lupine
Mirabilis coccinea	Four-O'Clock
Oenothera sp	Evening Primrose
Orthocarpus purpurascens	Owl Clover
Penstemon eatoni	Firecracker Penstemon
Penstemon parryi	Parry Penstemon
Penstemon palmeri	Palmer's Penstemon
Phacelia campanularia	Desert Bluebells
Psilostrophe cooperi	Paper Flower
Salvia columbariae	Chia
Senna covesii	Desert Senna
Stachys coccinea	Betony
Verbena gooddingii	Goodding's Verbena

Legend

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# Design of the Irrigation System

Automatic irrigation systems are required for constructed landscape areas on all Lots. In addition to automatic irrigation systems, water capture systems used to harvest run-off for future re-use are an appropriate way to provide water for plants in managed amounts. An irrigation design professional should be consulted to provide an efficient watering system that promotes healthy plant growth and minimizes water loss due to run-off and evapotranspiration.

## General Irrigation Design Considerations

- All landscape areas (private and other) shall be maintained on a permanent, automatic drip irrigation system.
- Salvaged or nursery-grown native trees and cacti must receive supplemental water, consistent with local standards.
- Valve or other flush-mounted boxes shall match the color of the ground surface (desert tan or green when in turf).
- Locate valve boxes, flush caps, and so on in inconspicuous areas of the site, no further than three (3) feet away from the Home. Set boxes on at ground to minimize visibility.
- Conceal boxes from view with small shrubs. Avoid setting boxes on a tilted plane; instead, always set boxes at.
- Locate wall-mounted or above-ground equipment behind rear yard enclosure walls or within refuse enclosure walls.
- Paint free-standing or wall-mounted equipment to match the exterior color of the house or the walls on which they are mounted.

### Valves

- Different plant species require varying amounts of water and frequency of application. Proper valving can significantly reduce maintenance and water costs. Separate valves are required for:
  - Trees
  - Low-water-use shrubs
  - Ornamental shrubs
  - Turf
  - Pots or Garden
- Additional valves should be considered to accommodate exposure differences. For example, most groundcovers and shrubs planted in a shady zone will require less water than the same plant placed in an exposure that receives full sun. If both plants receive the same quantity and frequency of water, the plant in the shady location will not have an opportunity to dry out and may rot while the plant in full sun will suffer from infrequent watering.

## Turf Irrigation

- Spray irrigation is limited to turf areas only.
- If both rotors and low trajectory heads are needed to irrigate turf areas, provide separate valves for each to maximize control and efficiency of the system.
- Runoff into streets, onto sidewalks, onto neighboring properties, or into natural areas not previously part of the site drainage pattern is prohibited.
- Offset heads six (6) to twelve (12) inches from pavement.

## Irrigation Installation in Native Areas

For Homes on Custom Lots along Reata Wash only, supplemental landscape improvements may be required in native areas. In the event that landscape and irrigation are required to be provided in native areas, the following shall apply:

- Locate all mainlines, and as many lateral lines as possible, within the existing disturbed areas. Minimize trenching for irrigation to new plants to just those natural areas of seams between existing plantings.

## Irrigation for Performance and Reduced Consumption

Spray irrigation can create significant runoff after only a few minutes of operation. Homeowners must manage their irrigation water properly by:

- Properly grading and sloping the land to hold runoff.
- Preparing the soil prior to planting to ensure good drainage.
- Selecting heads to fit the size and configuration of the turf area.
- Managing the duration of the irrigation cycle to avoid runoff conditions. Select several short irrigation intervals during the day rather than one long setting.