

DESIGN AND CONSTRUCTION MANUAL

Volume One **RESIDENTIAL HOMEOWNER EDITION**

Landscape and Lighting Design Guidelines

The Covenant Commission

September 15, 1997

LANDSCAPING

The designed landscape within DC Ranch will respect the native Sonoran Desert environment and celebrate the unparalleled beauty found on this unique desert site. A native palette will dominate, reinforcing the Community's bond to the special atmosphere of the desert. Limited areas of turf, where appropriate, are an anticipated element of the palette.

The native plants of the Sonoran Desert are unique. So unique, that the State of Arizona and the City of Scottsdale have ordinances to help preserve the native desert plants and their environment. Protected plant species require permits for relocation, transport and sale. During the planning and constructing of DC Ranch, extensive effort has been made to minimize disturbance to mature trees, saguaros and other cacti and to relocate those in the way of construction. These plants are stored in an on-site nursery throughout construction and then replanted into the landscape.

It is the intent of the Covenant Commission through the Community Design Manual to insure the highest standards of preservation and landscape excellence. The transition between individual parcels should be subtle. All lots, parcels, improved open space and natural open space should be woven into a unified natural Landscape Palette.

All landscape design and plant material selection within DC Ranch is subject to the review of the Covenant Commission. This includes the original landscape plan approvals as well as the replacement of dead plant materials. The Community Council is responsible for reviewing and approving all matters relating to on-going maintenance. The following section provides an overview of the elements to consider when designing and planning landscaping within DC Ranch.

DESIGN APPROACH

The planned landscape within DC Ranch evolves around three interwoven design components: Theme, Character and Palettes.

Landscape Themes

Five landscape themes have been developed for DC Ranch including Lower Sonoran Desert, Desert Wash, Upper Sonoran Desert, Grassland/Chaparral and Riparian. The themes are based on the natural vegetation patterns that occur throughout the different geographic areas of the site. Within Planning Units 2 and 4, the predominant landscape theme is Lower Desert followed by Upper Desert and Desert Wash Themes. The landscape theme for each neighborhood is predetermined by the Covenant Commission and will be provided to the Owner at the start of the design process. Plant species have been keyed to the appropriate Landscape Themes. All species listed on the palettes may not be allowed for use in your specific neighborhood.

Landscape Character

Landscape Character refers to the diversity of plant species and the visual quality of the finished landscape composition. The desired image or character of the planned landscape fits into one of three classifications: Natural, Modified Natural or Enhanced.

LOWER DESERT
Foothill Palo Verde
Creosote
Bursage

DESERT WASH

Ironwood

Lycium

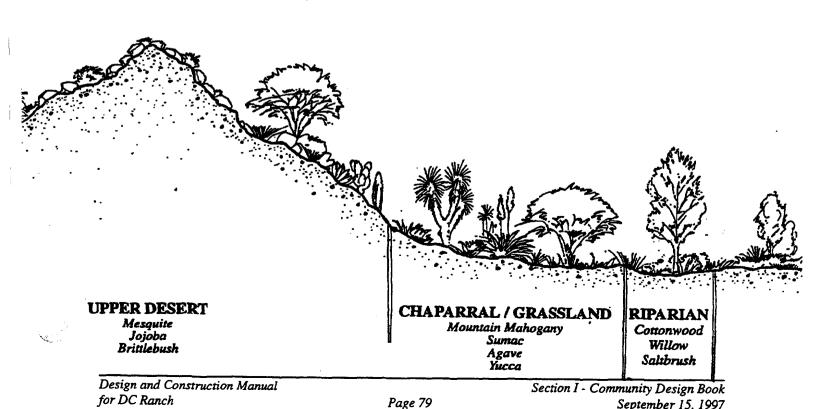
Chuparosa

Landscape Character should respond to the intended land use. For example, streetscapes, particularly in hillside areas, improved open space tracts, should take on a Natural Character; while entries and high density residential areas may take on a Modified Natural Character. Enhanced landscapes are most appropriate for use in high intensity areas such as residential yards and internalized spaces of feature buildings, commercial or retail properties.

The species of plants utilized in a landscape composition determines to a large extent the Landscape Character; although, other factors also influence character. These factors include the arrangement of plants in formal versus informal patterns, plant density, hardscape materials selections, intensity and frequency of maintenance and treatment of the ground surface. The three Landscape Character types are described in greater detail below.

1. Natural Landscape Character

Natural Landscapes are intended to replicate the natural patterns of the desert including random planting arrangements,



plant densities and species. Treatment of the ground surface in a Natural landscape must also replicate the natural desert floor. This may involve a scattering of on-site surface granite and rock known as Desert Pavement, rather than an applied granite mulch. Plant materials should be selected from the Native Palette and should incorporate on-site salvaged materials that must be relocated for construction. The terms Natural Landscapes and reveged landscapes are often used interchangeably. Natural landscapes should also be supplemented with native seed. The seed mix provides a complement of additional grasses, shrubs and wildflower species that are not available through local nurseries as container plants.

The preferred landscape treatment and its use will be encouraged throughout all facets of DC Ranch neighborhoods. The disturbed edges along streetscapes, improved common areas, landscaping within and adjacent to natural areas and hillside areas where the backdrop of the McDowell Mountains predominates are reasonable sites for the application of a Natural Landscape Character. Custom Homesites with building envelopes are also logical locations to utilize the Natural Character because the larger Lot sizes increase the feasibility of preserving significant tracts of natural vegetation, providing an immediate character to the area which should be preserved in the designed landscape.

2. Modified Natural Landscape Character

Modified Natural landscapes should be considered a transitional landscape, providing an intermediate step between Natural and Enhanced landscapes. A Modified Natural Landscape Character is distinguished by an increase in colorful plant materials and overall plant density beyond those found in natural conditions. A higher level of maintenance is also anticipated in these areas. The ground surface treatment should emulate the scattering of on-site granite and rock (Desert

Pavement). In Enclosed Areas, the introduction of decomposed granite that closely matches the natural ground surface may be permitted.

Modified Natural Landscapes are divided into two distinct levels: Level A and B. The landscape levels are intended to ensure that the planned landscapes in DC Ranch will not contrast significantly with the undisturbed natural desert. Level A landscapes include plants from the Native and Sonoran desert palettes. Level B landscapes include plants from the Native, Sonoran, Southwestern and Arid-Region palettes. Level B landscapes are more appropriate closer to the house, immediately adjacent to the living areas; therefore, their use is more suitable within Enclosed Areas.

Modified Natural Level A landscapes may be used within any non-enclosed Residential Yard. Level B landscapes may be also used in nonenclosed areas, but are subject to limitations in these areas. The limitations are: (1) The landscape plan must indicate that there is a significant distance separating the Modified Natural - Level B area and any Natural or undisturbed landscape. For example, the Level B landscape can not cover the entire Transition Zone of a Lot, (2) The selection of plants from the Arid-Region palette must be appropriate for the area. For example, the use of Bougainvillea in a non-enclosed yard would be inappropriate, whereas the use of Aloe or Chilean Mesquite may be more appropriate and compatible with the native plant materials. Restricted species have been noted on the Arid Region Plant Palette in the Construction Guidelines, (3) The degree of the separation is directly related to the quantity of Arid-Region plants proposed for use within this area.

3. Enhanced Landscape Character

Enhanced landscapes are suitable for use in Enclosed Areas of the Residential Yard for Custom and Non-Custom Lot

Y. .

neighborhoods. Enhanced landscapes include the widest spectrum of plant species with plants from the Native, Sonoran, Southwest, Arid-Region and Exotic palettes. Enhanced landscapes provide the opportunity to create a lush, oasis type environment that may be more desirable to residents in and around their immediate outdoor living areas. Where Exotic species are proposed within any Enclosed portion of the Front Yard, they must be confined behind a minimum 3 foot high solid enclosure as measured from the inside of the wall. Enhanced landscapes within Enclosed rear yards are not subject to minimum height or screening requirements. Refer to the following section for further restrictions regarding the use of Exotic species in the Enhanced landscape.

Landscape Palettes

Similar to the artists' term, a Landscape Palette is the collection of plant species utilized to create a landscape design. The designed landscape must respond to a wide array of land uses requiring a diversity of plant materials. Therefore, five landscape palettes have been compiled for DC Ranch which are categorized according to the geographic origin of each individual plant species. The five Palettes identified for DC Ranch include: Native, Sonoran, Southwestern, Arid Region and Exotic. The plant palettes create a hierarchy in the landscape, building from the predominate "Native" palette, adding additional species as the interface of the landscape with the user becomes more intense and personal.

The preferred and dominant landscape palettes for DC Ranch will consist of Native and Sonoran plant species. The use of Native plants is appropriate because of their ability to withstand extreme heat, their resistance to drought and the continuity they provide between the planned areas and the natural background of the McDowell Mountains. An approved Master Landscape Palette for each Planning Unit is provided in the Construction Guidelines. The plant species on these lists serve as the basis for all residential landscape develop-

ment within that area. The designer must submit a specific plant list with each landscape plan. The Covenant Commission reserves the right to revise the Master Landscape Palette from time to time to either add or remove certain plants.

1. Native

Plant species that occur naturally on the DC Ranch property. Native species must be used in Natural Landscapes.

2. Sonoran

Plant species native to the Sonoran Desert. Sonoran species may be used in the Modified Natural Landscape - Level A.

3. Southwestern

Plant species native to the three warm Southwestern Deserts including the Sonoran, Mohave and Chihuahuan Deserts. Plant species from the Southwestern palette may be used in the Modified Natural Landscape - Level B.

4. Arid Region

Plant species native to other desert regions of the world including Australia, Africa, North and South America. Plants from the Arid Region palette may be used in the Modified Natural Landscape - Level B, with some limitations as described under the previous section.

5. Exotic

Ornamental plants not necessarily native to desert regions such as seasonal annuals, perennials or lush shade loving foliage. In most cases, Exotic species are visually and physically incompatible with the arid region plants due to the color of the foliage and their increased water demands. Use of

these plants will occur where environmental conditions such as shaded courtyards or scale considerations provided by tall structures necessitate special plant needs. Exotic plant materials are restricted to use within Enclosed Areas only. Exotic species may not include any plants listed on the Prohibited Plant List nor may they include the use of any non-native plant whose height can potentially meet or exceed 20 feet at maturity.

A Prohibited Plant List, has been compiled for DC Ranch to prevent the introduction of potentially destructive plants. The plant species on this list are not acceptable for use under any circumstance. Some plants are inappropriate to the high desert environment because they are potentially destructive to the Native species. Weed-like growth, pollen, excessive heights and water use make them incompatible with Native Species. Other species, such as Red Brome, are especially dangerous as fuel for desert fires.

LANDSCAPE MATRIX

CHARACTER	LANDSCAPE ZONE	TYPICAL USE*	LANDSCAPE PALETTES**				
			NATIVE	SONORAN	SOUTH- WESTERN	ARID REGION	EXOTIC
NATURAL (LN) ***	NATURAL	NOS, drainage corridors reveg areas, streetscapes in Custom Lot Neighborhoods and hillside areas	×				
MODIFIED NATURAL Level A (LA) ***	TRANSITION	Streetscapes in Non- Custom Lot neighborhoods, improved open space tracts, non- enclosed residential yards	×	×			
MODIFIED NATURAL Level B (LB) ***	TRANSITION	Neighborhood entries, pocket parks, Enclosed Areas and non-enclosed yards with limitations as described herein.	×	×	×	×	
ENHANCED (LE) ***	PRIVATE	Courtyards, containers, shady planting beds found within Enclosed Areas of the residential yard	×	×	X	×	×

^{*}This is intended to be a general representation of areas where particular plant palettes are acceptable and is not intended to establish specific requirements.

(L = Lower Desert Theme)

(N, A, B, E = Character Designation)

LANDSCAPE ZONES

Within a Residential Yard or a neighborhood, up to four landscape zones must be observed: Natural, Transition and Private and Streetscape Zones. Each zone is intended to fulfill a particular function and specific plant palettes are designated for use in each zone.

Natural Zones

Natural Zones are the undisturbed or restored common areas found throughout the community such as perimeter landscape buffers, non-enclosed rear or side yard setbacks, open space areas and natural washes. In Custom Home neighborhoods, Natural Zones are defined by the building envelope and may be classified as tracts, Open

^{**} Landscape Theme as referenced on each palette dictates what plant species within each palette are acceptable for use on the specific site.

^{***} Landscape character designations shall be shown on all landscape plans.

Space (OS), NOS or NAOS areas. In Non-Custom Home neighborhoods, Natural Zones will typically occur beyond the individual property boundary. In many instances, these smaller lots necessitate grading across the entire Lot and do not permit the preservation of natural vegetation on individual lots.

Clearing of debris and limited trimming is allowed in Natural Zones and, in certain cases, supplemental landscaping is permitted but only where existing vegetation has been previously destroyed. Any improvements or revegetation within a Natural Zone is the responsibility of the Owner and approval from the Covenant Commission must be granted prior to performing any work in the these areas. The landscape plan submission must include concepts and Construction Documentation for any proposed improvements, including revegetation and establishment of any plants within the Natural Zones. Landscaping within a Natural Zone must exhibit a Natural Landscape Character and utilize plant species from the Native Plant Palette. On a Parcel by Parcel basis and in limited situations, some flexibility in building envelope locations may be available to offer connectivity of turf between yards or other recreational turf locations. The Covenant Commission will provide this information if this provision exists within your neighborhood. Contouring or grading within the Natural Zone is needed to provide an uninterrupted ground plane between the undisturbed desert areas and the revegetated areas. All cut slopes should be rounded at the top to avoid an unnaturally sharp line at the edge of disturbance. All fill slopes should be blended into the undisturbed areas to avoid unnatural accumulations or piles of dirt at the edge of disturbance.

Transition Zones

Transition Zones are those areas that fall between undisturbed natural desert areas (Natural Zones) and the more intensely landscaped Private Zones. For Custom Home lots with building envelopes, the Transition Zone is the disturbed area between the walls of the residence and the building envelope or limit of disturbance. In non-

custom home neighborhoods, Transition Zones are the disturbed portions of the Lot that are non-enclosed. In the context of the overall residential neighborhood, Transition Zones occur between any developed or improved Common Area and the adjacent undisturbed desert.

Contouring within Transition Zones is important as a means to provide a smooth and seamless transition between the built elements and the natural desert. Emulate the existing, subtle landforms found in the undisturbed desert. For example, use natural swales or ridgelines that may occur in the adjacent desert as the pattern for contouring within the Residential Yard by extending these forms from the undisturbed desert through the Transition Zone to the house. As the landscape matures, the lines between man-made and undisturbed will be undiscernible appearing as though the home was built without disturbance to the desert surrounding it. This concept is even more important in the Custom Lot Neighborhoods where there is significant undisturbed landscape surrounding each home. However, in Non-Custom Lot Neighborhoods, the concept should apply from Front Yard to Front Yard to ensure the streetscape reads as one flowing landscape rather than a series of individual landscape designs.

Transition zones are appropriate areas to utilize the Natural or Modified Natural Landscape Character, with plant species selection from the Native, Sonoran, Southwestern and Arid-Region Palettes (some restrictions apply). Turf is allowed within the Transition Zone of all residential lots provided it meets the turf requirements outlined in the Construction Guidelines. Landscape and irrigation plans for Transition Zones must be prepared for Covenant Commission approval prior to initiating any work in these areas.

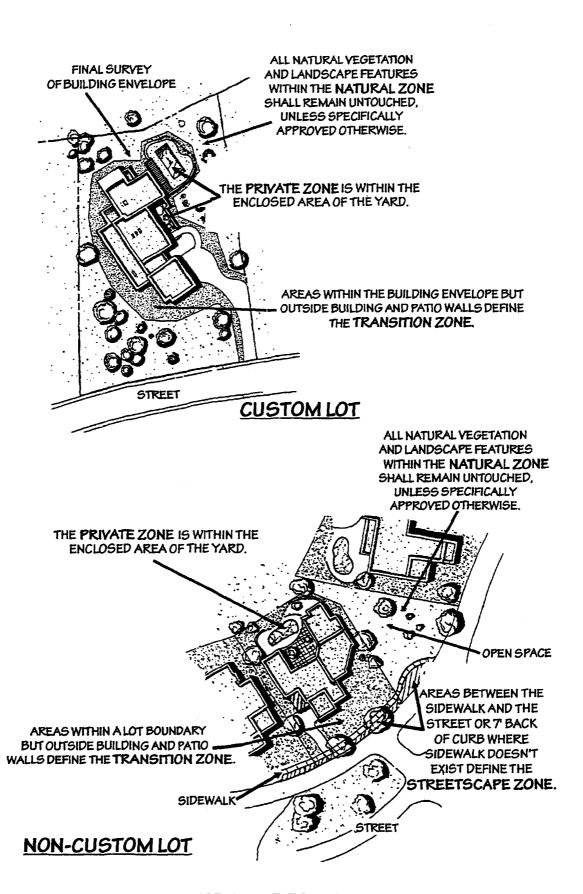
Private Zones

The term Private Zones and Enclosed Area can be used interchangeably. Private Zones or Enclosed Areas may be visible from other properties, but are separated from the Natural Zone by physical barriers. Enclosed Areas have the least restrictions in regard to landscape material selection and are appropriate locations for a Modified Natural Landscape- Level B or Enhanced Landscape Character including plants from the Native, Sonoran, Southwestern, Arid-Region and Exotic palettes. Certain limitations apply within the Enclosed Areas of the Front Yard as defined under the Enhanced Landscape Character section of this document. Turf may be utilized within an Enclosed Area without restrictions regarding minimum size requirements or connectivity to living areas. Refer to the Construction Guidelines for more specific information on turf requirements.

Contouring within Private Zones is necessary to create positive drainage and interest in the landscape. Contouring should be considered the backbone or structure for the landscape and is equally or more important in creating a quality finished product as is the selection of the plant materials. Where the Private Zone is open to view, contouring should tie into the landforms found outside the Enclosed Area to create a seamless transition from one landscape to the other.

Streetscape Zone

The Streetscape Zone is only applicable in Non-Custom Neighborhoods and is the six foot area between the face of sidewalk and the back of curb. Where no sidewalk exists, the Streetscape Zone is the seven foot area between the back of curb and the right-of-way or property line. A Streetscape Zone plant palette will be selected for each neighborhood to provide continuity along the streetscape. The Streetscape Zone palette will be provided at the start of the design process. Refer to the tree and shrub planting requirements for Streetscape Zones outlined in detail in the Construction Guidelines.

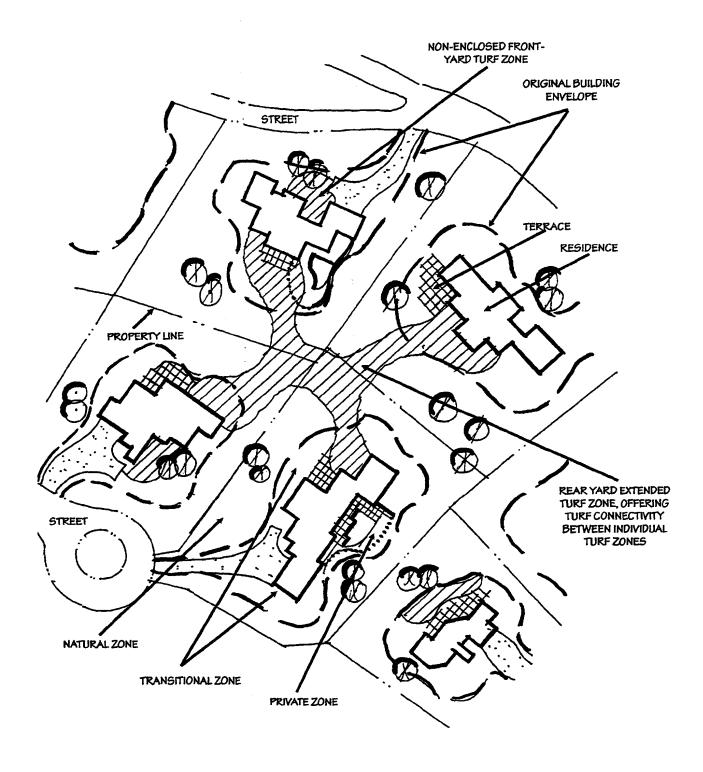


LANDSCAPE ZONES

TURF AREAS

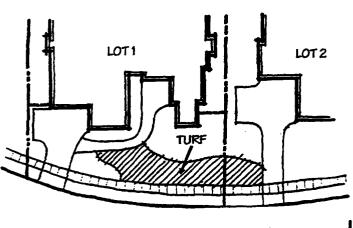
One of the best ways to implement the Neighborhood concept at DC Ranch, is to create convenient gathering places within a neighborhood. A small but functional Turf Area, centrally located and accessible to the entire neighborhood, can provide an informal, unstructured play area for children and a meeting place for adults. This centralized use of turf satisfies a needed recreational component that is more sensitive to the natural desert environment than numerous small turf areas within individual yards. The Covenant Commission may adapt specific turf regulations for parcels based upon the location within the Community and the visual and environmental impact it may convey. Other turf requirements are addressed more specifically in the Construction Guidelines.

Where turf is permitted and desired by residents within residential yards, the Site Plan must demonstrate the turf area is a functional, recreational space. Functional turf zones should physically adjoin outdoor living spaces to enhance accessibility and to avoid the creation of small, isolated islands. The overall size and configuration of the turf area plays a large part in its effectiveness as a usable space. Connecting turf areas from Lot to Lot without visual barriers is a desirable means of achieving larger, more unified turf areas that also serves to visually unify the streetscapes. Turf cannot extend into the public right-of-way in accordance with the Arizona Department of Water Resources. Specific requirements for turf in residential applications are addressed in the Construction Guidelines.

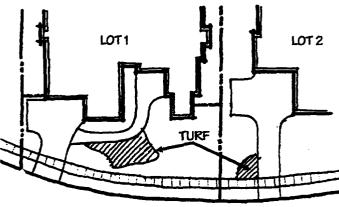


CUSTOM LOT TURF ZONES

1993



ISSUE: When possible, extend turf planting into adjacent property for visual continuity.



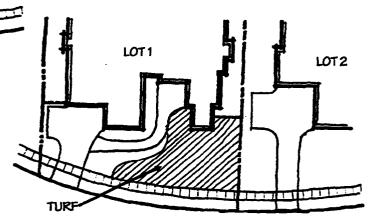
UNACCEPTABLE: Small patches of turf separated at common property lines are not acceptable.

LOT1

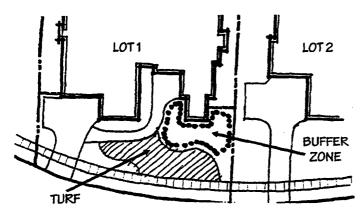
LOT2

3' MINIMUM BUFFER ZONE

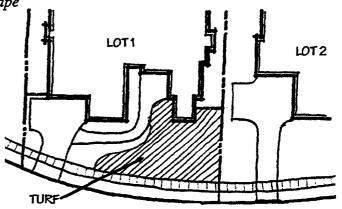
ISSUE: Allow Buffer Zone between property lines and edge of turf.



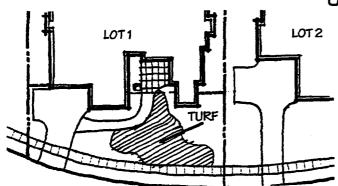
UNACCEPTABLE: Terminating turf at property line is not acceptable.



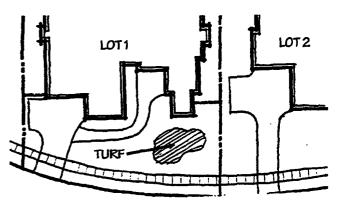
ISSUE: Create a Buffer Zone with landscape between the building and Turf Area.



UNACCEPTABLE: Avoid turf planting at building foundation.



ISSUE: Anchor Turf Area to Entry Area and outdoor living spaces.



UNACCEPTABLE: Floating islands of turf are not acceptable.

NEIGHBORHOOD CONTOURING

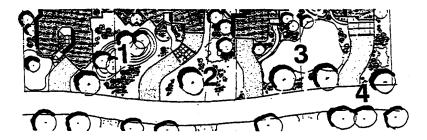
The Covenant Commission will review all neighborhood grading plans from both an aesthetic and functional perspective. Contouring is the artistic shaping of the land for the purpose of creating and enhancing drainage patterns, providing interest in the landscape and creating opportunities for utilizing on-site water to provide micro-environments for planting. Contouring is one of the elements of landscape design often overlooked or overdone. When complete, contouring should produce pleasing, natural forms that take shape gradually, lending the landscape a more naturalized appearance. Abrupt mounds or sharp forms do not appear natural.

A conceptual grading and drainage plan should be prepared for all Lots or Parcels and as a part of the submission process to ensure that every consideration is given to producing a Site Plan that is well integrated into the adjacent landscape as a single composition. The completed composition of landforms should appear natural within their setting. Padding and terracing of Lots is generally discouraged and, if allowed must not be apparent in the finished appearance of the landscape. Consideration must be given to providing sufficient space between lots and in setbacks to create a natural appearance to slopes. Where retaining walls are required, they should follow the height requirements and special considerations addressed in the chapter on Architecture.

Contouring should complement and reinforce the architectural and landscape design character by helping to screen parking, service or equipment areas, by reducing the perception of height and mass of larger building, by providing transitions between on-site uses and by providing reasonable transitions between Lots. All slopes shall be rounded and shall not create abrupt transitions between the undisturbed natural ground and the graded area. Contoured areas shall incorporate a variety of slope gradients to provide a natural appearance to the landscape. All graded slopes shall be revegetated.

Any berming concept being developed within the individual Lot must consider its connection to mounding patterns already established on the adjacent golf course or adjacent Lot. Since the intent is to integrate each neighborhood into one composition, it is imperative to preserve the continuity of berm patterns from Lot to Lot. Contouring should transition into grades on both sides of the Lot to create a flowing, continuous streetscape.

On-site drainage should be designed to put as much water back into the ground water system as possible and to keep the streets and fairways as dry as possible. While natural drainage corridors may be utilized as conduits for excess water that cannot be accommodated on site, alteration of the these corridors should be avoided. Natural channels should be incorporated into the open space fabric of the Neighborhood or Lots. On-site drainage, including roof drainage should be directed and collected to planting areas as a means of supplementing irrigation to landscape materials. All grading and drainage plans will be reviewed for conformance with the Master Drainage Plan.



CONTINUITY ACROSS PROPERTY LINES

- 1. Man-made landforms cross property lines.
- 2. Landscape compositions flow across property boundaries eliminating any delineation of a Lot line.
- 3. Lawns should be continuous across property lines and be adjacent to outdoor living areas and comply with the criteria established in the Construction Guidelines.
- Street trees provide an intimate scale to the neighborhood while cooling yards and providing visual relief to the streetscape.

NEIGHBORHOOD LANDSCAPING

All residential landscaping, including common areas and typical front yards, should incorporate the characteristics of the predetermined landscape theme and approved palettes. While native desert landscaping is the norm, it should not be interpreted to connote sparseness.

Informal landscape arrangements are most appropriate within DC Ranch as they fit within the context of the natural Sonoran Desert. For example, the use of multi-trunk trees is encouraged over single trunk trees particularly within Front Yards and in Transition Areas. This adds to the informal, natural look along the streetscape. Landscape design should be sensitive to the natural environment as evidenced in the parkways, streetscapes, common properties and golf course. The designed landscape should also be sensitive to existing, undisturbed landscapes or approved landscaping on adjacent properties and to the Landscape Character of the immediate neighborhood by incorporating some of the same plant species found on adjacent properties. The landscape plan should provide for a smooth transition of both finished grade and landscape materials with adjacent properties.

Street Enhancement Program

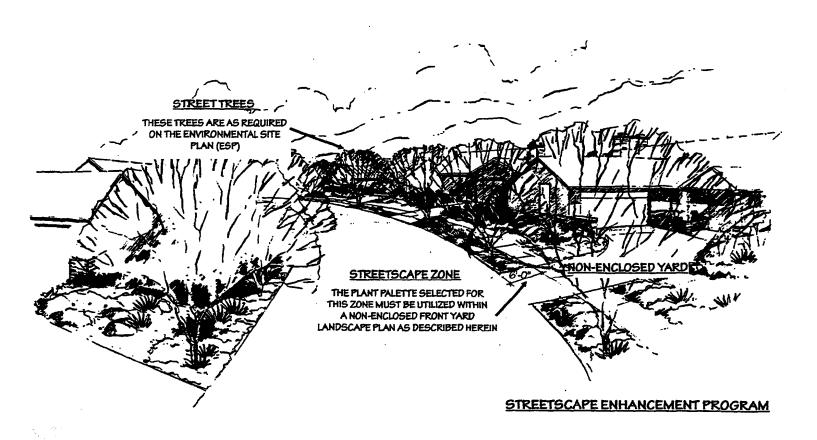
The prevailing public landscape statement and design opportunity in any neighborhood is embodied in the streetscape elements. The use of street trees, continuous earth forming, thematic streetscape furniture, and appropriate arid region landscape materials will provide a cohesive streetscape. The streetscape enhancement program is addressed in greater detail in the Construction Guidelines.

A comprehensive street tree program must be submitted for each neighborhood to embellish the existing native trees which will be preserved in open space tracts or within individual Lots. This approach is a means to visually enhance the neighborhood by creating

cool shaded streets, softening large expanses of walls and reflective surfaces and providing a human scale to the neighborhood.

The street tree program should incorporate on-site native trees that will be displaced due to construction, and when available, to provide instant maturity to the streetscape. If salvaged trees are not available, then purchased trees should be selected to ensure mature heights will be compatible with the native desert trees.

Open space tracts within the neighborhood should also be considered in the tree enhancement program. Rear yards that abut open space corridors with paths and trails as well as rear yards along the golf course must consider the need for additional mature trees outside the Lot or beyond the residential wall to provide buffering, frame views and enhance privacy. Plantings should be sensitive to the existing or approved landscape materials.



MINIMUM STANDARDS

All residences within DC Ranch are required to meet minimum landscape standards. Landscape standards ensure that disturbed sites are adequately planted to achieve re-establishment of the disturbed ground. Poorly or inadequately landscaped areas have a detrimental effect on the visual quality of the neighborhood and community. Requirements will vary based upon Lot size and density as outlined in the Construction Guidelines. For example, minimum quantities and sizes of trees will be specified. Shrubs, groundcovers, cacti and accent plantings will be required to meet certain coverage and installation size requirements. In all cases, planting should attempt to have as mature an effect as possible at the time of installation.

LANDSCAPE DETAILS

Hardscape

The configuration of hardscape areas should be dictated by circulation patterns, the landscape design concept and in some cases the shape or configuration of the chosen paving material. Natural building materials like stone or integral-colored exposed aggregate concrete are a logical selection for exterior ground surfaces. Other choices including brown toned concrete or interlocking paving treatments are also acceptable as durable hard surfaces. The weathering capability of all exterior ground surfaces and proposed materials should be considered. The Arizona sunlight can be extremely destructive, with ultra violet rays not only fading colors, but also causing major deterioration of certain materials and construction systems. Wood, when exposed to the sun, requires considerable maintenance and special finishes making wood decks a less desirable choice.

Softscape

Softscape treatments include permeable surfaces such as ground covers, decomposed granite, soil cement or native granite rock. Softscape

elements are typically porous, allowing water to filter into the soil. Circulation patterns, amount of use and desired level of formality should be considered when selecting a surface treatment. For example, a mix of soil cement and decomposed granite, or brick or stone laid on sand are alternative paving materials for patios and outdoor seating areas.

Decomposed granite mulch is a typical application for the finished surface of newly landscaped areas. However, in keeping with the natural appearance of the desert, the use of decomposed granite or mined rock as a ground cover mulch is discouraged and is only permitted within Enclosed Areas. Salvaging and storing the native onsite ground surface materials known and Desert Pavement is the preferred treatment for all landscape zones and the required treatment for any non-enclosed area.

Where use of decomposed granite is approved, only naturally weathered granite rock maybe used. Crushed rock, river rock, artificially colored or mined rock that is uncommon to the site will not be permitted. Native granite rock should be naturally colored in gold and brown tones to blend with the adjacent desert floor. Decomposed granite shall closely match the DC Ranch standard in color and size as defined in the Construction Guidelines.

Irrigation

The use of underground drip irrigation systems rather than traditional spray type systems will be required in most landscape situations. Spray irrigation is limited to turf areas because of its inefficiency and the effect it has on the micro-climate. Automatic irrigation systems are required for all designed landscapes within Private and Transition Zones to ensure establishment and sustainability of the landscape.

Where revegetation has occurred within a Natural Zone, the plant materials must be irrigated with a temporary drip system. Native plants need regular water during the establishment period. Transplanted desert trees may require irrigation for several years before developing a large enough root system to survive sustained periods of drought. Other small plant materials establish within 3 to 6 months. Upon establishment of the plant materials, the irrigation system should be gradually cut back until the system can be disconnected or/or removed. The existing native vegetation does not require supplemental water on a permanent basis and irrigating these areas can lead to disease and death of the native plants, particularly cacti, and aid in the spread of undesirable plant species or weeds. Seeded areas may or may not be required to be irrigated depending on their location and the impact it may have on the adjacent Natural Zones. Irrigation methods and establishment programs must be included with the Landscape Plan submissions.

1. Water Use Requirements

While the native and arid region plant materials require minimal water, the specific requirements vary from plant to plant and location to location. A well designed landscape uses a technique of "zoning" to ensure that plants with differing water requirements are separated. For example, a native cacti would perish from overwatering if placed next to a plant that requires frequent watering to survive.

2. Watering Schedules

A qualified designer should be able to recommend a watering schedule for both the establishment period and beyond. Consider watering schedules a guide and adjust to compensate for climatic changes, soil characteristics, location and exposure. Watch plants for signs of stress and adjust water accordingly. More plants die from overwatering than from too little water.

Section 3.0 Landscape and Hardscape Guidelines for Non-Custom Lots

This document applies to the following Parcels:

Parcels 2.3 / 2.4 / 2.7 / 2.8 / T5a&b

Parcel 2.9

Parcel 2.10

Parcel 2.13

Parcels 2.14 / 2.15 / 2.17

Parcel 4.2

Parcel 4.4

Parcel 4.6

Parcel 4.11

TABLE OF CONTENTS

Page No.

SECTION 3.0: LANDSCAPE AND HARDSCAPE GUIDELINES for NON-CUSTOM LOTS

3.1	Overview	1
3.2	Homeowner Responsibilities	3
3.3	Design Principles for Non-Custom Lots	5
3.4	How to Prepare a Landscape Submission	22
3.5	Plan Requirements	25
3.6	Landscape Worksheets and Forms	31
3.7	Exhibits	36
3.8	Plant Palettes	51
3.9	Supplemental Information	60

Section 3.1 Overview

	Page	No.
3.1	Overview	2

3.1 OVERVIEW

These guidelines are intended to provide direction for achieving the landscape philosophy and vision for DC Ranch.

Create A Sense of Place!

Study your surroundings; respect and understand what is around you before you begin your design. Think of each individual design as being a part of a larger composition, i.e. the neighborhood, rather than an individual, stand alone element. Your design should not dominate the landscape but provide subtle uniqueness that is appropriate to our desert environment. The end result should be individual homes interwoven together along with the open spaces to give DC Ranch neighborhoods a sense of place.

Our objective is to avoid creating neighborhoods that result in a patchwork of landscapes that do not bear any resemblance to where we live; a condition that is prevalent in many subdivisions. These subdivisions could exist in any community because they have not paid attention to or acknowledged their surroundings. Think of landscaping as more than merely filling spaces with plants. Landscaping should be more appropriately termed *Environmental Design* as a good landscape takes into account considerably more than plants.

The Covenant Commission review will focus on design excellence which is achieved through:

- seamless shaping and drainage
- use of appropriate materials and finishes
- appropriate plant selections, quantities, associations and placement
- blending landforms and plants into the adjacent surroundings

To prepare a successful landscape submission to the Covenant Commission, familiarize yourself with the following Guideline requirements before proceeding. When making a submission, utilize the landscape submission forms included in Section 3.6, Landscape Worksheets. Submissions can not be reviewed unless they are complete, including all forms and worksheets. Because every Lot is different, the Covenant Commission must make discretionary judgements regardless of the guidelines.

Landscape requirements differ for Custom and Non-Custom Lots. Make certain you are following the appropriate requirements. Also note that all other DC Ranch documents still apply; therefore, Owners must familiarize themselves with all other documents.

Section 3.2 Homeowner Responsibilities

		Pag	e No
3.2	Hom	eowner Responsibilities	
	3.2.1	Submissions	4
	3.2.2	Reviews	4
	3.2.3	Inspections	4
	3.2.4	Completion	4

3.2 HOMEOWNER RESPONSIBILITIES

3.2.1 SUBMISSIONS

The Homeowner shall supply the Covenant Commission with a complete Landscape and Hardscape Submission for his or her Lot prior to initiating any work relating to the landscape package and within 60 days after the close of escrow.

3.2.2 REVIEWS

Landscape and Hardscape plans must be approved by the Covenant Commission prior to starting the work, even if your landscaping is included with the purchase of your home. The Covenant Commission will issue a written response within 30 days of receipt of your submission and payment of review fee. Failure to obtain approval within two reviews, thereby resulting in additional submissions, may require the applicant to pay additional review fees.

3.2.3 INSPECTIONS

A Homeowner may request a courtesy review during the design or installation process.

3.2.4 COMPLETION

Homeowners are responsible for completing full (front and back yard) landscaping within one hundred and eighty (180) days from the close of escrow. A final inspection may be performed by the Covenant Commission to ensure that construction has been performed according to the approved plans. Homeowners must provide at least 5 business days notice to the Covenant Commission when requesting a final inspection. A Certificate of Final Construction Approval will be provided after a successful final inspection. If construction is not substantially in accordance with the approved submission, the applicant may be required to pay additional review fees prior to receiving the Certificate of Approval.

Section 3.3 Design Principles for Non-Custom Lots

		Page	No.
3.3	Des	ign Principles for Non-Custom Lots	
3	.3.1	Shaping. Drainage and Wash Stabilization Treatments	6
3	.3.2	Desert Pavement and Inert Materials	7
3	.3.3	Hardscape and Softscape Requirements	9
3	.3.4	Landscape Zones and Palettes	10
3	.3.5	Turf Areas	12
3	.3.6	Landscape Composition. Coverage And Screening Requirements	15
3	3.3.7	Annuals. Pots and Containers	18
3	3.3.8	Utility Considerations	19
3	3.3.9	Irrigation System Requirements	19
3	3.3.10	Exterior Lighting Requirements	20

3.3 DESIGN PRINCIPLES FOR NON-CUSTOM LOTS

3.3.1 SHAPING, DRAINAGE and WASH STABILIZATION TREATMENTS (Exhibit B)

a. Shaping:

Shaping is the artistic contouring of the land. Shaping must result in a smooth and seamless transition between adjacent natural and manmade landscapes. Proposed landforms should accomplish the following:

- A smooth, seamless transition across property lines.
- Knock down the linear "tiering" or "shelving" between Lots or adjacent to open space by extending the toe of slope beyond the property line.
- Combine drainage patterns with the adjacent Lot whenever possible to eliminate property line delineation.
- Soften and mitigate the ends of side yard walls by wrapping grades around corners.
- Provide smooth, continuous, landforms of varying heights in lieu of "overdone", animated mounding. High and low points should be considered in increments of inches (3",4",5",6",7" and 8") in lieu of a set pattern of 6" and 12" only. Adjacent high and low points typically should not exceed an elevation difference of more than one foot.
- Slopes must vary between 4:1 (maximum condition) and 8:1 or greater with an overall minimum average of 6:1 (horizontal to vertical respectively). Refer to Exhibit K, for instructions on calculating slopes.
- Set finish grades uniformly 1" below adjacent hardscape.
- All tops and toes of slopes shall be rounded. Shaping should combine depressions and mounds rather than relying exclusively on mounding as the shaping method.
- A courtesy review is strongly recommended during the shaping process.

b. Drainage:

Drainage patterns must conform to the requirements set forth on the Lot plans and should accomplish the following:

- On-site drainage should be designed to put as much water back into the ground as possible.
- Keep streets and sidewalks dry.
- Direct and collect roof drainage in planting areas or tie into drainage flow patterns.
- Combine side yard drainage with that of adjacent Lots to enhance the desired seamless appearance.
- Rework linear, engineered drainage patterns into meandering, variable sloped, rounded grades.

c. Wash Stabilization Treatments:

Some Lots may be challenged with steep grade transitions that have the potential for erosion due to the flow of water from adjacent properties. Owners who divert existing drainage patterns are responsible for damages occurring to adjacent land or structures that result due to a change in the water flow. If improvements on adjacent property are required, you must gain approval from that property owner prior to proceeding. Stabilization treatments must comply with the following:

- Wash stabilization shall be performed using the DC Ranch approved method with colored Shotcrete and a surface finish designed to emulate a naturally eroded wash. Refer to Supplemental Information for more information on this treatment.
- Alternate stabilization methods will be considered but are subject to approval.
- Rock shall be native on-site stone or an approved equivalent.
- River rock is not acceptable under any condition.
- Rip rap, rock lined channels or swales are not acceptable.

3.3.2 DESERT PAVEMENT and INERT MATERIALS

The final surface of any Front Yard shall be the *naturally* occurring desert surface, i.e. Desert Pavement. (Graded Lots do not constitute a naturally occurring surface.)

a. Top Dressings:

Within back yards, the use of Desert Pavement is strongly encouraged, but not required. If other inert materials are proposed,

they must be naturally colored in gold and brown tones that closely resemble the natural desert floor. Purchased granite shall not be screened but shall be specified as 1/2 inch minus. Samples are available for review at the Governance office.

Desert Pavement: b.

The Desert Pavement standard is intended to provide a finished surface treatment to the landscape that emulates the natural desert floor, including clusters of varied size cobble, a thin scattering of decomposed granite and natural windblown plant debris.

Desert Pavement consists of three elements:

- Cobble (2" to 8" in size). This material may be generated when trenching irrigation lines, otherwise it can be purchased through an authorized DC Ranch retailer.
- **Decomposed Granite** (up to 2" in size). This material may exist naturally on your Lot, otherwise it can be purchased through an authorized DC Ranch retailer.
- Desert Mulch. This material must be purchased through an authorized DC Ranch retailer.
 - Desert Cobble shall have the following characteristics:
 - Variable size rock/cobble Shall be primarily concentrated in select locations rather than uniformly distributed.
 - Shall occur on downhill slopes and sides of plants.
 - Avoid heavy use on top of mounds.
 - Avoid lining drainage swales with rock.
 - Shall be partially buried.
 - 2. Decomposed Granite shall have the following characteristics:
 - Shall be the natural desert surface. You may enhance or accelerate exposing the granite by watering in the disturbed ground upon completion of landscape.
 - The depth of granite should not be apparent. If additional granite must be applied to the surface, it shall be distributed in light applications that can not be measured in depth.

For DC Ranch

- 3. Desert Mulch is intended to simulate the plant debris that naturally collects at the base of existing, native plants.
 - Apply the mulch by throwing one or two handfuls of mulch at the north east base of each plant.
 - Mulch material must be purchased through an authorized DC Ranch retailer.

c. Boulders:

- The natural desert floor at DC Ranch does not contain many boulders; therefore, avoid using boulders as a decorative landscape element.
 - Boulders may be used for functional reasons such as a method for retaining or drainage stabilization but will be reviewed for appropriateness.
 - A more liberal use of boulders should be confined to Backyards.
- Imported boulders shall be native schist or surface select granite to match the color and character of rock native to DC Ranch.
- Arrange boulders in groups or clusters, using variable sizes to emulate natural outcroppings of rock.
 Individually scattered boulders are uncharacteristic of natural boulder formations and will not be approved.
- Bury at least 1/3 of the boulder surface below grade.

3.3.3 HARDSCAPE ISOFTSCAPE REQUIREMENTS

Analyze circulation patterns and desirable outdoor living areas to determine appropriate locations and configurations for hardscape areas. Natural building materials like stone, exterior tile, integral-colored exposed aggregate concrete or interlocking pavers are a logical selection for exterior patio areas. Also consider softscape treatments where a more informal patio look is desired. Softscape treatments are permeable surfaces such **as** ground covers, decomposed granite, soil cement or non-grouted pavers. Outdoor living areas shall be apart of the planned environment.

a. Back Yard Access:

- Utilize soil stabilizer to provide access to back yard gates (Marloc, Soiloc or equivalent).
- When two homes have back yard gates near each other, a shared

side yard path shall be considered. Concrete walkways are strongly discouraged. Proposed designs will be reviewed on a case-by-case basis.

Meander path through side yard and mitigate exposed views with planting.

3.3.4 LANDSCAPE ZONES AND PALETTES

Within a Residential Yard, five landscape zones may be observed (refer to Exhibit D):

- Undisturbed Natural
- Transition
 Semi-private
- Private

Zones are intended to create a hierarchy in the landscape, inconspicuously blending the undisturbed natural desert areas into the more ornate landscapes adjacent to your home. Zone boundaries shall include all grading disturbances (which may occur beyond your property line). While the width of a Landscape Zone will be determined by the individual characteristics of each Lot, the dimension of any Zone must be generous enough to allow for appropriate plant massing (at least 2 plants deep using the mature size specification). Specific plant species (Section 3.8) have been designated for each neighborhood and for each zone within the yard. Plant selection within all zones must utilize base plants such as Bursage and small native cacti from the Natural and Transition approved palette. The following criteria must be observed.

a. Undisturbed Zone:

- The natural, undisturbed (or restored) desert must be left in tact.
- Clearing of vegetation and trimming is not permitted.
- Typically occurs beyond back yard walls or along side yards that abut open space as shown in Exhibit D.

b. Natural Zone:

 Areas disturbed during construction requiring revegetation using plant species and densities that matches the adjacent, undisturbed or restored desert. Supplement with native seed to provide a complement of additional grasses, shrubs and wildflower species.

Provide temporary irrigation to establish the new plant materials.

Natural Zones must occur where Lots abut other Natural or Undisturbed Zones as shown in Exhibit D.

Provide Natural Zones outside back yard enclosure walls when existing vegetation is not sufficient to mitigate wall heights or diffuse views into back yard.

The Natural Zone and associated plant materials may occur in any portion of a Yard in lieu of a Transition, Semi-private or Private Zone.

c. Transition Zones:

Blur the lines of development by providing a blend of native and arid region plant species to transition between Natural and/or Undisturbed Zones and the more ornamental landscapes near the home.

- In the Front Yard, the Transition Zone is the entire street frontage including areas adjacent to the street and areas behind the common sidewalk. The Transition Zone shall extend into the Front Yard to meet the Semi-private Zone.
- Where side-loading garages are adjacent to the common area sidewalk, the Transition Zone must extend from the back of curb up to the walls of the garage or a minimum of 8 feet beyond the back of sidewalk, whichever is greater.

Must occur within the side yard or Front Yard when adjacent to Natural and/or Undisturbed Zones.

A Transition Zone may be utilized where Semi-private or Private Zone designations are allowed.

In the back yard, a Transition Zone may be required to blend the Private Zone into the adjacent Natural and/or Undisturbed Zone when no physical separation; such as a solid wall, view fence, patio or turf area exists. In these situations the Transition Zone must vary in width and be at least 8 feet wide. Refer to Exhibit D.

d. Semi-private Zone:

- The area of your Front Yard that is relatively close to your home, generally extending not more than 10 to 15 feet into the yard from your home.
- May occur within a side yard if adjacent to other Semi-private Zones.
- Side yards will be treated as a Front Yard, if they are visible from the street.
- Often separated from the Transition Zone by hardscape such as your front walkway.
- A Semi-private Zone may be utilized anywhere a Private Zone designation is allowed.

e. Private Zone:

- Your back yard and/or a courtyard or patio within the Front Yard.
- Side yards are considered back yards if not visible from the street.
- May be visible from other properties, and are typically walled or fenced spaces immediately adjacent to the home.
- Size will vary from Lot to Lot but may generally extend 10 to 30 feet from the house.
- Distinguished by an increase in colorful or exotic plant materials and plant densities greater than those found in natural conditions.
- Back yards without walls or fences may need to physically separate the Private Zone from other Zones by patios, seatwalls or turf or through the use of a Transition Zone (see above).
- Private Zones within Front Yards (courtyards or patios) must comply with the following additional restrictions:
 - Exotic plant species must be confined behind a minimum 3 foot high solid enclosure as measured from the inside of the wall.
 - If exotic species are proposed select low growing varieties.
 - Exotic species and mature sizes are indicated on the Approved Plant Palette in Section 3.7

3.3.5 TURF AREAS

a. Permitted Uses:

Turf is permitted in any Front or back yard provided it meets the design criteria and size requirements described below. If you are

considering the use of turf, complete the turf calculations in Section 3.6 before proceeding with design.

b. Design Criteria:

Turf in the desert can be controversial and is considered by many to be inappropriate. At DC Ranch we strongly believe that the natural environment should guide us. Therefore a balance must be struck between respect for the land and what is good for the community. A balance is proposed by setting minimum and maximum turf size requirements. Turf areas must comply with the following criteria:

- Should be used to promote community interaction as a people gathering, family fun spot.
- Should be functional and not used solely as an aesthetic treatment or design element.
- Must be useable, attached to outdoor living areas, such as porches and patios. This makes the turf immediately accessible and thereby achieves a higher likelihood of use.
- Match header material when turf extends across property lines.
- No Lot shall incorporate the use of more than 2400 square feet of turf in total for both Back and Front Yards combined.

c. Size Requirements:

- 1. Front yards:
 - Minimum size of 800 contiguous square feet
 - Dimensions no less than 12 feet in width.
 - Some Lots will not be able to accommodate 800 square feet in the Front Yard without combining turf with an adjacent Lot or open space.
 - The maximum size of any contiguous area of turf in the Front Yard shall be no greater than 1600 square feet, and shall also be limited to no more than 60% of the net Front Yard landscape area (total area less walkways and driveways). The lesser of these two maximum criteria will control.

2. Back Yards:

- Have no minimum turf size requirement.
- Strongly encouraged that good design practices such as a minimum of 800 square feet, minimum 12 feet in width and connectivity to outdoor living areas be adhered to.

• Can not exceed a maximum size of 1600 square feet, and shall also be limited to no more than 60% of the net landscape area (total area less patios, pools, etc).

d. Review Considerations:

The Covenant Commission will review all turf on a case-by-case basis for good design practices. The maximum and minimum size requirements, along with outdoor living space adjacencies promote good design practices; however, simply meeting these requirements may not absolutely ensure approval by the Covenant Commission.

The Covenant Commission will also consider other means to allow Owners and builders to incorporate turf into their designs. Design solutions such Hollywood driveways (turf strip within driveways), grasscrete walkways, connectivity to the golf course and connectivity to open space turf areas will be considered. The use of turf in these applications may or may not strictly adhere to the Guidelines; however, the Covenant Commission will review such submissions for design intent and their compatibility with DC Ranch goals.

e. Maintenance:

The Covenant Commission is not responsible for addressing maintenance of any shared turf area. Owners must arrange for and maintain any turf that they install.

f. Other Requirements:

The use of turf in any Yard must comply with the following requirements:

- All turf must be a hybrid Bermuda grass species, sod form.
- All turf must be Overseeded with perennial Ryegrass between November 1" and April 15th

Turf must be irrigated on a permanent, automatic system.

Turf cannot extend into the public right-of-way in accordance with the Arizona Department of Water Resources.

Turf areas can not be separated by vertical barriers such as walls or fences to be considered contiguous.

3.3.6 LANDSCAPE COMPOSITION, COVERAGE and SCREENING REQUIREMENTS

a. Plant Composition:

- Plant composition should include species from at least four plant groups to create interest and provide a range in size and texture when plants mature.
- No more than two or three species per plant type is recommended (see below). Limit each species of plant to 1 bloom color.
- Provide a minimum quantity of 5 plants per species for all small and medium shrubs.
- The combination of groundcovers and shrubs should cover a minimum of 50% of the net landscape area at maturity, turf excluded. Use the plant ratio matrix provided below as a guideline to determine a good mix of plant types. Sites with numerous small planter areas may logically have a lower ratio of large plants, as large plants may not physically fit within smaller planters.

b. Suggested Plant Type Ratios:

- (15%) Groundcovers, Perennials and Herbaceous Plants: *Plants with a trailing or spreading habit, 6" to 2' in height. Maximum* (3) *species.*
- (10%) Cacti and Accents: Size will vary depending on species, from 6" up. A minimum of 60% (40% within Private Zones) of all cacti and accents selected must be native, including Staghorn Cholla, Fire Barrel, Teddy Bear Cholla, Chainfruit Cholla, Hedgehog and Pincushion. Maximum (3) native cacti species and (2) accent species.
- (60%) Small and medium Shrubs: Grasses and shrubs that range between 6" and 4' in height. A minimum of 60% (40% within Private Zones) of all small and medium shrubs shall be native Bursage (Ambrosia deltoidea). Maximum (4) species including Bursage.
- (15%) Large Shrubs & Vines: Shrubs or vines greater than 4' in height. A minimum of 40% of all large shrubs must be native Creosote or Jojoba (Larrea tridentata or Simmondsia chinensis).
 Maximum (3) large shrub species including Creosote and/or Jojoba and (2) vine species.
- Individual plant species on the approved plant palettes, Section

3.8, are keyed by plant type (groundcover, small, medium shrub, etc.) and size of plant at maturity. Utilize the mature plant sizes provided in your planting designs.

c. Planting Design Criteria:

 Plant selections, from your approved plant palette, should be driven by the existing plant species within adjacent median islands, open space and visible portions of your neighbors' yard. Enhance the seamless appearance betwee'n Lots by incorporating similar species from adjacent developed areas into your palette.
 Offset plantings from sidewalk and curbs. Allow room for plants to

Offset plantings from sidewalk and curbs. Allow room for plants to mature.

Bursage is the primary shrub and is used throughout the planting design and along property lines.

Brittlebush (Encelia farinosa) shall not be utilized within the following Parcels: 2.3, 2.4, 2.9, 2.10, 2.13, 2.14, 4.2, 4.4, 4.6 and 4.11.

Flowering groundcovers and perennials are used "in and amongst" Bursage.

Plants (including cacti and accents) should be placed in randomly spaced, clustered massings in lieu of formal planting arrangements or regular "on-center" spacing. The negative or open spaces between plants should vary.

Plants stagger across and "wave" along property line in lieu of linear delineation.

Extend plant species utilized between the sidewalk and curb into the Front Yard landscape design.

Plants should be used functionally to soften and mitigate walls and to screen equipment.

d. Landscape Minimums/Coverage Requirements:

Residences within DC Ranch are required to meet minimum landscape standards including minimum quantities and sizes of trees and minimum coverage requirements for shrubs, groundcovers, cacti and accent plantings.

1 Street Trees:

Street tree requirements, planting arrangements and the preferred location(s) are shown on the Environmental Site Plan (ESP).

- Select multi-trunk trees with an upright branching character unless otherwise noted on the ESP.
- Minimum box size of 36".

Species have been predetermined for each Neighborhood and are included in the approved Plant Palettes in Section 3.8 of this document.

Neighborhoods with formal arrangements (as noted on the ESP) should attempt to space trees at regular intervals except where driveway locations or other constraints make this impossible. Place the face of box at a position 2 feet off the back of curb.

Neighborhoods with informal arrangements shall place trees at irregular intervals along the street and at varying distances between 2 and 7 feet off the back of curb.

- No tree should be planted closer than 6 feet to any water service or closer than 2.5 feet to any water mainline.
- Call Blue Stake prior to any excavation.

2. Supplemental Trees:

- In addition to street trees, a minimum of one (1) tree for every 1500 square feet of landscape area (including turf) is required within all Yards (round up any fractional requirements).
- Must be a minimum 24" box size.
 Trees are multi-trunk.
- Provide PVC arbor guards (brown) on Front Yard trees placed in turf.
- At least one tree within every Front Yard must be of the same species as the street tree.

3. Plant Coverage Requirements:

 Minimum density of one "plant" per 25 square feet of landscape area for all Yards. (The term "plant" refers to all plant types except trees: cacti/accents, groundcover, vines. small, medium and large shrubs).

4. Plant Size Requirements:

Size selection should relate to the rate of growth of a plant. Fast growing species can be purchased in one-gallon containers. Slow growing species, those that take three or more years to reach maturity, are better planted as five or 15gallon containers.

5. Screening Requirements:

All wall mounted or free standing equipment such as electric panels, water or gas meters, irrigation equipment, etc. that are not located behind walls must be screened from view with evergreen shrubs, trees or vines.

- All wall mounted equipment and conduit must be painted to match the exterior color of the house.
- Refer to Exhibits H & I and to Section 3.3.8 below, for requirements for screening utility transformers, telephone and cable equipment.
- Use plant material to mitigate blank walls, diffuse views, soften boulders and mitigate lighting.
- Conceal light fixtures and valve boxes with plants.

3.3.7 ANNUALS, POTS AND CONTAINERS

a. Pots, Containers, Raised Planters and Hanging Baskets:

Containers may be used outside the Private Zone provided they meet the following requirements:

- Must be finished in muted desert tones that complement the color of the home.
- Must be geometric in shape circular, oval, rectangular or square.
 Must be planted with appropriate plant materials for the Zone in which they are placed. For example, if containers are used within the Semi-private area of a Residential Yard, then they must be planted with plant species approved for the Semi-private Zone.

b. Seasonal Annuals:

Seasonal Annual Beds are only acceptable for use within contained spaces of Private Zones. Contained spaces include raised or flush planters, pots, and containers or landscape areas surrounded by solid walls.

3.3.8 UTILITY CONSIDERATIONS

Where transformers or other above-ground utility equipment occur within a Residential Yard, special planting requirements, as directed by the local utility companies, shall apply. Refer to the Exhibits H, and I.

Clear zones must be planted with small shrubs or groundcovers (no cacti) to permit access by the utility companies. Replacement of plant materials that are disturbed by periodic utility maintenance shall be the responsibility of the Owner. Utilize appropriate plants from the small, medium and large shrub palettes to screen the equipment without creating an unnatural hedge.

3.3.9 IRRIGATION SYSTEM REQUIREMENTS

All landscape areas, excluding reveg areas, shall be maintained on a permanent, automatic, drip irrigation system.

Native trees and cacti must receive adequate gallonage consistent with local standards.

Valve or other flush mounted boxes shall match the color of the ground surface (desert tan).

Locate valve boxes, flush caps, etc., in inconspicuous areas of the site, a minimum of 20 feet from the back of curb, preferably behind back yard enclosure walls.

Do not place any equipment between curb and sidewalk.

Conceal all boxes from view with Bursage.

Locate all wall mounted or above ground equipment behind side yard walls or provide sufficient landscape screening.

Paint all free standing or wall mounted equipment to match the exterior color of the house.

a. Valves:

Different plant species require different quantities and frequencies of water. Proper valving can significantly reduce maintenance and water costs. It is recommended that separate valves be provided for:

trees and irrigated cacti
low water use shrubs and temporary areas
ornamental shrubs
turf
pots or gardens

At MINIMUM, provide separate valves for trees, shrubs and turf.
 Be cautious of contractors or designers that propose to cut costs by reducing the number of valves and increasing the number of emitters to certain plants. The frequency that water is applied can not be controlled with this method, leaving plants that desire less frequent applications of water to be overwatered. Overwatering may result in increased maintenance and in the case of many arid-region plants, may reduce longevity.

b. Temporary Irrigation Systems (Reveg Areas):

 Revegetated areas must be established on an underground, temporary irrigation system. Small shrubs and cacti will usually establish within 3 to 6 months. Large boxed shrubs or trees should be irrigated for several years then gradually cut back until the system can be disconnected and/or removed.
 Provide a means (ball valve or separate valve) to disconnect the temporary system from the permanent system as plants are

c. Turf Irrigation:

established.

- Spray irrigation is limited to turf areas.
- If both rotors and low trajectory heads are needed to irrigate turf areas, provide separate valves to maximize control and efficiency of the system.
- Runoff into streets, on sidewalks and into natural areas is not permitted.

Offset heads 6" to 12" from pavement.

3.3.10 EXTERIOR LIGHTING REQUIREMENTS

a. Design Criteria:

- Minimal use of lighting is preferred while meeting safety and security needs.
 - Use downlights rather than uplights to lessen the impact to the night time sky.
 - Where uplighting is proposed, select narrow beam fixtures that focus the light onto the intended subject. (Maximum 2 per tree)
- Lighting designed to wash or highlight walls will be disallowed.

 Where lighting is desired to illuminate the edges of driveways, parking areas or entry walks, utilize downlighting in adjacent trees where possible instead of path lighters.

Locate supplemental lights away from building mounted lighting.

b. Minimum Requirements:

- All lighting shall be low level lighting recessed to shield the source of the light.
- Shrubs shall be used to conceal landscape lighting fixtures.
 Junction boxes must be placed below grade to minimize daytime visibility of the hardware.
 - Low voltage lighting only.
- All fixtures must be incandescent, compact florescent or halogen lamps less than 25 watts.
- No uplighting within 20 feet of curb.
 Aim fixtures away from public view and view fences. Mitigate with plant material.
 - Place path or driveway lights a minimum 18" from edge of pavement and no closer than 10 feet from the back of curb. Conceal with plants.
- Colored lamps and plastic light fixtures are not allowed.
- No tree less than 36" box is lighted.

Section 3.4 How to Prepare a **Landscape Submission**

		Page No.
3.4	How to Prepare a Landscape Submission	23

3.4 HOW TO PREPARE A LANDSCAPE SUBMISSION

- Attend an Orientation Class with a Covenant Commission Representative to review the process and obtain base information needed to prepare your plan. The Covenant Commission Representative will provide one (1) copy each of the following:
 - Plot Plans for your Lot
 - Plot Plans for adjacent Lots (if applicable)
 Floor Plans
 - ESP (Environmental Site Plan)
 - Adjacent Lot and/or common area civil and landscape plans
 The Design and Construction Manual for the Residential Homeowner (provided at closing). Additional copies may be purchased.
- 2. Review and familiarize yourself with the criteria and requirements outlined in the Guidelines.
- 3. Prepare a base plan at 1" = 10 feet or larger using the information provided to you at the Orientation Class. Refer to Exhibit A for an example of a typical base plan.
- Visit your site to verify base plan information including, location of building mounted lights, side yard retaining walls existing landscape and shaping on adjacent Lots or open space tracts, exposed utilities or large blank walls. Make additional notes or revisions to the base plan if needed.
- 5. Utilizing the information compiled on the base plan, create the Shaping Plan. Each plan hereafter will be an overlay to the Shaping Plan so the pertinent base information, proposed contours and limit of disturbance are always visible. Plans may be combined as indicated below provided all information is legible, or you may provide individual plans for each. Refer to Section 3.5, Submission Requirements for specific information regarding each plan. The following plans must be prepared:
 - Base Plan (Exhibit A)
 - Shaping and Drainage Plan (Exhibit B)
 Hardscape, Irrigation and Lighting Plan (Exhibits C,E,G)
 Landscape Zone Plan (Exhibit D)
 Planting Plan (Exhibit F)
 - Details, Elevations, Notes as Legends as applicable (if not provided on the individual plans)
- **6.** Complete the Landscape Submission Worksheet, Plant Calculations and Turf Calculations (if applicable) found in Section 3.6.

- Submit all information in one complete package to the Covenant Commission Representative for review and approval. Provide: 7.

 - One complete set of blueprints, 24" x 36" sheets (no originals) One copy of the Worksheets, Turf Calculations, Plant Legend Forms
 - Copy of Plot Plan and Builder Architectural elevations
 - Review fee

Section 3.5 Plan Requirements

		Pag	je No.
3.5	Pla	n Requirements	
	3.5.1	Base Plan	26
	3.5.2	Shaping and Drainage Plan	27
	3.5.3	Hardscape and Softscape Plan	28
	3.5.4	Landscape Zone Plan	28
	3.5.5	Planting Plan	28
	3.5.6	Turf Calculations	29
	3.5.7	Irrigation Plan	29
	3.5.8	Lighting Plan	30

3.5 PLAN REQUIREMENTS

3.5.1 BASE PLAN (Exhibit A)

a. General

- 24" X 36" format
- Scale = 1"= 10'-0"minimum
- Include information 20' beyond property lines (all directions)
- Title Block
- Date
- Scale And North Arrow
- Parcel, Street Name and Lot #

b. Your Lot

- All Plot Plan information including:
- Property lines, easements, tracts, setbacks
- Above and below ground utilities, water mains, water and sewer taps, transformers, electric panels, boxes (field verify)
- Finish floor and pad elevations
- Spot elevations at the top of curb and Lot corners
- Square footage calculations for the Lot and building area
- Existing gates, walls, fences, identify type(s) (retaining, site wall, view fence, etc) and indicate top and bottom of wall elevations (field verify)
- Drainage routes
- Driveway and other builder provided hardscape with spot elevations (field verify)
- All Floor Plan information:
- Building footprint positioned on Lot
- Location of all existing windows, doors, patios, roof overhangs, driveways, walks or walls (field verify)
- Builder architectural elevations
- Roof drain outlets shown and labeled (field verify)
- Builder wall mounted lighting shown and labeled (field verify)
- Environmental Site Plan information:
- Location, quantity and species of street tree (on your Lot as shown on the ESP and adjacent Lots (field verify)
- Tree planting character (formal vs. informal)
- Show and label preserved wash corridors

c. Adjacent Conditions:

- Graphically show and label all existing information 20 feet beyond your property line as follows:
- Adjacent Lot (confirm information in field)
 - Driveways, house, walls, view fence, back yard gates, wallmounted equipment, utilities, and established back yard access paths.
 - Finish floor, finish pad and spot elevations (wall and planting).
 - Grades (if known) and drainage flow lines.
 - Existing plant material (approximate locations of trees or other significant vegetation.)
- Adjacent Open Space (from Landscape plans and field analysis):
 - Existing hardscape and significant features
 - Existing plant material (approximate locations of trees and other significant vegetation)
 - Landscape zones and plant species
 - · Contours, grades, drainage flow lines

3.5.2 SHAPING AND DRAINAGE PLAN (Exhibit B)

- Using the base plan, tie proposed I-foot contours into existing spot grades and adjacent property contour lines. Clearly show and label the following:
- Proposed versus existing contours.
- Spot elevations throughout site to indicate high and low points and bottom of wall elevations.
- Proposed toe (bottom) or top of slope when grading adjacent to existing areas to remain (this will be your limit of disturbance after grading is performed).
- Drainage flow lines. Indicate how roof drainage is integrated into plan.
- Indicate slope ratios and specifically identify where slopes are designed to the **4:1** maximum.
- Drainage stabilization areas and proposed aesthetic treatment.
- Note that a uniform, 1" finish grade below pavement is required.

3.5.3 HARDSCAPE AND SOFTSCAPE PLANS (Exhibit C)

- Using the side yard plan as the base, clearly show and label the following:
- Spot elevations at the top and bottom of all existing and proposed walls on both the inside and outside of the wall (where adjacent to open space).
- All proposed paving, pools and hardscape improvements with spot elevations.
- Show and label any proposed improvements indicating colors, finishes, materials, and heights (if applicable). Submit material and color samples.
- Provide elevations, details or cross sections as needed to convey design intent of all proposed vertical elements.
- Show and label the finished landscape surface DC Ranch Desert Pavement versus other topdressings.
- Callout the size and color of any nonstandard topdressing on the legend and submit a sample bag to sufficiently illustrate color, texture and size.
- Note all exposed concrete shall be integrally colored. Indicate color and manufacturer on legend and provide sample.
- Note that headers shall be smooth, continuous curves that return perpendicular or flush against pavement.
- Submit furniture cut sheet(s) or photo(s) if proposed.

3.5.4 LANDSCAPE ZONE PLAN (Exhibit D)

- Using the Shaping Plan as the base, clearly show and label the following:
- Landscape zones along edges of adjacent properties.
- Zone boundaries delineated (i.e. bubble diagram or similar).
- Square footage totals for each yard. Refer to Exhibit J for Area Calculations.

3.5.5 PLANTING PLAN (Exhibit E)

- Using the Shaping Plan as the base, clearly show and label the following:
- Street trees label as 36" box. Species and location consistent with DC Ranch ESP. Show and label proposed location vs. ESP location if different.
- Supplemental trees indicate and label as 24" box.
- Plant and material legends with symbols, common and botanical

- names, quantities, sizes and character description is provided.
- Plant symbols are drawn at plants mature size as indicated in the approved plant palette.
- Plant symbols are legible and keyed to the legend.
- Plant quantities in legend match plant calculation worksheets for Front and back yards.
- Side yard access paths are shown/labeled.
- Provide note regarding PVC arbor guards on Front Yard trees in turf.

3.5.6 TURF CALCULATIONS (Turf Calculation Worksheet, Section 3.6)

- Calculations must be submitted.
- Label area of turf zones (square feet).
- Dimension areas where the turf layout is at the minimum dimension (12 feet).
- Indicate and label turf valves.
- Show right of way (if applicable).
- Note that header must be a smooth continuous curve (no wiggles or bumps) and that returns must be flush/perpendicular to pavement.

3.5.7 IRRIGATION PLAN (Exhibit F)

- Point of connection, backflow prevention device, electric control valve locations are shown and noted.
- Label valve designations (i.e., trees, turf, temporary, low water use and ornamental shrubs, etc.)
- Provide note that all trenching shall remain within disturbed areas.
- Show dimension off back of curb to valve boxes if not located behind back yard enclosure.
- Provide note that emission points must be on uphill side of plant, set a maximum of 2" above grade.
- Provide note that: all wall mounted or freestanding equipment must be painted to match house.
- Show and label ball valve or other assembly for disconnection of temporary irrigation systems in the future.
- Provide note that temporary irrigation systems shall be removed or disconnected within 3 to 5 years after plants are established.

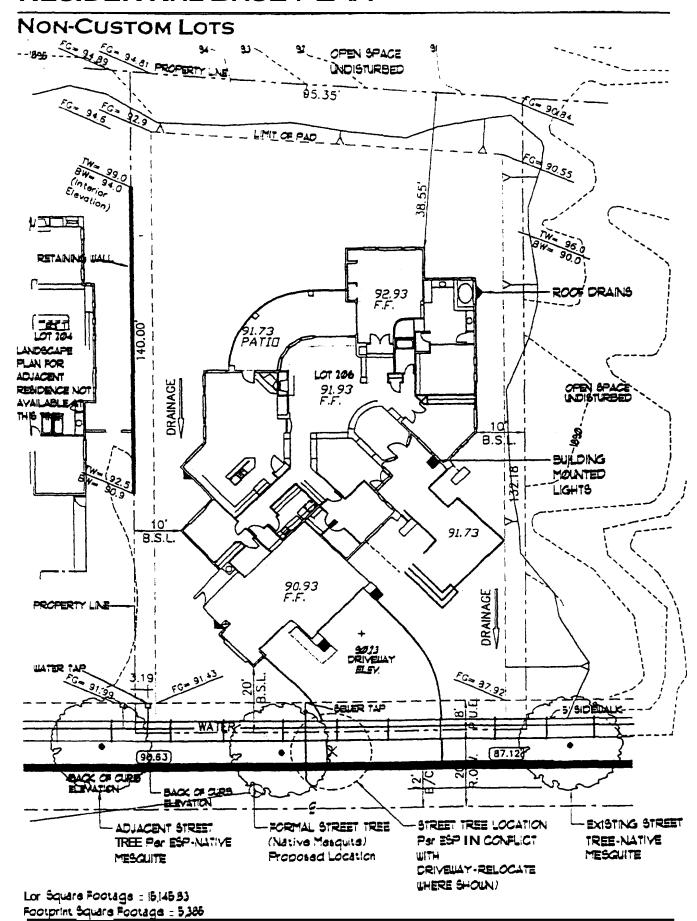
3.5.8 LIGHTING PLAN (Exhibit G)

- Submit manufacturer cut-sheets for fixtures. Note or highlight appropriate model, style and finish and lamp specification.
 Builder lighting and wall mounted fixtures shown and labeled.
- Show and label transformers, j-boxes or other above ground equipment. Provide note to screen with plant material and paint to match house if above grade.
- Symbol legend keyed to plan.
 Landscape material to be lighted is shown and noted. No tree less than 36" box is lit.

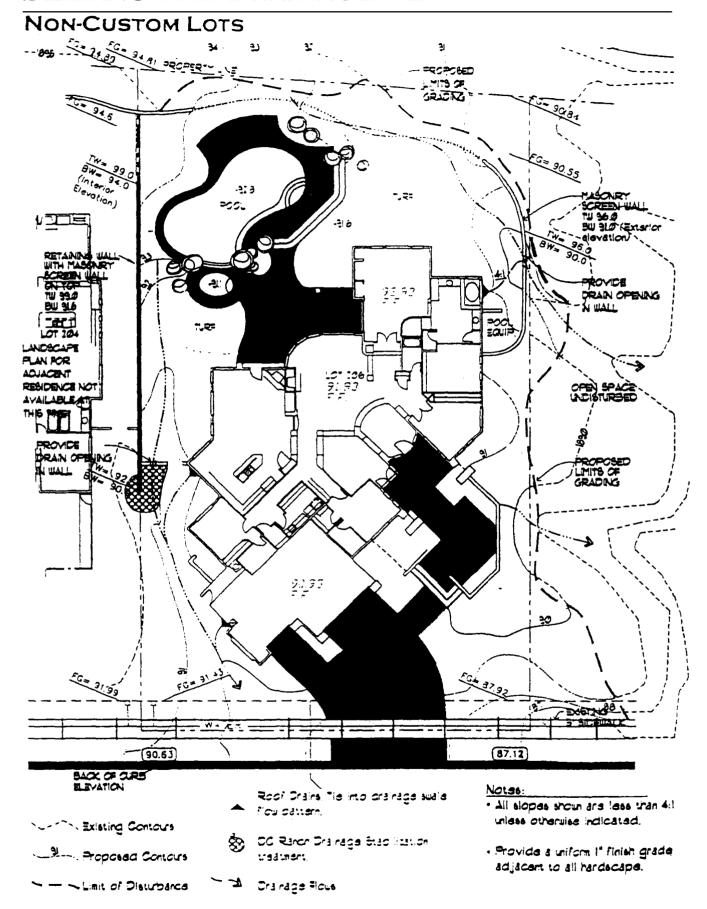
Section 3.7 _ Exhibits

No.	Page								
			Exhibits	3.7					
41	Base Plan	Exhibit A:	3.7.1.						
42	Shaping and Drainage	Exhibit B:	3.7.2.						
43	Hardscape and Softscape Plan	Exhibit C:	3.7.3.						
44	Landscape Zone Plan	Exhibit D:	3.7.4.						
45	Planting Plan	Exhibit E:	3.7.5.						
46	Irrigation Plan	Exhibit F:	3.7.6.						
47	Lighting Plan	Exhibit G:	3.7.7.						
48	Utility Template _ Plan View	Exhibit H:	3.7.8.						
49	Utility Template _ Elevation	Exhibit I:	3.7.9.						
50	Area Calculations	Exhibit J:	3.7.10.						
51	Slope Calculations	Exhibit K:	3.7.11						

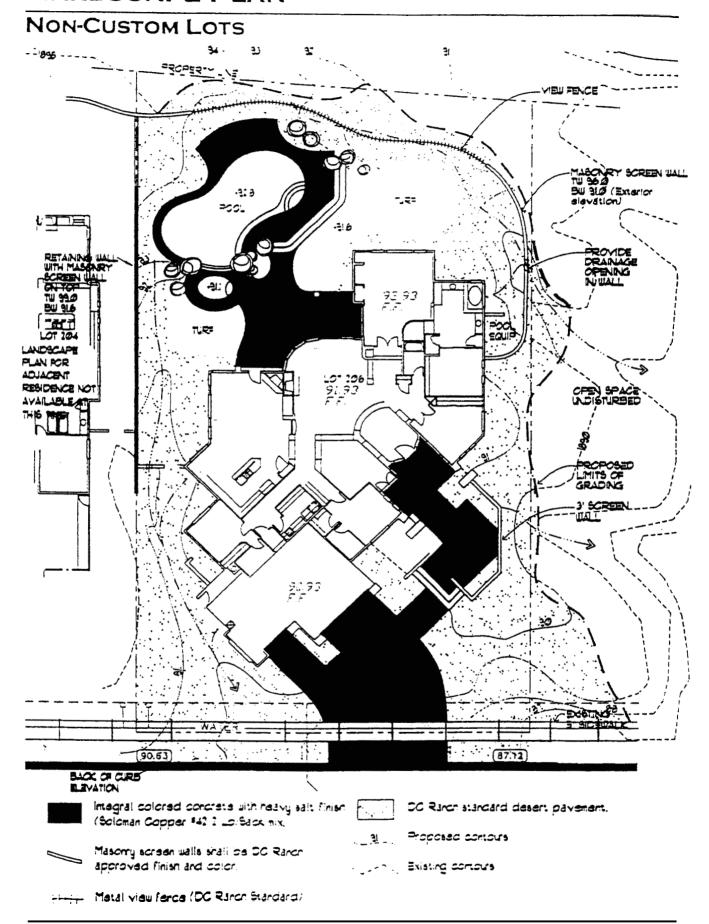
RESIDENTIAL BASE PLAN



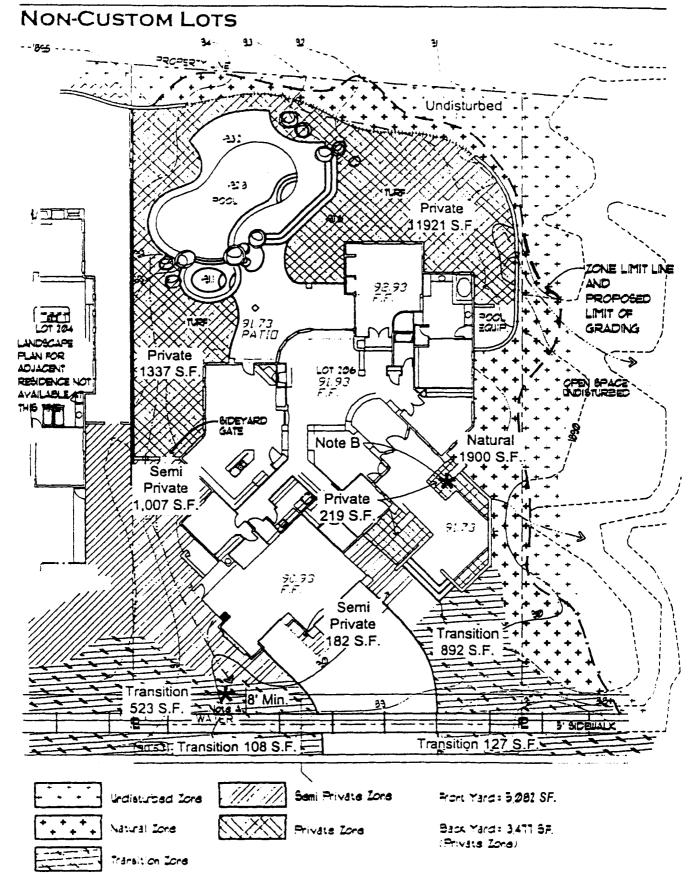
SHAPING AND DRAINAGE PLAN



HARDSCAPE PLAN

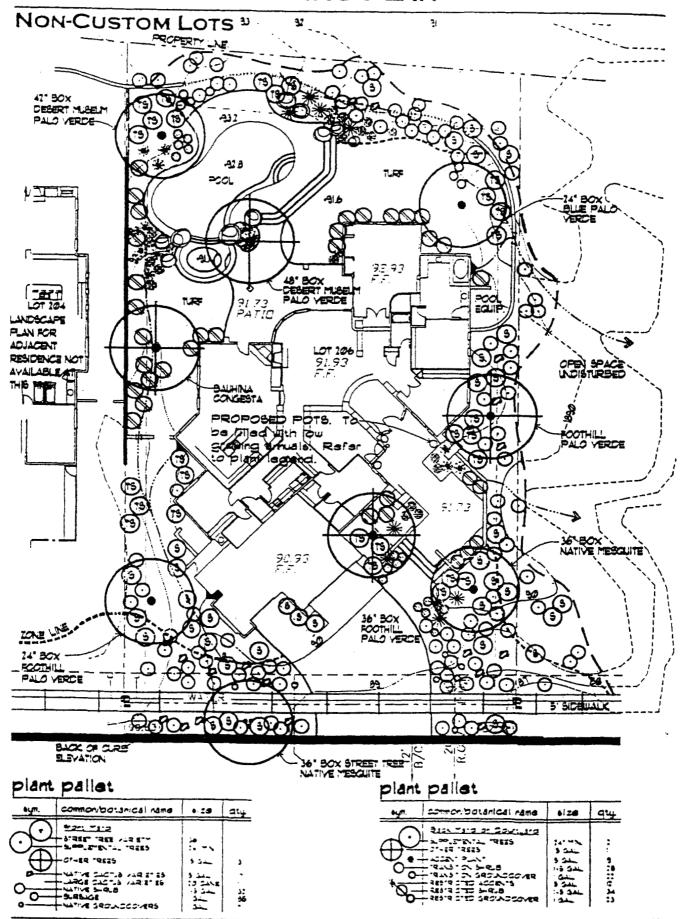


RESIDENTIAL LANDSCAPE ZONE PLAN

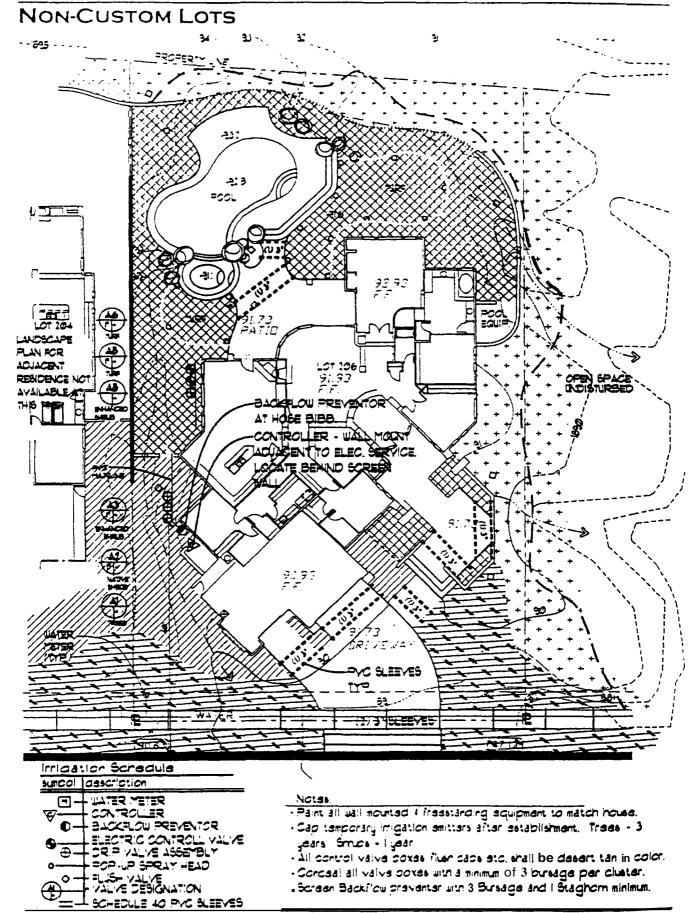


Note A: Zone lines created without physical separations (walks, walls. turf.or patios) must vary in width (minimum 8'). Note B: Exotic plant species must be contained behind a minimum 3' high solid enclosure as measured from inside the wall.

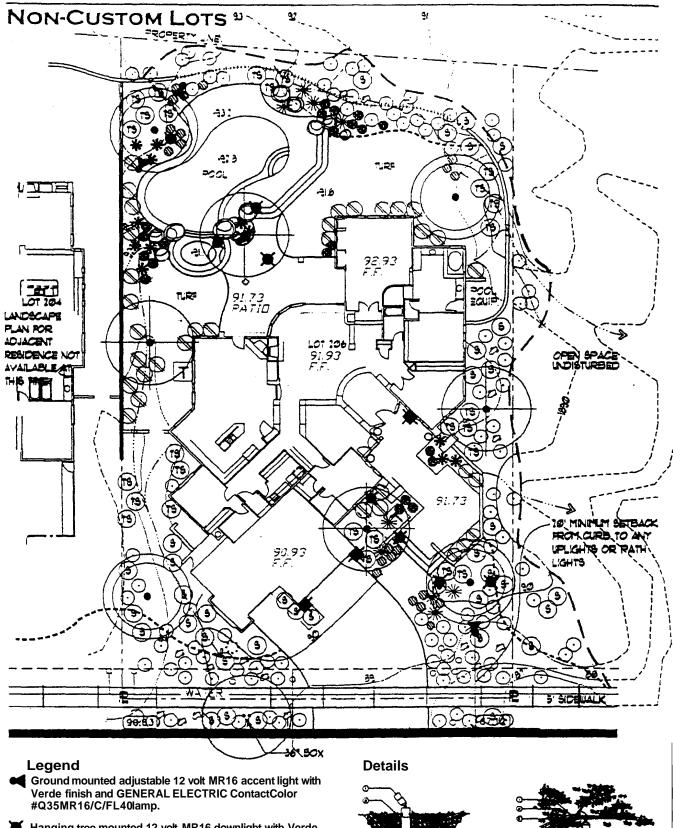
RESIDENTIAL PLANTING PLAN



RESIDENTIAL IRRIGATION PLAN



RESIDENTIAL LIGHTING PLAN



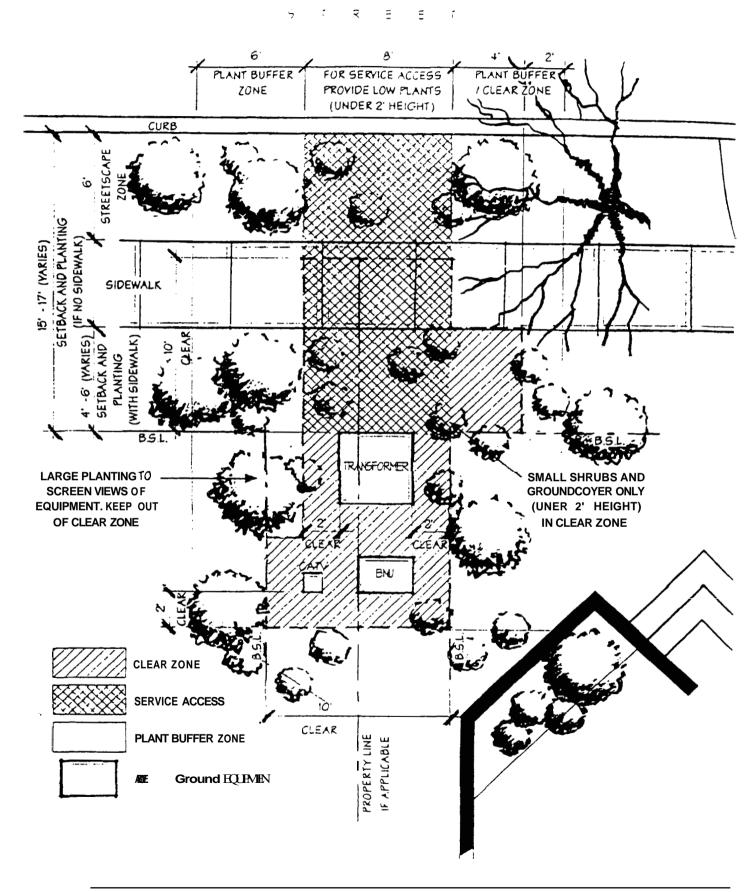
- Hanging tree mounted 12 volt MR16 downlight with Verde finish. double spread lense, 12" long cap, black wire leads and GENERAL ELECTRIC ContactColor#Q20MR18/C/FL40lamp.
- Buildingmounted lighting by others.

T Wall mounted 12 volt lighting transformer.

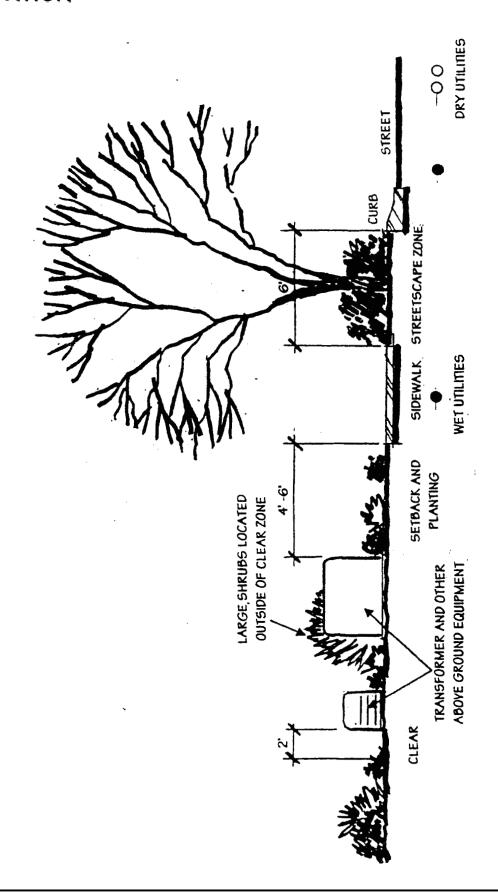
START

UTILITY TEMPLATE

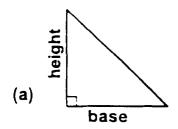
PLAN VIEW



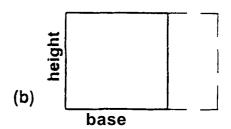
ELEVATION



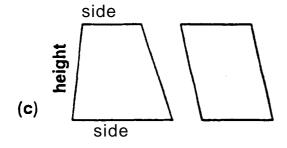
AREA CALCULATIONS



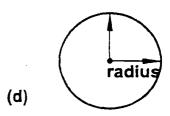
Area of triangle = 1/2 base x height (height measured perpendicular to the side selected as the base)



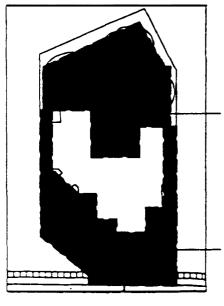
Area of square or rectangle = height x base



Area of a trapezoid or parallelogram = 1/2 sum of parallel sides x height



Area of a circle = π (3.142) x r²



To calculate irregularly shaped areas, divide the space into a series of geometric shapes that can be easily calculated using the formulas provided.

Calculate each area individually (a, b, c, d) then add together to get the gross Back Yard area.

Calculate each area individually (e,f,g,h,i,j,k,l) then add together to get the gross Front Yard area.

A generalized definition of slope is the number of feet of fall or rise in a horizontal distance or $S = DE \div L$. In this formula, S is the slope, DE is the difference in elevation and the horizontal distance is L (Fig. 1). One problem that commonly arises is realizing that L is measured horizontally rather than along the slope.

Often slopes are expressed as ratios such as **4:1.** This means that for every **4** ft of horizontal distance there is a 1 ft vertical change either up or down. On construction drawings, particularly sections, ratios may **be** shown graphically using a triangle as illustrated in Fig.-2. In expressing ratios, the horizontal number should always be placed first.

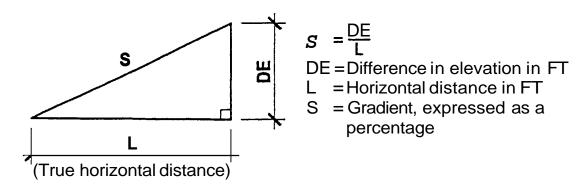


Fig. 1. Diagram of slope formula

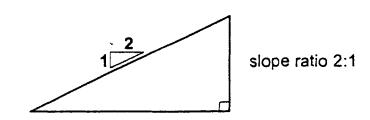


Fig. 2. Diagram of slope ratio

Section 3.8 - Plant Palettes

- 3.8.1 Approved Plant Palette
- 3.8.2 Prohibited Plant Palette

DC RANCH APPROVED PLANT PALETTE

I FGFND

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

**Parcel 2.14 palette also applies to 2.15 and 2.17

				*	6	0	m					
BOTANICAL NAME TREES	COMMON NAME	MATURE HEIGHT (IN FEET)	MATURE WIDTH (IN FEET)	Parcel 2.3	Parcel 2.9	Parcel 2.10	Parcel 2.13	Parcel 2.14**	Parcel 4.2	Parcel 4.4	Parcel 4.6	Parcel 4.11
Acacia abyssinica	Abyssinian Acacia	20-25	20-25	Р	Р	Р	Р	Р	Р	Р	Р	Р
Acacia aneura	Mulga	20	12	Р	Р	Р	Р	Р	Р	Р	Р	SP
Acacia berlandieri	Berlandier Acacia	15	15	P	SP	P	SP	SP	P	P	P	SP
Acacia constricta	Whitethorn Acacia	10	15	Р	Р	SP	P	Р	P	Т	P	Р
Acacia craspedocarpa	Leatherleaf Acacia	18	10	P	P	P	P	P	P	P	P	P
Acacia greggli	Catclaw Acacia	10	15	T	T	N	SP	N	N	N	N	N
Acacia pendula	Pendulous Acacia	25	15	P	P	Р	P	Р	Р	Р	P	Р
Acacia roemeriana	Roemer Acacia	20	25	P	P	P	P	Р	P	P	P	P
Acacia saligna	Blue Wattle	20-40	15	Р	Р	Р	Р	Р	Р	Р	Р	Р
Acacia schaffneri	Twisted Acacia	15-25	15-25	P	P	P	P	Р	P	P	P	P
Acacia smallii (famesiana)	Sweet Acacia	15-20	15-20	SP	Р	SP	Т	Р	SP	SP	SP	SP
Acacia species	Acacia	VARIES	VARIES	Р	P	Р	P	Р	Р	P	P	P
Acacia willardiana	Palo Blanco	20	10	SP	Р	SP	Р	Р	Р	Р	SP	Р
Bauhinia congesta	Anacacho Orchid Tree	6-12	6-12	Р	P	Р	P	Р	P	P	P	P
Caesalpinia cacalaco	Cascalote	15	15	SP	Р	SP	P	Р	P	P	SP	P
Caesalpinia mexicana	Mexican Bird of Paradise	10-15	6-12	SP	SP	SP	SP	P	P	SP	Р	P
Canotia holacantha	Crucifixion thorn	15	10	Р	P	Р	SP	Р	P	P	P	P
Cercidium 'Desert Museum'	Hybrid Palo Verde	25	15	SP	P	SP	P	SP	ST	SP	P	SP
Cercidium floridum	Blue Palo Verde	20	25	Т	Т	SP	N	Т	Р	Т	N	N
Cercidium microphyllum	Foothills Palo Verde	12	15	N	T	N	N	ST	T	N	N	N
Cercidium praecox	Palo Brea	20	25	Р	Р	Р	Р	Р	SP	Р	Р	Р
Cercis canadensis v. mexicana	Mexican redbud	20	20	P	P	P	SP	Р	Р	P	P	P
Cercis occidentalis	Western Redbud	20	20	SP	Р	SP	P	Р	P	P	P	P
Chilopsis linearis	Desert Willow	25	20	Р	SP	Р	SP	Р	Р	SP	Р	Т
Cordia boissieri	Anacahuita	10	10	Р	Р	Р	Р	Р	Р	Р	SP	Р
Forestiera neomexicana	Desert Olive	12	8	Р	Р	Р	Р	Р	Р	Р	Р	Р
Franxinus greggii	Littleleaf Ash	15	15	Р	Р	Р	Р	Р	Р	Р	Р	Р
Leucaena retusa	Golden Ball Lead Tree	15	20	P	P	P	P	Р	P	P	P	P
Lysiloma microphylla v. thornberi	Desert Fern	15	12	Р	Р	Р	Р	SP	Р	Р	SP	SP
Nicotiana glauca	Tree Tobacco	3-10	3-10	P	P	SP	P	Р	P	P	SP	Р
Olneya tesota	Ironwood	30	30	ST	Т	N	N	N	Т	N	ST	ST
Pithecellobium flexicaule	Texas Ebony	20	20	P	Р	SP	SP	Р	Р	Р	P	SP
Pithecellobium mexicanum	Mexican Ebony	20-30	15-25	Т	P	T	T	SP	P	Т	T	P
Pithecellobium patiens	Tenaza	15	15	Р	Р	Р	Р	Р	Р	Р	Р	Р
Prosopis alba	Argentine Mesquite	30	30	Р	Р	Р	Р	Р	SP	SP	Р	Р
Prosopis chilensis	Chilean Mesquite	30	30	Р	Р	Р	Р	Р	Р	Р	Р	Р
Prosopis pubescens	Screwbean Mesquite	20	20	SP	Р	Р	Р	Т	Р	Р	Р	SP
Prosopis valutina	Velvet Mesquite	30	30	N	ST	Т	ST	N	Т	ST	Т	ST
Sophora secundiflora	Texas Mountain Lauren	15-20	8-10	SP	SP	SP	Р	SP	Р	Р	SP	SP
Ungnadia speciosa	Mexican Buckeye	15	15	Р	SP	Р	Р	SP	Р	Р	Р	SP
CACTI / ACCENTS												
Agave americana	Century Plant	6	6	Р	Р	Р	Р	Р	Р	Р	Р	Р
Agave deserti	Desert Agave	1 1/2	2	SP	Р	Т	SP	Р	Р	SP	Р	SP
Agave desmettiana	Agave	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Agave macrocantha	Agave	1 1/2	2	Р	Р	Р	Р	Р	Р	Р	Р	Р
Agave murpheyl	Hohokam Agave	3	3	Р	Р	Р	Р	Р	Р	SP	Р	Р
Agave ocahui	Agave	1 1/2	3	Р	Р	Р	Р	Р	Р	Р	SP	Р
Agave parryi v. huachuensis	Parry's Agave	3	3	Р	SP	SP	Р	SP	SP	Р	Р	SP
Agave parryi v. truncata	Parry's Agave	2	2	SP	SP	Р	SP	Р	Р	Р	SP	Т
Agave toumeyana	Toumey's Agave	1	2	Р	Р	Р	Р	Р	Р	Р	Р	Р

DC RANCH APPROVED PLANT PALETTE

LEGEND:

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

**Parcel 2.14 palette also applies to 2.15 and 2.17

**Parcel 2.14	palette also applies to 2.15 and a	2.17										
BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (IN FEET)	MATURE WIDTH (IN FEET)	Parcel 2.3*	Parcel 2.9	Parcel 2.10	Parcel 2.13	Parcel 2.14**	Parcel 4.2	Parcel 4.4	Parcel 4.6	Parcel 4.11
Agave vilmoriana	Octopus Agave	4	4	Р	Р	Р	Р	Р	Р	Р	Р	Р
Agave weberi	Smooth-leaf Agave	4-5	5-6	Р	Р	Р	SP	Р	Р	Р	Р	Р
Aloe barbadensis	Aloe Vera	3	3	Р	Р	SP	Р	Р	Р	SP	Р	Р
Aloe saponaria	Tiger Aloe	1	1	Р	Р	Р	Р	SP	Р	Р	SP	Р
Aloe species	Aloe	VARIES	VARIES	Р	Р	Р	Р	Р	Р	Р	SP	Р
Asciepias sublata	Desert Milkweed	3	4	SP	Т	SP	Р	Т	SP	Т	SP	Т
Aspidistra elatior	Cast-Iron Plant	2 1/2	1 1/2	Р	Р	Р	Р	Р	Р	Р	Р	Р
Carnegiea gigantea	Saguaro	40	2	N	N	N	N	N	N	N	N	Р
Cereus hildmannianus	Hildmann's Cereus	15	10	Р	Р	Р	Р	Р	Р	Р	Р	Р
Cereus hildmannianus v. monstrose	Curiosity Plant	20	10	Р	Р	Р	SP	P	P	Р	Р	P
Cereus peruvianus	Night Blooming Cereus	12-18	15	SP	P	SP	P	SP	P	P	SP	P
Chamaerops humilis	Mediterranean Fan Palm	10-20	20	P	P	P	P	P	P	P	P	P
Cycas revoluta	Sago Palm	10	5	P	P	Р	P	P	P	P	P	P
Cyperus alternifolius	Umbrella Plant	2-4	3	P	P	P	P	P	P	P	P	P
Dasyliron acrotriche	Green Desert Spoon	4	6	P	P	SP	P	SP	P	P	SP	P
Dasylirion longissimum	NCN	10	6	P	P	Р	P	Р	P	P	Р	P
Dasylirion wheeleri	Desert Spoon	4	6	SP	Р	T	Т	Р	SP	Р	P	Р
Dietes bicolor	Fortnight Lily	2	2	ЪГ	Р	P	P	P	ЪГ	Р	P	Р
Dietes vegeta	Evergreen Iris	2	2	P	P	P	P	P	P	P	P	P
	_	_		P	P	P	P	P	P	P	P	P
Dipon edule	Mexican Sago	3 2	3-5 4	P	P	_	SP	P	P		_	P
Echinocactus grusonii	Golden Barrel Cactus	_			-	SP			_	SP	SP	P
Echinocactus horizonthalonius	Turk's Head	1 1/2	1 1/2	P	P	P	P	P	P	P	SP P	
Echinocereus engelmannii	Engelmann's Hedgehog	1 1/2	3	T	N	N	Т	N	T	Т		P
Echinocereus pectinatus v. rigidissimus	Rainbow Cactus	1	1/2	Р	Р	Р	Р	Р	Р	Р	Р	Р
Euphorbia antisyphilitica	Candelilla	1 1/2	3	P	SP	P	SP	P	P	SP	P	P
Euphorbia myrsinites	Euphorbia	1/2	1	P	P	P	P	Р	Р	P	Р	P
Euphorbia rigida	Gopher Plant	2	4	P	P	P	P	P	P	P	P	P
Euphorbia tirucalli	Pencil Bush	2	1/2	P	P	P	P	P	P	P	P	P
Ferocactus acanthodes	Fire Barrel	4	2	N	N	N	N	N	N	N	N	P
Fouquieria splendens	Ocotillo	15	10	N	T	N	Т	N	T	Т	N	P
Hesperaloe funifera	Coahuilan Hesperaloe	6	6	SP	Р	Р	Р	Р	Р	SP	Р	Р
Hesperaloe parviflora	Red Hesperaloe	3	3	Р	Р	SP	Р	SP	Р	Р	Р	Р
Hesperaloe parviflora (yellow)	Yellow Hesperaloe	3	3	SP	Р	Р	SP	SP	Р	Р	SP	Р
Lophocereus schottii	Senita Cactus	10	4	Р	Р	Р	Р	Р	Р	Р	Р	Р
Lophocereus schottii v. monstrosus	Totem Pole Cactus	10	4	Р	Р	Р	Р	Р	Р	SP	Р	Р
Mammilaria microcarpa	Pincushion Cactus	1/2	1/2	Р	N	N	SP	T	Т	Р	Т	Р
Nolina bigelovii	Beargreass	8	6	Т	Р	SP	Р	Р	Р	Р	T	Р
Nolina microcarpa	Beargrass	5	8	SP	Р	Р	Р	Р	Р	Р	Р	Р
Opuntia acanthocarpa	Buckhorn Cholla	5	5	N	N	N	Т	N	Т	Т	Т	Р
Opuntia basilaris	Beavertail Prickly Pear	1	4	Р	SP	Р	Р	Р	SP	SP	Р	Т
Opuntia bigelovil	Teddybear Cholla	5	2	Т	N	N	T	Т	Т	Ν	Ν	Р
Opuntia chlorofica	Pancake Prickly Pear	6	6	Р	Р	Р	Р	Р	Р	Р	Р	Р
Opuntia engelmannii	Engelmann's Prickly Pear	3	4	N	SP	Т	Р	Т	Ν	Ν	Ν	Т
Opuntia ficus-indica	Indian Fig Prickly Pear	15	6	Р	SP	SP	Р	Р	Р	Р	Р	Р
Opuntia fulgida	Chainfruit Cholla	10	8	Р	Т	N	N	Т	Ν	N	SP	Р
Opuntia imbricata	Tree Cholla	6-8	10	Р	Р	Р	Р	Р	Р	Р	Р	Р
Opuntia microdasys	Bunny Ears	2	5	Р	Р	Р	SP	Р	Р	Р	SP	Р
Opuntia robusta	Prickly Pear	10	10	Р	Р	SP	Р	SP	SP	Р	Р	Р
Opuntia santa-rita	Purple Prickly Pear	3	4	SP	SP	Р	Р	Р	Р	SP	SP	SP
Opunta violacea v. macrocentra	Santa Rita Prickly Pear	3-7	4	Р	SP	SP	Р	Р	Р	Р	Р	SP
Philodendron selloum	Selloum Philodendron	8"	8	Р	Р	Р	Р	Р	Р	Р	Р	Р

I FGFND

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

BOTANICAL NAME	P 1 P 1
Stenocereus marginatus Mexican Fence Post 10 10 SP P P P SP P P Stenocereus thurberi Organ Pipe Cactus 15 12 P P P SP P P P P P	SP
Stenocereus marginatus	P P P P P P P P P P
Stenocereus thurberi Organ Pipe Cactus	P P P P P P P P P P
Trichocereus species	P 1 P 1
Yucca aloifolia Spanish Bayonet 10 10 P <t< td=""><td>P 1 P 1</td></t<>	P 1 P 1
Yucca angustifolia Narrow-leaf Yucca 2 4 P P SP P	T
Yucca baccata Banana Yucca 3 6 SP P T P T SP SP SP P T P	T
Yucca brevifolia Joshua Tree 30 15 P	P P P P P P P P P P
Yucca carnerosana Spanish Bayonet P <t< td=""><td>P 1 SP 1 P 1 SP SP SP </td></t<>	P 1 SP 1 P 1 SP SP SP
Yucca elata Soaptree Yucca 20 10 T P SP T SP P T Yucca gloriosa Spanish Dagger 10 8-12 P	SP 1 P 1 P 1 SP SP SP
Yucca gloriosaSpanish Dagger108-12PP	P P P P P P P P P P
Yucca recurvifolia Curveleaf Yucca 6 6 P <	P 1 P 1
Yucca rigidaBlue Yucca83SPPSPPP <t< td=""><td>SP </td></t<>	SP
Yucca rostrate Beaked Yucca 12 5 P P P P P P P P P P P P P P P P P Yucca rostrate Twisted-leaf Yucca 2 3 P P P P P P P P P P P P P P P P P P	P
Yucca rupicolaTwisted-leaf Yucca23PP	P P P P P P P P P P
Yucca whippleiOur Lord's Candle23-5SPPPSPPPPLARGE SHRUBSAbutilon palmeriIndian Mallow88NPTTSPPNAcacia constrictaWhitethorn Acacia1015TPSPTTPSPPNNAcacia craspedocarpaLeatherleaf Acacia1810PPP	SP SP P I
Abutilon palmeri Indian Mallow 8 8 8 N P T T SP P N Acacia constricta Whitethorn Acacia 10 15 T P SP T T P SF P N Acacia constricta Whitethorn Acacia 10 15 T P SP T T P SF N T T P SF Acacia craspedocarpa Leatherleaf Acacia 18 10 P P P P P P P P P P P P P P P SF P SF	SP SP P I
Abutilon palmeri Indian Mallow 8 8 8 N P T T SP P N Acacia constricta Whitethorn Acacia 10 15 T P SP T T P SP P N Acacia constricta Whitethorn Acacia 10 15 T P SP T T P SP T T P SP Acacia craspedocarpa Leatherleaf Acacia 18 10 P P P P P P P P P P P P Anisacanthus quadrifidus v. brevilobus Mountain Flame 5 5 P P SP P SP P SP P SP P SP P SP N SP P SP S	P 1
Acacia constricta Whitethorn Acacia 10 15 T P SP T T P SP Acacia Acacia craspedocarpa Leatherleaf Acacia 18 10 P P P P P P P P P P P P P P P P P P	P 1
Acacia craspedocarpa Leatherleaf Acacia 18 10 P P P P P P P P P P P P P	P
Anisacanthus quadrifidus v. brevilobus Anisacanthus quadrifidus v. wrightii 'Mexican Flame 'TM Bougainvillea 'Barbara Karst' Bougainvillea 'La Jolla" Bush Bougainvillea 15-20 6 P P P P P P P P P P P P P P P P P P	
Anisacanthus quadrifidus v. wrightii 'Mexican Flame' TM Bougainvillea 'Barbara Karst' Bougainvillea 15-20 6 P P P P P P P P P P Bougainvillea 'La Jolla" Bush Bougainvillea 12 5 P P P P P P P P P P Bougainvillea 'San Diego Red" Bougainvillea 15-25 6 P P P P P P P P P P P P P Bougainvillea spectabilis Bougainvillea VARIES VARIES P P P P P P P P P P P P P P P P P P P	' P ·
Flame' TM Flame Honeysuckle 5 5 P P P SP P P P P P P P P P P P P P	
Bougainvillea 'Barbara Karst' Bougainvillea 15-20 6 P P P P P P P P P P P P P P P P P P	
Bougainvillea 'La Jolla' Bush Bougainvillea 12 5 P P P P P P P P P P P P P P P P P P	PI
Bougainvillea 'San Diego Red" Bougainvillea 15-25 6 P P P P P P P P P P P P P P P P P P	PI
Bougainvillea spectabilisBougainvilleaVARIESVARIESPPP <td>PI</td>	PI
Buddleia marrubifolia Wooly Butterful Bush 5 5 SP P P SP SP P P SP SP SP SP SP SP SP S	P
Caesalpinia giltiesiiDesert Bird of Paradise55PSP	Р
Caesalpinia mexicanaMexican Bird of Paradise10-156-12SPSPSPSPPPCaesalpinia pulcherrimaRed Bird of Paradise6-106-10PPSPPPPPCalliandra californicaBaja Red Fairy Duster55SPPPSPSPSPSPPCassia artemisioidesFeathery Cassia66PP </td <td>SP I</td>	SP I
Caesalpinia pulcherrimaRed Bird of Paradise6-106-10PPSPPPPCalliandra californicaBaja Red Fairy Duster55SPPPSPSPSPSPCassia artemisioidesFeathery Cassia66PP <td></td>	
Calliandra californicaBaja Red Fairy Duster55SPPPSPSPSPPCassia artemisioidesFeathery Cassia66PPPPPPPCassia nemophilaDesert Cassia66SPPPSPPPPSP	SP I
Cassia artemisioides Feathery Cassia 6 6 P P P P P P P Cassia nemophila Desert Cassia 6 6 SP P P SP P SP P SS P P SS P P P SS P P P P P SS P	PI
Cassia nemophila Desert Cassia 6 6 SP P P SP P SP P SS	SP I
	PI
Carria phyllodonia Cilvor loaf Carria E E D D D D D D D D	
	SP I
Celtis pallida Desert Hackberry 8 10 N T T N T N T	N 1
Cordia boissieri Anacahuite 10 10 P P P P SP P P	PI
Cordia parvifolia Small Leaf Cordia 5 8 P P SP SP P P T	SP I
Dalea versicolor var. sessilis Wizlizenus Dalea 5 5 SP P P SP SP P P	PI
Dodonaea viscossa Hopbush 12 10 SP SP P P SP P SF	
Dodonea viscosa 'Purpurea' Purple Hopbush 12 6 P P SP SP P P P	SP I
Ephedra trifurca Mormon Tea 6 8-10 T T N T SP P N	Т
Fatsia japonica Japanese Aralia 5-8 3-5 P P P P P P P	PI
Feijoa sellowians Pineapple Guava 6 8 P P P P P P P P	PI
Hamelia patens Firebush 6 5 P P P P P P P	PI
Hyptis eoryi Desert Lavender 10 8 T T T SP T T SS	N -
Justicia californica Chuparosa 6 6 N N N T N T T	N -
Lantana camara Bush Lantana 5 5 SP P P P SP P P	
Larrea tridentata Creosote Bush 8 6 N N N N N N N N	P I
Leucophyllum frutescens Texas Sage 6 6 P P SP P SP	+
Leucophyllum frutescens 'Compacta' Compact Texas Sage 5 5 SP P P SP P P P	N I

I FGFND

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

Parcer 2.14	palette also applies to 2.15 and 2	17										—
BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (IN FEET)	MATURE WIDTH (IN FEET)	Parcel 2.3*	Parcel 2.9	Parcel 2.10	Parcel 2.13	Parcel 2.14**	Parcel 4.2	Parcel 4.4	Parcel 4.6	Parcel 4.11
Leucophyllum frutescens 'Green Cloud'	Geren Clooud Sage	6	6	SP	Р	SP	Р	SP	Р	Р	SP	Р
Leucophyllum frutescens 'White Cloud'	White Cloud Sage	6	6	Р	Р	Р	SP	Р	Р	Р	SP	Р
Leucophyllum hybrid 'Rain Cloud'	Rain Cloud Sage	6	4	Р	Р	SP	Р	Р	SP	Р	Р	SP
Leucophyllum laevigatum	Chihuahuan Sage	6	6	SP	Р	SP	SP	Р	Р	SP	Р	Р
Leucophyllum langmaniae 'Rio Bravo' TM	Rio Bravo Sage	5	5	Р	Р	SP	SP	SP	Р	Р	Р	Р
Leucophyllum pruinosum 'Sierra Bouquet' TM	Sierra Bouquet Sage	6	6	SP	P	P	SP	SP	P	P	SP	P
Lycium andersonii	Wolfberry	6	6	N	SP	Т	SP	N	P	T	SP	P
Lycium exsertum	Desert-Thorn	8	8	SP	SP	T	SP	SP	P	T	T	Р
Lycum fremontii	Fremont Lycium	6	6	T	SP	N	T	T	T	N	T	T
Myrtus communis 'Boetica'	Twisted Myrtle	4-6	4	P	Р	P	P	P	P	P	P	P
Nandina domestica	Heavenly Bamboo	6	4	P	P	P	P	P	P	P	P	P
	•		· ·	P	P	P	P	P	P	P	P	P
Pittosporum tobira	Japanese Mock Orange	6-15	5-10	P				_		_		_
Rhus microphylia	Littleleaf Sumac	8	12		Р	Р	Р	Р	Р	Р	Р	Р
Senna goldmannil	Goldmann's Senna	6	4	Р	Р	Р	Р	Р	Р	Р	Р	Р
Senna wislizenii	Shrubby Senna	10	6	SP	P	P	SP	Р	P	SP	SP	P
Simondsia chinesis	Jojoba	6	6	N	N	N	Т	N	N	N	N	N
Sophora secondifloria	Texas Mountain Laurel	15	10	SP	SP	Р	SP	SP	Р	Р	Р	Р
Strelitzia reginae	Bird of Paradise	5	VARIES	Р	Р	Р	Р	Р		Р	Р	Р
Targetes lemmoni	Mt. Lemmon Marigold	5	5	Р	Р	SP	SP	Р	Р	SP	Р	Р
Tecoma stans	Yellow Bells	20	10	SP	Р	Р	SP	Т	Р	SP	Р	Р
Vaquelinia californica	Arizona Rosewood	15	10	SP	Р	Р	P	SP	SP	P	SP	SP
Zizyphys obtusifolia	Graythorn	6	8	Ν	Т	Т	Ν	Ν	Ν	Ν	Ν	Ν
MEDIUM and SMALL SHRUBS												
Acacia schottii	Schott Acacia	4	5	Т	Р	SP	SP	Р	Р	Р	SP	Р
Acanthus mollis	Acanthus	3	2	S	Р	S	S	S	Р	S	S	Р
Ambrosia ambrosioides	Canyon Ragweed	3	4	Ν	N	N	N	N	Ν	N	N	Ν
Ambrosia deltoidea	Bursage	2	2	N	N	N	N	N	N	N	N	N
Ambrosia dumosa	White Bursage	2	3	Т	SP	SP	Т	SP	SP	Т	Т	Т
Anigozanthos flavidus	Kangaroo Paw	3-5	3	SP	P	SP	P	SP	P	SP	P	P
Anisacanthus thurben	Desert Honeysuckle	4	3	SP	P	SP	P	P	P	P	SP	Р
Asclepias linaria	Pineleaf Milkweed	2	3	Р	P	Р	SP	SP	P	P	P	P
Bebbia juncea	Chuckwalla's Delight	4	3	P	P	P	Р	Р	P	P	P	P
Brickellia coulteri	Brickellia	3	3	Р	Р	SP	P	SP	Р	P	P	P
Bulbine frutescens	Bulbine	1 1/2	3	SP	Р	Р	SP	Р	Р	SP	P	P
Calliandra eriophylla		3	4	SP	T	T	T	SP	P	T	T	T
Carissa grandiflora	Fairy Duster Natal Plum 'Tuttlei'	3	5	P	P	P	P	٦٢ P	P	P	P	P
<u> </u>		3	2	SP	P	P	_	P	P	_	-	P
Cassia oligophylla	Outback Cassia			_	-		SP			SP	Р	_
Chrysactinia mexicana	Damianita	2	2	SP	P	SP	P	SP	Р	P	SP	P
Convolvulus cneorum	Bush Morning Glory	3	4	P	P	P	P	P	P	P	Р	P
Coreopsis lanceolata	Lanceleaf Coreopsis	2	2	Р	Р	Р	Р	Р	Р	Р	Р	Р
Coreopsis tinctoria	Calliopsis	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Dalea frutescens 'Sierra Negra' TM	Sierra Negra Dalea	3	5	SP	Р	Р	SP	Р	Р	SP	Р	Р
Dalea pulchra	Indigo Bush	4	5	Р	Р	SP	Р	SP	Р	SP	SP	Р
Dicliptera suberecta	Velvet Honeysuckle	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Ephedra fasciculata	Joint Fir	4	6	Т	SP	Τ	Ν	SP	Р	SP	Т	Р
Equisetum laevigatum	Horsetail	3	2	Р	Р	SP	Р	Р	Р	Р	SP	T
Eremophilia glabra	Emu bush	2	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Ericameris laricifolia	Turpentine bush	2	2	Т	Т	Т	Т	T	Т	Т	Т	Т
Eriogonum fasciculatum v. poliofollum	Wild Buckwheat	1 1/2	2	Т	Р	Т	Р	Υ	Р	SP	Р	SP
Eriogonum wrightii	Wright Buckwheat	1 1/2	2	SP	Р	Т	Т	SP	Р	Т	SP	Р
Euphatorium greggii 'Boothill'	Eupatoria	1 1/2	2	P	SP	Р	P	Р	Р	SP	SP	Р
ion and Construction Manual	1 - 1	, -							-			<u> </u>

LEGEND:

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

**Parcel 2.14 p	alette also applies to 2.15 and 2.	17										
BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (IN FEET)	MATURE WIDTH (IN FEET)	Parcel 2.3*	Parcel 2.9	Parcel 2.10	Parcel 2.13	Parcei 2.14**	Parcel 4.2	Parcel 4.4	Parcel 4.6	Parcel 4.11
Euryops pectinatus	Golden Euryops	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Euryops pectinatus 'Viridus'	Euryops Daisy	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Gaura lindheimeri	Gaura	3	3	Р	SP	SP	SP	Р	SP	SP	SP	SP
Gutierrezia sarothrae	Snakeweed	1 1/2	2	Т	Т	Т	SP	Т	Т	Т	SP	Т
Hymenoxis acaulis	Angelita Daisy	1	1	SP	Р	Р	SP	SP	SP	Р	Р	Р
Justicia ovata (candicans)	Red Justicia	3	3	SP	Р	Р	SP	Т	Р	SP	SP	Р
Justicia spicigera	Mexican Honeysuckle	3	4	Р	Р	Р	SP	Р	Р	SP	Р	Р
Krameria parvifolia	Ratany			Т	Р	SP	Т	Т	Р	SP	Р	Т
Leucophyllum candidum 'Thunder Cloud' TM	Thunder Cloud Sage	3	3	SP	Р	SP	Р	Р	Р	SP	Р	Р
Leucophyllum revofutum 'Sierra Magic' TM	Sierra Magic Sage	4	4	Р	Р	Р	SP	SP	Р	SP	Р	Р
Leucophyllum zygophyllum	Blue Ranger	3	3	SP	Р	SP	Р	Р	Р	Р	SP	Р
Lotus rigidus	Deer Vetch	3	3	Т	Р	Т	SP	SP	SP	Т	SP	SP
Maytenus phyllanthioides	Mangle Dulce			Р	Р	Р	Р	Р	Р	Р	Р	Р
Mimosa dysocarpa	Mimosa	3-6	3	Р	Р	SP	SP	SP	Р	Р	Р	Р
Parthenium incanum	Mariola	2	3	SP	Р	Р	Р	Р	Р	SP	Р	Р
Plumbago scandens 'Summer Snow' TM	Summer Snow Plumbag	3	3	Р	Р	SP	Р	Р	Р	SP	Р	Р
Punica granatum 'Nana'	Dwarf Pomegranate	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Rosmarinus officinalis	Rosemary	4	4	SP	Р	Р	Р	SP	Р	SP	Р	Р
Ruellia brittoniana	Ruellia	3	4	Р	Р	Р	Р	Р	Р	Р	SP	Р
Ruellia peninsularis	Baja Ruellia	4	4	SP	Р	Р	SP	Р	Р	Р	Р	SP
Salvia charmaedryoides	Mexican Blue Sage	2	2	SP	Р	SP	SP	SP	SP	SP	SP	SP
Salvia clevelandii	Chaparral Sage	4	5	SP	Р	SP	SP	Р	Р	Р	Р	Р
Salvia coccinea	Cherry Red Sage	3	2	Р	Р	Р	SP	Р	Р	SP	SP	Р
Salvia farinacea	Mealy-Cup Sage	2	2	SP	Р	SP	Р	Р	Р	Р	SP	Р
Salvia greggii	Autumn Sage	2	2	Т	SP	SP	SP	Р	SP	SP	Р	Т
Salvia leucantha	Mexican Bush Sage	4	4	Р	Р	Р	SP	Р	Р	SP	SP	Р
Salvia leucophylla	Purple Sage	3-4	5	SP	Р	Р	Р	SP	Р	Р	Р	Р
Salvia microphylla	Salvia	4	5	Р	Р	Р	SP	Р	Р	SP	Р	Р
Sphaeralcea ambigua	Desert Glovemallow	3	3	N	Т	Т	N	Т	Т	Т	N	N
Trixis californica	Trixis	2	2 1/2	Ν	Ν	Ν	Ν	Ν	N	Ν	Ζ	N
Viguiera deltoidea	Goldeneye	3	3	Ν	Т	N	Т	N	Т	N	Ν	Т
Zauschneria californica	California Fuchsia	1	4	SP	Р	Р	SP	Р	Р	Р	SP	Р
Zexmenia hispida 'Devil's River'	Zexem	3	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
GROUND COVERS / GRASSES / HERBACEOUS PLAN	TS											
Acacia redoiens	Prostrate Acacia	3	15	Р	Р	Р	Р	Р	Р	Р	Р	Р
Aizoceae species	Ice Plant	VARIES	VARIES	Р	Р	Р	SP	Р	Р	Р	SP	Р
Aquilegia chrysantha	Golden-spurred Columbine	3	3	Р	Р	Р	Р	Р	Р	SP	Р	Р
Aristida glabra	Desert Three-awn			Р	Р	Р	Р	Р	Р	Р	Р	Р
Asparagus densiflorus "Sprengeri'	Asparagus Fern	2	5	Р	Р	Р	SP	SP	Р	Р	Р	Р
Aspidistra elatior	Cast-iron Plant	2 1/2	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Aster tanacetifolius	Purple Aster			Р	Р	Р	Р	Р	Р	Р	Р	Р
Aucuba joponica	Japanese Aucuba	6-10	6-8	Р	Р	Р	Р	Р	Р	Р	Р	Р
Baccharis hybrid 'Starn' Thompson TM	Thompson Baccharis	3	4-5	Р	Р	Р	Р	Р	Р	Р	Р	Р
Baileya multiradiata	Desert Marigold	1	1	Т	Т	Т	SP	T	Т	SP	Т	Т
Berlandiera lyrata	Chocolate Flower	2	2	Т	Р	Р	T	SP	Р	Т	SP	Р
Buchloe dactyloides	Buffalo Grass	4	1	Р	Р	Р	Р	Р	Р	SP	Р	Р
Calylophus hartwegii 'Sierra Sundrop'	Calylophus	2	3	Р	Р	Р	Р	Р	Р	Р	Р	Р
Convolvulus mauritanicus	Ground Morning Glory	2	3	Р	Р	SP	Р	Р	Р	Р	SP	Р
Cooperia drummondii	Rain Lily	1	1 1/2	SP	Р	Р	SP	SP	Р	Р	Р	Р
Coreopsis bigelovii	Desert Coreopsis	1	1	SP	Р	SP	SP	Р	Р	Р	SP	Р
Cuphea llavea	Bat Faced Cuphea	1 1/2	3	Р	Р	SP	SP	SP	Р	Р	SP	Р

LEGEND:

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

**Parcel 2.14 p	alette also applies to 2.15 and 2.	17										
BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (IN FEET)	MATURE WIDTH (IN FEET)	Parcel 2.3*	Parcel 2.9	Parcel 2.10	Parcel 2.13	Parcel 2.14**	Parcel 4.2	Parcel 4.4	Parcel 4.6	Parcel 4.11
Cynodon dactylon	Hybrid Bermuda	VARIES	VARIES	Р	Р	Р	Р	Р	Р	Р	Р	Р
Dalea capitata 'Sierra Gold' TM	Sierra Gold Dalea	1	3	SP	Р	SP	Р	SP	Р	SP	Р	Р
Dalea greggii	Trailing Indigo Bush	1	4	Р	Р	SP	SP	Р	Р	Р	Р	Р
Dichelostemma pulchellum	Bluedicks	2	2	Т	Т	Т	SP	SP	Р	SP	Т	Р
Drosanthemum specinosum 'Rosa'	Ice Plant	1 1/2	1	Р	Р	Р	Р	Р	Р	SP	SP	Р
Dyssodia pentachaeta	Dyssodia	1	1	SP	Т	Т	Т	SP	Т	Т	Т	Т
Erigeron 'Profusion'	Profusion Fleabane Daisy	1	4	Т	Т	Т	SP	Т	Р	SP	SP	SP
Erigeron divergens	Spreading Fleabane	1	2	SP	Р	Т	Т	SP	SP	Т	Т	Т
Eschscholtzia mexicana	Mexican Gold Poppy	1 1/2	1 1/2	Т	Т	Т	SP	Т	Р	Т	SP	Р
Fatshedera lizet	Aralia Ivy	4-6	10	SP	Р	Р	SP	SP	Р	Р	Р	Р
Gaillardia arizonica	Arizona Blanketflower	2	2	Р	Р	SP	SP	Р	Р	Р	SP	Р
Gaillardia pulchella	Indian Blanket	3	2	SP	Р	SP	Р	Р	Р	SP	Р	Р
Gazania rigens 'Sun Gold'	Gazania	1	1	Р	Р	Р	Р	Р	Р	Р	Р	Р
Geisemium sempervirens	Yellow Flowering Jessamine	VARIES	6-8	Р	Р	Р	Р	Р	Р	Р	Р	Р
Gilia sp.	Gilia	2	1	Р	Р	Р	SP	Р	Р	SP	Р	Р
Ipornopsis longiflora	Pale Blue Trumpets	2	3	SP	Р	Р	Р	SP	Р	Р	Р	Р
Kalistroemia grandiflora	Arizona Poppy	1	3	Т	Т	Т	SP	T	SP	SP	Т	P
Lantana montevidensis	Trailing Purple Lantana	1	6	SP	Р	Р	P	SP	P	P	P	P
Liriope muscari	Lilyturf	1 1/2	1	P	P	P	SP	SP	P	P	SP	P
Lupinus sparsiflorus	Lupine	1 1/2	1	SP	P	P	P	P	P	P	P	P
Lupinus species	Lupine	VARIES	VARIES	T	T	T	SP	SP	<u>.</u> Р	Ť	Ť	P
Machaeranthera tortifolla	Mohave Aster	1 1/2	1	SP	P	P	P	P	<u>.</u> Р	SP	T	P
Melampodium leucanthum	Blackfood Daisy	1	2	T	T	T	SP	T	<u>.</u> Т	T	Ť	T
Mesembryanthemum species	Ice Plant	VARIES	VARIES	P	P	P	P	P	P	P	P	P
Mimulus cardinalis	Monkey Flower	1 1/2	3	SP	P	SP	SP	P	<u>.</u> Р	P	SP	P
Muhlenbergia capillaris 'Regal Mist' TM	Regal Mist Muhley	3	3	Р	P	Р	P	SP	<u>.</u> Р	P	SP	T
Muhlenbergia emersleyi 'El Toro' TM	Bull Grass	5	5	P	P	P	P	Р	P	P	Р	P
Muhlenbergia lindheimeri 'Autumn Glow' TM	Autumn Glow Muhley	4	4	SP	P	SP	P	SP	P	P	SP	P
Muhlenbergia rigens	Deer Grass	4	4	Р	P	Р	SP	SP	SP	SP	Р	T
Muhlenbergia rigida 'Nashville' TM	Nashville Grass	2	2	T	Р	SP	SP	Р	Р	Р	SP	P
Oenothera berlandieri	Mexican Evening Primrose	1	3	SP	P	T	SP	SP	P	T	SP	P
Oenothera caespitosa	Evening Primrose	1	2	Т	SP	SP	SP	Т	SP	T	SP	T
Oenothera stubbii	Saltillo Primrose	1	1	P	P	Р	SP	SP	P	SP	P	P
Ophlopogon japonicus	Mondo Grass	1	1	SP	Р	SP	Р	Р	P	SP	Р	P
Orthocarpus purpurascens	Owl-Clover	1	1	T	T	Т	SP	SP	P	T	Т	P
Osteospermum fruiticosum	Trailing African Daisy	2	3	P	P	P	Р	Р	P	P	P	P
Penstemon baccharifolius	Rock Penstemon	2	2	T	Р	T	SP	T	P	SP	SP	Р
Penstemon eatonii	Firecracker Penstemon	2	2	T	SP	SP	Т	SP	SP	Т	SP	SP
Penstemon grandflorius	Penstemon	3 1/2	1	SP	Р	T	SP	SP	SP	T	Р	Р
Penstemon palmeri	Palmer's Penstemon	3	4	SP	P	P	P	SP	T	SP	T	T
Penstemom parryi	Parry's Penstemon	2	2	SP	SP	SP	Р	Т	T	SP	P	SP
Penstemon pseudospectabilis	Desert Penstemon	5	2	Т	SP	Т	SP	T	T	T	SP	SP
Penstemon superbus	Superb Penstemon	2	2	SP	Р	SP	T	SP	SP	SP	T	SP
·	· ·	3	3	T	P	SP	SP	T		SP	SP	ЭP P
Penstemon wrightii	Penstemon Desert Bluebell	2	1	SP	T	T	T	T	P P	SP	JP T	P
Phacelia campanularia	Cape Plumbago	6	10	P P	P	P	P	P	P	ЭP P	P	P
Plumbago ariculata				P				P		_	P	
Portulacaria afra	Elephant Food Cooper's Paperflower	6-10	5		P	P	P		P	P	-	P T
Psilostrophe cooperi		2	2	T	T	T	T	T	T	T	T	
Psilostrophe tagetina	Wooly Paperflower	1 1/2	1 1/2	SP	T	T	T	SP	P	T	T	SP
Rosmarinus officinalis 'Prostratus'	Dwarf Rosemary	2	4	Р	Р	SP	SP	Р	P	Р	SP	Р
Ruellia brittoniana 'Katie'	Katie Ruellia	1	2	SP	Р	Р	Р	SP	Р	SP	Р	Р

I FGFND

N=NATURAL (May be used within Transition, Semi-Private, and Private Zones)

T = TRANSITION (May be used within Semi-Private and Private Zones)

SP = SEMI-PRIVATE (May be used within Private Zones)

P = PRIVATE ST = STREET TREE

*Parcel 2.3 palette also applies to Parcels 2.4, 2.7, 2.8 and T5a&b

Turce	1 2.14 paiette also applies to 2.15 and 2	····	•									_
BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (IN FEET)	MATURE WIDTH (IN FEET)	Parcel 2.3*	Parcel 2.9	Parcel 2.10	Parcel 2.13	Parcel 2.14**	Parcel 4.2	Parcel 4.4	Parcel 4.6	Parcel 4.11
Salvia sp. 'Quicksilver' TM	Quicksilver Salvia	2	6	Р	Р	Р	SP	Р	Р	SP	Р	Р
Santolina chamaecyparissus	Lavender Cotton	1-2	2-3	SP	Р	SP	Р	Р	Р	SP	Р	Р
Santolina virens	Green Santolina	2	2	Р	Р	Р	SP	SP	Р	Р	SP	Р
Sedum species	Stonecrop	VARIES	VARIES	Р	Р	Р	Р	Р	Р	Р	Р	Р
Senecio douglasii	Threadleaf Groundsel	3	2	SP	Р	SP	Р	SP	Р	Р	Р	Р
Senna covesii	Desert Senna	1 1/2	2	SP	Р	Р	SP	SP	Р	SP	Р	Р
Senna lindheimeriana	Lindheimer Senna	3	2	Р	Р	SP	Р	Р	Р	Р	SP	Р
Stachys byzantina	Lamb's Ears	1 1/2	2	Р	Р	Р	Р	Р	Р	Р	Р	Р
Stachys coccinea	Betony	1	2	SP	Р	SP	Р	SP	Р	Р	Р	Р
Trachelospermum asiaticum	Asiatic Jasmine	20	VARIES	Р	Р	Р	Р	Р	Р	Р	Р	Р
Tridens pulchellus	Fluffgrass			Р	Р	SP	SP	Р	Р	Р	Р	Р
Tulbaghia violacea	Society Garlic	2	2	SP	Р	SP	Р	Р	Р	SP	SP	Р
Verbena gooddingii	Goodding's Verbena	1	3	Т	Т	Т	Т	Т	Т	Т	Т	Т
Verbena peruviana	Peruvian Verbena	1	4	SP	Р	Р	SP	Р	Р	Р	Р	Р
Verbena putchella	Moss Verbena	1-1 1/2	2-3	Р	Р	Р	SP	Р	Р	Р	SP	Р
Verbena rigida	Sandpaper Verbena	1	4	SP	Р	SP	Р	SP	Р	SP	Р	Р
Vinca major	Vinca	1 1/2	1	Р	Р	Р	Р	Р	Р	Р	Р	Р
Wedelia trilobata	Wedelia			Р	Р	SP	Р	SP	Р	SP	Р	Р
Zephyranthes candida	Rain Lily	1	1 1/2	SP	Р	Р	SP	SP	Р	Р	SP	Р
Zinnia acerosa	Desert Zinnia	1/2	1	Т	Р	Т	Т	SP	SP	SP	Т	SP
Zinnia grandiflora	Little Golden Zinnia	1/2	1	SP	P	SP	T	T	P	T	SP	Р
VINES												
Antigonon leoptus	Queen's Wreath	40	20	SP	SP	Т	SP	SP	SP	Т	SP	Р
Campsis radicans	Common Trumpetcreeper	40	VARIES	Р	Ρ	SP	Ρ	SP	Ρ	Р	Р	Р
Cissus trifoliata	Native Grape Ivy	VARIES	VARIES	Т	Т	SP	SP	Т	Т	SP	Т	Т
Ficus pumila	Creeping Fig	VARIES	100	SP	Р	SP	Р	SP	Р	SP	SP	Р
Hardenbergia comptoniana	Lilac Vine	10	VARIES	Р	Р	SP	Р	Р	Р	SP	Р	Р
Macladyena unguis-cali	Cat's Claw Vine	20	15	SP	SP	SP	SP	SP	Р	Р	SP	Р
Mascagnia lilacina	Lilac Orchid Vine	VARIES	VARIES	SP	SP	SP	SP	SP	Т	SP	Р	Т
Mascagnia macroptera	Yellow Orchid Vine	6	VARIES	SP	SP	SP	SP	SP	SP	SP	SP	SP
Merremia aurea	Yellow Morning Glory Vine	15	10	Р	Р	SP	S	PP	Р	Р	SP	Р
Podranea ricasoliana	Pink Trumpet Vine	20	10	SP	Р	SP	Р	SP	Р	SP	Р	Р
Rosa banksiae 'Alba Plena'	White Lady Bank's Rose	20	15	Р	Р	SP	Р	SP	Р	SP	Р	Р



Prohibited Plant Palette

DC Ranch Association Inc.

The following plants are objectionable and **may not** be planted in the landscape or within pots or containers under any circumstances. Plants on the prohibited list are **NOT ACCEPTABLE** due to aesthetic reasons, their mature height or growth habit, their excessive pollen production or their ability to dominate the desert plant community.

- 1. Any non-indigenous plant material which has the potential of exceeding 20 feet in height (as required by the City of Scottsdale).
- 2. Any species of tree or shrub that is not listed on the Approved Plant List, whose mature height may be visible above patio walls or from surrounding properties.
- 3. All Palms (Palmae) not listed on the approved plant list, are prohibited under any circumstances.
- 4. All Pines (Pinus), Cypress (Cupressus), False Cypress (Chamaecyparis, Juniper or Cedar (Juniperus).
- 5. Encelis farinose (Brittlebush) shall not be permitted within most Parcels West of the Reata Wash as indicated herein. Brittlebush is aggressive and will re-seed freely within disturbed sites. Brittlebush is native to the slightly higher elevations found East of the Reata Wash. If Brittlebush is allowed within your neighborhood, it will be indicated on the approved plant palette.
- 6. Acacia stenophylla (Shoestring Acacia).
- 7. Olive Trees (Olea europea).
- 8. Oleanders (Nerium olender) and Thevetia (Thevetia species).
- 9. Fountain Grass (Pennisetum setaceum).
- 10. Common Bermuda Grass (Cynodon dactylon) in seed, sprig or sod form
- 11. Mexican Palo Verde (Parkinsonia aculeate).
- 12. Desert Broom (Baccharis sarothroides).
- 13. All varieties of Citrus

Residential Lighting Design Guidelines

Supplement to the DC Ranch Design & Construction Manual

Contents

- 1) Lighting Philosophy
- 2) Lighting Principles

Objectives

Shielding

Quantity of Illumination

Quality of Illumination

Safety and Security

Energy Considerations

Key to Icons



Summary of issue



Ideal Conditions



To be avoided



Strategy

3) Lighting Requirements

Zones

Lower and Upper Desert Custom Neighborhoods

Non-Custom Neighborhoods

Near Town Neighborhoods

Recommended Typical Layout

Recommended Typical Applications

Recommended Typical Equipment

Lighting Equipment to be Avoided

Using These Guidelines

These guidelines are intended to supplement the *Design and Construction Manual* and provide specific guidance for custom, semi-custom or multi-family homes. These guidelines build upon the underlying principles stated in the *Design and Construction Manual* and take precedent over any other conflicting DC Ranch Guideline. While the following guidelines are intended to be as definitive as possible, it is the intention of DC Ranch to allow variances for designs that excel in meeting the design goals of the community and demonstrate a superior solution. For this reason the Covenant Commission may grant some flexibility at its discretion.

1. Lighting Philopsophy

Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

. Lighting Philosophy

The Lighting Philosophy for the DC Ranch Community is reduced light intensity where Lighting Philosophy possible; light fixtures only occur where necessary and allowed.



DC Ranch offers a unique living experience with a strong sense of community, available as the resident desires, located in a natural environment. The homesites are set within enhanced natural surroundings creating a sense of character that allows for views, privacy, sense of character and variety. A sense of balance is achieved where the natural qualities of the land are an integral part of the community. Therefore the lighting should respond to the rural desert character of DC Ranch to support and enhance the community. The integration of the lighting within the architecture and landscapes of DC Ranch is essential and key to the success of the overall experience. The lighting should enhance the functional uses of the outdoor environment. Minimal use of lighting is required for this environmentally sensitive community. Lighting will be used only where it is needed. Therefore the lighting philosophy for the DC Ranch Community is simply; the integration of quality lighting hardware within the architecture and landscapes while maintaining reduced light levels for various nighttime functions that will provide a sense of comfort, security and enhance the experiences within community.

Observing the lighting design guidelines and implementing the lighting philosophy throughout the community will help assure that the promise of the vision for DC Ranch will be fulfilled!

2. Lighting Principles

Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

Lighting Objectives

The objective of these guidelines is to establish a concise and consistent methodology of design and construction of lighting components.



The following guidelines serve as criteria for lighting the residential environment within the DC Ranch Community. The Guidelines have been developed to direct the homeowner, builder and designer in selecting appropriate lighting for the custom, semi-custom and multi-family home of the DC Ranch Community. The lighting design guidelines outline lighting criteria that will provide proper aesthetics and safety for the residential exterior environment. These issues address specific needs that can be integrated into a cohesive and pleasing lighting composition for the homeowner and community.

These guidelines serve to guide future development and maintenance for the lighting environment of DC Ranch. The owner, builder or designer need to assess the visual importance to all of the elements in the exterior environment, and define the night time tasks of the areas. This will help create order and cohesion in the night environment. When designing for the outdoor environment, the following should be considered:

- 1. The preferences and requirements for light;
- 2. The uses and tasks intended for the area;
- 3. The atmosphere to be created within the landscape.



These guidelines are organized with the following objectives:

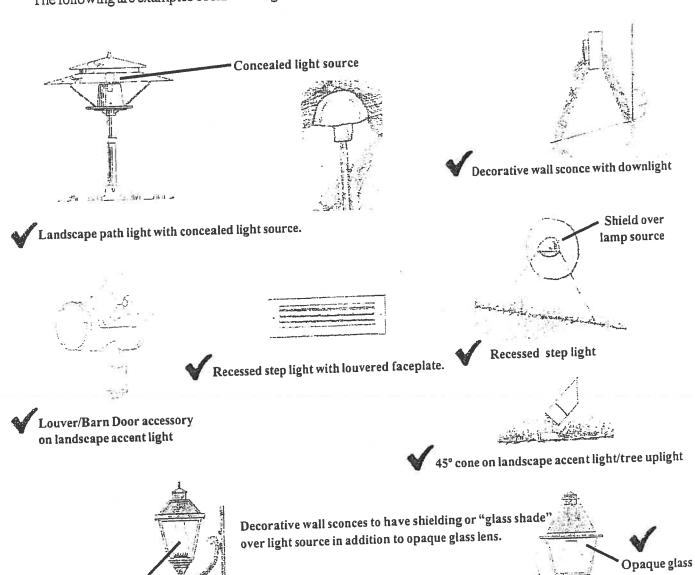
- 1. Improved light design for the DC Ranch community;
- 2. Integrate lighting hardware with architecture and landscape;
- 3. Locate light fixtures only where needed;
- 4. Lighting hardware and light levels respond to the "desert" character of the community;
- 5. Minimize environmental impact and observe the "Dark Sky" philosophy;
- 6. Quality lighting enhances environment;
- 7. Low Light levels; Minimal use of lighting is preferred;
- 8. Energy conservation!

Each home should have it's own unique character and should employ lighting solutions suited for it's surrounding environment and landscape composition.

All light fixtures should be well shielded to conceal the light source or bulb. The light Shielding sourcemustnever be exposed eliminating glare. The light source must not be visible from the light fixture.



All light fixtures used throughout DC Ranch will be properly shielded. Light fixtures with good optical control are recommended to distribute light in the most effective and efficient manner. "Cut-off' luminaires are required. Cut-off distribution luminaires emit light from zero degrees (down) to ninety degrees (horizontal) and have no light above the horizontal or above ninety degrees. Therefore use of shielded outdoor light fixtures is mandatory for the DC Ranch Community, except for decorative wall sconces. (Opaque glass must be used). The following are examples of shielded light fixtures.



Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

Opaque Glass shade/shield

Page 7

ighting Principles



To see well at night, we need adequate light but not too much. Lighting the outdoor environment is very different from lighting interior spaces.

Artificial light cannot light the sky as the sun does, therefore at night the sky is dark, which results in greater object contrasts.

At low levels, the eye works differently from the way it works at daylight light levels. Outdoor lighting can be seen at great distances. Less light is needed or required because the eye adapts to the nighttime environment.

When we go from too bright to too dark or vice versa, we have poor visibility momentarily. This effect is called "transient adaptation". Good lighting designs should minimize its adverse effect on visibility.

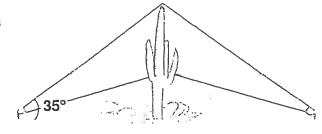
There is a need to control light in the outdoor environment at DC Ranch. The "Dark Sky" philosophy has been adopted at DC Ranch to preserve dark skies and to improve the nighttime environment within the community.

The goals of the Dark-Sky Organization are to be effective in stopping the adverse environmental impact on dark skies by:

- 1. Building awareness of the problem of light pollution and of the solutions;
- 2. Educate everyone about the value and effectiveness of quality nighttime lighting;
- 3. Preserving dark skies and improving nighttime environment.



Refer to the Lighting Design Guideline Table of Maximum Wattages and Lamp Characteristics in the Appendix Section for reference.



Aiming Lighting Fixtures

Placement, and aiming of light fixtures are a crucial part of a successful lighting design. Aiming should be done to avoid glare to the surrounding properties. Generally luminaires should not be aimed more than 35° off the horizontal axis. Three accent lights (maximum) are permitted to illuminate Saguaro and Ocotillo (large cactus). Where uplighting is proposed, narrow beam lamps (10° max.) must be selected so that the light is focused on the intended object. Selection of fixtures with proper shielding is key!

2. Lighting Principles

Quality of Illumination Quality lighting enhances the environment.



A quality lighting design is one that has been given a great deal of thought, that is integrated within the architecture and landscape and that meets all of the objectives outlined in the lighting design guidelines.

Quality lighting fixtures are recommended for the DC Ranch community. The light fixtures will be an essential characteristic or attribute to the overall design and experience. Quality lighting fixtures are described as above standard, unique, exceed expectations, and superior. Quality lighting hardware is recommended for DC Ranch because of it's durability, (designed to last many years), has been UL listed, tested for the environment it will operate in and be warranted for a minimum of 1 year. The lighting hardware finishes recommended at DC Ranch are natural materials like copper, solid-brass, bronze and wrought iron. All light fixtures must comply with the shielding criteria and meet the maximum wattages and lumen outputs as described in Section 3.



2. Lighting Principles

Good security lighting is putting light where it's needed, not just a lot of it everywhere!

Safety and Security



The objective for security lighting at DC Ranch is that it is effective and efficient lighting. We want to feel safe in our homes, on our property and at night within the community. The security lighting at DC Ranch must meet the lighting design criteria to include maximum wattage and lumen output. The fixtures should be well shielded and have "cut-off" as discussed previously. Glare (light which causes annoyance or discomfort) should be avoided when considering security lighting. The objective is to put light where it is needed, not just a lot of it. Locating lights at door locations, pathways, and driveways wired to a photocell or an Infrared Sensor will act as a deterant to intruders and will provide adequate security lighting. The IR sensor will turn the light on only when someone walks into the field of view of the Infrared sensor/ detector. The recommended security light that provides safety to the home is one wired to an Infrared Sensor.

Light Trespass

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

- 1. Selection of luminaires that have tightly controlled intensity distributions, using cut-off reflectors and refractors.
- 2. Contain light within the design area (property) by carefully selecting, locating, mounting and aiming the luminaires.
- 3. Use well-shielded luminaires or select hardware that can be shielded.
- 4. Keep aiming angles low so that the beam falls within the intended lighted area.
- 5. Aim lighting fixtures toward the owner's home; not the neighbor's yard.

Lamp Sources

There are various lamp sources that are permitted for the exterior environment at DC Ranch. Incandescent, halogen, compact fluorescent sources are permitted. High Intensity Discharge sources like Metal Halide and High Pressure Sodium are not permitted and do not comply with the maximum lumen output described in the table of lamp characteristics as outlined in Section 3.

Incandescent sources like A-lamps, T-lamps and candelabra based lamps are the warmest in color and have a "soft" output, but are not as compact as some halogen sources. (See examples on next page). Halogen sources are available in both 120 Volt and 12 Volt configurations. An example of a 120 Volt halogen source is a PAR lamp and an example of a 12 Volt halogen source is a MR-11, MR-16 or a bi-pin that would be typically found used for landscape lighting. Compact fluorescent sources are available in warm color temperatures (2,700K°) as well as cool (3,500K°) and typically have long life properties (10,000 hours).

Since the lamp technology changes so rapidly, some additional lamp sources that are not listed above may be approved, but must be submitted to the Covenant Commission for review.

Energy Considerations

Conservation

New lighting techniques and equipment as well as more efficient light sources now available provide the tools to meet the requirements for the outdoor environment and the increasing cost of energy. Much energy and money is wasted on poor lighting. Maintenance is key for energy efficiency.

The three major lamp (bulb) manufacturers: 1. General Electric; 2. Osram Sylvania; 3. Philips; have improved lamp technology over the past years. Lamp sources now have high efficiencies, excellent color rendering properties, long life, lower wattages and some are available at low costs. Most lamp sources are available in an energy saving configuration. Most energy efficient sources have:

- 1. Longer rated life;
- 2. Lower Wattages;
- 3. Lower energy consumption.

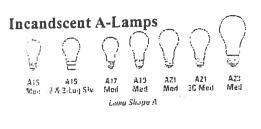


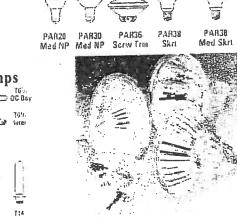


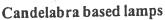
Refer to the Lighting Design Guideline Table of Maximum Wattages and Lamp Characteristics in the Appendix Section for reference.



T-Lamps









MR-11, and MR-16 Lamps



R-Lamps



Compact Fluoresent Lamps

Residential Lighting Desig DC Ranch Design Guidelines March 26, 2001

Page II

3. Lighting Requirements

Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

Upper and Lower Desert Custom Neighborhoods

These guidelines apply to custom lots in planning units 4, 5 and 6. For custom lots in the near town neighborhoods refer to the near town requirements.



Lighting Zones

There are 4 lighting zones for the Custom Home at DC Ranch.

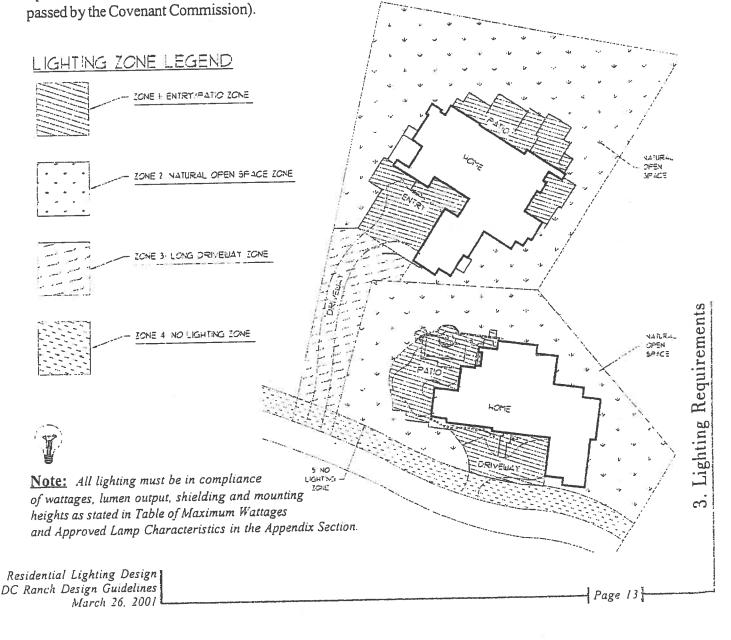
Zone 1 = No Lighting Zone: No lights allowed within 15' of curb.

Zone 2 = Long Driveway Zone: A) Path lights are not permitted. Focal elements such as trees or landscape may be illuminated along the driveway, staggered on either side, to guide cars at night.

Zone 3 = Natural Open Space: No Lighting Zone. Lighting strictly prohibited, open space to be undistured

Zone 4 = Entry/Patio Zone: Highest light levels on home. Typical zone has wall sconces at door locations, step lights or path lights, landscape lights (maximum 3 lights per tree), and water feature or pool lights if required.

Lighting for Sport Courts of custom homes may be low, wall mounted fixtures (8' mounting ht. max) to illuminate the court-area at night. The use of pole mounted lights will *not* be approved. The lighting of a Sport Court after 10:00PM will not be permitted. (Lighting for sport courts is *not* preferred and must be



LIGHTING FIXTURE LEGEND

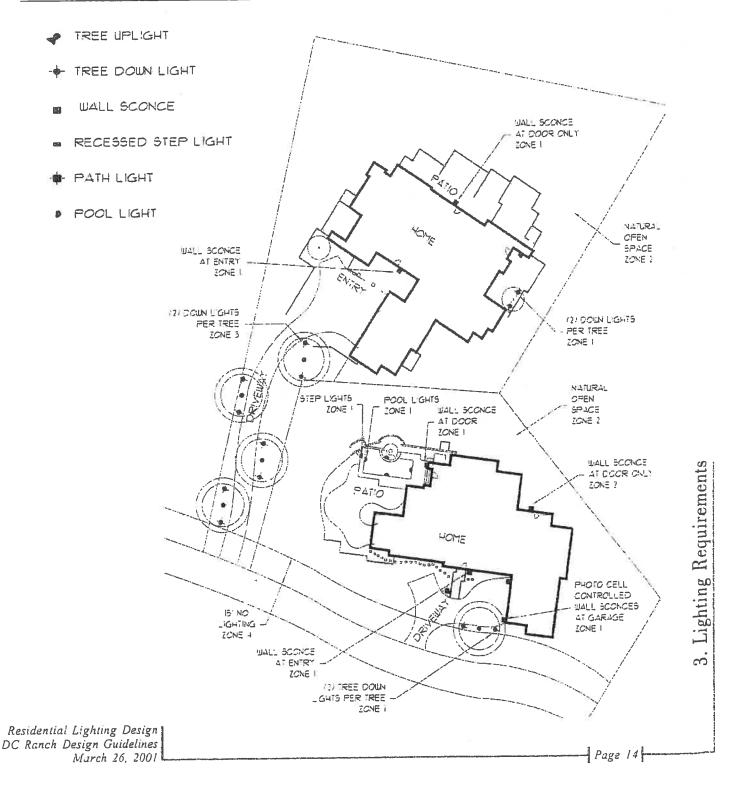


Table of Maximum Wattages, Approved Lamp Characteristics and Mounting Heights for Lower and Upper Desert Custom Neighborhoods

	Entry	Walkway / Driveway	Steps	Trees	Planting	Water Feature/Pools
Max Wattage	60 Watts (120 Volts) or 20 Watts (12 Volts)	25 Watts (120 Volts) or 20 Watts (12 Volts)	20 Watts (120 Volts) or 20 Watts (12 Volts)	50 Watts (120 Volts) or 20 Watts (12 Volts)	50 Watts (120 Volts) or 20 Watts (12 Volts)	50 Watts (120 Volts) or 50 Watts (12 Volts)
Max Lumens	890 (120V) or 350 (12V)	400 (120V) or 350 (12V)	600 (120V) or 350 (12V)	500 (120V) or 350 (12V)	600 (120V) or 350 (12V)	600 (120V) or 900 (12V)
Color Temp.	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K
Light Distribut.	(Note: C Shielded / Direct	Low mounted, well shielded	Recessed Direct/ Louvered	Direct shielded	e d!) Direct shielded	Direct / Indirect
Pole Mtg. Height	N/A	N/A	N/A	N/A	N/A	N/A
Bollard/ Path lt. Mtg. Height	2'-6" Max.	2'-6" Max.	2'-6" Max.	N/A	2'-0''Max.	N/A
Wall Sconce Mtg. Height.	8'-0'' A.F.G.	N/A	2'-0" A.F.G.	N/A	N/A	N/A

Non-Custom Neighborhoods

These guidelines apply to non-custom lots in planning units 1, 2, 4, 5 and 6. For non-custom lots in the near town neighborhoods refer to the near town requirements.



Lighting Zones

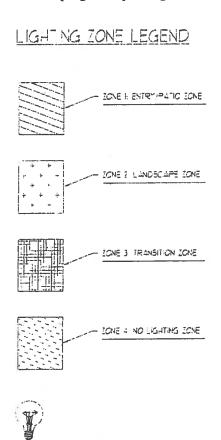
There are 4 lighting zones for the Non-Custom Home at DC Ranch.

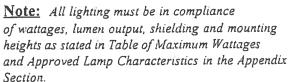
Zone 1 = No Lighting Zone: No lights allowed within 15' of curb.

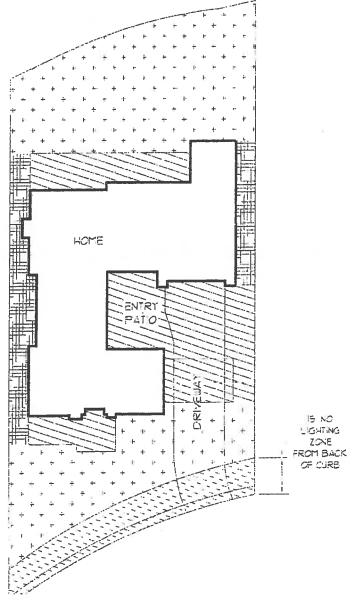
Zone 2 = Landscape Zone: A) For drives shorter than 50 feet, path lights are permitted on alternating sides of driveway with a minimum spacing of 10' on center or B) Landscape to be illuminated alongside of drive. Owner/Designer to selected option A or B, but not both. Tree uplights or downlights (not both); Maximum 3 lights per tree aimed toward house.

Zone 3 = Transition Zone: Lighting to occur only at door locations. No landscape lighting permitted in this zone! Zone 4 = Entry/Patio Zone: Highest light levels on home. Typical zone has wall sconces at door locations,

step lights or path lights, landscape lights (max. 3 lights per tree) and water feature lights if desired.







Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

Page 16

Lighting Requirements

LIGHTING FIXTURE LEGEND

- # TREE UPLIGHT
- * TREE DOWN LIGHT
- # HOUSE MOUNTED WALL SCONCES
- RECESSED STEP LIGHT
- · PATH LIGHT
- FOOL LIGHT

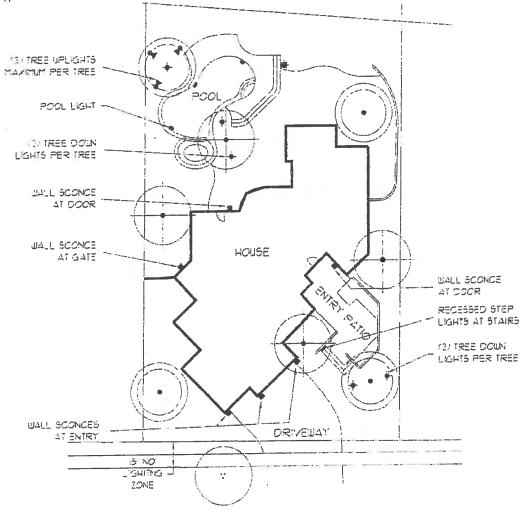


Table of Maximum Wattages, Approved Lamp Characteristics and Mounting Heights for Non-Custom Neighborhoods

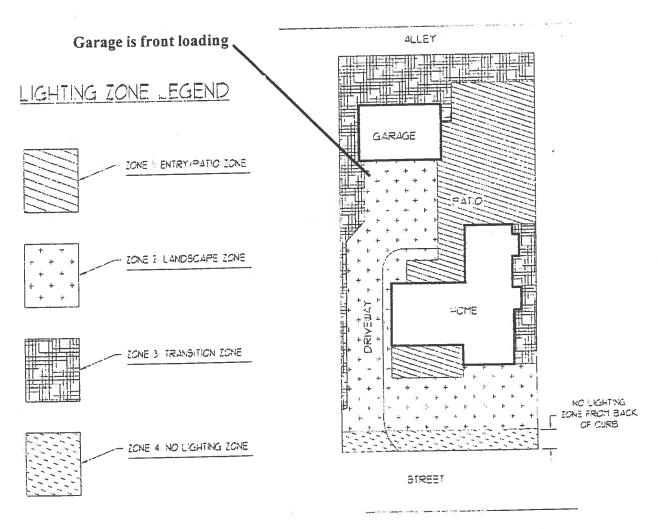
	Entry	Walkway/ Driveway	Steps	Trees	Planting	Water Feature/Pools
Max Wattage	40 Watts (120 Volts) or 20 Watts (12 Volts)	25 Watts (120 Volts) or 20 Watts (12 Volts)	25 Watts (120 Volts) or 20 Watts (12 Volts)	50 Watts (120 Volts) or 20 Watts (12 Volts)	25 Watts (120 Volts) or 20 Watts (12 Volts)	50 Watts (120 Volts) or 50 Watts (12 Volts)
Max Lumens	460 (120V) or 350 (12V)	385 (120V) or 350 (12V)	385 (120V) or 350 (12V)	500 (120V) or 350 (12V)	385 (120V) or 350 (12V)	600 (120V) or 900 (12V)
Color Temp.	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K	2,700K to 3,500K
Light Distribut.	(Note: C Shielded/ Direct	Low mounted, well shielded	Recessed Direct Louvered	Direct shielded	Direct shielded	Direct/ Indirect
Pole Mtg. Height	N/A	N/A	N/A	N/A	N/A	N/A
Bollard/ Path lt. Mtg. Height	2'-6" Max.	2'-6" Max.	2'-6" Max.	N/A	2'-0" Max.	N/A
Wall Sconce Mtg. Height.	8'-0'' A.F.G.	N/A	2'-0'' A.F.G.	N/A	N/A	N/A



Lighting Zones

There are approximately 4 lighting zones for the Non-Custom Home at DC Ranch.

- Zone 1 = Landscape Zone: A) Path lights are not permitted on driveway. Landscape may be illuminated along side of drive or;
 - B) Tree uplights or downlights (not both); Maximum 3 lights per tree with narrow beam lamps (10° max.); C) Step lights are permitted in this zone if required.
- Zone 2 = Transition Zone: Lighting to occur only at door locations. No landscape lighting permitted in this zone!
- Zone 3 = Entry/Patio Zone: Highest light levels on home. Typical zone has wall sconces at door locations, step lights or path lights, landscape lights (3 lights per tree max.) and water feature lights if desired.
- Zone 4 = Photocell wall mounted light on garage to illuminate alley (2 maximum).



Lighting Requirements



Lighting Zones

There are approximately 4 lighting zones for the Non-Custom Home at DC Ranch.

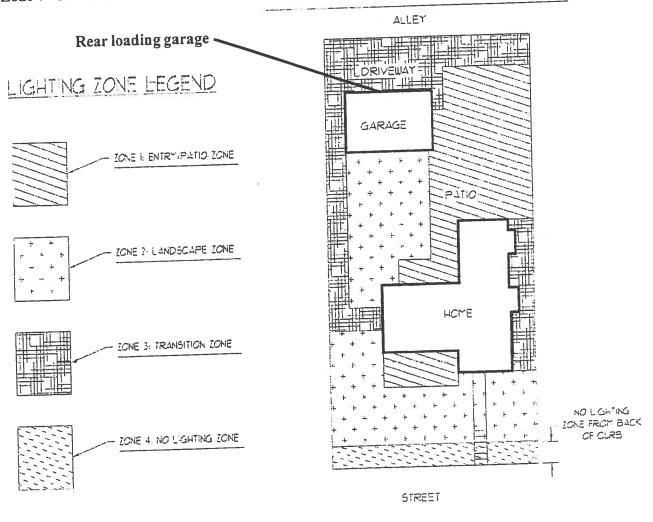
Zone 1 = Landscape Zone: A) Path lights are not permitted on driveway. Landscape may be illuminated along side of drive or;

B) Tree uplights or downlights (not both); Maximum 3 lights per tree with narrow beam lamps (10° max.); C) Step lights are permitted in this zone if required.

Zone 2 = Transition Zone: Lighting to occur only at door locations. No landscape lighting permitted in this zone!

Zone 3 = Entry/Patio Zone: Highest light levels on home. Typical zone has wall sconces at door locations, step lights or path lights, landscape lights (3 lights per tree max.) and water feature lights if desired.

Zone 4 = Photocell wall mounted light on garage required to illuminate alley (2 maximum).



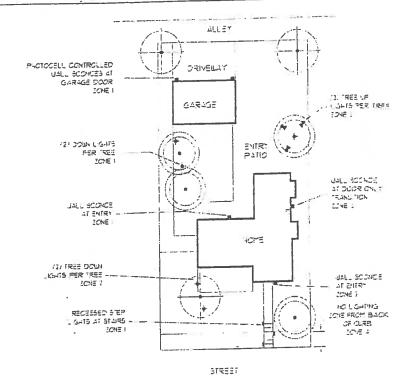
Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

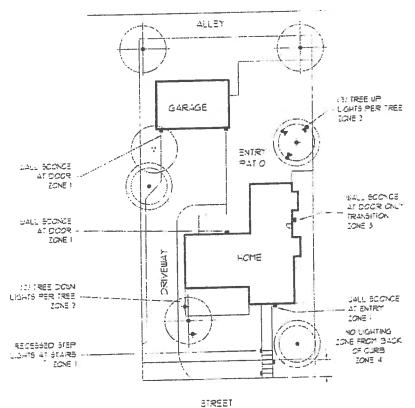
Page 20

Lighting Plan Examples

LIGHTING FIXTURE LEGEND

- J TREE UPLIGHT
- . TREE DOWN LIGHT
- WALL SCONCE
- RECESSED STEP LIGHT





3. Lighting Requirements

Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

Non-Custom Neighborhoods

These guidelines apply to non-custom lots in planning units 1, 2, 4, 5 and 6. For non-custom lots in the near town neighborhoods refer to the near town requirements.



Lighting Zones

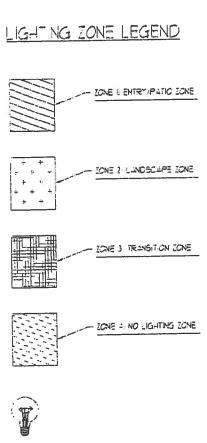
There are 4 lighting zones for the Non-Custom Home at DC Ranch.

Zone 1 = No Lighting Zone: No lights allowed within 15' of curb.

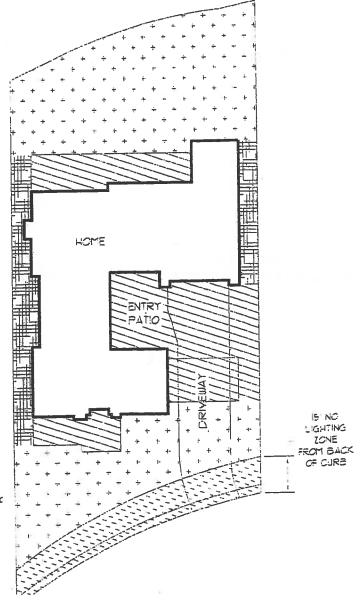
Zone 2 = Landscape Zone: A) For drives shorter than 50 feet, path lights are permitted on alternating sides of driveway with a minimum spacing of 10' on center or B) Landscape to be illuminated alongside of drive. Owner/Designer to selected option A or B, but not both. Tree uplights or downlights (not both); Maximum 3 lights per tree aimed toward house.

Zone 3 = Transition Zone: Lighting to occur only at door locations. No landscape lighting permitted in this zone!

Zone 4 = Entry/Patio Zone: Highest light levels on home. Typical zone has wall sconces at door locations, step lights or path lights, landscape lights (max. 3 lights per tree) and water feature lights if desired.



Note: All lighting must be in compliance of wattages, lumen output, shielding and mounting heights as stated in Table of Maximum Wattages and Approved Lamp Characteristics in the Appendix Section.



Residential Lighting Design DC Ranch Design Guidelines March 26, 2001

Page 16

3. Lighting Requirements