



PLANNED UNIT DEVELOPMENT

Z-62-18-2

*A MASTER-PLANNED RESIDENTIAL COMMUNITY LOCATED AT THE SOUTHWEST
CORNER OF THE 24TH STREET ALIGNMENT AND SONORAN DESERT DRIVE.*

First Submittal: August 28, 2018
Second Submittal: November 8, 2018
Third Submittal: January 10, 2019
Fourth Submittal: November 1, 2021
Fifth Submittal: January 5, 2022
Sixth Submittal: February 23, 2022
Public Hearing Draft: March 3, 2022
CITY COUNCIL APPROVED: July 1, 2022

CITY OF PHOENIX

JUL 26 2023

**Planning & Development
Department**

Planned Unit Development

Regulatory Statement

The Planned Unit Development (“PUD”) zoning district is authorized by Chapter 6, Section 671 of the Zoning Ordinance of the City of Phoenix (“Phoenix Zoning Ordinance”). A PUD is intended to be a stand-alone document that sets forth the regulatory framework, including permitted uses, development standards and design guidelines, for a particular project (“PUD Regulations”). The PUD may only modify provisions within the Phoenix Zoning Ordinance and does not modify other City of Phoenix codes, regulations or requirements. A PUD may include substantial background information and narrative discussion, including purpose and intent statements, which are intended to illustrate the overall character and vision for the development. Such statements are not regulatory and not requirements to be enforced by the City of Phoenix.

The PUD Regulations apply to all property within the PUD project boundary. The PUD Regulations supersede and replace all applicable Phoenix Zoning Ordinance requirements. If there is a conflict between PUD Regulations and the Phoenix Zoning Ordinance, including the design guidelines within the Phoenix Zoning Ordinance, the terms of this PUD shall apply. If a provision is not addressed by the PUD, then the Phoenix Zoning Ordinance controls.

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Section 1. Purpose & Intent

Introduction. The Verdin Planned Unit Development (“Verdin PUD”) rezones approximately 488 gross acres (+/- 473 net acres) of undeveloped property located in northeast Phoenix, south of Sonoran Desert Drive between the 16th and 24th Street alignments (“Property”). See *Exhibit 1: Aerial Map*, and *Appendix A: Legal Description (Net Acreage)*. Taylor Morrison/Arizona, Inc. (“Taylor Morrison”) proposes to develop the Property as a master-planned residential community (“Verdin”) with a maximum of 1,250 dwelling units and an overall density of 2.6 dwelling units per acre.

Verdin is located within the City of Phoenix (“City”) approximately 5 miles east of Interstate-17, 5.5 miles north of State Route Loop 101, and 3-miles west of Cave Creek Road. The Property is bound to the north by Sonoran Desert Drive, a regional transportation thoroughfare classified by the Sonoran Preserve Parkway Route Study as a six lane Scenic Corridor with 300 feet of right-of-way, and the Sonoran Preserve to the north, including the Apache Wash Trailhead located slightly to the northwest. Undeveloped State Trust Land managed by the Arizona State Land Department (“ASLD”) is located to the immediate east and west. The Cave Creek Wash runs generally along the eastern property line. The property to the immediate south includes parcels owned by the City as part of the Sonoran Preserve and other property managed by the Flood Control District of Maricopa County (“FCD”). See *Exhibit 2: Surrounding Property Ownership Map*.

Goals & Objectives. The Verdin PUD provides a comprehensive planning and regulatory framework designed to facilitate development of a cohesive master-planned residential community that is responsive to and celebrates the natural desert environment. The vision for Verdin includes the creation of a diverse and connected single-family residential enclave with focused sensitivity on integrating the innate characteristics of the desert environment, including native plants, wildlife, landforms, and climate. Verdin residents will have unparalleled proximity and access to significant desert amenities, such as the Sonoran Preserve through strategically located trail connections, paseos, edge open space areas, and view corridors. The Verdin PUD is intended to promote a land use plan, permitted uses, development standards, and desert sensitive design guidelines that provide for a range of single-family homes of various lot sizes, densities, and product types tailored to the Verdin vision and the context of the surrounding desert environment.

The goals and objectives of the Verdin PUD are as follows:

- Maintain the integrity of the surrounding desert environment through enhanced open space requirements and design guidelines intended to respect and promote the unique topography, wildlife, vegetation, climate, and context of the Property.
- Promote the preservation and re-establishment of existing habitats, vegetation, and open spaces within and along the perimeter of Verdin and throughout Mesquite Wash corridor (“Mesquite Wash Corridor”) to seamlessly blend Verdin with the surrounding desert environment.
- Maintain open edges adjacent to the “Preserve Edge/MCFCD” Property as shown on *Exhibit 5: Edge Openness Plan* to minimize visual impact.
- Provide a regulatory framework and guidelines that promote a well-designed, unified residential community, while maintaining sufficient flexibility to allow detailed planning to occur at the time of development and in response to the market.
- Incorporate design guidelines that improve and reinforce the quality of design in the community and promote strong neighborhoods.
- Build a sustainable community that is sensitive to the surrounding desert through efficient development, land use, and infrastructure planning, the protection of natural washes, and the preservation and salvaging of native plants when possible.
- Provide an extensive and multi-layered network of public trails, paths and sidewalks that will provide connectivity within Verdin and beyond the community edges into the Sonoran Preserve in support of an accessible, connected public parks and open space system.
- Design community spaces, such as parks, trails, paseos, and streetscapes that encourage recreational, social, and educational opportunities, and promote social interaction.
- Promote infrastructure extensions, phasing, and on-site and off-site improvement plans in a manner that supports efficient and orderly development.



Section 2. Land Use Plan

Overview. Verdin will be developed as a master-planned residential community with a maximum of 1,250 dwelling units at an overall density of 2.6 dwelling units per acre. The Property is uniquely situated as the only large, privately owned parcel partially surrounded by the Sonoran Preserve and with access to Sonoran Desert Drive. The Property has been designated for future residential development by the City’s planning policies and guidelines for more than 30 years. Other parcels immediately surrounding the Property are undeveloped and owned by the City, ASLD or FCD with limited areas targeted by the City as future Sonoran Preserve priorities. As planned, Verdin and the surrounding properties are envisioned to develop and mature into a community that respects the natural environment and offers sustainable development.

The vision for Verdin is to create a cohesive residential enclave that capitalizes on the unparalleled access to the natural desert environment. Verdin will be developed as a collection of single-family residential neighborhoods with diverse home product offerings anchored by an integrated network of community amenities, passive and active common open spaces, and comprehensive pedestrian connectivity to the Sonoran Preserve and natural desert environment, which act as strong character influences for the community.



Verdin has been divided into three Master Development Parcels that each range in size from approximately 130 acres to 180 acres. *See Exhibit 3: Master Development Parcel Map* and shown below. Each Master Development Parcel represents an anticipated phase of development. Mesquite Wash, a focal natural wash corridor ranging in width from approximately 100-feet to 150-feet bisects the Property from north to south, serves as the central organizing element for Verdin. Master Development Parcel A (Phase 1) is generally located within the southwest portion of the Property west of Mesquite Wash; Master Development Parcel B (Phase 2) is generally located within the southeast portion of the Property east of Mesquite Wash; and Master Development Parcel C (Phase 3) is located within the northern portion of the Property adjacent Sonoran Desert Drive.

At the time of Preliminary Site Plan approval, each Master Development Parcel will be further refined into a collection of individual residential neighborhood units (“Neighborhood Unit”) ranging in size from approximately 20 acres to 40 acres, each with its own character such that the community will include a broad mix of lot sizes, densities, and home product types. Each Master Development Parcel will contain a minimum of 3 Neighborhood Units. *Exhibit 3: Master Development Parcel* provides a conceptual interpretation of the design and layout of one Neighborhood Unit.

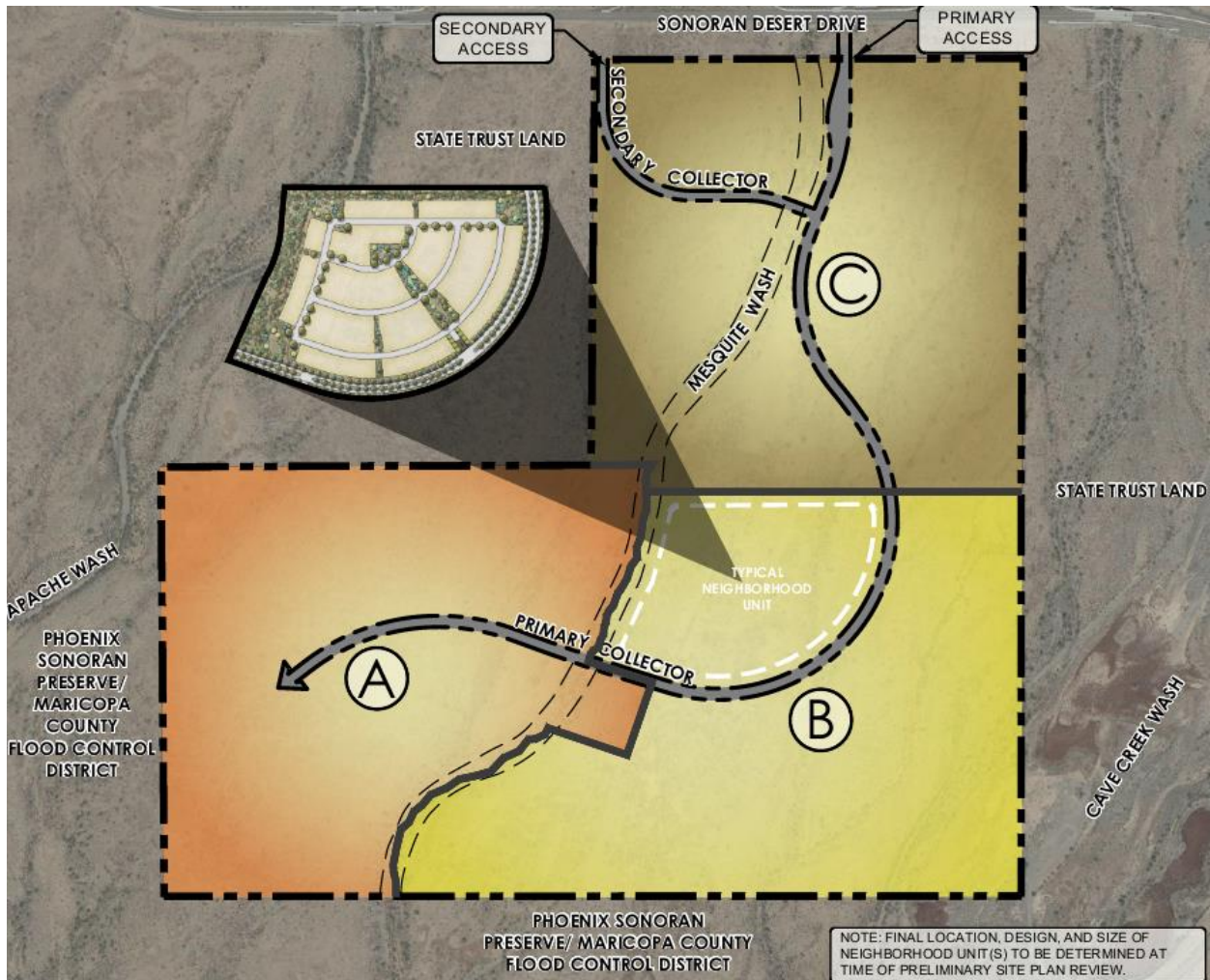


Exhibit 4: Illustrative Land Use Plan provides a conceptual interpretation of the design for the community. The Illustrative Land Use Plan is non-binding and non-regulatory. Detailed planning and layouts for a Neighborhood Unit(s) will be determined at the time of Preliminary Site Plan approval.

Verdin Resident Amenities. A major component of the overall planning and design effort for Verdin is the integration of interconnected community amenities, active and passive parks and common open spaces, and trails for pedestrian connectivity. Each of these elements is discussed in further detail below.

Verdin is planned to provide two community amenity areas and numerous other active and passive parks and common open spaces evenly distributed throughout the community, providing a variety of recreational, social, and educational opportunities within close proximity of Verdin residents. A primary community amenity area is planned in the southern

portion of Verdin, within the first phase of development, and will include a private community center and outdoor recreation facilities. Primary community resident amenities may include an entry plaza with botanical desert planting, pool, play area, event and gathering lawn, patio and fire pit, yoga, meditation area, and outdoor lounge area/kitchen.



Conceptual Primary Community Area and Amenities

A second community open space area is planned within the Phase III area, located in the north-central portion of Verdin. Secondary community resident amenities may include a ramada, play area, demonstration garden, and lawn seating area.



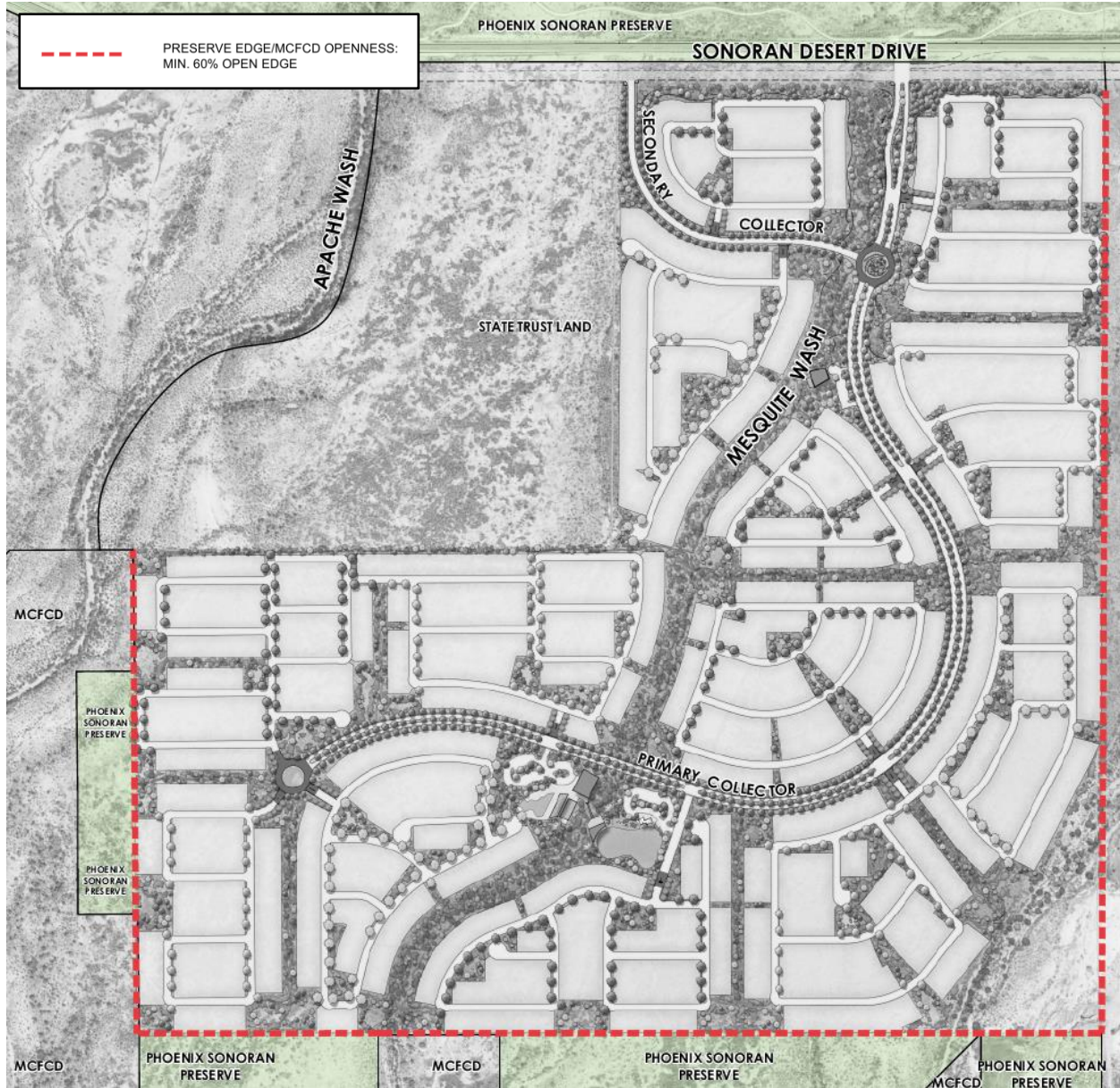
Conceptual Secondary Community Area and Amenities

In addition to the primary and secondary community amenity areas, Verdin will include neighborhood parks (“Neighborhood Unit Park(s)”) that will generally provide for a combination of active and passive uses at a smaller and more intimate scale than the primary community amenity. Amenity programming may include a combination of enhanced landscape, shaded areas, lookout and seating, turf area, ramadas, fields & courts, and walking pathways. Neighborhood Unit Parks will be thoughtfully located, typically central to each Neighborhood Unit, or may be located proximate to the entry to enhance visibility to residents entering or exiting a Neighborhood Unit.



Edge Openness. The Sonoran Preserve Master Plan recommends that new development should integrate into the larger desert fabric rather than create a series of isolated remnants of natural space. The Verdin PUD recognizes this and that the “edge” of the community is a critical point of interaction between the built and natural environments and requires sensitive consideration. The Verdin PUD defines this “edge setting” through the use of development standards and common open space design guidelines that are specifically intended to sensitively integrate Verdin into the overall desert environment, promote visual and physical connectivity to/from the Property, maintain the washes and other significant landforms, and protect the flora and fauna in the area. A minimum of 60% of the open edge treatment, shall

be provided along the “Preserve Edge/MCFCD” Property boundaries as shown in *Exhibit 5: Edge Openness Plan* and below, and as described in Section 6.C.1. The identification of the proposed edge conditions will be summarized on the Master Open Space Plan that will be prepared as part of the Master Plan Process for Verdin.



Edge Openness Plan



Access. Primary access to Verdin will be provided via a collector-type roadway (“Primary Collector”) off Sonoran Desert Drive, which is planned to parallel the Mesquite Wash at the entrance to Verdin. The Primary Collector will serve as the primary organizing element for the individual Neighborhood Units within Verdin and include lush desert landscaping, shade trees, detached sidewalks, bicycle lanes, and appropriate lighting for both vehicular and pedestrian traffic. Each Neighborhood Unit will be connected by the Primary Collector, providing opportunities for inviting, scenic desert views, while minimizing impacts to the Mesquite Wash Corridor by reducing the number of crossings.





A secondary access (“Secondary Collector”) to Verdin is currently planned at the northwest corner of the Property along Sonoran Desert Drive. Both the Primary Collector and Collector access points are strategically located to efficiently distribute vehicle trips within Verdin. Residential local streets may be developed in both public and private street configurations to promote local street connectivity and transportation efficiencies.

Off-Site Connectivity. The Sonoran Preserve is a jewel of the City’s desert park and mountain system and currently encompasses 9,671 acres with 36 miles of multi-use trails and three trailhead locations.

The Property, which is located across Sonoran Desert Drive from the northern portion of the Sonoran Preserve and adjacent to properties that are part of or targeted for acquisition as part of the Sonoran Preserve, offers unparalleled proximity and access to this significant natural desert amenity. Verdin and the City Parks & Recreation Department are committed to working together through the development of the Property to capitalize on the relationship between the Property and the Sonoran Preserve and ensure opportunities for public access to the Sonoran Preserve.

One of the primary goals of the Sonoran Preserve Master Plan is to integrate a preservation ethic into the overall urban form. As stated in the master plan, “Public ownership is only a part of the objective. In the broadest terms, the preserve system should be made up of municipal recreation lands (major mountains, washes, and transition lands), flood control

infrastructures (secondary and minor washes that could be county owned or privately held and maintained for nonstructural flood control), trails, scenic corridors, utility corridors, and privately held natural open space. This will integrate the desert into the urban fabric rather than preserve a series of isolated remnants of natural open space.” Specifically, the Sonoran Preserve Master Plan states that local walk-in trailheads will provide an important link to the community. Planned access for adjacent neighborhoods is encouraged to avoid trailblazing between major and secondary access areas. The Sonoran Preserve Master Plan also encourages non-vehicular access to trailheads.



In coordination with the City’s Parks & Recreation Department, local, public walk-in trailheads and connections will be provided at defined locations, which will serve as important links between Verdin and the Sonoran Preserve. Trailheads will be distributed along the “Preserve Edge/MCFCD” Property boundaries as shown on *Exhibit 5: Edge Openness Plan*. The final location of the Public Community Trailheads will be designed in coordination with the City Parks & Recreation Department.

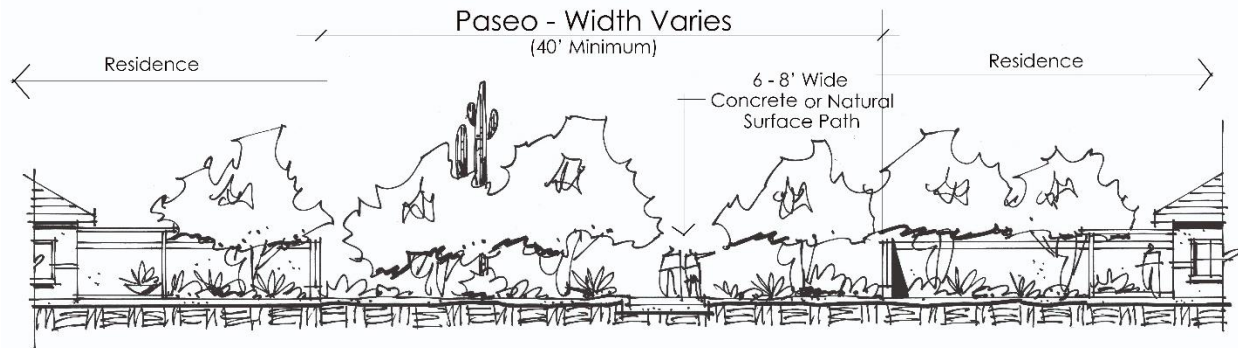
Additionally, a public trail (“Mesquite Wash Trail”) will be developed along the Mesquite Wash Corridor providing an important connection through the Property and will establish the first formal link between the north and south halves of the Sonoran Preserve. At the north and south ends of the Mesquite Wash Corridor on the Property, Verdin will provide public trailheads at defined points of entry, to be located and designed in coordination with the City Parks & Recreation Department. See *Exhibit 6: Pedestrian Circulation Plan*.

Finally, in support of the goals of the Sonoran Preserve Master Plan and to enhance future opportunities for connectivity within the Sonoran Preserve, approximately 16 acres within the erosion hazard setback area along the Cave Creek Wash corridor, as generally shown at *Exhibit 11: Drainage Improvements*, will be dedicated to the City for inclusion in the Sonoran Preserve. The dedicated acreage will be included and count towards the required open space within Verdin.



Internal to Verdin, minimum 40-foot wide landscaped pedestrian paseos (“Paseo Corridors”) containing 6 to 8-foot wide paths will be reasonably located between Neighborhood Units. Paseo Corridors will extend outwards from the extensive on-site pedestrian circulation system (discussed below) to the trailheads allowing residents and the public convenient and safe access to a trailhead. *See Exhibit 7: Paseo Corridors.*





The final location of these connection points at the overall perimeter of the Property (“Perimeter of the Property” or “Property Perimeter”) will be designed in coordination with the City’s Parks & Recreation Department and Planning & Development Departments, and may include vehicular barriers or other access control measures to discourage unauthorized motorized vehicle access to the Sonoran Preserve. The Mesquite Wash Corridor, Public Walk-In Trailheads, and Pedestrian Paseos as more specifically designated on *Exhibit 6: Pedestrian Circulation Plan* will include permanent public access easements to ensure public access is maintained through Verdin to the Sonoran Preserve. The location details of local, public walk-in trailheads and trail connections will be included as part of the Master Open Space, Pedestrian, Bicycle, and Trails Plan, which will be prepared as part of the Master Plan process for Verdin.

On-Site Connectivity. The on-site pedestrian circulation system within Verdin will be coordinated with the City Parks & Recreation and Planning & Development Departments to ensure connectivity within Verdin and to the City’s existing and planned amenities within the Sonoran Preserve.

A hierarchy of pedestrian routes has been proposed to ensure that all Verdin residents are afforded readily accessible and proximate access to the pedestrian network. This network has been thoughtfully planned to facilitate non-vehicular circulation opportunities for Verdin residents.

Collector Roadways will include the construction of detached 8-foot wide concrete public sidewalks on both sides of the roadway, including bicycle lanes. In addition to enhanced landscaping for aesthetic purposes, minimum 2-inch caliper shade trees (“Shade Trees”), as identified in *Section 8: Verdin Design Guidelines*, will be planted along both sides of these sidewalks at a typical spacing of one tree per 30-linear feet or in equivalent groupings to enhance the pedestrian experience. Shade Trees along Collector Roadways shall be comprised of minimum 2-inch caliper trees.



Mesquite Wash Corridor will include the construction of the Mesquite Wash Trail, a 12-foot wide natural surface multi-use public trail within a 30-foot wide public multi-use trail easement along the east side of this central wash. This public and community trail will span the length of Mesquite Wash Corridor within the Property with connections to Sonoran Desert Drive, extending south to the primary community amenity, and beyond to the Sonoran Preserve further south. The public trail easement will be dedicated along the Mesquite Wash Corridor to ensure and protect public access. Importantly, the Mesquite Wash Trail will be the first formal connection between the north and south halves of the Sonoran Preserve. This multi-use public trail will stretch more than 1-mile in length and will serve as the central spine for other Verdin pathway and corridor “off-shoots” that will link to individual Neighborhood Units and other common open spaces for Verdin residents. The final design, including the location of this multi-use public trail intersects with Sonoran Desert Drive, will be determined through the Master Planning process.

A **Neighborhood Unit Entry** is defined as the street and adjacent landscape area encompassing the 100-linear feet immediately outside of a Neighborhood Unit entry gate. Each Neighborhood Unit entry will provide a detached 6-foot wide public sidewalk that establish a linkage between the collector roadway sidewalk and sidewalks that are internal to each Neighborhood Unit. A detached 6-foot wide sidewalk shall only be required on one side of a Neighborhood Unit entry. *See Exhibit 8: Typical Neighborhood Unit Entry and shown below.*



Typical Neighborhood Unit Entry

The sidewalk connections will be complimented by enhanced landscaping and Shade Trees as identified in *Section 8: Verdin Design Guidelines* planted at an interval of 1 tree per 25-linear feet or in equivalent groupings to provide an inviting experience for pedestrians entering and exiting the neighborhoods at these connection points. A minimum of three 3-inch caliper Shade Trees shall be planted on either side of a

Neighborhood Unit Entry for a total of six Shade Trees. Any additional trees planted within the Neighborhood Unit Entry shall be a combination of 1-inch caliper (maximum 25%) and 2-inch caliper (maximum 75%) trees.

Local Street Sidewalks 5-feet in width will be provided throughout each Neighborhood Unit to facilitate circulation to Neighborhood Unit Parks and/or common open space area, and to the larger pedestrian network. These sidewalks will be attached on both sides of local streets, except in locations where they run adjacent to common open space area. To encourage the shading of sidewalks, Shade Trees as identified in *Section 8: Verdin Design Guidelines* shall be planted within the front yard area of all residential lots. This Shade Tree shall be minimum 24-inch box.

Trails will be provided in limited areas near the Property Perimeter where it is anticipated that future connections to the Sonoran Preserve will be established in coordination with the City. These alignments will be comprised of a natural surface and no greater than 4-feet in tread width. Verdin has identified approximately four locations where connections to the Sonoran Preserve could be established to directly tie-into Verdin pathways. The final location of these connection points at the Property Perimeters will be designed in coordination with the City Parks & Recreation Department and as part of the Master Plans for Verdin.



Section 3. List of Uses

The master developer or any property owner within the PUD may request an interpretation of analogous use to the defined list below from the City's Zoning Administrator. The Zoning Administrator may administratively approve a use of analogous to those listed below.

The City's Zoning Administrator shall also render decisions regarding the definition or interpretation of permitted uses pursuant to Section 307 of the Phoenix Zoning Ordinance, subject to the right to appeal to the Board of Adjustment pursuant to Section 303.

1. Uses Permitted by Right

- a. Single-Family Detached Dwellings
- b. Guesthouses in accordance with Section 609 of the Phoenix Zoning Ordinance. Guesthouses are prohibited in the SFR -5, and -7 Land Use Districts.
- c. Community Center, Private, is defined as a building used as place of meeting, recreation or social activity and may have outdoor recreational facilities for the exclusive use of Verdin residents and authorized guests and may include the Primary Uses, Accessory Uses, and Temporary Uses listed below. Unless otherwise stated herein, a Private Community Center may or may not be operated for profit.

Primary Uses for the Private Community Center permitted by-right include:

- (1) a place of meeting;
- (2) social activities;
- (3) active and/or passive indoor and outdoor recreation and entertainment, including but not limited to a fitness center, dance, swim or other forms of physical or instructional training (instructional training, such as health, dance, yoga, etc. classes and training may be operated for profit), live or amplified music, sport and athletic courts and fields, swimming pool/splash pad, lawn games, play equipment, etc.);
- (4) indoor and/or outdoor cooking areas and facilities; and
- (5) business center (not for profit).

Accessory uses to the Private Community Center permitted by-right, include but are not limited to:

- (1) permanent and/or temporary alcoholic beverage and/or food sales and/or consumption;
- (2) convenience market (alcoholic beverage sales prohibited);
- (3) snack bar/restaurant, which may include indoor and/or outdoor alcoholic beverage service and consumption and/or indoor and/or outdoor entertainment (live or amplified music, televisions, etc.); and

Accessory uses are subject to the following requirements:

- (1) Shall be limited to the entire community center building, along with any lawn area(s), patio area(s), and pool area(s). Alcoholic beverage service and consumption shall be licensed by the Arizona Department of Liquor Licenses and Control.

Temporary Uses to the Private Community Center authorized by the Verdin PUD shall be limited to Section 708 of the Phoenix Zoning Ordinance. In addition, the following uses shall be regulated in accordance with Section 708.C of the Phoenix Zoning Ordinance:

- (1) Community or Special Events
- (2) Promotional Events
- (3) Farmers Markets
- (4) Mobile Food Vending and Vendors

d. Model Homes

The developer of a Neighborhood Unit or subdivision shall be allowed to build model homes prior to recording a subdivision plat and subject to submitting a final plat that shows the following information for each model home lot:

- (1) Street addresses for each model home as assigned by the Planning & Development Department.
- (2) Finished floor elevations for each model home as approved by the Engineering Department.
- (3) Proposed lots for model homes shall be in conformance with lot lines as shown on the approved Preliminary Site Plan, Preliminary Plat, or Final Plat.
- (4) Each model home shall be located on each proposed lot in conformance with the yard or setback requirements of the Land Use District.

Additionally, sales office(s) may be located in the model home(s) or in a separate sales trailer, as well as construction trailers, subject to the provisions of Section 608.E.4 of the Phoenix Zoning Ordinance, except for Sections 608.E.4.c, .d, and .g(2), (3), and (4) of the Phoenix Zoning Ordinance:

- (1) Standard plans for a model home(s) shall be approved by the City's Planning & Development Department prior to issuance of a building permit.
- (2) Each model home complex shall provide at least 1 accessible parking space, 1 accessible toilet room with accessible route, and at least 1 no-step route from the sales office to at least 1 model home.
- (3) Sales office(s), model homes, and/or modular subdivision sales office(s) shall be permitted for a period not to exceed 10 years from the date of approval for the sales office(s) and/or model home(s). This time limit shall be extended only upon securing an Administrative Temporary Use Permit in accordance with Section 708.C of the Phoenix Zoning Ordinance.
- (4) All driveways and parking areas shall be dustproofed, including the use of decomposed granite, gravel, or similar surface cover.

2. Accessory Uses and Structures

Unless otherwise stated herein, Accessory Uses and Structures in the Verdin PUD shall be permitted in accordance with Sections 608 and 706 of the Phoenix Zoning Ordinance.

Section 4. Regulatory Standards & Land Use Districts

1. Regulatory Structure

The Verdin PUD is designed as a flexible regulatory blueprint that provides the ability to tailor development controls to the unique needs and evolution of Verdin. The Verdin PUD establishes baseline standards with respect to the maximum number of units, allowed density and types of home product allowed within Verdin provided that the land use for any given Master Development Parcel and/or Neighborhood Unit, and associated development standards, will be selected at the time of Preliminary Site Plan approval.

For this purpose, the Property has been divided into three Master Development Parcels that represent the planned phasing of Verdin. As an alternative to traditional zoning districts, the Verdin PUD utilizes custom-crafted land use districts ("Land Use Districts") to regulate the product type and associated development standards allowed within each Master

Development Parcel and/or Neighborhood Unit. The Land Use Districts within the Verdin PUD include:

- Single-Family Residential – Traditional (SFR-5)
- Single-Family Residential – Traditional (SFR-7)
- Single-Family Residential – Estate (SFR-9)
- Single-Family Residential – Estate (SFR-14)

The Land Use Districts will be distributed throughout the community to ensure diversity, efficient absorption, and a variety of home product and lifestyle choices for residents. The purposes of these districts are to:

- Provide for the orderly, well-planned, and balanced growth of residential neighborhoods.
- Provide for a sustainable and marketable variety of housing types in a range of densities.
- Promote the development of residential neighborhoods with well-designed connectivity systems that encourage recreational opportunities and social interaction.
- Provide for appropriate active and passive common open spaces, a community center, and other amenities that are compatible with and improve the quality of life of Verdin residents.

a. Master Development Parcels

The regulatory framework for Verdin centers around the Master Development Parcels, which represent planned phasing of Verdin. Each Master Development Parcel, which represents approximately one-third of the overall Property acreage, is assigned a Maximum Unit Count and range of Allowed Land Use Districts. As defined within the Master Development Parcel Budget set forth below, any of the Allowed Land Use Districts may be developed within a specific Master Development Parcel up to the Maximum Allowed Percentage. The number of units within a Master Development Parcel is governed by the Maximum Unit Count provided that the overall number of units within Verdin does not exceed 1,250. A Master Development Parcel may be further subdivided into Neighborhood Units, based on market conditions and development needs. The Maximum Unit Count, Allowed Land Use Districts, and Maximum Allowed Percentage for the sum total of any Neighborhood Unit(s) within a Master Development Parcel is subject to the limits for that Master Development Parcel.

The final Maximum Unit Count and Land Use District(s) for a Master Development Parcel, or Neighborhood Unit thereof, will be selected at the time of Preliminary Site Plan approval (“Development Parcel Allocation”).

b. Development Parcel Allocation and Tracking

A record of the Development Parcel Allocation as compared to the limits as established within the Master Development Parcel Budget shall be included on a tracking spreadsheet to be provided with each Preliminary Site Plan processed with the City’s Planning & Development Department. The Development Parcel Allocation spreadsheet will be used to track unit count and Land Use District(s) allocations for each Master Development Parcel, or Neighborhood Units thereof, including a running total of the overall units allocated within Verdin. The tracking spreadsheet must include the following information:

1. Final Unit Count for each Master Development Parcel, or Neighborhood Unit thereof, including a running tally of the overall units allocated within Verdin.
2. Land Use District(s) selected for each Master Development Parcel, or Neighborhood Unit thereof.

c. Development Standards

The Development Standards for each Land Use District allowed within the Verdin PUD as well as development standards for a Private Community Center(s) are articulated in Section 5. Development Standards.

Verdin Development Parcel Allocation Table				
Master Development Parcel	Master Development Parcel Acreage	Maximum Unit Count ¹	Allowed Land Use Districts ²	Maximum Allowed Percentage ³
A	154 +/-	550	Traditional (SFR-5 & SFR-7) Estate (SFR-9 & SFR-14)	75% 50%
B	168 +/-	600	Traditional (SFR-5 & SFR-7) Estate (SFR-9 & SFR-14)	75% 50%
C	166 +/-	600	Traditional (SFR-5 & SFR-7) Estate (SFR-9 & SFR-14)	75% 50%
<i>Total Gross Acreage</i>	488 +/-			
<i>Maximum Overall Unit Count</i>		1,250		
<i>Maximum Overall Density</i>		2.6 du/ac		

2. Land Use District Descriptions

Below is a summary of the Land Use Districts allowed within Verdin. The images and descriptions below each Land Use District are conceptual and for illustrative purposes only and are not regulatory.

¹ The **Maximum Unit Count** for each Master Development Parcel is the total number of dwelling units allowed, provided the total unit count for Master Development Parcels A, B and C combined may not exceed the Maximum Overall Unit Count of 1,250 units. The actual unit count for a Master Development Parcel, or Neighborhood Unit thereof, is determined at Preliminary Site Plan approval.

² The final **Land Use District(s)** for a Master Development Parcel, or Neighborhood Unit thereof, is determined at Preliminary Site Plan approval. Any of the allowed Land Use Districts may be developed in any location within a Master Development Parcel or Neighborhood Unit thereof.

³ The **Maximum Allowed Percentage** is the maximum percentage of gross land area of a Master Development Parcel that may be developed under a specific Land Use District.

a. Single-Family Residential – Traditional (SFR-5)

The SFR-5 district accommodates single-family detached dwellings located on minimum 5,000 square-foot lots with a maximum density of 6 dwelling units per acre.

The SFR-5 district facilitates a traditional suburban home design on compact lots offering the opportunity for a single-family lifestyle option without significant outdoor maintenance. Homes within the SFR-5 district will have functional private yards with room for amenities such as a pool or larger outdoor patio. Homes will be one and two-stories. SFR-5 neighborhoods will be designed with strong connectivity to common open space corridors, trails and community amenities to foster a social living environment.



b. Single-Family Residential – Traditional (SFR-7)

The SFR-7 district accommodates single-family detached dwellings located on minimum 7,000 square-foot lots with a maximum density of 4.5 dwelling units per acre.

The SFR-7 district provides a classic suburban living environment with larger private yards that offer opportunities for multiple amenities, such as backyard pools and spas, outdoor ramadas and kitchens and generous landscaping. The SFR-7 district may include a healthy mix of one and two-story homes. SFR-7 neighborhoods will enjoy the same access to community amenities, pedestrian trails and common open space corridors as the smaller lot districts combined with generous personal living environments to foster a ‘best of both worlds’ suburban experience.



c. Single-Family Residential – Estate (SFR-9)

The SFR-9 district accommodates single-family detached dwellings located on minimum 9,000 square-foot lots with a maximum density of 3.5 dwelling units per acre.

The SFR-9 district will accommodate spacious homes with a growing emphasis on private outdoor yards and living spaces. Homes may include optional elements such as three car-plus garages, bonus living spaces and enriched outdoor amenities such as private pools and spas, shade ramadas and outdoor kitchens. One and two-story homes are allowed within the SFR-9 district. SFR-9 is a transitional district that may be used as a land use transition between larger estate-style properties and the smaller lot suburban neighborhoods. Neighborhoods in the SFR-9 district will include a strong emphasis on community trail and common open space corridors to promote connectivity within Verdin and to natural desert assets outside the community.



d. Single-Family Residential – Estate (SFR-14)

The SFR-14 district accommodates estate-style single-family detached dwellings located on minimum 14,000 square-foot lots. SFR-14 provides the largest lot size and lowest density within Verdin. The maximum density of the SFR-14 district is 2.5 dwelling units per acre.

Homes within the SFR-14 district will be generously proportioned estate-style residences with spacious indoor and outdoor living spaces. Outdoor yards may include options for resort-style pool and spa areas, substantial outdoor patios and kitchens along with opportunities for guest houses. One and two-story homes are allowed within SFR-14 although homes are likely to be predominantly one-story. While SFR-14 neighborhoods will be designed to respect resident privacy and may be gated, these neighborhoods will include connections to the overall trail and common open space system to reinforce the community-wide commitment to an accessible natural desert environment.



Section 5. Development Standards

The Verdin PUD has been prepared pursuant to Section 671 of the Phoenix Zoning Ordinance to establish the regulatory framework for Verdin, including creating development standards specific to the context of the Property and development.

The intent of the Verdin PUD is to provide greater flexibility than may be possible under conventional zoning district regulations. The PUD zoning district will be utilized to create development standards to facilitate a high-quality, context specific development that fulfills the City's goals and objectives.

Development standards not modified by the Verdin PUD shall comply with the Planned Residential Development (PRD) Single-Family Detached development standards in the R1-6 (Single-Family Residential) zoning district in Section 613 of the Phoenix Zoning Ordinance.

Single-Family Land Use District Development Standards

<i>Development Standard</i>	<i>SFR-5^{4,8}</i>	<i>SFR-7^{4,8}</i>	<i>SFR-9^{1,4,8}</i>	<i>SFR-14^{1,8}</i>
<i>Min. Lot Area</i>	<i>5,000 sf</i>	<i>7,000 sf</i>	<i>9,000 sf</i>	<i>14,000 sf</i>
<i>Min. Lot Width</i>	<i>45'</i>	<i>55'</i>	<i>65'</i>	<i>90'</i>
<i>Min. Lot Depth</i>	<i>None</i>			
<i>Max. Dwelling Unit Density</i>	<i>6 du/ac</i>	<i>4.5 du/ac</i>	<i>3.5 du/ac</i>	<i>2.5 du/ac</i>
<i>Max. Units</i>	<i>1,250 dwelling units for the entire PUD area</i>			
<i>Min. Perimeter Building Setbacks</i>				
<i>Sonoran Desert Drive</i>	<i>15'</i>			
<i>Collector ROW</i>	<i>15'</i>			
<i>Min. Common Landscape Setbacks</i>				
<i>Sonoran Desert Drive ROW</i>	<i>30' average; 15' min.</i>			
<i>Arterial/Collector ROW</i>	<i>15' average; 10' min.</i>			
<i>All other Perimeter Property Lines</i>	<i>No requirement.</i>			
<i>Min. Interior Building Setbacks</i>				
<i>Front Livable⁷</i>	<i>10'</i>			
<i>Garage²</i>	<i>18' from back of sidewalk</i>			

<i>Development Standard</i>	<i>SFR-5^{4,8}</i>	<i>SFR-7^{4,8}</i>	<i>SFR-9^{1,4,8}</i>	<i>SFR-14^{1,8}</i>
<i>Rear³</i>	15'		20'	
<i>Street Side</i>	10' ⁴			10'
<i>Non-Street Side</i>	5'			
<i>Max. Lot Coverage⁵ (primary structure and any attached or detached structures)</i>	Primary structure, not including attached shade structures: 45%; Total 55%			
<i>Max. Building Height⁶</i>	2-stories and 30'			
<i>Min. Common Area (per Master Development Parcel)</i>	20% gross			
<i>Min. Common Area (per Neighborhood Unit)</i>	10% gross			
<i>On-Lot Common Retention</i>	Common retention required for lots less than 8,000 sf		None	
<i>Landscape Standards (adjacent to Sonoran Desert Drive)</i>	Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.			

¹Guesthouses must conform with the development standards of the underlying Single-Family Land Use District.

²Front garage setback may be reduced to 10' measured from property line for side-loaded garages. Minimum face of garage setback to be 18' from back of sidewalk or back of right-of-way, whichever is less.

³Where a rear lot line is immediately adjacent to a "Preserve Edge/MCFCD" Property boundary as shown on Exhibit 5: Edge Openness Plan, 2-story homes shall be setback a minimum of 25'.

⁴Landscape tracts can reduce the minimum street side setback by the width of the tract up to 5' within the SFR-5, -7 and -9 land use districts. The street side building setback may not be reduced within the SFR-9 land use district for two-story homes.

⁵The total structural coverage provided on the sum of all the lots and tracts within each Subdivision Plat of which is divided or prorated between each of the lots after streets (both public and private) are subtracted from the total net area.

⁶Not more than 50% of lots immediately adjacent to the "Preserve Edge/MCFCD" Property boundaries as shown on Exhibit 5: Edge Openness Plan or immediately adjacent to the Mesquite Wash shall have a building height greater than 1-story or 24' measured to top of parapet or the top of the ridge on sloping roofs. Additionally, building height for homes built on the first row of residential lots immediately adjacent to the northern (Sonoran Desert Drive) and eastern property lines of the Property Perimeter shall be limited to a maximum 1-story, with a maximum height of 24' measured from the top of parapet or to the top of the ridge on sloping roofs.

⁷Setback from Front Livable includes covered areas such as covered porches, covered patios and covered porticos.

⁸ Refer to Development Parcel Allocation Table (Regulatory Standards & Land Use Districts—Development Standards) for maximum dwelling unit count for each Development Parcel.

Private Community Center Development Standards

BUILDING SETBACKS	
<i>Minimum Lot Area</i>	<i>No requirement.</i>
<i>Minimum Lot Width</i>	
<i>Minimum Lot Depth</i>	
<i>Minimum Building Setbacks</i>	
<i>Front</i>	<i>15'</i>
<i>Street Side</i>	<i>15'</i>
<i>Not Adjacent to Streets</i>	<i>20'</i>
<i>Maximum Lot Coverage (primary structure and any attached or other detached structures)</i>	<i>60%</i>
<i>Maximum Building Height</i>	<i>2-stories and 30'</i>
PARKING	
<i>Private Community Center</i>	<p><i>1 space per 300 s.f. of gross building area (based on 80% of total gross building area for the primary community center building).</i></p> <p><i>The Private Community Center parking ratio supersedes and replaces the standards of Section 702.c of the Phoenix Zoning Ordinance. No additional parking spaces are required for any additional building areas or accessory uses to the Private Community Center, including but not limited to a community pool, sport court, play field, playground or event lawn.</i></p>

LANDSCAPE STANDARDS	
<i>Landscape Setback</i>	<i>Average 15'</i>
<i>Planting Type</i>	<i>Minimum Planting Size</i>
<i>Trees¹</i>	<i>Minimum 2" caliper, 75% of required trees Minimum 3" caliper, 25% of required trees</i>
<i>Shrubs</i>	<i>Minimum five (5) 5-gallon shrubs per tree</i>
PARKING LOT AREA	
<i>Interior Landscape Surface Area (exclusive of perimeter landscaping and all required setbacks)</i>	<i>Minimum 10%</i>
<i>Landscape Planters</i>	<i>At ends of each row of parking and approximately every 110'</i>
<i>Landscape Planters, Single Row of Parking²</i>	<i>Minimum 120 sf</i>
<i>Landscape Planters, Double Row of Parking²</i>	<i>Minimum 240 sf</i>
<i>Additional Parking Lot Landscaping</i>	<i>Minimum 10%, evenly distributed throughout entire parking lot. Minimum interior dimensions 5' (length and width).</i>
<i>Planting Type</i>	<i>Minimum Planting Size</i>
<i>Trees¹</i>	<i>Minimum 2" caliper, 50% of required trees Minimum 1" caliper, 50% of required trees</i>
<i>Shrubs</i>	<i>Minimum five (5) 5-gallon shrubs per tree</i>
PERIMETER PROPERTY LINES (NOT ADJACENT TO STREETS)	
<i>Property Lines Not Adjacent to a Street</i>	<i>Minimum 10' landscape setback</i>
<i>Planting Type</i>	<i>Minimum Planting Size</i>
<i>Trees¹</i>	<i>Minimum 2" caliper, 50% of required trees Minimum 1" caliper, 50% of required trees</i>
<i>Shrubs</i>	<i>Minimum five (5) 5-gallon shrubs per tree</i>

ADJACENT TO A BUILDING	
<i>Building facades oriented to and within 50' of a street</i>	<i>Minimum 25% of the exterior wall length shall be treated with a landscaped planter a minimum 5' in width of an arcade or equivalent feature, or as otherwise approved by the city of Phoenix Planning & Development Director or designee.</i>
<i>Planting Type</i>	<i>Minimum Planting Size</i>
<i>Trees¹</i>	<i>Minimum 2" caliper, 50% of required trees Minimum 1" caliper, 50% of required trees</i>
<i>Shrubs</i>	<i>Minimum five (5) 5-gallon shrubs per tree</i>

¹ 20' on center or equivalent groups.

² Measured from inside face-of-curb to inside face-of-curb.

Section 6. Landscape, Fences & Walls

The Landscape, Fencing and Wall standards for Verdin establish the minimum acceptable standards for the integration of the built environment into the natural landscape while providing a comfortable, accessible and aesthetically pleasing community. The final design (color, material, etc.) of all walls/fences shall be prepared as part of the Master Plan process for Verdin.

The Landscaping, Fences and Wall standards within Section 703 of the Phoenix Zoning Ordinance apply to Verdin, except as provided below:

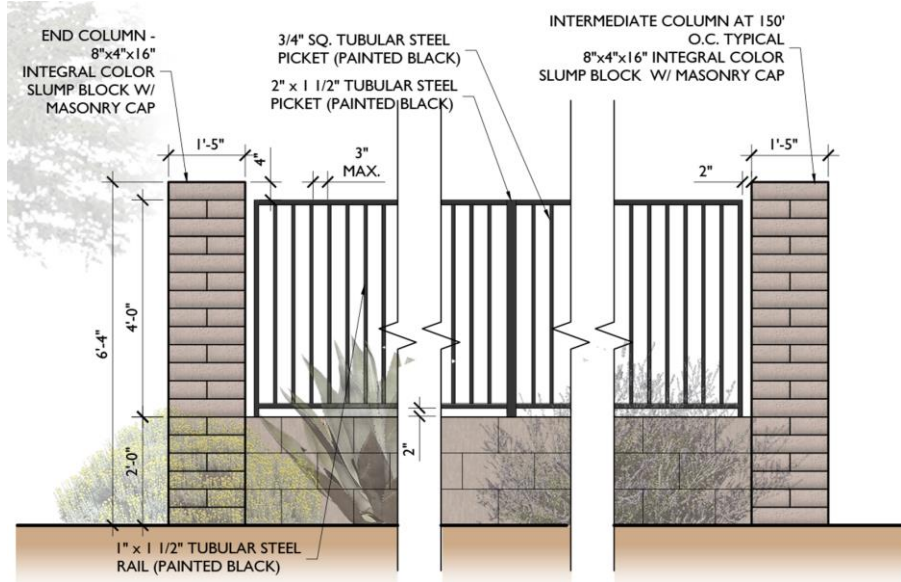
1. When not prohibited by City Code, Section 31-13, Primary Ornamental Entries no higher than 16-feet are allowed: (1) At or near the primary entrance to Verdin within or adjacent to the required Perimeter Building Setback and/or Common Landscape Setback; and/or (2) Along the Primary Collector within Master Development Parcel C (e.g., within or near a round-a-bout, etc.). Architectural embellishments and non-supporting structures, including but not limited to spires, towers, pylons, columns, trims and other similar features or projections, are allowed up to a maximum height of 30-feet, when not prohibited by Section 31-13 of the Phoenix City Code. Such architectural embellishments will be a secondary or supporting design element to the Primary Ornamental Entry.
2. Where adjacent to Sonoran Desert Drive, a maximum 8-foot high freestanding solid wall, Type 2 partial view fence, and/or Accent Wall may be erected within or bounding the Common Landscape Setback, where not prohibited by City Code, Section 31-13 “obstructing visibility at intersections”. Supplemental salvaged plant material (if available) will be planted adjacent to Sonoran Desert Drive (on the north side of the wall/fence) to enhance and visually screen the wall/fence from Sonoran Desert Drive. Columns may exceed the maximum allowed wall height by up to 4-inches.
3. Where adjacent to all other Perimeter Property lines, a maximum 8-foot high freestanding solid wall, full view fence, Type 1 partial view fence, and/or Type 2 partial view fence may be erected, where not prohibited by City Code, Section 31-13 “obstructing visibility at intersections”, except:
 - a. Freestanding solid walls are prohibited where located on a Perimeter Property line and immediately adjacent to a “Preserve Edge/MCFCD” Property boundary as shown in *Exhibit 5: Edge Openness Plan*. Any walls or fencing along a “Preserve Edge/MCFCD” Property boundary as shown in *Exhibit 5: Edge Openness Plan*, other than walls or fencing for individual residential lots, shall be comprised of barrier type fencing (as shown on pages 44 and 45) or other similar fencing (“*Barrier Fencing*”),

which will be designed with sufficient openings to allow the regular passage of wildlife.

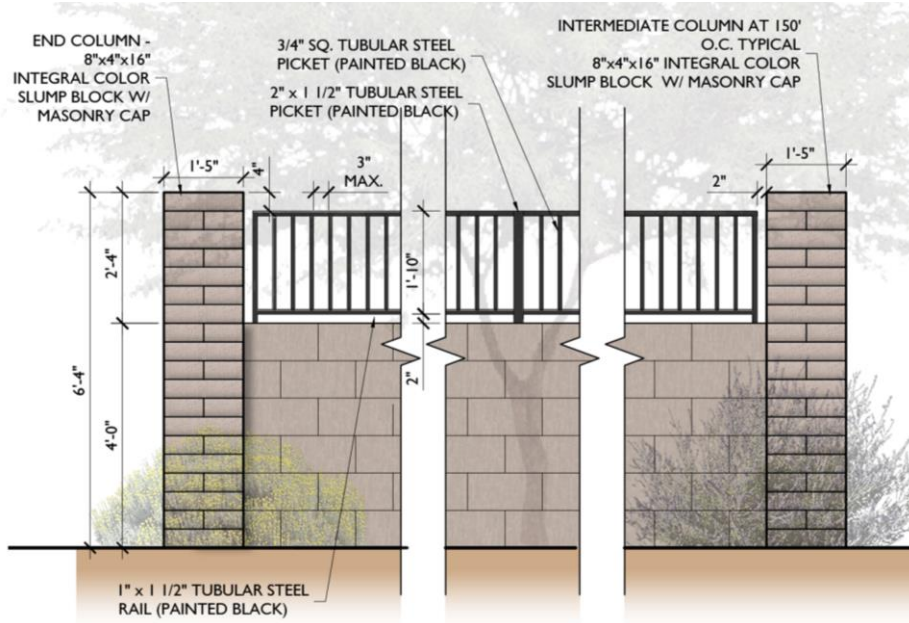
- b. Where internal common open space or a walk-in trailhead is immediately adjacent to a “Preserve Edge/MCFCD” Property boundary as shown in *Exhibit 5: Edge Openness Plan*, a maximum 5-foot high full view fencing, or a maximum 42-inch tensile, open, split rail, or other similar fence is required. Fencing will be designed to discourage uncontrolled access.
4. Within or bounding the side yard or rear yard of any residential lot abutting the Primary Collector, Secondary Collector, or other internal roadways, a maximum 6-foot, 4-inch high freestanding solid wall or Type 2 partial view fence is required. On all other side yard or rear yard residential lot property lines, a maximum 6-foot, 4-inch high freestanding solid wall, Type 1 partial view fence, or Type 2 partial view fence may be erected.
5. Where oriented toward Sonoran Desert Drive, public rights-of-way, or visible from internal roadways, a straight fence/wall should vary by a minimum of 4-feet every 400 lineal feet to visually reflect a meandering or staggered setback. Design features should be used to break up the appearance of a long, straight wall. Such design features may include, but should not be limited to planters, decorative walls less than 3 feet in height, and dense landscaping adjacent to the wall to screen it. If design features other than meandering, curvilinear, or staggered setbacks are used, the developer should demonstrate how the design visually breaks up the long, straight wall/fence appearance and such alternate design features must be approved by the Planning & Development Department at the time of Master Plan Review.

Typical Wall Elevations
(Actual Colors, Finish Materials, Dimensions may be modified)

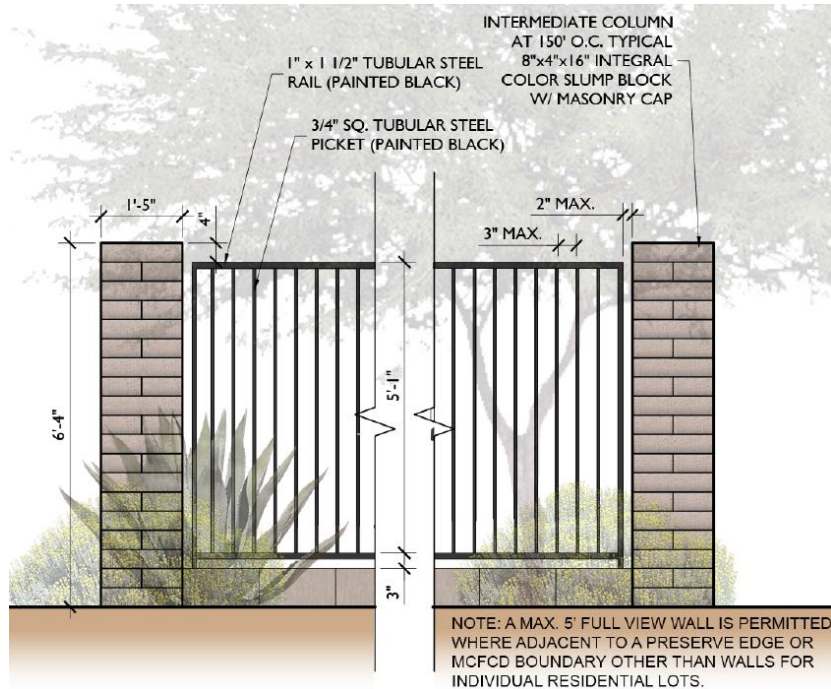
Type 1 Partial View Fence (typ.)



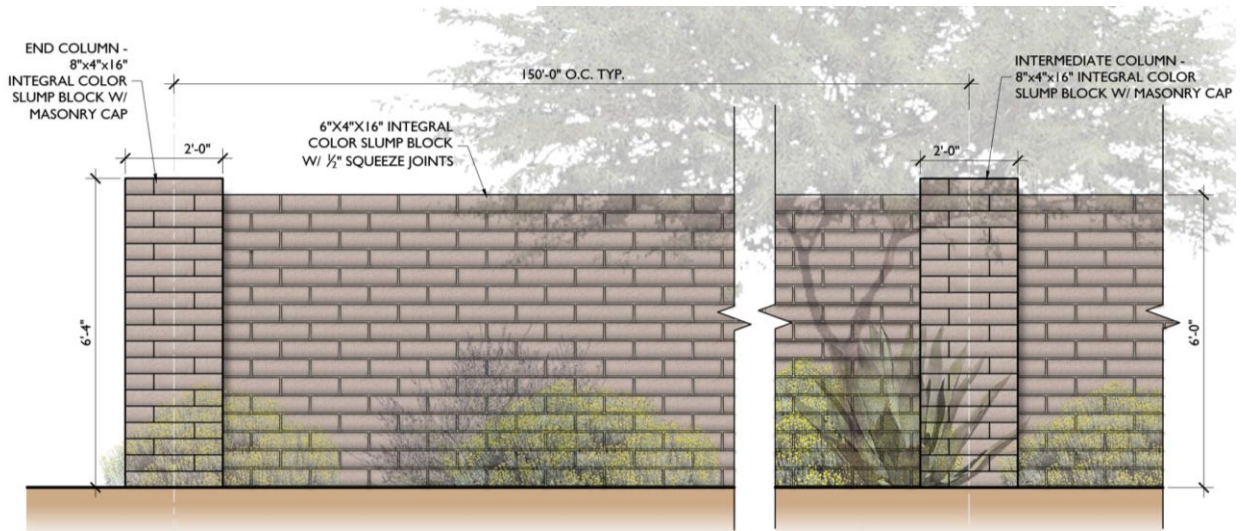
Type 2 Partial View Fence (typ.)



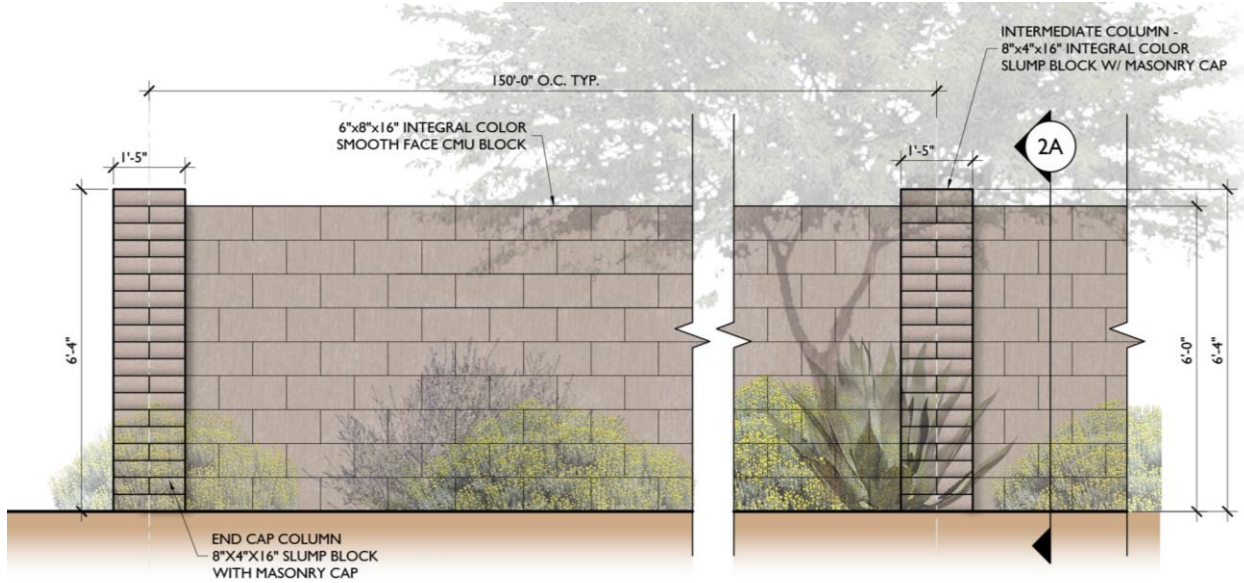
Full View Fence (typ.)



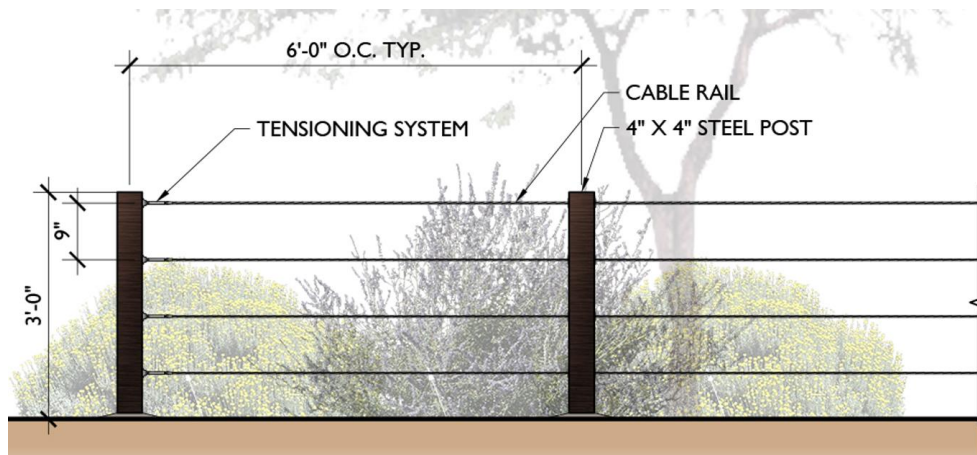
Theme Wall—Collector (typ.)

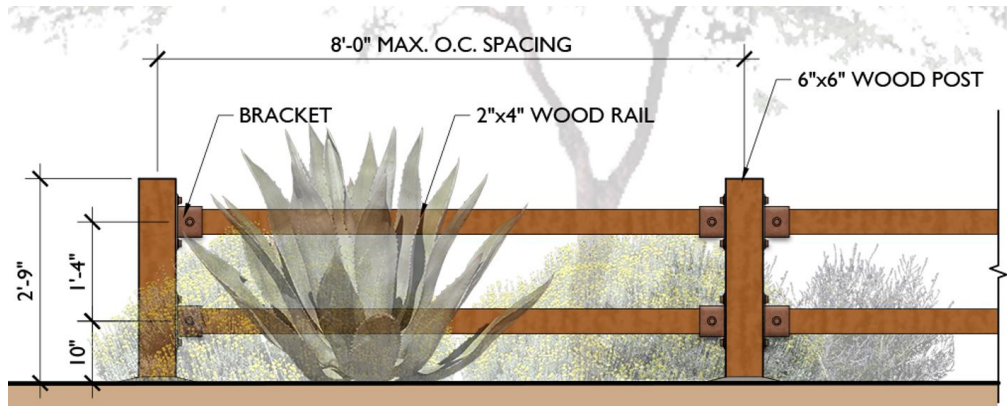
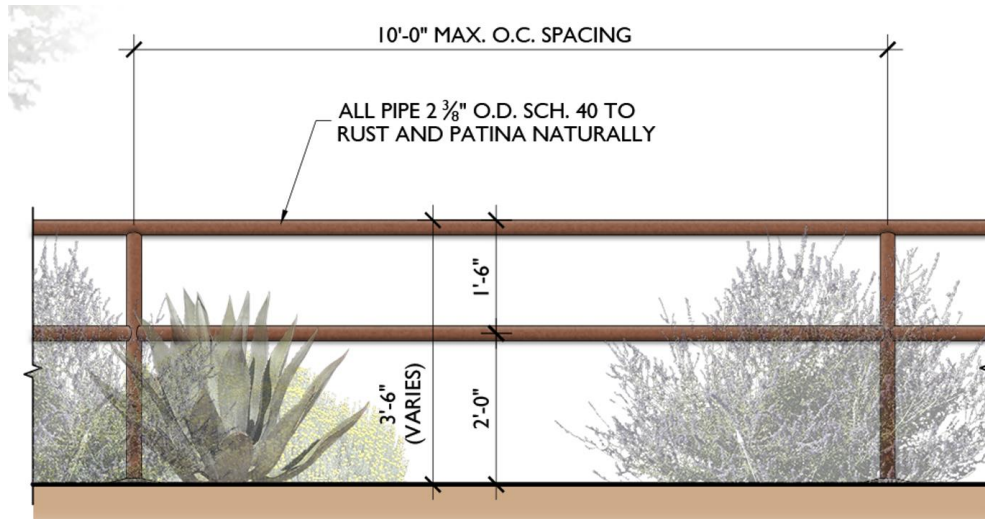


Solid Wall—Internal (typ.)

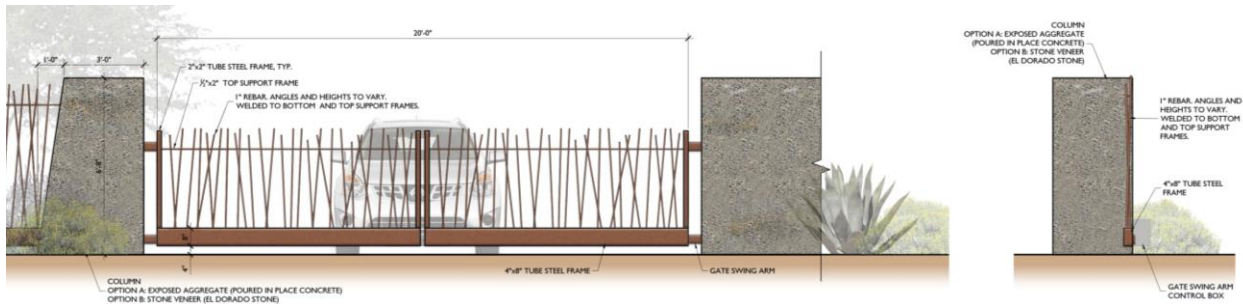


Barrier Fencing (typ.)

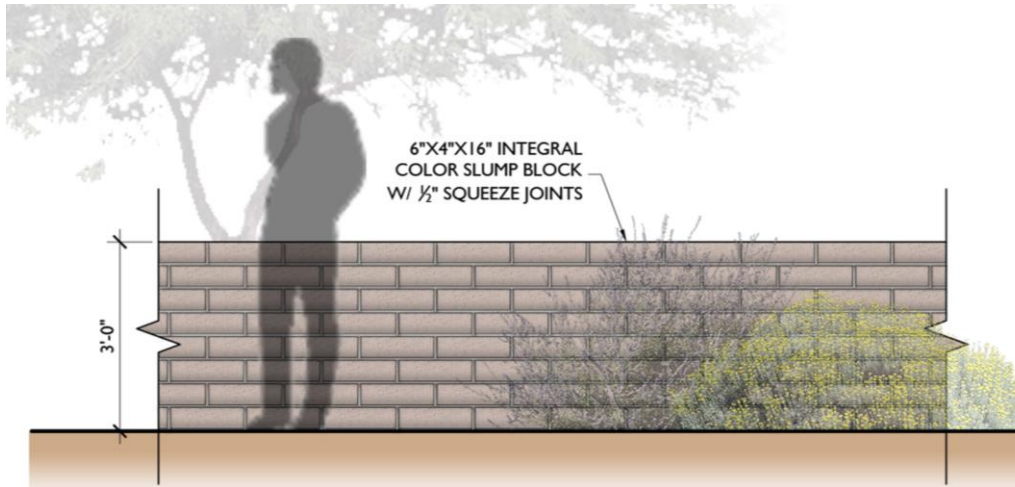




Neighborhood Unit Entry Gate (typ.)



Accent Wall (typ.)



6. Individual retaining walls are permitted by-right so long as the height is limited to 6-feet when located within 50-feet of a subdivision Perimeter Property line or the property line of an un-platted parcel. The total combined vertical height of each individual wall may not exceed 12-feet.
7. An individual retaining wall is limited to 4-feet in height within the front yard and 6-feet within the street side yard. The total combined vertical height of an individual wall within the street side yard may not exceed 12-feet.

Section 7. Lighting

Lighting within Verdin shall comply with *Section 8: Verdin Design Guidelines* and Sections 704 and 507, Tab A – II.A.8 of the Phoenix Zoning Ordinance.

Section 8. Verdin Design Guidelines

SECTION 1 – INTRODUCTION

1.A Purpose and Intent

The purpose of the Verdin Design Guidelines (“Verdin Design Guidelines”) is to create a comprehensive and contextually appropriate set of design guidelines to govern neighborhood

design, architecture, landscaping, open space and amenities, and circulation within a cohesive master planned community. The Verdin Design Guidelines will ensure that the community sensitively integrates within the natural desert environment, particularly in areas where there is a shared edge with the Sonoran Preserve. The Verdin Design Guidelines focus on addressing the relationship between the proposed development and the desert washes and native vegetation, creating non-vehicular connectivity within and beyond the limits of the Property, and establishing parameters for the use of compatible colors, materials and vegetation that complement the character of the Sonoran Desert. The Verdin Design Guidelines are intended to support the achievement of high quality, market relevant design that responds to the surrounding context. All development and housing product within Verdin shall demonstrate consistency with the Verdin Design Guidelines.

All site design, development and housing product within Verdin must demonstrate consistency with the Verdin Design Guidelines.

The Verdin Design Guidelines are organized into five sections:

- 1. Introduction**
- 2. Site and Neighborhood Design**
- 3. Architectural Styles**
- 4. Landscape Design**
- 5. Walls and Fences**
- 6. Desert Edge Treatment**

Each of these sections describes the general intent and specific criteria for design within each of the Master Development Parcels and Neighborhood Units.

1.B Regulatory Intent

The Verdin Design Guidelines are general in nature, predominantly meant to guide rather than dictate. The intent is to encourage best development practices in ways that will ensure that both quality and unity is achieved within Verdin, with emphasis placed on creating diversity throughout the natural and built environment.

The Verdin Design Guidelines include specific implementation guidelines consisting of **Requirements** and **Presumptions**.

Requirements (R). Requirements (R) are not discretionary in that they contain language such as “shall,” “must,” and “will.” Requirements must be satisfied prior to design review approval. If a Requirement cannot be satisfied, the Planning & Development Department Director or designee may approve an alternative that achieves the intent of the Requirement. If such request is denied by the Planning & Development Department Director or designee, an appeal may be filed by an applicant with the Design Review Committee.

Presumptions (P). A Presumption (P) normally will contain the word “should,” “encourage,” or “may.” A plan submitted for design review is expected to include presumptive elements, unless sufficient justification is provided to overcome the presumption.

Overcoming a Presumption. A presumption that may be unsuitable for a given project may be waived, or an alternative approved, if an applicant can demonstrate to the Planning & Development Department that there is a good reason why the presumption cannot be met. The Planning & Development Department may approve an alternative that achieves the intent of the presumption.

Appropriate reasons for overcoming a presumption include:

1. Demonstrating that in this instance the underlying design principle will not be furthered by the application of the Presumption;
2. Showing that another design principle is enhanced by not applying the Presumption;
3. Demonstrating an alternative method for achieving the intent of the Presumption;
4. Explaining the unique site factors that make the Presumption unworkable, such as lot shape, slope, natural vegetation, drainage, and characteristics of adjacent development which are identified through their use of materials, colors, building mass and form, and landscaping.

An increase in the cost of development is not an acceptable reason to waive a guideline or determine that a guideline is inappropriate.

Appeals. In the event that a Presumption is not incorporated or overcome, an appeal may be filed by an applicant with the City’s Design Review Committee.

The design guidelines within Section 507 Tab A of the Phoenix Zoning Ordinance apply to the Property, provided that the Sonoran Preserve Edge Treatment Guidelines (Section 507 Tab A II.E.3) have been incorporated into and are superseded by the Verdin Design Guidelines. The Verdin Design Guidelines also include numerous guidelines that originated from the North Black Canyon Corridor Overlay District, and the Desert Character Overlay District. These Verdin Design Guidelines are intended to heighten the level of design within Verdin beyond the more generally applicable design guidelines within Section 507 Tab A and provide specific guidance for new development within the context of the surrounding desert environment. The provisions of the North Black Canyon Corridor Overlay District and the Desert Character Overlay District contained within the Phoenix Zoning Ordinance do not apply to the Property. Where the Verdin Design Guidelines conflict with other design guidelines (including Phoenix Zoning Ordinance Section 507, Tab A) or development standards within the Phoenix Zoning Ordinance, the Verdin Design Guidelines shall control.

SECTION 2 – SITE AND NEIGHBORHOOD DESIGN

The intent of the Site and Neighborhood Design guidelines is to provide guidance for creating efficient and appealing Neighborhood Units and seamless connections throughout Verdin as a whole.

2.A Neighborhood Design

Neighborhood Units will be designed to promote walkable, accessible, and connected neighborhoods designed with an emphasis on desert-sensitive design and shade. The lot layout of individual residences should emphasize diversity and scale along the street, minimizing visual monotony through creative planning techniques such as varied setbacks and lot widths and strategic use of landscaping.

2.A.1 Neighborhood Identity Element.

Each Neighborhood Unit will have an identifying or organizing element such as a small park, common open space, or amenity area intended to provide a place for nearby Verdin residents to gather and foster a sense of place. These small neighborhood identify elements must be thoughtfully located within each Neighborhood Unit as to be central and/or functionally accessible within each Neighborhood Unit, including near a Neighborhood Unit Entry and/or along pedestrian linkage. (R)

2.A.2 Building Setbacks.

Building setbacks on individual lots shall be dictated by the development standards provided in the Single Family Dwelling Unit Development Standards; however, to emphasize diversity and scale along the street, varied setbacks are encouraged where feasible. Setback variability should be encouraged for larger lot homes (SFR-9 and -14) where lot sizes will allow for increased flexibility. (P)

2.A.3 Building Orientation.

The front face of the home shall be parallel to the street frontage (or tangential to the street frontage in the case of a curved street, knuckle or cul-de-sac) regardless of the shape of the lot. (R)

2.A.4 Shade.

Streets and sidewalks should include shade to encourage pedestrian activity. An emphasis on shade elements, such as landscaping, trees, or shade structures, should be provided at key nodes where pedestrian activity is more likely to occur, such as at the confluence of sidewalks and trails, and near common open space or recreation areas. (P)

Public sidewalks adjacent to the Primary and Secondary Collectors shall be shaded a minimum of 50%. Verdin seeks to emulate and blend with the vegetation densities and species commonly found within the adjacent native desert. Other common areas and public roadway corridors will also include tree plantings in densities similar in character to the adjacent native desert. Collectively, the vegetation along the Primary and Secondary Collectors, along with the other common areas, will provide the necessary balance of shade, while allowing for some natural light to penetrate the desert floor to facilitate growth of shrubs and groundcover that provide habitat for many native animal species. (R)

Public and/or private sidewalks adjacent to Local Roads have no shade requirement.

2.B Street Design

Streets are community spaces, designed to enhance the identity and visual image of each Neighborhood Unit through a diverse streetscape experience.

Community Collectors. The Primary Collector is planned as a signature design element and forms the backbone of the vehicular and pedestrian circulation system. The Primary Collector

will be a boulevard-style median separated roadway with landscape areas planned immediately back-of-curb to provide a generous canvas for community themed landscaping and street trees. Detached sidewalks will be set back a minimum of 6-feet from the back-of-curb to provide a safe pedestrian environment that encourages walking throughout the community, including enhance landscaping with shade trees (“Shade Tree(s)”) (noted by “*” in Plant Palette).

Local Streets. Local streets are the primary street type within the Neighborhood Units and will connect individual homes, common open spaces, and community amenities to the larger connectivity network. Local streets may include private or public street configurations designed to accommodate pedestrian traffic through sidewalk connections to community amenities such as parks, common open spaces and pedestrian trails. Local streets may include reduced street widths while still providing on-street parking, which will contribute to traffic calming by visually narrowing the street corridor. Curb detailing may include ribbon curbs to enable a continuous transition from pavement to landscaping without interruption.

2.B.1 Curvilinear Streets.

Curvilinear street design should be encouraged to minimize the effect of traffic. Changing views are encountered when traveling a curved roadway, avoiding the tunnel effect of straight streets. (P)

2.B.2 Neighborhood Unit Entries.

Streets at Neighborhood Unit Entry areas should align with meaningful destinations, such as parks, view corridors, or significant planting areas. (P)

2.B.3 Street Length.

Block length should generally be limited to 600-feet unless additional length is appropriate based on natural conditions or other unique design considerations or is mitigated with traffic calming measures. Traffic calming measures, where appropriate, include the use of tree-lined streets, curvilinear streets, speed cushions, and/or common open space areas and pedestrian connections located within a block. (P)

Block length to be measured along the centerline between intersecting street centerlines, including “T” intersections and knuckle intersections.

2.B.4 Cul de Sacs.

Cul de sacs, where used, should strategically provide connections or ‘windows’ to common open spaces and pedestrian trails. (P)

2.B.5 Gated Entries

Gates should be designed with desert-sensitive materials and colors and accent landscaping that enhance the Neighborhood Unit Entry. (P)

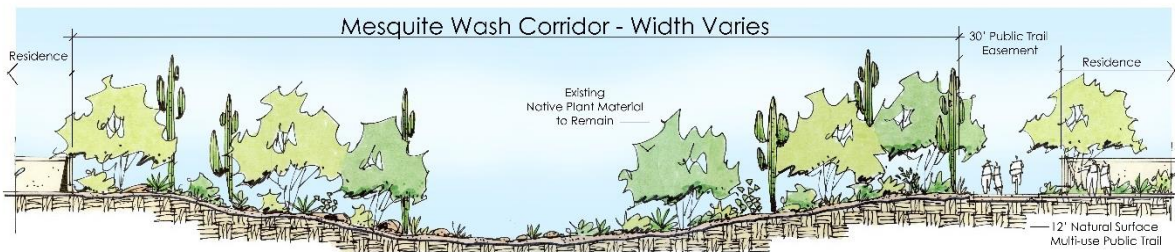
2.C Pedestrian Connectivity and Sidewalks

Neighborhood Unit design should provide emphasis on walkability and the unique opportunity to public provide connections to the Sonoran Preserve. The following Verdin Design Guidelines establish standards for a network of trail, sidewalk and pathway types that will developed.

2.C.1 Mesquite Wash Trail

A natural surface multi-use public trail will be developed along the Mesquite Wash Corridor and is intended to function as the backbone of Verdin’s pedestrian circulation network. The Mesquite Wash Trail shall be constructed as a 12-foot wide compacted natural surface multi-use public trail within a 30-foot wide public multi-use trail easement that will extend from the southern Property boundary to north for more than 1-mile eventually terminating at and connecting with Sonoran Desert Drive, as generally shown in *Exhibit 6: Pedestrian Circulation Plan*. The Mesquite Wash Trail will run parallel to the existing Mesquite Wash establishing the first formal public access link between the north and south halves of the Sonoran Preserve. Additionally, it will allow Verdin residents to experience connections between the various Neighborhood Units in a natural desert setting. Multiple access points to Verdin will intersect with the Mesquite Wash Trail. The final location and design of the Mesquite Wash Trail and trail connections will be coordinated with and approved by the City’s Parks & Recreation and Planning & Development Departments. The Mesquite Wash Trail will include permanent public access easements to ensure public access is maintained through Verdin to the Sonoran Preserve. The Mesquite Wash Trail will be designed to restrict unauthorized motor vehicle access through Verdin to the Sonoran Preserve. (R)

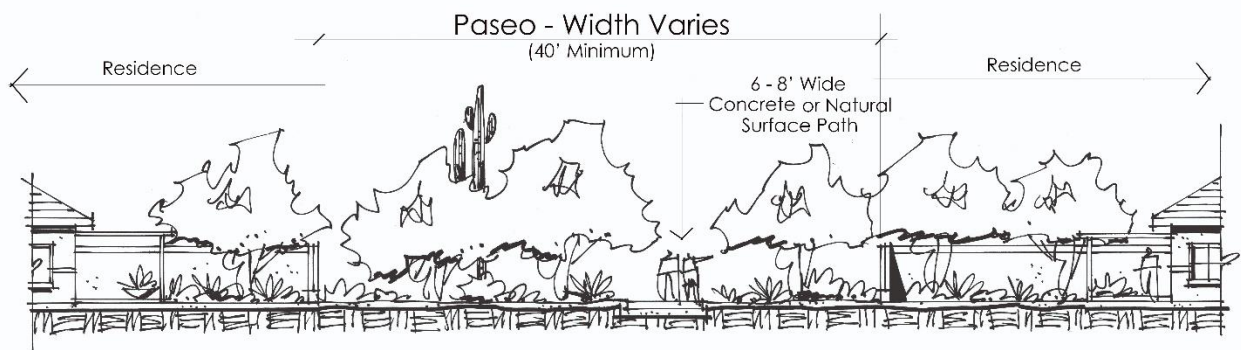
Conceptual Wash Corridor



Typical Mesquite Wash Corridor and Trail

2.C.2 Paseo Corridors

Verdin will include linear pathways, identified as Paseo Corridors, that extend between each Neighborhood Unit to promote pedestrian connectivity and view corridors. These Paseo Corridors will be a minimum of 40-feet and typically be bounded on either side by adjacent lots with view fence, partial view fence or theme walls, as generally shown in *Exhibit 6: Pedestrian Circulation Plan*. At semi-regular intervals, connection points into the adjacent Neighborhood Units through common open space and between-lot corridors will be provided to facilitate access to the overall pedestrian network and between Neighborhood Units. The pathways within the Paseo Corridors will range between 6 and 8-feet in width and will be comprised of concrete or natural surface type. The final location and design of the Paseo Corridors will be coordinated with and approved by the City's Parks & Recreation and Planning & Development Departments. The Paseo Corridors will include permanent public access easements to ensure public access is maintained through Verdin to the Sonoran Preserve. The Paseo Corridors will be designed to restrict unauthorized motor vehicle access through Verdin to the Sonoran Preserve. (R)





Typical Paseo Corridors

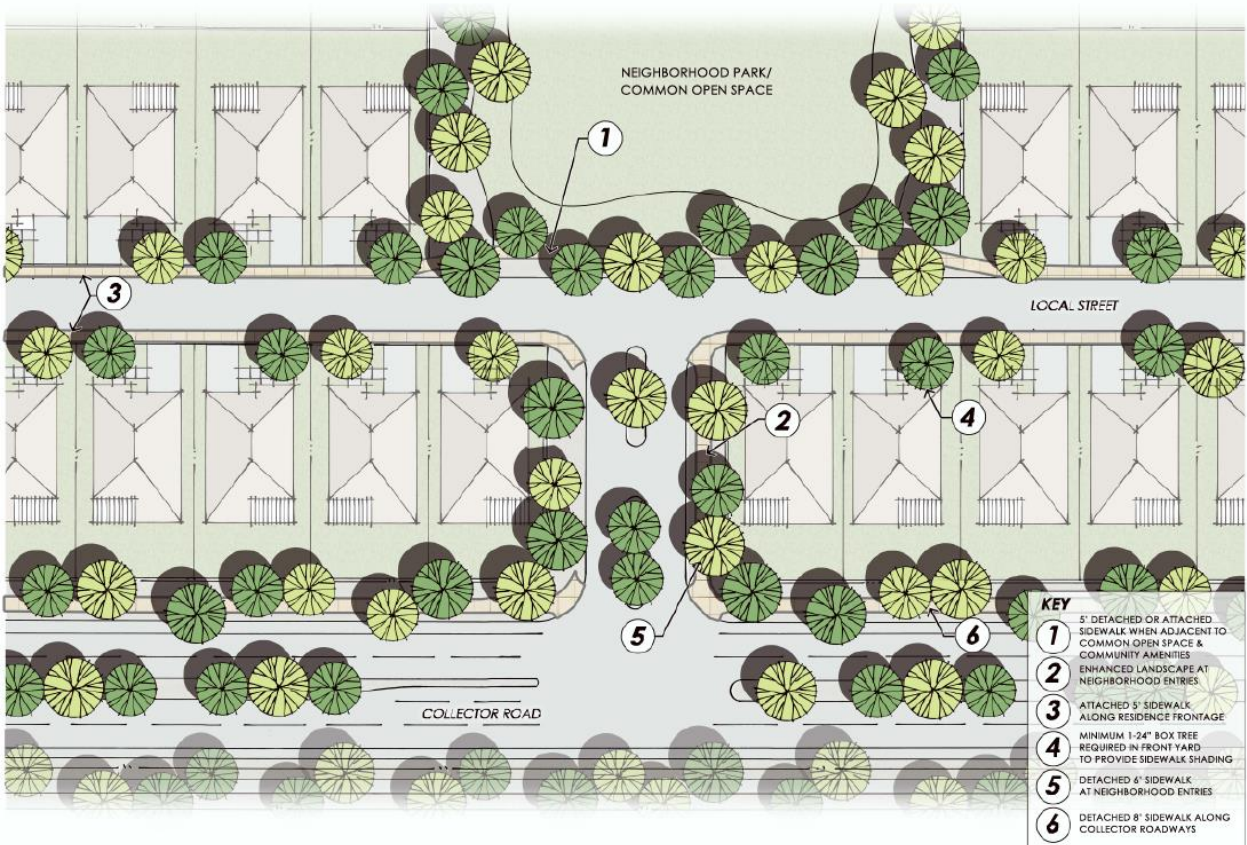
2.C.3 Sidewalk Design

- Sidewalks along the Primary and Secondary Collectors shall be detached with a minimum back-of-curb separation of 6-feet to allow for tree plantings along the roadway. The sidewalk shall be an 8-foot wide concrete sidewalk located on both sides of the roadway. Shade Trees shall be planted along both sides of the sidewalk where feasible, at a typical spacing of at least 1 tree per 30-linear feet or in equivalent groupings. This offset is conducive to gaining a shaded walkway benefit for pedestrians and promoting healthy tree spacing at maturity. (R) Where this design guideline conflicts with an easement, utility, etc., the tree may be planted outside of the easement, utility, etc. a minimum of 4-feet from the lot or right-of-way side of the easement.
- Sidewalks adjacent to residential lots within a Neighborhood Unit may be attached at back-of-curb and a minimum of 5-feet in width. A 24-inch box Shade Tree shall be planted within 8-feet of the back-of-sidewalk within the front yard area of all residential lots to provide shade along the sidewalk. (R) Where this design guideline conflicts with an easement, utility, etc., the tree may be planted outside of the easement, utility, etc. a minimum of 4-feet from the lot or right-of-way side of the easement.
- Sidewalks adjacent to a Neighborhood Unit entry areas shall be detached from the back of curb, with a minimum width of 6-feet. A detached sidewalk is only required

on 1 side the Neighborhood Unit Entry. Shade Trees will be planted along the sidewalk at an interval of at least 1 tree per 25-linear feet or in equivalent groupings. (R) Where this design guideline conflicts with an easement, utility, etc., the tree may be planted outside of the easement, utility, etc. a minimum of 4-feet from the lot or right-of-way side of the easement.

- Sidewalks adjacent to common open space(s) within a Neighborhood Unit with contiguous local street frontages greater than 50-feet and 15-feet in depth shall be detached from the back of curb. Shade Trees shall be planted along the sidewalk at an interval of at least 1 tree per 25-linear feet or in equivalent groupings. All other sidewalks within a Neighborhood Unit may be attached. (R) Where this design guideline conflicts with an easement, utility, etc., the tree may be planted outside of the easement, utility, etc. a minimum of 4-feet from the lot or right-of-way side of the easement.





Typical Sidewalk and Street Shading Requirements

2.C.4 Natural Surface Trail

- In instances where trail corridors run parallel to the perimeter edge, a narrow tread natural surface trail type will be utilized to emulate public trail improvements. This trail type will be located within a tract with a minimum width of 25 feet when adjacent to lots or narrower where streets open to these shared edges. These corridors should share an open edge with adjacent undeveloped property and will provide for connections with future trail systems outside of Verdin. Trail width will be limited to 4 feet of compacted natural surface treadway and alignments may meander as needed based on grade or other changes. (P)

2.D Common Open Space and Amenity Design

Neighborhood Unit common open spaces ("Neighborhood Unit Parks") are intended to create the social core of each Neighborhood Unit. Generally, each Neighborhood Unit will have a Neighborhood Unit Park, with programmed passive and/or active amenities that establish a

space for gathering, recreational experiences, or social opportunities for Verdin residents. The size and type of amenities will vary depending on the Single Family Land Use District utilized within each Neighborhood Unit and will typically be centrally located or functionally accessible within a Neighborhood Unit or in other high profile locations, including Neighborhood Unit Entries and pedestrian linkages. Neighborhood Units with compact lot sizes will include enhanced amenities for Verdin residents to offset smaller private common open spaces, while Neighborhood Units with estate-style sizes with larger yards and private (on-lot) amenities may provide passive common open spaces and pedestrian connections without active park or amenity areas. These areas will be designed in a manner that supports the criteria for National Wildlife Federation (“NWF”) certification, including the establishment of native materials, demonstration gardens, and educational signage. Desert-appropriate landscaping, including Shade Trees, will be strategically planted to maximize shading around sidewalks and seating areas.



2.D.1 Neighborhood Park Standards

- At least one Neighborhood Unit Park is required within each Neighborhood Unit. Two Neighborhood Units may share one Neighborhood Unit Park, if a shared

Neighborhood Unit Entry to both Neighborhood Units is provided. There will be a minimum of 12 Neighborhood Unit Parks distributed throughout Verdin. (R)

- Neighborhood Unit Parks will be centrally located and accessible to Verdin residents by being within approximately ¼ mile radius of all residents within that Neighborhood Unit. (R)
- Neighborhood Unit Parks should be connected to the Neighborhood Unit and overall Verdin through on-street and off-street sidewalk trail connections. (P)
- A walkway, trash receptacle, pet refuse receptacle, and ADA accessible seating area must be provided. (P)
-
- The selection, establishment and maintenance of vegetative materials within Neighborhood Unit Parks shall be consistent with certification requirements identified in *Section 9: Certified Open Space Design Guidelines*. (R)
- Additional common open space may be provided throughout each Neighborhood Unit and include a limited amenity program if deemed necessary and desirable by the developer. These supplemental common open spaces are predominantly for aesthetic purposes and are not required to meet the minimum area requirements. (P)
- A minimum of one of the following additional passive amenities for Verdin residents must be included within the required Neighborhood Unit Park: (R)

- Open, passive turf area (where allowed)
- Trails and walkways
- Shade Trees
- Enhanced landscape or garden areas
- Seating area



- Additional active amenities (“Active Amenity(ies)”) for Verdin Residents shall be required in accordance with the Single-Family Land Use Districts. These requirements are as follows:

1. A Neighborhood Unit developed under the SFR-5 or SFR-7 land use district shall provide a minimum of two Active Amenities, which shall include a minimum of one required Active Amenity type from the NWF Program Element list (*See Section 9: Certified Open Space Design Guidelines*). (R)
2. A Neighborhood Unit developed under the SFR-9 or SFR-14 land use district is not required to provide Active Amenities, if it is identified as being age-targeted or age-restricted, but must provide a minimum of one NWF program amenity type as selected from the NWF Program Element list (*See Section 9: Certified Open Space Design Guidelines*). If a Neighborhood Unit developed under the SFR-9 land use district is not identified as being age-targeted or age-restricted, a minimum of one Active Amenity shall be provided. (P)
3. Active Amenities may include:

- Play structure
- Shade structure or ramada
- Outdoor dining area
- Outdoor grill or kitchen
- Sport court such as basketball, volleyball
- Active turf areas intended for play or sport
- Community garden
- Formal social seating areas that may include amenities such as a fire pit



4. NWF Program Elements in *See Section 9: Certified Open Space Design Guidelines*) may include:
 - Monarch Pledge
 - Early Childhood Outdoors (ECHO) Natural Playscapes
 - Interpretive Signage
 - Demonstration Garden

2.E Grading & Drainage

- Straight graded slopes that appear engineered are prohibited unless other aesthetic relief is provided. Relief may be in the form of varying curvilinear geometry, enhance landscaping, and/or benching to provide vertical relief. (R)
- Concrete channels should not be allowed unless needed for public safety. Where used, they should be designed to blend with the desert setting through color, texture, landscaping or other means. (P)
- Retention basins should be designed to blend with the natural desert through the use of design elements such as curvilinear edges or enhanced landscape. This does not preclude the use of turf in basins that also serve as common recreation areas, nor does it require a slope of less than four to one (4:1) ratio. Rather, surface variation instead of straight edges and flat surface, natural materials and native vegetation should be incorporated into the design. (P)

2.E.1 Wash Corridors

- Wash corridors and preliminary hydrologic information for the contributing watershed (cfs flows, on-site and off-site, sheet flow direction) shall be provided as a component of a Drainage Master Plan, which will be processed as part of the Master Plans for Verdin. All washes identified in a Drainage Master Plan shall be preserved in an undisturbed condition as defined by the floodway limit to handle drainage and provide wildlife corridors. (R)
- Washes identified as floodway in a Drainage Master Plan shall remain undisturbed with the exception of roadway and trail or pathway crossings. (R)
- No major structural changes or improvements shall be allowed within the floodway of the washes identified in a Drainage Master Plan, the limits of which are to remain undisturbed, and vegetation shall be left in place except as follows: (R)
 - To prevent erosion from channelization or combination of smaller washes;
 - To allow wash crossings of roadways, trails and utility easements. Trails and utilities may cross washes, but in no way shall they be placed in the wash bed running parallel to the wash. Public utility easements shall be revegetated when construction is completed;

- To allow discharge from adjacent retention or drainage facilities, as approved by the City.
- Riprap will be used for public safety or where needed for traditional erosion mitigation. (R) Where used, it should be used with restraint and be designed to blend with the desert setting through color, texture, landscaping and other means. (P)
- Where culverts are constructed, the use of exposed concrete will be limited while providing the opening required by the hydrology. The exposed portions of the culvert will be aesthetically treated to promote a visual blending with the adjacent landscape via materials (i.e., integrally colored or stamped concrete, stone veneer, etc.) and landscaping after construction. (R)
- Where a public trail easement (minimum of 30-feet) is located in a wash corridor, the trail will be placed above the bank of the wash and not within the floodway, except where it crosses the wash. (R)
- Bridges, culverts, or dip sections constructed as part of private streets where they cross washes shall include means for sediment and debris removal and meet City guidelines. A management plan for debris and sediment removal for the homeowner's or property owner's association will be included in the CC&Rs. The CC&Rs will include a statement defining the responsibility of the homeowner's or property owner's association for this maintenance. Purchasers of property that include privately owned facilities will be notified of the future maintenance responsibility and expense. (R)
- Dry wash crossings should be designed to run bank-to-bank to allow passage of wildlife in the wash with a minimum of 5-foot horizontal by 4-foot vertical clearance through a culvert or under a bridge where the wash is a minimum of 4-foot deep and 5-foot wide. (P)
- The construction area for a roadway or utility crossings shall be clearly marked with roping or fencing to minimize impact on existing vegetation during construction. The entity responsible for the improvement shall provide documentation of how wash banks will be stabilized and restored to a natural appearance where it must be disturbed for infrastructure, as approved by the City. (R)
- In instances where stabilizing materials are necessary, or walls are used to retain one hundred-year flows, the materials should be integrally colored to blend with the desert in the surrounding area. (P)

2.F Utilities

- Accommodations for gas appliances, climate control, and water-heating shall be located outside of front yard setbacks, away from Neighborhood Unit Entries, and shall be screened whenever possible. (R)
- Concrete pads shall be no more than 6-inches above the adjoining ultimate finished grade and shall not interfere with any walkway. (R)

SECTION 3 – BUILDING ARCHITECTURE

Building architecture plays an important role in creating the backdrop for the public places and streetscape and is equally important in establishing the Verdin’s community identity. Architectural diversity is strongly encouraged; there is no singular architectural style that is representative of the architectural vision for Verdin. The following design guidelines more fully articulate the core architectural values and are intended to be applied to the design of all homes within Verdin.



3.A Four-Sided Architecture

Home designs should employ four-sided architecture such that the architectural design and character must acknowledge all four elevations of the home.

3.A.1 Front Elevations

Front elevations of must incorporate the following design elements: (R)

- A variety of traditional roof forms such as sloping roofs with gables, hips and dormers or flat roofs forms.

- Architectural detailing appropriate to the architectural style of the home (e.g., rafter tails, gable vents, columns, shutters, iron work, pop-outs, etc.).
- Accent colors and materials.
- A minimum 50% of homes within a Neighborhood Unit developed under the SFR-5, -7, -9, or -14 land use district should incorporate a 1 of the following front elevation design elements: (P)
- Front elevation outdoor living spaces, such as a covered front or side porch, patio, internal entry courtyard, or second story balcony.
- A signature architectural or design element that provides unique identity to the home, such as a focal front entry, highly detailed window treatment and articulation, unique accent building material, or non-standard garage door design or treatment.

3.A.2 Side Elevations

Side elevations of all homes must include: (R)

- Door and/or window openings included on all side elevations and shall be articulated to include four-sided pop-outs painted a color other than the “body” color.
- Pop-outs and/or gable vents appropriate to the architectural style of the home.
- On corner lots, the side elevation must include upgraded architectural details consistent with those required for the front elevation for the portion of the side elevation not screened by a side yard wall.
- Side elevations of homes are encouraged to include: (P)
- One-story elements where adjacent to streets, or common open spaces.

3.A.3 Rear Elevations

Rear elevations on homes adjacent to street or common open spaces must include: (R)

- Variation in roof forms, building planes and/or massing.

- Pop-outs and/or gable vents appropriate to the architectural style of the home.
- If a covered patio is provided, it must include a roof treatment that is consistent with the main portion of the home.
- 2-story rear elevations on homes adjacent to streets, or common open spaces will have architectural treatments consistent with the front elevation.

3.A.4 Corner Lots

Corner lots have a higher level of visibility than any other homes. As such these homes are held to a higher standard of architectural quality. The standards for homes on corner lots are as follows: (R)

- Homes on corner lots will be sited and designed to present an attractive elevation to both street frontages employing design strategies that enhance landscaping elements and architectural detailing (e.g., window grids, window pop-outs, etc.).
- Pop-outs and/or gable vents appropriate to the architectural style of the home.
- A landscape tract is required between a perimeter wall on a corner lot and the adjacent sidewalk and street.
- Side yard walls on corner lots that are adjacent to a street, shall be stepped back from the front plane of the home elevation by no less than 10-feet. Where appropriate, full view fencing or rail fencing can be extended into the front plane, particularly where Sonoran Preserve edge conditions warrant and do not interfere with approved Sonoran Preserve access locations. These exposed walls shall be finished in conformance with the typical theme wall elevation provided in *Section 6: Landscaping, Fencing & Walls*.

3.A.5 Windows & Doors

- All windows must be recessed a minimum of 2-inches from the exterior building face. Pop-outs may be used to achieve the 2-inch recess. (R)
- Trim is required for all window and door openings. (R)

3.B Architectural Diversity

Architectural diversity results in a community that is easy to navigate and which has a distinctive feel. Each Neighborhood Unit will contain a variety of floor plans and building elevations to create a diverse street scene. A mix of different colors, materials, and architectural detailing will be provided within each Neighborhood Unit.

3.B.1 Floor Plan and Elevation Combinations

- A minimum of three different floorplans with 3 different architectural styles will be offered for each product line within a Neighborhood Unit. (R)
- A minimum separation of at least two lots should be maintained between homes with the same floorplan with the same elevation. (R)
- A minimum separation of at least two lots should be maintained for any homes with the same color palette. (R)
- A minimum of three distinct color palettes will be offered for each architectural style. (R)
- Building materials and colors will reflect the architectural style of the home and also compliment the surrounding desert environment. (R)



3.B.2 Forward Architecture

Great streetscapes and neighborhoods are created when front porches and living spaces are expressed to the street and when the garage takes a secondary position in the composition. A minimum 50% of homes within a Neighborhood Unit developed under the SFR-5, -7, -9 or -14 land use district shall include forward architecture, such as a covered front porch, patio, entry courtyard, second story balcony, to express the importance of residents rather than the cars. (R)

3.B.3 Color & Materials

Color and material palettes promote community cohesion and harmony from home-to-home and prevent harsh, unsightly color combinations. This cohesion and harmony is created through rich color tones and materials that complement each other, yet add to the individual character and diversity from home-to-home. The intent is to avoid monochromatic homes lacking different materials. Verdin will include a variety of desert appropriate earth tones, color ranges, and materials that are appropriate to each architectural style, while still creating variety and diversity. (P)

3.C Roof Forms

Roof Forms can add drama and variety to the street scene. A variety of roof forms and materials will be used within each Neighborhood Unit to promote diversity and increase visual interest both within and from outside of the Neighborhood Unit. Roof forms should be functional and appropriate to the architectural style of the home.

- A variety of distinctly different roof styles is encouraged. (P)
- Materials such as mission, barrel, flat or S-tiles, concrete shingle tiles, or standing seam metal roofs are encouraged. (P)
- Flat roofs are allowed only as appropriate to the architectural style of the home (i.e., Southwestern style) and must include a minimum 24-inch parapet wall. (P)
- For homes with tile roofs, a minimum of 2 different color schemes must be offered. (R)
- Roof pitches ranging from 3:12 to 8:12 are encouraged. (P)

- Roof-top equipment is prohibited, except for photovoltaic and solar systems. (R) All ground-mounted equipment (such as HVAC units) should be installed outside of the front yard and reasonably screened from view from the street with fencing, landscaping or other appropriate screening material. (P)

3.C.1 Solar Energy Devices

- Solar roof panels should be designed and installed to appear as an integral component of the roof design and must be mounted directly to the roof plane and may not break the roof ridge line. Any visible cabling must match the existing color theme so as to blend in with the roof, eaves, trim, etc. Cabling must be attached to the structure and not allowed to hang loose. (R)

3.D Garage Treatment

Garage doors are an architecturally important element of the home and the street scene. Reducing the dominance of the garage door on the home and the street creates a more inviting street environment. The following standards will apply to all garage doors:

- The garage doors should provide visual interest and variety to the street scene. (P)
- Garage door design and treatments will reflect the architectural style of the home. (P)
- All garage doors will be recessed a minimum of 12-inches from the face of the wall plane on which the garage door is located. (R) Pop-outs may be used to achieve the twelve-inch recess.
- No more than 2 main garage doors on a lot may face the street frontage. Additional garages shall be side-loaded or set behind the front face of the home/main garage face. (R)
- No garage door shall be more than 18-feet wide. (R)
- Garage doors should not be a dominant design feature of the home and generally comprise less than 60% of the width of the front elevation. (P)

3.E Lighting

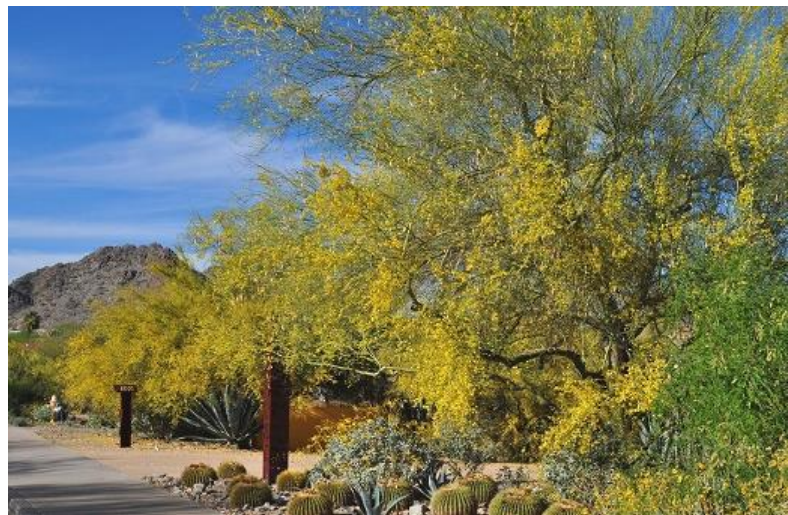
All lighting shall meet the requirements of the Phoenix Zoning Ordinance.

- All exterior light fixtures must be fully-shielded or, in the case of coach lights, use a frosted or semi-opaque glass to minimize the glare of the bulb. (R)
- Clear or partially clear glass lenses are prohibited for wall-mounted light fixtures. (R)
- The size of a coach light must be properly proportioned to the home. Disproportionately small or large light fixtures are discouraged. (R)
- The style, material, and color of the exterior light fixtures shall be appropriate to the architectural style of the home. (R)
- Fixtures of silver, gold, chrome, polished brass or other reflective metal finishes are discouraged. (P)
- The maximum height of any exterior building-mounted lighting shall be 10-feet above the adjacent finished grade. (R)
- Spotlights and floodlights are prohibited in front yards. If spotlights or floodlights are installed in the backyard, these lights shall be shielded and directed downward. (R)
- Excessive exterior lighting is discouraged. (P)

SECTION 4 – LANDSCAPING

4.A Introduction

Landscape design within Verdin should reinforce the Sonoran Desert context through the use of desert-appropriate vegetation and trees strategically located to provide color, shade and visual enhancement throughout the community.



4.B National Wildlife Federation Certified Community Design Guidelines

Verdin is fostering a collaboration with the NWF to establish design guidelines in compliance with the NWF's community certification requirements. This collaboration will be one of the first of its kind in the United States and seeks to define measurable objectives that will lead to the successful integration of residential development within a natural Sonoran Desert environment. This integration will emphasize the preservation and establishment of native habitats throughout Verdin that are complimentary to the adjacent Sonoran Preserve.

To meet NWF's comprehensive certification requirements, detailed design guidelines have been established to ensure that the design of the community is in alignment with NWF objectives (*See Section 9: Certified Open Space Design Guidelines*). The Certified Open Space Design Guidelines should be used in conjunction with the Verdin Design Guidelines.

4.C Neighborhood Unit Entry Planting Concept

Neighborhood Unit Entries should include a focal landscape area intended to reinforce a sense of arrival. These areas will be the most heavily planted and should include plant massing that features evergreen desert plants with emphasis on texture and color. Neighborhood Unit Entry design requirements include:

- A minimum of three 3-inch caliper Shade Trees shall be planted on either side of a Neighborhood Unit Entry for a total of six Shade Trees. Any additional trees planted within the Neighborhood Unit Entry may be a combination of 1-inch caliper (maximum 25%) and 2-inch caliper (minimum 75%) trees. (R)
- 5-gallon shrubs and groundcover shall be planted at Neighborhood Unit Entries to achieve a minimum 75% vegetative ground cover. (R)
- Trees should be located and grouped to maximize pedestrian shading. (P)
- Additional trees should be included in an entry median where design permits and is appropriate. (P)
- Materials reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)
- Landscape lighting may be provided for trees located at Neighborhood Unit Entries. (P)
- Turf is prohibited in medians and public rights-of-way. (R)

- Sidewalks adjacent to a Neighborhood Unit Entry shall be detached from the back of curb, with a minimum width of 6-feet. A sidewalk is only required on one side of the Neighborhood Unit Entry. Shade Trees will be located along the sidewalk at an interval of at least 1-tree per 25-linear feet. (R)

4.D Amenity Areas and Common Open Space Planting Concept

Common open spaces within Neighborhood Units are integral to the makeup of a healthy, sustainable, and inviting community. Each Neighborhood Unit will include a network of connected common open space with thematic and programmatic commonalities. This network will include common open space for passive and/or active recreation, on-site retention requirements, and trail corridors that provide linkages through and between adjacent Neighborhood Units.



Common open space within Neighborhood Units design requirements include:

- Non-functional turf is prohibited within common areas. Non-functional turf is defined as natural turf that is solely ornamental in purpose and is not used for active uses, events, or recreational purposes. Non-functional turf does not include synthetic turf, or natural turf used for recreation, sports, playgrounds, or fields, and further does not include natural turf in areas used for other recreational purposes, civic, or community events. (R)
- Natural turf is prohibited within 50-feet of the Mesquite Wash and Cave Creek Wash corridor edges. (R)
- Natural turf, where permitted, will not be planted on slopes in excess of 5%. (R)
- Verdin common areas managed and maintained by homeowner’s association will undergo regular water leak detection audits to ensure the integrity and efficiency of the irrigation system is maintained. (R)

The following areas are subject to NWF certification subject to the additional criteria identified below.

4.D.1 Mesquite Wash Corridor Landscaping

The Mesquite Wash Corridor is defined as the ephemeral desert wash and adjacent lands that extends for over one mile from the northern edge of the Property to where it exits the Property along the south boundary. The Mesquite Wash Corridor serves as a protected natural area with a minimum continuous width of 100-feet. It also serves as a major component of the pedestrian circulation networks, promoting connections to adjacent neighborhood units and linear trail corridors.

The Mesquite Wash Corridor design guidelines are as follows:

- The Mesquite Wash Corridor shall maintain a minimum width of 100-feet. Limited roadway, utility, and trail crossings of the wash area shall be allowed where designated on the Trails and Open Space Master Plan. (R)
- The supplemental installation of vegetative material in conformance with the Plant Palette: Green List shall be allowed. The planting of non-native species is prohibited. (R)
- The maintenance of vegetation within the Mesquite Wash Corridor should be prohibited unless determined to be a hazard to Verdin residents. (P)

Additional criteria shall be required to conform with NWF guidelines for the Mesquite Wash Corridor Preservation certification in *Section 9: Certified Open Space Design Guidelines*.

4.D.2 Neighborhood Unit Park Landscaping

Neighborhood Unit Park Landscaping design guidelines are as follows:

- A Neighborhood Unit Park may provide turf within the common open space and/or other common area. (P)
- Any turf area shall be a minimum of 3-feet from any building face or wall and a minimum of 18-inches from the back of right-of-way. (R)
- One 24-inch box tree for every 1,000 square-feet of landscape area shall be provided. Trees shall not be located within turf areas or basin side slopes. (R)

- Shrubs and groundcover shall be planted to achieve vegetative ground cover (in non-turf landscape areas) reflective of the desert floor or indigenous character of the area. (R)
- Materials and treatment (native raking) reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)

Additional criteria shall be required to conform with NWF guidelines for the Neighborhood Unit Park certification. *See Section 9: Certified Open Space Design Guidelines.*

4.D.3 Paseo Corridor Open Space Landscaping

Paseo Corridor Open Spaces seek to provide connections through linear corridors located between Neighborhood Units throughout Verdin. Landscape treatments within these areas will compliment pedestrian path elements through the use of trees for shading and buffering.

Paseo Corridor Open Space Landscaping design guidelines are as follows:

- One 24-inch box tree for every 1,000 square-feet of landscape areas. (R)
- Trees should be placed and spaced every 30-feet on-center and/or grouped to maximize pedestrian shading. (P)
- Shrubs and groundcover shall be planted to achieve vegetative ground cover (in non-turf landscape areas) reflective of the desert floor or indigenous character of the area. (R)
- Materials and treatment (native raking) reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)

Additional criteria shall be required to conform NWF design guidelines for the Paseo Corridor Open Space certification. *See Section 9: Certified Open Space Design Guidelines.*



4.D.4 Preserve Edge/MCFCD Open Space Landscaping

Preserve Edge Open Spaces are provided along the “Preserve Edge/MCFCD” Property boundaries as shown in *Exhibit 5: Edge Openness Plan*. These areas are intended as “soft edges,” with plant types and densities that are similar to those found on adjacent Sonoran Preserve lands. Through coordination with the City Parks & Recreation Department, access points to existing or future public trails within the Sonoran Preserve may be established to connect Verdín with the Sonoran Preserve.

Preserve Edge/MCFCD Open Space Landscaping design guidelines are as follows: (R)

- One 24-inch box tree for every 1,000 square-feet of landscape area shall be provided.
- Materials reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover.
- Appropriately sized and colored decomposed granite shall be installed under all shrub and groundcovers.
- Turf is prohibited.

Additional criteria shall be required to conform with NWF guidelines for the Preserve Edge Open Space certification. *See Section 9: Certified Open Space Design Guidelines*.

4.D.5 Community Edge Open Space Landscaping

Community Edge Open Spaces are located along the Property Perimeter, but do not directly abut the “Preserve Edge/MCFCD” Property boundaries as shown on *Exhibit 5: Edge Openness Plan*. These areas are intended as “soft edges,” with plant types and densities that are similar to those found on adjacent lands.

Community Edge Open Space design guidelines are as follows: (R)

- One 24-inch box tree for every 1,000 square-feet of landscape area shall be provided.
- Shrubs and groundcover shall be planted to achieve vegetative ground cover (in non-turf landscape areas) reflective of the desert floor or indigenous character of the area.
- Materials and treatment (native raking) reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)
- Community Edge Open Spaces prohibit the use of turf in all common open spaces immediately adjacent to lands currently designated as part of the Sonoran Preserve

Additional criteria shall be required to conform with NWF guidelines for the Community Edge Open Space certification. *See Section 9: Certified Open Space Design Guidelines*.

4.D.6 Common Area End Tracts

Common Area End Tracts generally consist of the landscape strips between Neighborhood Unit perimeter walls and right-of-way, and other Common Area Tracts along corner, side, rear property lines or at the end of cul-de-sacs. Such areas will be landscaped consistent with the plant palette and character of the individual Neighborhood Unit.

Common Area End Tract design guidelines are as follows: (R)

- One 24-inch box tree for every 30-linear feet on-center if tract width is greater than 10-feet.
- Shrubs and groundcover shall be planted to achieve vegetative ground cover (in non-turf landscape areas) reflective of the desert floor or indigenous character of the area.
- Materials and treatment (native raking) reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover.

- Minimum planting area for common area end tracts is greater than 10-feet in width.

4.E Yard Planting

4.E.1 Front Yard Planting

Verdin should be comprised of a diverse range of lot and home sizes, and front yard designs should reinforce the landscape character of each Neighborhood Unit. Because different lot sizes accommodate a diverse palette of vegetation types and quantity, specific standards for minimum front yard plantings are provided based on lot widths found within Verdin.

Front Yard Planting of residential lots developed under the SFR-5 or SFR-7 land use districts design guidelines are as follows:

- One 24-inch box tree shall be planted and located within 8-feet of back of sidewalk or back-of-curb to maximize shading of the sidewalk. Where this design guideline conflicts with an easement, utility, etc., the tree may be planted outside of the public utility easement a minimum of 4-feet from the lot side of the public utility easement. (R)
- Ten shrubs shall be planted with a minimum size of five-gallons. (R)
- Five groundcover plants shall be planted with a minimum size of one-gallon. (R)
- Turf is prohibited. (R)
- Materials reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)
- Each landscape option must include one species from three of the four plant categories in the Plant Palette in *Section 9: Certified Open Space Design Guidelines*. (R)
- Automatic drip irrigation systems shall be required for all front yard landscaping. (R)
- Each front yard should contain at least 4 different species of shrub and/or groundcover. (P)
- Plant materials should be planted in groupings of compatible species to provide structure and hierarchy to the front yard. (P)

In addition to the above Front Yard Planting design guidelines, the front yard of residential lots developed under the SFR-9 or SFR-14 land use districts shall be subject to the following:

- Two 24-inch box trees shall be planted and located within 8-feet of back-of-sidewalk or curb to maximize shading of the sidewalk. Where this design guideline conflicts with an easement, utility, etc., the trees may be planted more than 4-feet from the lot side of the easement, utility, etc. (R)

4.E.2 Rear Yard Planting

Rear Yard Planting of residential lots developed under the SFR-5-, SFR-7, SFR-9, or SFR-14 land use district shall be subject to the following:

- Natural turf within the backyard of a residential lot shall not exceed 20% of the net lot area. (R)

4.F Plant Palette

All plants and trees used must be selected from the Plant Palette in *Section 9: Certified Open Space Design Guidelines*.

4.G Decomposed Granite

Only decomposed granite or native granite rock shall be permitted. River rock, crushed rock, artificially colored or naturally mined rock that is uncommon to the surrounding desert environment is prohibited as hardscape ground cover. All decomposed granite, including color, size, application, etc., shall be reflective of the desert floor or indigenous character of the area. (R)

4.H Irrigation

Irrigation design guidelines are as follows:

- Automatic irrigation systems designed by a landscape architect or other similar certified designer shall be required for all planting areas in front yards and common areas. Fixed risers in such areas are prohibited. (R)

- Areas requiring overhead spray shall be limited to turf areas and flower beds. All other areas must use drip irrigation. (R)
- Overspray onto paved areas, building faces, or masonry walls is discouraged. (P)
- Large overhead and drip irrigation systems should be zoned for exposure, topography and varying water requirements of the plant material. (P)

4.1 Landscape Lighting

The use of landscape lighting in common open space and common areas shall be encouraged to promote community aesthetic and a safe pedestrian environment. Judicious use of lighting shall be encouraged in areas of higher activity and discouraged in low activity areas to reinforce the principles and objectives of the City’s Dark Sky Ordinance.

Landscape Lighting design guidelines are as follows:

- Lighting that causes glare, discomfort, or disruption of the visual environment of neighboring homes or adjacent Neighborhood Units is prohibited. (R)
- Above-ground plastic housings and connections are prohibited. (R)
- Light fixtures shall not be installed in areas that use spray irrigation. (R)
- Post lights or bollards higher than 36-inches above finished grade are prohibited. (R)
- Shrubs should be used to conceal landscape light fixtures. (P)
- Junction boxes shall be placed below grade to minimize visibility of the hardware. (R)
- Lighting controls shall not be visible from the street. (R)
- All outdoor landscape fixtures shall be low voltage. (R)
- Landscape light fixtures should blend into the landscape. (P) Bright or shiny finishes shall be prohibited. (R)
- Excessive landscape lighting is discouraged. (P)

- All security lighting systems shall be designed and installed in a manner that promotes the safety of pedestrian and vehicular movements. Area illumination must be provided for parking areas, Neighborhood Unit Entry areas, and other gathering areas. (R)
- Lighting in Active Amenities should be shielded and reduce lighting impacts on adjacent lots. (P)



SECTION 5 – GENERAL DESIGN GUIDELINES

5.A General Guidelines

Wall and Fence design guidelines are as follows:

- Lot and theme wall types are prohibited within the floodway limits of wash corridors. (R)
- Within the front yard of a residential lot, decorative freestanding walls may not exceed 30-inches in height and must be setback 10-feet from the back-of-sidewalk or 15-feet from the back-of-curb if no sidewalk exists. (R)
- The finish on any wall visible from the street within the front yard must match the finish of the home, or the theme of the adjacent property wall or the Neighborhood Unit walls. (R)
- Retaining walls, which are partially below grade, or walls used as planters shall be water proofed to help prevent water staining. (R)

- Where oriented toward Sonoran Desert Drive, public rights-of-way, or visible from internal roadways, a straight fence/wall should vary by a minimum of 4-feet every 400 linear feet to visually reflect a meandering or staggered setback. Design features should be used to break up the appearance of a long, straight wall. Such design features may include, but should not be limited to planters, decorative walls less than 3-feet in height, dense landscaping adjacent to the wall to screen it, etc. If design features other than meandering, curvilinear, or staggered setbacks are used, the developer should demonstrate how the design visually breaks up the long, straight wall/fence appearance and such alternate design features must be approved by the Planning & Development Department at the time of Master Plan Review. (R)
- Walls and fences should be designed to blend into the desert environment through color, materials, and alignment. (P)
- Visibility from individual lots to common open spaces and the surrounding desert environment is encouraged. (P)
- Provide partial or full view fencing adjacent to common open space, such as Neighborhood Parks and the Mesquite Wash Corridors, except as follows: (P)
 - Where a roadway runs between the common open space and the development.
 - Where a collector, arterial or parkway right-of-way is located less than 150-feet from a perimeter wall.
 - Where more than one side of the back yard of a lot is immediately adjacent to common open space. In this case, one side must have view or partial view fencing, with a minimum 10-foot return of view or partial view fencing on another side adjacent to common open space.
 - Where two rear yards are less than 40-feet apart. In this case, 1 wall should provide view fencing to the open space and the other may be solid.
- Walls/fences or fences built for the protection of critical infrastructure should be designed with enhancements to blend with the surrounding environment.
- Walls/fences that orient towards public rights-of-way or that are visible from internal roadways, common open space, and common areas shall have a finished appearance. (R)
- Un-textured, unfinished block and reinforced, mortar-free concrete walls visible from public view should be avoided. Finished wall treatments should include decorative elements, variation in wall materials, and textured or stucco surfaces compatible with

primary structures. Wall/fences lengths exceeding 250-feet should be articulated or contain landscaping to break-up the continuous wall surface and create varying shading patterns. (P)

- Exposed portions of retaining walls should be kept to a maximum of 4-feet, 4-inches within the front yard and 6-feet, 4-inches within the street side yard when located within 50-feet of a subdivision Perimeter Property line or the property line of an un-platted parcel and designed to blend into the surrounding landscape. The use of retaining walls in excess of 4-feet is discouraged and should be limited to locations where necessary to accommodate specific site topography. When retaining walls are necessary along a building envelope boundary, alternative designs may be necessary and may include locating the wall further into the building envelope and providing a native landscape 4:1 slope from the outer edge of the building envelope to the wall in order to soften the appearance and better blend into the desert vegetation. (P)

5.B Color & Materials

Colors and materials complement the design of the theme walls and fences. Colors and material should be selected to mimic and complement the surrounding natural landscape. (P) Painted wood, unfinished grey concrete block, and chain link fencing visible from street view are prohibited (excluding temporary construction fencing). (R)

5.C Entry Monument Signage

Entry monument signs must include a minimum of 2 materials: a base material and a sign face material. Sign lettering must be attached to or engraved in the sign face material, rather than painted. (R)

Materials for sign lettering and graphics may include: (P)

- Painted metal or natural finish metal
- Sandblast
- Cast-in place concrete
- Cast metal
- Ceramics
- Or other similar high-quality materials

Prohibited materials for sign lettering include: (R)

- Wood, MDF, Plexiglas or sintra forms
- Highly reflective, bright or polished metals



SECTION 6 – DESERT EDGE TREATMENT

6.A Introduction

Verdin shares property edges, in many locations, with existing or planned Sonoran Preserve land. The Sonoran Preserve is a public asset intended to protect native desert lands and provide access through a network of strategically designed trails. Thoughtful consideration should be given to the interface between Verdin and the Sonoran Preserve to ensure appropriate and sensitive transitions to the natural desert environment.

APPLICABILITY. The Desert Edge Treatment design guidelines apply along the “Preserve Edge/MCFCD” Property boundaries as shown on *Exhibit 5: Edge Openness Plan.*

6.B Edge Treatment Guiding Principles

The purpose and intent of the Desert Edge Treatment design guidelines is to create a built environment that substantially relates to and respects the desert setting. The guiding principles are as follows:

1. The Sonoran Preserve is an amenity.
 - Where development occurs near the “Preserve Edge/MCFCD” Property boundaries, allow development on the lower slopes, preferably below the 10% slope line, to maintain the Sonoran Preserve as a visual amenity for all citizens and establish opportunities to maintain connectivity between mountains within the same range. (P)
 - Maintain the sense of public ownership and access to public lands by making the Sonoran Preserve accessible from all edges of the community. (P)
 - Development should take advantage of the proximity of the Sonoran Preserve in both subdivision layout and site design. (P)
 - Minimize trailblazing in the desert by providing controlled access points to the Sonoran Preserve. (P)
2. Manage stormwater via the natural wash system to the greatest extent possible. (P)
 - Preserve significant washes such that they serve as multi-functional assets, including drainage, recreation, amenities, and wildlife corridors. (P)
 - Allow for the natural function of the floodplain where feasible, based on engineering parameters and public safety. (P)
 - Construct bridges and culverts to minimize impacts to washes. (P)
 - Utilize the wash system to provide a place for trails within the setbacks above the wash banks such that they become a recreational and visual amenity. (P)
3. The desert regenerates slowly. Preservation is more prudent than restoration in areas the natural desert is maintained. (P)
 - Development is encouraged to preserve open space and native vegetation in lieu of revegetation. (P)

- Replace salvaged plants as close as possible to their original location. (P)
4. Use the wash corridor system for movement and replicate its aesthetic and functionality along other movement corridors. (P)
 - Pedestrian corridors should provide relief from the sun in this desert environment. (P)
 - Shade Trees along streets should mimic the wash corridors providing relief for people who travel along roadways. (P)
 - Trail corridors that tie into roadway corridors should provide alternatives to automotive travel and connections to alternative transportation. (P)
 - Create a consistent visual theme and trail corridor network to help foster a sense of community with the Sonoran Preserve. (P)
 5. Use native desert vegetation for landscaping to maintain low-water use, hardy vegetation and the existing sense of place. (P)
 - Plants within common areas and publicly visible areas should be drought tolerant and trees should generally be low profile, typical of desert trees and must come from the Plant Palette in Section 6.H. (P)
 - Minimize the use and impact of non-native and invasive plant species. (P)
 6. The prevalent views in the desert provide a feeling of openness, which should be maintained throughout the community. (P)
 - Landscape and signage along the collector roadways should be designed to maintain view corridors to natural open space. (P)
 - Maintain significant view corridors to off-site mountains where feasible. View sheds should be purposefully planned and protected. (P)
 - Minimize the visual impact of development by choosing colors that blend with the desert, utilizing brighter colors as accents. (P)

6.C Open Edge Treatment

Open Edges should be designed to include open space areas and view corridors, which are physical and visual windows to the Sonoran Preserve. Edge “openness” will be accomplished through a myriad of design techniques, including common open spaces that provide edge variability instead of a uniform boundary along the “Preserve Edge/MCFCD” Property boundaries.



6.C.1 Open Edge Treatment Design Guidelines

The Open Edge Treatment Design Guidelines apply to the “Preserve Edge/MCFCD” Property boundaries. The Open Edge Treatment design guidelines include:

- A minimum 60% open edge treatment, calculated based on the total linear footage of all “Preserve Edge/MCFCD” edges, shall be provided along the “Preserve Edge/MCFCD” Property boundaries as shown on *Exhibit 5: Edge Openness Plan*. The 60% calculation is based on the aggregated total linear footage of all “Preserve Edge/MCFCD” edges and is shall not be based on linear footage an of individual “Preserve Edge/MCFCD” edge, Phase, Master Development Parcel, Neighborhood Unit, or sub-parcel thereof. (R) Open Edge Treatment includes:
 1. A cul-de-sac design that provides an improved trail or path within community open space connecting to desert landscaped areas. An open space connection between the cul-de-sac and adjoining open space edge shall be provided.
 2. A public or private street along the Sonoran Preserve edge.
 3. Private improved or undisturbed open space where the minimum depth is 100-feet or where the open space is located between the Sonoran Preserve or common open space and an adjacent street.
 4. An equivalent creative alternative that reflects diversity, together with visual and physical access, as approved by the City.
 5. Lots that back up to Property Perimeter should be setback when necessary to accommodate drainage and maintenance access.

- A Master Open Edge Treatment Plan submitted with the Master Open Space Plan for Verdin must demonstrate that the above required percentages of Open Edge Treatment is provided based on lineal “Preserve Edge/MCFCD” Property boundary, and not by individual Neighborhood Unit, Master Development Parcel, or sub-parcel(s) thereof, etc. (R)
- The Master Open Edge Treatment Plan allows the incorporation of facilities and open space available to the public, such as parks, recreational facilities, and retention areas, as long as the above required percentages of Open Edge Treatment is provided. (R)
- Residential lots with two or more sides abutting undisturbed lands along the “Preserve Edge/MCFCD” Property boundary(ies) shall be designed with obtuse angles, rather than right angles or acute angles, to avoid sharp corners or sudden narrowing of connecting open space. Alternatively, residential lots with two or more sides abutting undisturbed lands along the “Preserve Edge/MCFCD” Property boundary(ies) may maintain right angles if the subject corner is chamfered a minimum of 10-foot x 10-foot to soften the corner. (R)
- Adequate access for public use shall be provided to the Sonoran Preserve and natural environment adjacent “Preserve Edge/MCFCD” Property boundary(ies) via public open space or private common open space or common area. Final location and design of such accesses will be determined at time of Master Plan or Preliminary Site Plan Review. (R)
- Additional points of access may be developed as appropriate in coordination with the City. (P)
- Street patterns and lot design must allow direct access to washes or open space areas for maintenance of annual and non-native vegetation to prevent fire hazards and allow Fire Department access in case of fire. Design methods may include a combination of single loaded streets, common open space, or common area between lots. Access might logically be provided at the shared edge between Verdin and undisturbed common open space, common area, etc. Points of access should be a maximum of 600-feet apart with openings a minimum of 20-feet wide to allow for fire breaks and access. Openings are to incorporate existing vegetation or be landscaped and shall maintain a 12-foot wide access-way for Fire Department equipment – this should not be interpreted that blading of a wash is permitted. Rather, native vegetation is to be preserved in place, but non-native vegetation may be carefully removed. (R)

- During construction, all lot grading adjacent to a “Preserve Edge/MCFCD” Property boundary(ies) shall be protected by roping, a chain link fence, orange net, or equivalent approved by the City. All parties involved in construction shall be made aware of the fence or rope and the reason for it. Construction fence roping is to remain intact until completion of construction. (R)
- Building and wall colors (for exterior facing surfaces) should be muted and blend with the surrounding natural environment. Accent colors may be appropriate, but should be used judiciously and with restraint. Reflective materials should not be used. (P)

6.C.2 Open Edge Treatment Landscape Design Guidelines

Open Space Treatment Landscape Design Guidelines apply to the “Preserve Edge/MCFCD” Property boundaries. The Open Edge Treatment Landscape Design Guidelines include:

- Landscape treatment in common open spaces, common areas, and along public or private rights-of-way adjacent to “Preserve Edge/MCFCD” Property boundaries shall comply with the Plant Palette in *Section 9: Certified Open Space Design Guidelines*. (R)
- All lot grading and construction areas shall be clearly marked by roping, a chain link fence, orange net fence, or equivalent approved by the City, to minimize impact during construction. Construction fence is to remain intact until completion of construction. (R)
- Salvaged plant and landscape material should be repurposed on-site to the maximum extent that can be achieved, including revegetation of common area, public right-of-way and residential landscaping on individual lots. It must be demonstrated to the City that an excess plant material exists; otherwise, relocation within Verdin is presumed. (P)
- In areas designated as permanent undisturbed open space or where a small portion has been scarred or previously damaged within Verdin, the area will be revegetated except for 404 designated wash areas. Revegetation types and densities should be typical of surrounding area washes, i.e., tree-lined washes will be revegetated with salvaged, native trees. (R)

- Native Sonoran Desert vegetation should not be pruned or removed from areas identified as permanent undisturbed open space unless demonstrated to the City that a health, safety, or welfare issue exists. This includes removal of dead trees or cacti. (P)
- Within areas identified as permanent undisturbed open space, no grading or other disturbance shall occur except grading for trails, roadways and utility easements. Restoration of the disturbed area is mandatory and shall follow guidelines and techniques approved by the City. (R)
- Turf areas within common open space shall be setback a minimum 50-feet from a “Preserve Edge/MCFCD” Property boundary(ies). (R) The use of common Bermuda grass shall be prohibited (R) in favor of hybrid Bermuda varieties. (P)
- If an area designated as permanent undisturbed open space is damaged during development or construction, it is to be restored to blend with the immediately adjacent desert area. Such area shall be supplemented only with indigenous plants from the Plant Palette in *Section 9: Certified Open Space Design Guidelines*. (R)
- Wash edges and existing natural open space areas should be planted with the same plant species and density found naturally occurring in and around the Property. Accent plant material is encouraged in areas where paths, trailheads, etc. within Verdin interface with a “Preserve Edge/MCFCD” Property boundary(ies). (P) Non-native plant species in these transitional zones are prohibited. (R)

6.D Sonoran Desert Drive Edge Treatment

Sonoran Desert Drive is planned as a six-lane arterial roadway that will extend across the northern perimeter of the Property. To address noise and buffering from this transportation corridor, Verdin proposes a series of edge treatment design guidelines that will provide adequate buffering and elevated aesthetic design character along this edge of the community.

6.D.1 Sonoran Desert Drive Open Edge Treatment Design Guidelines

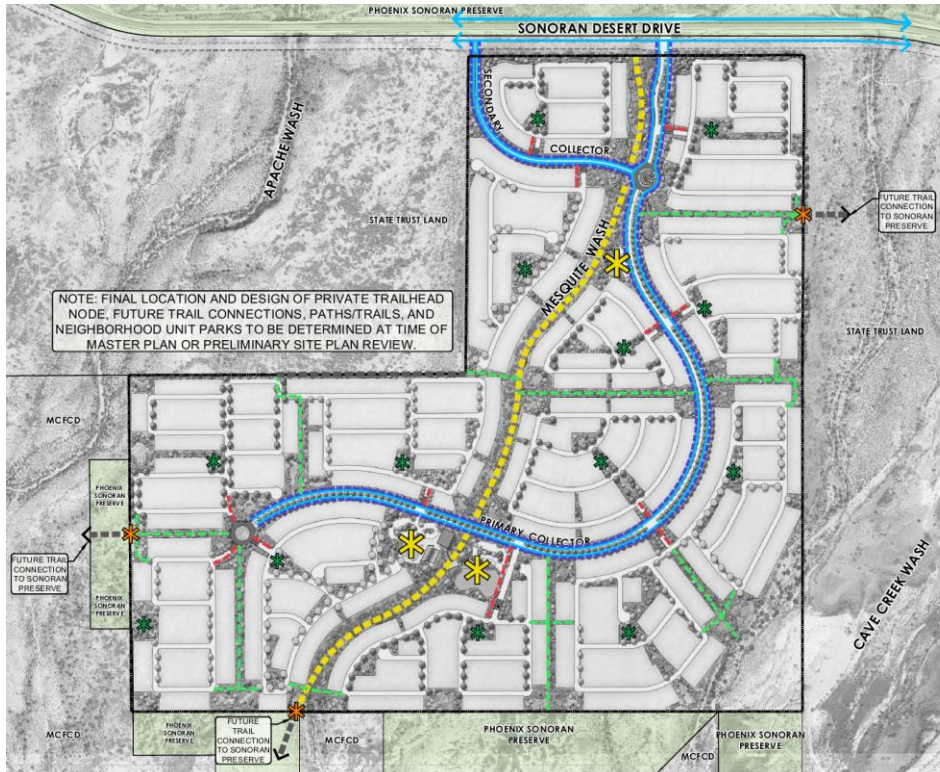
The Sonoran Desert Drive Open Edge Treatment design guidelines apply to the Property Perimeter immediately adjacent to Sonoran Desert Drive (“Sonoran Desert Drive Edge”). The Sonoran Desert Drive Edge Treatment design guidelines include:

The Sonoran Desert Drive Open Edge Treatment design guidelines include:

- No more than 50% of all lots immediately adjacent the Sonoran Desert Drive Edge shall directly back to Sonoran Desert Drive. Alternative orientations include lots that side on, angle to, or face the front of the house in a northern orientation. (R)
- The perimeter theme wall immediately adjacent to the Sonoran Desert Drive Edge may be curvilinear with horizontal variation of at least 10 feet. Breaks shall be provided at an interval of no less than every 300-linear feet of wall length. (P)
- The perimeter theme wall immediately adjacent to the Sonoran Desert Drive Edge shall be offset from the north Perimeter Property line a minimum of 15-feet with a minimum average setback no less than 30-feet. Native desert landscaping in conformance with the Green and Yellow Approved Desert Plant List shall be planted in the common area north of the perimeter theme wall (between the theme wall and the south right-of-way line of Sonoran Desert Drive. Tree spacing within this area shall be no less than 1 tree per 30-linear feet across the north Perimeter Property line. Common area located immediately south of the perimeter theme wall shall consist of similar materials and tree spacing.

6.E Edge Trail and Path Treatment

- The final location and design of private trailhead nodes, future trail connections, and parking areas shall be coordinate with the City and determined at time of Master Plan or Preliminary Site Plan Review. Construction of unauthorized access points shall be prohibited. (R)
- Paseo Corridors (see green dashes on Pedestrian Circulation Plan) connecting Verdin to the Sonoran Preserve or otherwise providing internal pedestrian connectivity shall be a minimum 40-feet in width and contain native Sonoran Desert landscaping and a path. (R)
- Paseo Corridors shall be counted as part of the required common open space. (R)
- Where trails and wildlife corridors are provided within Verdin, they should be identified on plans submitted to the City to demonstrate how they connect and relate to offsite public trails and wildlife corridors. (P)



VERDIN
LIFE IN THE DESERT™
PUD APPLICATION

PEDESTRIAN CIRCULATION PLAN

LEGEND

- 6' DETACHED NEIGHBORHOOD UNIT ENTRY SIDEWALKS
 - 8' DETACHED COLLECTOR ROADWAY SIDEWALKS
 - 6' / 8' COMMUNITY PASEO PATHS*
 - 4' NATURAL SURFACE TRAIL (CONNECTED TO SONORAN PRESERVE)
 - 12' MESQUITE WASH CORRIDOR* NATURAL SURFACE MATERIAL (PUBLIC TRAIL EASEMENT TO BE PROVIDED)
 - BIKE LANE (SONORAN DESERT DRIVE, PRIMARY AND SECONDARY COLLECTOR)
 - NEIGHBORHOOD UNIT PARK
 - COMMUNITY AMENITY
 - PUBLIC WALK-IN TRAILHEAD
- *PERMANENT PUBLIC ACCESS EASEMENTS TO BE PROVIDED



PHOENIX, AZ
AUGUST 1, 2022
1801880
TAYLOR MORRISON



Pedestrian Circulation Plan

6.H Plant Palette

The following list of desert plants represents plants that are typically found in the Sonoran Desert of north Phoenix and are a representative, but not exhaustive, list of plants that may be used within Verdin, including within open space and common areas and along Verdin Edges. Tree species designated with an “*” in the plant list below have been selected as Shade Trees. At maturity, these trees will provide a large, dense canopy to maximize the shade benefit along pedestrian corridors throughout Verdin. Proximate to the Property Perimeter, Shade Tree species will be limited to the trees included in the “Green List.” Internal to Verdin, designated trees from the “Yellow List” may be supplemented in addition to the “Green List” to increase the diversity of desert appropriate species within Verdin. Keystone species (species that are deemed critical to maintaining a healthy ecosystem) are shown in bold font and include a **(K)** after the common name.

Green List. Desert Plants allowed within all areas of Verdin. Only Green List plants may be used within open space and common areas immediately adjacent to the Verdin Edges.

Trees:	
Cercidium Floridum	Blue Palo Verde*
Cercidium Microphyllum	Foothill Palo Verde*
Olneya Tesota	Ironwood*
Prosopis Velutina	Mesquite* (K)
Shrubs:	
Abutilon palmeri	Palmer Indian Mallow
Acacia Greggii	Cat Claw Acacia (K)
Ambrosia Ambrosoides	Canyon Ragweed
Ambrosia Deltoidea	Triangle Leaf Bur Sage
Asclepias Subulata	Desert Milkweed
Atriplex Canescens	Fourwing Saltbush
Atriplex lentiformis	Quail Bush
Baccharis Sarothroides	Desert Broom (Male Cultivars) (K)
Calliandra Eriophylla	Fairy Duster
Canotia Holacantha	Crucifixion Thorn
Celtis Pallida	Desert Hackberry
Celtis Reticulata	Netleaf Hackberry
Encelia Farinosa	Brittlebush (K)
Ephedra Aspera	Rough Jointfir
Ephedra Trifurca	Mormon Tea
Ericameria Laricifolia	Turpentine Bush (K)
Eriogonum Fasciculatum	Flattop Buckwheat
Fouquieria Splendens	Ocotillo
Hyptis Emoryi	Desert Lavender
Justicia Californica	Chuparosa
Krameria Grayi	White Ratany
Larrea Tridentata	Cresosote Bush (K)
Lycium Berlandieri	Wolfberry
Lycium Fermentii	Tomatillo
Psilotrophe Cooperii	Paper Flower
Simmondsia Chinensis	Jojoba
Viguieria Deltoidea	Golden Eye
Zizyphus Obtusifolia Var. Canescens	Greythorn
Cacti and Succulents:	
Carnegiea Gigantea	Saguaro (K)
Echinocereus Fasciculatus	Hedgehog Cactus
Ferocactus Acanthodes	Compass Barrel
Ferocactus Wislizenii	Fishhook Barrel
Mammillaria Microcarpa	Fishhook Pincushion
Opuntia Acanthocarpa	Buckhorn Cholla
Opuntia Bigelovii	Teddy Bear Cholla

Opuntia Engelmannii	Engelmann's Prickly Pear
Opuntia Fulgida	Chain Fruit Cholla
Opuntia Leptocaulis	Desert Christmas Cholla
Annual Wildflowers:	
Argemone Pleiacantha	Prickly Poppy
Eschscholzia Mexicana	Mexican Gold Poppy
Kallstroemia Grandiflora	Arizona Poppy
Lupinus Arizonicus	Arizona Lupine
Lupinus Sparsiflorus	Desert Lupine
Orthocarpus Purpuracens	Owl's Clover
Pectis Papposa	Chinch Weed
Plantago Insularis	Indian Wheat
Salvia Columbariae	Chia
Perennial Wildflowers:	
Argemone Platyceras	Prickly Poppy
Baileya Multiradiata	Desert Marigold (K)
Dichelostemma Pulchellum	Bluedicks
Dyssodia Pentachaeta	Dyssodia
Erigeron Divergens	Spreading Fleabane
Penstemon Parryii	Parry's Penstemon
Senna Covessii (Cassia)	Desert Senna
Grasses:	
Aristida Purpurea	Purple Three-Awn
Hilaria Rigida	Big Galeta
Trichachne Californica	Cotton-Top
Yellow List. There are public areas where it may not be as critical that plant materials used are native to the Sonoran Desert but it is important that plant materials represent plants that are generally native to the southwest deserts or have the appearance of being native to those deserts. The following plant list is an expansion of the above list and includes Sonoran Desert natives as well as non-natives that are representative of southwest deserts. The Yellow List plants may be used within all areas of Verdin, with the exception of open spaces and common areas immediately adjacent to Verdin Edges.	
Trees—In addition to those identified above:	
Acacia Berlandieri	Guajillo Acacia
Acacia Occidentalis	Sonoran Catclaw Acacia*
Acacia Schaffneri	Twisted Acacia*
Acacia Stenophyllia	Shoestring Acacia*
Bauhinia Congesta	Anacacho Orchid Tree
Caesalpinia Cacalaco	Cascalote
Cercidium Praecox	Palo Brea
Chilopsis Linearis	Desert Willow*
Leucaena Retusa	Golden Ball Lead Tree
Lysiloma Microphylla Var. Thornberi	Desert Fern*
Pithecellobium Flexicaule	Texas Ebony*
Pithecellobium Mexicanum	Palo Chino/Mexican Ebony*
Pithecellobium Pallens	Tenaza

Prosopis Glandulosa	Honey Mesquite
Prosopis Pubescens	Screwbean Mesquite
Prosopis Torreyana	Texas Mesquite
Sophora Secundiflora	Mescal Bean
Ungnadia Speciosa	Mexican-Buckeye*
Shrubs—In addition to those identified above:	
Acacia constricta	White Thorn Acacia
Aloysia Gratissima	Bee Bush
Aloysia Lyciodes	Bee Bush
Aloysia Macrostachya	Sweet-Stem
Anisacanthus Andersonii	Anderson's Honeysuckle
Anisacanthus Quadrifidus	Flame Honeysuckle
Anisacanthus Thurberi	Desert Honeysuckle
Artemesia Ludoviciana	White Sage (K)
Atriplex Hymenelytra	Desert Holly
Atriplex Nummularia	Old Man Saltbush
Berberis Haematocarpa	Red Barberry
Buddleia Marrubifolia	Wooly Butterfly Bush
Caesalpinia Gilliesii	Desert Bird of Paradise
Calliandra Californica	Baja Red Fairy Duster
Calliandra Peninsularis	Baja Red Fairy Duster
Canotia Holacantha	Crucifixion Thorn
Cassia Biflora	Twin Flower Cassia
Cassia Wislizenii	Shrubby Cassia
Cordia Boissieri	Anacahuita
Cordia Parvifolia	Little Leaf Cordia
Dalea Bicolor Var. Argyraea	Silver Dalea
Dalea Frutescens	Black Dalea
Dalea Pulchra	Indigo Bush (K)
Dalea Versicolor Var. Sessilis	Wislizenus Dalea
Dodonaea Viscosa	Hopbush
Erythrina Flabelliformis	Southwest Coralbean
Euphorbia Antisyphilitica	Candelilla
Gutierrezia Microcephala	Snakeweed
Justicia Candicans	Red Justicia
Justicia Sonorae	Palm Canyon Justicia
Justicia Spicigera	Mexcan Honeysuckle
Krameria Parvifolia	Ratany
Leucophyllum Candidum	Silver Sage
Leucophyllum Frutescens	Texas Sage
Leucophyllum Laevigatum	Chihuahuan Sage
Leucophyllum Langmaniae	Sierra Madre Sage
Leucophyllum Pruinosum	Fragrant Sage
Leucophyllum Revolutum	
Leucophyllum Zygothymum	Blue Ranger

Lotus Rigidus	Desert Rock Pea
Mimosa Biuncifera	Wait-a-Minute Bush
Mimosa Dysocarpa	Velvet Pod Mimosa
Morus microphylla	Western Mulberry
Rhus Microphylla	Desert Sumac
Rhus Ovata	Sugarbush
Rhus Trilobata	Skunkbush
Ruellia Brittoniana	Britton's Ruellia
Ruellia Californica	Ruellia
Ruellia Peninsularis	Ruellia
Salvia Chamaedryoides	Blue Sage
Salvia Clevelandii	Chapparral Sage
Salvia Greggii	Autumn Sage
Salvia Leucophylla	Mexican Bush Sage
Salvia Dorrii	Desert Sage
Tecoma Stans	Yellowbells
Trixis Californica	Trixis
Ungradia Speciosa	Mexican Buckeye
Vauquelinia Corymbosa	Narrow-Leaf Rosewood
Vauquelinia Californica	Arizona Rosewood
Groundcovers:	
Atriplex Semibaccata	Saltbush
Baccharis Cv. "Centennial"	Centennial Baccharis
Dalea Greggii	Indigo Bush
Oenothera Berlandieri	Mexican Evening Primrose
Oenothera Caespitosa	Trailing Evening Primrose
Oenothera Stubbei	Saltillo Primrose
Verbena Bipinnatifida	Verbena
Verbena Goodingii	Gooding's Verbena
Verbena Tenera	Moss Verbena
Cacti and succulents—In addition to those identified above. This is a sample list of cacti and succulents that may be appropriate for the area. Other may be appropriate based on similarity of height, context, texture, and color as well as suitability to the natural environment.	
Agave Spp.—Sample listing:	
Agave Colorata	Mescal Ceniza
Agave Parryi	Parry's Agave
Agave Victoriae-Reginae	Royal Agave
Agave Vilmoriniana	Octopus Agave
Agave Murpheyi	Murphy's Agave
Aloe Spp.—Sample listing:	
Aloe Barbadensis	Medicinal Aloe
Aloe Ferox	Tree Aloe
Aloe Saponaria	Tiger Aloe
Aloe Marlothii	Tree Aloe
Aloe Striata	Coral Aloe

Cactaceae—Sample listing:	
Echinocactus Grusonii	Golden Barrel
Lophocereus Schottii	Senita
Opuntia Basilaris	Beavertail Prickly Pear
Opuntia Violacea	Purple Prickly Pear
Pachycereus Marginatus	Mexican Organ Pipe
Stenocereus Thurberi	Arizona Organ Pipe
Dasyilirion Acrotriche	Green Desert Spoon
Dasyilirion Wheeleri	Sotol, Desert Spoon
Hesperaloe Funifera	
Hesperaloe Parviflora	Red Hesperaloe
Nolina Mataeensis	Tree Bear Grass
Nolina Microcarpa	Bear Grass
Yucca Brevifolia	Joshua Tree
Yucca Rigida	Blue Yucca
Yucca Rostrata	Beaked Yucca
Annual wildflowers—In addition to those identified above:	
Gaillardia Pulchella	Firewheel
Layia Platyglossa	Tidy Tips
Lesquerella Gordonii	Yellow Blanket
Phacelia Campaularia	California Blue Bell
Perennial wildflowers—In addition to those identified above:	
Allionia Incarnata	Trailing Windmills
Calylophus hartwegii	Sundrops
Delphinium Amabile	Larkspur
Melampodium Leucanthum	Blackfoot Daisy
Penstemon Baccharifolius	Rock Penstemon
Penstemon Barbatus	Scarlet Penstemon
Penstemon Eatonii	Firecracker Penstemon
Penstemon Palmeri	Palmer's Penstemon
Penstemon Spectabilis	Royal Penstemon
Penstemon Superbus	Superb Penstem
Ratibida Columnaris	Mexican Hat, Coneflower
Sphaeralcea Ambigua	Globe-Mallow (K)
Tagetes Lemonnii	Mount Lemmon Marigold
Zinnia Acerosa	Desert Zinnia
Zinnia Grandiflora	Rocky Mountain Zinnia
Grasses—In addition to those identified in above:	
Bouteloua curtipendula	Sideoats Grama
Bouteloua gracilis	Blue Grama
Muhlenbergia Dumosa	Giant Muhly
Muhlenbergia Porteri	Bush Muhly
Muhlenbergia Rigens	Deer Grass
Vines:	
Antigonon Leptopus	Coral Vine

Callaeum Macroptera	Yellow Orchid Vine
Clematis Drummondi	Virgin's Bower
Maurandya Antirrhiniflora	Snapdragon Vine
Merremia Aurea	Yuca
Blue List. Sonoran Image Plant List—General Landscape Areas:	
There are areas where it may not be as critical that plant materials used are native to the Sonoran Desert or representative of the American Southwest Deserts, but it is important that the "Sonoran Image" be maintained. The following plant list is a broader representation of drought tolerant plants and includes non-natives that are considered appropriate for the area. The Blue List is to be used primarily for residential development in private yards and Neighborhood parks. Turf is prohibited in front yards.	
Note: Although this list is considered comprehensive, it is not exhaustive. In addition, it is anticipated that new plant materials may be added to the list as plants are introduced in the future. Interested persons are encouraged to suggest and/or propose plant materials to add to this list. Those will be reviewed by City staff and if determined appropriate, included in this list.	
Trees—In addition to those identified above, for use in private yards only:	
Acacia aneura	Mulga
Acacia Craspedocarpa	Leather Leaf Acacia
Acacia Saligna	Blue Leaf Wattle
Acacia Salicina	Willow Leaf Acacia
Caesalpinia Cacalaco	Cascalote
Eucalyptus Formanii	Formann's Eucalyptus
Eucalyptus Spathulata	Narrow-Leaf Gimlet
Eucalyptus Torquata	Coral Gum
Geoffroea Decorticans	Chilean Palo Verde
Pittosporum Phillyraeoides	Willow Pittosporum
Prosopis Alba	Argentine Mesquite
Prosopis Chilensis	Chilean Mesquite
Shrubs—In addition to those identified above, for use in private yards only:	
Caesalpinia Mexicana	Mexican Bird of Paradise
Caesalpinia Pulcherrima	Red Bird of Paradise
Cassia Artemisioides	Feathery Cassia
Cassia Nemophila	Desert Cassia
Cassia Phyllodinea	Silver-Leaf Cassia
Eremophila Glabra	Emu Bush
Euphorbia Rigida	
Salvia Leucantha	Mexican Bush Sage
Groundcovers—In addition to those identified above, for use in private yards only:	
Cephalophyllum Cv. "red spike"	Red Spike Ice Plant
Dorsanthemum Speciosum	Ice Plant
Gazania Rigens	Trailing Gazania
Verbena Peruviana	Peruvian Verbena
Verbena Rigida	Sandpaper Verbena
Cacti—In addition to those identified above, for use in private yards only:	

Agave Americana	Century Plant
Cereus Hildmannianus	Hildmann's Cereus
Lophocereus Schottii	Senita
Trichocereus Candicans	Argentine Trichocereus
Yucca Aloifolia	Spanish Bayonet
Yucca Baccata	Banana Yucca
Yucca Elata	Soaptree Yucca
Annual wildflowers—Same as identified above.	
Perennial wildflowers—Same as identified above.	
Grasses—In addition to those identified above, for use in private yards and neighborhood parks only.	
	Hybrid Bermuda Grass
Vines—In addition to those identified above, for use in private yards only:	
Podranea Ricasoliana	Pink Trumpet Vine
Bougainvillea	
Prohibited/Invasive Plant Species	
Acacia Farnesiana	Sweet Acacia
Acacia Willardiana	Palo Blanco
Brachychiton Populneus	Bottle tree
Cercidium Hybrid	Desert Museum Palo Verde
Cenchrus Ciliaris or Pennisetum Ciliare	Buffel Grass
Dalberlia Sissoo	Sissoo Tree
Eragrostis Lehmanniana	Lehmann's Lovegrass
Eucalyptus Sp.	Eucalyptus
Gutierrezia Sarothrae	Snakeweed (K)
Hordeum Jubatum	Foxtail Barley
Washington Sp.	Fan Palm
Pennisetum Sp.	Fountain Grass
Oleander Sp.	Oleanders—Except for petite varieties
Thevetia Peruviana	Yellow Oleander
Olea Sp.	Olive Trees
Parkinsonia Aculeata	Jersusalem Thorn/Mexican Palo Verde
Pinus Sp.	Pines
Prosopis Chilensis	Chilean Mesquite—In parking areas
Rhus Lancea	African Sumac

Section 9. Certified Open Space Design Guidelines

1.A Purpose & Intent

Verdin is uniquely located adjacent to the Sonoran Preserve, a 9,671 acre natural desert park that includes a network of natural surface trails and large expanses of undisturbed desert habitat. Verdin is planned as a community that seeks to soften its edges and promote integration within the surrounding preserve lands. Through the establishment of restrictive design guidelines, specifically crafted to preserve sensitive areas and promote habitat for native species, Verdin will be defined as a place where desert conservation and residential development are thoughtfully and meaningfully balanced. As a mechanism for ensuring the sustained protection of on-site natural areas and habitat, Verdin has partnered with the National Wildlife Federation to establish these guidelines in alignment with the tenets of the NWF. This collaboration will be one of the first of its kind in the United States and designed from the ground up to define measurable objectives and requirements in achieving a NWF Certified Community designation.



This collaboration will facilitate community directives that directly align with the NWF’s own mission of creating and maintaining natural habitat areas and the proliferation of native species within communities. This includes the designation of public and private open space areas that provide wildlife with food, water, cover and places to raise young within an environment that is consistent with the character of the Sonoran Desert. Open spaces along the edge and within the heart of the community will complement the Sonoran Preserve by reflecting similar vegetative densities and species types. Many of these spaces will then penetrate throughout Verdin creating a network of corridors and contiguous natural areas to encourage recreation and wildlife movement.

Multiple open space area types have been identified within Verdin, and each presents an opportunity to establish or preserve wildlife habitat. Some areas will echo the passive

character of the natural desert, while others will include programming elements that seek to engage activity and education. Specific guidelines for the varied open space types within Verdin have been developed to conform to standard criteria for NWF certification.



In addition to the certification of individual open space areas, the development of a comprehensive program is underway with the assistance of the NWF to provide guidance regarding the certification process, as well as outlining steps to ensure Verdin’s long-term commitment to the certification process. To accomplish this, the program will be integrated into Verdin’s private community governance structure and provides a framework for establishing a governing body that will comply with the NWF certification on a community level.

1.B National Wildlife Federation Collaboration Goals (“NWF Collaboration Goals”)

1. Applying NWF’s Certified Wildlife Habitat standards to current and future parks and open space using a minimum 80% native plants overall and reducing or eliminating the use of chemicals in the majority of certified open space and certified monarch butterfly habitat areas.
2. Develop Habitat Management Plans for Verdin’s Homeowner’s Association(s) that provide standards and guidance to preserve natural areas and promote successful long-term stewardship.
3. Take the Monarch Pledge to support monarch butterfly recovery efforts by planting native milkweed throughout the community and providing necessary elements for butterfly demonstration gardens in model homes and amenity areas.
4. Collaborate with the NWF to design and build Early Childhood Health Outdoors (ECHO) nature playscapes in lieu of traditional playgrounds and equipment.
5. Substantial commitment to water conservation and sustainability measures in support of the City’s drought management and water conservation goals.

1.C Certified Open Space Community Goals

The following is a list of goals that provide definition in support of the NWF Collaboration Goals. These goals will be implemented within the various open space areas.

The Use of Native and Drought Tolerant Plant Materials

NWF and Taylor Morrison have adopted an 80% native plant criteria for certified communities. The use of native plants creates an environment that is familiar to wildlife species and is consistent with material types found in the natural desert environment. Many of these vegetative materials provide food, cover and opportunities for wildlife to raise young. Verdin utilizes a plant palette contained within these Certified Open Space Design Guidelines that is aggregated into three sub-lists that are applicable to defined open space areas, monarch demonstration gardens and certified areas throughout the community. In addition, these plant lists highlight special Keystone Species that have been identified as vegetation types that play a critical role in the supporting the biodiversity and overall ecology of the native desert. The selection and use of these materials will be given preference when selecting and establishing materials within Certified Open Space Areas.

Green List – A palette developed for areas that will characteristically represent vegetative materials indicative of and exclusive to the Upper Sonoran Desert.

Yellow List – A palette that includes a broader diversity of species and generally represents materials that are native to the deserts of the southwest.

Blue List – A palette that is representative of drought tolerant plant species and includes non-natives that are considered appropriate for the area.

To further encourage Sonoran Desert wildlife, plant species with exceptional wildlife value have been identified from the green and yellow lists and categorized by wildlife type. The Plant and Wildlife Relationship Matrix is highly encouraged to be used as the majority of planted material. It is also meant to be used as a design tool for demonstration gardens and educational opportunities.



The Establishment of Interpretive Signage

Interpretive signage elements provide for educational opportunities for Verdin residents and raise awareness as to the sensitive components of these designated areas. Signage will be placed in key areas along pedestrian corridors and at demonstration garden areas to identify plant and animal species that reside within designated areas, and highlight the function of these spaces and their benefits.

The Creation or Preservation of Habitat Areas for Native Species

Verdin includes the selective designation of open space areas that provide for meaningful habitat creation and preservation. The Mesquite Wash Corridor lies at the heart of the community and its preservation establishes an opportunity for Verdin residents to appreciate and be educated on the value of natural areas. Many of Verdin's trails and open space areas are extensions of the Mesquite Wash Corridor, allowing for a recreational and natural corridor. Additional open spaces throughout Verdin will also be designed to promote and encourage wildlife habitat.

Limited Use of Pesticides and Herbicides in Certified Areas

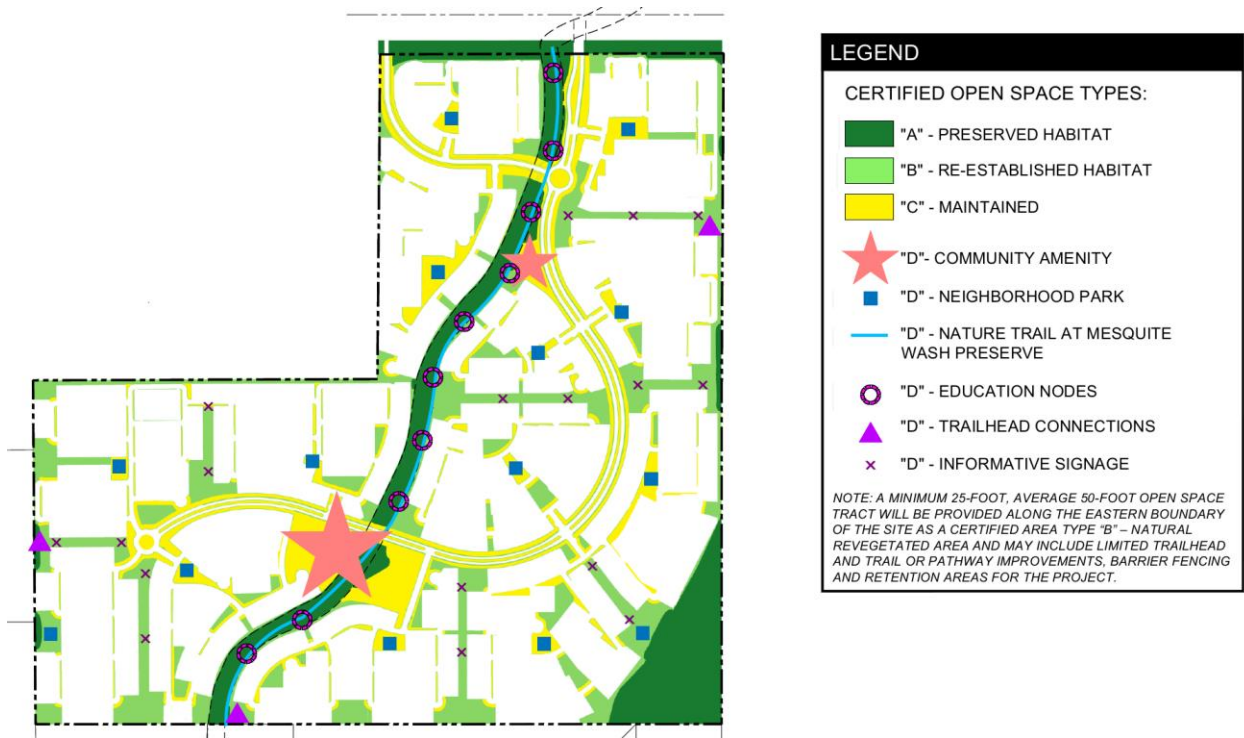
The indiscriminate use of pesticides and herbicides within landscape areas are detrimental to the sustainability of healthy ecosystems. The use of these agents within NWF Certified Areas A & B will be avoided, and other methods of nuisance control will be utilized. Signage that educates Verdin residents of these practices will also be included to inspire stewardship and ownership.

The Identification and Protection of Natural Area Open Space

Within Verdin, natural open space areas will be designated for the purpose of maintaining sensitive habitat and natural desert character. These areas will be demarcated through a combination of signage and fencing to reduce human impact and promote Property edges that seamlessly blend with adjacent desert lands.

1.D National Wildlife Federation Certified Areas

Verdin has identified four unique area types within Verdin that will promote NWF principles towards establishing meaningful and sustainable areas for wildlife habitat and educational opportunities. The size and location of each area and area type has been carefully considered to provide for a comprehensive balance of amenity programming that demonstrates connectivity and enhances engagement opportunities.



Certified Area Open Space Types

1.D.1. CERTIFIED AREA 'TYPE A' – PRESERVED HABITAT

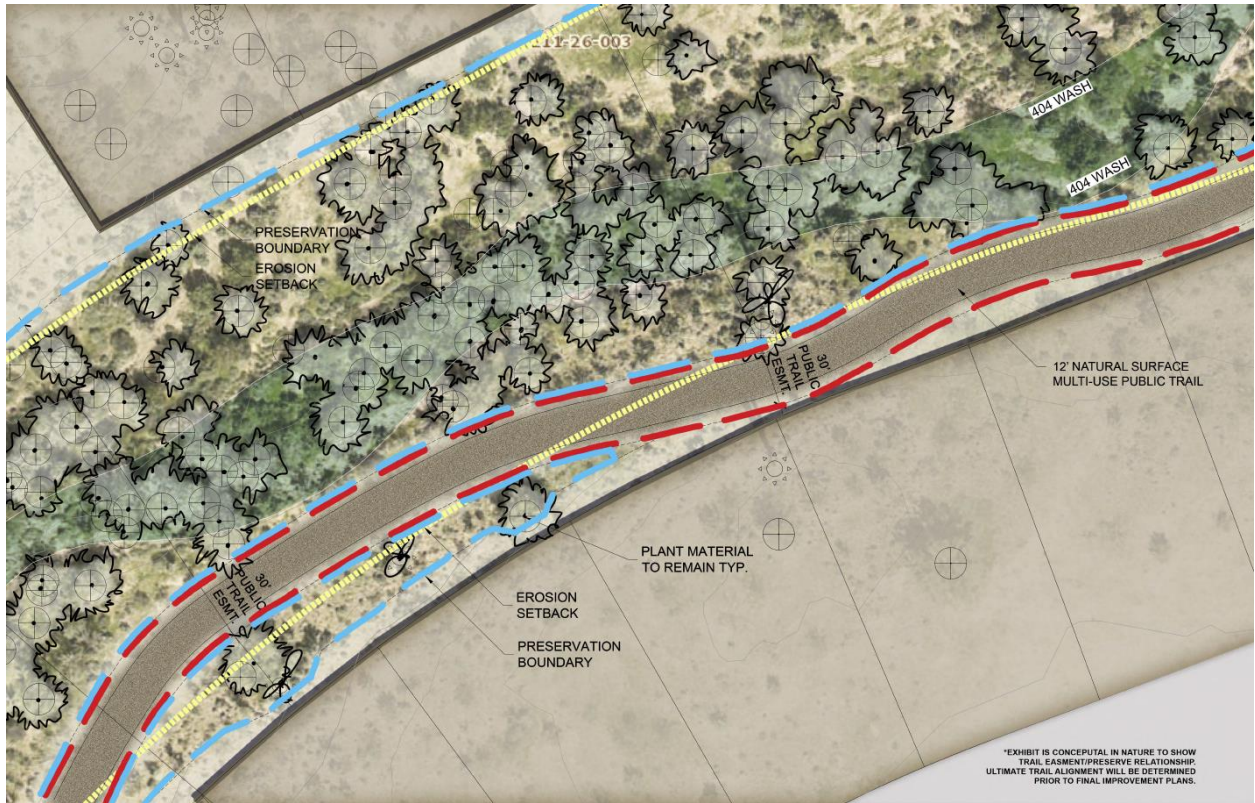
Type 'A' Preserved Habitat areas will emphasize the preservation of existing natural, undisturbed desert. These areas will be predominantly located in two portions of the Property: 1) along the Property Perimeter to establish a blending of community open space with the adjacent Sonoran Preserve, and 2) across nearly the entire length of Mesquite Wash. Areas designated to remain as undisturbed will be roped-off during the construction process to preserve existing plant material and protect wildlife and habitat. Access into these areas will be restricted or significantly limited to protect the integrity of these sensitive areas.



Mesquite Wash Corridor – Preservation Area

The Mesquite Wash Corridor is an approximately 19-acre natural area ranging in width from approximately 100-feet to 150-feet that extends from the northern edge of the Property where it continues to the southern edge of Verdin where it re-enters the Sonoran Preserve. This area will include the undisturbed wash area, upper embankment areas, and a 12-foot wide natural surface multi-use public trail within a 30-foot wide public trail easement along the east side of the Mesquite Wash. This trail will be available for both public and Verdin resident use. Existing natural vegetation and habitat will be maintained in an undisturbed condition to promote the vitality of the Mesquite Wash Corridor in its natural context. Throughout its 1.2 mile reach, the Mesquite Wash Corridor is only crossed in two locations by roadways and in limited instances by Verdin trails that connect to the adjacent Neighborhood Units and secondary linear trail corridors.

The Mesquite Wash Corridor represents a high-value natural area that shall be maintained as a protected natural area. These protections and use restrictions will ensure of the on-going viability of this linear open space as undisturbed desert habitat and a wildlife corridor.



Cave Creek Wash Edge – Preservation Area

The Cave Creek Wash is located immediately east of Verdin. The wash itself is located off-site, but a portion of the 100-year floodplain encroaches on approximately 16 acres at the southeast corner of the Property Perimeter. This portion of the Property within the erosion hazard setback area along the Cave Creek Wash corridor, as generally shown at *Exhibit 11: Drainage Improvements*, will be dedicated to the City for inclusion in the Sonoran Preserve. The precise acreage and configuration of the area to be dedicated, along with timing of the conveyance, will be determined and agreed upon by the Verdin developer, City of Phoenix Parks & Recreation and Planning & Development Departments. The dedicated acreage will be included and count towards the required open space within Verdin. The floodway has been committed as 100% preservation area with no planned improvements located within. These areas are currently undisturbed, with extensive native vegetation located within their boundaries. Grading or disturbance in the floodway is to be prohibited to maintain the natural desert as it currently exists. This area’s direct connection to the Cave Creek Wash management area (managed by FCD) will ensure that native habit remains contiguous along the Property’s Perimeter in conformance with NWF community certification criteria. Limited improvements along the perimeter of the floodplain may be made to transition the extent of the project improvements and mitigate drainage.

Certified Area Type 'A' Design Guidelines:

- Certified Areas will be protected and preserved in their natural, undisturbed state to the greatest extent possible. (P) Improvements shall be limited to two roadway crossings, natural surface multi-use trails/pathways, seating, limited use of fencing and low-wattage, full-cutoff, lighting limited to along the Mesquite Wash Trail for pedestrian safety (light source shall be mounted no higher than 36-inches above ground surface). (R)
- Certified Areas shall utilize the Plant Palette: Green List for 100% of newly installed materials and shall have temporary drip irrigation for a period of establishment of supplemental materials. (R) Any new materials will be hand-carted into the Certified Area to the greatest extent possible to reduce impacts to existing habitat. (P)
- Supplemental plant material is highly encouraged to be wildlife specific. (P) Reference Plant and Wildlife Relationship Matrix.
- Existing native desert area shall be preserved in its natural state by prohibiting grading and vegetation removal, except to accommodate the above limited improvements. (R)
- The use of fencing within Certified Areas shall be limited to tensioned-cable or other open fencing to identify and demarcate Certified Area and/or Property boundaries and preservation areas. (R)
- Certified Areas shall limit the amount of maintenance performed within these areas. Maintenance restrictions shall include the use of pesticides or herbicides, pruning or clearing and irrigation (except to support the establishment of supplemental plant materials). In the event that existing plant materials pose a threat to Verdin residents or community property, encumber pedestrian routes, etc., pruning or clearing actions may be allowed. (P)

1.D.2. CERTIFIED AREA TYPE 'B' – NATURAL REVEGEATATED AREAS

Type 'B' – Natural Revegetated Areas are those that require disturbance, but are revegetated with the intent to match the plant densities and character of the natural desert. Salvaged and nursery-grown native plant materials will be utilized for the revegetation, and temporary irrigation of these materials will be allowed to support the re-establishment. Similar to 'Type A' Certified Areas, access will be limited and Certified Areas may be demarcated with open fencing to define these areas.



Paseo Corridor Open Space

Paseo Corridor Open Space areas seek to provide connections through linear corridors located between Neighborhood Units. Landscape treatments within these areas will compliment pedestrian path elements through the use of trees for shading and buffering. Paseo Corridor Open Space design guidelines conforming to the NWF guidelines include the following:

- 100% of the vegetated area within Paseo Corridors shall consist of materials from the Plant Palette: Green List. (R)
- Enhanced vegetative planting shall be provided to match quantities typical to the densities found on adjacent lands within the Sonoran Preserve. (R)

- Identification, directional, or interpretive signage may be provided. (P)
- The installation of native plant species that provide habitat for monarch butterflies and other pollinators shall be required in amounts that are appropriate and proportional to the subject area. (R)

Preserve Edge Open Space

Preserve Edge Open Spaces are provided along the “Preserve Edge/MCFCD” Property boundaries as shown in *Exhibit 5: Edge Openness Plan*. These areas are intended as “soft edges,” with plant types and densities that are similar to those found on adjacent Sonoran Preserve lands. Where coordinated with the City Parks & Recreation Department, access points to public trails may be established to connect the Verdin with the Sonoran Preserve.



Preserve Edge Open Space design guidelines conforming to the NWF guidelines include the following:

- Materials reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)
- 100% of the vegetated area within these areas shall consist of materials identified on the Plant Palette: Green List. (R)
- Enhanced vegetative planting shall be provided within 100-feet of the Sonoran Preserve to match quantities typical to the densities found on adjacent lands within the Sonoran Preserve. (R)
- Maintenance of landscape areas within 100-feet of the Sonoran Preserve shall be limited to activities that aid in the removal of invasive species and maintain pedestrian corridors that may extend through these areas. (R)
- The use of native plant species that provide habitat for monarch butterflies and other pollinators will be encouraged. (P)

Community Edge Open Space

Community Edge Open Spaces are located along the Property Perimeter, but do not directly abut the “Preserve Edge/MCFCD” Property boundaries as shown on *Exhibit 5: Edge Openness Plan*. These areas are intended as “soft edges,” with plant types and densities that are similar to those found on adjacent lands. Where coordinated with the City Parks & Recreation Department, access points to public trails may be established to connect with publicly owned lands along the Property Perimeter.



Community Edge Open Space design guidelines conforming to the NWF guidelines include the following:

- The use of turf is discouraged in common open space areas that directly abut the Perimeter of the Property not adjacent to a “Preserve Edge/MCFCD” Property boundary. (P)
- One 24-inch box native tree for every 1,000 square-feet of landscape area shall be provided. (R)
- Materials reflective of the desert floor or indigenous character of the area shall be installed under all shrubs and groundcover. (R)
- 100% of the vegetated area within these areas shall consist of materials identified on the Plant Palette: Green List. (R)
- Enhanced vegetative planting shall be provided within 50-feet of the Property Perimeter to match quantities typical to the densities found on adjacent lands. (R)
- Maintenance of landscape areas within 50-feet of the Property Perimeter shall be limited to activities that aid in the removal of invasive species and maintain pedestrian corridors that may extend through these areas. (R)
- The use of native plant species that promote the attraction of Monarch Butterflies should be encouraged. (P)

- A minimum 25-foot, average 50-foot open space tract will be provided along the eastern boundary of the Property Perimeter to provide a transition to the Cave Creek Wash corridor—such open space tract will be counted towards the total open space required for the Project. 100% of the vegetated area within this open space tract will consist of materials identified on the Plant Palette: Green List. (R)

Certified Area Type 'B' Design Guidelines

- Certified Areas shall include a minimum of 100% area to be designated as “natural area” and shall be subject to very limited recreational use. (R) Improvements within “natural areas” should be limited to natural surface pathways and seating. (P) Concrete pathways, shade structures, and play structures shall be prohibited within these areas. (R)
- Certified Areas shall utilize the Plant Palette: Green List for 100% of newly installed materials. (R)
- Where feasible, existing landscape will be preserved in its natural state by minimizing grading and vegetation removal. (P)
- The planting of native salvaged materials and nursery grown materials shall be utilized for revegetation purposes. (R)
- The use of fencing within Certified Areas shall be limited to tensioned-cable or other open fencing to identify and demarcate Certified Areas adjacent to the Property Perimeter. (R)
- Certified Areas shall limit the amount of maintenance performed within these areas and shall exclude the use of pesticides or herbicides, pruning or clearing and irrigation (except to support the establishment of supplemental plant materials through temporary irrigation systems). In the event that existing plant materials pose a threat to Verdin residents or community property, encumber pedestrian routes, etc., pruning or clearing actions may be allowed. (P)

1.D.3. CERTIFIED AREA TYPE 'C' – MAINTAINED COMMON OPEN SPACE

Portions of common open space will be programmed for recreational uses and/or will require on-going aesthetic maintenance. Maintained common open spaces are generally located within the most visible, active portions of Verdin. These areas vary in size and may include Neighborhood Unit Parks, Common Area End Tracts or other tracts, Neighborhood Unit Entries, landscape buffers along collector roadways, etc. Some portions of the common open space may be programmed for conventional active and passive recreational use such as turf areas, shade ramadas, tot lots, sport courts, and other hardscape elements. However, a portion of these areas will include native desert landscape areas with salvaged or nursery grown plant materials selected from the Plant Palette: Green List and/or Yellow.



Because of their more visible, active locations, Maintained common open space areas will be subject to regular maintenance and professional care including clearing, pruning, and permanent irrigation.

Since a portion of the vegetative material located within maintained common open space areas will be consistent with the native materials found in the more natural Certified Area Types 'A' & 'B', these areas will inherently possess value for local wildlife. Planted trees will provide essential canopy areas for birds and other pollinator species that will seek cover and transit them throughout Verdin. Selected shrubs and flowers will provide food sources for local pollinators. Paseo Corridors will establish essential and contiguous corridors for the movement of various species.

Due to the level of maintenance and activity that will occur within maintained common open space areas, these areas do not provide the higher-value habitat characteristics of Certified Area Types 'A' and 'B', nor the level of education and awareness attributes consistent with Certified Area Type 'D' programming (below). However, these areas have been thoughtfully planned to ensure that they collectively make significant contributions to the connectivity and volume of open space within Verdin. When considered as a whole, the objectives of the NWF and its guiding principles will be embodied within Verdin to create a truly unique environment in harmony with the adjacent desert lands.

- Maintained common open space design guidelines conforming to the NWF requirements of at least 80% native plants throughout the community common and include the following:
 - 100% of all plant material shall be chosen from the Plant Palettes in this document. A minimum 80% of the vegetated area within the areas shall consist of materials identified on the Plant Palette: Green List. (R) The remaining 20% of the vegetated area within these areas may consist of materials on the Plant Palette: Green List or Plant Palette: Yellow List. Demonstration gardens consisting of NWF approved plant materials may include materials not specifically identified on the Green and Yellow Plant Palettes. For this reason, these areas shall not be subject to the minimum vegetated area minimum requirements provided above.
 - The use of herbicides and pesticides shall be permitted in areas identified as high activity or high traffic, specifically proximate to amenity areas, pathways, turf areas and play areas. The widespread application of herbicides/pesticides in Maintained common open space areas shall be prohibited to prevent airborne transference impacts to nearby Preserved Habitat, Re-Established Habitat, and Program Areas that include Demonstration Gardens and Monarch Butterfly habitat.
 - Re-establishment with wildlife specific plant species is highly encouraged. (P) Reference the Plant and Wildlife Relationship Matrix.

1.D.4. CERTIFIED AREA TYPE ‘D’ – PROGRAM AREAS & ELEMENTS

Program Area & Elements represent a variety of recreational, educational, and social engagement opportunities distributed throughout Verdin within designated areas. These community-oriented uses will promote the principles of the NWF and are intended to inspire elevated awareness and stewardship of the native desert. These uses may include the establishment of Monarch Butterfly habitat, natural playscapes, interpretive signage, demonstration gardens, community gathering spaces, etc. In most places, Program Areas & Elements will be located proximate to NWF certified open space areas.

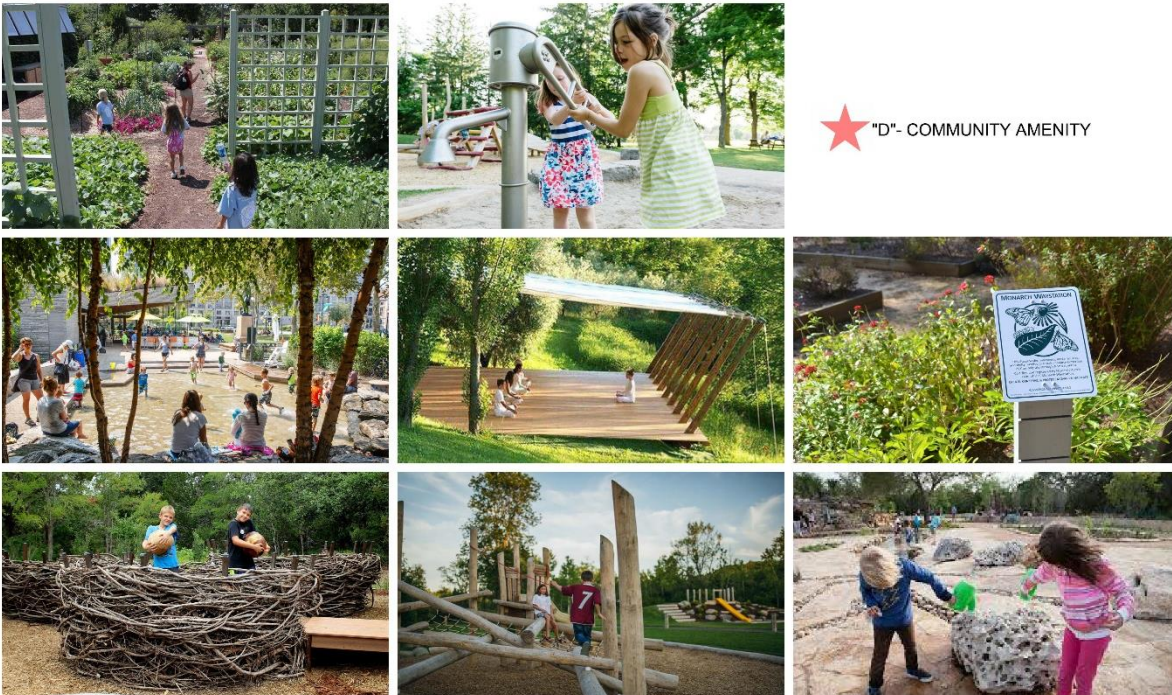
Program Areas

Certified Area Type ‘D’ program elements are generally anticipated to be established within the following areas to ensure that the greatest number of Verdin residents enjoy exposure to NWF certified areas:

Community Amenity Areas – There are two defined Community Amenity Areas within Verdin. Both are located adjacent to the Mesquite Wash and provide connectivity to the multi-use public trail. Because of their appeal as Verdin resident gathering nodes, these areas will provide for the greatest opportunity to promote multiple programming elements in a single location. Interpretive signage demonstrating nature play, and/or information on Sonoran Desert flora/fauna must be provided. Additional non-NWF amenities will be allowed (see *Section 8: Verdin Design Guidelines*).

Community Amenity Areas design guidelines include the following:

- Provide a minimum of two (2) certified program elements at each designated community amenity area: (R)
 - ECHO Playscape
 - Monarch Butterfly Demonstration Garden
 - Additional Native Milkweed Planted (Monarch Pledge)



Neighborhood Unit Park – Neighborhood Unit Parks should be provided within each Neighborhood Unit and will allow for a combination of traditional recreational uses in addition to established NWF certified program elements. Interpretive signage demonstrating nature play and/or information on Sonoran Desert flora/fauna shall be

provided. Additional non-NWF amenities will be allowed (See Section 8: Verdin Design Guidelines).

Neighborhood Unit Park design guidelines include the following:

- Provide a minimum of one (1) certified program element at each designated Neighborhood Unit Park location: (R)
 - ECHO Playscape
 - Monarch Butterfly Demonstration Garden
 - Additional Native Milkweed Planted Monarch Pledge





Mesquite Wash Trail – The Mesquite Wash Trail will be 12-foot wide natural surface multi-use public trail within a 30-foot wide public multi-use trail easement along the east side of the Mesquite Wash. This public trail will extend from the northern edge of the Property, to its southern edge where it will connect with the future public trail alignment within the Sonoran Preserve. The Mesquite Wash Trail will be available for both public and Verdin resident use.

Mesquite Wash Trail design guidelines include the following:

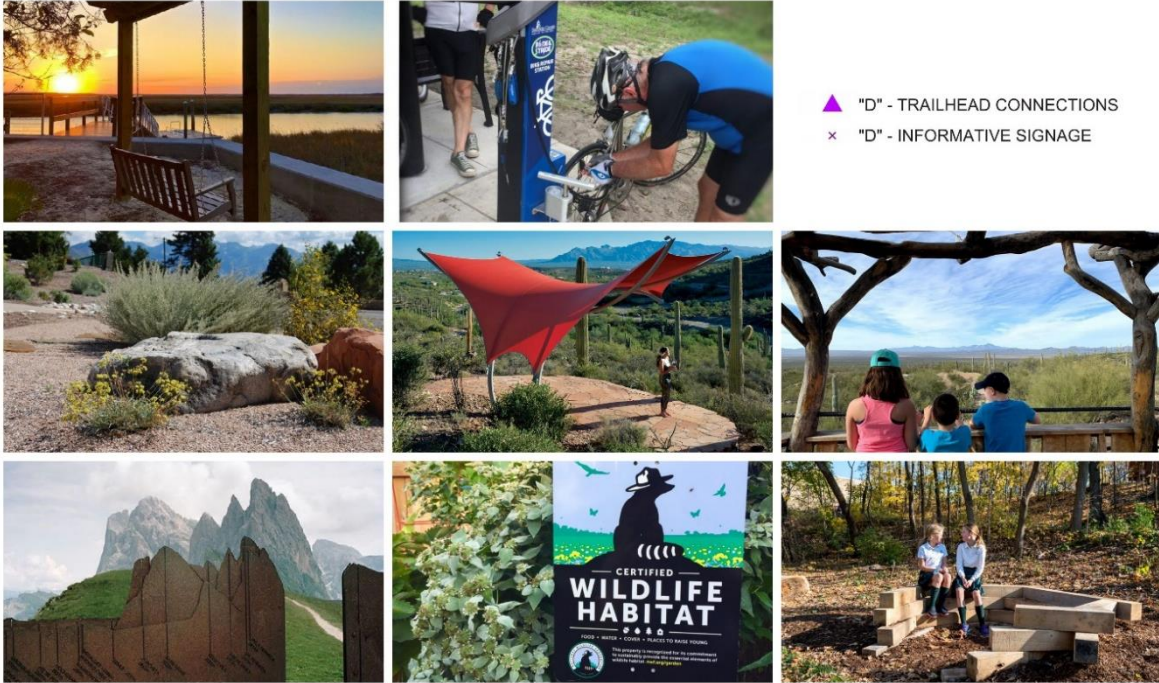
- Verdin shall dedicate, improve, and maintain the Mesquite Wash Trail within the Property. (R)
- Provide education nodes along the Mesquite Wash Trail with “mini” ECHO play opportunities and/or “mini” demonstration gardens. (P)
- Provide educational signage demonstrating nature play and/or information on Sonoran Desert flora/fauna. (P)

Public Community Trailheads – Public Community Trailheads will be distributed along the “Preserve Edge/MCFCD” Property boundaries as shown on *Exhibit 5: Edge Openness Plan* and are intended to facilitate community and public access to the surrounding Sonoran Preserve, while providing opportunities to integrate NWF

certified program elements. The final location of the Public Community Trailheads will be designed in coordination with the City Parks & Recreation Department. Trailheads may include shade, potable water, and seating.

Public Community Trailheads design guidelines include the following:

- Sonoran Preserve trailhead signage to be provided by the City’s Parks & Recreation Department. (R)



PROGRAM ELEMENTS

The following are program elements that shall be implemented within Verdin:

Monarch Pledge – Verdin is committed to working in collaboration with the NWF to address the threats to the Monarch Butterfly population including the extensive loss of habitat throughout North America. Through a pledge process coupled with these guidelines, the community has committed to restoring the Monarch Butterfly’s habitat by providing for widespread establishment of native plant species that are conducive to the feeding and breeding lifecycle of this species. Areas that are specifically designated for this habitat will be identified with signage. All new Verdin residents will be provided with educational materials that identify opportunities for promoting Monarch habitat within their private yards.



Monarch Pledge design guidelines including the following:

- Each Master Development Parcel will include a minimum of one programmed demonstration garden element that includes milkweed and other species that promote the proliferation of Monarch Butterfly populations. (P)
- Where feasible and appropriate, non-Neighborhood Unit Park common open space will include opportunities for the establishment of Monarch Butterfly habitat. (P)
- NWF will provide Monarch Butterfly focused education materials to be displayed in model homes and throughout Verdin. Community presentations and workshops on how to care for Monarch Butterflies and other pollinators will also be a part of the NWF collaboration. (P)

Early Childhood Outdoors (ECHO) Playscapes – In collaboration with the NWF, Verdin is committed to creating outdoor spaces for residents that encourages exploration and access to nature within a safe environment. These play areas seek to utilize and/or simulate natural materials that are indigenous to the region and are designed to be interactive and stimulate childhood imagination, but can also withstand climate conditions.



ECHO design guidelines include the following:

- The primary community amenity area shall include an ECHO playscape to complement other playground elements programmed for this area. (R)
- Include a minor ECHO playscape element along the Mesquite Wash Trail. (R)

Community Engagement & Education – The key to creating and maintaining an NWF certified community is to ensure that future residents become vested in the community’s natural environment and strive to maintain the principles upon which the certification program is founded. Provisions for interpretive signage and monumentation will be installed in key areas to raise awareness for habitat preservation and provide information about aspects of the Sonoran Desert.

Community Engagement & Education design guidelines include the following:

- Establish a minimum of six interpretive signage elements along the Mesquite Wash Trail. Signage shall address topics to include: native species, ecological principles, the Sonoran Desert, habitat dynamics, etc. (R)

Interpretive Signage – Education and awareness of the community’s natural desert context is a key principle for Verdin. Due to the Mesquite Wash’s location within the heart of the community and its strong recreational attributes associated with the adjoining Mesquite Wash Trail, this corridor presents an opportunity to educate residents about the value of the natural areas found throughout the Property and the adjacent Sonoran Preserve. Interpretive signage will be established along the linear trail corridor and will address a range of topics that speak to native species, habitat, and desert lands stewardship. Signage may also provide information about community programs or projects to promote on-going NWF certification efforts. In locations where the Mesquite Wash Corridor intersects with the Sonoran Preserve, Verdin shall provide notification signage and barrier fencing to clearly indicate this boundary interface.



Demonstration Gardens – Demonstration Gardens should highlight the various aspects of designing and constructing small-scale gardens that can encourage Verdin residents to implement these ideas within their private yards. Found throughout the community where Verdin resident exposure is greatest, these gardens will educate Verdin residents about the benefits of NWF certified gardens, proper native species selection, and on-going maintenance and care for these areas. These areas are intended to act as examples that can be translated throughout Verdin. Demonstration gardens will include informational signage and shall be openly integrated into other use areas.

Demonstration Gardens design guidelines including the following:

- Establish a minimum of two demonstration gardens throughout Verdin to provide opportunities to educate and provide discussion forums for Verdin residents on topics related to native species, natural habitat, community projects, NWF-related principles, etc. (R)

- Provide informational signage within or proximate to garden areas to educate Verdin residents about garden elements, benefits, and maintenance. (R)

Lighting Design Guidelines – The use of dark-skies compliant lighting shall be limited in use within Certified Area Types A and B, intended exclusively to ensure public safety along pedestrian routes. A more widespread lighting program may be implemented within Certified Area Types C and D in correlation with intensity of use. Lighting elements shall be oriented to avoid light spillage into the designated “natural areas” to the greatest extent possible.



1.E Plant and Wildlife Relationship Matrix

In order to fully promote and encourage diverse Sonoran Desert wildlife, plant species with exceptional wildlife value have been further identified from the green and yellow lists and categorized by wildlife type. The plants listed below are highly encouraged to be used as the majority of planted material for establishing habitat. It is also meant to be used as a design tool for demonstration gardens and educational opportunities.

Plant Palette: Green List



IRONWOOD
Olneya tesota



cactus wren
nectar: bees, hummingbirds
seeds: mammals, game birds



FOOTHILLS PALO VERDE
Parkinsonia microphylla



seeds: birds, small mammals
flowers: jackrabbits
nectar: bees



NETLEAF HACKBERRY
Celtis reticulata



snout butterfly • quail • white-winged dove
cover: songbirds, small mammals
food: songbirds



DESERT MARIGOLD
Baileya multiradiata



doves • finches • sparrows
food: songbirds
cover: songbirds



CATCLAW ACACIA
Acacia greggii



cover: rabbits, songbirds
nectar: insects, bees
food: songbirds



BLUE PALO VERDE
Parkinsonia florida



verdins • orioles
cover: finches, mockingbirds, mourning doves,
hummingbirds, songbirds
nectar: bees, birds, insects
food: ground squirrels, kangaroo rats, songbirds



VELVET MESQUITE
Prosopis velutina



dove • verdin • quail • raven • sparrows • finches
• rabbit
cover: finches, mockingbirds, mourning doves,
hummingbirds
nectar: bees, birds, insects, butterflies
seeds: ground squirrels, kangaroo rats



CHUPAROSA
Justicia californica



verdins • hummingbirds • quail
nectar: hummingbirds



PRICKLY PEAR
Opuntia engelmannii

nectar: insects, butterflies, bees
fruit: birds



FAIRY DUSTER
Calliandra eriophylla

nectar: birds, butterflies
seeds: birds



DESERT MILKWEED
Asclepias subulata

monarch butterflies
nectar: butterflies
food: caterpillars



DESERT HACKBERRY
Celtis pallida

northern cardinal • towhee • black-tailed
gnatcatcher
food: songbirds, caterpillars
cover: songbirds



FOUR-WINGED SALTBUCH
Atriplex canescens

quails • doves • finches • towhees
cover: rabbits, songbirds
food: songbirds, small mammals
*good habitat restoration plant



INDIAN MALLOW
Abutilon palmeri

nectar: pollinators



DESERT BROOM
Baccharis sarothroides

western pygmy-blue butterfly
nectar: butterflies



PURPLE THREE-AWN
Aristida purpurea

cover: small mammals
food: caterpillars, butterflies, song birds



BRITTLEBUSH
Encelia farinosa

nectar: butterflies
food: songbirds



TURPENTINE BUSH
Ericameria laricifolia

nectar: insects, butterflies
seeds: granivorous birds
food: rabbits



FLATTOP BUCKWHEAT
Eriogonum fasciculatum

food: songbirds, larval



OCOTILLO
Fouquieria splendens

hummingbirds • finches
nectar: insects, bees, hummingbirds
food: granivorous birds, small mammals



DESERT LAVENDER
Hyptis emoryi

nectar: bees and butterflies
cover: songbirds



CREOSOTE
Larrea tridentata

cover: songbirds
nectar: insects, bees
food: birds



SAGUARO
Carnegiea gigantea

gila woodpeckers • gilded flickers • elf owls •
cactus wrens • white-winged doves
food: songbirds, mammals
cover: songbirds
nectar: bees



FISHHOOK BARREL
Ferocactus wislizenii

fruit: birds and small mammals



BUCKHORN CHOLLA
Opuntia acanthocarpa
 cover: birds, road runners
 food: birds, mammals, insects, reptiles



CHAIN FRUIT CHOLLA
Opuntia fulgida
 cover: birds, road runners
 food: birds, mammals, insects, reptiles



DYSSODIA
Dyssodia pentachaeta
 food: caterpillars
 nectar: butterflies



PARRY'S PENSTEMON
Penstemon parryii
 nectar: bees, hummingbirds, butterflies



QUAIL BUSH
Atriplex lentiformis
 food: songbirds
 nectar: butterflies
 cover: small mammals, songbirds

Plant Palette: Yellow List



WHITETHORN ACACIA
Acacia constricta
 dove • quail • pyrrhuloxias • verdin
 nectar: insects, butterflies, bees
 food: songbirds
 cover: songbirds



DESERT HONEYSUCKLE
Anisacanthus thurberi
 nectar: bees, hummingbirds



WOOLY BUTTERFLY BUSH
Buddleia marrubifolia
 nectar: butterflies



GOODING'S VERBENA
Verbena goodingii
 nectar: butterflies



INDIGO BUSH
Dalea pulchra
 nectar: butterflies, bees
 food: songbirds



HOPBUSH
Dodonaea viscosa
 cover: birds, insects
 food: birds



RED JUSTICIA
Justicia candidans
 nectar: hummingbirds, butterflies



GLOBE MALLOW
Sphaeralcea ambigua
 nectar: bees, insects
 food: songbirds



MOUNT LEMMON MARIGOLD
Tagetes lemmonii



nectar: butterflies



DESERT ZINNIA
Zinnia acerosa



nectar: bees, butterflies, insects
food: songbirds



PRAIRIE ZINNIA
Zinnia grandiflora



nectar: butterflies, bees, insects



DEER GRASS
Muhlenbergia rigens



cover: bees, birds
food: songbirds, small mammals



MURPHY'S AGAVE
Agave murpheyi



nectar: butterflies, bees, insects



DESERT SPOON
Dasyliston wheeleri



nectar: bees, butterflies, insects



BLACKFOOT DAISY
Melampodium leucanthum



nectar: butterflies, bees, insects
food: songbirds



TRAILING EVENING PRIMROSE
Oenothera caespitosa



nectar: butterflies
food: songbirds



SUPERB PENSTEMON
Penstemon superbus



nectar: hummingbirds



FIRECRACKER PENSTEMON
Penstemon eatonii



nectar: hummingbirds



PALMER'S PENSTEMON
Penstemon palmeri



nectar: hummingbirds



SUNDROPS
Calylophus hartwegii



spinx moth larvae
nectar: butterflies, bees, birds



SIDEOATS GRAMA
Bouteloua curtipendula



cover: songbirds, rabbits
food: songbirds



BLUE GRAMA
Bouteloua gracilis



food: quail, songbirds, butterflies and small mammals



WESTERN MULBERRY
Morus microphylla



cover: birds
fruit: birds



DESERT WILLOW
Chilopsis linearis



verdin • ruby-crowned kinglets
food: caterpillars, moths, songbirds
cover: birds
nectar: bees, birds, insects

Section 10. Signs

Signage within Verdin shall comply with Section 705, Signs, of the Phoenix Zoning Ordinance, including that a Comprehensive Sign Plan may be approved in the future. The Verdin PUD authorizes the following modifications from Phoenix Zoning Ordinance Section 705.E.2.b.3 for Ground and Combination Signs.

1. **Primary Ornamental Entry Signs.** Primary Ornamental Entry Signs are freestanding signs (lettering and sign copy only) of architectural quality intended to provide identification for Verdin. Primary Ornamental Entry Signs are allowed: (1) At or near the primary entrance to Verdin within or adjacent to the required Perimeter Building Setback and Common Landscape Setback; and/or (2) Along the Primary Collector within Master Development Parcel C (e.g., within or near a round-a-bout, etc.). These provisions apply to sign copy and lettering only. The Primary Ornamental Entry monument, feature, or structure is separately governed by Section 6. Landscaping, Fences & Walls of the Verdin PUD.
 - a. **Number of Signs.** A maximum of two Primary Ornamental Entry Signs are permitted within Verdin.
 - b. **Height.** The maximum height for Primary Ornamental Entry Sign lettering and copy is 16-feet, notwithstanding architectural embellishments and non-supporting structures, including but not limited to spires, towers, pylons, columns, trims and other similar features or projections, are allowed up to a maximum height of 30-feet, when not prohibited by Section 31-13 of the Phoenix City Code. Such architectural embellishments will be a secondary or supporting design element to the Primary Ornamental Entry.
 - c. **Sign Area.** The maximum sign lettering area is 100 square-feet per sign for Primary Ornamental Entry Signs.

The following illustrates conceptual character for Primary Ornamental Entry Signs.



2. **Neighborhood Unit Signs and Secondary Ornamental Entry Signs.** Subdivision Signs and Secondary Ornamental Entry Signs are freestanding ground mounted signs located on or incorporated into a solid base, or wall mounted signs. Subdivision Signs are intended to identify individual Neighborhood Units within Verdin as well as community features such as major amenity areas or the community center. Such signs will generally be located along the internal collectors. Secondary Ornamental Entry Signs are intended to provide secondary identification for the overall Verdin project and may be located at any secondary community entrances.
 - a. **Number of Signs.** A maximum of two single-faced Neighborhood Unit identification signs or one double-faced Neighborhood Unit identification sign are allowed per entrance to a Neighborhood Unit.
 - b. **Ground Sign Structure Height.** The maximum height for freestanding ground mounted sign structures, non-supporting structures, embellishments, architecture, trim, walls, or other similar features is 8-feet.
 - c. **Sign Copy Height.** The maximum height for sign copy and lettering is eight feet.

- d. **Area.** The maximum sign lettering area is 44 square-feet per sign for Neighborhood Unit signs and Secondary Ornamental Entry Signs.
- e. **Spacing:** Neighborhood Unit identification signs shall be separated a minimum 300-feet from other Neighborhood Unit identification signs when on the same side of a collector; otherwise, there is no spacing requirement.

Section 11. Sustainability

The following are sustainability practices that are required:

1. Utilize industry-recognized sustainable construction practices and materials by providing options for LED and/or low-level lighting, cool roof tops or non-dark tiles colors, dual paned windows with high performance Low e-glazing, energy-efficient rated insulation, lower flow toilets and showerheads, and automatic irrigation systems.
2. Promote energy-efficiency by providing options to high efficiency air conditions units, Energy Star appliances, programmable thermostats, and whole house exchange fans.
3. Preserve washes in their natural environment by using industry accepted soft structural mitigation measures to maintain natural drainage patterns and minimize impacts on animal migration patterns.
4. Provide a network of non-vehicular transportation options, including bike lanes, multi-use trails, and pedestrian connections to parks and open space areas, washes and surrounding Sonoran Preserve.
5. Provide pedestrian amenities such as sidewalks shaded with landscaping, waste receptacles (recycling and trash), way finding signage, benches, and pedestrian scaled lighting.
6. Provide a community center and other active and passive neighborhood amenities, such as ramadas, barbeques, playground equipment, and play areas.
7. Include LED and energy efficient lighting technology into any and all lighting constructed on site, including community amenity areas, parking lots, parks, and streets.
8. Shade primary and secondary community amenity parking lots, open spaces areas, and public spaces with trees.

9. Utilize non-invasive, drought-tolerant, and where possible, salvaged vegetation within landscape areas and open spaces, landscape buffers and setbacks, and along streets within Verdin.
10. Implement landscaping and stormwater management techniques that retain storm runoff where appropriate to provide water for landscaping and improve water quality conditions.
11. Provide secure and visible bike parking at the community center.
12. Common areas will include “smart” irrigation systems that can be controlled remotely to promote water conservation.
13. Verdin common areas managed and maintained by the homeowner’s association will undergo regular water leak detection audits to ensure the integrity and efficiency of the irrigation system is maintained.
14. All effluent generated by Verdin will be delivered back to the City for City use through the Water Services Department sewer system.

The following are sustainability practices that are highly encouraged:

1. Implement design guidelines to create a unique development that is sensitive to the desert setting and Sonoran Preserve.
2. Provide a diverse range of housing types, sizes, densities, and prices that will attract residents with varied ages and lifestyles.
3. Orient homes to take advantage of climatic and site conditions to provide heating in the winter and cooling in the summer, where possible.
4. Encourage the use of photovoltaic panels.
5. Sustainable recycling program will be actively pursued and supported for all single-family development.

Section 12. Water

Verdin is located within the City's water service area and lies within Pressure Zone 6A. The nearest existing water infrastructure include 12-inch water lines along Dove Valley Road and the 7th Street alignment northwest of the Property. There are also existing 12-inch, 48-inch (PZ-7A), and 54-inch water lines along Cave Creek Road, southeast of the Property. With the exception of the 48-inch main, these existing water lines operate within Pressure Zone 6A and will serve as the connection points for Verdin's offsite water improvements.

As shown in *Exhibit 9: Water System Improvements*, water improvements for Verdin include a proposed 12-inch (which may be upsized to 16-inch based on further analysis) offsite water line extending west from Verdin along Sonoran Desert Drive, connecting to the existing 12-inch water lines along Dove Valley Road at the 7th Street alignment. A 16-inch water line will extend east from Verdin along Sonoran Desert Drive and connect to the existing 52-inch waterline at an existing 16-inch stub-out just south of the City's 6A-B1 Booster Pump Station along Cave Creek Road to provide for two points of connection. The proposed onsite water system infrastructure will consist of internal 8-inch to 12-inch water lines serving the individual parcels. The onsite water lines will be generally located within the Verdin's roadways, with some water lines located within parcel tracts with easements. These water lines will create a looped network within Verdin and ensure that each parcel has two points of connection for redundancy. Final water line sizing and alignments will be determined through the master planning process with hydraulic modeling to verify pressures and flows.

Water infrastructure for Verdin will be designed in accordance with current city design criteria as outlined in the city's *2017 Design Standards Manual for Water and Wastewater Systems*. Based on the proposed land uses, the projected average day and peak day water demands for Verdin are approximately 776,034 gpd (539 gpm) and 1,095,135 gpd (761 gpm), respectively. The water system will be designed to serve these demands, along with the required fire flows, in accordance with city design criteria and other applicable requirements.

The Developer is committed to the following water conservation and sustainability measures for Verdin

1. **EPA WaterSense Certification.** All homes within Verdin will be designed and certified through the EPA WaterSense Certification program. Homes within Verdin will meet the mandatory requirements for WaterSense labeling, including:
 - Leak detection audits at completion of installation
 - WaterSense labeled toilets, bathroom faucets, and showerheads

- WaterSense labeled irrigation controller components
 - Front yard landscape design by a WaterSense design professional
 - Formal certification as a WaterSense home by an authorized Home Certifying Organization
2. **City Homeowners Association Water Efficiency Program.** The homeowner's association for Verdin will participate in the City's Homeowners Association Water Efficiency Program.

Section 13. Wastewater

Verdin is located in the City's wastewater service area. The nearest existing wastewater system in the region includes a 12-inch gravity sewer main along the Sonoran Desert Drive alignment west of Verdin and a 15-inch gravity sewer main along Cave Creek Road southeast of the Property.

Due to the topography of the Property and surrounding area, it is not anticipated that Verdin can be served by a gravity-only sewer solution. The city's requirements for depth of cover, scour protection at wash crossings, and the existing invert elevations of the downstream tie-in manholes make an all-gravity sewer solution infeasible, and Verdin will require a public lift station at the site's low point located along the southern boundary of the Property.

As shown in *Exhibit 10: Wastewater System Improvements*, wastewater system improvements for Verdin will include a public lift station to be constructed along the southern boundary of the Property. The lift station and associated force main will be built to city standards and will require redundancy, including but not limited to the installation of a dual force main, a backup pump, and a backup generator. Onsite sewer mains ranging from 8 to 12-inches in diameter will route wastewater flows from each of the lots in the individual parcels to the proposed lift station, where they would then be pumped through a force main towards the existing 15-inch gravity sewer main along Cave Creek Road following Sonoran Desert Drive. Additional analysis will need to be completed to evaluate the capacity of the existing gravity sewer main in Cave Creek Road. Proposed development in the vicinity may create conditions that will require the upsizing of the current gravity main or potentially the construction of a parallel gravity main. The final onsite sewer, including offsite sewer improvements, and force main sizing and alignments will be determined through the master planning process, which will include an evaluation of potential service areas for this lift station.

The proposed wastewater collection system infrastructure for Verdin will be designed in accordance with current city design criteria as outlined in the city's *2017 Design Standards Manual for Water and Wastewater Systems*. Based on the proposed land uses, the anticipated average daily wastewater flow and peak flow for Verdin are 304,125 gpd (211 gpm) and 1,019,742 gpd (708 gpm), respectively. The wastewater system will be designed to convey the anticipated wastewater flows in accordance with City design criteria and other applicable requirements.

Section 14. Drainage

The region surrounding the Property generally drains southward. Verdin is impacted by three natural washes that approach the Property from the north and convey regional stormwater flows through and around the Property. These watercourses include, from west to east, Apache Wash, Mesquite Wash, and Cave Creek Wash. The flows conveyed in these three washes ultimately converge downstream of the Property at the Cave Buttes Dam, which is located approximately 2.2 miles south of the Property. In coordination with the Flood Control District of Maricopa County, who owns much of the land between the southern Property limits and the Cave Buttes Dam, it was confirmed that the Property is located well outside of the 100-year inundation limits of the Cave Buttes Dam.

The most current FEMA Flood Insurance Study (FIS) has been used in identifying the peak flow rates in each of the washes. According to FEMA Flood Insurance Rate Maps (FIRM) 04013C0870L and 04013C1285L, dated October 16, 2013, the Project is primarily located within Zone X. FEMA defines Zone X as:

The flood insurance rate zone that corresponds to areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. No base flood elevations or depths are shown within this zone.

Portions of the site are designated as Zone AE special flood hazards, which are coincident with the three aforementioned washes. It is anticipated that a portion of the Zone AE floodplain within the site can be recovered through the FEMA CLOMR/LOMR process. FEMA defines Zone AE as:

The flood insurance rate zone that corresponds to the 100-year floodplains as determined in the Flood Insurance Study by detailed methods. In most instances, base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

In order to create spaces within a community that relate to the natural environment, selected project areas are planned mitigated and removed from the existing floodplains. This development approach mimics conditions seen in other established communities in and around Verdin, including Sonoran Foothills, Desert Ridge, and Sky Crossing. The proposed encroachment into the floodplains will incorporate soft-structural mitigation measures in order to preserve the natural desert character of the Property. The soft-structural approach is intended to be a more natural and environmentally-conscious mitigation strategy and may include the use of fill to raise the proposed development above the 100-year water surface elevations in the washes as well as bank protection as needed in limited areas. Due to the magnitude of flows conveyed by Apache Wash and Cave Creek Wash as well as their location along the perimeter of the property, limited encroachment is proposed to occur within those associated floodplains. The Mesquite Wash corridor, which traverses the interior of the Property and conveys considerably less flow in comparison, has conditions and characteristics that enable proposed encroachment into its floodplain. Minor, more localized sources of offsite flow, which approach the site from the north as sheet flow and/or in existing culverts, are proposed to be mitigated via designated channels that convey offsite flow around the site and outfall to the natural washes.

In accordance with City storm water guidelines, Verdin will be designed so that onsite rainfall runoff from the Property will be routed via street flow and/or storm drains to retention basins located throughout the Property. Due to the proximity of the Property to the watercourses described above, a reduced retention requirement (the greater of the Pre vs Post or First Flush volume) will be pursued for those areas that have a direct overflow path to one of the three natural washes that impact the Property. If an overflow path is not available for a designated area, then the 100-year, 2-hour retention volume will be provided. The proposed drainage improvements for Verdin will be designed in accordance with all City and Maricopa County drainage design standards. *See Exhibit 11: [Drainage Improvements](#).*

Section 15. Circulation

Two access points into Verdin are proposed via Sonoran Desert Drive. The Primary Collector, which will serve as the primary access for Verdin, is planned as a public roadway with two through lanes in each direction and a raised landscape median. The Primary Collector will be located at approximately the midpoint of the project frontage along Sonoran Desert Drive. The Secondary Collector, which will serve as the secondary access for Verdin, is planned at the westernmost frontage point along Sonoran Desert Drive. The Secondary Collector will also be public and likely consist of one lane in each direction and a two-way left turn lane may be provided in some locations. The Primary and Secondary Collectors provide vehicular circulation to each Neighborhood Unit including the amenity sites. The Primary Collector is planned to be constructed in its entirety with the first phase of development. The

circulation system within Verdin will be extended through a series of local streets that provide access into and through each individual Neighborhood Unit. The local streets will typically consist of one lane in each direction and may be a combination of public streets or private streets within a gated neighborhood condition. *See Exhibit 12: Street Cross Sections.*

Sonoran Desert Drive is a regional transportation corridor and designated as a scenic parkway by the City with 300-feet of right-of-way reserved for this corridor along the Property frontage. Since the construction of full build out section of Sonoran Desert Drive necessitates regional impact considerations, interim offsite improvements are anticipated as part of Verdin. These improvements may include widening Sonoran Desert Drive along the Project frontage and other offsite improvements.

Appendix

Appendix A: *Legal Description*

Appendix B: *Comparative Zoning and Development Standards Table*

Appendix A. *Legal Description*

PARCEL NO. 1:

THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 5 NORTH, RANGE 3 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THAT PORTION OF SECTION 22, TOWNSHIP 5 NORTH, RANGE 3 EAST, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 22;

THENCE NORTH 00° 20' 16" EAST, ALONG THE EAST LINE OF SAID SECTION 22, A DISTANCE OF 2,501.66 TO THE POINT OF BEGINNING;

THENCE NORTH 90° 00' 00" WEST, A DISTANCE OF 2,642.12 FEET TO THE NORTH-SOUTH MID- SECTION LINE OF SAID SECTION 22;

THENCE NORTH 00° 28' 49" EAST, ALONG SAID MID-SECTION LINE, A DISTANCE OF 141.23 FEET TO THE EAST-WEST MID-SECTION LINE OF SAID SECTION 22;

THENCE NORTH 89° 48' 35" EAST, ALONG SAID MID-SECTION, LINE A DISTANCE OF 2,641.83 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 22;

THENCE SOUTH 00° 20' 16" WEST, ALONG THE EAST LINE OF SAID SECTION 22, A DISTANCE OF 150.00 FEET TO THE POINT OF

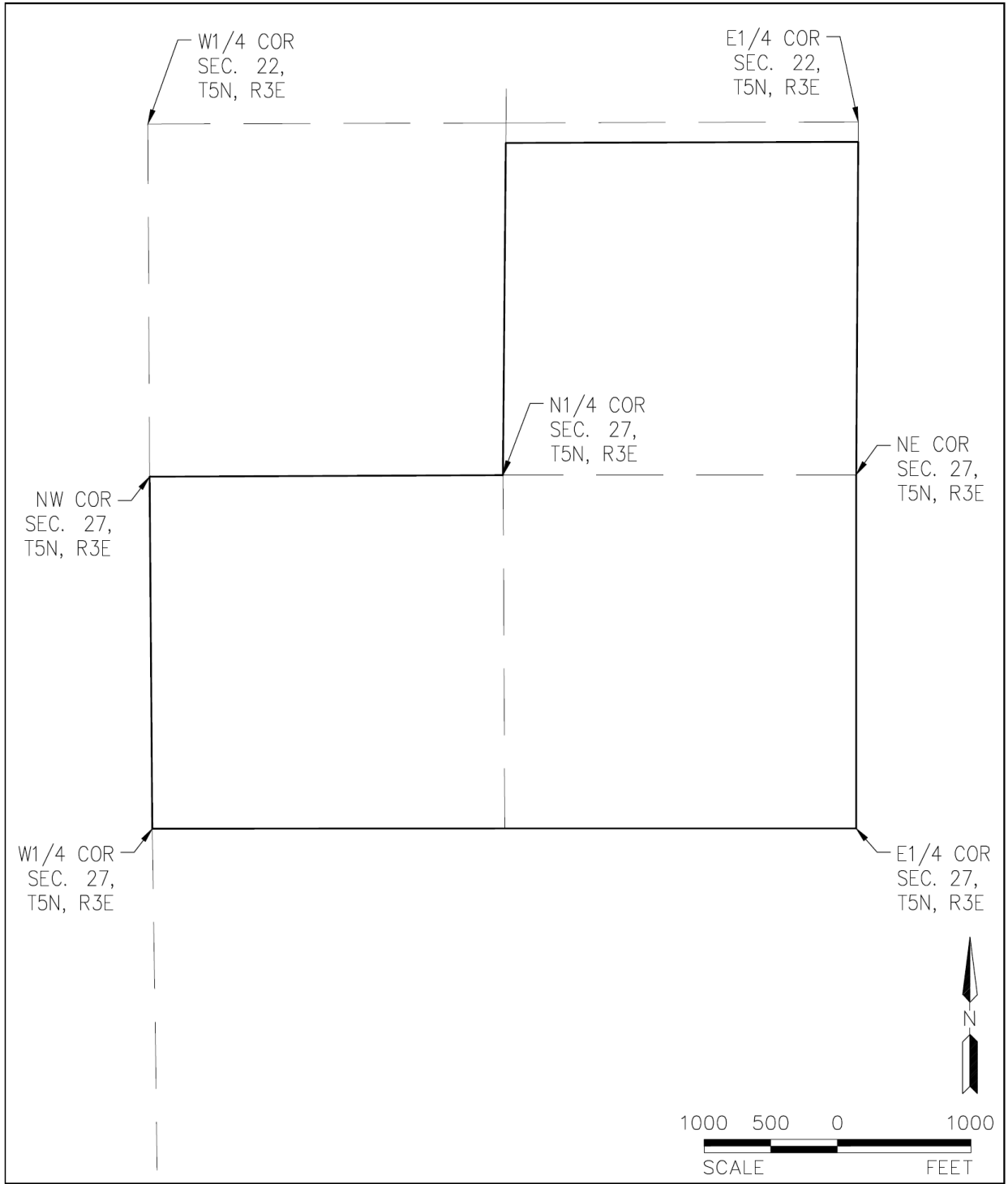
BEGINNING. PARCEL NO. 2:

THE NORTH HALF OF SECTION 27, TOWNSHIP 5 NORTH, RANGE 3 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT ALL THE COAL AND OTHER MINERALS, AS RESERVED IN THE PATENT. (AFFECTS THE NORTH HALF OF THE NORTHWEST QUARTER AND THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 27).

EXCEPT ALL MINERALS IN SAID LAND AS RESERVED TO THE UNITED STATES IN PATENT; AND

EXCEPTING ALL URANIUM, THORIUM, OR OTHER MATERIAL WHICH IS OR MAY BE DETERMINED TO BE PECULIARLY ESSENTIAL TO THE PRODUCTION OF FISSIONABLE MATERIALS, WHETHER OR NOT OF COMMERCIAL VALUE PURSUANT TO THE PROVISIONS OF THE ACT OF AUGUST 1, 1946 (60 STAT. 755), AS SET FORTH IN THE PATENT ON SAID LAND. (AFFECTS THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 2).



PROJ.NO.: 1784	MACEWEN 480	 HILGARTWILSON 2141 E. HIGHLAND AVE., STE. 250 PHOENIX, AZ 85016 P: 602.490.0535 / F: 602.368.2436
DATE: NOV 2018		
SCALE: 1" = 1000'	PHOENIX, ARIZONA	
DRAWN BY: NS	BOUNDARY EXHIBIT	
CHECKED BY: HW		

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Appendix B. Comparative Zoning and Development Standards Table

SINGLE-FAMILY DETACHED DWELLING DISTRICTS and MODEL HOME DEVELOPMENT STANDARDS								
DEVELOPMENT STANDARD	<i>R1-6 PRD</i>	<i>SFR-5^{4,8}</i>	<i>R1-8 PRD</i>	<i>SFR-7^{4,8}</i>	<i>R1-10 PRD</i>	<i>SFR-9^{1,4,8}</i>	<i>R1-18 PRD</i>	<i>SFR-14^{1,8}</i>
<i>Min. Lot Area</i>	-	5,000 sf	-	7,000 sf	-	9,000 sf	-	14,000 sf
<i>Min. Lot Width</i>	45'	45'	45'	55'	45'	65'	None	90'
<i>Min. Lot Depth</i>	None	None	None	None	None	None	None	None
<i>Max. Dwelling Unit Density (du/ac)</i>	5.5; 6.5 w/ bonus	6	4.5; 5.5 w/ bonus	4.5	3.5; 4.5 w/ bonus	3.5	2.05; 2.34 w/ bonus	2.5
<i>Min. Property Perimeter Building Setback</i>								
<i>Sonoran Desert Drive/Collector ROW</i>	15'	15'	15'	15'	15'	15'	20'	15'
<i>Property Boundary</i>	<i>SPL:</i> 10' (1-story), 15' (2-story)	15'	<i>SPL:</i> 10' (1-story), 15' (2-story)	15'	<i>SPL:</i> 10' (1-story), 15' (2-story)	15'	15'	15'
<i>SPL: Side Property Line</i> <i>RPL: Rear Property Line</i>	<i>RPL:</i> 15' (1-story); 20' (2-story)		<i>RPL:</i> 15' (1-story); 20' (2-story)		<i>RPL:</i> 15' (1-story); 20' (2-story)			
<i>Min. Common Landscape Setback</i>								
<i>Sonoran Desert Drive ROW</i>	15' average; 10' min.	30' average; 15' min.	15' average; 10' minimum	30' average; 15' min.	15' average; 10' minimum	30' average; 15' min.	None	30' average; 15' min.
<i>Arterial/Collector ROW</i>		15' average; 10' min.		15' average; 10' min.		15' average; 10' min.		15' average; 10' min.
<i>Min. Interior Building Setback</i>								

SINGLE-FAMILY DETACHED DWELLING DISTRICTS and MODEL HOME DEVELOPMENT STANDARDS

DEVELOPMENT STANDARD	R1-6 PRD	SFR-5^{4,8}	R1-8 PRD	SFR-7^{4,8}	R1-10 PRD	SFR-9^{1,4,8}	R1-18 PRD	SFR-14^{1,8}
<i>Front Livable</i> ⁷	10'	10'	10'	10'	10'	10'	25'	10'
<i>Garage</i> ²	18'	18'	18'	18'	18'	18'	–	18'
<i>Rear</i> ³	None	15'	None	15'	None	20'	–	20'
<i>Street Side</i>	10'	10' ⁴	10'	10' ⁴	10'	10' ⁴	–	10'
<i>Non-Street Side</i>	None	5'	None	5'	None	5'	–	5'
Max. Lot Coverage (primary structure and any attached or detached structures) ⁵	Primary structure, not including attached shade structures: 40%; Total 50%	Primary structure, not including attached shade structures: 45%; Total 55%	Primary structure, not including attached shade structures: 40%; Total 50%	Primary structure, not including attached shade structures: 45%; Total 55%	Primary structure, not including attached shade structures: 40%; Total 50%	Primary structure, not including attached shade structures: 45%; Total 55%	Primary structure, not including attached shade structures: 25%; Total 30%	Primary structure, not including attached shade structures: 45%; Total 55%
Max. Building Height ⁶	2-stories and 30'	2-stories and 30'	2-stories and 30'	2-stories and 30'	2-stories and 30'	2-stories and 30'	2-stories and 30'	2-stories and 30'
Min. Common Area (per Master Development Parcel) gross	5%	20%	5%	20%	5%	20%	5%	20%
Min. Common Area (per Master Development Parcel gross)	5%	10%	5%	10%	5%	10%	5%	10%
On-Lot and Common Retention	Common retention required for lots less than 8,000 sf	Common retention required for lots less than 8,000 sf	Common retention required for lots less than 8,000 sf	Common retention required for lots less than 8,000 sf	Common retention required for lots less than 8,000 sf	None	–	None

SINGLE-FAMILY DETACHED DWELLING DISTRICTS and MODEL HOME DEVELOPMENT STANDARDS

DEVELOPMENT STANDARD	R1-6 PRD	SFR-5^{4,8}	R1-8 PRD	SFR-7^{4,8}	R1-10 PRD	SFR-9^{1,4,8}	R1-18 PRD	SFR-14^{1,8}
Landscape Standards (adjacent to Sonoran Desert Drive)	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>	-	<i>Perimeter common: Trees spaced a maximum of 20' to 30' on center or in equivalent groupings, and 5 shrubs per tree.</i>

¹Guesthouses must conform with the development standards of the underlying Single-Family Land Use District.

²Front garage setback may be reduced to 10' measured from property line for side-loaded garages. Minimum face of garage setback to be 18' from back of sidewalk or back of right-of-way, whichever is less.

³Where a rear lot line immediately adjacent to a "Preserve Edge/MCFCD" Property boundary as shown on Exhibit 5: Edge Openness Plan, 2-story homes shall be setback a minimum of 25'.

⁴Landscape tracts can reduce the minimum street side setback by the width of the tract up to 5' within the SFR-5, -7 and -9 land use districts. The street side building setback may not be reduced within the SFR-9 land use district for two-story homes.

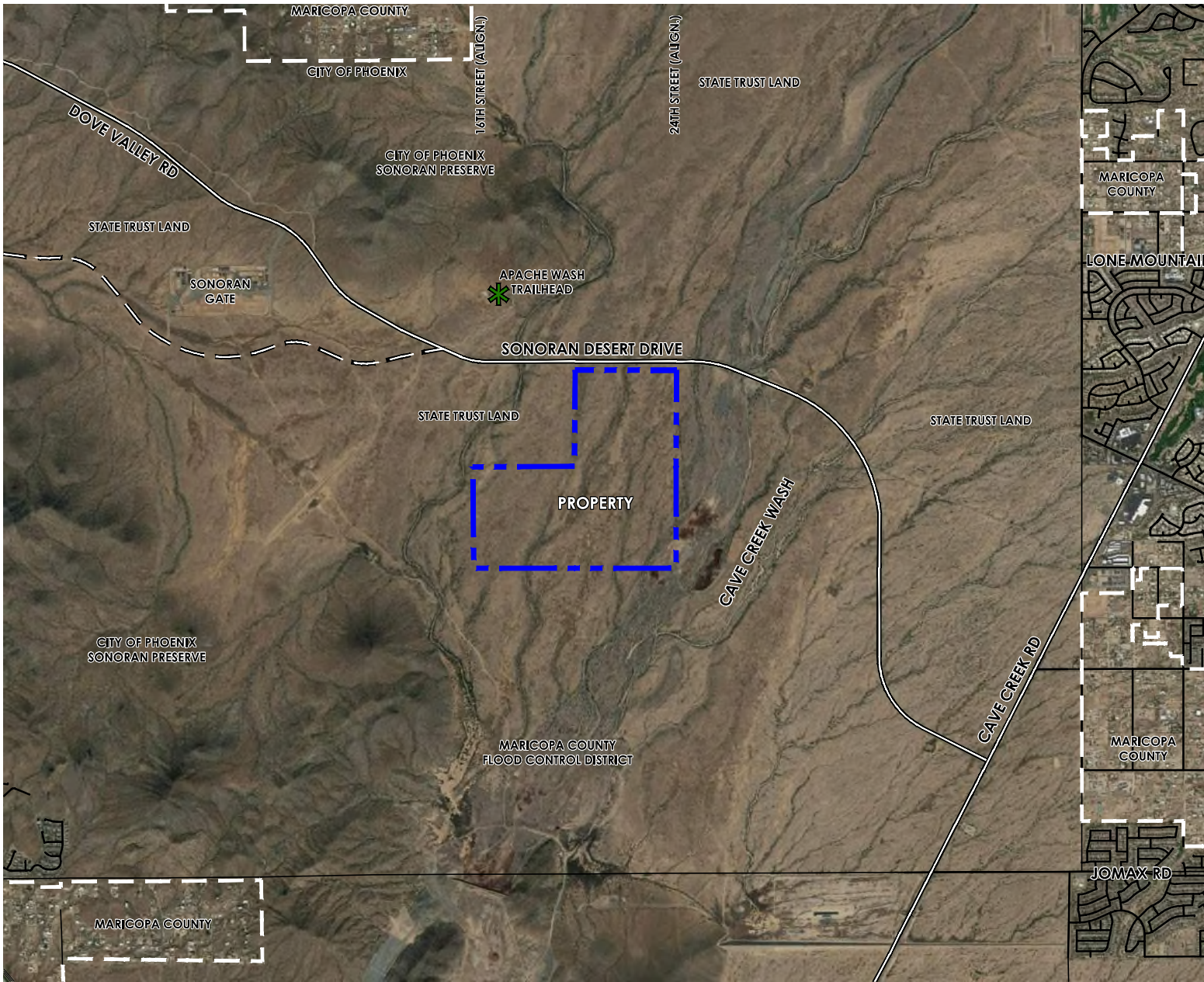
⁵The total structural coverage provided on the sum of all the lots and tracts within each Subdivision Plat of which is divided or prorated between each of the lots after streets (both public and private) are subtracted from the total net area.

⁶Not more than 50% of homes immediately adjacent to a "Preserve Edge/MCFCD" Property boundary as shown in Exhibit 5: Edge Openness Plan shall have a building height greater than 1-story or 24-feet measured to top of parapet or the top of the ridge on sloping roofs. Additionally, building height for homes built on the first row of residential lots immediately adjacent to the northern (Sonoran Desert Drive) and eastern property lines of the Property Perimeter shall be limited to a maximum 1-story, with a maximum height of 24' measured from the top of parapet or to the top of the ridge on sloping roofs.

⁷Setback from Front Livable includes covered areas such as covered porches, covered patios and covered porticos.

⁸ Refer to Development Parcel Allocation Table (Regulatory Standards & Land Use Districts—Development Standards) for maximum dwelling unit count for each Development Parcel.

Exhibit 1. *Aerial Map*



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AERIAL MAP



- 📍 PHOENIX, AZ
- 📅 JANUARY 5, 2022
- 🏠 18001690
- 👤 TAYLOR MORRISON

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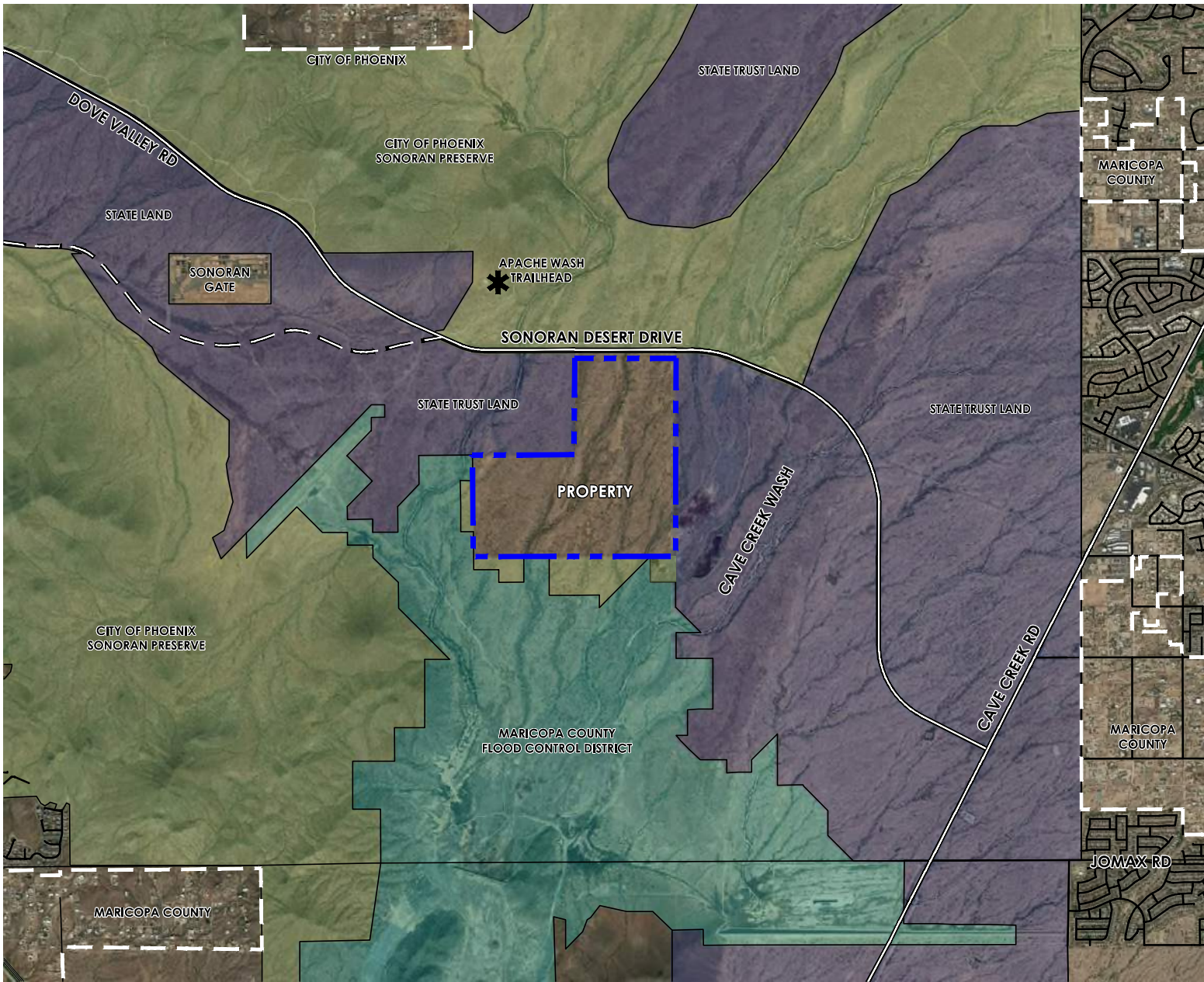
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Exhibit 2. *Surrounding Property Ownership Map*

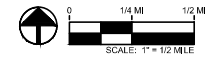






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SURROUNDING PROPERTY OWNERSHIP MAP

LEGEND

-  PROPERTY BOUNDARY
-  SONORAN PRESERVE
-  MARICOPA COUNTY FLOOD CONTROL DISTRICT
-  STATE TRUST LAND



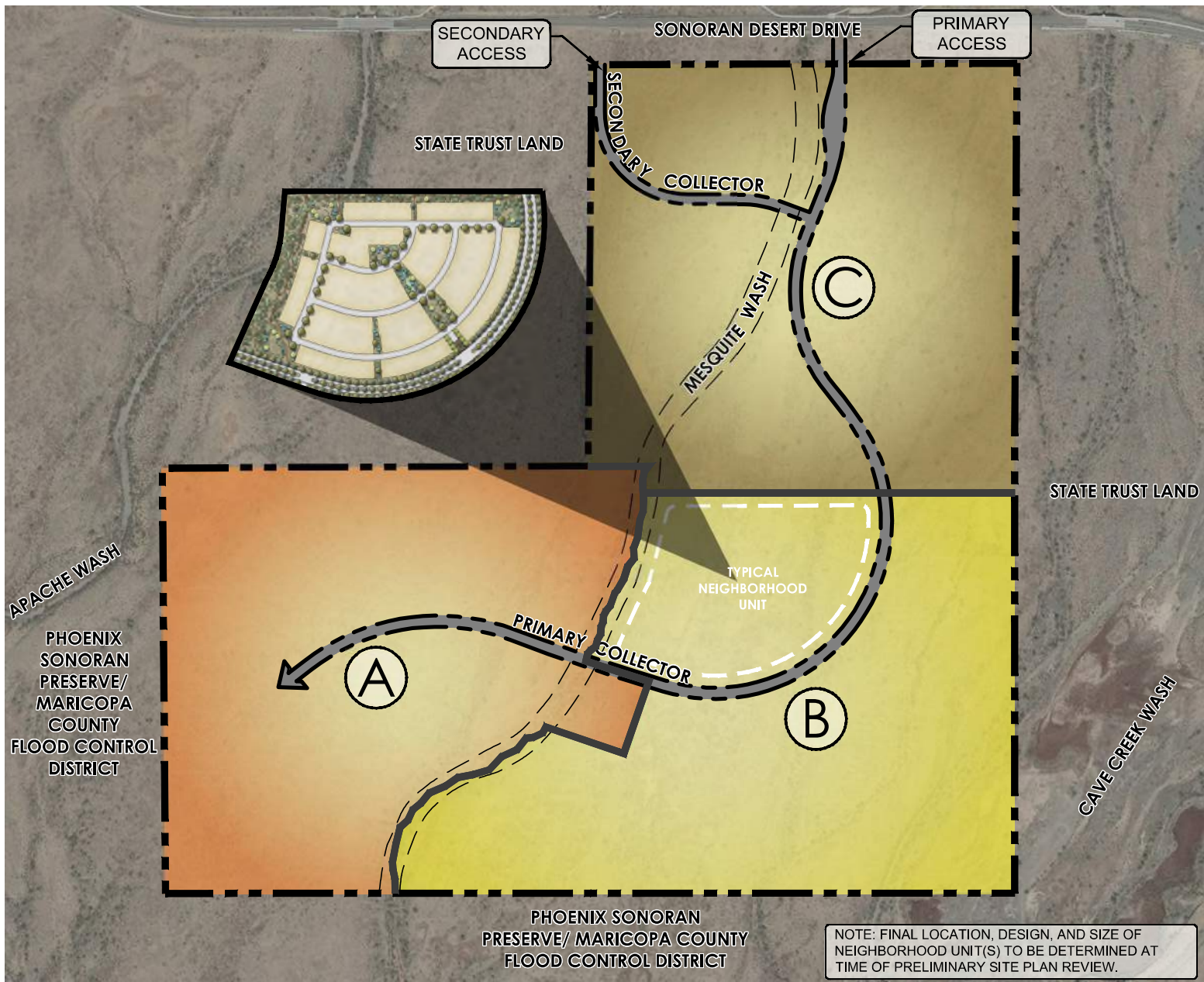
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-  JANUARY 5, 2022
-  18001690
-  TAYLOR MORRISON

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Exhibit 3. *Master Development Parcel Map*







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MASTER DEVELOPMENT PARCEL MAP

LEGEND

-  PROPERTY BOUNDARY
-  PARCEL A: 148,2 NET AC +/-
-  PARCEL B: 164,8 NET AC +/-
-  PARCEL C: 160,3 NET AC +/-



-  PHOENIX, AZ
-  JANUARY 5, 2022
-  # 18001690
-  TAYLOR MORRISON

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PRESERVE/ MARICOPA COUNTY
FLOOD CONTROL DISTRICT

NOTE: FINAL LOCATION, DESIGN, AND SIZE OF NEIGHBORHOOD UNIT(S) TO BE DETERMINED AT TIME OF PRELIMINARY SITE PLAN REVIEW.

Exhibit 4. *Illustrative Land Use Plan*



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ILLUSTRATIVE LAND PLAN



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- 📅 JUNE 3 2019
- 🏠 18001690
- 👤 TAYLOR MORRISON

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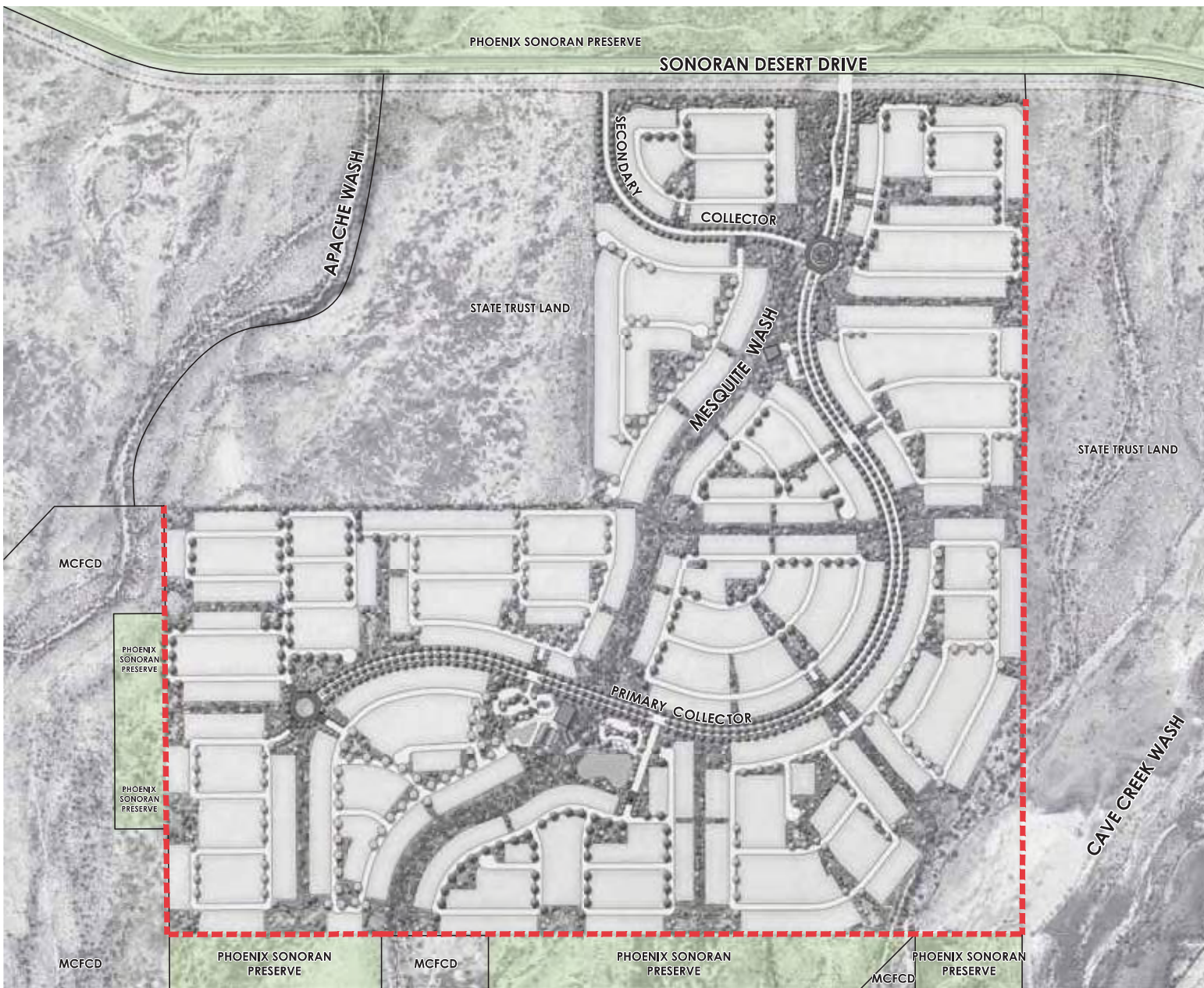
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Exhibit 5. *Edge Openness Plan*



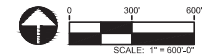
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EDGE OPENNESS PLAN

LEGEND

PRESERVE EDGE/MCFCD OPENNESS: MIN. 60% OPEN EDGE

NOTE: Minimum 60% open edge treatment, calculated based on the total linear footage of all "Preserve Edge/MCFCD" edges, shall be provided along the "Preserve Edge/MCFCD" Property. The 60% calculation is based on the aggregated total linear footage of all "Preserve Edge/MCFCD" edges and shall not be based on linear footage of an individual "Preserve Edge/MCFCD" edge, Phase, Master Development Parcel, Neighborhood Unit, or sub-parcel thereof.



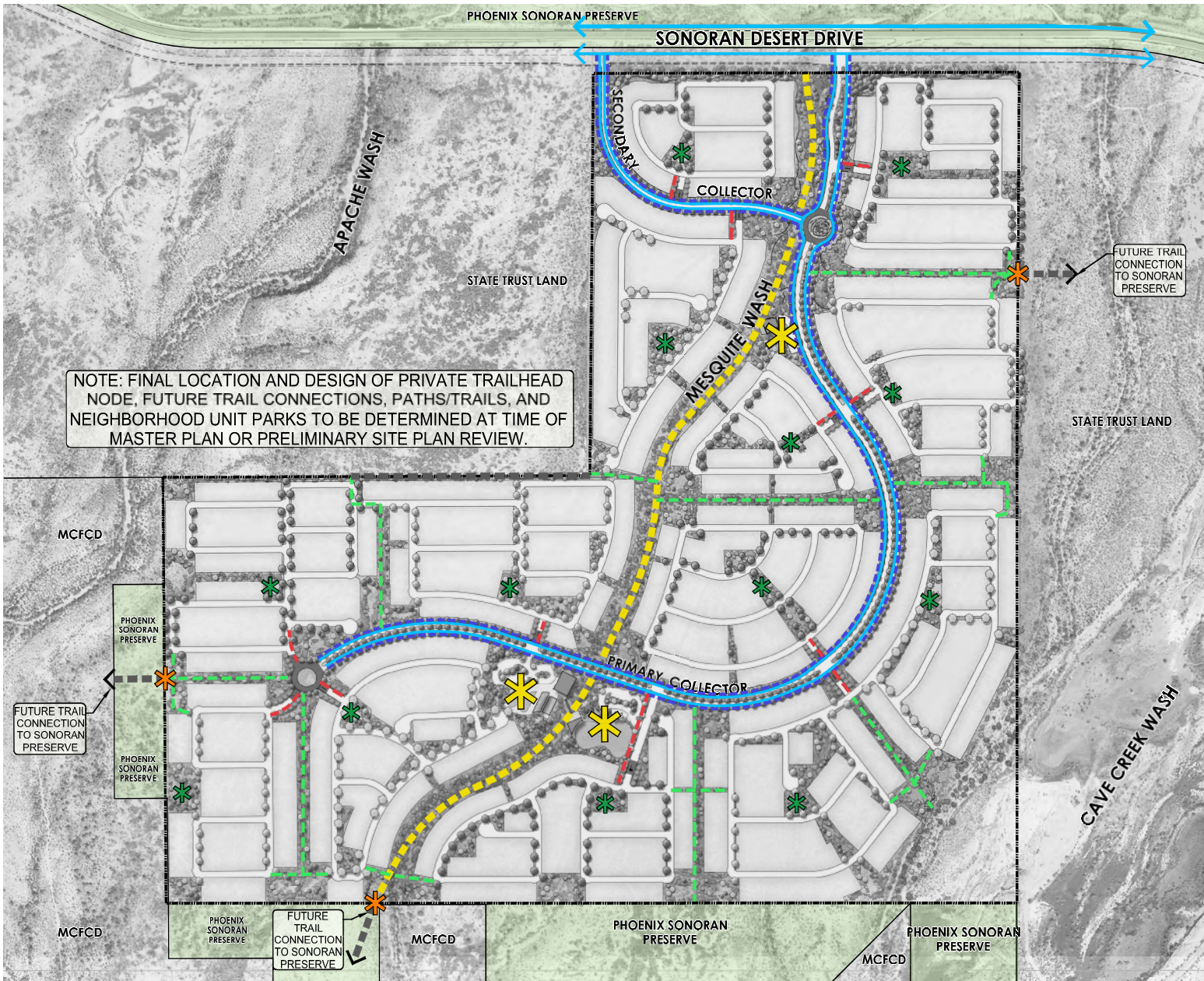
- PHOENIX, AZ
- NOVEMBER 1 2021
- 18001690
- TAYLOR MORRISON

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Exhibit 6. *Pedestrian Circulation Plan*



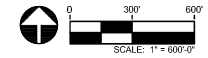
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PEDESTRIAN CIRCULATION PLAN

LEGEND

- 6' DETACHED NEIGHBORHOOD UNIT ENTRY SIDEWALKS
- 8' DETACHED COLLECTOR ROADWAY SIDEWALKS
- 6' / 8' COMMUNITY PASEO PATHS*
- 4' NATURAL SURFACE TRAIL (CONNECTION TO SONORAN PRESERVE)
- 12' MESQUITE WASH CORRIDOR* (PUBLIC TRAIL EASEMENT TO BE PROVIDED)
- BIKE LANE (SONORAN DESERT DRIVE, PRIMARY AND SECONDARY COLLECTOR)
- NEIGHBORHOOD UNIT PARK
- COMMUNITY AMENITY
- PUBLIC WALK-IN TRAILHEAD

*PERMANENT PUBLIC ACCESS EASEMENTS TO BE PROVIDED



PHOENIX, AZ
 AUGUST 1, 2022
 # 18001690
 TAYLOR MORRISON

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Exhibit 7. *Paseos Corridors*

Conceptual Paseo Section

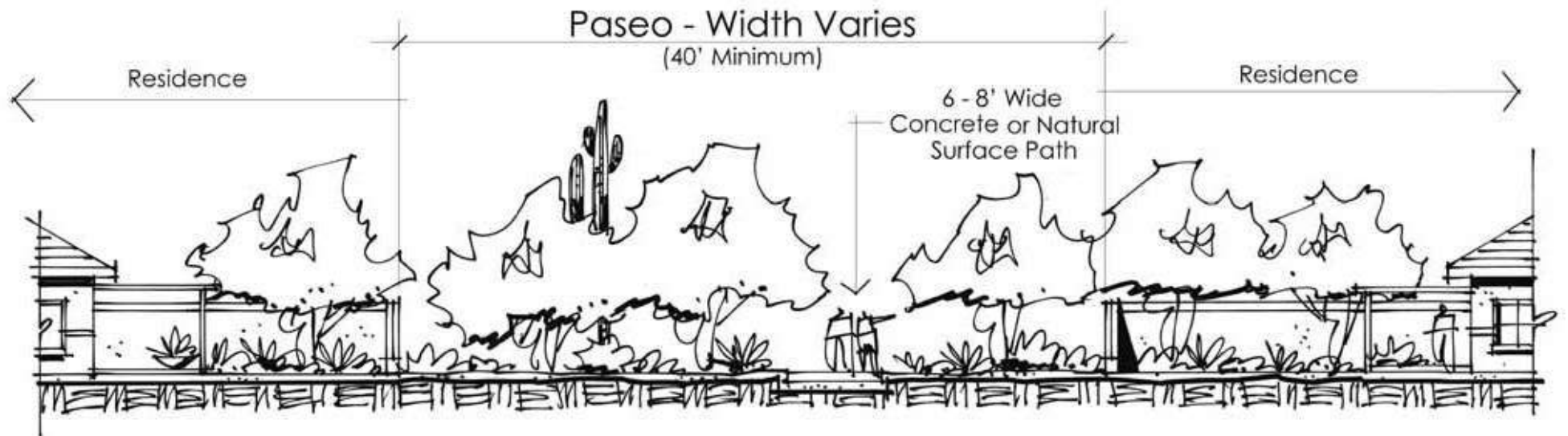
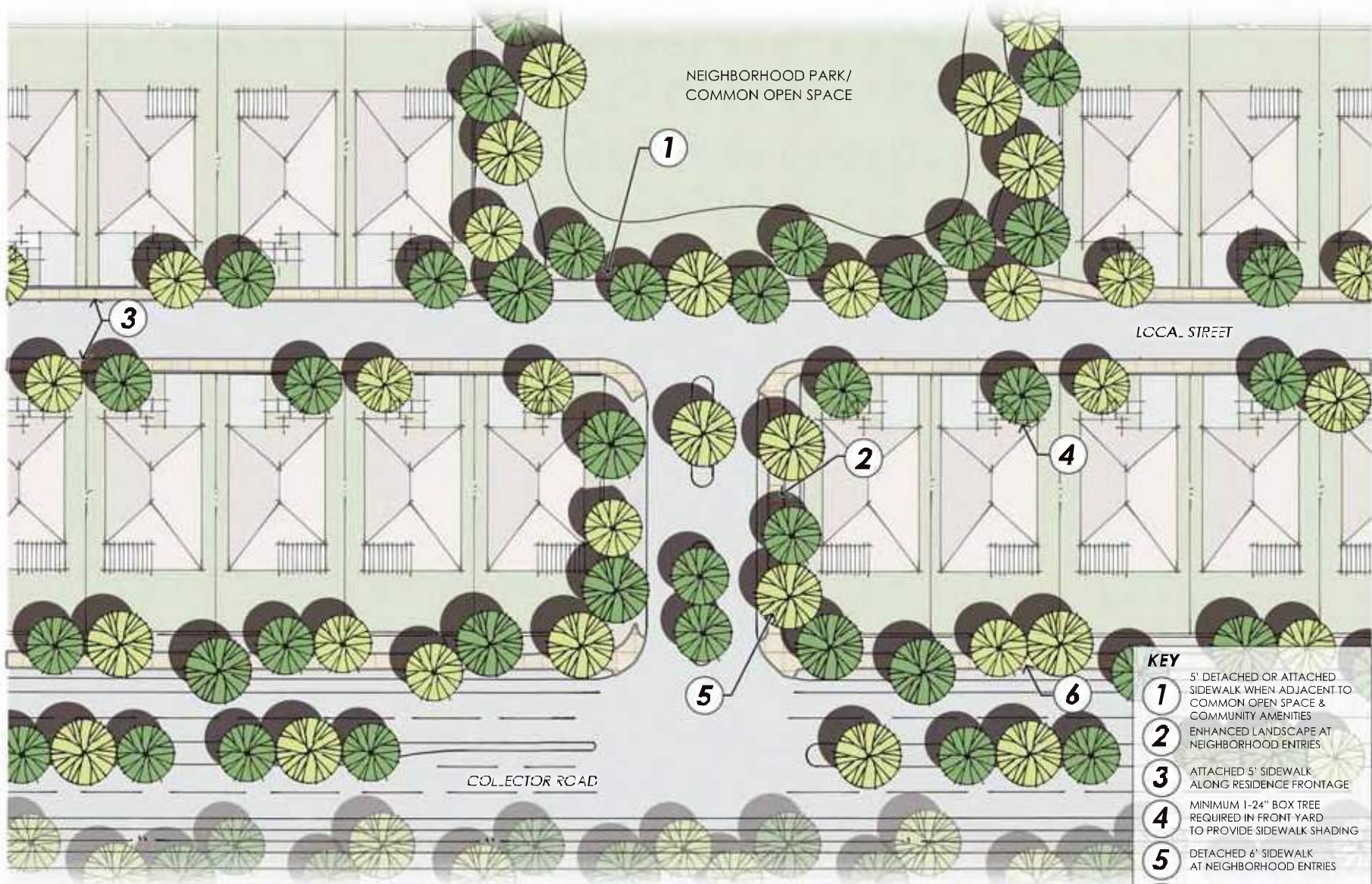


Exhibit 8. *Typical Neighborhood Unit Entry*



KEY

1	5' DETACHED OR ATTACHED SIDEWALK WHEN ADJACENT TO COMMON OPEN SPACE & COMMUNITY AMENITIES
2	ENHANCED LANDSCAPE AT NEIGHBORHOOD ENTRIES
3	ATTACHED 5' SIDEWALK ALONG RESIDENCE FRONTAGE
4	MINIMUM 1-24" BOX TREE REQUIRED IN FRONT YARD TO PROVIDE SIDEWALK SHADING
5	DETACHED 6' SIDEWALK AT NEIGHBORHOOD ENTRIES
6	DETACHED 8' SIDEWALK ALONG COLLECTOR ROADWAYS

Exhibit 9. *Water System Improvements*

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WATER SYSTEM IMPROVEMENTS

LEGEND

- APPROX. PROJECT BOUNDARY
- EXISTING WATER LINE
- PROPOSED WATER LINE
- PRESSURE ZONE BOUNDARY (PER CITY OF PHOENIX QS MAPS)
- PROPOSED PRESSURE ZONE BOUNDARY
- EXISTING PRESSURE REDUCING STATION

PIPE DIAMETER	
	6.0 INCHES
	8.0 INCHES
	12.0 INCHES
	16.0 INCHES
	20.0 INCHES
	24.0 INCHES
	30.0 INCHES
	36.0 INCHES
	48.0 INCHES
	54.0 INCHES

NOTE:
INTERNAL LOOPED WATER
LINES NOT SHOWN FOR
CLARITY.

Subject to engineering and City review and approval.



APPROX. SCALE: NTS

PRELIMINARY - NOT FOR CONSTRUCTION

Date: 10/27/21 Project No. 1784

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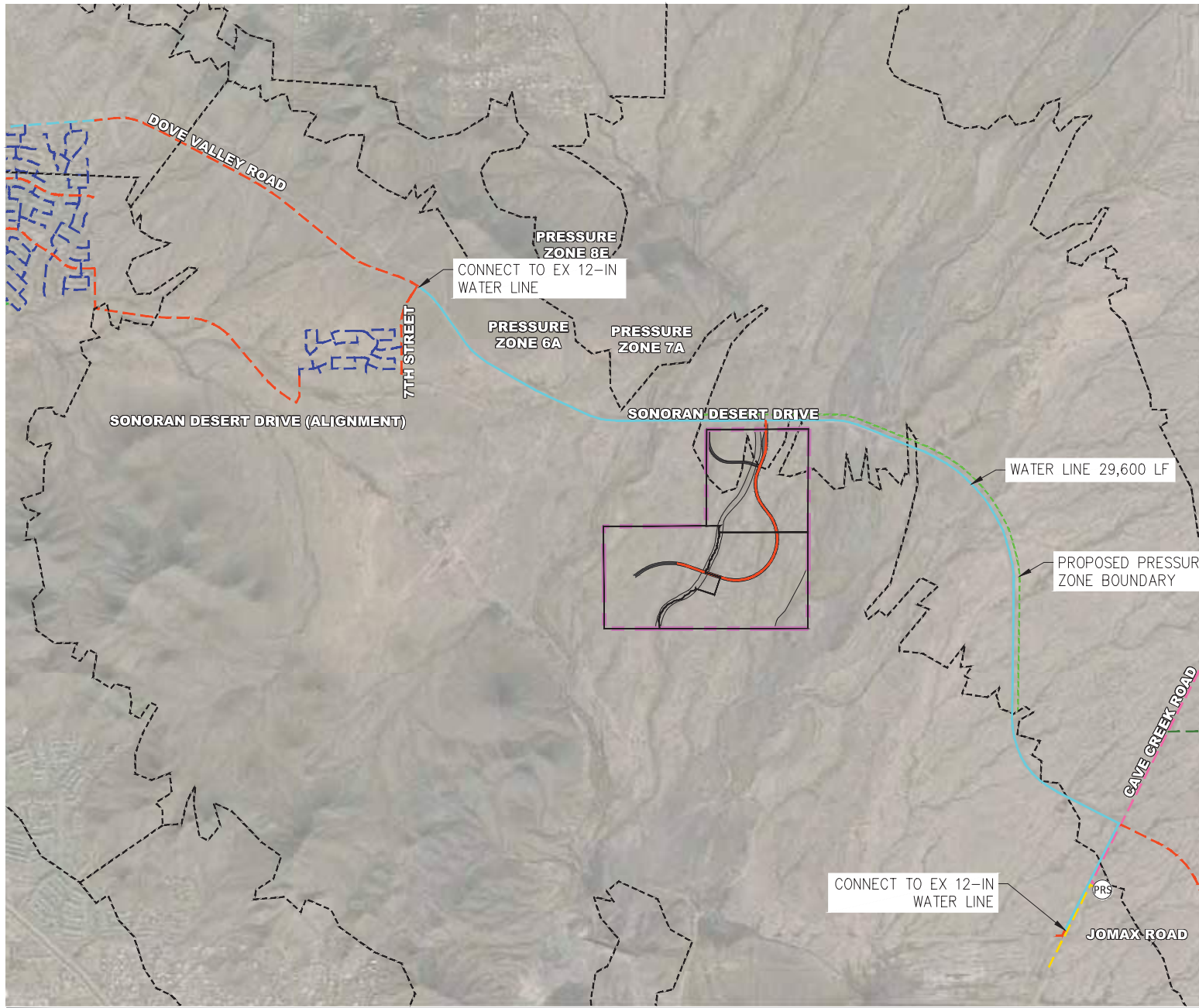
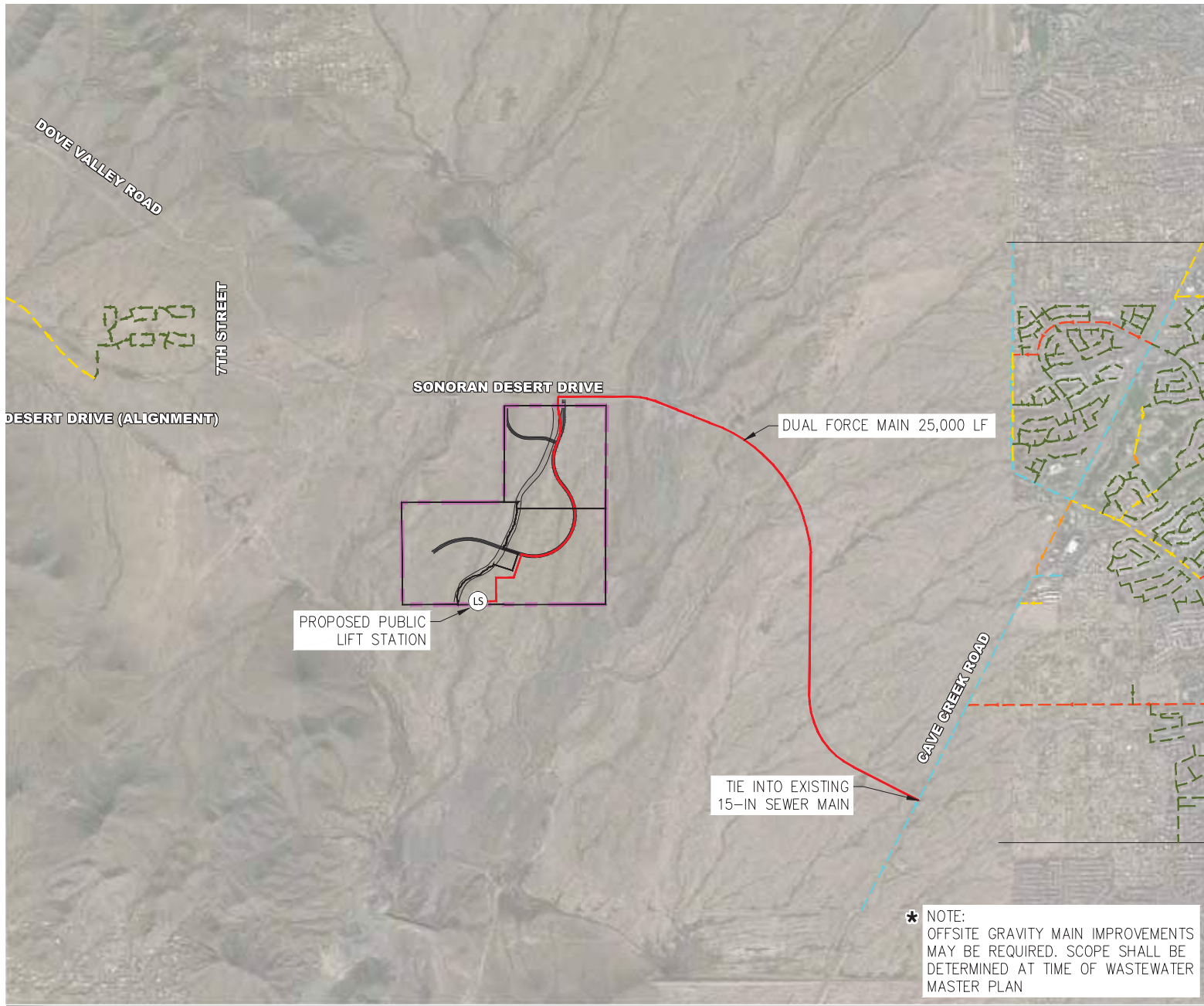


Exhibit 10. *Wastewater System Improvements*



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PUD APPLICATION

WASTEWATER SYSTEM IMPROVEMENTS

LEGEND

PROPERTY BOUNDARY	
EXISTING SEWER MAIN	
PROPOSED DUAL FORCE MAIN	
PROPOSED LIFT STATION	

PIPE DIAMETER	
	8.0 INCHES
	10.0 INCHES
	12.0 INCHES
	15.0 INCHES
	18.0 INCHES

NOTE:
INTERNAL GRAVITY SEWER
MAINS NOT SHOWN FOR
CLARITY.

Subject to engineering and City review and approval.



APPROX. SCALE: NTS

PRELIMINARY - NOT FOR CONSTRUCTION

Date:	10/27/21	Project No.	1784
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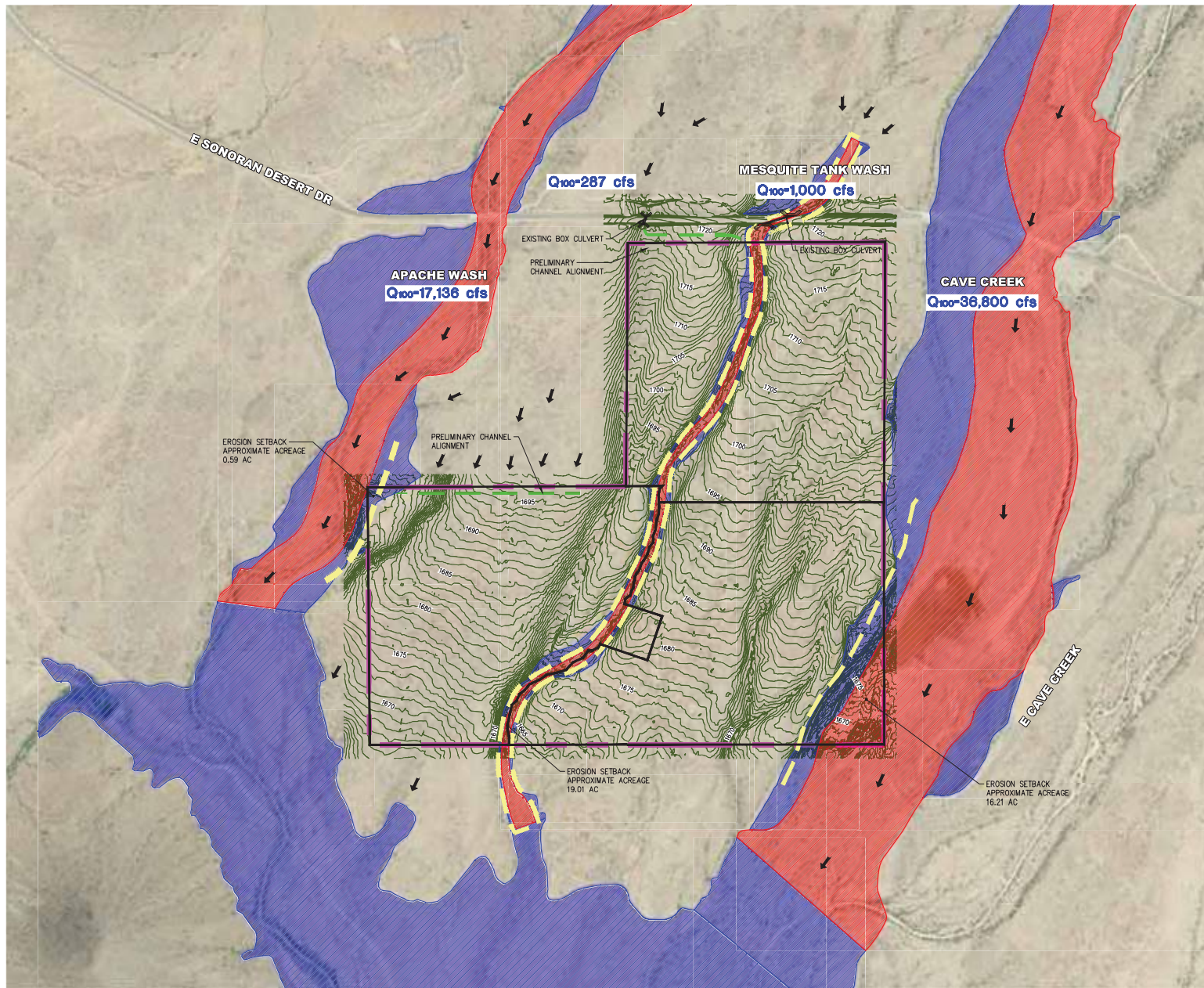
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Exhibit 11. *Drainage Improvements*

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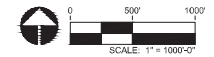
DRAINAGE IMPROVEMENTS



LEGEND

PROPERTY LIMITS	
FEMA FLOODPLAIN	
FEMA FLOODWAY	
APPROXIMATE EROSION HAZARD SETBACK	
PRELIMINARY CHANNEL ALIGNMENT	
EXISTING BOX CULVERT	
FLOW ARROW	

NOTES:
 APACHE WASH, MESQUITE TANK WASH, AND CAVE CREEK WASH 100-YEAR PEAK DISCHARGE FLOWS REFERENCED FROM 2015 MARICOPA COUNTY FIS (04013CV002C).



- PHOENIX, AZ
- DATE
- 18001690
- TAYLOR MORRISON

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Exhibit 12. *Street Cross Section*

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STREET CROSS SECTIONS



- 📍 PHOENIX, AZ
- 📅 FEBRUARY 22, 2022
- 📞 18001690
- 👤 TAYLOR MORRISON

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