

# Rancho Vistoso PAD Amendment 30



## **Rancho Vistoso PAD Amendment 30**

Oro Valley, Arizona

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# Introduction



## Introduction

OV 132, LLC (the "Owner") is proposing a minor amendment to the Rancho Vistoso Planned Area Development District #5 (RV PAD). The RV PAD encompasses 7,626 acres at the northeastern limits of the Town of Oro Valley. It is bounded on the south by Tangerine Road, on the east by Oracle Road, and the north by the Tortolita Mountains. Rancho Vistoso PAD comprises thirteen neighborhoods, each with its own land-use mix. This rezoning request focuses on the southern portion of Neighborhood 11, immediately south of Vistoso Highlands Drive and west of the former Rancho Vistoso Golf Course clubhouse on an approximately 0.7-acre parcel of land (see [Exhibit I.1.A.1: Regional Context](#) and [Exhibit I.1.A.2: Site Location](#)).

The rezoning area is part of a larger project that includes the former Rancho Vistoso Golf Course clubhouse property (APN: 219-19-1910), which local developer Ross Rulney purchased. The purchase was instrumental to the Town of Oro Valley in its acquisition of the Rancho Vistoso Golf Course, which ultimately led to the creation of the Vistoso Trails Nature Preserve.

This request amends the rezoning property from RV PAD 'Open Space' to RV PAD 'Open Space / Recreation' to accommodate the pool and clubhouse amenities for the proposed apartments on the adjacent former clubhouse parcel. The proposed overall project also will contribute a new public trailhead for the Vistoso Trails Nature Preserve on the adjacent Preserve property immediately to the west of the rezoning property.

This document consists of two sections, *Inventory and Analysis and Land Use Proposal*, and is limited to the rezoning property described above. The Tentative Development Plan is submitted as a stand-alone document and illustrates the proposed development of the overall project area. No other changes are proposed to the Rancho Vistoso PAD. The established policies, regulations, implementation, and administration of the PAD remain unaltered by this amendment and are not included in this document. Where this amendment is silent on the established policies, regulations, or administration items, the most recent version of the Rancho Vistoso PAD shall prevail.

This amendment is structured to focus solely on the subject property, understanding that it is part of a larger development project. Some sections require analysis of the subject property in the context of the larger overall project. When this is the case, these sections will explain the rationale for expanding the analysis beyond the subject property.



# I. Inventory & Analysis



## 1. Existing Land Uses

This section of the Inventory and Analysis identifies existing zoning, land uses, structures on-site and on surrounding properties, and proposed developments in the project vicinity.

### A. Site Location and Regional Context

The property subject to this request is an approximately 0.7-acre parcel (Assessor's Parcel Number (APN): 219-19-1840) located in the southern portion of Neighborhood 11 of the RV PAD (see [Exhibit I.1.A.1: Regional Context](#)). The property adjoins the south side of Vistoso Highlands Drive and the west side of the former clubhouse parcel (see [Exhibit I.1.A.2: Site Location](#)).



Exhibit I.1.A.1: Regional Context

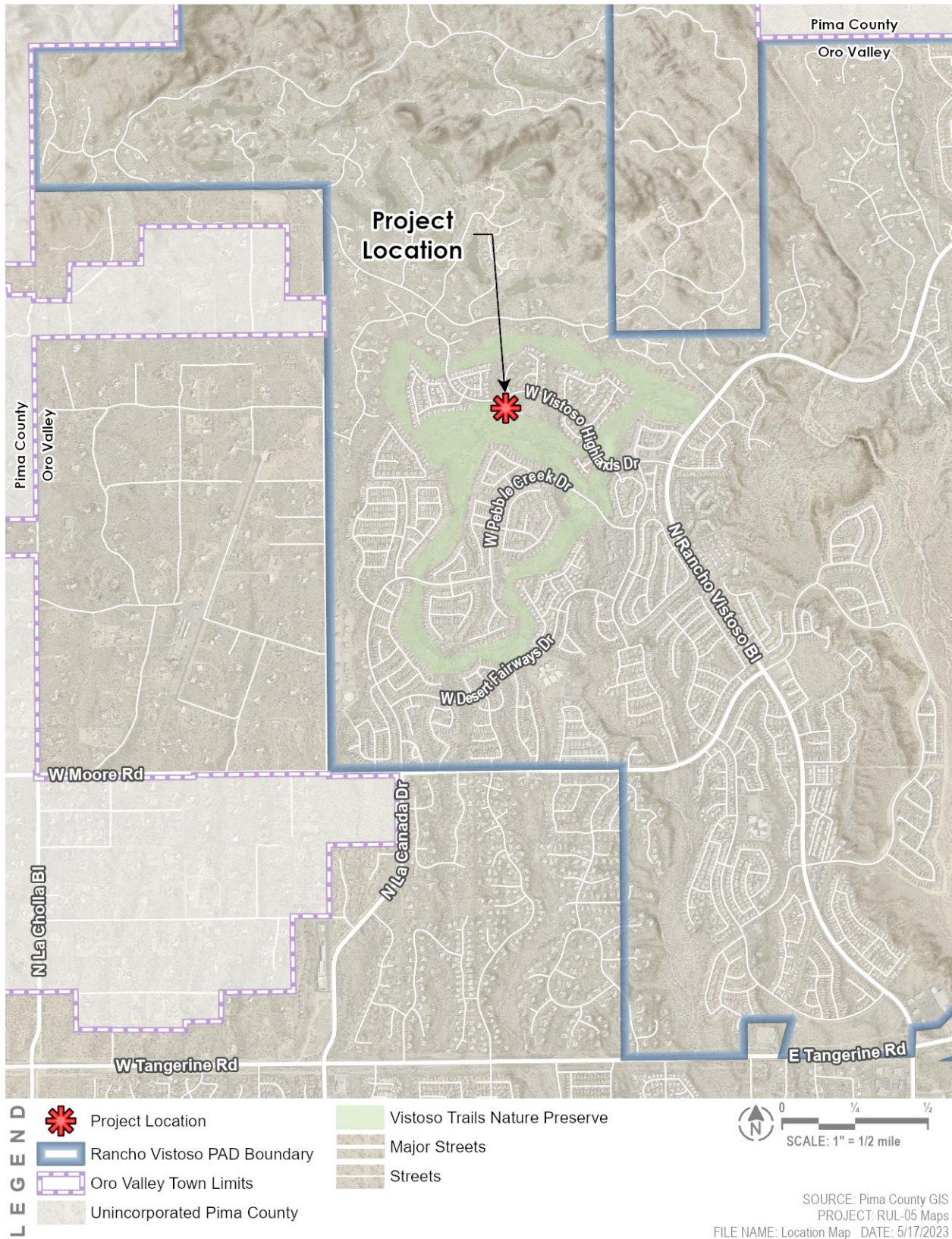


Exhibit I.1.A.2: Site Location



## B. Existing On-Site and Off-Site Land Uses

The subject property is undeveloped except for a golf cart path running through its central portion. A drainage culvert at the north end of the property conveys an unnamed wash beneath Vistoso Highlands Drive and onto the property.

The property is surrounded by recreational and open space with housing beyond. Properties north of Vistoso Highlands Drive are primarily one-story detached single-family homes, while the former location of the Vistoso clubhouse building, cart storage, and maintenance building lies immediately east of the property. Properties further to the east consist of open space and two-story attached condominiums. The Vistoso Trails Nature Preserve borders the property to the south and west, providing the community with a significant passive open space amenity. One- and two-story detached single-family homes lie beyond the Nature Preserve.

The following table summarizes the land uses of surrounding properties within one-quarter mile, as depicted in [Exhibit I.1.B.1: Surrounding Conditions](#).

**Table I.1.B.1: Surrounding Land Uses**

Direction	Land Use
North	Single-Family Residential Open Space Recreation
East	Multifamily Residential Open Space Single-Family Residential
South	Recreation Single-Family Residential
West	Recreation Single-Family Residential



**Former golf cart path now used as a trail in the Vistoso Trails Nature Preserve**

*Source: Rick Wiley, Arizona Daily Star*



Exhibit I.1.C.ii: General Plan Map

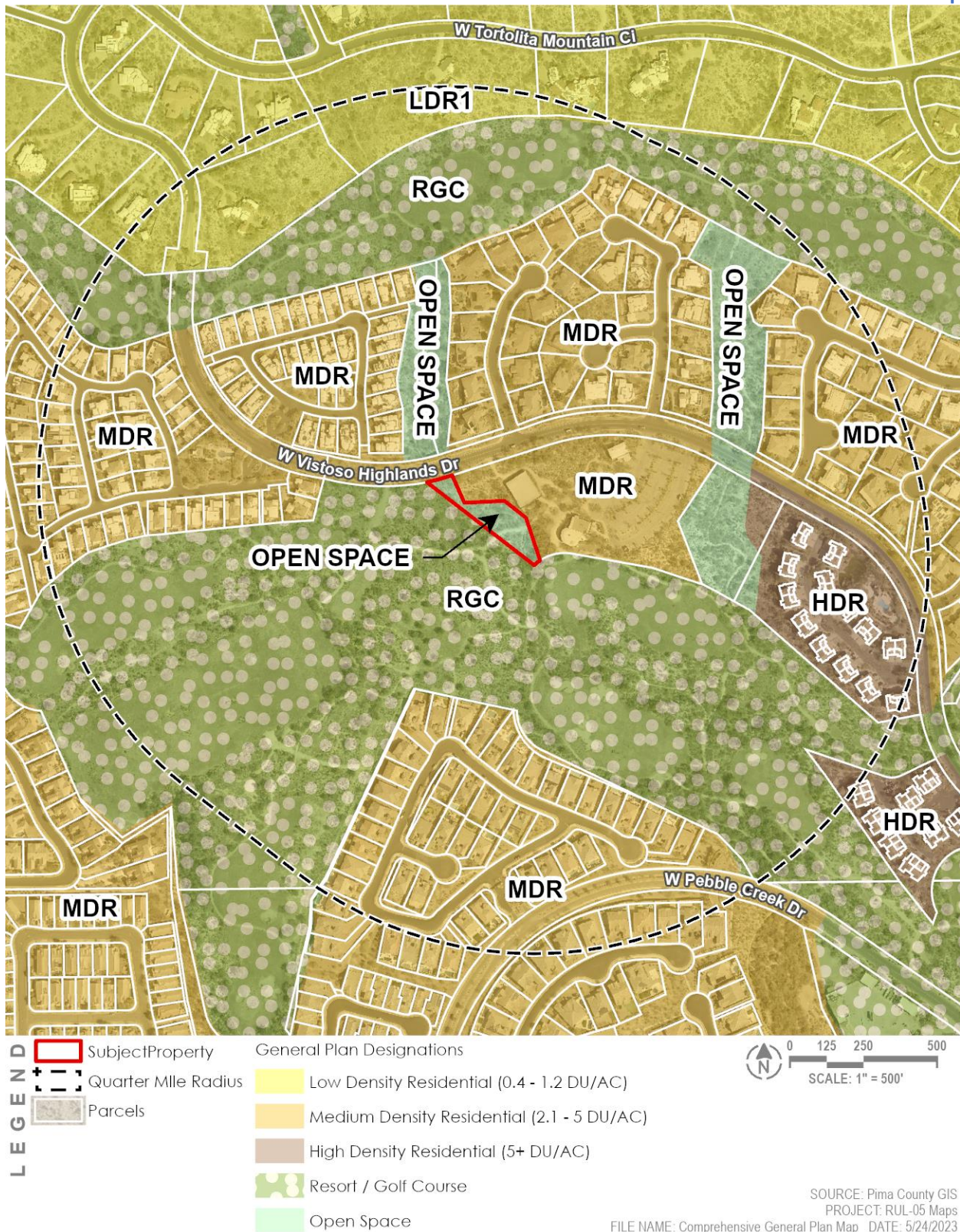


Exhibit I.1.B.1: Surrounding Conditions



## C. Properties within a Quarter Mile

### i. Existing Zoning

The property is designated as *Open Space* within Neighborhood 11 of the *Rancho Vistoso Planned Area Development*. Properties within a quarter mile are also within the *RV PAD* and consist of a mix of *High-, Medium-High, Medium-, and Low-Density Residential* as well as *Golf/Recreation* and *Open Space*.

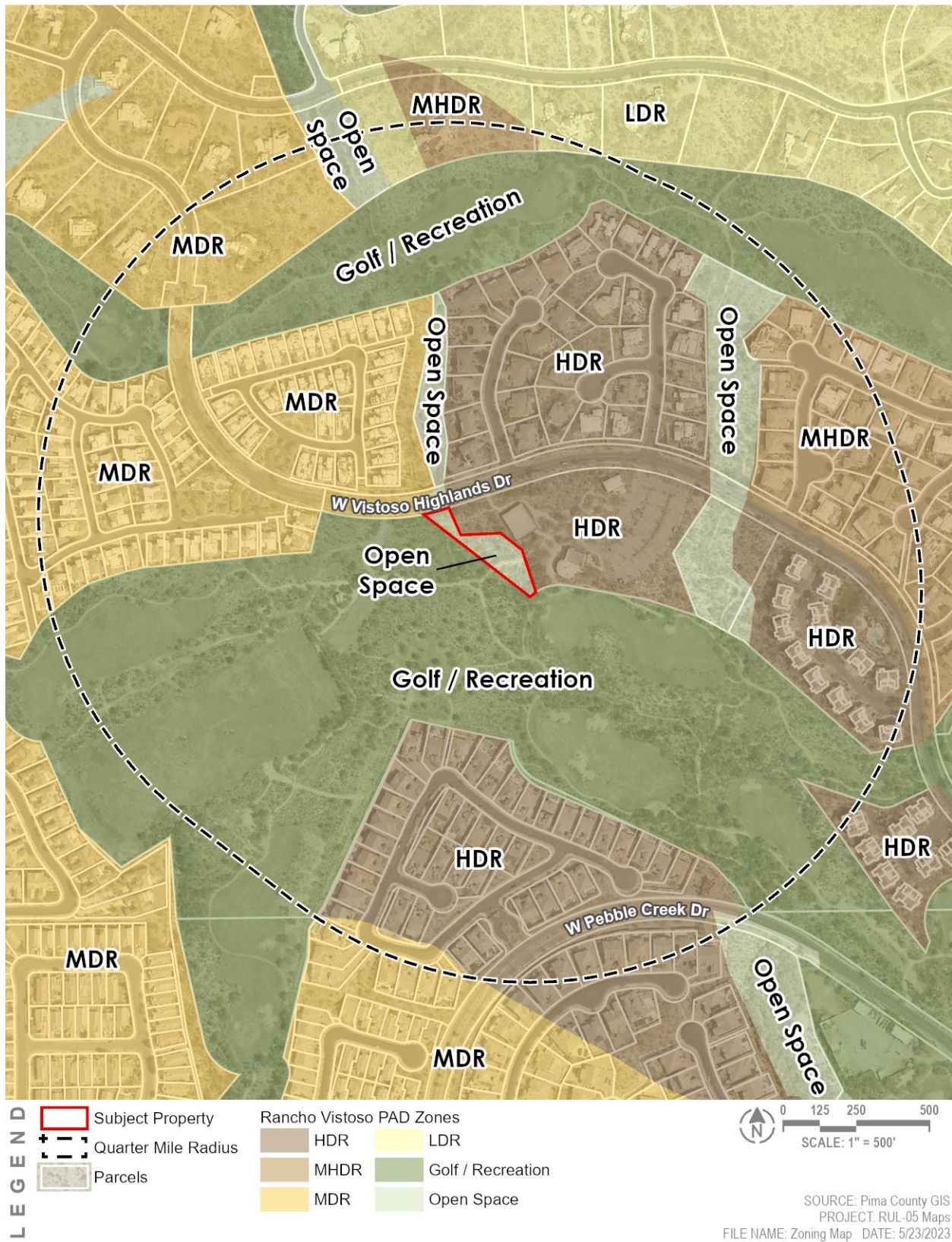
The following table summarizes the zoning of surrounding properties, as depicted in [Exhibit I.1.C.i: Rancho Vistoso PAD Zoning](#).

**Table I.1.C.i: Existing Zoning**

Direction	Zone
North	Low Density Residential (LDR) Medium Density Residential (MDR) Medium High Density Residential (MHDR) High Density Residential (HDR) Golf/Recreation
East	Medium High Density Residential (MHDR) High Density Residential (HDR) Golf/Recreation
South	Medium Density Residential (MDR) High Density Residential (HDR) Golf/Recreation
West	Medium Density Residential (MDR) Golf/Recreation



Exhibit I.1.C.i: Rancho Vistoso PAD Zoning



ii. *General Plan Land Use Designations*

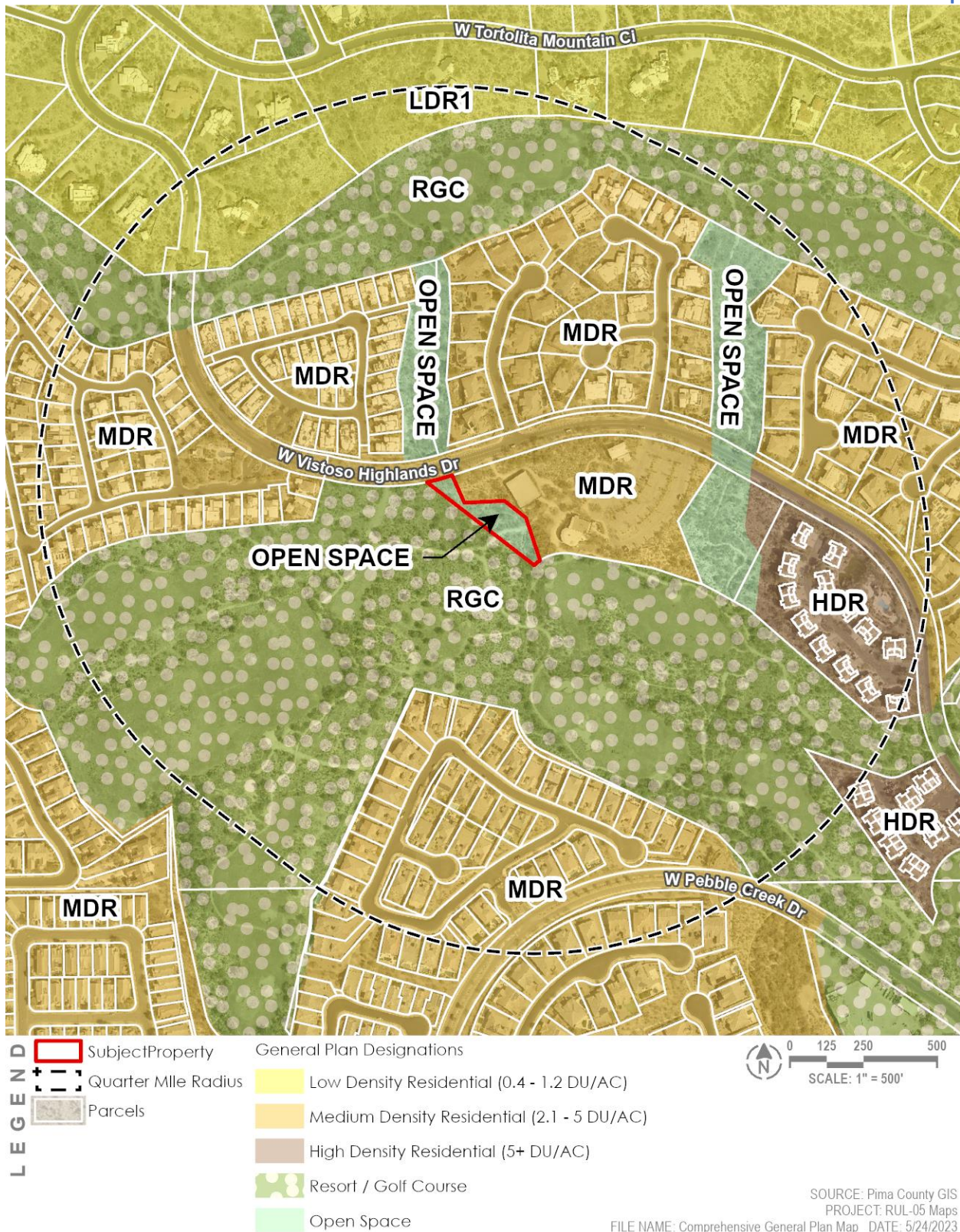
The *Your Voice, Our Future* Land Use Map designates the subject property as Open Space. The following table summarizes the land use designations of surrounding properties, as depicted in *Exhibit I.1.C.ii: General Plan Map*:

**Table I.1.C.ii: General Plan Land Use Designations**

Direction	General Plan Land Use Designations
North	Resort/Golf Course (RCG) Open Space Low Density Residential (LDR) Medium Density Residential (MDR)
East	Resort/Golf Course (RCG) Open Space Medium Density Residential (MDR) High Density Residential (HDR)
South	Resort/Golf Course (RCG) Medium Density Residential (MDR)
West	Resort/Golf Course (RCG) Medium Density Residential (MDR)



Exhibit I.1.C.ii: General Plan Map



iii. *Number of Stories of Existing Structures*

Existing structures within a quarter mile of the site are a mix of one- and two-story residences, including detached single-family homes and multifamily residential.

iv. *Pending Rezones*

There are no pending rezonings within a quarter mile of the site.

v. *Conditionally Approved Zonings*

There are no pending conditionally approved zonings within a quarter mile of the site.

vi. *Approved Subdivisions and Development Plans*

Several approved subdivisions are located within a quarter mile of the property, four to the north, one to the east, one to the south, and one to the west. Although these subdivisions surround the site, they are separated from the property by the Vistoso Trails Nature Preserve, common area open space, and Vistoso Highlands Drive. Approved subdivisions within a quarter mile of the site are shown on [\*Exhibit I.1.C.vi: Subdivisions\*](#).

There are no approved development plans within a quarter mile of the subject property.

vii. *Architectural Styles of Adjacent Development*

Surrounding development consists of mainly detached and attached single-family homes and condominiums constructed with typical architectural styles of the southwest, such as the pueblo revival and ranch styles. Structures are built of materials such as stucco, adobe, rock veneer, and clay roof tiles. The color palette generally consists of natural earth tones with additional accent colors.

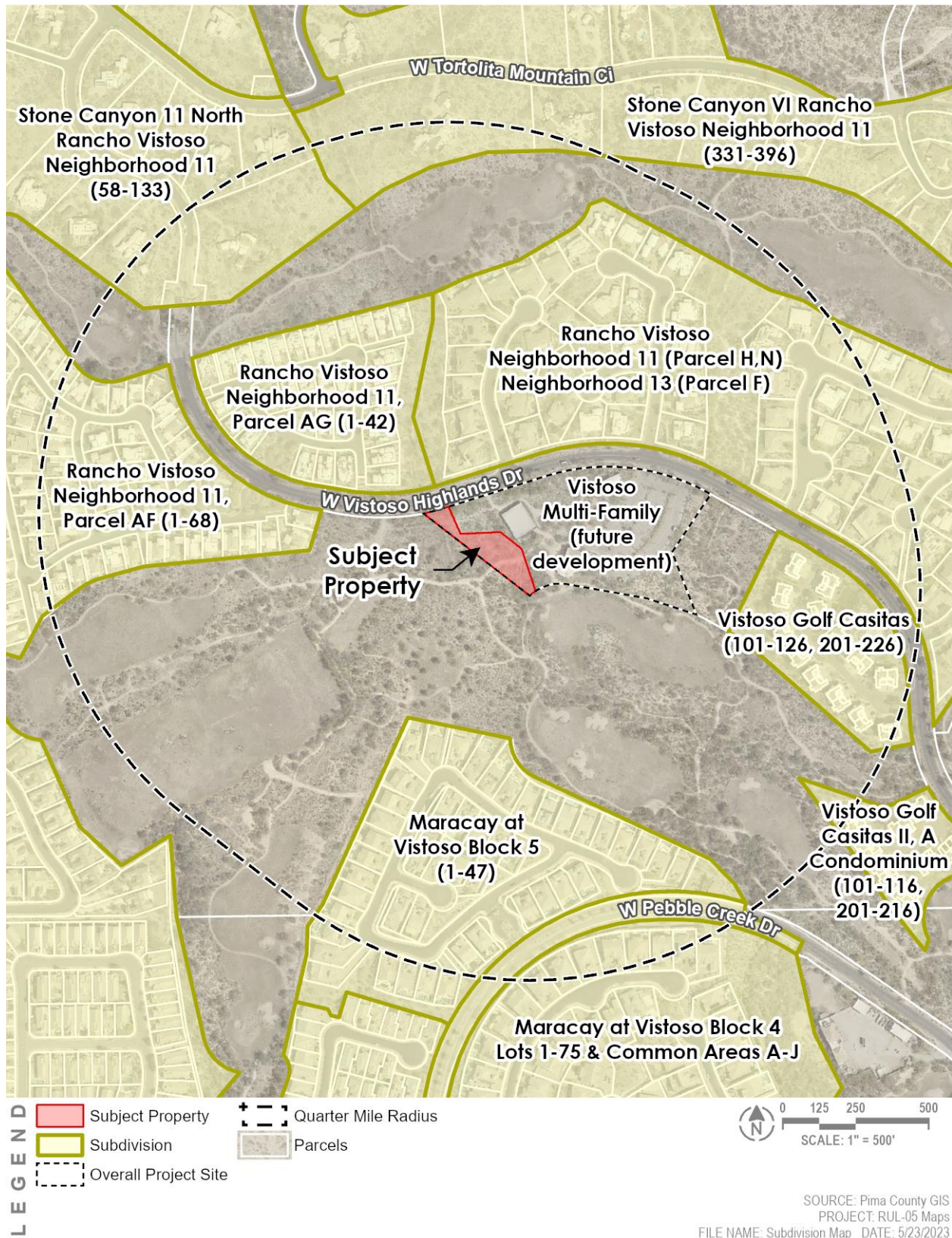


**View of the Vistoso Golf Casitas approximately 800 feet west of the rezoning area**

*Source: Zillow*



Exhibit I.1.C.vi: Subdivisions



## 2. Environmentally Sensitive Lands (ESL)

### A. On-Site ESL

Most of the site is categorized as a Critical Resource Area, corresponding to the existing drainage flowing through the site. However, a small area south of the cart path is identified as a Tier 2 Resource Management Area, while a sliver of land along the site's northern edge does not contain any ESL designations (see [Exhibit I.2.A: Environmentally Sensitive Lands](#)).

### B. Environmentally Sensitive Lands Categories

#### i. Critical Resource Areas

- (1) Major Rock Outcrops and Boulders that meet criteria Section 27.10.D.3.b.iii.b

No major rock outcrops or boulders are present on-site.

- (2) All "Distinctive Habitat Resources," as defined in Section 27.10.D.3.b.iii.c

No natural caves, crevices, mine shafts, or groundwater seeps exist on-site.

#### ii. Resource Management Areas (Tiers 1, 2, and 3)

- (1) Distinctive Individual Native Plants

Two (2) distinctive individual native plants are located on the subject property, a velvet mesquite (*Prosopis velutina*) and a Foothills Palo Verde (*Cercidium microphyllum*). These native plants were inventoried as part of the Site Resource Inventory (SRI) and are currently shown on both the SRI and Native Plant Preservation Plan. Both trees have low transplantability and low to medium viability.

- (2) Minor Rock Outcrops and Boulders

No minor rock outcrops or boulders exist on-site.

### C. Conservation Category On-Site Acreage

The following table provides the acreage each category occupies on the subject property.

**Table I.2.C: Conservation Category Acreage**

Conservation Category	Acreage
Critical Resource Area	0.55 Acres
Resource Management Area Tier 2	0.06 Acres



Exhibit I.2.A: Environmentally Sensitive Lands



### 3. Topography

#### A. Site Topography

Generally, the site slopes downward from north to south, away from Vistoso Highlands Drive. Elevations range from 2,968 feet at the north end of the property adjacent to Vistoso Highlands Drive and 2,954 feet at the south end of the property adjacent to the former golf course clubhouse.

##### i. *Rock Outcrops*

As previously mentioned, the site contains no restricted peaks, rock outcrops, or ridgelines.

##### ii. *All other Significant Topographic Features*

The site contains no significant topographic features.

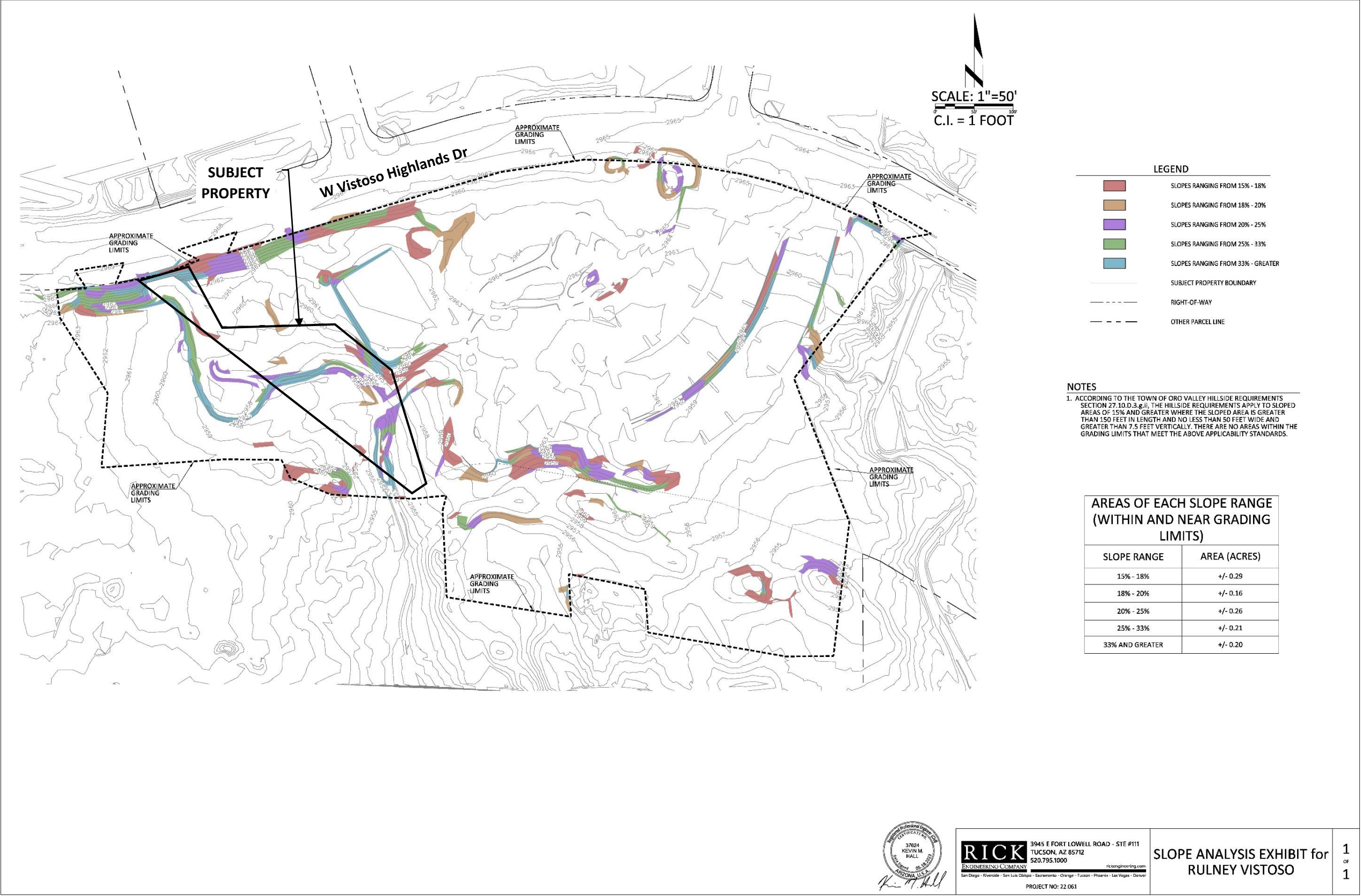
#### B. Sloped Area Analysis

As the subject property is part of a larger overall development, Rick Engineering performed a slope area analysis for the entire development area to assess the existing conditions that affect the overall development. *Exhibit I.3.B: Slope Analysis* depicts the subject property in the context of the overall development area. There are a series of sloping areas present throughout the overall development area. However, none of the slopes on-site cover a sufficient area to meet the criteria of a Hillside Area. The steepest sloping areas on the property are limited to the banks of the drainage channel and surrounding the culvert outlet passing under Vistoso Highlands Drive at the north end of the property. The table below identifies the acreages of the sloping areas within the overall development area.

**Table I.3.B: Slope Acreages**

Slope Range	Area (Acres)
15% - 18%	+/- 0.29
18% - 20%	+/- 0.16
20% - 25%	+/- 0.26
25% - 33%	+/- 0.21
33% and Greater	+/- 0.20





#### 4. Cultural, Archaeological, and Historical Resources

SWCA Environmental Consultants conducted an archaeological survey for 96 acres of the Vistoso Golf Course, including the subject property. The report states that the site was previously surveyed in 1986 and again in 2020. The 1986 survey would not be considered satisfactory, but the 2020 survey is because it was conducted using current methodologies and site definitions.

Two archaeological sites, Sleeping Snake Village (AZ BB:9:104[ASM]) and the Triangle Road Site (AZ BB:9:87[ASM]), were identified within/overlapping the 96 acres of the Vistoso Golf Course subject of the report. The Sleeping Snake Village site overlaps the subject property but is not within any of the seven (7) identified loci, and no Isolated Occurrences were found on the subject property.

The Conservation Fund's archaeologist, Archaeology Southwest, conducted their own survey. Their findings concur with that of SWCA that the proposed development is outside the area identified as Culturally Sensitive.

SWCA recommends that a qualified archaeologist be present to monitor initial ground disturbance because of the potential of the proposed apartment development to affect intact archaeological artifacts. Refer to the Archaeological Survey prepared by SWCA and submitted under separate cover.



## 5. Hydrology

The subject property is part of a larger project that includes the future multifamily development on the adjacent property to the east and the potential trailhead parking area abutting the subject property to the west. As these elements comprise the overall project area, it is imperative to assess the hydrology for the development as a whole. With this in mind, Rick Engineering performed a hydrologic analysis for the overall project area.

### A. Off-Site Watersheds

There is a single off-site watershed that consists of street drainage from the eastbound lanes of Vistoso Highlands Drive. Stormwater runoff within the street flows east, where a portion may flow into the site at the existing driveway entries. For preliminary purposes, it was estimated that all street flow, up to 3 cfs, will enter the site during the 100-year storm event. This flow is accepted onto the site, where it combines with on-site runoff flowing south (see [Exhibit I.5.A: Existing Conditions Watershed Map](#)).

### B. Balanced and Critical Basins

Per Section 11.3 of the Oro Valley Drainage Criteria Manual, "all basins within the Town of Oro Valley shall be considered Critical Basins." As a result of this Critical Basin designation, the 100-year, 25-year, 10-year, and 2-year rain event stormwater flows exiting the site in the proposed condition are required to match the existing condition flows or be reduced by means of detention and/or other rainwater harvesting techniques.

### C. Off-site Features

There are no significant off-site features other than the two watercourses that flow adjacent to the east and west sides of the site.

### D. Off-Site Regulatory Watercourses

There are two watercourses that flow adjacent to the site. The east side wash, the Highlands Wash, was determined previously as having a 100-year peak discharge of 1,677cfs arriving at the arch culvert across Vistoso Highlands Drive. The erosion-hazard-setback (EHS) for this wash is 41 feet. The west wash, an un-named wash, also crosses under Vistoso Highlands Drive at an existing arch culvert with a previously determined 100-year peak discharge of 928cfs. This wash has an associated EHS of 31 feet.

### E. Well Sites

According to the Arizona Department of Water Resources (ADWR), there are no wells registered on or within 100 feet of the project site.

### F. Drainage Conditions Downstream

Runoff from the site ultimately flows into either the Highlands Wash to the east or the un-named wash to the west. These two watercourses combine approximately 500 feet downstream of the subject site and continue downstream as the Highlands Wash. This wash continues its path south, confined within its natural banks and ultimately into the Canyon Del Oro Wash. The wash areas are primarily natural to the west and east of the subject site, but to the south is an abandoned golf course that had disturbed the land and flow characteristics of both washes when constructed years ago.



### G. On-site Hydrology

The subject site lies within an area of predominantly desert brush ground cover vegetation and dense, mature trees. It is on a gentle hillside that descends from north to south with varying slopes generally ranging from 1% to 3%. Soils within the site are classified as 100% hydrologic soil group "D" by the Natural Resource Conservation Service (NRCS). The site was previously developed as a clubhouse and parking lot for the adjacent golf course.

There are two existing on-site watersheds that have been identified. Approximately half of the site, denoted as E1 on the Existing Conditions Watershed Map, is currently a parking area that drains to a single low point within the parking area and discharges directly into the Highlands Wash. The other half of the site, watershed E2 flows in a west-southwest direction toward the west un-named wash as overland sheet flow. A small portion of watershed E2 drains onto the bare area (former golf course fairway) south of the site prior to flowing into the west wash.

The following table summarizes the existing hydrology conditions for the overall project site:

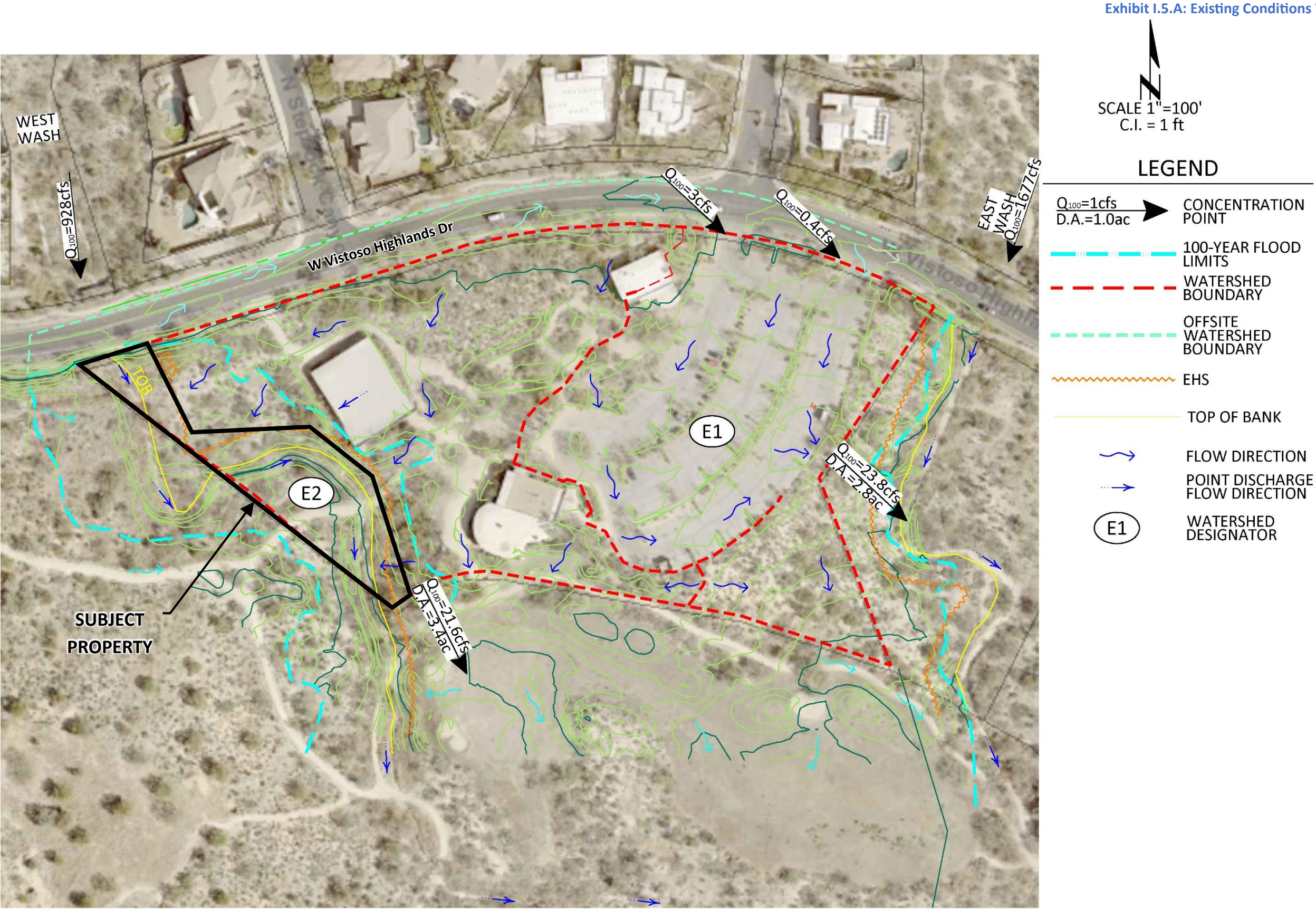
**Table I.5.G: On-site Hydrology**

Concentration Point	Q100 Out (cfs)
E1	23.8
E2	21.6
Total out Existing	45.4 cfs

Total on-site runoff from the site is 45.4cfs (see [Exhibit I.5.A: Existing Conditions Watershed Map](#)).

There are no 100-year floodplains with discharges greater than 50 cfs within the site boundaries and no areas of any significant sheet flooding. No federally mapped floodways or floodplains are on or adjacent to the subject site.





## 6. Vegetation

### A. Vegetative Communities

Vegetation on the subject property comprises Sonoran Desertscrub consisting of Palo Verde-Mixed Cacti species.

### B. Significant Trees, Cacti, and Endangered Species

Two significant individual trees are located on the subject property, a velvet mesquite (*Prosopis velutina*) and a Foothills Palo Verde (*Cercidium microphyllum*). Both trees have low transplantability and low to medium viability. No threatened or endangered species are present on-site.

### C. Vegetative Densities

The vegetation cover on-site is a mix of tree canopies, desert shrubs and grasses, and bare earth. The highest vegetation density occurs along the eastern property boundary near the golf cart path, where the wash flow concentrates as it crosses the path and enters the former golf course. It should be noted that plants along the path were installed with the golf course development. They were previously supplemented with irrigation and maintained as part of the golf course operations, resulting in a more manicured and larger form than other plants on-site.

## 7. Wildlife

The Arizona Game and Fish Department's Environmental Review Tool (ERT) was used to generate a preliminary environmental report. This report identifies one "Proposed Threatened" species, the cactus ferruginous pygmy-owl, within three (3) miles of the subject property. The report listed no other threatened or endangered animal species. The full report is included in [Appendix B: Arizona Game & Fish ERT Report](#) of this document.

## 8. Traffic

### A. Off-Site Streets

The subject property is adjacent to Vistoso Highlands Drive, a local street that serves multiple subdivisions of the Rancho Vistoso PAD. This street contains two (2) lanes and bike and pedestrian facilities on both sides. Where Vistoso Highlands Drive intersects Rancho Vistoso Boulevard, approximately three-quarters of a mile east of the property, the roadway expands to four (4) lanes with a raised median.

Rancho Vistoso Boulevard is the nearest minor arterial street to the subject property. This street contains four (4) lanes, a raised median with intermittent turn lanes, and bike and pedestrian facilities on both sides. Rancho Vistoso Boulevard creates a loop through the Rancho Vistoso PAD by intersecting two major arterials, Tangerine Road, approximately two (2) miles south, and Oracle Road, approximately two (2) miles east of the subject property.

### B. Arterial Streets within One Mile

The Town of Oro Valley's general plan, *Your Voice Our Future*, designates Rancho Vistoso Boulevard as a minor arterial. Rancho Vistoso Boulevard is the only arterial street within one (1) mile of the subject property and is a paved, public street with a planned and existing right-of-way (ROW) width of one hundred fifty (150) feet. The ROW for Rancho Vistoso Boulevard conforms to Oro



Valley minimum requirements as listed in the Subdivision Street Standards manual. It is continuous with no jogs (see [Exhibit I.8.B: Arterial Streets within One Mile](#)).

As a divided four (4) lane arterial with a posted speed limit of over 40 mph, Rancho Vistoso Boulevard has an estimated capacity of 35,820 vehicles per day. The existing annual average daily traffic (AADT) for Rancho Vistoso Boulevard has been recorded in three locations along the loop road. The locations and the AADT recorded by the Pima Association of Governments are provided in the table below.

**Table I.7.B.1: Annual Average Daily Traffic**

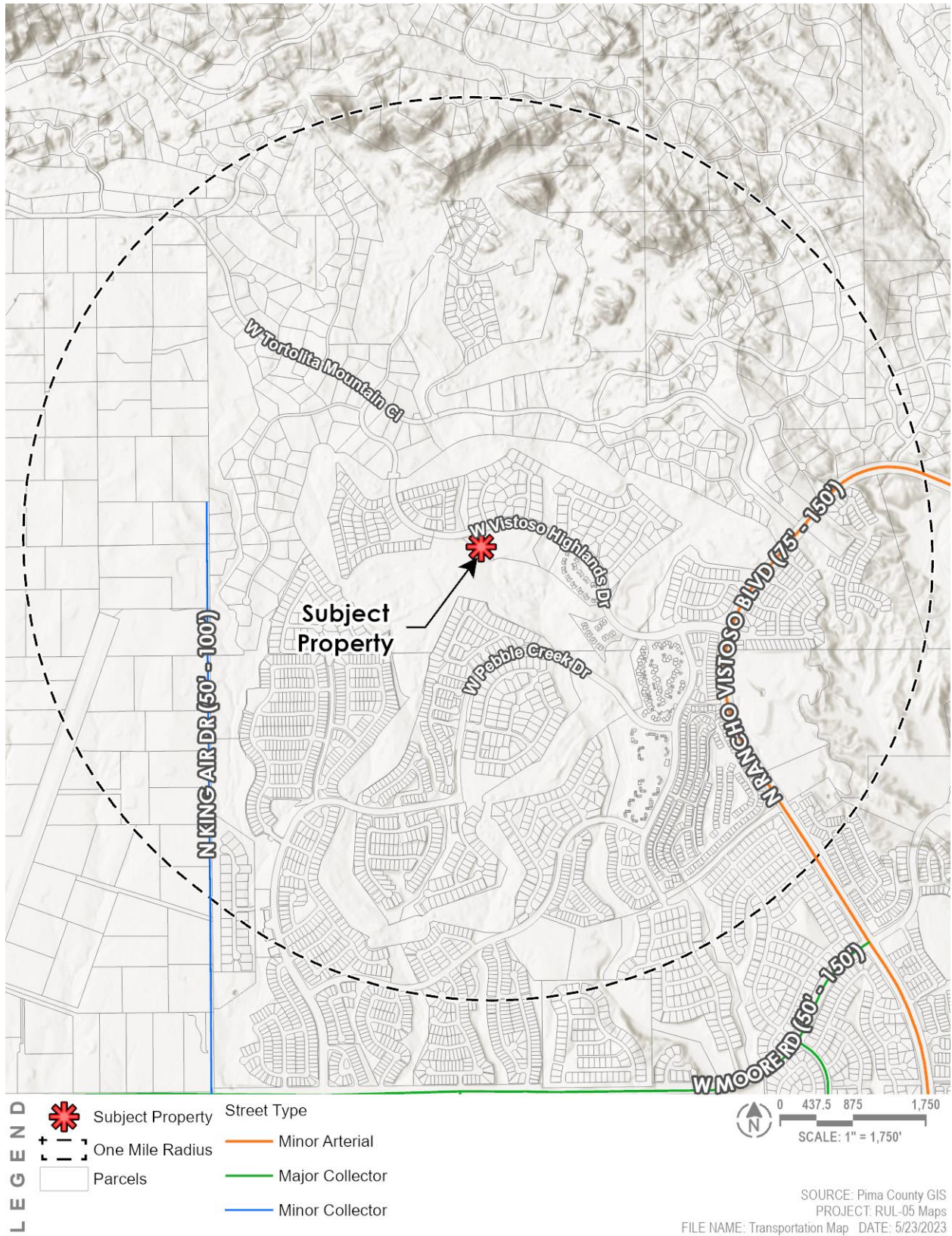
Location ID	From - To	AADT (2022)
A-339	Tangerine Road – Moore Road	13,355
A-269	Sun City Boulevard – Quiet Rain Drive	4,276
A-340	Oracle Road – Del Webb Boulevard	7,479



**Intersection of Vistoso Highlands Drive and Rancho Vistoso Boulevard**

*Source: Pima County Oblique Aerials*

Exhibit I.8.B: Arterial Streets within One Mile



## 9. Recreation and Trails

### A. Trails, Parks, and Recreation Areas

There are two (2) public parks within one (1) mile of the subject property. Vistoso Trails Nature Preserve is adjacent to the subject property and provides trail facilities through the former Vistoso Golf Course. Honey Bee Canyon Park is approximately one (1) mile east of the subject property and provides trails through a natural open space park that contains ramadas and cultural artifacts like petroglyphs.

The Rancho Vistoso community association owns three parks within one (1) mile of the subject property: Hohokam Park, Cortona Park, and Monticello Park. Hohokam Park is the most extensive of the three parks, with sports courts, playground equipment, ramadas, barbecues, restroom facilities, and a dog park. The other two parks provide ramadas, benches, and recreation space.

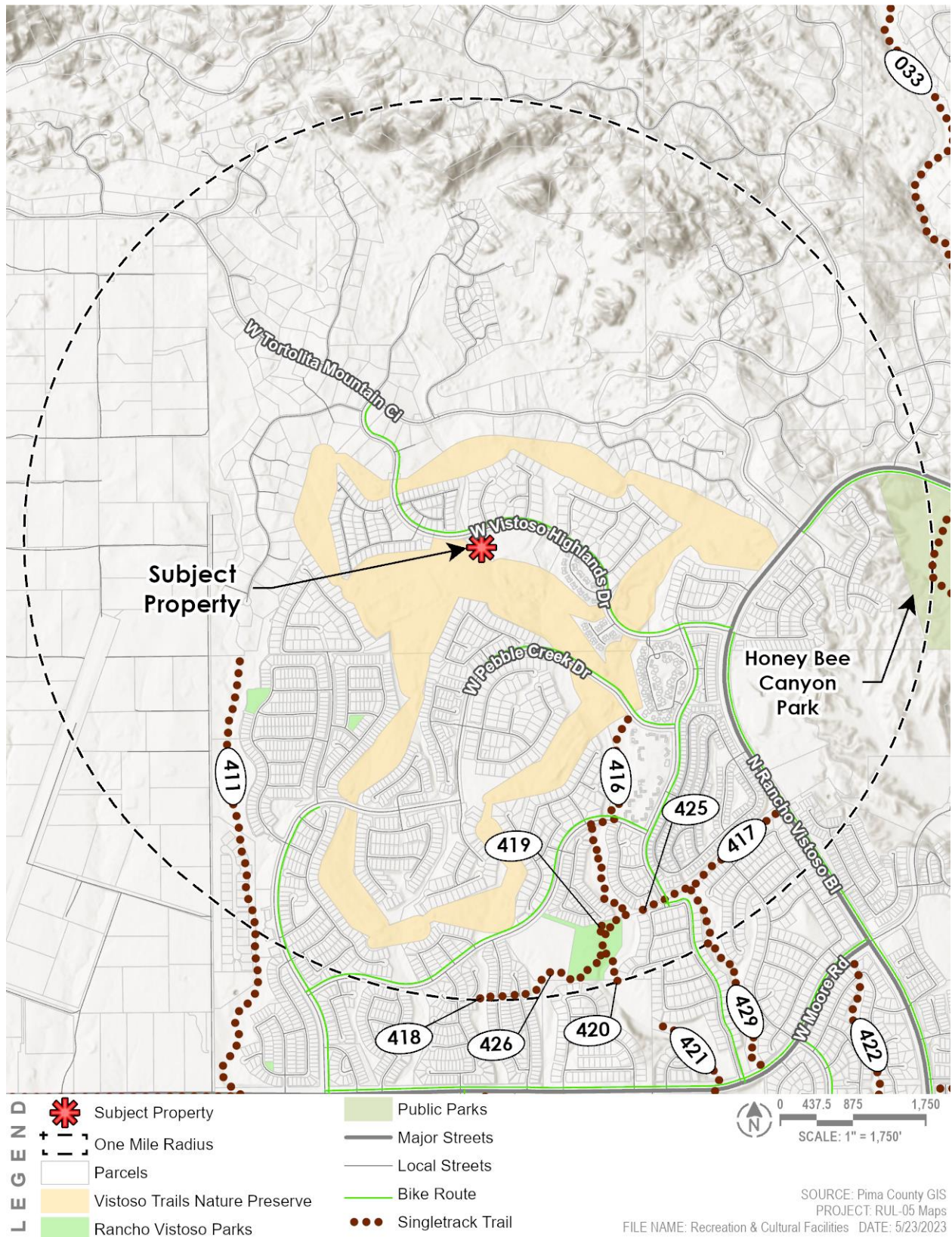
The Pima County Regional Trail System Master Plan indicates eight (8) singletrack trails are within one (1) mile of the subject property. Additional information about these trails and all parks within a mile of the subject property can be found in *Table I.9.A: Parks and Trails*. Please see [Exhibit I.9.A: Recreation and Trails](#) for locations of all parks and trails within a mile of the subject property.

**Table I.9.A: Parks and Trails**

Trail Number/Name	Length/Size	Type	Owner
Vistoso Trails Nature Preserve	6 Miles of Trails/202 Acres	Passive	Town of Oro Valley
Honey Bee Canyon Park	3 Miles of Trails/77 Acres	Passive	Town of Oro Valley
Hohokam Park	8.8 Acres	Passive/Active	Rancho Vistoso Community Association
411/Oro Valley 03	2.7	Passive	Town of Oro Valley
416/Oro Valley 08	0.6	Passive	Town of Oro Valley
417/Oro Valley 09	0.4	Passive	Town of Oro Valley
418/Oro Valley 10	0.1	Passive	Town of Oro Valley
419/Oro Valley 11	0.1	Passive	Town of Oro Valley
420/Oro Valley 12	0.1	Passive	Town of Oro Valley
425/Oro Valley 17	0.1	Passive	Town of Oro Valley
426/Oro Valley 18	0.3	Passive	Town of Oro Valley



Exhibit I.9.A: Recreation and Trails



## 10. Schools

### A. Public Schools within One Mile

Innovation Academy is the only public school within one mile of the subject property. This K-5 elementary school is located south of the subject property at 825 W. Desert Fairways Drive. *Exhibit I.10.A: Public Schools within One Mile* shows the school's location in relation to the property.

### B. Public Schools Serving the Site

The Amphitheater Unified School District (AUSD) serves the public educational needs of Oro Valley. Although the Innovation Academy is the only public school within a mile of the subject property, this school has no neighborhood attendance boundaries. It is available to students who are eligible to apply through open enrollment. The school specializes in Science, Technology, Engineering, and Mathematics (STEM) curriculum. The AUSD school attendance area map indicates that elementary students from the proposed multifamily development adjacent to the site would attend Painted Sky Elementary School (a little over a mile south of the subject property); middle school students would attend Coronado K-8 School (approximately four (4) miles northeast), and high school students would attend Ironwood Ridge High School (approximately four (4) miles southwest).



**Innovation Academy K-5 school in the Amphitheater Unified School District**

*Source: Amphitheater Unified School District*



Exhibit I.10.A: Public Schools within One Mile



## 11. Water

### A. Water Service Provider

Oro Valley Water Utility is the water service provider for the site and is located at 11000 North La Cañada Drive, Oro Valley, Arizona.

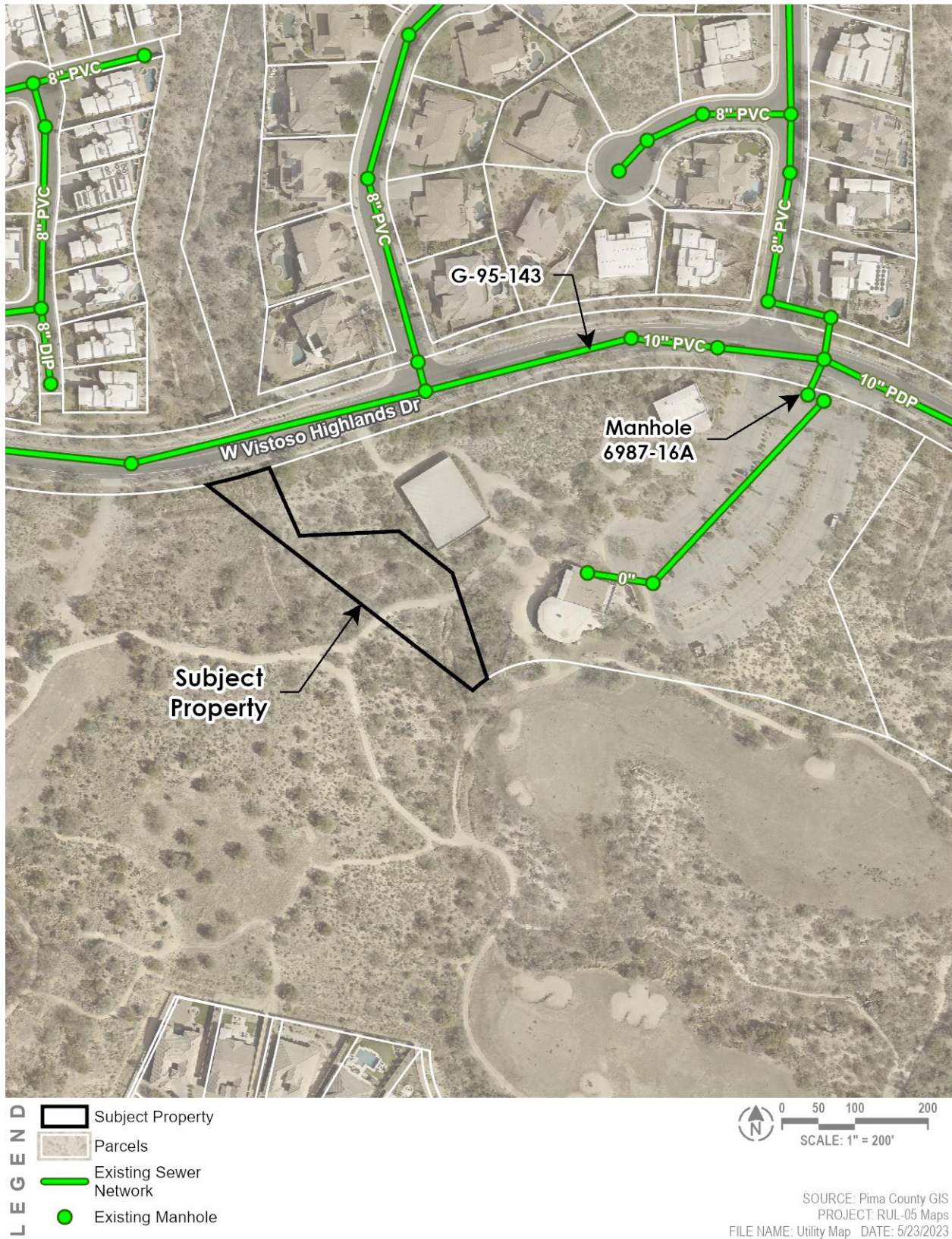
## 12. Sewer

### A. Existing Public Sewers

Existing public sewer is available on the former clubhouse property east of the subject property. Please see [\*Exhibit I.12.A: Surrounding Sewer Network\*](#) on the following page.



Exhibit I.12.A: Surrounding Sewer Network



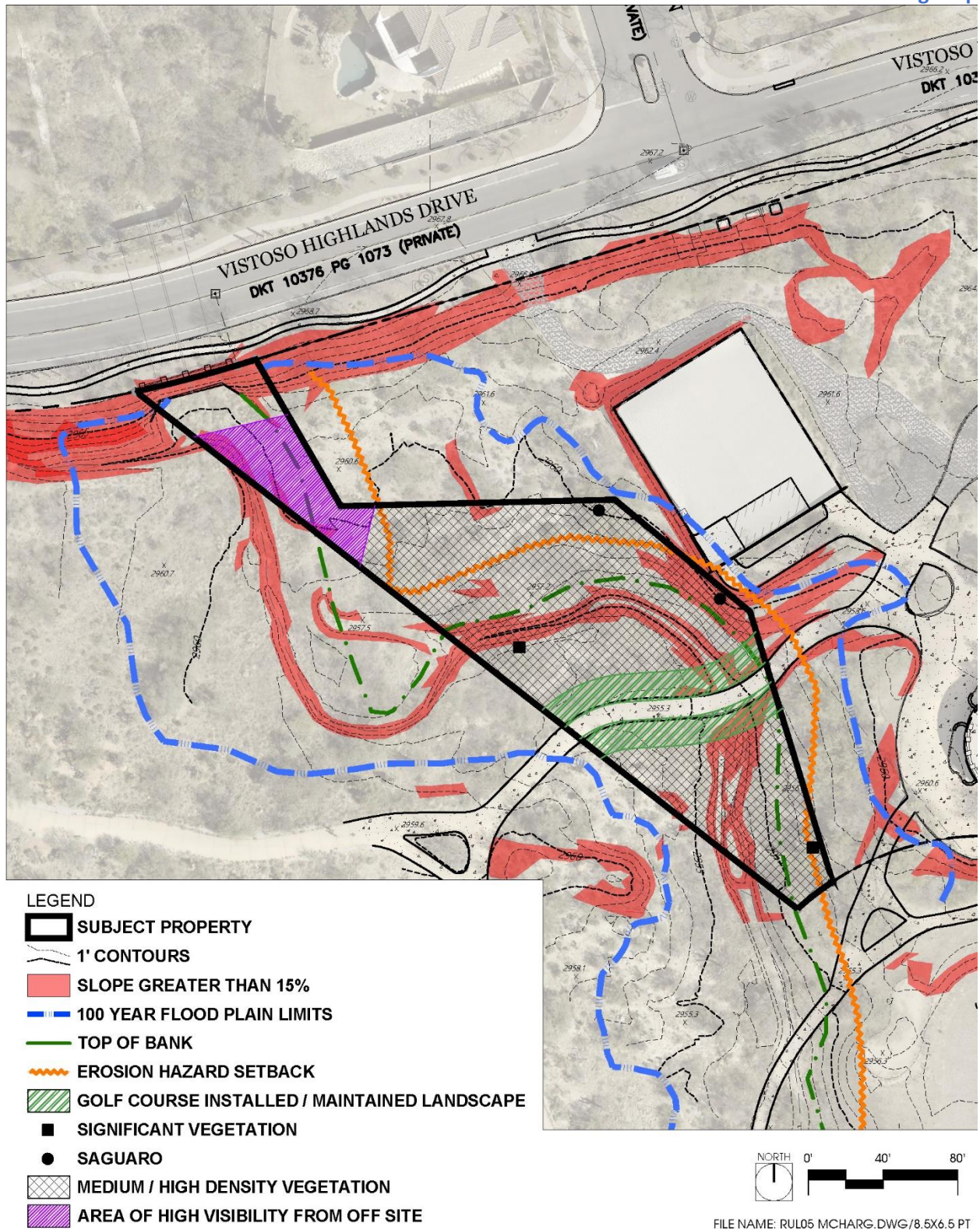
### 13. McHarg Composite Map

#### A. Composite Map

*Exhibit I.13.A: McHarg Map* overlays the existing topographic, hydrologic, and vegetative conditions on-site to illustrate the relation of these constraints on the subject property and inform the site planning process. *Section II. Land Use Proposal* explains how the proposed project responds to the site's opportunities and constraints.



Exhibit I.13.A: McHarg Map



## II. Land Use Proposal



## 1. Project Overview

### A. Proposed Project

The proposed project will serve as a recreational amenity space for the adjacent multifamily development. This space will contain parking, a clubhouse, a pool, and a recreation area. The approximately 4,000-square-foot proposed clubhouse will be one story and provide space for a leasing office, fitness center, or other indoor recreational facilities. The subject property is approximately 30,000 square feet, and a single-story 4,000 square-foot building would have a floor area ratio of 0.13. Refer to [Exhibit II.1.A: Illustrative Site Plan](#) to see the subject property in relation to the overall development project.

#### i. *Conformity with General Plan and the General Plan Future Land Use Map*

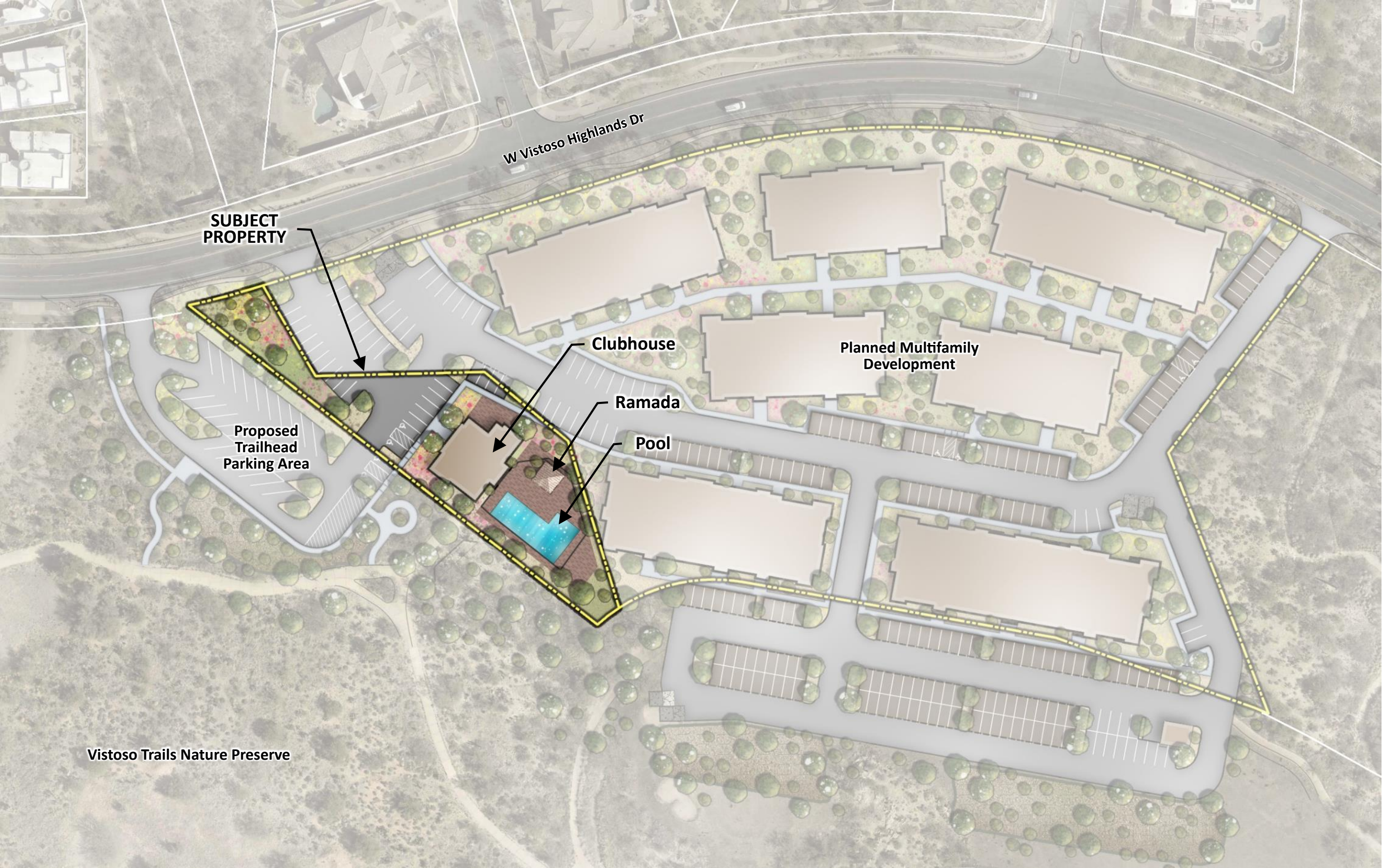
The proposed PAD Amendment is in conformance with *Your Voice, Our Future*. The existing General Plan land use designation will remain Open Space (see [Exhibit I.1.C.ii: General Plan Map](#)). This project also adheres to the following general plan policies, among others not listed here.

- 3.6 Complete Community Focus – Policy CC.7. Support the development of diverse housing types within the community
- Development Goal 5.4.Q – A built environment that creatively integrates landscape, architecture, open space, and conservation elements to increase the sense of place, community interaction, and quality of life
- Development Goal 5.4.X – Effective transitions between differing land uses and intensities in the community

This PAD Amendment supports these policies by:

- Promoting housing diversity by providing recreational amenities on the subject property that support multifamily residential development.
- Integrating recreational, landscape, architectural, and open space elements to transition between adjacent properties in a manner that enhances quality of life.
- The project proposes recreational uses adjacent to the Vistoso Trails Nature Preserve and steps down to one story in height from the proposed two-story apartments.





## 2. Existing Land Uses

### A. Zoning and Existing Land Uses on Adjacent Properties

Zoning of properties within a quarter mile of the subject property is depicted in *Exhibit I.1.C.i: Rancho Vistoso PAD Zoning* in *Part I – Inventory and Analysis*.

Land uses of surrounding properties are depicted in *Exhibit I.1.B.1: Surrounding Conditions* in *Part I – Inventory and Analysis*.

### B. Effect of Proposed Development on Existing Land Uses On-site and Off-site

The subject property is vacant except for the remaining golf cart path that crosses it. The proposed development on this parcel will provide recreational amenities to a new multifamily development on the adjacent parcel to the east and also provide a transition and connection from the multifamily development to the Vistoso Trails Nature Preserve. The developer has also agreed to construct a new trailhead and additional parking for the Vistoso Trails Nature Preserve. This location was jointly selected by the developer, Town staff, and The Conservation Fund.

## 3. Environmentally Sensitive Lands

While there are Environmentally Sensitive Lands occurring on the site, in July 2022, an Easement Agreement between the Town of Oro Valley and OV 132, LLC incorporated the subject property into the definition of "OV 132 Property" as referenced in the November 2021 Settlement Agreement. The Easement Agreement reiterates the Town's promises and agreements to be flexible in connection with the proposed development, granting an easement *"for any use related to retention, drainage, parking, open space/passive recreation, or utilities in connection with the development of 132 two-story apartment units on the OV 132 Property, and for landscaping, and other reasonable site zoning relief necessary to construct up to 132 two-story apartment units on the OV 132 Property."*

## 4. Topography

### A. Tentative Development Plan's Response to Topographic Characteristics

The subject property will be filled to match the grade of the adjacent multifamily development. The existing culvert under Vistoso Highlands Drive will be extended from the north end of the property through to the south end. The culvert extension will be covered with fill to create a flat surface for parking and landscaping. Once this work is completed, the subject property will sit approximately four to five feet below Vistoso Highlands Drive.

### B. Areas of Encroachment onto Slopes

None of the existing on-site slopes meet the requirements of section 27.10D.3.g.ii. of the Town of Oro Valley Zoning Code; therefore, no Hillside Conservation Areas exist on-site.

### C. Site Disturbance, Grading, and Revegetation

The entirety of the site will be filled to level out the property and construct the recreational amenity space and associated parking area for a new multifamily development. Two trees identified on the site resource inventory will be removed from the site, and additional revegetation will occur in the buffer yard adjacent to Vistoso Highlands Drive and in landscaped areas.



## 5. Cultural/Archaeological/Historic Resources

The proposed development has the potential to affect intact archaeological deposits. It is recommended that a monitor be present during initial ground disturbance (see [Appendix A: Archaeological Survey Report](#)).

## 6. Hydrology

The subject property is part of a larger overall project, and development would coincide with the adjacent multifamily property. As such, Rick Engineering has analyzed the post-development hydrology for the overall project area to understand the proposed development holistically.

### A. Development Plan Hydrology

In the developed condition, the off-site watershed remains primarily unchanged. The minimal off-site street flow will bypass the easternmost entry to the dip section adjacent to the driveway and flow into the Highlands Wash or may readily be accepted onto the site, depending upon final grading.

The site proposes a development consisting of eight buildings, the associated paved access, parking, landscaping, utility, and drainage improvements. The proposed development will increase the total site impervious cover overall to 75%, up from approximately 50%. The proposed improvements will incorporate depressed water harvesting areas throughout to provide first flush of stormwater and to help reduce post-developed discharges to required levels comparable with pre-developed discharges. The proposed drainage patterns will continue to be directed in a manner consistent with existing drainage patterns so as not to create any adverse impacts on the parcels and developments located downstream from the subject development (see [Exhibit II.5.A: Proposed Conditions Drainage Map](#)).

The proposed development will produce a total runoff of approximately 78.1cfs in the 100-year flood condition. As such, the post-development discharge will be required to be detained to reduce runoff from the site to less-than-existing conditions for the 100-year, 10-year, and 2-year storm events.

At the upper elevation of the site, stormwater along the street frontage that sheet-flows south toward the proposed northeast two buildings, coupled with flow from the north half of the two northeast buildings, will be collected in a swale and directed east to a catch basin (SD1) adjacent to the parking area where the outflow will be through a culvert to the Highlands Wash. This area is denoted as P1 on the Proposed Drainage Map.

The southern half of the same two northeast buildings and the north half of the fourth building in watershed P2 will drain to a second stormdrain system, then to catchbasin SD2. Surface flow within P2 common areas can be collected within the stormdrain or graded to drain to catchbasin SD2. The outfall from SD2 is directly into the Highlands Wash.

Watersheds P3 thru P10 all drain south within the parking area and access lanes and ultimately flow south through the parking area (P9/P10) and into the two proposed large detention basins at the south end of the site.



Stormwater runoff from watershed P11 is allowed to sheet flow into the west un-named wash. Watershed P12 is the Town of Oro Valley trailhead parking area. Runoff from this area will be directed to water harvest basins within parking islands where feasible. Outflow from the parking area will be at the southern end directly into a water harvest basin. Once the basin is full during major storm events, stormwater will weir over its southern and western banks resembling sheet flow that will migrate to the west wash.

The amount of stormwater runoff flowing into the Highlands Wash is less than in the existing conditions. Stormwater runoff from the remainder of the site flows southward ultimately into the west wash after attenuating in the detention basins to less than existing conditions runoff.

#### B. Modification to Drainage Patterns

Developed runoff from the site remains much like existing conditions. Exit points are at similar locations, and detention basins detain the flow to less-than-existing conditions. Developed runoff enters the Highlands Wash and the west un-named wash. The following table provides a summary of the proposed condition's hydrology:

**Table II.5.B Proposed Hydrology**

Concentration Point	Q100 Out (cfs)
P1	8.4
P2	9.5
P3	3.4
P4	6.7
P5	11.0
P6	5.2
P7	4.0
P8	4.2
P9	9.1
P10	4.2
P11	5.0
*P12	7.4
Total Developed	78.1cfs
Total Out After Detention	41cfs

\*Trailhead Watershed

#### C. Drainage Impact on Off-site Land Uses

Runoff leaving the project site maintains existing flow patterns as the managed/reduced stormwater flows into the Highland Wash and the west un-named wash. The west wash will be modified by extending the arch culvert from Vistoso Highlands Drive southward so that the outlet is 600 feet farther downstream. This extension will allow for the development of the Town's trailhead parking area as well as the west-end parking of the proposed multifamily site. The outlet will be a wire-tied energy dissipator/stilling basin to reduce the potential for erosion with gabion



bank stabilization. Any natural bedrock in this area will remain in place, undisturbed, in lieu of gabions. As stormwater leaves the stilling basin, it will flow back into its original drainage path downstream.

An improved impact south of the site will be the detention basins that are located within the former golf course fairway. The basins will provide an opportunity to restore the natural vegetation in this currently bare area.

There are no impacts to the existing drainage upstream of the site.

#### D. Drainage Mitigation

As a result of the Critical Basin designation for the subject site, the 100-year flood stormwater flows exiting the site in the proposed condition are required to match the existing condition flows or be reduced by means of detention and/or other rainwater harvesting techniques. This will be achieved by means of stormwater harvesting in landscaped areas as described below and by means of detention basins.

To satisfy detention/retention requirements, two detention basins ("E & W") have been incorporated into the drainage scheme. Refer to the Proposed Conditions Watershed Map for potential areas where basins will be incorporated.

The first basin, "E," is located south of the site boundary, collecting runoff that arrives at the east side of the south parking area. This detention basin will accept all stormwater from P9 and all upstream contributing watersheds. This basin will be approximately 2.5 feet in depth with a minimum of 4:1 sideslopes and have the storage to detain the entire runoff volume with zero outflows (other than bleed-off pipe). Detention basin "W" is located south of P10 at the southern boundary and receives all stormwater that flows into the P10 watershed area from upstream. This basin will be approximately 3.7 feet in depth with 4:1 sideslopes. A 7-foot spillway at an elevation 2.5 feet above the basin floor allows for 13cfs to flow out to the west and into the west un-named wash. Both basins will have a bleed-off pipe set 4 inches above the basin floor to slowly drain each basin. The following is a summary of the preliminary basin hydraulics:

**Table II.5.D Preliminary Basin Hydraulics**

Basin ID	Q <sub>in</sub>	Q <sub>out</sub>	Detention Volume (ft <sup>3</sup> )	Residual for Water Harvest (ft <sup>3</sup> )
E	21.3	0	32,100	4,146
W	26.5	13	25,600	1,740
Total			56,690	5,886

Basin size and location are subject to change during the design process. The information is to provide a perception of parameters that may be encountered.



The total site imperviousness in the developed condition has been calculated to be 75% of the site. In conformance with the Town of Oro Valley's Drainage Criteria Manual and Rainwater Harvesting Plan requirements, the site is required to have first flush to satisfy the water harvesting volume. The minimum required volume is 6,920cf. The two detention/retention basins and shallow water harvest basins throughout the site will provide the minimum calculated water harvest volume for the site. The detention basins will reduce developed stormwater discharge from the site to less-than-existing conditions.

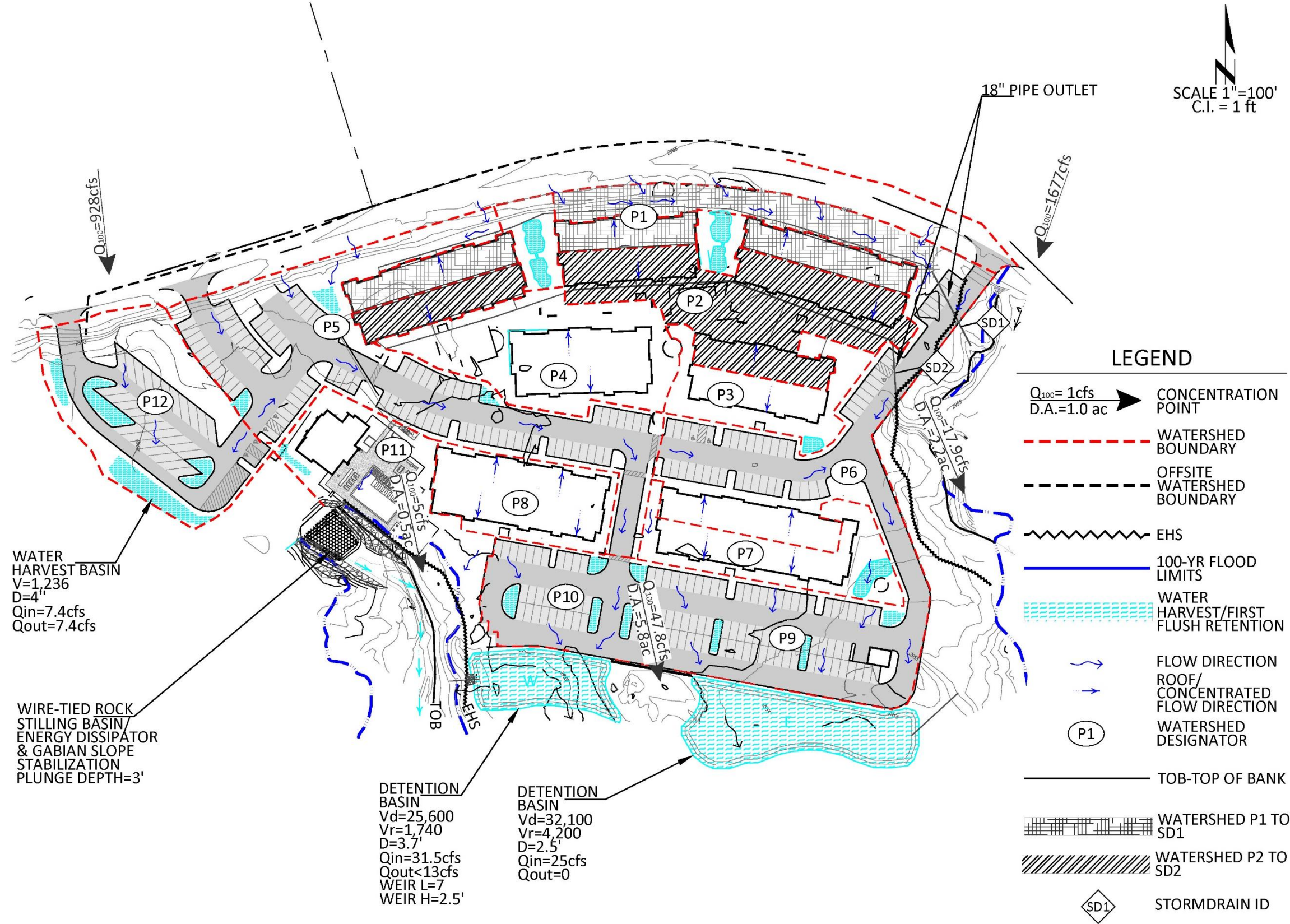
#### E. Tentative Development Plan Response

Development of this site conforms to the Town policies and stormwater management plans by:

1. Incorporating detention into the Tentative Development Plan to reduce stormwater runoff to less than existing conditions to minimize the potential for flooding downstream of the site.
2. Providing water harvesting into the development to maintain and preserve the natural desert landscape and riparian areas and maximize the potential for infiltration.
3. Incorporate First Flush practices to minimize pollutants within stormwater, thus improving environmental impacts on floodplains and streams.
4. Erosion Control to dissipate energy and restore stormwater to sheet flow to benefit downstream land use. Riprap fill slopes to protect from erosion and dissipate energy from stormwater runoff.



Exhibit II.5.A: Proposed Conditions Drainage Map



## 7. Vegetation

With the entire site being filled to accommodate the proposed recreational development, the existing vegetation within the on-site ESL Categories will be removed to accommodate these improvements. The site has been inventoried for signification vegetation and native plants. These inventories document the vegetation on-site and inform the landscape plans for the subject property and the overall project. These plans illustrate the transplant and mitigation methods for developing the overall project.

## 8. Wildlife

The Arizona Game and Fish Department's Environmental Review Tool does not identify any on-site wildlife habitats. The site will be monitored for threatened and endangered species prior to disturbance (see [Appendix B: Arizona Game & Fish Report](#)).

## 9. Viewshed

### A. Mitigation Measures

#### i. *Off-Site Views and Vistas*

The proposed clubhouse is one-story in height and sits lower in elevation than Vistoso Highlands Drive. The clubhouse is also setback nearly 200 feet from the adjacent roadway and is screened from the road by a fifteen-foot landscape border. The pool area is situated southeast of the clubhouse, away from the neighbors to the north. This configuration ensures that the new clubhouse or pool amenity will not visually impact neighbors to the north.

The Vistoso Trails Nature Preserve separates the clubhouse and pool from neighboring residences to the west and south, the nearest being over 500 feet to the south. The multifamily development associated with the subject property will connect to this recreational trail network. Landscaping and screening are incorporated to ensure compatibility between the clubhouse and pool area, and the nature preserve. The pool area will be separated from the nature preserve by a decorative fence and landscaping consistent with the rest of the multifamily development. The area around the culvert extension south of the pool will be revegetated with mitigation plantings and a native seed mix along with a desert cobble rock treatment to create a naturalistic landscape screening the subject property from the nature preserve.

#### ii. *Areas of High Visibility*

The clubhouse building is the only proposed structure on the property and will be the most visible feature on-site. It will be most visible from the multifamily property as part of this development. Views from Vistoso Highlands Drive are protected as the clubhouse is setback nearly 200 feet, screened by a fifteen-foot bufferyard, and sits lower in elevation than the roadway. The clubhouse will be somewhat visible from the planned Vistoso Trails Nature Preserve trailhead parking area as it shares access with the adjacent multifamily parking area. However, views of the clubhouse and pool will be separated from the nature preserve by landscaping and screening treatments described in the previous section to ensure compatibility between these multifamily amenities and the neighboring recreational area.



## 10. Traffic

### A. Traffic Analysis Report

The proposed development's anticipated traffic generation is based on the trip generation rates for a multifamily housing-low rise land use as listed in the 11th Edition of the Institute of Transportation Engineer's (ITE) Trip Generation publication. The proposed 132-unit development is estimated to generate approximately 992 average daily trips with 64 AM peak hour trips and 78 PM peak hour trips. Analysis of the east and west access point indicated that conflicting movements would operate at a level of service (LOS) 'A' in the opening year of the project. Both access point intersections are recommended to allow full access movements with stop sign control for the northbound approach. Additionally, separate turn lanes were not warranted at any project access locations.

Please see the Traffic Impact Statement prepared by Rick Engineering and submitted under a separate cover.

### B. Describe Proposed On-Street Rights-of-Way

The subject property will have no streets, only parking area access lanes (PAAL). The PAALs will connect the subject property to the rest of the multifamily development to the east and the proposed Vistoso Trails parking area to the west. PAALs will connect these properties to Vistoso Highland Drive.

### C. Bicycle and Pedestrian Pathways

The subject property extends the adjacent multifamily development's pedestrian circulation system. It connects to the Vistoso Trails Nature Preserve trail system and the existing sidewalks along Vistoso Highland Drive. This connection ensures multifamily residences can enjoy access to the nature preserve trails and the larger pedestrian and bicycle network throughout Rancho Vistoso.

## 11. Recreation/Trails

### A. Access to Off-Site Trails

The subject property connects directly to the Vistoso Trails Nature Preserve trail network and facilitates access to off-site trails identified in [\*Exhibit I.9.A: Recreation and Trails\*](#).

### B. Open Space Ownership

The property owner of the proposed multifamily development will own and manage natural and modified open space on the subject property.

## 12. Schools

The Tentative Development Plan does not place any housing units on the subject property, and the requested zone for the subject property does not support housing use on the site. As a result, the proposed recreation elements will not generate any students.

## 13. Water

### A. Water Demand

Water use in the developed property will consist of the clubhouse fixtures and pool area. The property is currently undeveloped and generates no water demand. The proposed development



will include a clubhouse and pool as the primary recreation amenity for the adjacent multifamily development. Based on these uses and utilizing the Arizona Department of Water's Project Demand Calculator, the developed subject property is anticipated to use approximately 1.84 acre/feet of water annually (see [Exhibit II.12.A: Projected Water Demand](#)).

**B. Water Service Capacity**

Awaiting letter from Oro Valley Water Utility.

**14. Sewer**

**A. Sewer Service**

The site will connect with a gravity sewer to the Pima County Regional Wastewater Reclamation Department, connecting to the existing sewer service on the future multifamily parcel to the east. Pima County Wastewater Reclamation has indicated its capacity to serve the overall project, including the subject property (see [Exhibit II.13.A: Wastewater Capacity Letter](#)).



# Rancho Vistoso PAD Amendment 30

## Exhibit II.12.A: Projected Water Demand

May 23, 2023		<b>PROJECT DEMAND CALCULATOR</b>			
Name of Proposed Project:		<b>Rancho Vistoso PAD Amendment</b>			
<b>INSTRUCTIONS:</b> This spreadsheet is designed to help you calculate the water demand for your proposed development for purposes of applying for a Certificate of Assured Water Supply, Water Adequacy Report or Analysis of Assured (or Adequate) Water Supply. Please enter information into the blue boxes as applicable. If you need help with this form, please contact the Office of Assured and Adequate Water Supply at (602) 771-8599.					
<b>NOTE:</b> This sheet, when completed, does not constitute approval of the demand estimate for your proposed development. It is intended for general estimation purposes only. The final, official demand estimates will be determined by the Department upon review of your complete application.					
Enter the AMA the subdivision is located in*:		TUC * Enter PHX for Phoenix, TUC for Tucson, PIN for Pinal, PRE for Prescott or SCR for Santa Cruz.			
If you are not sure if you are located inside or outside of an AMA, contact the Office of Assured and Adequate Water Supply at (602) 771-8599.					
Enter the COUNTY the subdivision is located in:		PIMA * Enter either APACHE, COCHISE, COCONINO, GILA, GRAHAM, GREENLEE, LA PAZ, MARICOPA, MOHAVE, NAVAJO, PIMA, PINAL, SANTA CRUZ, YAVAPAI, or YUMA.			
<b>Residential Usage*</b>					
Category	PPHU	GPCD or per house/day	Demand/HU/YR (af/yr)	No. HU (Lots)	Residential Demand/Yr (af/yr)
Single Family (int)		45.00	0.00		0.00
Multi-Family (int)		45.00	0.00		0.00
Single Family Landscape (ext)	1.00	60.00	0.07	0.00	0.00
Multi-Family Landscape (ext)	0.00	21.00	0.00	0.00	0.00
Single family Demand/HU/YR			0.07		
Multifamily Demand/HU/YR			0.00		
	Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)
Average Lot Size (sq. ft)**	0.00	0.00			
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23			
Large Lot Adjustment	0.00	0.00			
1/2 low water use	0.00	0.00	1.50	0.00	0.00
1/2 turf	0.00	0.00	4.60	0.00	0.00
<b>**NOTE:</b> If the subdivision contains several groupings of lot sizes, the large lot adjustment needs to be calculated for each grouping of large lot sizes. If CC&Rs with landscaping restrictions for the residential lots will be adopted, a modified large lot adjustment can be calculated based on the specific landscaping restrictions. Contact the Office of Assured and Adequate Water Supply for assistance in calculating the large lot adjustment for subdivisions with several groupings of large lot sizes or if CC&Rs limiting landscaping within the residential lots will be adopted.					
<b>Total Residential Demand</b>					<b>0.00</b>
<b>Non-Residential Usage***</b>					
<b>For each category please enter either square feet or acres of land for that type of non-residential use within your subdivision.</b>					
Category	Square Feet	Acres	Demand Factor (af/ac)		Non-Residential Demand (af/yr)
Common Area1		0.00	1.50 low water use		0.00
Common Area2		0.00	4.60 turf		0.00
Right of Way		0.00	1.50 low water use		0.00
Golf Course		0.00	AMA Turf Program - contact AMA		0.00
Commercial use	4000.00	0.09	1.67 all acres		0.15
Public Pool (length x width = square feet)	10000.00	0.23	Based on closest AMA pool		1.52
Parks1		0.00	1.50 low water use		0.00
Parks2		0.00	4.60 turf		0.00
Retention/Detention Basins		0.00	1.50 low water use		0.00
Retention/Detention Basins		0.00	4.60 turf		0.00
School Landscape1		0.00	1.50 low water use		0.00
School Landscape2		0.00	4.60 turf		0.00
	Number of students				
Elementary school interior use	0.00		25 GPCD	interior demand	0.00
Middle/High School interior use	0.00		43 GPCD	interior demand	0.00
<b>***NOTE:</b> If your application is for a change of ownership from a previously issued Certificate of Assured Water Supply, and is for only a portion of the original Certificate, contact the Office of Assured and Adequate Water Supply to pro-rate non-residential area acreage.					
<b>Total Non-Residential Demand</b>					<b>1.67</b>
<b>Distribution Losses</b>					
	Residential	Non-Residential	Total	Loss Factor %	Distribution Losses (af/yr)
Demand af/yr	0.00	1.67	1.67	10.00	0.17
<b>Construction</b>					
	No. of Lots	Demand (gals/lot)	100 yr demand (af)		Construction Demand (af/yr)
	0.00	10000.00	0.04		0.00
<b>Total Demand Per Year</b>					
Residential Usage af/yr	0.00	Non-Residential Usage 1.67	Lost & Unaccounted for 0.17	Construction 0.00	Total Non-Res 1.84
					<b>Total Demand Per Year (af/yr) 1.84</b>
Residential Usage GPCD	Total Demand GPCD				
#DIV/0!	#DIV/0!				
Annual Build Out Demand					
1.84					



**Exhibit II.13.A: Wastewater Capacity Letter**

**JACKSON JENKINS**  
DIRECTOR



PH: (520) 724-6500  
FAX: (520) 724-9635

May 23, 2023

Theresa Hadley  
Rick Engineering Company, Inc.  
3945 E Fort Lowell Rd., Suite 111  
Tucson, AZ 85712

**Capacity Response No. P23WC00165 Type II**

**RE: Rulney Vistoso Residential, Parcels 219191840, 219191910**  
**Estimated Flow 24,335 gpd (ADWF)**

Greetings:

The above referenced project is tributary to the Tres Rios Water Reclamation Facility via the Canada del Oro Interceptor.

Capacity is currently available for a project this size in the public sewer G-95-143, downstream from manhole 6987-16A.

This letter is not a reservation or commitment of treatment or conveyance capacity for this project. It is not an approval of point and method of connection. It is an analysis of the system as of this date. Allocation of capacity is made by the Type III Capacity Response.

If you need further information, please feel free to contact me at (520) 724-6488.

Reviewed by: Mirela Hromatka, Planner Sr.



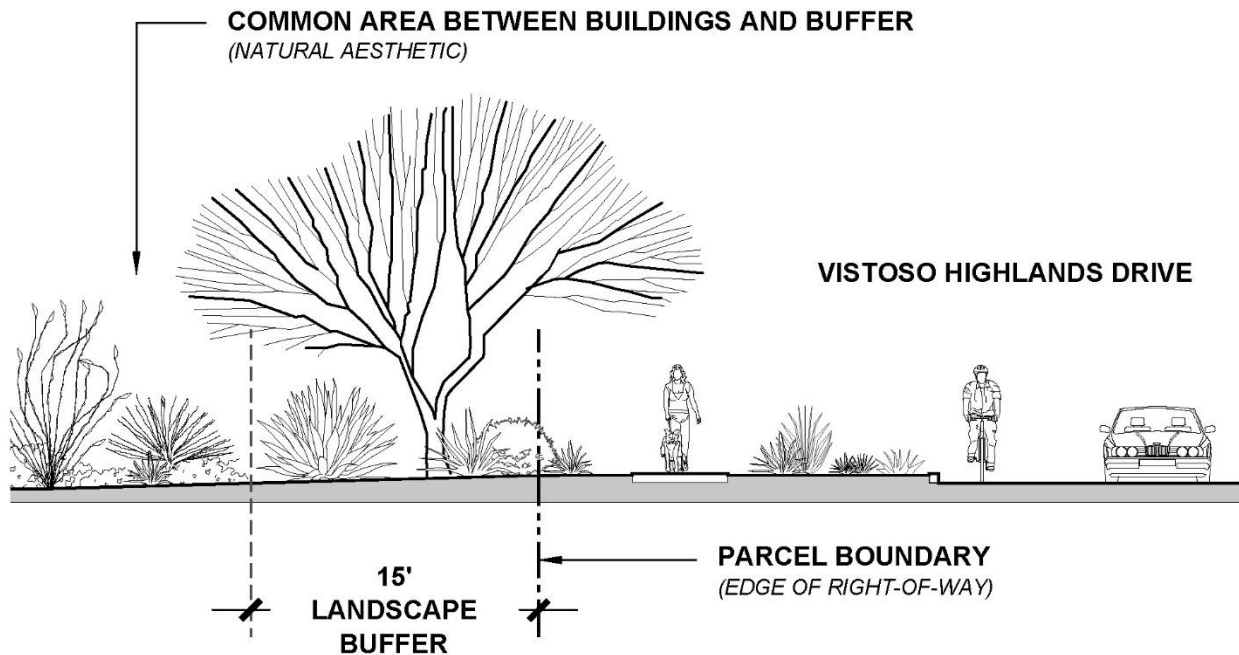
## 15. Buffer Yards

### A. Location and Mitigation Techniques

The subject property will provide a fifteen (15) foot buffer yard adjacent to Vistoso Highlands Drive. This buffer yard is depicted in [Exhibit II.A: Illustrative Site Plan](#). Vegetative densities within the buffer yard will provide a screen between the proposed clubhouse building and passersby along Vistoso Highlands Drive. This vegetative screen will help mitigate sound, visibility, and exterior lighting generated by the proposed clubhouse.

### B. Cross-Section

The graphic below illustrates the proposed fifteen-foot landscape buffer yard cross-section on Vistoso Highlands Drive along the subject property's northern boundary. Refer to the Tentative Development Plan for more information.



FILE NAME: RUL05 MCHARG.DWG/BUFFER



# Appendices



## Appendix A: Archaeological Survey Report

Note: To protect the sensitive nature of archaeological sites surrounding the project area, only the cover of the Archaeological Survey Report has been included in this appendix as a reference. The full report has been submitted separately and confidentially to the Town of Oro Valley to prevent widespread dissemination of these surrounding sites and any cultural resources contained therein.



# Archaeological Survey of Approximately 96 Acres for the Proposed Vistoso Golf Course Development Project in Oro Valley, Pima County, Arizona

JUNE 2020

PREPARED FOR  
**Romspen Vistoso, LLC**

PREPARED BY  
**SWCA Environmental Consultants**



## Appendix B: Arizona Game & Fish ERT Report



## Arizona Environmental Online Review Tool Report



***Arizona Game and Fish Department Mission***

***To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.***

**Project Name:**

Rancho Vistoso PAD Amendment

**Project Description:**

Rancho Vistoso PAD Amendment

**Project Type:**

Development Within Municipalities (Urban Growth), Residential subdivision and associated infrastructure, New construction

**Contact Person:**

Garrett Aldrete

**Organization:**

The Planning Center

**On Behalf Of:**

CONSULTING

**Project ID:**

HGIS-19139

***Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.***



## Rancho Vistoso PAD Amendment 30

Arizona Game and Fish Department  
Project ID: HGIS-19139

project\_report\_rancho\_vistoso\_pad\_amendmen\_60262\_62108.pdf  
Review Date: 5/4/2023 04:08:16 PM

### **Disclaimer:**

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. Arizona Wildlife Conservation Strategy (AWCS), specifically Species of Greatest Conservation Need (SGCN), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

### **Locations Accuracy Disclaimer:**

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.



## Rancho Vistoso PAD Amendment 30

Arizona Game and Fish Department  
Project ID: HGIS-19139

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### Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:  
**Project Evaluation Program, Habitat Branch**  
**Arizona Game and Fish Department**  
**5000 West Carefree Highway**  
**Phoenix, Arizona 85086-5000**  
**Phone Number: (623) 236-7600**  
**Fax Number: (623) 236-7366**  
**Or**  
[PEP@azgfd.gov](mailto:PEP@azgfd.gov)
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

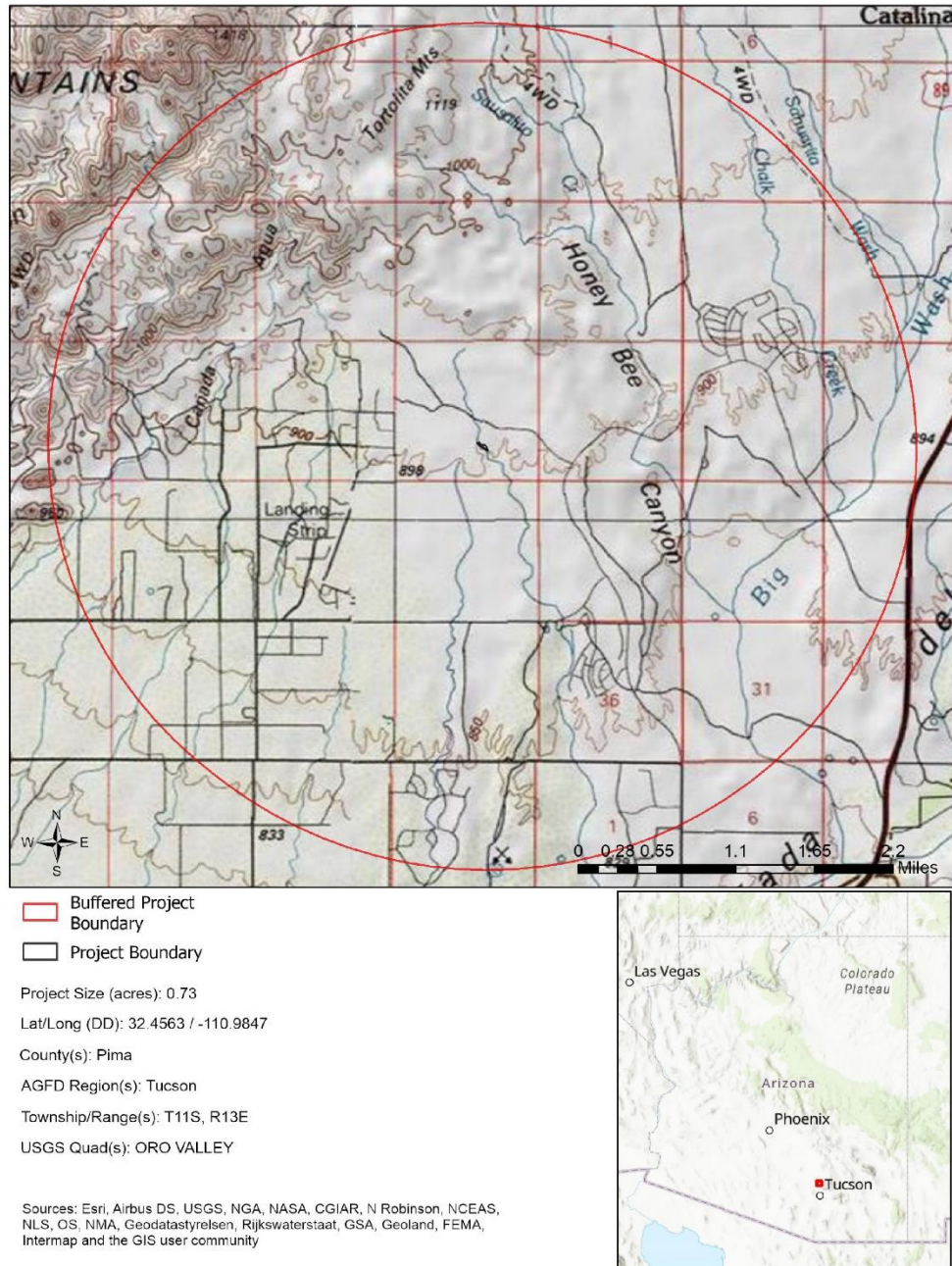


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## Rancho Vistoso PAD Amendment USA Topo Basemap With Locator Map

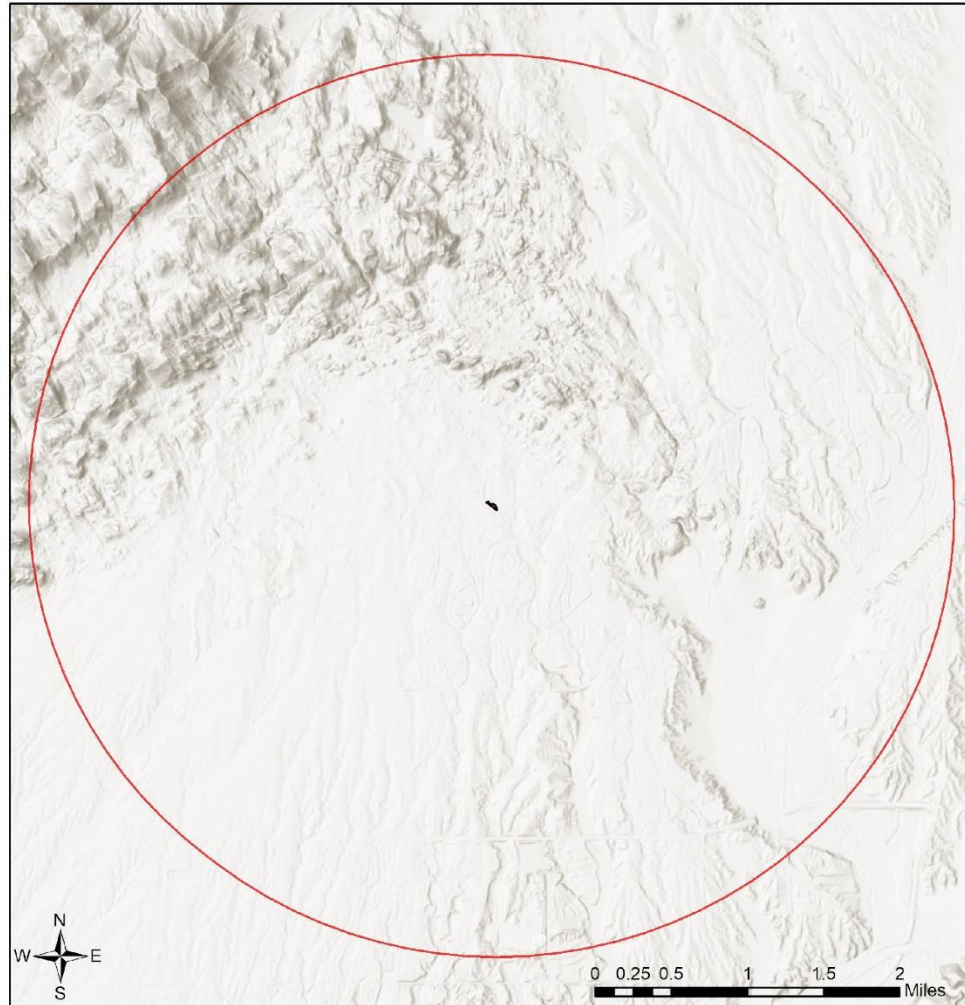




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### Rancho Vistoso PAD Amendment Web Map As Submitted By User



-  Buffered Project Boundary
-  Project Boundary

Project Size (acres): 0.73  
Lat/Long (DD): 32.4563 / -110.9847  
County(s): Pima  
AGFD Region(s): Tucson  
Township/Range(s): T11S, R13E  
USGS Quad(s): ORO VALLEY

Sources: Esri, Airbus DS, USGS, NSA, NASA, CG/AR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

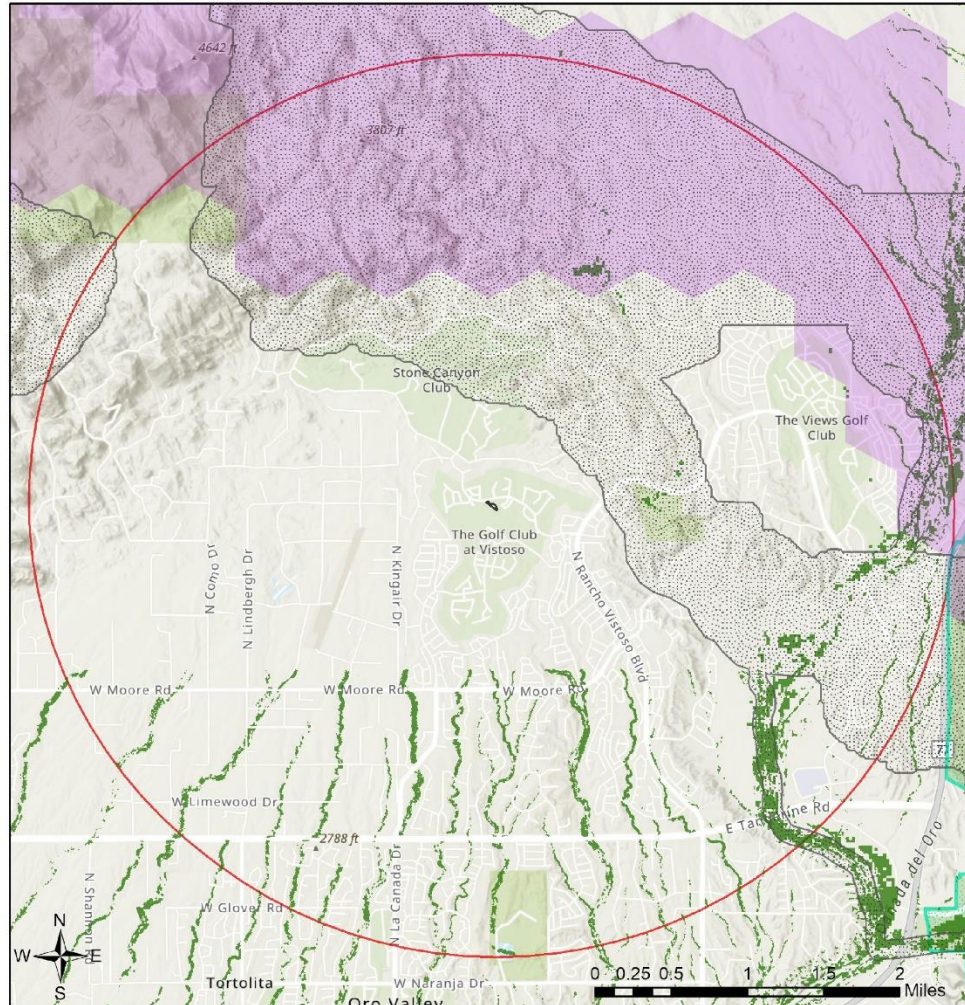


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## Rancho Vistoso PAD Amendment Important Areas



- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Important Connectivity Zones
- Wildlife Connectivity

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Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

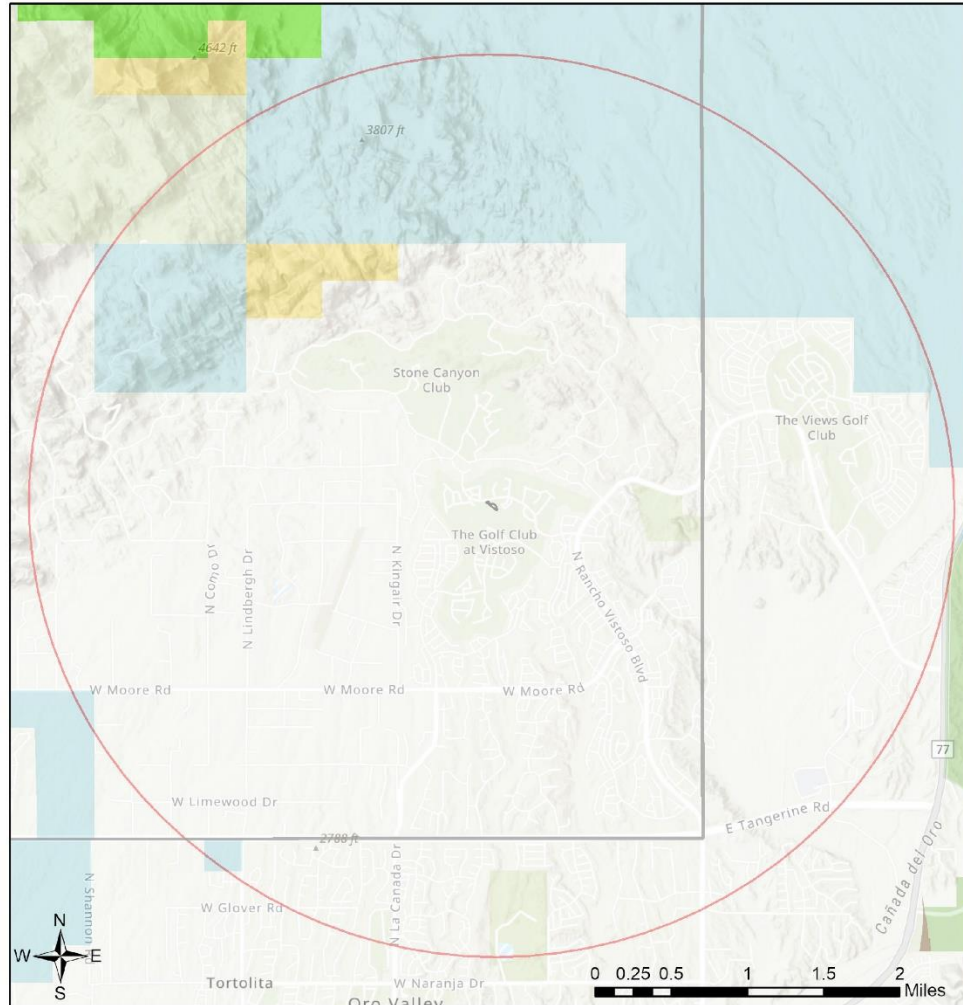


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### Rancho Vistoso PAD Amendment Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other

- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 0.73  
Lat/Long (DD): 32.4563 / -110.9847  
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### Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	PT	S	S		1
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	CCA	S	S		1
<i>Heloderma suspectum</i>	Gila Monster					1

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

### No Special Areas Detected

No special areas were detected within the project vicinity.

### Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Ammospermophilus harrisi</i>	Harris' Antelope Squirrel					
<i>Antrostomus ridgwayi</i>	Buff-collared Nightjar		S			2
<i>Aquila chrysaetos</i>	Golden Eagle			S		2
<i>Aspidoscelis sonora</i>	Sonoran Spotted Whiptail					2
<i>Auriparus flaviceps</i>	Verdin					2
<i>Botaurus lentiginosus</i>	American Bittern					2
<i>Buteo swainsoni</i>	Swainson's Hawk					2
<i>Calypte costae</i>	Costa's Hummingbird					2
<i>Camptostoma imberbe</i>	Northern Beardless-Tyrannulet		S			2
<i>Campylorhynchus brunneicapillus</i>	Cactus Wren					2
<i>Chaetodipus baileyi</i>	Bailey's Pocket Mouse					2
<i>Chilomeniscus stramineus</i>	Variable Sandsnake					2
<i>Choeronycteris mexicana</i>	Mexican Long-tongued Bat	SC	S	S		2
<i>Colaptes chrysoides</i>	Gilded Flicker			S		2
<i>Coluber bilineatus</i>	Sonoran Whipsnake					2
<i>Columbina inca</i>	Inca Dove					2
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat	SC	S	S		1
<i>Crotalus tigris</i>	Tiger Rattlesnake					2
<i>Cynanthus latirostris</i>	Broad-billed Hummingbird		S			2
<i>Empidonax wrightii</i>	Gray Flycatcher					2
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat					
<i>Falco mexicanus</i>	Prairie Falcon					2
<i>Falco peregrinus anatum</i>	American Peregrine Falcon					
<i>Falco sparverius</i>	American Kestrel					2
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl					
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	CCA	S	S		1
<i>Heloderma suspectum</i>	Gila Monster					1
<i>Icterus cucullatus</i>	Hooded Oriole					2



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## Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Incilius alvarius</i>	Sonoran Desert Toad					2
<i>Lanius ludovicianus</i>	Loggerhead Shrike	SC				2
<i>Lasiurus blossevillei</i>	Western Red Bat		S			2
<i>Lasiurus cinereus</i>	Hoary Bat					2
<i>Lasiurus xanthinus</i>	Western Yellow Bat		S			2
<i>Leptonycteris yerbabuenae</i>	Lesser Long-nosed Bat	SC				1
<i>Lepus alleni</i>	Antelope Jackrabbit					2
<i>Lithobates yavapaiensis</i>	Lowland Leopard Frog	SC	S	S		1
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		2
<i>Megascops kennicottii</i>	Western Screech-owl					
<i>Melanerpes uropygialis</i>	Gila Woodpecker					2
<i>Melospiza lincolni</i>	Lincoln's Sparrow					2
<i>Melospiza aberti</i>	Abert's Towhee		S			2
<i>Micrathene whitneyi</i>	Elf Owl					
<i>Micruroides euryxanthus</i>	Sonoran Coralsnake					2
<i>Myotis auriculus</i>	Southwestern Myotis					2
<i>Myotis velifer</i>	Cave Myotis	SC		S		2
<i>Myotis yumanensis</i>	Yuma Myotis	SC				2
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat					2
<i>Nyctinomops macrotis</i>	Big Free-tailed Bat	SC				2
<i>Parabuteo unicinctus</i>	Harris's Hawk					2
<i>Passerculus sandwichensis</i>	Savannah Sparrow					2
<i>Peucaea carpalis</i>	Rufous-winged Sparrow					2
<i>Phrynosoma solare</i>	Regal Horned Lizard					2
<i>Phyllorhynchus browni</i>	Saddled Leaf-nosed Snake					2
<i>Poocetes gramineus</i>	Vesper Sparrow					2
<i>Progne subis hesperia</i>	Desert Purple Martin					
<i>Spizella breweri</i>	Brewer's Sparrow					2
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat					
<i>Troglodytes pacificus</i>	Pacific Wren					2

## Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Callipepla gambelii</i>	Gambel's Quail					
<i>Odocoileus hemionus</i>	Mule Deer					
<i>Pecari tajacu</i>	Javelina					
<i>Puma concolor</i>	Mountain Lion					
<i>Zenaidura macroura</i>	White-winged Dove					
<i>Zenaidura macroura</i>	Mourning Dove					



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### Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
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**Project Type: Development Within Municipalities (Urban Growth), Residential subdivision and associated infrastructure, New construction**

#### Project Type Recommendations:

Fence recommendations will be dependent upon the goals of the fence project and the wildlife species expected to be impacted by the project. General guidelines for ensuring wildlife-friendly fences include: barbless wire on the top and bottom with the maximum fence height 42", minimum height for bottom 16". Modifications to this design may be considered for fencing anticipated to be routinely encountered by elk, bighorn sheep or pronghorn (e.g., Pronghorn fencing would require 18" minimum height on the bottom). Please refer to the Department's Fencing Guidelines located on Wildlife Friendly Guidelines page, which is part of the Wildlife Planning button at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife. Guidelines for many of these can be found at: <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at <https://www.invasivespeciesinfo.gov/unitedstates/az.shtml> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at <https://imap.natureserve.org/imap/services/page/map.html>.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

The construction or maintenance of water developments should include: incorporation of aspects of the natural environment and the visual resources, maintaining the water for a variety of species, water surface area (e.g., bats require a greater area due to in-flight drinking), accessibility, year-round availability, minimizing potential for water quality problems, frequency of flushing, shading of natural features, regular clean-up of debris, escape ramps, minimizing obstacles, and minimizing accumulation of silt and mud.



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Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Based on the project type entered, coordination with State Historic Preservation Office may be required (<https://azstateparks.com/>).

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches.

Communities can actively support the sustainability and mobility of wildlife by incorporating wildlife planning into their regional/comprehensive plans, their regional transportation plans, and their open space/conservation land system programs. An effective approach to wildlife planning begins with the identification of the wildlife resources in need of protection, an assessment of important habitat blocks and connective corridors, and the incorporation of these critical wildlife components into the community plans and programs. Community planners should identify open spaces and habitat blocks that can be maintained in their area, and the necessary connections between those blocks to be preserved or protected. Community planners should also work with State and local transportation planning entities, and planners from other communities, to foster coordination and cooperation in developing compatible development plans to ensure wildlife habitat connectivity. The Department's guidelines for incorporating wildlife considerations into community planning and developments can be found on the Wildlife Friendly Guidelines portion of the Wildlife Planning page at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Design culverts to minimize impacts to channel geometry, or design channel geometry (low flow, overbank, floodplains) and substrates to carry expected discharge using local drainages of appropriate size as templates. Reduce/minimize barriers to allow movement of amphibians or fish (e.g., eliminate falls). Also for terrestrial wildlife, washes and stream corridors often provide important corridors for movement. Overall culvert width, height, and length should be optimized for movement of the greatest number and diversity of species expected to utilize the passage. Culvert designs should consider moisture, light, and noise, while providing clear views at both ends to maximize utilization. For many species, fencing is an important design feature that can be utilized with culverts to funnel wildlife into these areas and minimize the potential for roadway collisions. Guidelines for culvert designs to facilitate wildlife passage can be found on the home page of this application at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Based on the project type entered, coordination with Arizona Department of Environmental Quality may be required (<http://www.azdeq.gov/>).

Based on the project type entered, coordination with Arizona Department of Water Resources may be required (<https://new.azwater.gov/>).

Based on the project type entered, coordination with U.S. Army Corps of Engineers may be required (<http://www.usace.army.mil/>).

Based on the project type entered, coordination with County Flood Control district(s) may be required.



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Development plans should provide for open natural space for wildlife movement, while also minimizing the potential for wildlife-human interactions through design features. Please contact Project Evaluation Program for more information on living with urban wildlife at [PEP@azgfd.gov](mailto:PEP@azgfd.gov) or at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/> and <https://www.azgfd.com/Wildlife/LivingWith>.

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

**The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly at [PEP@azgfd.gov](mailto:PEP@azgfd.gov).**

### **Project Location and/or Species Recommendations:**

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <https://www.fws.gov/office/arizona-ecological-services> or:

#### **Phoenix Main Office**

9828 North 31st Avenue #C3  
Phoenix, AZ 85051-2517  
Phone: 602-242-0210  
Fax: 602-242-2513

#### **Tucson Sub-Office**

201 N. Bonita Suite 141  
Tucson, AZ 85745  
Phone: 520-670-6144  
Fax: 520-670-6155

#### **Flagstaff Sub-Office**

SW Forest Science Complex  
2500 S. Pine Knoll Dr.  
Flagstaff, AZ 86001  
Phone: 928-556-2157  
Fax: 928-556-2121

HDMS records indicate that **Sonoran Desert Tortoise** have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at: <https://www.azgfd.com/wildlife/nongamemanagement/tortoise/>

