

## A. Project Overview

## 1. Proposed Zoning Boundaries

This is a request to rezone 33.78 acres (APNs 305-07-001F, 305-07-001G and 305-09-012E) from RH and GR-1 to CR-4 (Mixed-Dwelling Type Zone) for the development of a residential subdivision (see *Exhibit II.A.1: Proposed Zoning Boundaries*).

## 2. Project Description

#### a. Proposed Development Use and Type

As demonstrated on *Exhibit II.B.1: Preliminary Development Plan (PDP)*, the proposed Old Vail Rezoning will feature 140 single-family detached homes. The site contains two (2) typical lot sizes: 4,600 square feet (40' x 115' minimum) and 5,980 square feet (52'x115') and will consist of one- and two-story homes. With sensitivity to the existing single-story residences located north of the Property in mind, lot numbers 1 through 15 as shown on the PDP are limited to a one-story building height. The proposed architectural style will be compatible and complementary to the surrounding architecture and will utilize materials and color palettes consistent with the desert southwest.

#### b. Project Response to Site Opportunities and Constraints

#### Drainage

The proposed subdivision will feature a series of detention/retention basins to capture and harvest flows generated onsite as well as those traversing the site. The locations of the drainage basins were selected based on the topography of the site to preserve the integrity of the natural drainage patterns.

#### Riparian Area

A portion of the site contains Pima County delineated riparian habitat (Xeroriparian Area C). With the exception of disturbances associated with a road crossing and other minimal grading encroachments, the existing riparian area will largely be preserved in its natural state. Encroachments into the riparian area will be mitigated for during the platting process through the establishment of a Riparian Habitat Mitigation Plan.

#### Sewer

The Pima County Regional Wastewater Reclamation Department (RWRD) was consulted to determine sewerage capacity for the project. The site is tributary to the Agua Nueva Water Reclamation Facility via the Southeast interceptor. Capacity is currently available for this project in the public sewer G-2016-065 downstream from manhole 2506-09 (see *Exhibit I.G.1: Wastewater Letter*). The existing sewer network, and the location of the proposed connection are displayed on *Exhibit I.F.2: Existing Sewer Network*.



#### Access

As demonstrated on *Exhibit II.A.2.b: Site Access*, Access will be provided through Vista Del Lago Norte via Becker Drive at the south/southeastern portion of the Property and from Mary Ann Cleveland Way through the planned CR-5 subdivision (MAC 25) and Arizona State Land Department property east of the site via a secured access easement. It is assumed that the MAC 25 property will be developed prior to or in conjunction with the proposed development. Final alignment of the access easement to Mary Ann Cleveland Way will be determined during the platting process. Access to Mary Ann Cleveland Way will not be gained utilizing Freeman Road. All proposed streets will be built in accordance with Pima County Subdivision Street Standards.

c. Proposed Project Conformance to Pima Prospers, Pima County Comprehensive Plan, and Applicable Regional, Special Area and Rezoning Policies

Pima County's Comprehensive Plan, *Pima Prospers*, designates the Property as Medium Low Intensity Urban (APN: 305-09-012E) and Medium Intensity Urban (APNs 305-07-001G and 305-07-001F). The Medium Low Intensity Urban designation allows for a minimum of 2 homes per acre and a maximum of 5 homes per acre, while the Medium Intensity Urban allows a range of 5-13 homes per acre.

The Property is subject to Comprehensive Plan Rezoning Policy RP-148 E. Old Vail Road which prescribes a maximum density of 4.5 residences per acre for the parcel identified by APN 305-09-012E. Additionally, Rezoning Policy RP-148 requires that a navigation easement be recorded and disclosed to future homebuyers and a 20-foot buffer be provided between the Davis Monthan Air Force Base Approach Departure Corridor-3 (ADC-3) and the proposed residential lots on the above-mentioned parcel. The parcel subject to this rezoning policy is approximately 24.16 acres with 108 proposed residential units. The overall density for this parcel is approximately 4.47 residences per acre and is calculated utilizing the following formula.

$$overall \ parcel \ density = \frac{number \ of \ proposed \ residences}{gross \ acreage}$$
 
$$overall \ parcel \ density = \frac{108 \ residences}{24.16 \ acres}$$

overall parcel density = 4.47 residences per acre

Due to the limitations associated with preserving the natural drainage areas, environmentally sensitive features of the site and the size of the parcels, it



becomes challenging to satisfy the minimum density requirement prescribed by *Pima Prospers* for parcels identified by APN: 305-07-001G and 305-07-001F, which total to 9.63 acres. *Pima Prospers* suggests that areas to be preserved as open space (natural and functional), drainage or other "environmental site constraints" may be removed from the gross acreage utilized to calculate the overall project density. The total acreage associated with environmental constraints on the above-mentioned parcel is approximately 4.24 acres (refer to *Exhibit II.A.2: Excluded Areas for Density Calculation*). Utilizing this rationale, the proposed density on parcels 305-07-001G and 305-07-001F with 32 proposed residential units and required a minimum of 5 residences per acre, is approximately 5.93 residences per acre and is calculated using the following formula.

$$overall \ parcel \ density = \frac{number \ of \ proposed \ residences}{gross \ acreage - environmentally \ constrained \ acreage}$$
 
$$overall \ parcel \ density = \frac{32 \ residences}{9.63 \ acres - 4.24 \ acres}$$
 
$$overall \ parcel \ density = \frac{32 \ residences}{5.39 \ acres}$$
 
$$overall \ parcel \ density = \frac{32 \ residences}{5.39 \ acres}$$

# d. How Proposed Project Addresses Surrounding Property Owners Needs

The Property is currently vacant. The proposed development is appropriate at this location as it provides a logical transition and progression from the less intensive unregulated subdivision north of the Property and the planned CR-5 subdivision to the east, as well as Vista Del Lago Norte (currently under construction) southeast of the Property. With sensitivity to the existing residences north of the Property in mind, Lots 1 through 15 have been limited to one-story and a 20-foot landscape bufferyard 'C' has been provided. The wide riparian area covering the southeast corner of the Property provides a dense natural buffer for the neighboring single-family residence which is located over 500 feet away near their eastern property boundary.

overall parcel density = 5.93 residences per acre

## e. Proposed Development Impact on Land Uses Within One-Quarter Mile

The proposed development will have minimal impact on existing land uses within a one-quarter mile of the site. The following development characteristics will



benefit the surrounding community. The preliminary development plan (PDP) will:

- Provide the type of compact design that creates livable urban densities in a rapidly developing area that support the Medium Low Intensity Urban and Medium Intensity Urban designations of the Comprehensive Plan while preserving the environmentally sensitive features of the site;
- Include a series of detention/retention basins to mitigate existing sheet flooding;
- Provide landscape bufferyards along the northern and southwestern property boundaries to mitigate potential adverse impacts associated with noise and privacy for both existing residents to the north and future residents of the proposed subdivision; and
- Increase availability of new housing to help address the current housing shortage within the general project vicinity.

The site is adjacent to the southeasternmost end of the DMAFB Approach Departure Corridor (ADC), ADC-3. Although the Property is completely outside of ADC-3, due to its proximity to the ADC-3, Davis-Monthan officials expressed some initial concern with the proposed development. The development team worked closely with DMAFB to develop the following rezoning policy to ensure compatibility with the corridor:

"Residential density on the amendment site shall be 4.5 residences per acre (RAC), maximum, with a reduction of residential density along the DMAFB Approach Departure Corridor-3 (ADC-3); a 20-foot buffer shall be provided between ADC-3 and residential lots; and Avigation Easements shall be recorded and disclosed to homebuyers for all residences constructed in the proposed subdivision."

The preliminary development plan conforms to this policy. Additionally, the developer will record an avigation easement to put future homebuyers on notice that the property is in the vicinity of a military airport.

#### f. Smart Growth Principles

The Property is in a rapidly developing area and is well-served by existing public infrastructure. The following are the main goals of smart growth and how the project meets those goals.

Compact Building Design: The proposed development is an infill subdivision located adjacent to several comparable platted subdivisions such as: Mountain Vail Estates Part I, Vista Del Lago Norte, Acacia Ridge and Palo Verde Ridge. Compact building design allows a considerable amount of the site to be dedicated as open space/recreation area and ensures preservation of the riparian area through the northeast corners of the Property. These areas are provided for the future use and enjoyment of neighborhood residents and will be maintained by the established Homeowner's Association.



By continuing the existing compact development pattern of the area, roadway infrastructure is also planned and built more efficiently to accommodate multiple developments with less linear footage of roadway. A better level of service than that of a roadway serving a sprawling unregulated subdivision can also be achieved. Additionally, the opportunity for alternative modes of transportation becomes more prevalent as compact building design encourages and further lends to more efficient transit service compared to that of dispersed communities.

- Range of Housing Opportunities and Choices: This rezoning request is for oneand two-story homes located in an infill area immediately surrounded by existing or planned residential communities with varying densities. As Pima County is experiencing significant growth in this area as a result of new major employers, Davis-Monthan Air Force Base and the highly performing Vail School District, the proposed development provides an additional housing availability that addresses the current shortfall in the general vicinity.
- Promoting Rational Expansion of Infrastructure and Improvements: As a result of several developments in the area, including Rancho del Lago master planned community and those developed by the Property owner, significant infrastructure exists in the area; thus, making the site a logical candidate for an infill subdivision. Furthermore, access from Mary Ann Cleveland will be provided via a right-of-way easement acquired on the adjacent Arizona State Land Department property which enhances the overall circulation in the area.

## g. Sustainability Features

The following is a list of standards that will be implemented to ensure energy efficiency in the proposed homes:

- Low-e insulated windows that increase efficiency
- Low-flow toilets and showerheads
- Landscape designed with drought tolerant plants
- Canopy trees positioned to maximize shading
- Passive water harvesting
- Tucson Electric Power's energy guarantee

The developer is committed to building TEP Energy Star Guaranteed Homes. To earn the ENERGY STAR, a home must meet guidelines for energy efficiency set by the U.S. Environmental Protection Agency. These homes are at least 15% more energy efficient than homes built to the 2004 International Residential Code (IRC), and include additional energy-saving features that typically make them 20–30% more efficient than standard homes.

ENERGY STAR qualified homes include energy-efficient features that contribute to improved home quality and homeowner comfort, as well as lower energy



demand and reduced air pollution. The following is a list of features that can be found in an ENERGY STAR qualified home:

- <u>Effective Insulation</u>- Properly installed and inspected insulation in floors, walls, and attics ensures even temperatures throughout the house, reduced energy use, and increased comfort.
- <u>High Performance Windows</u>- Energy-efficient windows employ advanced technologies such as protective coatings to help keep heat in during the winter, and out during the summer. These windows also block damaging ultraviolet sunlight that can discolor carpets and furnishings.
- <u>Tight Construction and Ducts</u>- Sealing holes and cracks in the home's "envelope" and the heating and cooling duct system helps reduce drafts, moisture, dust, pollen, and noise. A tightly sealed home improves comfort and indoor air quality while reducing utility costs and maintenance.
- Efficient Heating and Cooling- In addition to using less energy to operate, energy-efficient heating and cooling systems can be quieter, reduce indoor humidity, and improve the overall comfort of the home. When properly installed into a tightly sealed home, this equipment won't have to work so hard to heat and cool the home.
- <u>Efficient Products</u>- including but not limited to: ENERGY STAR qualified homes may also be equipped with ENERGY STAR qualified products — lighting fixtures, CFL/LED bulbs, ventilation fans, and appliances, such as refrigerators, dishwashers, and washing machines
- <u>Third Party Verification</u>- With the help of independent Home Energy Raters, ENERGY STAR builder partners choose the most appropriate energy-saving features for their homes. Additionally, raters conduct on-site testing and inspections to verify the energy efficiency measures, as well as insulation, air tightness, and duct sealing details.

## 3. Compliance with Zoning Code

a. Buffer Overlay Zone

The project site is not within an area designated as a Pima County Buffer Overlay Zone.

b. Gateway Overlay Zone

The project site is not within an area designated as a Pima County Gateway Overlay Zone.

c. Hillside Development Zone

The site does not contain slopes equal to or greater than 15%.

d. Cluster Development Option

The cluster development option is not being proposed.



e. Native Plant Preservation Ordinance (NPPO)

The site is subject to the Native Plant Preservation Ordinance.

f. Historic Zone

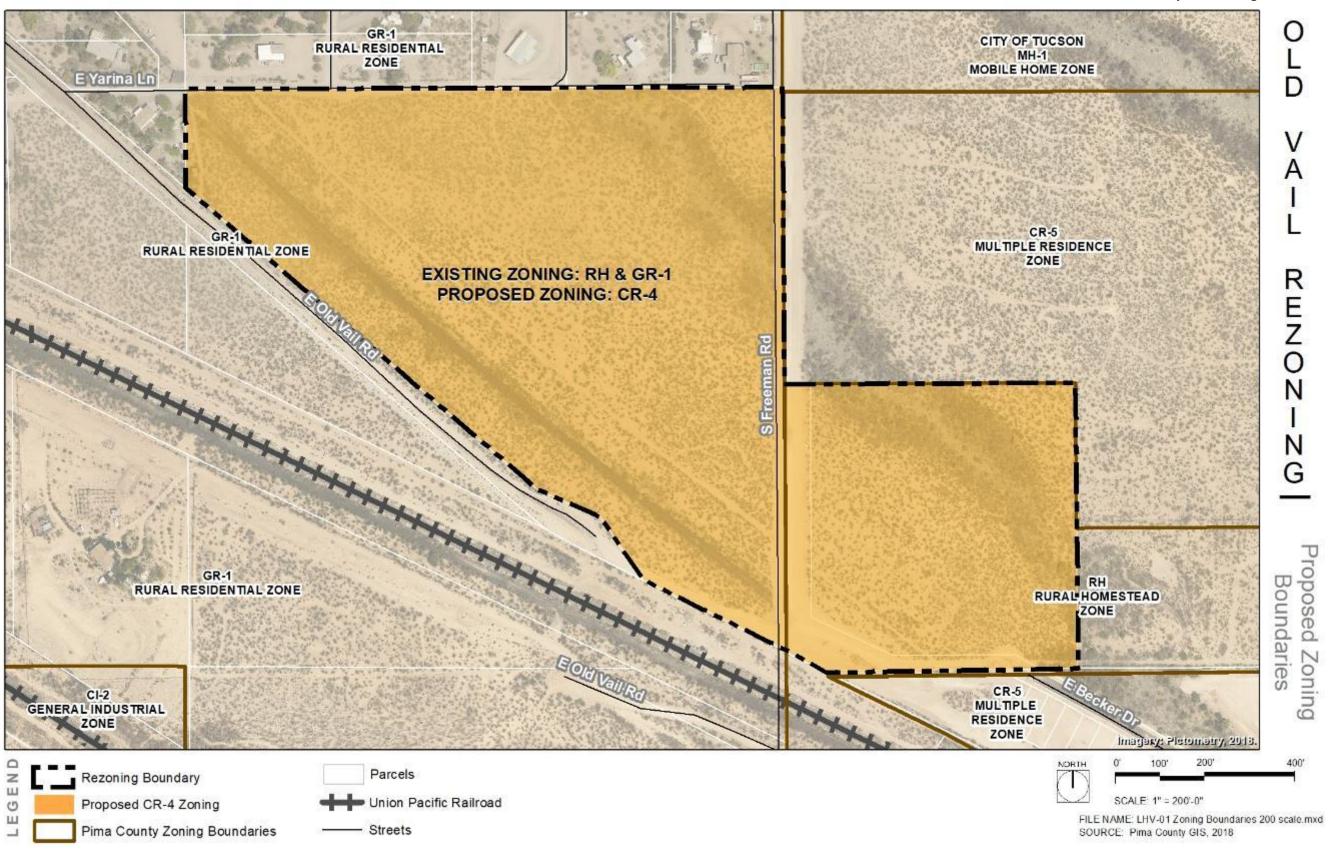
The project site is not within a Pima County Historic zone.

g. Airport Environs Zone

The project site is not within an Airport Environs Zone.

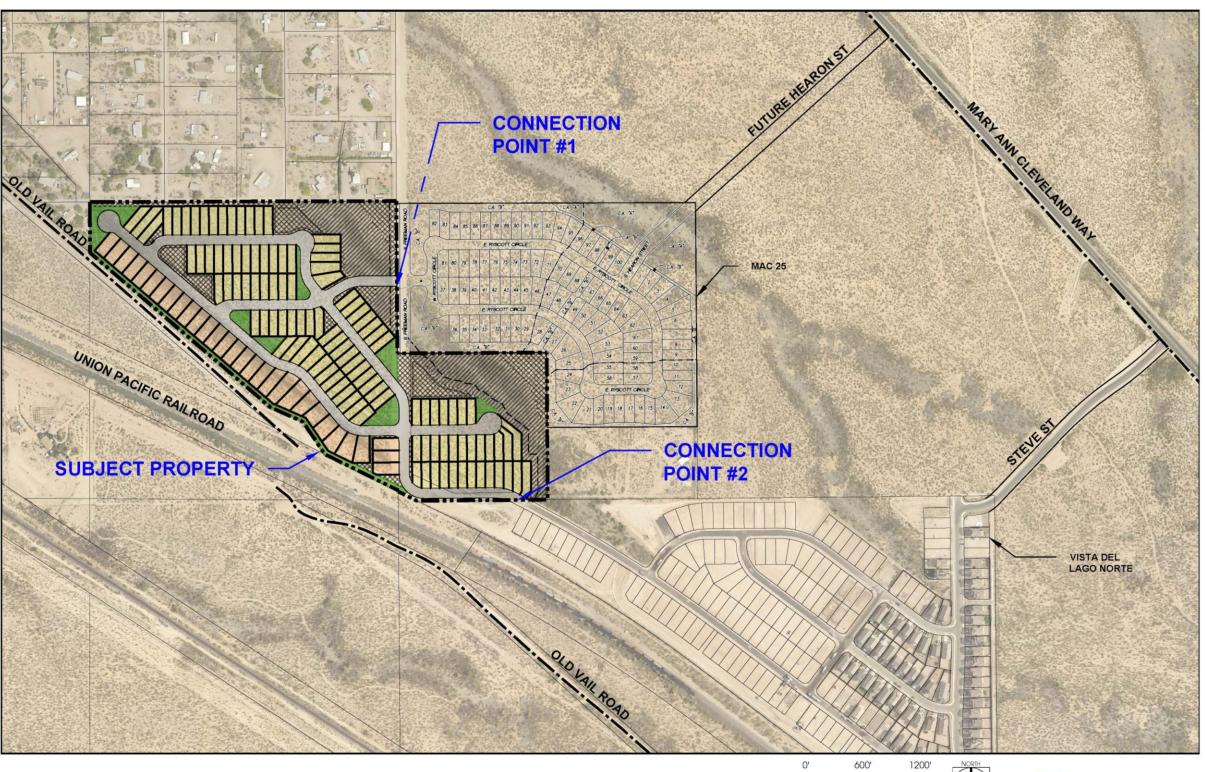


**Exhibit II.A.1: Proposed Zoning Boundaries** 





## Exhibit II.A.2.b: Site Access

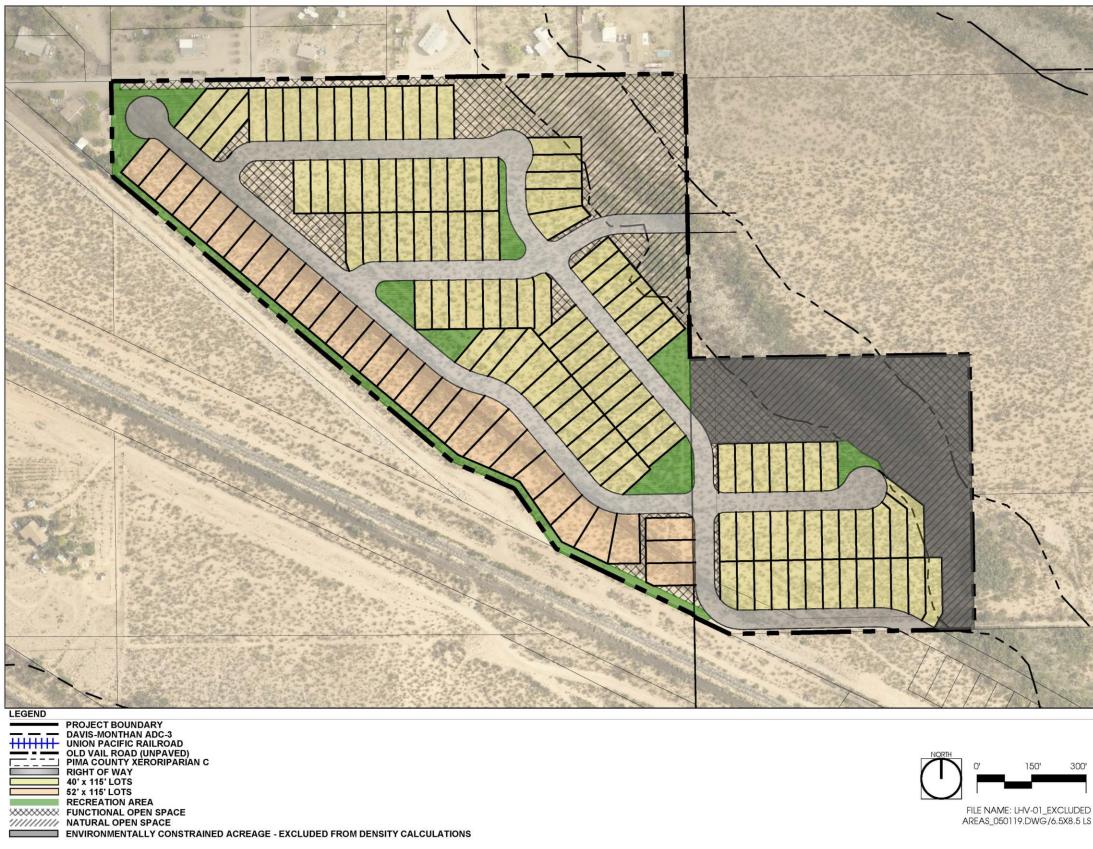


SCALE: 1"-1200'-0" PROJECT: LHV-01 DATE: 05.06.19 FILE NAME: LHV-01 ACCESS.DWG





Exhibit II.A.2.c: Excluded Areas for Density Calculation





## **B.** Preliminary Development Plan (PDP)

## 1. PDP Map

An 11- by 17-inch exhibit of the Preliminary Development Plan (*Exhibit II.B.1*) is included with this Site Inventory and Land Use Proposal. *Exhibit II.B.1* includes all applicable information required by items a-p of this subsection as per the Pima County Rezoning Application Packet amended January 17, 2017.

## 2. Support Data

Exhibit II.B.1 includes all applicable information required by items a-h of this subsection as per the Rezoning Application Packet.

a. Estimated floor area of commercial and industrial structures

The proposal does not include commercial or industrial structures.

## b. Building Heights

The building height for the proposed rezoning is two-stories with a maximum of 34 feet. As demonstrated on the PDP, Lot numbers 1 through 15 are limited to a single-story building height.

## c. Total Number of Dwelling Units

There will be a total of 140 single-family detached residences.

#### d. Maximum Residential Density

The maximum density for Pima Prospers Medium Low Intensity Urban (MLIU) and Medium Intensity Urban (MIU) land use designation is 5 residences per acre and 13 residences per acre (RAC), respectively. Per previous discussions with Davis-Monthan Air Force Base during the comprehensive plan amendment process for the portion of the Property west of the Freeman Road alignment a policy was added restricting the maximum density to 4.5 RAC for that portion of the project. Accordingly, the parcel subject to Pima Prospers Rezoning Policy-148 is 4.47 RAC. As demonstrated and described in Section II.2.c, the remainder of the Property has an overall density of 5.93 RAC.

#### e. Type of Landscaping

The proposed development will feature native and native-adapted low water use plant species, as well as permeable ground covers that reflect the natural environment of the Sonoran Desert. To the extent practical, the landscape will feature passive rainwater harvesting systems to mitigate rainwater runoff and supplement landscape irrigation.

#### f. Open Space

As shown on the PDP, there are three types of open space provided on-site: recreation areas, functional open space and natural open space. Recreation areas



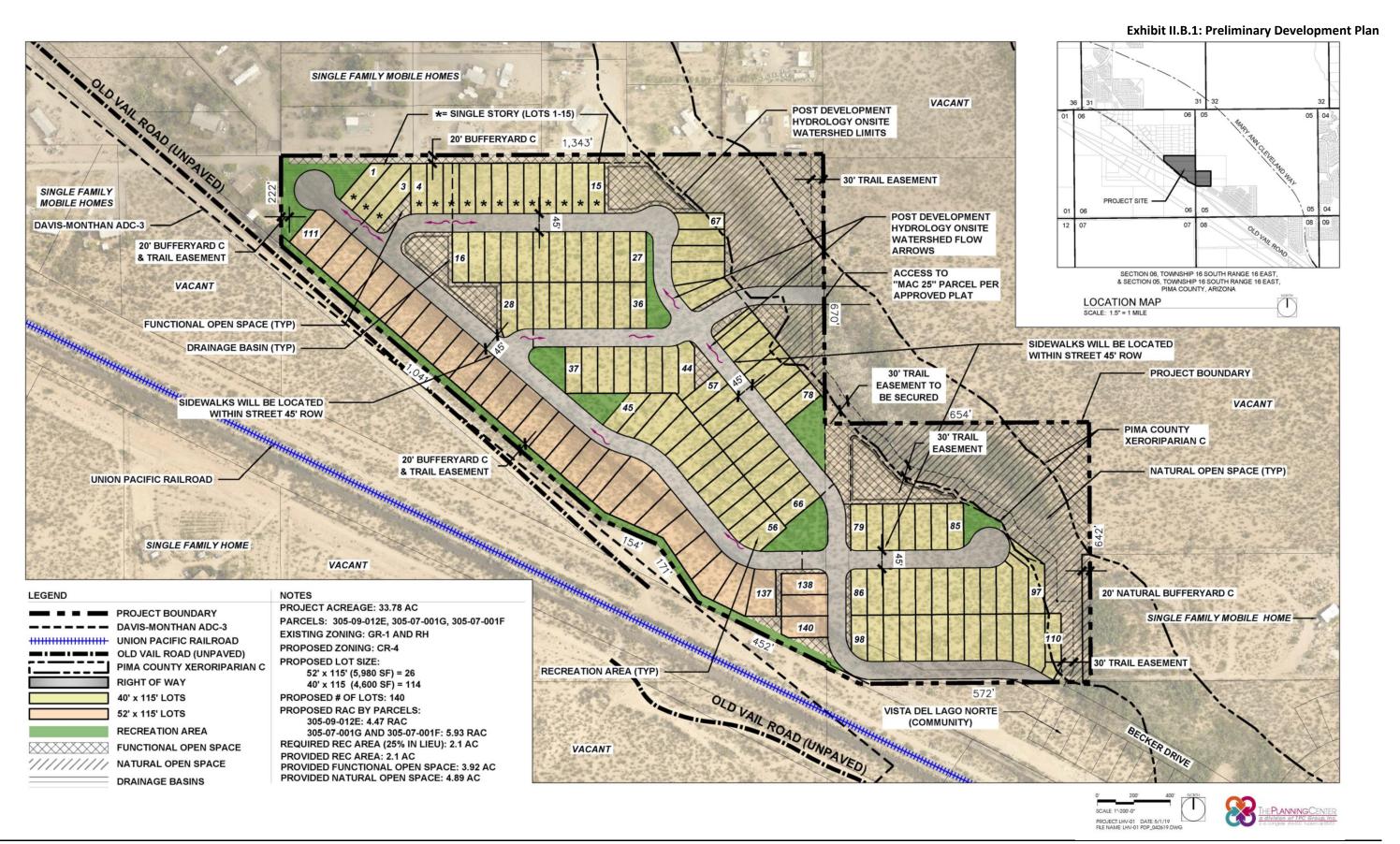
include areas designated on the PDP where recreational amenities may be provided. It is assumed that 75% of the required recreation areas will be provided on-site while the remaining 25% will be provided in the form of an in-lieu fee. A 20-foot trail easement will be provided in the planned bufferyard adjacent to Lots #111 - #140. To augment the 20-foot trail easement and to satisfy the intent of the Esmond Station Greenway, a 30-foot trail easement will be provided within the wash area/ riparian limits to facilitate pedestrian connectivity to the Atterbury Wash South Fork Greenway via Freeman Road. An 8-foot meandering trail will be provided within the trail easement areas. The overall design and materials utilized for the 8-foot trails will be determined during the platting process and will be in accordance to applicable Pima County standards.

Functional open space includes revegetated open space areas, drainage and landscape buffers. It should be noted that areas designated as functional open space may be utilized for recreation as well if recreational amenities can be supported in those areas. Natural open space consists of regulated riparian area and developer-mapped floodplain, excluding areas where encroachment occurs due to road crossings, grading and utility infrastructure. Final delineation and dedication of the three identified open space categories shall be determined during the platting process. In total, it is anticipated there is nearly 11 acres of rec/open space provided on-site.

Table II.B.2.f: Open Space Calculations

Туре	Required Acreage	Provided Acreage
Recreation Areas	2.8 acres	2.1 acres (assumes 25% in-lieu fee)
Functional Open Space	n/a	3.92 acres
Natural Open Space	n/a	4.89 acres
TOTAL OPEN SPACE	2.8 acres	10.91 acres







## C. Topography and Grading

## 1. Development/Mitigation on Steep Slopes

There are no slopes on the subject property that are 15% or greater.

## 2. Natural Areas Under Hillside Development Zone (HDZ)

There are no areas within the project boundaries that are subject to the Hillside Development Zone regulations.

## 3. Disturbed Revegetated Natural Areas

The proposed development of the subject site will result in the following:

#### a. Areas to be Retained as Natural Open Space

As demonstrated on the PDP, the areas generally within the riparian area/floodplain limits will be retained as natural open space except for areas where disturbance occurs from grading, road crossing and utility installation. In the instance that mitigation is required from disturbances, mitigation measures will be provided during the platting process through the establishment of a Riparian Habitat Mitigation Plan. Approximately 4.85 acres of the site (14%) will be retained as natural open space.

#### b. Revegetated Areas

Areas to be utilized as recreation areas and functional open space will be revegetated or landscaped with drought-tolerant plant species. Approximately 5.2 acres of site (15%) will be revegetated.

#### c. Graded or Disturbed

Approximately 22.6 acres of the site (67%) will be graded.

## 4. Changes to Natural Grade

It is not anticipated that any natural grade will be changed by more than five feet of cut or fill. The maximum change is anticipated to be no more than five feet at any location within the subject site.



## D. Hydrology

The proposed development plan (PDP) generally avoids the regulated riparian habitat areas. The drainage scheme associated to the proposed development has been designed to accept the existing offsite flows, and proposed drainage patterns associated with the regulatory wash will not change so as not to create any adverse impacts to the parcels and developments located downstream from the project site. The only regulatory wash on the property will be left natural. Almost all onsite stormwater runoff will be directed to detention basins which will have sufficient capacity to decrease flows in accordance with balanced basin requirements.

The proposed development and associated improvement generally do not encroach into regulatory floodplains, erosion hazard setbacks or regulated riparian habitat areas. Building pad slope protection such as rock riprap or gunite will be provided where encroachments into the floodplain occur.

The post-development water discharges flow onto the site at CP-1 and leaving the site at CP-2 do not change. Stormwater associated with this wash emanates entirely from offsite areas and the project avoids the 100-year floodplain. The site is located within a designated balanced basin, and therefore storm water detention is to be provided onsite by means of depressed landscaped areas and in a designated detention basin.

The proposed improvements will incorporate detention basins, first flush retention and water harvesting areas which will ensure that the post-developed discharges will not exceed the predeveloped discharges as noted above. Three detention/retention basins are proposed by the PDP (see Exhibit II.B.1) in addition to areas for water harvesting. Two of these basins will discharge detained flows to the regulatory wash/riparian area between CP-1 and CP-2. The third basin will discharge at CP-4 near the northwest property corner. The project does not propose any cross-drainage structures such as bridges, culverts, or storm drains. However, one dip section crossing of the regulatory wash will be required just south of CP-2 on Exhibit II.D.1.

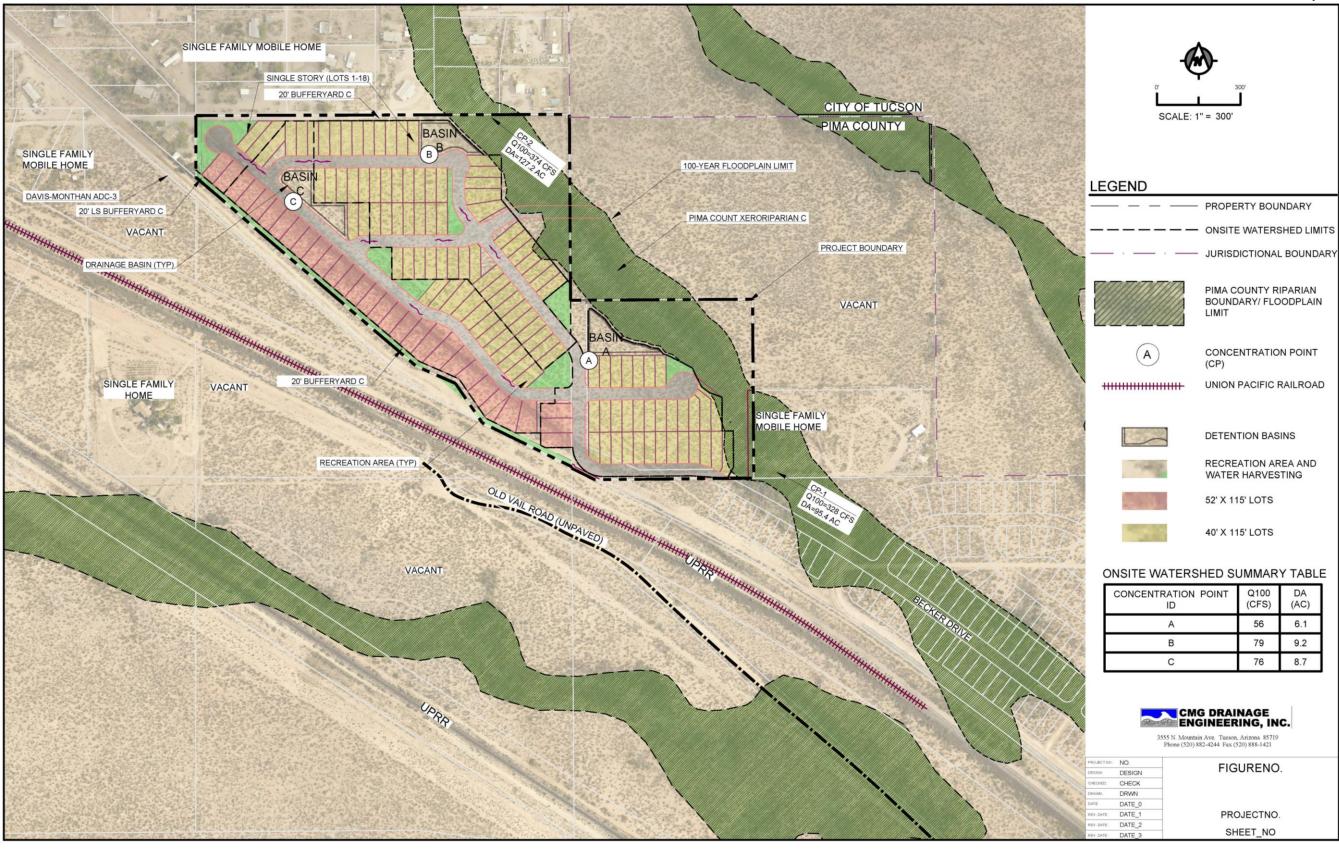
The PDP will conform to all applicable basin management policies and drainage design standards by providing detention basin(s) to ensure post-development site discharges are equal to or less than existing conditions; and by avoiding mapped riparian area. The table below lists the pre- and post-project 100-year peak discharge rates at the downstream property boundary. The post-project discharge at CP-2 is the same as for existing conditions because the project fully avoids this regulatory wash. The post-project discharge at CP-3 is zero because all flow from this area will be directed to a detention basin. The post-project discharge at CP-4 will be equal to existing conditions to conform to balanced basin requirements.

Post-Project 100-Year discharges along Downstream Project Boundary

Concentration	Q100 (cfs)	Drainage Area (acres)
Point		
2	374	127.2
3	0	5.1
4	31	5.9



**Exhibit II.D.1: Post Development Hydrology** 





## E. Biological Resources

## 1. Impacts to Biological Resources

#### a. Conservation Lands System

The site is not within the Conservation Lands System Overlay.

#### b. Saguaros

A site visit was conducted on January 3, 2019 and a preliminary plant inventory identified that there were no saguaros present on the property. Further plant inventories will be completed in accordance with the Native Plant Preservation Ordinance during the platting process and appropriate mitigation will be provided if deemed necessary.

#### c. Ironwood Trees

A site visit was conducted on January 3, 2019 and a preliminary plant inventory identified that there were no ironwood trees present on the property. Further plant inventories will be completed in accordance with the Native Plant Preservation Ordinance during the platting process and appropriate mitigation will be provided if deemed necessary.

### d. Pima Pineapple Cactus

A site visit was conducted on January 3, 2019 and a preliminary plant inventory identified that there were no pima pineapple cacti present on the property. Further plant inventories will be completed in accordance with the Native Plant Preservation Ordinance during the platting process and appropriate mitigation will be provided if deemed necessary.

#### e. Needle-Spined Pineapple Cactus

A site visit was conducted on January 3, 2019 and a preliminary plant inventory identified that there were no needle-spined pineapple cacti present on the property. Further plant inventories will be completed in accordance with the Native Plant Preservation Ordinance during the platting process and appropriate mitigation will be provided if deemed necessary



## F. Landscape, Bufferyards and Visual Mitigation

## 1. Proposed Bufferyards

Table II.F.1 displays the proposed bufferyard requirements identified in the Pima County Code of Ordinances Chapter 18.73.040 as it pertains to this project (see *Exhibit II.B.1: Preliminary Development Plan*).

Table II.F.1: Buffer and Screening Plan

Parcel Boundaries (adjacent zone)	Required Bufferyard	Provided Bufferyard
North (GR-1)	Bufferyard C	20-foot
Southwest (Old Vail Road / UPRR right-of-way)	Bufferyard C	20-foot with 5-foot minimum decorative masonry wall
South (CR-5)	None	None
East (RH and CR-5)	Bufferyard C (RH Zone) None (CR-5)	20-foot Natural Desert
West (GR-1)	Bufferyard C	20-foot

## 2. Bufferyard Conflicts

There are no bufferyard conflicts except for the area along the southwest Property boundary adjacent to the UPRR right-of-way. The following four easements are in this area:

- 1. 25-foot ingress/egress easement per Docket 7411 Page 1493
- 2. 25-foot public water easement per Sequence 20123250397
- 3. 25-foot temporary construction easement per Sequence 20123250397
- 4. 30-foot ingress/egress and utility easement per Docket 9607 Page 1294

The above-mentioned easements will be abandoned and reestablished in a location that do not conflict with the bufferyard. In the instance that easement cannot be relocated, adjustments to the overall site layout will be made to accommodate the easements in their existing location; either of which will be determined during the platting process.

#### 3. Vegetation Transplanted On-Site

On-site vegetation will be inventoried in accordance with Pima County Code of Ordinances 16.30 Watercourse and Riparian Habitat Protection and Mitigation Requirements and 18.72.010 Native Plant Preservation during the platting process. Inventoried plants found to be in good health and capable of being successfully transplanted will be relocated on-site or mitigated for. Direct transplant from a plant's original location to final planting area is preferential but not required. In the instance that direct transplant is not feasible, the use of an irrigated temporary nursery will be utilized until final relocation areas are ready to receive plants.



## 4. Mitigation of Visual Impacts

As previously mentioned, homes along the northern boundary (lots 1-15) will be limited to single-story to minimize view impacts on adjacent neighbors to the north. A decorative masonry wall will also enclose the backyards of the proposed homes. Homes on the larger lots proposed along the Old Vail Road and Union Pacific Railroad rights-of-way will be screened from adjacent properties with a 20-foot Bufferyard C and a minimum 5-foot decorative masonry wall. The extension of Becker Drive buffers the proposed homes along the south boundary from Vista Del Lago Norte and the preserved riparian area through the eastern portion of the Property provides significant buffering and natural open space amenity between the proposed subdivision and properties to the east.

## 5. Significant Vegetation

Aside from the regulated Xeroriparian C habitat on-site, no other areas of significant or important vegetation were documented. Should an individual specimen of significant vegetation be discovered during the platting process, the specimen will be transplanted on-site and mitigated for in accordance with the Native Plant Preservation ordinance.

## G. Transportation

## 1. Proposed Ingress/Egress

Two permanent points of access will be provided to serve the development. The southern access will be provided through the Vista Del Lago Norte subdivision via Becker Drive at the south/southeastern portion of the Property. All-weather access on the north side of the development will connect to Mary Ann Cleveland Way through the planned CR-5 subdivision (Vail Smith) and Arizona State Land Department property east of the site via a secured access easement. The developer anticipates the Vail Smith property will be developed prior to or in conjunction with the proposed development. Final alignment of the access easement to Mary Ann Cleveland Way will be determined during the platting process for this project and Vail Smith. No access will be provided to Freeman Road or any other adjacent roadways north of the property. All proposed streets will be built in accordance with Pima County Subdivision Street Standards.

#### 2. Distances to Access Points

Distances to access points are shown in *Exhibit I.E.2: Distance to Existing Driveways*. The closest driveways are located on the north and south sides of the Property and consist of several single-family residential driveways. The driveways on the north are unimproved dirt driveways, whereas those to the south in Vista Del Lago Norte are fully improved with paving, curb and gutter. Meeting minimum distance requirements between driveways is not a factor.

## 3. Off-Site Road Improvements

There are no anticipated off-site road improvements associated with this project.



#### 4. ADT and Level of Service

The Pima County Department of Transportation lists Mary Ann Cleveland Road as having an average daily traffic (ADT) count of 10,985 in 2016. This ADT was established for Mary Ann Cleveland Way from a point one-tenth of a mile west of Red Iron Trail to Colossal Cave Road. It is anticipated there will be no change in the level of service of Mary Ann Cleveland Way given that the proposed subdivision is expected to produce approximately 1,400 ADT based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition.

#### 5. Concurrency

The site meets transportation concurrency for all major roads in the area.

## 6. Bicycle and Pedestrian Pathways

The proposed single-family residential community will include sidewalks throughout to accommodate pedestrian circulation (see note on Exhibit II.B.1). The sidewalk system provides connectivity to all streets and common areas in the subdivision, including the recreation areas and functional open space, and will also connect to the sidewalks in Vista Del Lago Norte and the planned subdivision to the east. Informal walking paths through the open space areas may also be established by residents.

#### 7. On-site Street System

Streets within the subdivision will be constructed per Standard Detail 8A in the Pima County Subdivision Street Standards. Local street detail 8A has a 45-foot right-of-way width and includes 24 feet of pavement, 2-foot wedge curbs on either side to accommodate on-street parking, 5-foot sidewalks, a 3-foot vegetative space between back of curb and the sidewalk and a 6-inch slope easement on both sides. All streets are expected to be public and maintained by Pima County.

#### 8. Traffic Impact Study (TIS)

A traffic study was not prepared since the site is only expected to generate approximately 1,400 ADT.

## H. On-Site Wastewater Treatment and Disposal

#### 1. Public Sewer Connection

The site will connect to the Pima County Regional Wastewater Reclamation system and will not have any on-site disposal areas. The Pima County Regional Wastewater Reclamation Department (RWRD) was consulted to determine sewerage capacity for the project. The site is tributary to the Agua Nueva Water Reclamation Facility via the Southeast Interceptor. Capacity is currently available for this project in the public sewer G-2016-065 downstream from manhole 2506-09. (See Exhibit I.F.1: Wastewater Letter). The existing sewer network, and the location of the proposed connection are displayed on Exhibit I.F.2 Existing Sewer Network.



#### 2. Soil Evaluations

The site will not utilize on-site wastewater treatment/disposal facilities; therefore, an evaluation of soil conditions has not been conducted.

#### I. Sewers

## 1. Capacity Response Letter

Exhibit I.F.1: Wastewater Letter is included in the site analysis section of this document. The existing sewer network, and the location of the proposed connection are displayed on Exhibit I.F.2: Existing Sewer Network.

### 2. Method of Providing Sewer

The site is tributary to the Agua Nueva Water Reclamation Facility via the Southeast Interceptor. Capacity is currently available for this project in the public sewer G-2016-065 downstream from manhole 2506-09 (see *Exhibit I.F.1: Wastewater Letter*). The existing sewer network, and the location of the proposed connection are displayed on *Exhibit I.F.2: Existing Sewer Network*.

#### 3. Sewer Easements

Not Applicable. Sewer connection to public sewer G-2016-065, downstream from manhole 2506-09 will take place within paved public right-of-way. See *Exhibit I.F.2: Existing Sewer Network*.

#### 4. Mitigation of Site Constraints

Not applicable.

#### J. Water

Refer to Appendix A: Preliminary Integrated Water Management Plan.

#### K. Schools

## 1. Access to Adjacent or On-site Schools

There are no adjacent or on-site schools.

## 2. School Capacity Analysis

As shown on *Exhibit I.E.1: Traffic*, the site is located within the Vail School District. There is one public school within a one-mile radius, Esmond Station K-8 School, and two public schools just outside the one-mile radius of the Property: Cienega High School, and Vail Inclusive Preschool. See Table II.K.2 for all public schools serving the site. High School attendance is open enrollment and therefore, students have the option to attend the following public schools: Empire High School, Cienega High School, Pantano High School, Andrada Polytechnic High School or Vail Academy and High School.



Table II.K.2: Public Schools Serving the Site

School Name	Location
Acacia Elementary School	12955 E Colossal Cave Road
Vail Inclusive Preschool	12775 E Mary Ann Cleveland Way
Cienega High School	12775 E Mary Ann Cleveland Way
Empire High School	10701 E Mary Ann Cleveland Way
Andrada Polytechnic High School	12960 S Houghton Road
Vail Academy and High School	7762 E Science Park Dr
Pantano High School	13010 S Houghton Road

## a. Anticipated Increase in Enrollment

The Vail Unified School District (VUSD) Planning Service Section was consulted for the current capacity and current enrollment numbers for elementary, middle, and high schools that will serve the site. *Table II.K.2.b* shows an estimated number of studentsanticipated as a result of the 140 proposed homes as provided by VUSD.

**Table II.K.2.a: Anticipated Enrollment Increase** 

School	School Capacity	Current Enrollment	Projected Enrollment
Acacia Elementary School	700	726	762
Old Vail Middle School	775	779	804
Cienega/Empire/Andrada High School	3650	3801	3831

Source: Vail Unified School District, 2019.

**Exhibit II.K.1: VUSD School Capacity Information** 



PROJE	ECTED INCREASE	IN ENROLLMENT			
School Level	Number of Units	Vail School District Multiplier	Projected Number of Students		
Elementary	145	0.25	36.25		
Middle School	145	0.17	24.65		
High School	145	0.21	30.45		
CURREN	T SCHOOL CAPAC	CITY AND ENROLLM	ENT		
School	School Capacity	Current Enrollment			
Acacia	700	726			
Old Vail	775	779			
Cienega/Empire /Andrada High Schools	3650	3801			
ANALY	SIS OF UNDER/O	/ER PERCENTAGE			
School	M.A.C Dev.	Current Enrollment	Projected Number of Students	Capacity	Under/Over Percentage
Acacia	36	726	762	700	
Old Vail	25	779	804	775	
Area High School	30	3801	3831	3650	



#### L. Recreation and Trails

## 1. On-Site Recreation

The preliminary development plan illustrates approximately 2.1 acres of recreation space as part of the subdivision design. The Pima County Recreation Design Manual requires 871 square feet of recreation area per home, which equates to 2.8 acres of recreation area. Therefore, the option of a 25% in-lieu fee will likely be used to satisfy the total open space requirement unless additional recreation area is provided during the platting process. A meandering 8-foot trail will be provided within a 20-foot trail easement in the planned bufferyard adjacent to Lots #111- #140 and a 30-foot trail easement within the wash /riparian limits. The overall design and materials utilized for the 8-foot trails will be determined during the platting process. Additional recreational amenities may be accommodated within the functional open space areas to further enhance the recreational offerings in the community and encourage outdoor play. As shown on Exhibit II.B.1, there are six recreation areas of varying sizes and shapes dispersed throughout the community.

## 2. Proposed Ownership of Open Space

A homeowner's association (HOA) will own and maintain the recreation areas, open space and any other common area proposed for this project.

## 3. Proposed Trails in Compliance with Pima Regional Trail System Master Plan

A 20-foot trail easement will be provided in the planned bufferyard adjacent to Lots #111 - #140 with the intention of providing connectivity to the planned trail northwest and southeast of the project site. To augment the 20-foot trail easement and to satisfy the intent of the Esmond Station Greenway, a 30-foot trail easement will be provided within the wash area/ riparian limits to facilitate pedestrian connectivity to the Atterbury Wash South Fork Greenway via Freeman Road. An 8-foot meandering trail will be provided within the trail easement areas. The overall design and materials utilized for the 8-foot trails will be determined during the platting process and will be constructed in accordance to applicable Pima County standards. M. Cultural Resources: Archaeological and Historic Sites

## 1. Mitigation Measures for Protection of Resources

Based on an Arizona State Museum (ASM) check of the records, there are no identified archaeological sites known to exist on the property as it has not been subject to previous



archaeological surveys. ASM suggests that Pima County be consulted prior to any ground disturbances as mitigation measures may differ.

### 2. Archaeological Survey Measures

An on-the-ground archaeological and historic site survey shall be conducted on the subject property and submitted to Pima County for review prior to any ground modifying activities. A cultural resources mitigation plan for any identified archaeological or historic sites on the subject property shall be submitted to Pima County at the time of, or prior to, the submittal of any tentative plat. All work shall be conducted by an archaeologist permitted by the Arizona State Museum or a registered architect, as appropriate. Following rezoning approval, any subsequent development requiring a Type II grading permit will be reviewed for compliance with Pima County's cultural resources requirements under Chapter 18.81 of the Pima County Zoning Code.

## 3. Cultural Resources Mitigation Plan

If cultural resources are revealed during ground-disturbing activities, all construction shall cease, and consultation shall be initiated with ASM to assess potential significance of any unearthed materials (ARS 410841). If human skeletal remains or funerary objects are discovered, ASM will be contacted immediately (ARS 41-865 & 41-844).

## N. Environmental Quality

## **Methods for Controlling Dust Pollution**

Watering trucks will be on hand during construction to control dust pollution and all subdivision streets will be paved.

## O. Agreements

#### **Agreements with Neighboring Properties**

No agreements have been made with neighboring property owners thus far.



#### Bibliography:

Bicycle and Pedestrian Program, Pima County, Arizona, 2019

Critical and Sensitive Biological Communities of the Tucson, Arizona Area. Pima County Department of Transportation and Flood Control District, Tucson, Arizona. August, 1986.

Desert Plants. David E. Brown (ed.). University of Arizona, Tucson, Arizona. 1982.

Flood Insurance Rate Maps. Federal Emergency Management Agency, Baltimore, Maryland.

Floodplain Management Ordinance No. 1988-FCI for Pima County Arizona, adopted by the Board of Directors, Pima County Flood Control District, April 26, 1988. Pima County Department of Transportation and Flood Control District, Pima County, Arizona.

Hydrology Manual for Engineering Design and Floodplain Management within Pima County, Arizona. Pima County Department of Transportation and Flood Control District, Pima County, Arizona. September, 1979.

Major Streets and Routes Plan (Co14-79-2). Pima County, Arizona. Amended May 6, 1986.

Mapguide. Pima County Department of Transportation. 2019.

Mapguide. Sonoran Desert Conservation Plan. 2019.

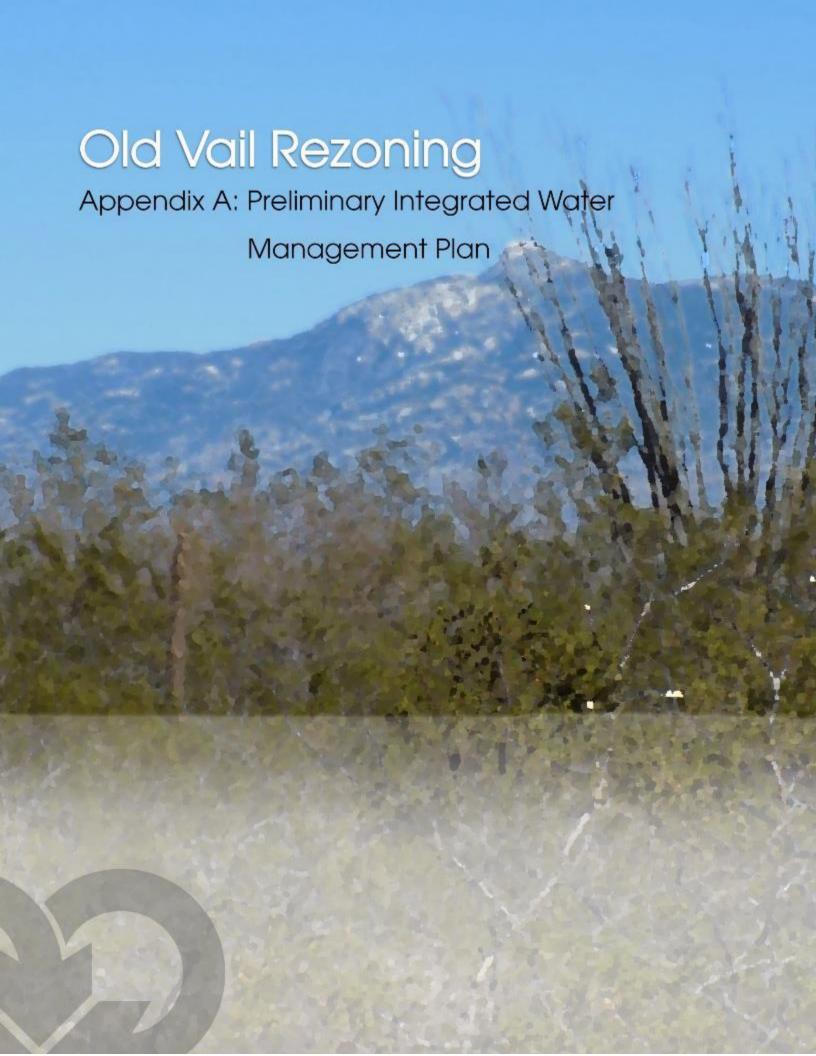
Regional Transportation Plan, 2045. Pima Association of Governments, Pima County, Arizona. 2016.

Regional Trail System Master Plan, Pima County, Arizona, 2010

Stormwater Detention/Retention Manual. Pima County Department of Transportation and Flood Control District, City of Tucson, Arizona. 1987.

Zoning Code Pima County, Arizona. Pima County Development Services. Pima County, Arizona. October, 1986





## 1. Water Context

The Property consists of three contiguous parcels identified by Assessor Parcel Numbers (APNs) 305-09-012E, 305-07-001G and 305-07 -001F. The site is approximately 33.78 acres and is located within Township 16 South, Range 16 East and Sections 5 and 6 of Pima County, Arizona. More specifically, the Property is located along Old Vail Road, approximately one-half mile south of Mary Ann Cleveland Way. Interstate 10 is located approximately one and one-half mile south of the Property and can be accessed via Houghton Road by way of Mary Ann Cleveland Way or Old Vail Road.

The Property will be served by Vail Water Company which has been designated by the State of Arizona Department of Water Resources (AWRD) as having an assured water supply (refer to Exhibit A.1: Vail Water Company Will-Serve Letter).



#### Exhibit A.1: Vail Water Company Will Serve Letter

## Vail Water Company

Attn: Lexy Wellott Project Manager The Planning Center 2 E Congress Suite 600 Tucson, AZ 85701

Parcel# 305-09-012E, 305-07-001G, 305-07-001F

Subject: Assered Water Supply/ Will Serve Letter

Date: January 17, 2019

Water Supply

This development lies withto the Certification of Convenience and Necessity of Vail Water Company. Vail Water Company has been designated by the State of Arizona, Department of Water Resources, as having a designation of Assured Water Supply. As with all properties within it's CC&N, Vail Water Company would meet your water needs under existing zoning.

Water Service

The approval of water meter applications and service agreements, is subject to the availability of water service at the time an application is made. The developer shall be required to submit a master water plan for its development, identifying but not limited to:

> Water Usage Fire Flow Requirements Offsite / Onsite Water Facilities Loops and Proposed Connection Points to Existing Water System Easements / Common Areas

Any specific area plan fees, facility fees and / or other needed facilities costs are to be paid by the

If the existing water system is not capable of meeting the requirements of the proposed development, the developer shall be fiscally responsible for modifying/enhancing the existing water system to meet those

This letter shall be null and void one year from the date of issuance.

Issuance of this letter is not to be construed as agency approval of a water plan or as containing construction review comments relative to conflicts with existing water lines and the proposed development.

If you have any questions, please call Vall Water Company at (520) 647-3679.

MOMM Manny Oros

Operations Manager

Vail Water Company

14155 E. Via Rancho del Lago Bivd. • P.O. Box 100 • Vali, Arizona 85641-0100 • (520) 647-3679 • Fax (520) 647-3825



#### 2. Water Conservation Measures

While entirely speculative at this time, the following water conservation measures, as listed in Table A – Water Conservation Measures of the Pima County Rezoning Application Packet, may be included as part of the proposed project. Actual water conservation measures used in the proposed subdivision will be determined during the platting process.

#### • Indoor

- I-2b, Hot water supply line with R4 insultation 1 point
- o I-3b, Low-flow toilets 4 points
- o I-3d, Low-flow faucets and showerheads 3 points

#### Outdoor

- O-1a, Active/Passive on-lot rainwater harvesting system 2 points
- O-3a, Drought-Tolerant, Native Landscaping (25%) 1 point
- O-4a, Front yard Non-native plants and turf grass restrictions 0.5 points
- O-6a, Certified irrigation system 1 point
- O-6b, Install smart irrigation system 2.5 points

