

LA CHOLLA AND ORACLE JAYNES STATION
REZONING DOCUMENT | PIMA COUNTY
JULY 2016
CASE NO. P16RZ00001



La Cholla and Oracle Jaynes Station Rezone

Pima County, Arizona
La Cholla Boulevard
and Oracle Jaynes Station Road

Submitted to:

**Pima County
Development Services Department**
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July 2016
Rezone Case #P16RZ00001

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LA CHOLLA AND ORACLE JAYNES STATION
REZONING DOCUMENT | PIMA COUNTY
SECTION 1: INTRODUCTION



The following document summarizes a site inventory and analysis for the subject property located in unincorporated Pima County, Arizona on the west side of La Cholla Boulevard, north of Oracle Jaynes Station Road. The purpose of the study is to identify factors directly or indirectly influencing a rezoning of the property from SR (Suburban Ranch) to CR-5 (Small Lot Option) and TR (Transitional). The small lot option was utilized in order to meet the minimum density requirement of 5 residences per acre (RAC) in the Medium Intensity Urban (MIU) Comprehensive Plan designation on the property.

The site is currently vacant. Information gathered from a site visit on September 24, 2015 indicated that portions of the property were formerly used to stockpile dirt from the ridge that was cut down to accommodate development of the existing memory care facility located east of the project site and along the west side of La Cholla Boulevard. There are also signs of previous vehicular disturbance onsite.

The opportunities and constraints identified in the Site Analysis were taken into consideration in the creation of the Preliminary Development Plan, including the Land Use, Circulation and Post-Development Hydrology Concepts. The land use proposal enables the developer to set forth design concepts derived from the analysis of the site's characteristics, and to present sensitive design and mitigation techniques that respond to unique site characteristics and the character of the surrounding areas.

The document was designed to address the Pima County Site Analysis Requirements dated March 16, 2010 and Chapters 18.29 CR-5 Multiple Residence Zone and 18.31 TR Transitional Zone of the Pima County Zoning Code.



LA CHOLLA AND ORACLE JAYNES STATION
REZONING DOCUMENT | PIMA COUNTY
SECTION 2: SITE INVENTORY



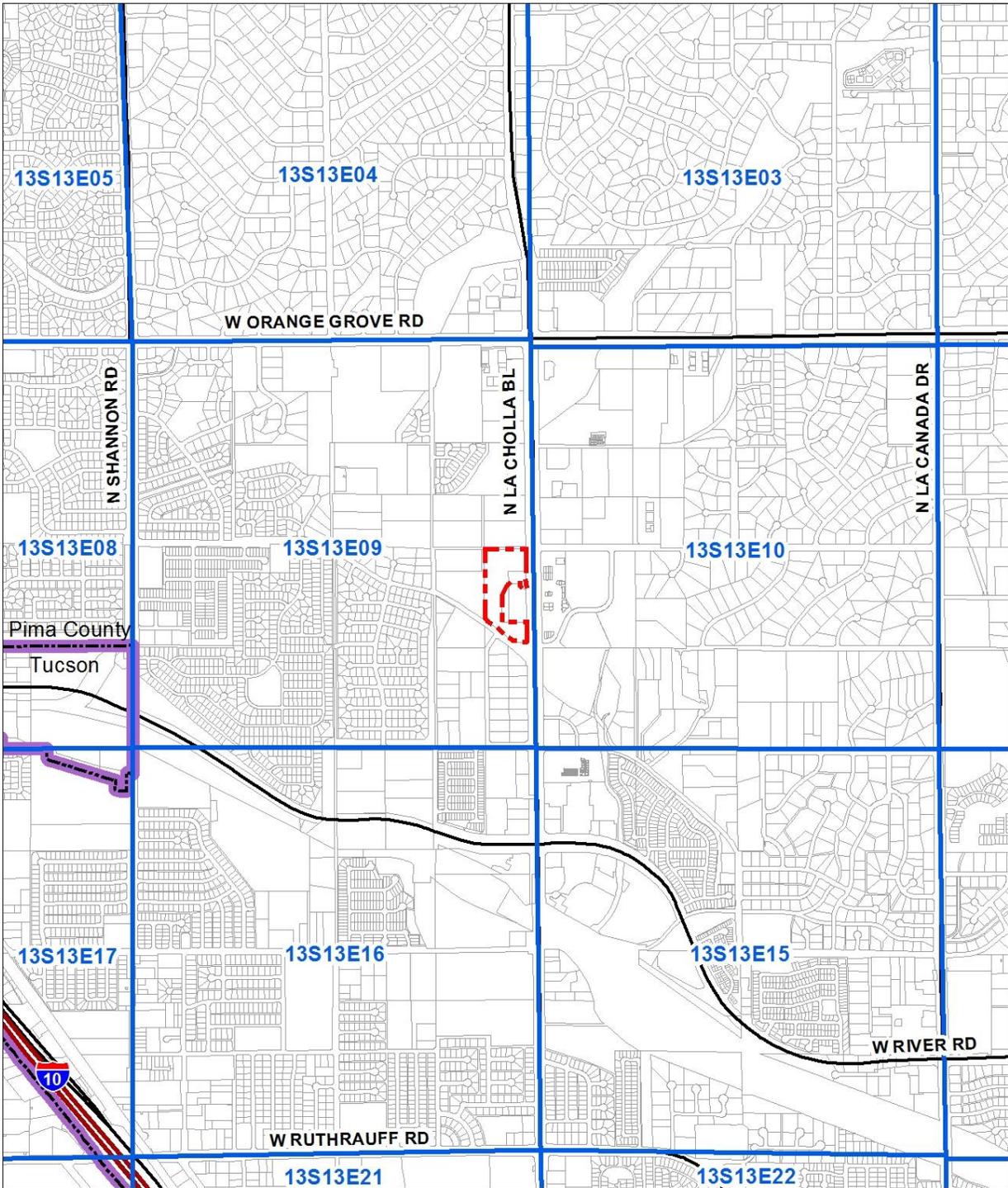
A. Existing Land Uses

1. Location and Regional Context

This application includes parcels #101-12-001C and #101-12-002D. The entire rezoning area is 10.3 acres. Both parcels are designated as Suburban Ranch (SR). The site is located in unincorporated Pima County, northwest of the intersection of North La Cholla Boulevard and West Oracle Jaynes Station Road, approximately one-half mile north of River Road. The site is located within Township 13 South, Range 13 East, Section 09 of Pima County, Arizona (See *Exhibit II.A.1: Location and Vicinity*).



Exhibit II.A.1: Location and Vicinity

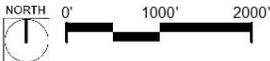


LEGEND

-  Project Boundary
-  Township, Range & Section
-  Jurisdictional Boundaries

Notes:

Project Site is located at:
 Township 13S, Range 13E, and Section 09
 Acreage: Approx. 10.3 AC, Parcel ID #:
 101-12-001C, 101-12-002D



FILE NAME: location_6x8.mxd
 SOURCE: Pima County GIS, 2015



2. Existing Land Uses

a. Existing On-Site Uses

The site is currently vacant. There is a large stockpile of dirt located near the southwest corner of the property that has been there since the existing memory care facility was built east of the site and west of La Cholla Boulevard. (See *Exhibit II.A.2.a: Existing On-Site Uses*)

b. Existing On-Site Easements

As shown on *Exhibit II.A.2.a*, there are slope, drainage and electrical transmission/communication facilities easements located near the northeastern boundary of the site.

c. On-Site Pima Prospers Comprehensive Plan Designations and Designations within a One-Quarter Mile Radius

The existing Pima Prospers comprehensive plan designations for the project site and properties within one-quarter mile of the site are as follows:

- Project Site: Medium Intensity Urban (MIU)
- North: Medium Intensity Urban (MIU)
- South: Low Intensity Urban (LIU 3.0)
- East: Medium Intensity Urban (MIU)
- West: Medium Intensity Urban (MIU), Medium Low Intensity Urban (MLIU)

(See *Exhibit II.A.2.c: Comprehensive Plan Designations*)

3. Aerial Photo

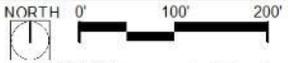
Exhibit II.A.3: Aerial Photo displays a 2014 Pictometry aerial image of the subject property with a 600-Foot radius surrounding the site.



Exhibit II.A.2.a: Existing On-Site Uses



LEGEND
[Red dashed line] Site Boundary
[Yellow dashed line] Easements

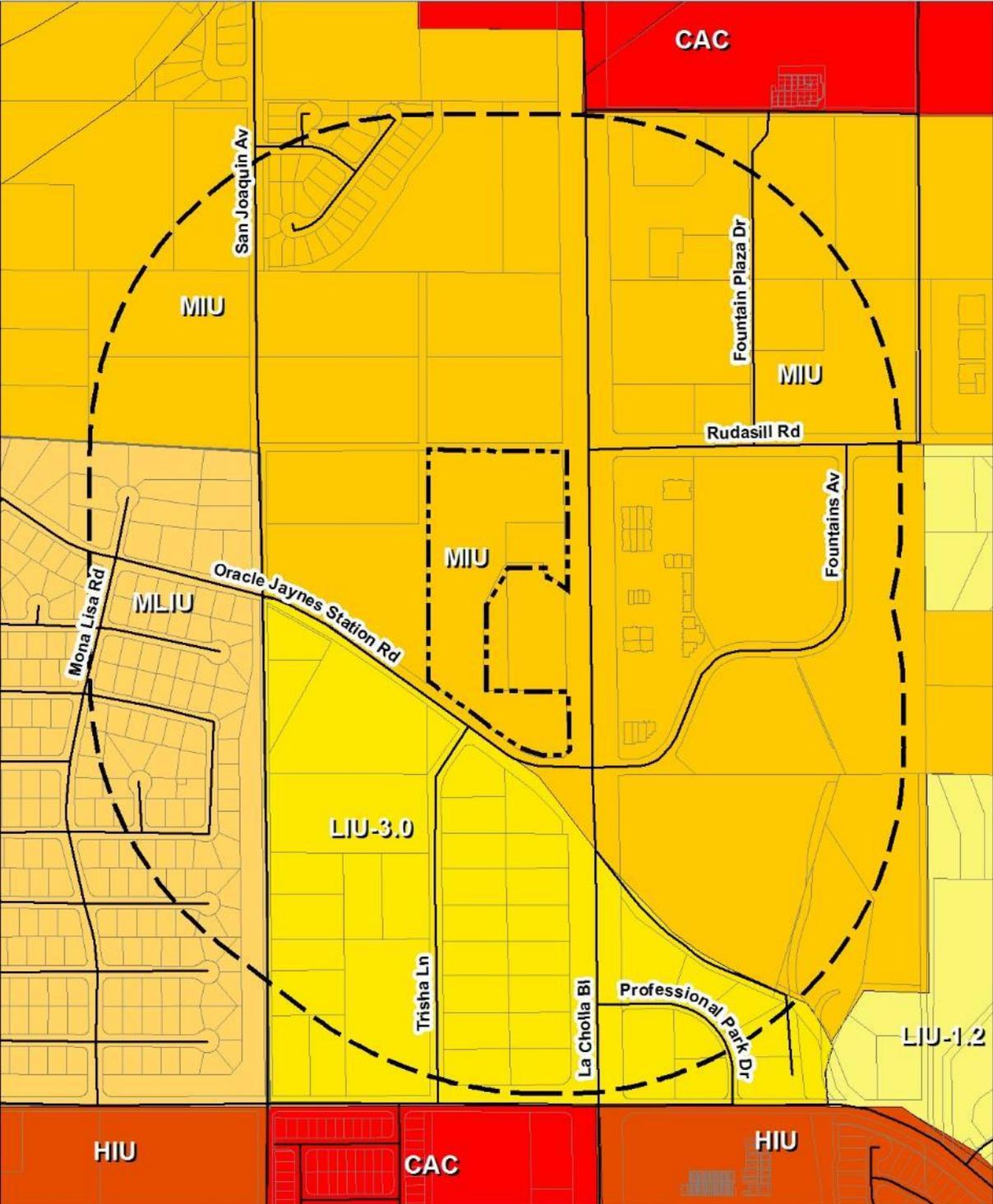


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FILE NAME: easements_6x8.mxd
SOURCE: Pima County GIS, 2015
Amerson Surveying Inc., 2015



Exhibit II.A.2.c: Pima Prospers Comprehensive Plan Designations



LEGEND Pima Prospers Comprehensive Plan Land Use Designation

Project Boundary	Medium Low Intensity Urban	High Intensity Urban
1/4 Mile Radius	Low Intensity Urban - 1.2	Community Activity Center
Parcels	Low Intensity Urban - 3.0	
	Medium Intensity Urban	

NORTH 0' 300' 600'

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FILE NAME: genplan_6x8.mxd
SOURCE: Pima County GIS, 2015

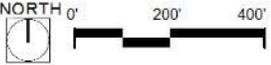


Exhibit II.A.3: Aerial Photo



LEGEND

-  Site Boundary
-  600-Foot Radius



FILE NAME: aerial_6x8.mxd
SOURCE: Pima County GIS, 2015



4. Surrounding Properties

- a. Existing Pima County On-site and Off-site Zoning within One-Quarter Mile Radius

Table II.A.4.a: Existing Zoning

Project Site	SR (Suburban Ranch)
North	SR, TR, (Transitional), CR-4 (Mixed-Dwelling Type)
South	SH (Suburban Homestead)
East	SR, TR, SP (Specific Plan)
West	CR-3 (Single Residence), CR-2 (Single Residence)

(See Exhibit II.A.4.a: Existing Zoning.)

- b. Existing Off-site Land Uses within One-Quarter Mile Radius

Table II.A.4.b: Existing Off-Site Land Uses

North	Unsubdivided SFR, St. John's Property, SFR, 2.4 RAC
South	Unsubdivided SFR, Vaquero Villa, SFR, 1.2 RAC, Professional Office Park
East	Memory Care Facility, Medical Offices, Northwest Medical Center
West	Amphi Alternative School, Casas Adobes, SFR, 2.4 RAC

(See Exhibit II.A.4.b: Existing Land Uses.)

- c. Number of Stories of Off-site Existing Structures

Table II.A.4.c: Number of Stories of Off-site Existing Structures

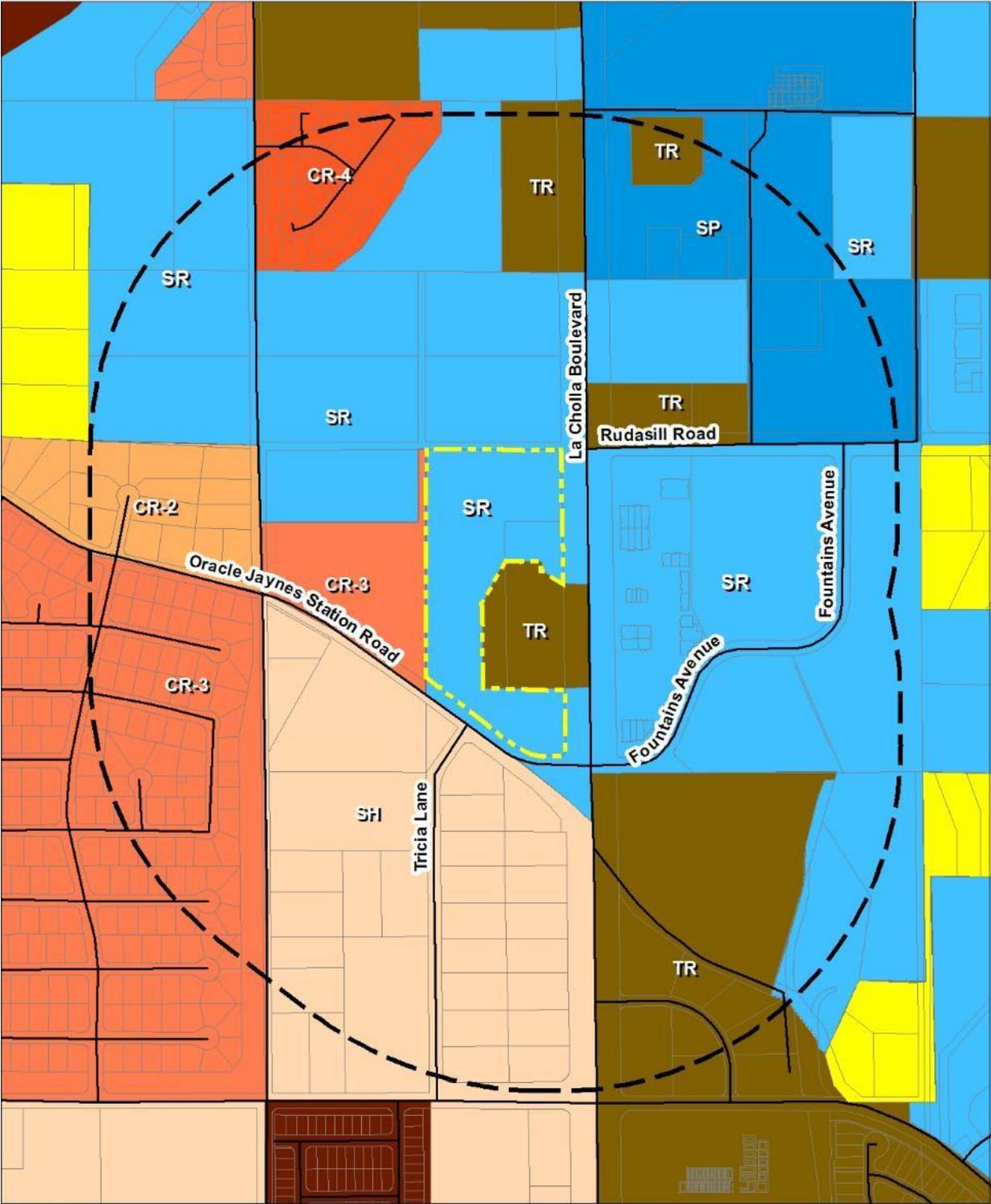
North	One-Story Single Family Residential
South	One-Story Single Family Residential
East	One-Story Memory Care, 1-and 3-Story Offices, 3-Story Assisted Living, 4-Story Institutional
West	1-Story Single Family Residential, 1-Story Institutional

(See Exhibit II.A.4.b: Existing Land Uses.)

- d. Pending or Conditionally Approved Rezonings:
There are no pending or conditionally-approved rezonings and subdivisions and/or development plans currently under review.



Exhibit II.A.4.a: Existing Zoning



LEGEND

Project Boundary	SR - Suburban Ranch	CR-2 - Single Residence
1/4-Mile Radius	SH - Suburban Homestead	SP - Specific Plan
Parcels	TR - Transitional	
	CR-3 - Single Residence	
	CR-4 - Single Residence	

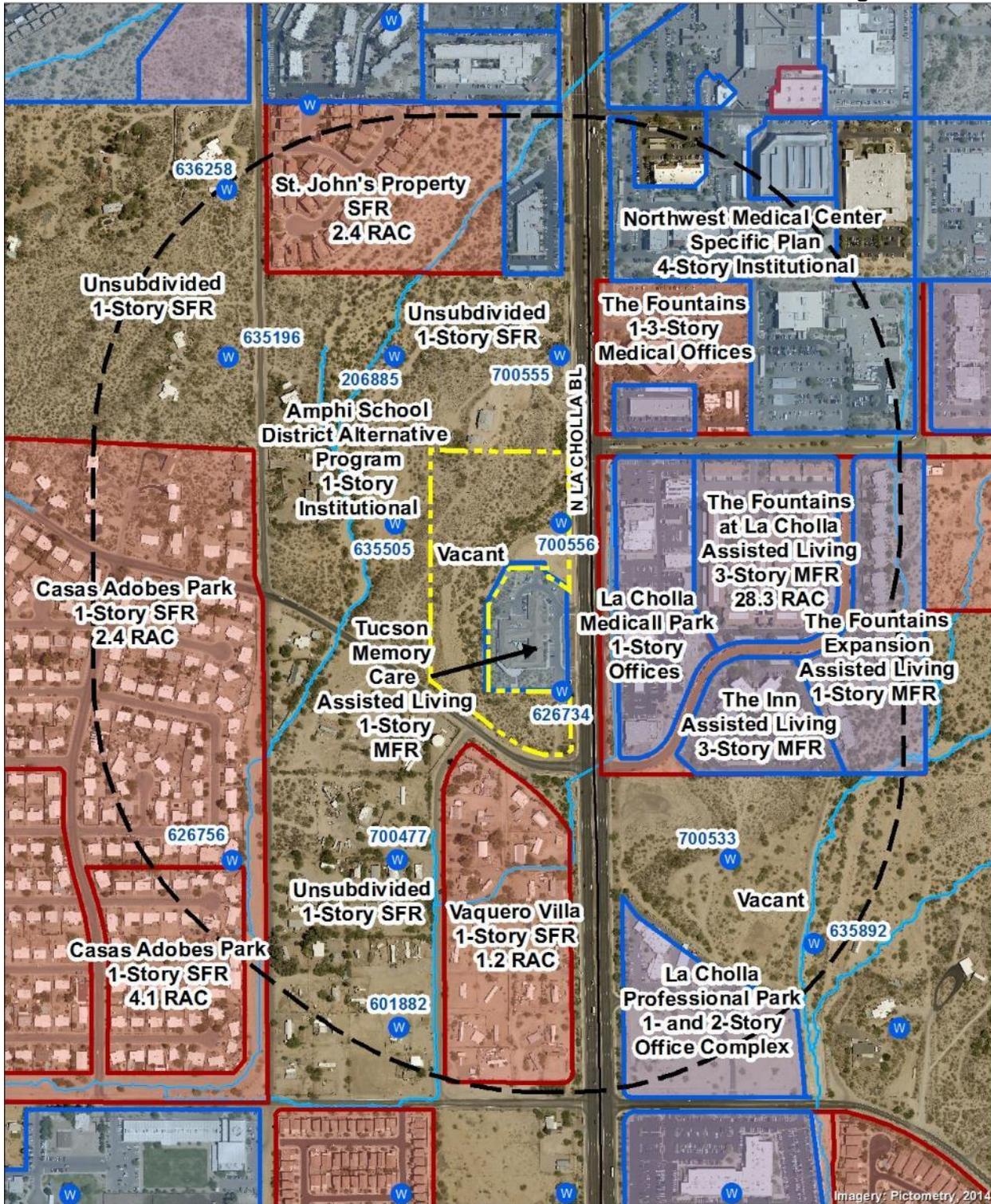
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NORTH 0' 300' 600'

FILE NAME: zoning_6x8.mxd
SOURCE: Pima County GIS, 2015



Exhibit II.A.4.b: Existing Land Uses



LEGEND

Project Boundary	Jurisdictions	Washes	
1/4 Mile Radius	Approved Subdivision Plat	Wells & Registry ID #	
Approved Development Plan			

FILE NAME: ex_cond_6x8.mxd
SOURCE: Pima County GIS, 2015



B. Topography

1. Topographic Characteristics

Elevation ranges from 2,270 feet at the southern edge of the property adjacent to Oracle Jaynes Station Road to 2,316 feet at the northern edge of the property.

(See *Exhibit II.B.1: Topography*.)

- a. **Restricted Peaks and Ridges**
There are no restricted peaks or ridges located on-site.
- b. **Rock Outcrops**
There are no rock outcrops or talus slopes located on-site.
- c. **Slopes of 15% or greater**
There are slopes greater than 15% located onsite. Therefore, the site is subject to the regulations set forth in the Hillside Development Zone (HDZ). 25% slopes are also present on-site. The buildable portions of the site are generally flatter than the areas of the site that will remain undisturbed.
- d. **Significant Topographic Features**
There are no significant topographic features located on the subject parcels.
- e. **Existing grading**
The site is vacant, except for a large stockpile of dirt located in the southwest corner of the property.

2. Pre-Development Average Cross Slope

The average cross-slope (ACS) of the entire parcel is 11.8% as calculated in accordance with the Pima County Zoning Code by performing the following calculation:

$$ACS = \frac{I \times L \times 0.0023}{A}$$

Where:

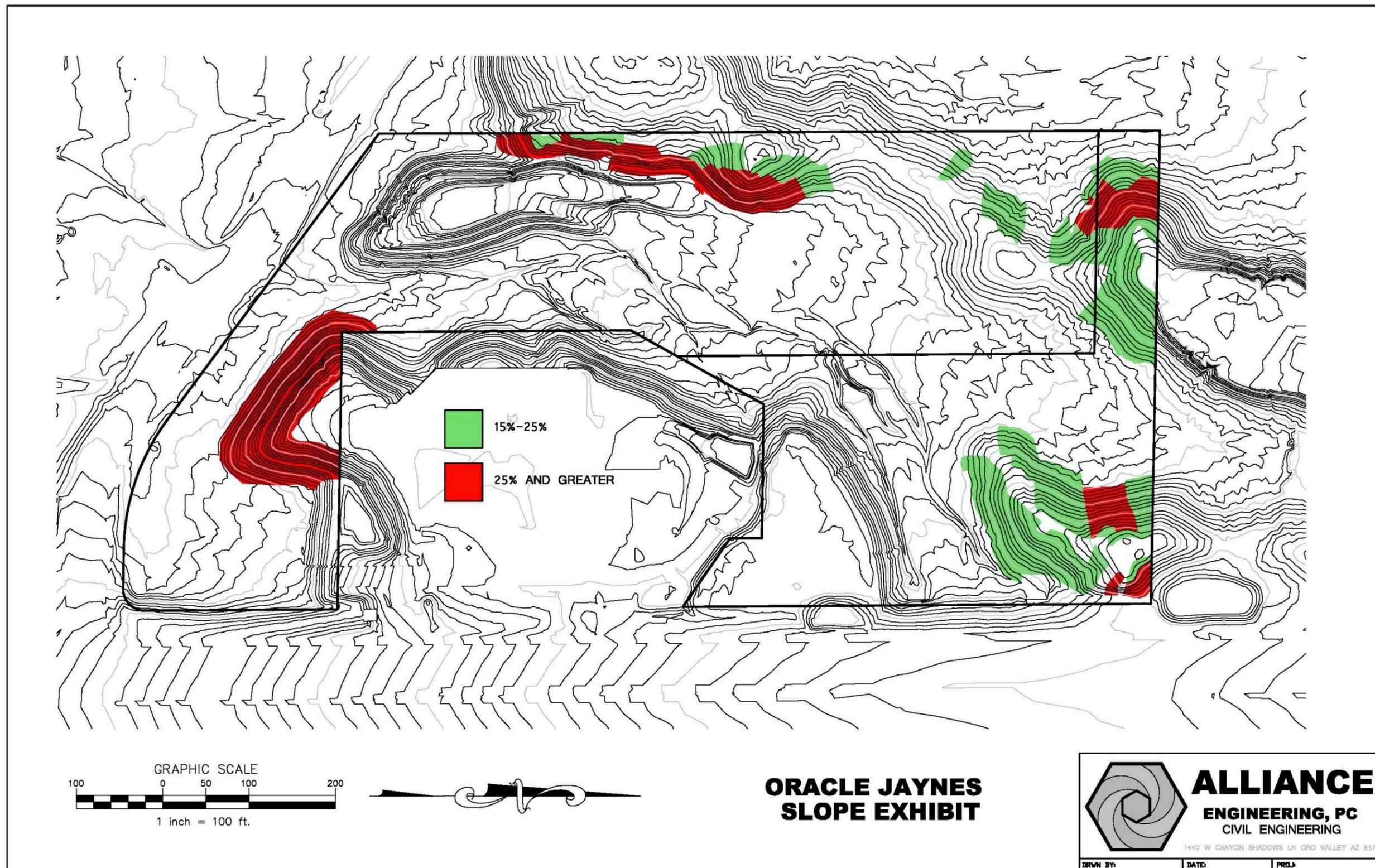
Interval (I) = 2'

Total length of contours in feet (L) = 26,360

Area in acres (A) = 10.3

ACS = 11.8%





C. Hydrology

1. Off-Site Watersheds

The perimeter of all offsite watersheds that affect or are affected by the project site area depicted in *Exhibit II.C.1*.

2. Off-Site Features

There are multiple, small off-site watersheds impacting this parcel. Offsite watershed 1 (OFF1) depicted on *Exhibit II.C.1* to the north is a combination of drainage from La Cholla Boulevard, discharge from a developed commercial site, and one single family home lot. This area is 11.57 acres and has a total 100 year discharge of 98 cfs. On the east portion of the site, Offsite watershed 2 (OFF2), Offsite watershed 3 (OFF3), and Offsite watershed 4 (OFF4) all impact the parcel. Offsite watershed 2 (OFF2) is a combination of discharge from the La Cholla Boulevard roadway and a developed commercial site, and impacts the parcel from the east and a pipe from the north. OFF2 is a combination of commercial development and discharge from La Cholla Boulevard. Q100 was derived from previous development plans and the total 100 year discharge is 131 cfs. OFF3 impacts the parcel from the adjacent memory care site (5 cfs) and from across La Cholla Boulevard from the fountains at La Cholla Medical Park (45 cfs) with a total 100 year discharge is 50 cfs. Offsite watershed 4 (OFF4) impacts the parcel from the adjacent memory care site (5 cfs), which was extracted from the Tucson Memory Care development plan. The total 100 year discharge for OFF4 is 5 cfs. Offsite watershed 5 (OFF5) impacts the parcel from the west and is an undeveloped hill that discharges to the west boundary with a total 100 year discharge of 5.2 cfs. All discharge created by the parcel and the pass through discharge is concentrated at the south boundary at Oracle Jaynes Station Road and has a total 100 year discharge of 343 cfs.

3. Acreage of Off-Site Watersheds

All discharges have been mapped on *Exhibit II.C.1: Existing Hydrology*. Some information was taken directly from approved development plans as well as PC-Hydro sheets calculating discharges.

4. On-Site Hydrology

The watershed area and 100-year peak discharge rate for the wash entering and exiting the project site is shown on *Exhibit II.C.1*.

a. 100-Year Floodplains

Floodplain has been previously mapped by the Tucson Memory Care facility (See *Exhibit II.C.4: Existing Floodplain*). A total final discharge of 343 cfs has been calculated to assist in the design of the site.



- b. **Sheet Flooding Areas**
Not applicable.
- c. **Federally-Mapped Floodplains**
Exhibit II.C.2: Flood Hazard Map was generated from Pima County Regional Flood Control and demonstrates that the site contains no FEMA delineated floodplains.
- d. **Peak Discharges**
100-year storm event peak discharge rates for all points of concentration along the project boundaries were computed using PC-Hydro. The location of the concentration point, drainage areas and 100-year peak discharge rates are provided on *Exhibit II.C.1*.
- e. **Riparian Habitat**
The project site contains no mapped riparian habitats.
- f. **Drainage Infrastructure**
Multiple culverts discharge into the parcel along the east boundary as well as from the Memory Care facility. Offsite watershed locations have been shown on *Exhibit II.C.1*.
- g. **Surface Water**
There are no lakes, ponds, wetlands, springs or perennial surface waters in the vicinity of the project site.
- h. **Erosion Hazard Setbacks**
Erosion hazard setbacks and the floodplain were mapped with the memory care facility and mapped again for this project with supporting HecRas data in Appendix B (See *Exhibit II.C.4: Existing Floodplain*).

5. Downstream Drainage Conditions

Discharge passed through as well as from this parcel is concentrated at the south boundary at Oracle Jaynes Road. This discharge then travels across the road to the Vaquero Villa subdivision. Total 100 discharge at this point is 343 cfs.



Exhibit II.C.1: Existing Hydrology

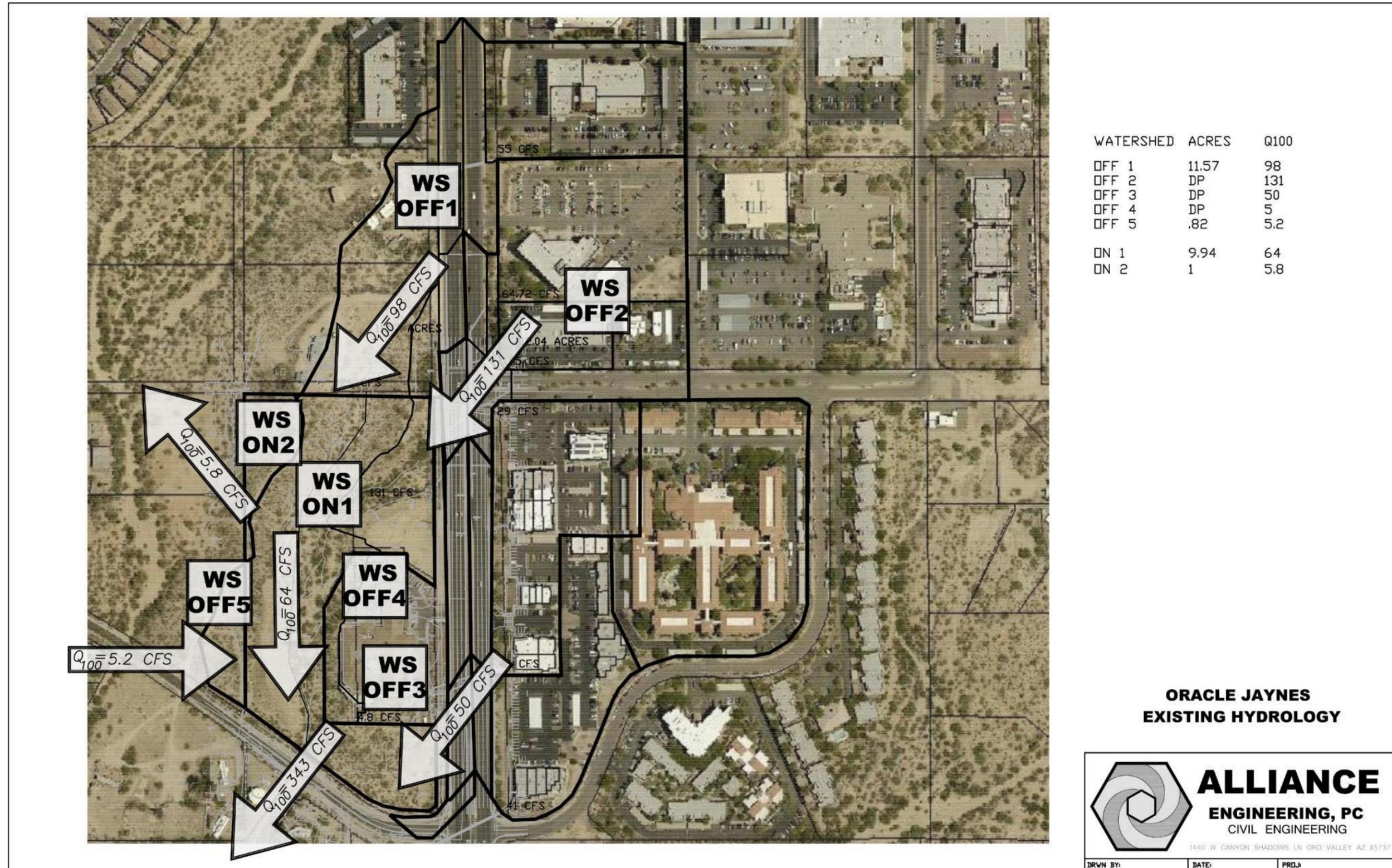


Exhibit II.C.2: Flood Hazard Map

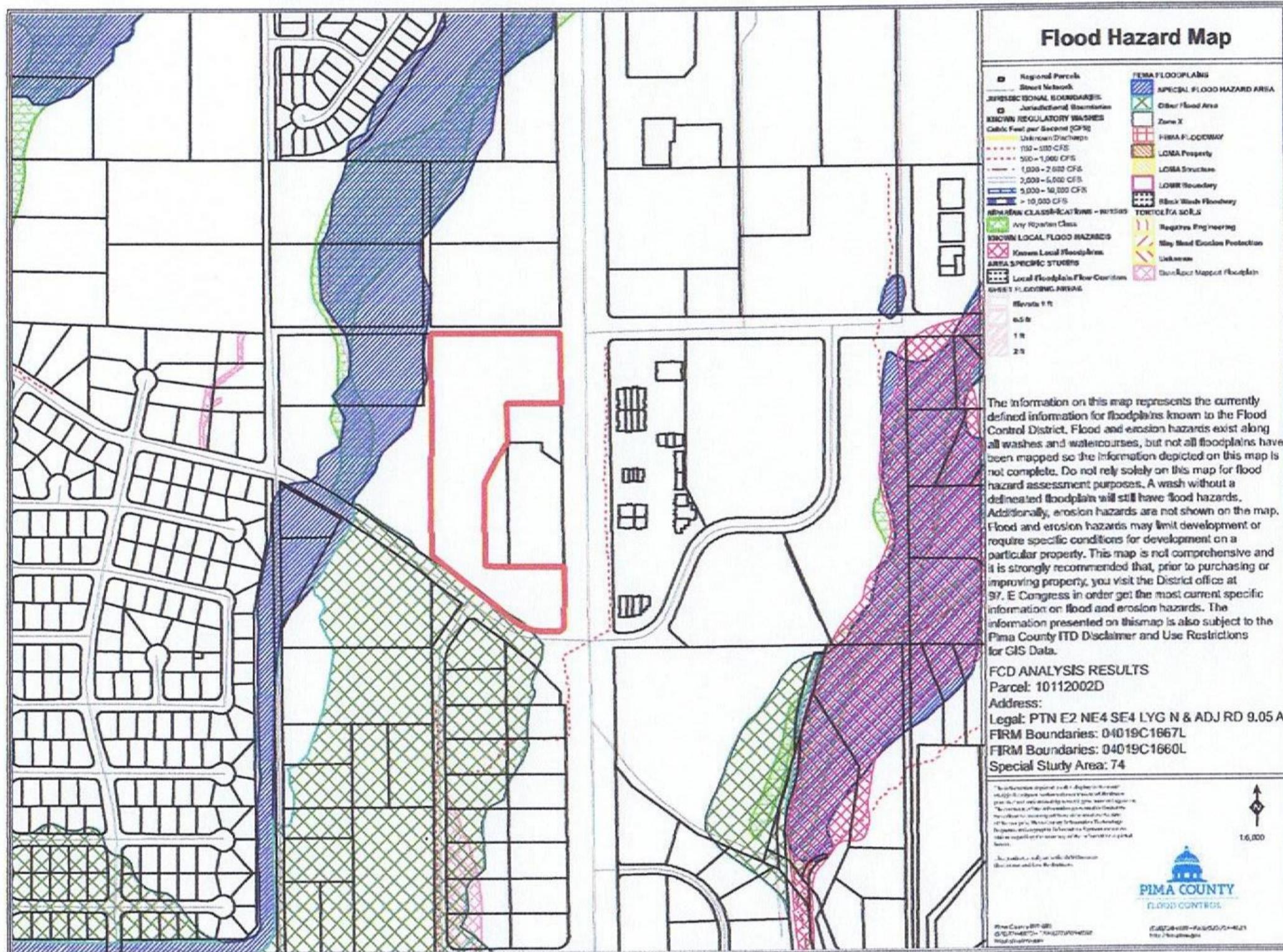
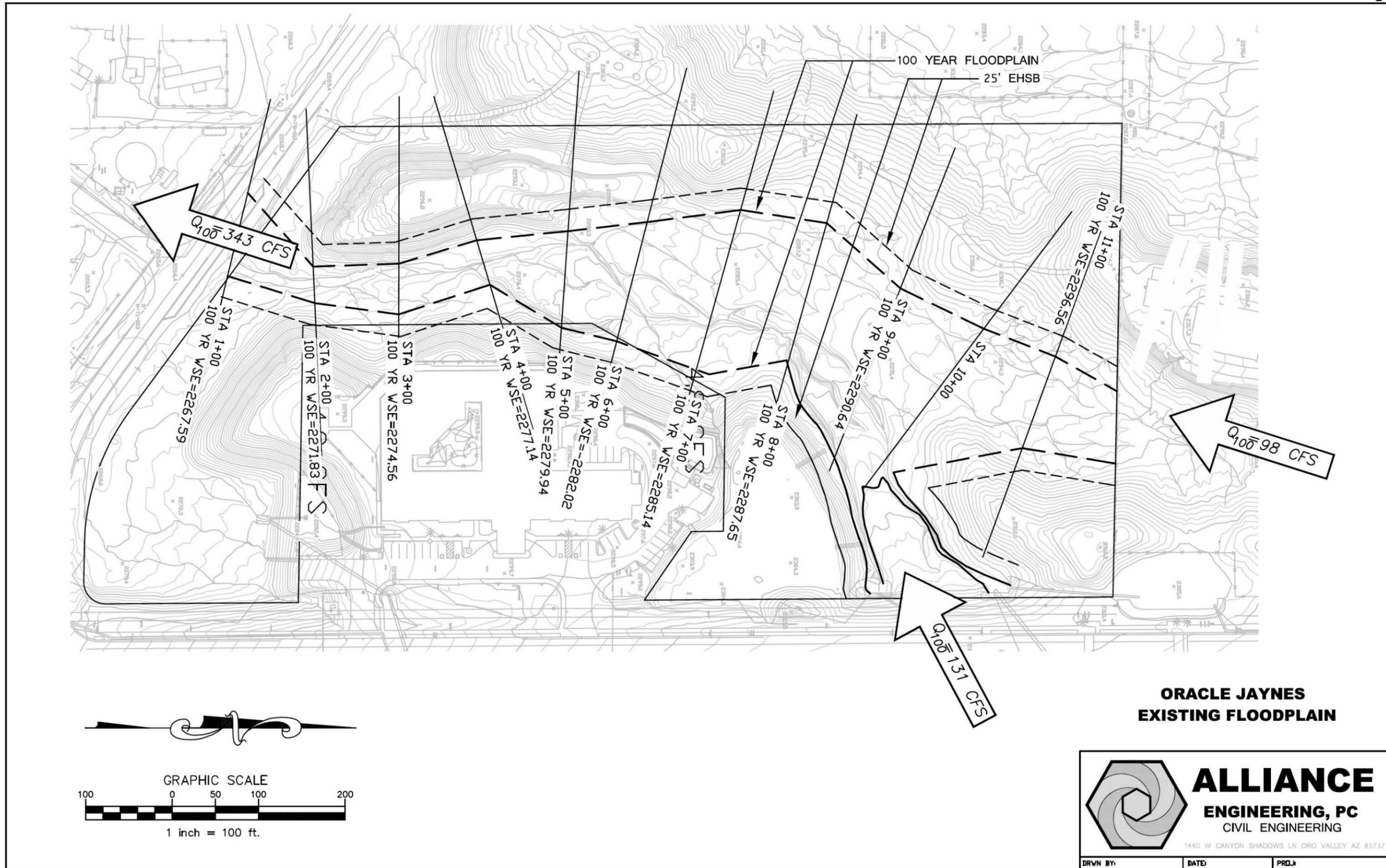


Exhibit II.C.4: Existing Floodplain



D. Biological Resources

1. Conservation Lands System

According to the Pima County Conservation Lands System (CLS) Map, the entire site is outside any CLS designation. (See *Exhibit II.D.1: Conservation Lands System.*)

2. Critical Landscape Connections

According to the Pima County CLS, critical landscape connections are broadly defined as areas that provide connectivity for movement of biological species, but also contain potential or existing barriers to the movement of wildlife between major conservation areas. The subject property is not located in the vicinity of any critical landscape connections defined by the CLS.

3. Pima Pineapple Cactus Priority Conservation Area

The site is not located within the Pima Pineapple Cactus PCA.

4. Needle-Spined Pineapple Cactus Priority Conservation Area

The site is not located within the Needle-Spined Pineapple Cactus PCA.

5. Priority Conservation Areas

a. Cactus Ferruginous Pygmy Owl

The site is located within a Priority Conservation Area for the cactus ferruginous pygmy-owl.

b. Western Burrowing Owl

The site is not located within a Priority Conservation Area for the western burrowing owl.

6. Arizona Game & Fish Department Heritage Data Management System

The Arizona Game and Fish Department's (AZGFD) Heritage Data Management System (HDMS) was accessed via their On-line Environmental Review Tool. The following special status species have been identified by the HDMS as having been documented within three miles of the subject property:

- The United States Fish and Wildlife Service (FWS) has classified the area within three miles of the project site as a recovery area for the experimental, nonessential populations of Sonoran Pronghorn Sheep and Mexican Gray Wolf.
- The HDMS lists the Yellow-billed Cuckoo as a Listed Threatened species by the FWS, as a Sensitive species by the U.S Forest Service (USFS), and



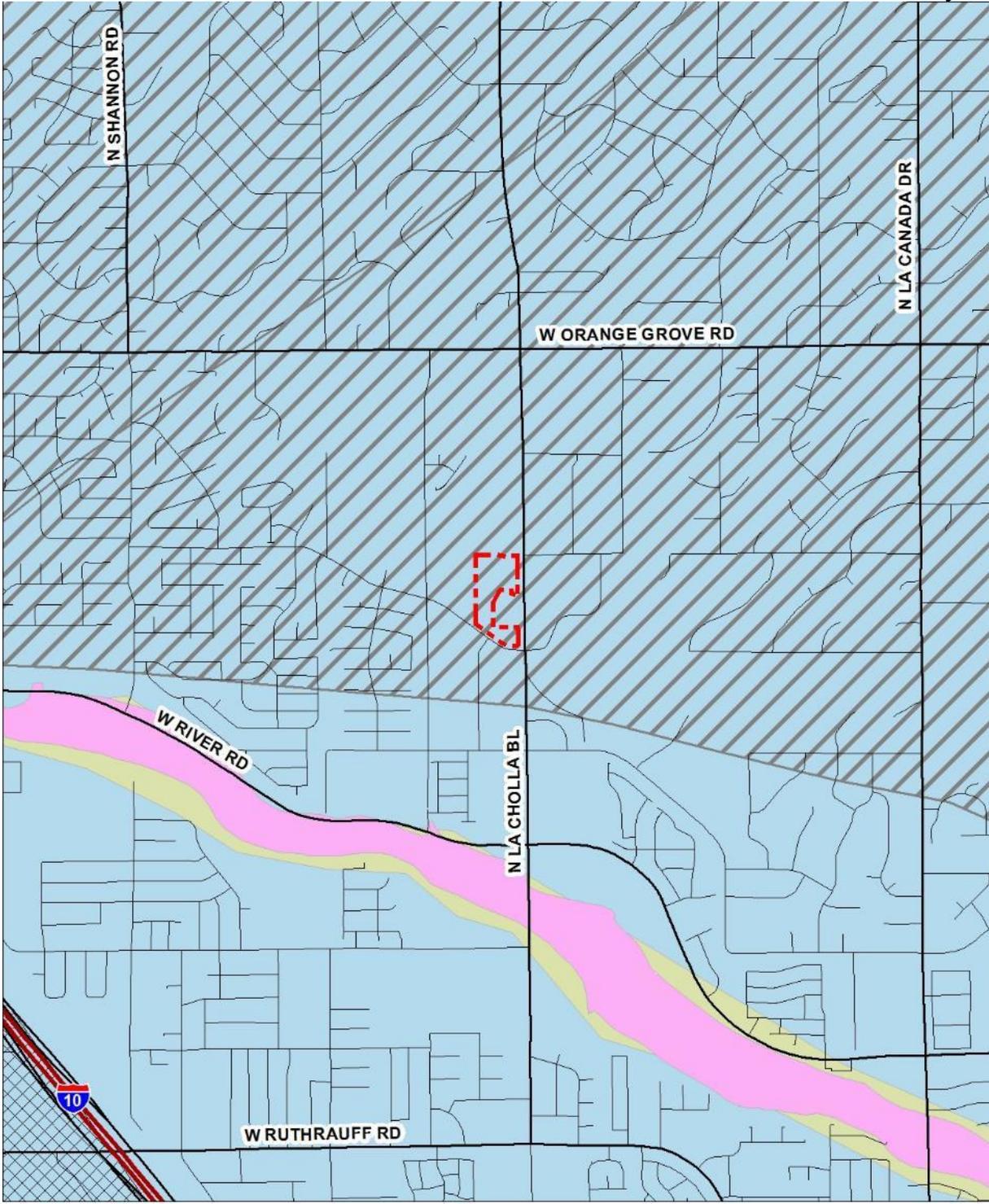
as a Species of Greatest Conservation Need (SGCN), Tier 1A by the AZGFD.

- The Western Narrow-mouthed Toad has been classified as Sensitive by the U.S. Bureau of Land Management (BLM), and as SGCN, Tier 1C by the AZGFD.
- The California Leaf-nosed Bat is listed by the FWS as a Species of Concern, by the BLM as a Sensitive species, and as Salvage Restricted by the Arizona Native Plant Law (NPL).
- The Thornber Fishhook Cactus is listed as Salvage Restricted by the NPL.
- The Tumamoc Globeberry is listed as Sensitive by the USFS, by the BLM as a Sensitive species, and by the NPL as a Salvage Restricted species.

(See: *Exhibit II.D.6: AZGFD On-Line Environmental Review*)



Exhibit II.D.1: Conservation Lands System



LEGEND

-  Site Boundary
-  Cactus Ferruginous Pygmy Owl Priority Conservation Area
-  Western Burrowing Owl Priority Conservation Area

Conservation Lands System Designation

-  Outside CLS
-  Important Riparian Area
-  Multi-Use Management Area

NORTH  0' 1000' 2000'

 THE PLANNING CENTER
a division of PFC GROUP, INC. FILE NAME: CLS_6x8.mxd
SOURCE: Pima County GIS, 2015



Exhibit II.D.6: AGFD On-Line Environmental Review

Arizona Game and Fish Department
Project ID: HGIS-02221

project_report_la_cholla_15917_16182.pdf
Review Date: 9/10/2015 09:23:34 AM

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Antilocapra americana sonoriensis</i>	100 area for Sonoran Pronghorn	LE,XN				
Bat Colony						
<i>Canis lupus baileyi</i>	100 area Zone 2 for Mexican gray wolf	LE,XN				
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
<i>Gastrophryne olivacea</i>	Western Narrow-mouthed Toad			S		1C
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		1B
<i>Mammillaria thornberi</i>	Thornber Fishhook Cactus				SR	
<i>Tumamoca macdougalii</i>	Tumamoc Globeberry		S	S	SR	

Note: Status code definitions can be found at http://www.azgfd.gov/hw_c/edits/hdms_status_definitions.shtml

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Aix sponsa</i>	Wood Duck					1B
<i>Amazilia violiceps</i>	Violet-crowned Hummingbird		S			1B
<i>Ammospermophilus harrisi</i>	Harris' Antelope Squirrel					1B
<i>Anaxyrus retiformis</i>	Sonoran Green Toad			S		1B
<i>Anthus spragueii</i>	Sprague's Pipit	C*				1A
<i>Antrostomus ridgwayi</i>	Buff-collared Nighthawk		S			1B
<i>Aquila chrysaetos</i>	Golden Eagle	BGA		S		1B
<i>Aspidoscelis stictogramma</i>	Giant Spotted Whiptail	SC	S			1B
<i>Athene cucularia hypugaea</i>	Western Burrowing Owl	SC	S	S		1B
<i>Botaurus lentiginosus</i>	American Bittern					1B
<i>Buteo regalis</i>	Ferruginous Hawk	SC		S		1B
<i>Chilomeniscus stramineus</i>	Variable Sandsnake					1B
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
<i>Colaptes chrysoides</i>	Gilded Flicker			S		1B
<i>Coluber bilineatus</i>	Sonoran Whipsnake					1B
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat	SC	S	S		1B
<i>Crotalus tigris</i>	Tiger Rattlesnake					1B
<i>Cynanthus latirostris</i>	Broad-billed Hummingbird		S			1B
<i>Cyprinodon macularius</i>	Desert Pupfish	LE				1A
<i>Dipodomys spectabilis</i>	Banner-tailed Kangaroo Rat			S		1B
<i>Euderma maculatum</i>	Spotted Bat	SC	S	S		1B
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC		S		1B
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	SC	S	S		1A
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	C*	S			1A



7. **Saguaros and Ironwoods**

A site visit was conducted on September 24, 2015 and a preliminary plant inventory identified a total of 118 saguaro cacti located within the site boundaries. Fifty-six of these saguaros were 6' in height or shorter. Sixty-two of the saguaros were over 6' in height. No ironwood trees are located on site.

A preliminary analysis has indicated there are 85 viable saguaros and 33 non-viable saguaros. The saguaros will be relocated within required bufferyards and/or common areas. Mitigation will be in accordance with Chapter 18.72 of the Pima County Code.

8. **Habitat Protection or Community Open Space**

In accordance with the Sonoran Desert Conservation Plan Mapguide, the site is not identified for any areas identified for habitat protection or community open space.

9. **Especially Important Vegetation**

The site does not contain any vegetation which is especially important for scenic value, screening, or soil stabilization.

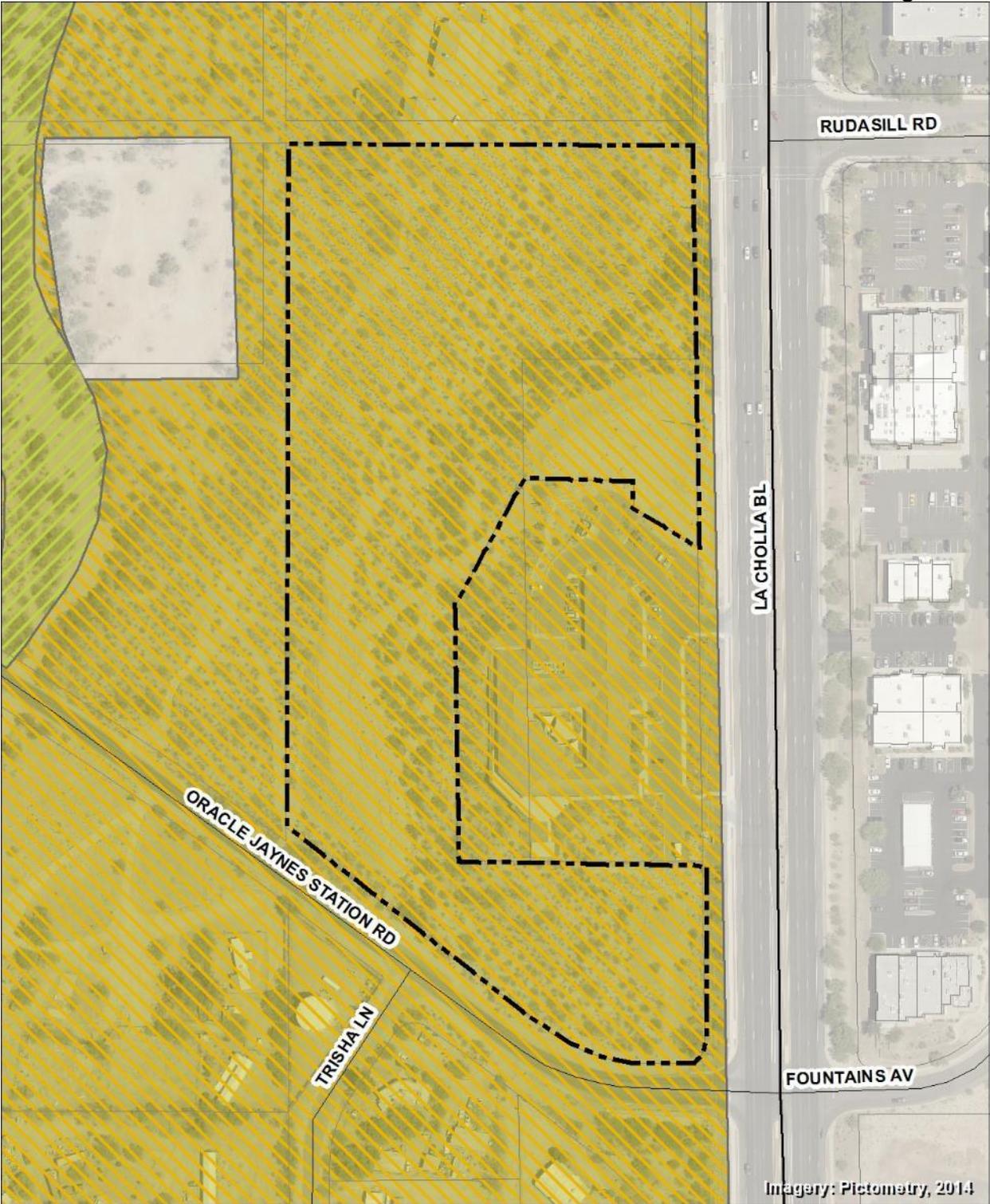
The site does contain some clusters of saguaro cacti on some slopes with southern exposure, however, the saguaros are not of a size or density to create scenic value. Vegetation density is greater within the wash on the eastern property boundary, however topography limits any potential screening value.

10. **Vegetative Communities**

The project site contains native vegetation that is typical of that found in the Arizona Sonoran Desert (See *Exhibit II.D.10: Vegetation.*) The entire site is classified as Sonoran Desertscrub and Palo Verde/Mixed Cacti. Vegetation on site is dominated by Palo Verde trees, Saguaro cacti, and Creosote bush.



Exhibit II.D.10: Vegetation



LEGEND		Vegetation	Pima County Special Elements
	Project Boundary		Sonoran Desertscrub
	Ag/Developed/Bare		Palo Verde/Mixed Cacti
			Sonoran Riparian Scrub Xeroriparian Class C

NORTH

0' 100' 200'

FILE NAME: vegetation_6x8
SOURCE: Pima County GIS, 2015

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E. Viewsheds

1. Site Visibility

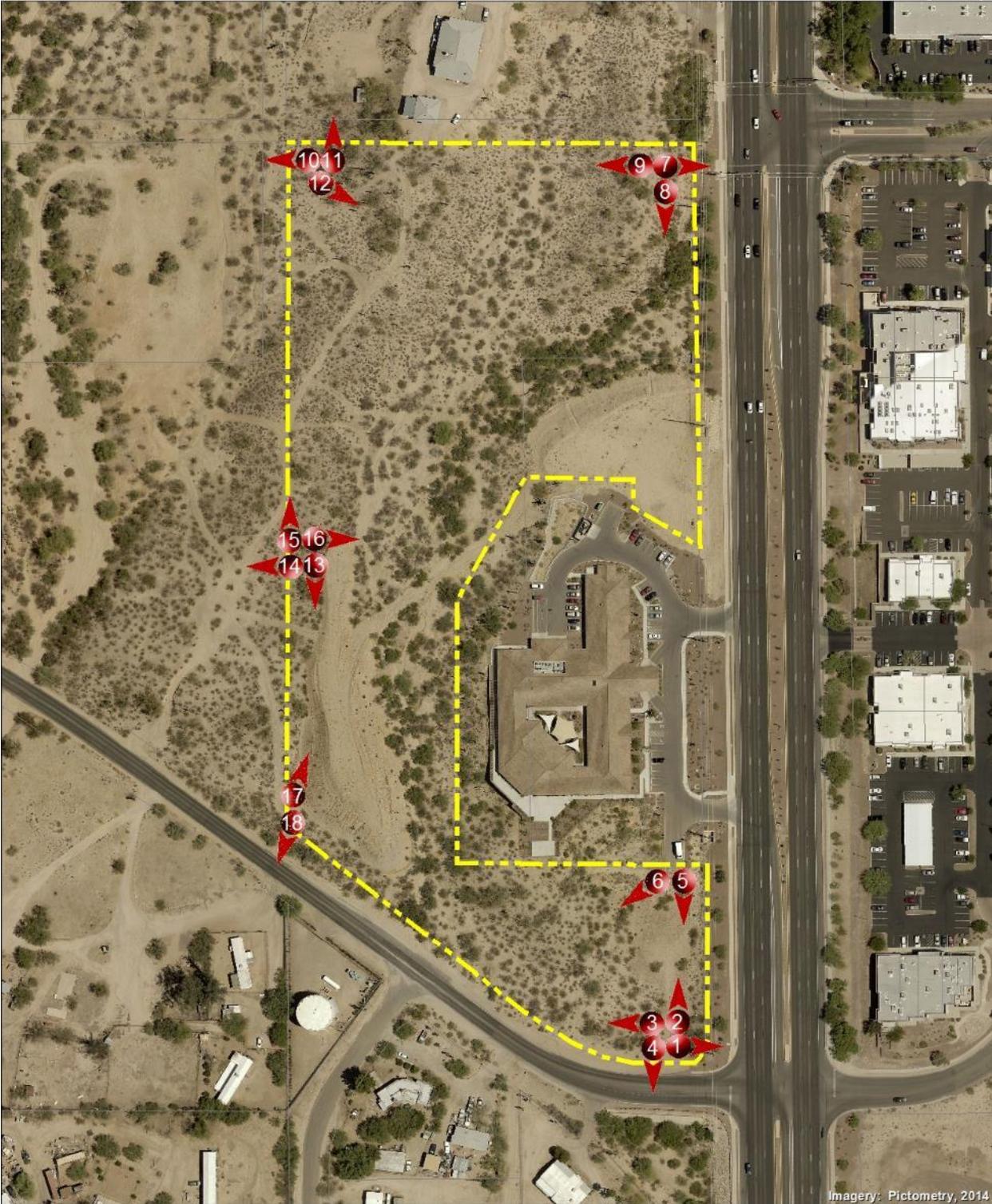
The site is not being developed under the Cluster Development Option, therefore this section is not applicable.

2. Site Photos

Exhibit II.E.2.a: Site Photos displays photographs taken from different angles throughout and around the site. The approximate locations and directions from which these photographs were taken are displayed on *Exhibit II.E.2: Photo Key Map*.

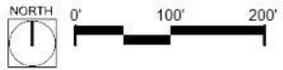


Exhibit II.E.2: Photo Key Map



LEGEND

-  Site Boundary
-  Photo Location and Direction



FILE NAME: photokey_6x8
SOURCE: Pima County GIS, 2015



Exhibit II.E.2.a: Site Photos



Photo 1: View looking east from the southeastern corner of the property.



Photo 2: View looking north from the southeastern corner of the property.



Photo 3: View looking west along the southern boundary of the property.



Photo 4: View looking south from the southeastern property corner.



Photo 5: View looking south adjacent to La Cholla Boulevard.



Photo 6: View looking southwest across southern portion of the property.

Exhibit II.E.2.a: Site Photos (cont.)



Photo 7: View looking east across La Cholla Boulevard from the northeast corner of the property.



Photo 8: View looking south from the northeastern corner of the property.



Photo 9: View looking west from the northeast property corner.



Photo 10: View looking west from the northwest property corner.



Photo 11: View looking north from the northwest corner of the property.



Photo 12: View looking southeast across the site from the northwest property corner.

Exhibit II.E.2.a: Site Photos (cont.)



Photo 13: View looking south from a point near the middle of the western property boundary.



Photo 14: View looking west from near the middle of the western property boundary.



Photo 15: View looking north from the western boundary of the property.



Photo 16: View looking east from the western boundary of the property.



Photo 17: View from the southwest corner of the property looking northeast.



Photo 18: View from the southwest corner of the property looking south across Oracle Jaynes Station Road.

F. Transportation

1. Existing and Proposed Off-Site Streets

a. Rights-of-Way

The site is located in Pima County, northwest of the intersection of North La Cholla Boulevard and West Oracle Jaynes Station Road, and approximately one-half mile north of River Road (See *Exhibit II.F.1: Traffic*). Characteristics of area streets are located in *Table II.F.1: Roadway Inventory*. The nearest major intersections to the project site are the intersections of Orange Grove Road and La Cholla Boulevard, and River Road and La Cholla Boulevard. The closest traffic signal is located at the intersection of La Cholla Boulevard and Rudasill Road, and less than 500 feet from the northern boundary of the subject property.

Table II.F.1: Roadway Inventory

Roadway Segment	Existing Right-of-Way*	No. Lanes****	Conforms To Width Standards**	Continuous ROW*	Curb/Gutter****	Capacity***	Paving****	Posted Speed Limit****
La Cholla Boulevard	200 feet	6	Yes	Yes	Yes	53,910	Yes	45
Oracle Jaynes Station Road	65 – 90 feet	2	Yes	Yes	No	13,122	Yes	25
Orange Grove Road	150-200 feet	4	Yes	Yes	Yes	32,900	Yes	45
River Road	150 feet	4	Yes	Yes	Yes	37,600	Yes	45
Shannon Road	75-150 feet	2	No	No	No	15,600	Yes	35
La Cañada Drive	150 feet	4	Yes	Yes	Yes	32,900	Yes	45

Source:* Pima County Mapguide (2015), **Pima County Major Streets and Scenic Routes Plan (2015), ***Florida Department of Transportation (2007), ****Google Earth (2015)

La Cholla Boulevard

La Cholla Boulevard is listed in the Pima County Major Streets Plan as a high volume arterial with an existing right-of-way of 200 feet, and has a posted speed limit of 45 mph. The Pima County Major Streets Plan indicates that the planned right-of way for La Cholla Boulevard is 150 feet.



La Cholla Boulevard is identified as a Bike Route with Striped Shoulder, Bus/Bike Lanes by the Pima County Bicycle and Pedestrian Program.

Oracle Jaynes Station Road

Oracle Jaynes Station Road is listed as a minor local road on Pima County Mapguide, with an existing continuous right-of-way between 65 and 90 feet. There is no planned right of way width for Oracle Jaynes Station Road. The road is listed as a Key Connecting Street by the Pima County Bicycle and Pedestrian Program.

Orange Grove Road

Orange Grove Road is listed as a medium volume arterial in the Pima County Major Streets Plan, with an existing right-of-way width of 150 to 200 feet and a planned right-of-way of 150 feet. The posted speed limit on Orange Grove Road is 45 mph. The road is also listed as a Bike Route with Striped Shoulder, with Bus/Bike Lanes by the Pima County Bicycle and Pedestrian Program.

River Road

River Road is listed as a medium volume arterial in the Pima County Major Streets Plan with an existing and future right-of-way width of 150-feet, and a posted speed limit of 45 mph. It is also listed by the Bicycle and Pedestrian Program as a Bike Route with Striped Shoulder, Bus/Bike Lanes, and by the Pima County Scenic Routes Plan as a Major Scenic Route.

Shannon Road

Shannon Road is classified as a low volume arterial by Pima County Major Streets Plan, and has a variable right-of-way width of 80 to 150 feet and a planned right-of-way of 90 feet. The road is also classified as a Key Connecting Street by the Pima County Bicycle and Pedestrian Program.

La Cañada Drive

La Cañada Drive is listed as a medium volume arterial by the Pima County Major Streets Plan, and has a continuous and a planned right-of-way of 150 feet. The road is listed by the Bicycle and Pedestrian Program as a Bike Route with Striped Shoulder, Bus/Bike Lanes.

The traffic map addresses the right-of-way requirements as outlined for the Transportation section in the Pima County Site Analysis Requirements, March 2010 for major roads within a one-mile radius of the project (See *Exhibit II.F.1.*). It also addresses those roads which are adjacent to the site. Existing right-of-way information was obtained from Pima County Mapguide. Future right-of-way information was obtained from the Pima County Major Streets Plan.



b. **Present Average Daily Trips (ADT) for Existing Streets**

Table II.F.1.b Average Daily Trips identifies traffic counts generated by Traffic Engineering of the Pima County Department of Transportation and Pima Association of Governments (PAG) Roadway Segment Traffic Counts for roadways within one-mile of the project site.

Table II.F.1.b: Average Daily Trips

Road	Average Daily Trips (Year Taken)
La Cholla Boulevard (River Road to Rudasill Road)	25,626 (2013)
La Cholla Boulevard (Rudasill Road to Orange Grove Road)	23,579 (2014)
Oracle Jaynes Station Road (Shannon Road to La Cholla Boulevard)	2,875 (2011)
Orange Grove Road (La Cholla Boulevard to La Cañada Drive)	25,203 (2013)
Orange Grove Road (Shannon Road to La Cholla Boulevard)	19,428 (2014)
River Road (La Cholla Boulevard to La Cañada Drive)	35,703 (2012)
River Road (Shannon Road to La Cholla Boulevard)	24,868 (2012)
Shannon Road (Orange Grove Road to River Road)	5,706 (2014)
La Cañada Drive (Orange Grove Road to River Road)	*6,125 (PAG, 2013)

Source: Pima County Traffic Engineering Traffic Count Records, 2014 & *Pima Association of Governments Traffic Count Records, 2014

c. **Existing Bicycle and Pedestrian Ways**

According to Pima County GIS, there are existing bicycle routes on Oracle Jaynes Station Road, La Cholla Boulevard, River Road, Orange Grove Road, Shannon Road and La Cañada Drive. The Pima County Bicycle and Pedestrian Program designates The Loop, a shared use path along the Rillito River, is located less than one mile from the site.

d. **Scheduled Roadway Improvements**

According to the Pima County Department of Transportation (DOT) and the PAG 2040 Regional Transportation Plan (RTP), there are no roadway improvement projects scheduled in the vicinity of the rezoning site. The PAG 2040 RTP Bicycle and Pedestrian Projects map indicates that there are no bike lane improvements planned for paths in the vicinity of the project site.

2. Distances from the Site to Existing Roadways

Exhibit II.F.2: Distance to Existing Driveways has been provided to show the distance from the site to the nearest existing intersections, and to show the distance of nearest curb cuts and intersections from the intersection of Oracle Jaynes Station Road and La Cholla Boulevard.

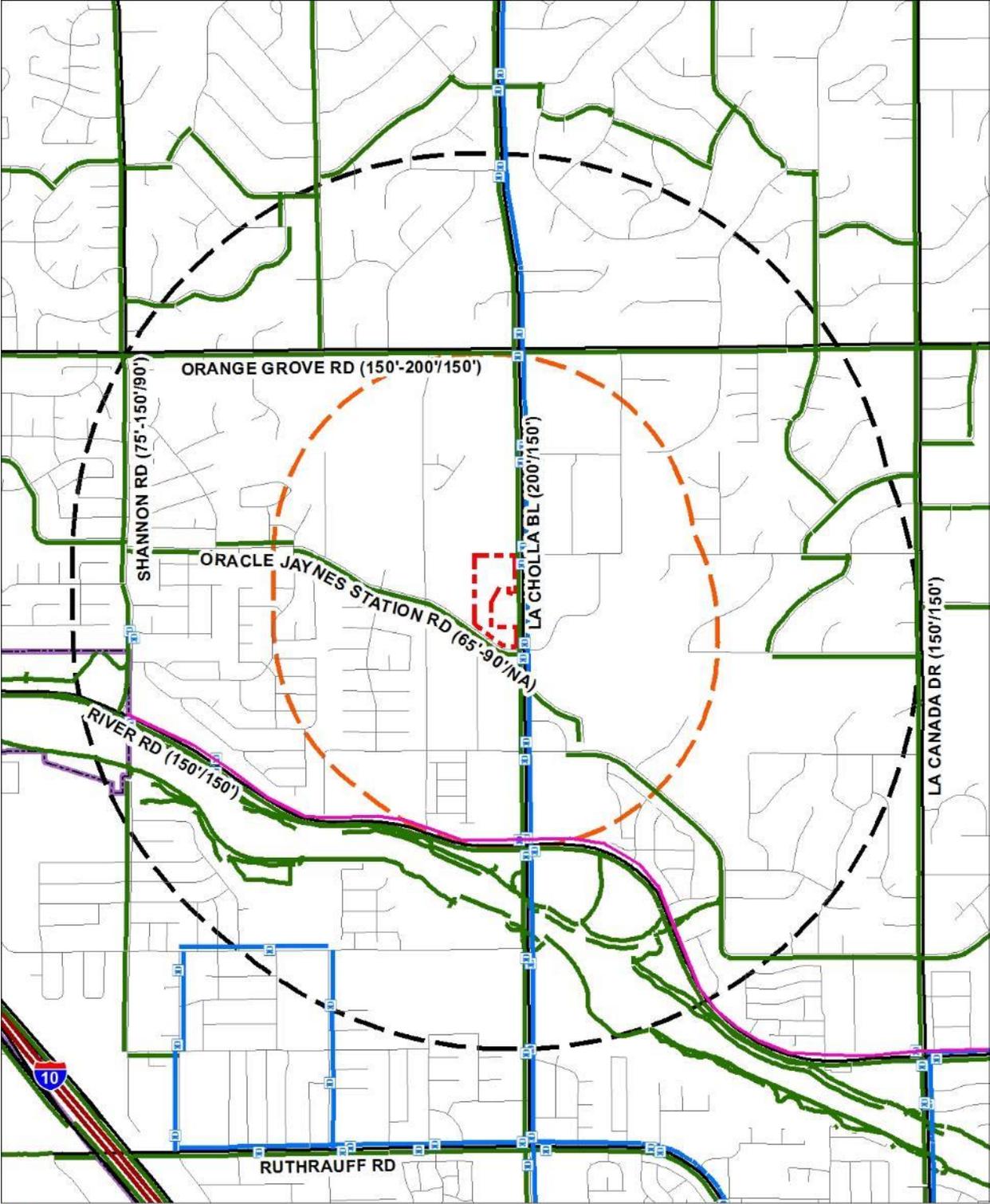


3. **Bus Routes**

According to the Regional Transportation Authority, Sun Tran bus route #61 is located on La Cholla Boulevard, and there are several stops located within one-mile of the project site location. (See *Exhibit II.F.1: Traffic*)

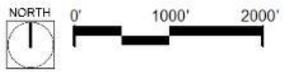


Exhibit II.F.1: Traffic



LEGEND

- Project Boundary
- 1-Mile Radius
- 1/2-Mile Radius
- Jurisdictions
- Major Local Roads (Current ROW/Future ROW)
- Bicycle Routes
- Scenic, Major Route
- Bus Route
- Bus Stops



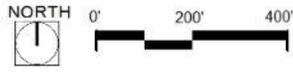
FILE NAME: traffic_6x8
SOURCE: Pima County GIS, 2015



Exhibit II.F.2: Distance to Existing Driveways



LEGEND
[Red dashed line symbol] Site Boundary



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a division of the U.S. Green Building Council
FILE NAME: Driveways_6x8.mxd
SOURCE: Pima County GIS, 2015



G. Sewers

1. Capacity Response Letter from Pima County Regional Wastewater Reclamation Department

The site is within the Pima County Regional Wastewater Reclamation Department (RWRD) service area and tributary to the Tres Rios Water Reclamation Facility via the North Rillito Interceptor.

Request for a capacity response letter was submitted by The Planning Center, and a response from the Pima County RWRD was received on November 6, 2015 (See *Exhibit II.G.1: Wastewater Letter.*) The RWRD has indicated that the sewerage capacity for this project currently exists in the public sewer S-519 at manhole 9539-05.

2. Site Constraints for Extension of the Existing Sewer Network:

According to Pima County MapGuide, an 8-inch public sewer (S-519) exists perpendicular to Oracle Jaynes Station Road, just south of the subject property (See *Exhibit II.G.2: Existing Sewer Network.*) The development site will connect to an existing sewer network served by Pima County Regional Wastewater Reclamation Department at manhole 9539-05. A right-of-way will be established that will enable sewer service for the development to connect with the existing network.



Exhibit II.G.1: Wastewater Letter



JACKSON JENKINS
DIRECTOR

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

November 6, 2015

Lexy Wellott
The Planning Center
110 S Church
Tucson, Arizona 85701

Sewerage Capacity Investigation No. 2015-234 Type I

RE: LCOJS, Parcel 10112002D
Estimated Flow 21,356 gpd (ADWF).
P15WC00099

Greetings:

The above referenced project is tributary to the Tres Rios Water Reclamation Facility via the North Rillito Interceptor.

Capacity is currently available for this project in the public sewer S-519, downstream from manhole 9539-05.

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

If further information is needed, please feel free to contact us at (520) 724-6642.

Reviewed by: Kurt Stemm, CEA Sr.



Exhibit II.G.2: Existing Sewer Network



LEGEND

- Site Boundary
- Existing Sewer Network
- Parcels
- Existing Sewer Manhole



FILE NAME: sewer_6x8.mxd
SOURCE: Pima County GIS, 2015



H. Recreation and Trails

1. Parks, Recreation Areas, Public Trails within One Mile of the Site

According to the Pima County Parks and Recreation Map, the Rillito River Park is located within one mile of the project location. River Parks are described in the Pima Regional Trail Master Plan as green corridors with paths and trails located along the metropolitan area's major watercourses, and are designed to accommodate the widest spectrum of users, including runners, walkers, equestrians, cyclists, and more. River Parks provide many benefits, including opportunities for alternative modes of transportation and connectivity with trails, workplaces, shopping, residential areas, and more. They also provide urban wildlife habitat, shade, and help to mitigate the urban heat island effect.

According to the Pima County Parks and Recreation Map, the Casas Adobes Neighborhood Park and the Meadowbrook Neighborhood Park are located within one mile of the project location. Neighborhood Parks are described in the Pima County Recreation Area Design Manual as parks that are 10.0 acres or less in size, and may occur in conjunction with a school site. Neighborhood parks are designed as an extension of the neighborhood and allow for recreation and social activities that cannot necessarily be accommodated in residential yards. They also provide a space for active and passive recreational activities that are geared towards specific neighborhood needs, ages, and physical abilities.

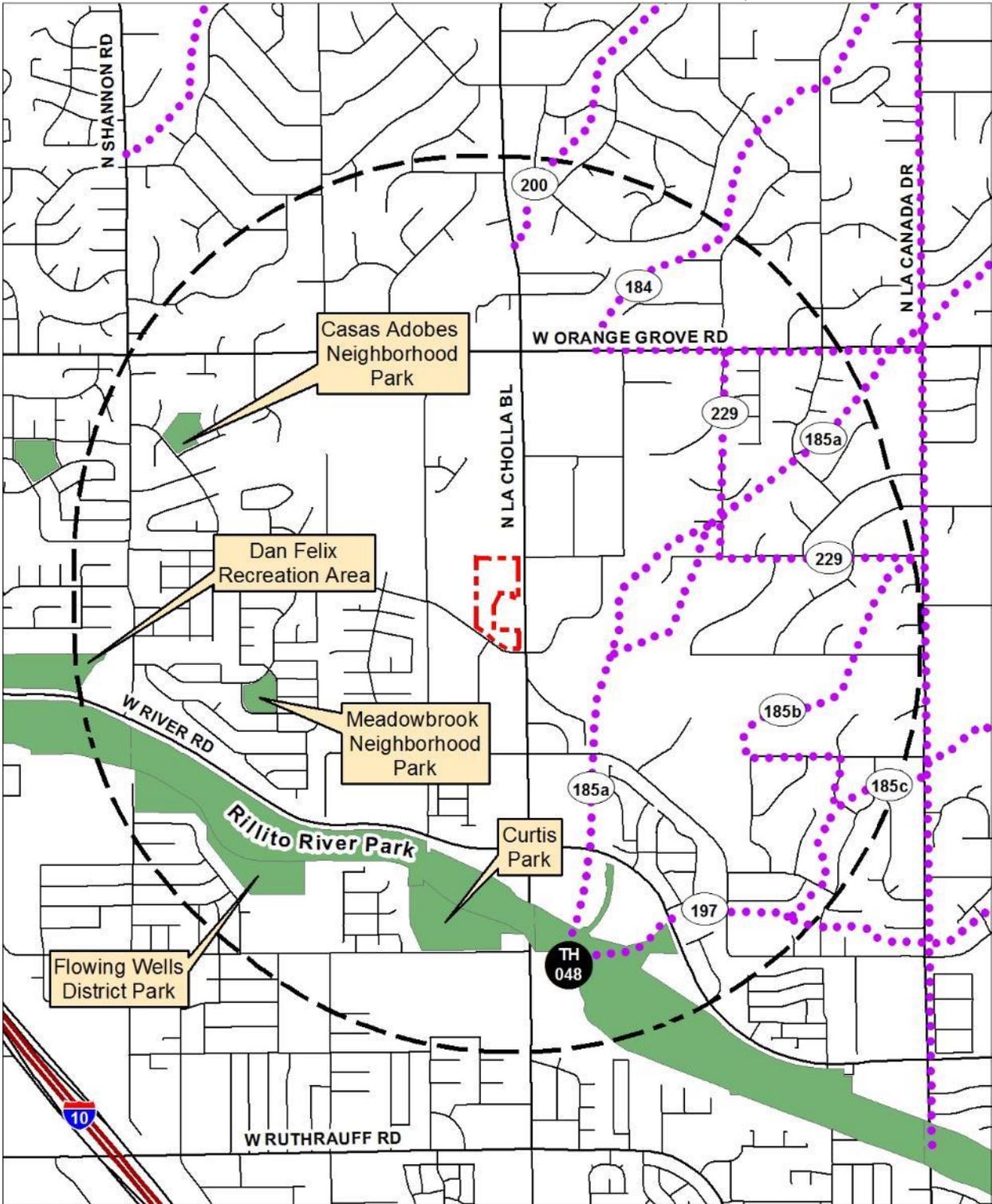
According to Pima County Parks and Recreation Map, the Flowing Wells District Park is located within one mile of the project location. District Parks are described in the Pima County Recreation Area Design Manual as parks that are typically 40.01 to 100 acres in size and are designed to accommodate various recreational users and activities.

2. Trails

According to the Pima Regional Trail System Master Plan (PRTSMP), there are several trails located within a one-mile vicinity of the site. The trails classified in the PRTSMP as Singletrack Trails provide hiking access to the Pima Regional Trail System and the Coronado National Forest. Singletrack Trails are described in the PRTSMP as having a recommended width of 2-3 feet, and built with greater sensitivity to the natural environment. There is a trailhead located at the Rillito River Park. The Loop shared-use path is located within one-mile of the project site and adjacent to the Rillito River Park. Shared-use paths are described by the PRTSMP as a paved 8' to 16' wide path, suitable for bicycles, pedestrians, equestrians and more. (See *Exhibit II.H.1: Parks, Recreation and Trails.*)

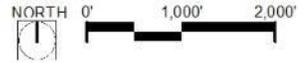


Exhibit II.H.1: Parks, Recreation and Trails



LEGEND

-  Site Boundary
-  Parks
-  1-Mile Radius
-  Singletrack Trails
-  TH 048 Trail Head




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FILE NAME: rec_6x8.mxd
 SOURCE: Pima County GIS, 2015



I. Cultural Resources: Archaeological and Historic Sites

1. Arizona State Museum Letter

a. Cultural Resources Field Survey

A search of the archaeological site records from the Arizona State Museum (ASM) found that 47 previous survey projects were conducted within a one-mile radius of the project between 1976 and 2013. (See *Exhibit II.1.1: Arizona State Museum Letter.*)

b. Previously Recorded Archaeological or Historic Resources

The boundary of one archaeological property – AZ AA: 12:867(ASM) – is crossed by the project area. Additional archaeological properties could be present because the project area has not been subject to archaeological survey.

c. Probability of Buried Archaeological Resources

The probability of buried archaeological resources located under the surface of the property is unknown.

d. Archaeological Survey Recommendations

An on-the-ground cultural resources survey will be performed on the subject property prior to approval of the final subdivision plat.

2. Map and Description of Archaeological or Historic Sites

The Arizona State Museum records check indicated that no cultural resource surveys have been performed on the property. A potential future cultural resources survey will determine whether there are any cultural or historic sites on the subject property.

3. Field Survey Requirements or Results

The ASM defer to Pima County regarding recommendations concerning the need for meeting cultural resources requirements prior to any ground modification activities. Based on the results of the ASM site record check, the Pima County Cultural Resources and Historic Preservation Office may recommend that an on-the-ground survey be conducted by a qualified archaeologist prior to any ground modification activities.



Exhibit II.I.I: Arizona State Museum Letter



PIMA COUNTY ARCHAEOLOGICAL SITE RECORDS SEARCH

**This report documents the results of an archaeological site-records check.
It does not constitute a cultural resources clearance.*

Date: 9/30/2015

Requester Name: Tim Craven
Company: The Planning Center
Address/City/State/Zip: 110 S. Church St., Suite 6320, Tucson, AZ, 85701
Phone / E-mail: 520-623-6146 / tcraven@azplanningcenter.com

Project Name and/or Number: KBT-44 **Project Description:** Residential and commercial development

Parcel Numbers: 101-12-002D/101-12-001C **Legal Description:** T13S, R13E, S09

Search Results:

According to a search of the archaeological site files and records retained at the Arizona State Museum (ASM), approximately 47 previous survey projects were conducted within a one-mile radius of the project area between 1976 and 2013. Previous survey work was conducted in support of residential and commercial development; road construction and improvements; drainage bank protection; school construction; and the installation and maintenance of sewer, transmission, fiber optic, utility, and water lines. No portion of the project area has been previously surveyed.

Fifteen archaeological properties have been recorded within a 1-mile radius of the project area. The boundary of one archaeological property – AZ AA:12:867(ASM) – is crossed by the proposed project area. Archaeological testing was conducted at this site in 2000 and the recommendation was that the site was eligible to the National Register of Historic Places and that archaeological data recovery be conducted prior to any further development of the parcel (Jones 2000).

Archaeological Properties in Project Area:

The boundary of one archaeological property – AZ AA:12:867(ASM) – is crossed by the project area. Additional archaeological properties could be present because the project area has not been subject to archaeological survey.

Recommendations and Responsibilities:

1. One archaeological property – AZ AA:12:867(ASM) – is crossed by the proposed project area. Additionally, our records indicate that no portion of the proposed project area has been subject to an archaeological survey and there is a possibility for additional unidentified archaeological properties in the area. ASM recommends, but it is not required by ASM, that a qualified archaeological contractor be consulted before any ground-disturbance begins.
2. Because Pima County has jurisdiction in this project area, the county will make recommendations for the project using its own search results and it may use the ASM's search results and / or others. Should the county require additional archaeological work in this parcel, you will need to contact a qualified archaeological contractor. A list of archaeological contractors is available on the ASM website at: <http://www.statemuseum.arizona.edu/crservices/permits/index.shtml>.
3. Pursuant to Arizona Revised Statutes §41-865, if any human remains or funerary objects are discovered during your project work, all work will stop within the area of the remains and Dr. Todd Pitezal, ASM assistant curator of archaeology, will be contacted immediately at (520) 621-4795.

If you have any questions about the results of this records search, please contact me.

Sincerely,

Shannon Twilling, M.A.

Shannon D. Twilling, M.A.
 Research Specialist
 Archaeological Records Office
 Arizona State Museum
 (520) 621-1271
 twilling@email.arizona.edu

This project occurs within or close to the boundary of a known cultural resource. This project requires Pima County Office of Archaeology & Historic Preservation review.

Page 1 of 3



J. Air Quality

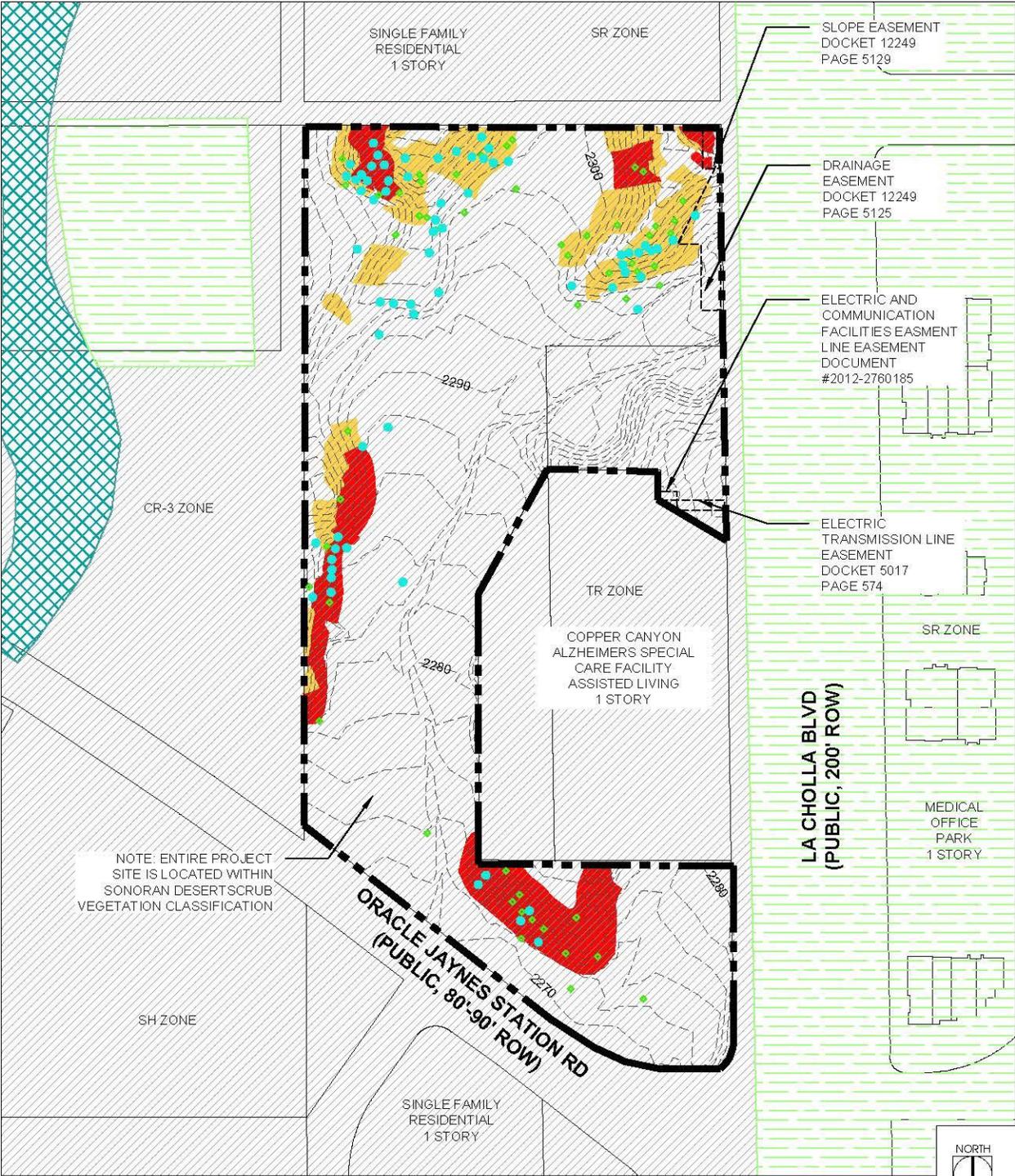
The proposed development does not include industrial type uses and therefore, this section does not apply.

K. Composite Map

The composite map graphically illustrates the summation of opportunities and constraints identified during the inventory and analysis process. (See *Exhibit II.K: Composite Map*).



Exhibit II.K: Composite Map



LEGEND

	SITE BOUNDARY		PARCEL BOUNDARY		XERORIPARIAN C	
	SLOPE (15-25%)		2' TOPO CONTOURS		AGRICULTURE/DEVELOPED/ WATER/BARE GROUND	
	SLOPE (>25%)		SAGUARO <= 6'		PALO VERDEMIXED CACTI	
			SAGUARO > 6'			

FILE NAME: KBT-44_COMPOSITEMAP.DWG/COMPOSITE MAP



LA CHOLLA AND ORACLE JAYNES STATION
REZONING DOCUMENT | PIMA COUNTY
SECTION 3: LAND USE PROPOSAL



A. Project Overview

1. Requested Zoning Boundaries

This is a request to rezone a property into comprised of approximately 10.3 from Suburban Ranch (SR) to Multiple Residence - Small Lot Option (CR-5) and Transitional (TR). Approximately 7.3 acres is requested to be designated as CR-5 (parcel #101-12-002D) and the remaining 3 acres designated as TR (parcel #101-12-001C) to facilitate a probable medical care facility or other medical services such as medical clinics, assisted living and skilled nursing centers, and outpatient services. (See *Exhibit III.A.1: Rezoning Boundaries*).

2. Characteristics of the Proposed Development

The project will feature small lot design in order to maximize the site's potential buildable space, as well as provide appropriate buffers for surrounding uses. The subdivision is proposed for 37 single-family detached residential homes. Lot sizes will generally be 35' x 90' and shall consist of two-story homes. The overall project density is approximately 5.5 dwelling units per acre. Additionally, the TR portion of the site is currently proposed for a 60 unit Skilled Nursing Facility with in/out-patient physical therapy. The buildings will have interior and exterior courtyards with healing gardens for the patients. The user anticipates there will be approximately 40 employees during the day shift, and about 25 employees during the night shift.

The proposed architectural style will be compatible with the surrounding architecture and the color palette utilized will conform to those of the desert environment.

The following is a list of development characteristics that will benefit the community. The preliminary development plan will:

- Provide additional housing opportunities compatible with the existing uses surrounding the areas
- Maximize the spectacular views of the Tucson Mountains and Santa Catalina Mountains.
- Provide buffering for existing residents adjacent to the property through the provision of appropriate setbacks, landscape screening and bufferyards.

a. Project Response to Site Opportunities and Constraints

The small lot option is being proposed in order to preserve the natural drainage ways, vegetation and wildlife habitat that occurs on the site in perpetuity. Project responses to site constraints are as follows:

- A 20-foot bufferyard and a 40" to 6-foot screening wall is proposed along the developed portion of the site adjacent to La Cholla Boulevard to mitigate any negative impacts on visibility, privacy and noise.



- A 10-foot bufferyard and 6-foot decorative masonry screening wall is proposed along the proposed TR portion of the site adjacent to the residence to the north.
- A 10-foot bufferyard with a 5-foot screening wall is proposed along the southern boundary of the site adjacent to Oracle Jaynes Station Road.
- Proposed grading limits shall be minimized to preserve as much connective high resource value habitat as possible.

b. **Pima Prospers- Comprehensive Plan**

The overall project density is approximately 5.5 dwelling units per acre. The Pima Prospers Comprehensive Plan designation on the property is Medium Intensity Urban (MIU), which allows for a maximum of 13 residence per acre.

c. **Impact to Existing Land Uses and Surrounding Land Uses**

The proposed project site is located on the northwest corner of the intersection of La Cholla Boulevard and Oracle Jaynes Station Road. La Cholla Boulevard and Oracles Jaynes Station Road are public streets and may act as a transition from the proposed development and the existing land uses to the south and east. The project site is located near land uses similar to the intensity of land uses proposed. Adjacent to the proposed project site to the east, and on sections of the north and south property lines, is the Tucson Memory Care Assisted Living Facility which is zoned TR. West of the project site is a combination of a single user Amphi Alternative School, vacant land, and floodplain. Further to the west about one quarter mile away is the existing Casas Adobes Park, developed with a RAC of 2.4 to 4.1 units per acre. Various properties located to the south are a combination of raw land and unsubdivided parcels with a RAC between 1.2 and 2.4 per acre. The property to the north has one single family residential home on about 4 acres of land with an underlying MIU designation. The proposed development will have minimal impact on existing land uses on- and off-site given the following:

- Ample setbacks, screening, open space, and vegetative buffering is proposed where appropriate between the project site and adjacent properties to mitigate any negative impacts on visibility, privacy and noise.
- Building height limitation is proposed to restrict the development to a combination of one- and two-story development, with a maximum of 34 feet in height. This will help mitigate views from adjacent properties of the Catalina Mountains to the northeast. The topography, screening and vegetation will also help mitigate any adjacent off-site views.



d. **Smart Growth Principles**

The project site is located in an area that is designated by Pima County as Medium Intensity Urban, which facilitates greater land use densities as a means of preserving the greatest amount of open space possible. In utilization of the small lot option, the proposed density of the subject property promotes compact residential development encouraging the preservation of open space as well as mitigating flooding and stormwater drainage needs.

e. **Sustainability Features**

The proposed development will incorporate and sustainable green building measures.

The following is a list of some 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 with low water demand and trees located to maximize shade
- Passive water harvesting
- Tucson Electric Power's energy guarantee

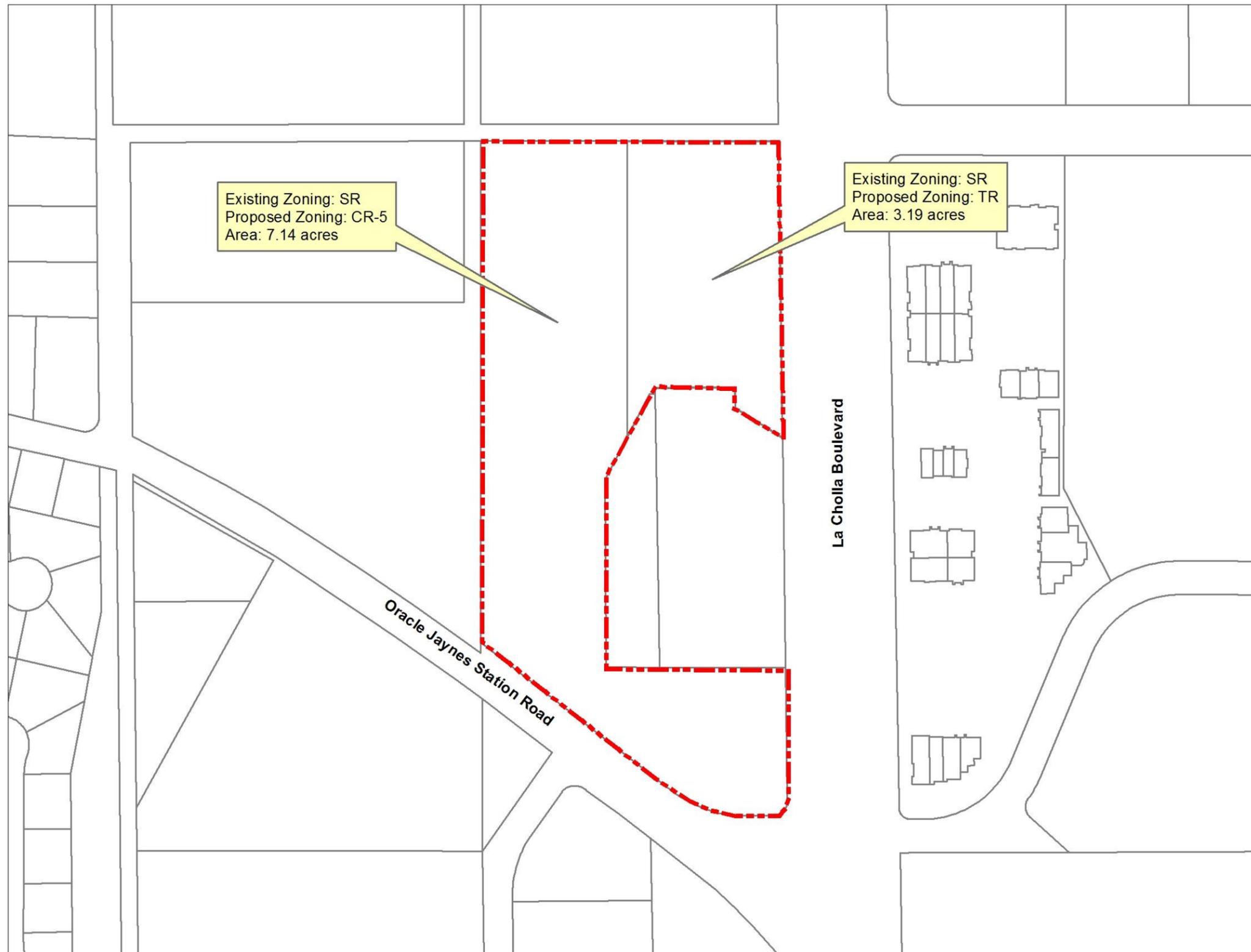
3. Ordinances

d. **Native Plant Preservation Ordinance (NPPO)**

The site is required to comply with the NPPO. The set-aside method, as specified in the Pima County Code of Ordinances Chapter 18.72.090, will be utilized for this property. The set-aside method requires that no less than 30% of a site with the highest resource value must remain undisturbed natural open space, wherein no development shall occur.



Exhibit III.A.1: Rezoning Boundaries



LEGEND

 Site Boundary

 Parcels

Notes:

The rezoning application is comprised of Assessor's Parcel # 101-12-002D and 101-12-001C. Total area of the rezoning proposal is approximately 10.33 acres.



FILE NAME: 8x15_rezone_boundary.mxd
SOURCE: Pima County GIS, 2015

B. Preliminary Development Plan

1. PDP Overlay

A removable acetate overlay and a 24-inch by 36-inch exhibit of the Preliminary Development Plan (*Exhibit III.B.1*) are included in the map pocket located at the end of this Site Inventory and Land Use Proposal.

2. Support Data

a. Gross Floor Area

The gross floor area of the commercial structure is approximately 50,000 square feet.

b. Building Heights

According to Pima County Zoning Code 18.29.030, the maximum building height that is allowable in a CR-5 zone is 34-feet, and the maximum number of stories is two. According to Pima County Zoning Code 18.31.030, the maximum building height that is allowable in a TR zone is 34-feet, and the maximum number of stories is two. All building heights within the proposed site will remain at or under 34-feet.

c. Number of Homes

The total number of dwelling units for the proposed development is 37.

d. Maximum Residential Density

Maximum density for a CR-5 zone is 7.26 residences per acre. The proposed residential density is approximately 5.5 residences per acre.

e. Parking Spaces

This development will include 2 parking spaces inside the garage and 2 visitor parking spaces in the driveway for each unit. No additional parking is necessary. Visitor parking will be permitted along both sides of the paved street.

The portion of the site requested to be designated as TR (parcel #101-12-002C) will have approximately 69 parking spaces to accommodate the medical facility.

f. Landscaping

The proposed development will feature native and near-native low water use plant species, as well as permeable ground covers that reflect the natural environment of the surrounding desert. The landscape will feature passive rainwater harvesting systems to mitigate rainwater runoff and



supplement landscape irrigation. In addition, a minimum of one large canopy tree will be planted in the yards of each unit.

g. **Open Space**

The lots that back up to open space will take advantage of the natural viewsheds, native vegetation and wildlife habitat. Open space is shown on *Exhibit III.B.1: Preliminary Development Plan*. All open space and common areas will be owned and maintained by the homeowners associations



C. Topography and Grading

1. Development on Slopes of 15% or Greater

A considerable amount of effort has been taken to minimize visual impacts to the surrounding properties and to minimize cuts and fills of the existing onsite terrain in excess of 15% slopes or greater. The two primary areas of 15% or greater slopes (the northwest ridge, and the southern hill adjacent to lots 1-5) have been preserved in place. The north cul-de-sac profile has been designed to balance the impacts of filling the low lying area to the west and cutting into the higher area to the north. The impact of this cut will fall well below any adjacent property owner's view and will have no visual impact. The fill on the western edge of the property will fall within the parameters of the HDZ regulations. The commercial area will require filling the existing low lying area. 6' planting areas are anticipated at the toe of all slopes in excess of 10' to meet the HDZ regulations. In order to develop this site in accordance with HDZ requirements and the underlying MIU designation, engineering solutions will be used throughout the site to develop some areas and protect others. Any exposed slopes will either be hydroseeded or have rip-rap placed as necessary. See *Exhibit III.C.1: Road Profile*.

2. Hillside Development Zone

The project site is subject to the Hillside Development Zone because several locations throughout the site have slopes of 15% or greater, please see *Exhibit II.B.1*. Almost all of the slopes proposed for grading are lower than the grade of surrounding properties, and lower than the grade of La Cholla Blvd. The two most prominent slopes on the property have been designated to be preserved as natural open space. One of these slopes is visible from Oracle Jaynes Station Road, and the other slope is on the north end of the property.

3. Site Description

a. Retained as Natural Open Space

The proposed development will retain 20% of the site as natural, undisturbed open space. See *Exhibit III.C.3: Grading and Open Space*.

b. Revegetated

Exposed slopes will be protected with either rip-rap or be hydroseeded as necessary.

c. Graded or Disturbed

Approximately 80% of the site will be disturbed upon development. See *Exhibit III.C.3: Grading and Open Space*.



4. Maximum Change in Elevation

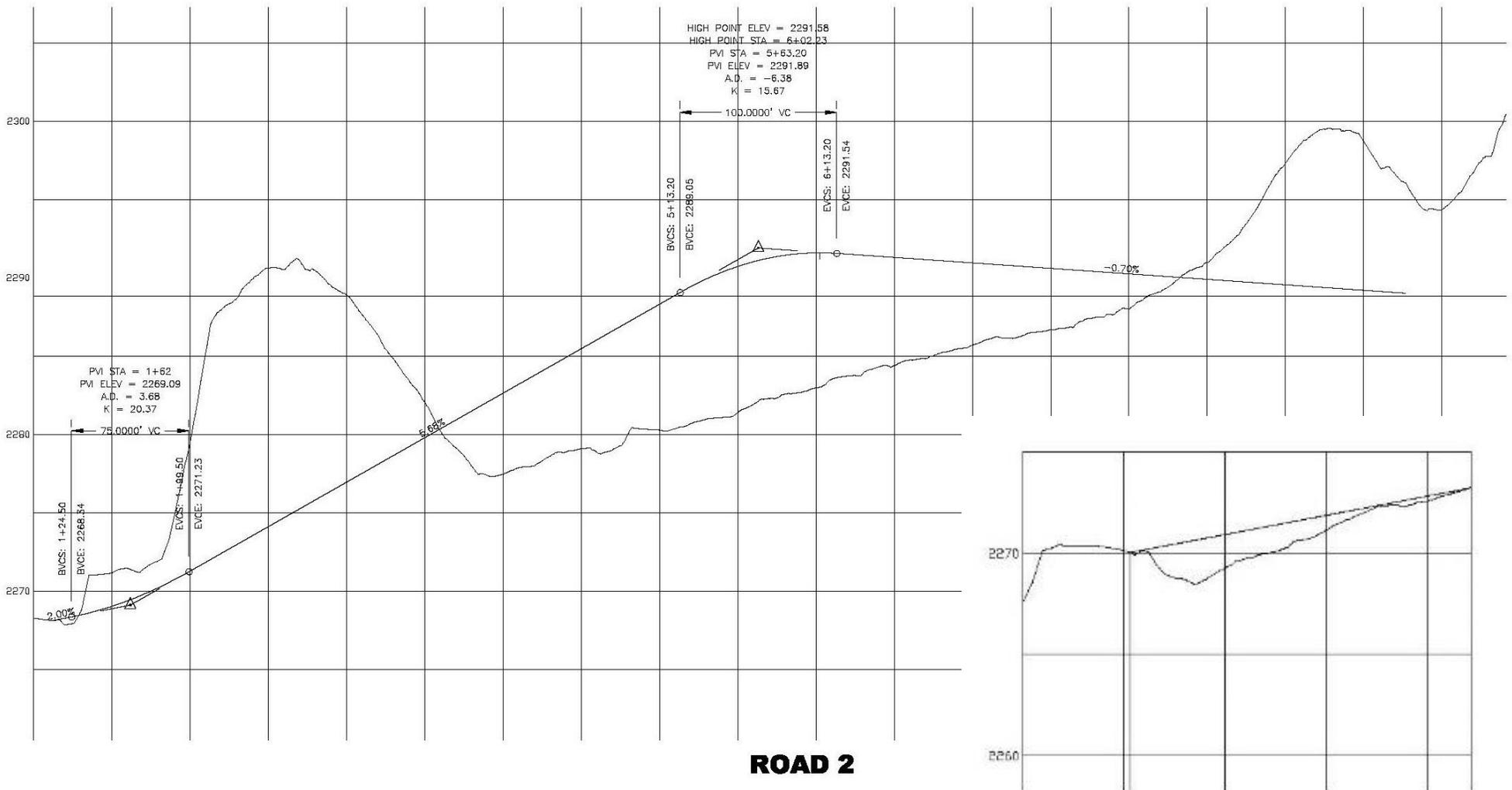
Refer to *Exhibit III.C.4: Cut / Fill* for the areas that exceed an elevation change of five feet by cut or fill.

5. Cross-Sections

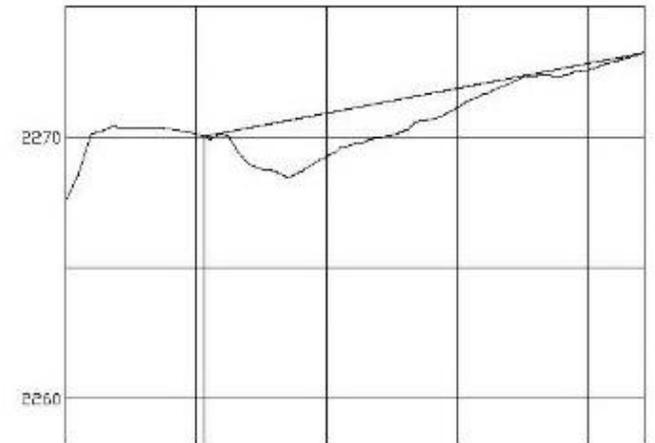
The proposed site is not a cluster project, therefore this section of the plan proposal is not applicable.



Exhibit III.C.1: Road Profile



ROAD 2



ROAD 1

**ORACLE JAYNES
PROFILES**

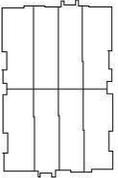
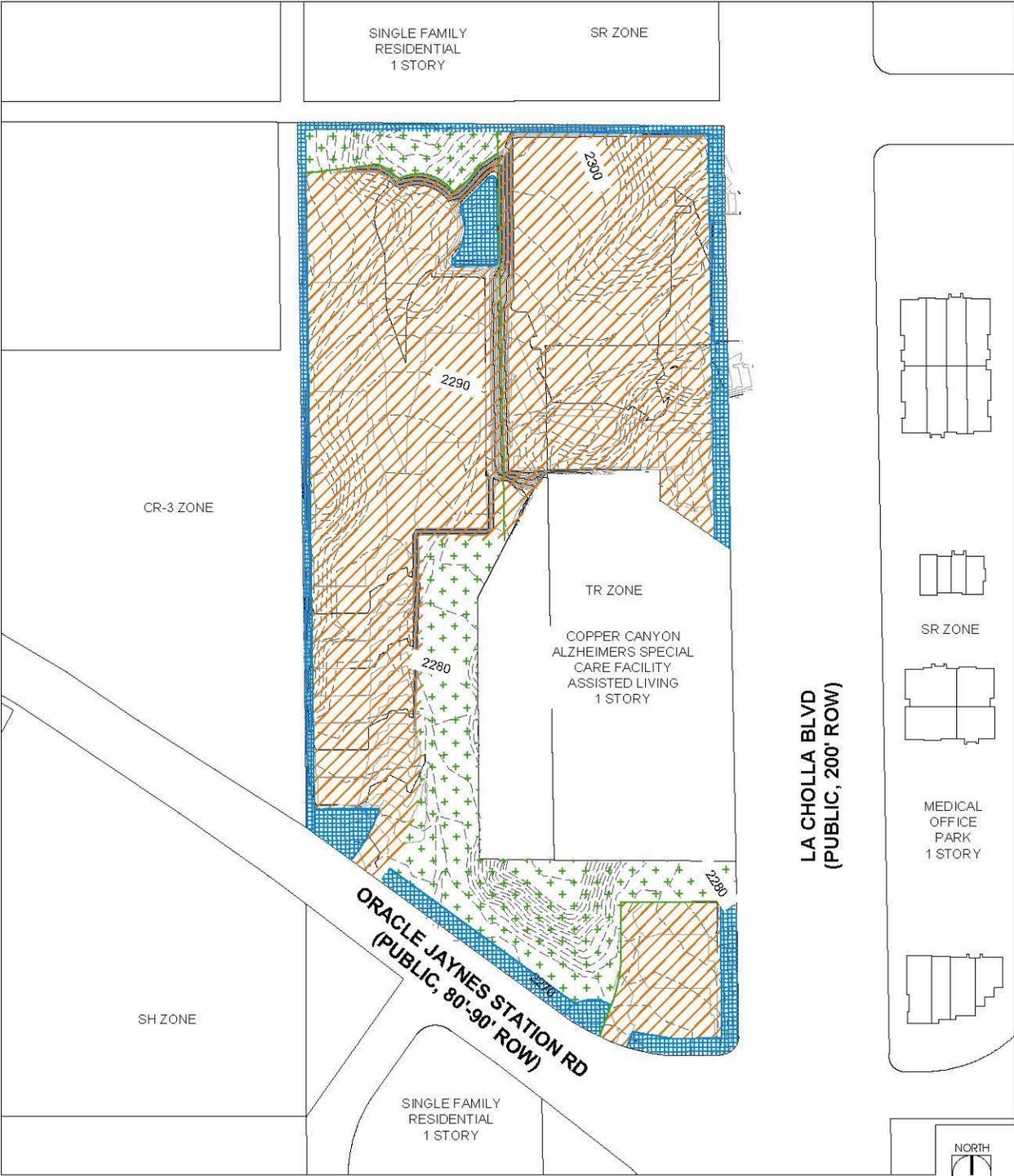


**ALLIANCE
ENGINEERING, PC**
CIVIL ENGINEERING
1440 W CANYON SHADOWS LN. ORO VALLEY AZ 85717
PH: 520-892-7992 FAX: 520-742-0120
WWW.AE-ORO.COM

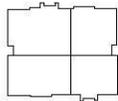
DRWN: BJK DATE: PRJ: J



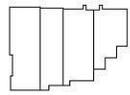
Exhibit III.C.3: Grading and Open Space



SR ZONE



MEDICAL OFFICE PARK 1 STORY



LEGEND



GRADED OR DISTURBED (70%)



NATURAL OPEN SPACE (20%)



REVEGETATED (10%)

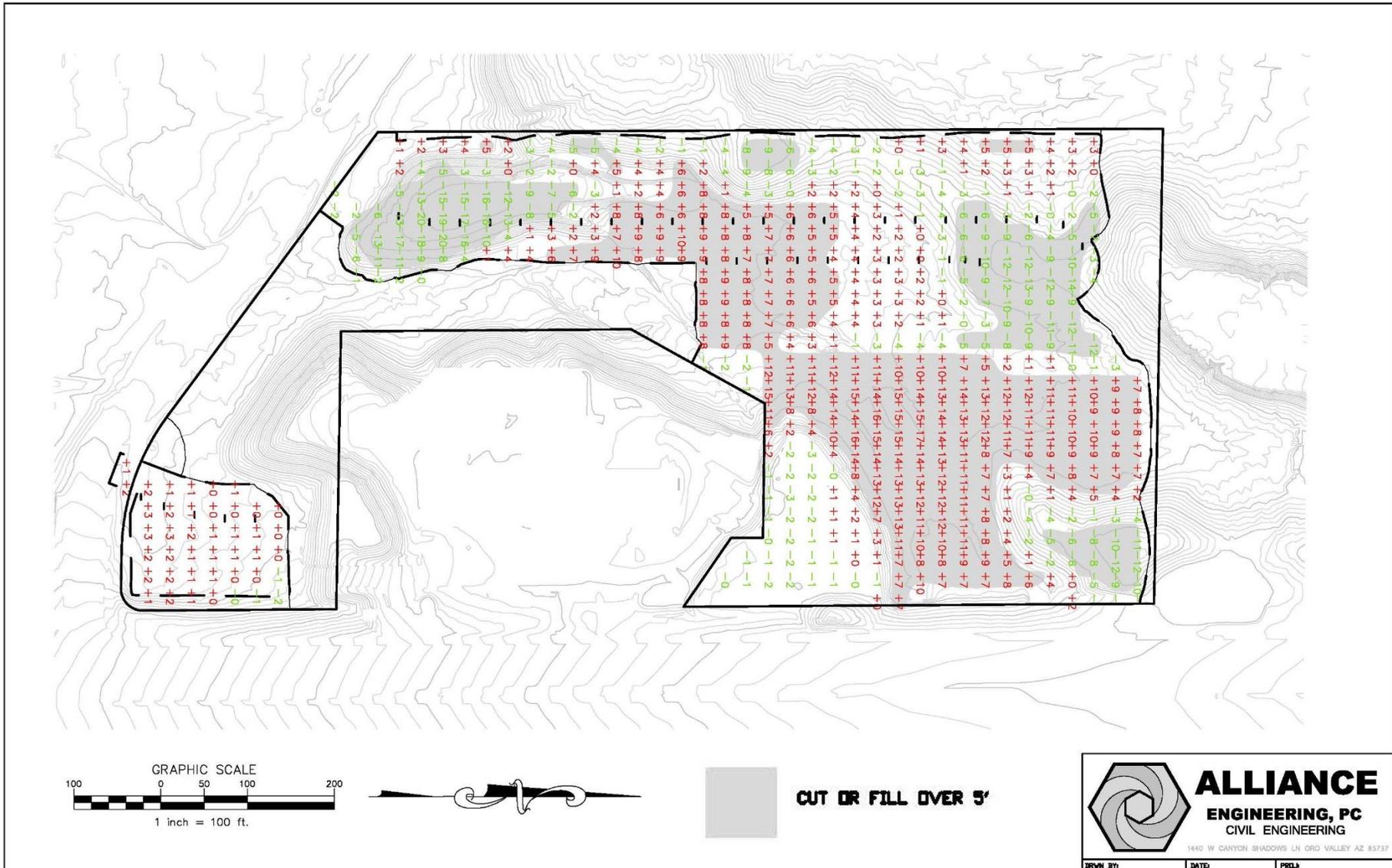
--- 2' TOPO CONTOURS



FILE NAME: KBT-44_GRADING EXHIBIT.DWG/GRADING EXHIBIT



Exhibit III.C.4: Cut / Fill



D. Hydrology

1. Hydrologic Characteristics of PDP

The proposed development for this parcel is 3.18 acres of commercial and 7.17 acres of residential.

Commercial:

The three-acre commercial parcel will be developed with several culverts accepting discharge from the La Cholla Boulevard culverts (OFF 2-131 cfs) and passing them through the site to a constructed scour basin. A combination of 48" HDPE pipes and junction vaults is proposed.

A 60" cmp pipe will be placed to capture the drainage area (OFF 1-98 cfs) to the north and counter sunk to eliminate any increase in flood elevation caused by the northern discharge.

Increased flows due to development of the commercial parcel will be mitigated by a detention system shared with the residential site. Both the commercial and residential sites will be members of the association responsible for maintenance and will be assessed fees to maintain this shared basin.

Residential:

The remaining 7.17 acres is planned to be a 37 lot residential subdivision. OFF 1 discharge will bypass the existing channel through a proposed 60" HDPE pipe. This discharge will be concentrated in a man-made scour basin that accepts offsite flows from OFF 2 basin.

To maximize undisturbed open space, the existing channel is left as natural with some encroachment of the new entry road required. A three-foot toe down will be required adjacent to the proposed road to mitigate erosion hazard setback.

Because this is in a critical basin, onsite flows must be reduced by 15%. The floodplain at the property line will be reduced in quantity by 10 cfs thus reducing the overall impact to the downstream properties.

Discharge from OFF3 will be accepted in a graded swale north of Lot 5 that discharges to the existing natural swale adjacent to the entry road.

Discharge from OFF4 will be accepted into the proposed plunge basin.



Discharge from OFF5 will be accepted by a 10' buffer area and routed south to Lot 6 and then east to the existing concentration point through an appropriate swale.

Several detention areas are proposed throughout the site to bring the developed discharge back to pre-development peaks. Onsite lot to lot water harvesting will be employed as well as first flush for the roads and commercial site. See *Exhibit III.D.1: Post-Development Hydrology*. Both the commercial and residential sites will be members of the association responsible for maintenance and will be assessed fees to maintain this shared basin.

2. Encroachment Mitigation

To develop the parcel in accordance with applicable Pima County standards, engineering solutions to carry onsite and offsite discharges will be created. The entry road of the residential portion encroaches into the floodplain, but the remainder of the wash is to be natural.

The TR site will capture and redirect the offsite flows through a storm drain system. The drainage system will be designed to prevent any impacts to upstream and downstream property owners. Full details and modeling will be provided at the development plan phase and will be required to meet Pima County Flood Control requirements.

3. Potential Drainage Impacts to Off-site Locations

Total increase of the site after development is 16 cfs. Refer to *Exhibit III.D.2: PC Hydro Sheets* for estimated pre- and post-development discharge. A pondpack detention routing is also included to estimate onsite storage for the mitigation of the post-development increase. Post-development discharge at Oracle Jaynes Station Road will be 10 cfs less than the pre-development discharge and no changes to the existing nature of the natural channel are proposed at the south property line.

4. Engineering and Design Features

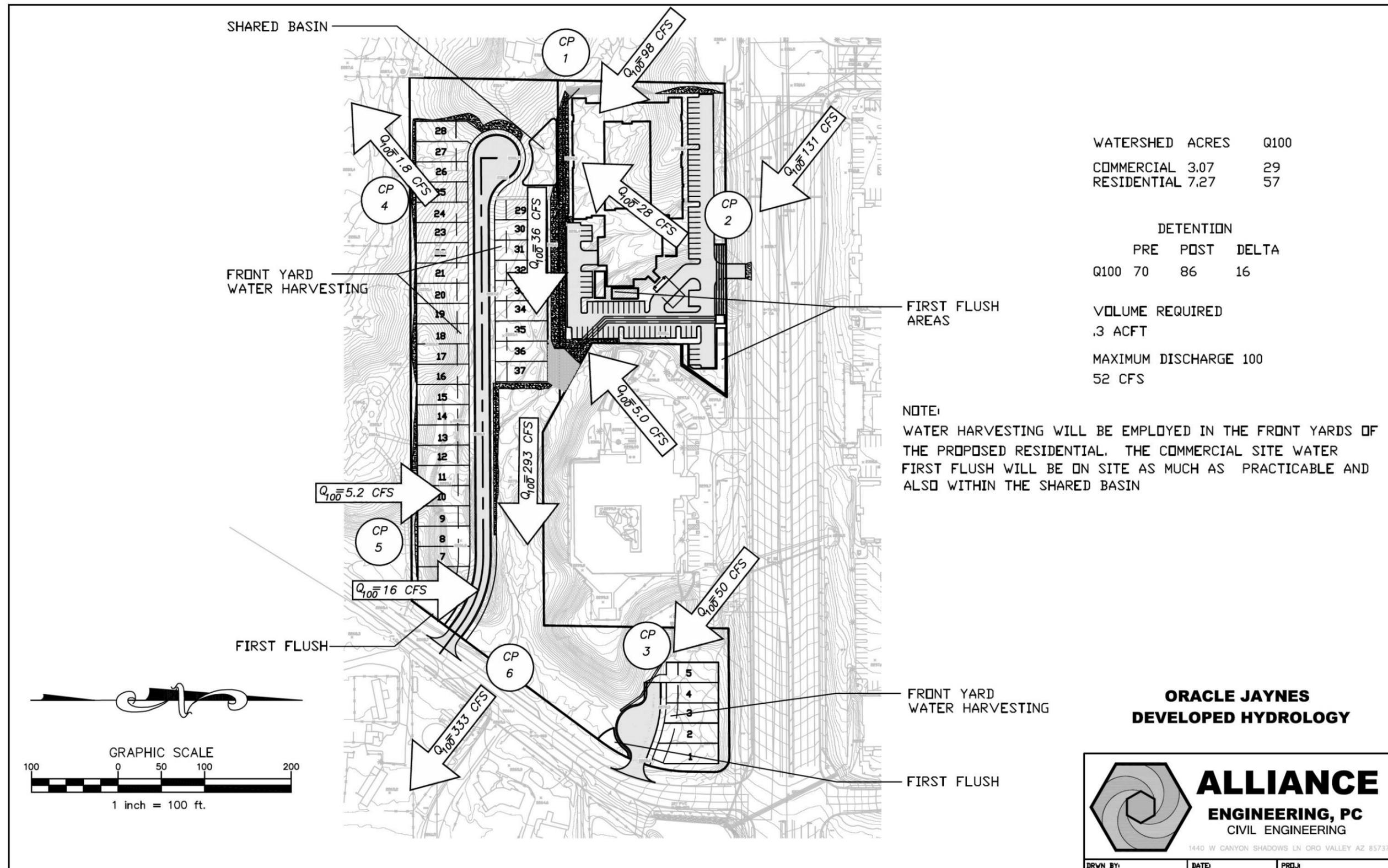
Refer to *Exhibit III.D.3: Developed Hydraulics* for the detailed engineered solutions for the site drainage. There are five culverts, one channel, and general detention volume information included. See also *Exhibit III.D.4: Channel Cross Section A* for more detail on erosion protection. The channel is for the proposed detention/first flush basin requirements and the offsite flows will be passed through a storm drain.

5. PDP Conformance

Exhibits have been created to delineate the engineering that will be required to maintain on and offsite flows in pre development conditions.



Exhibit III.D.1: Post-Development Hydrology



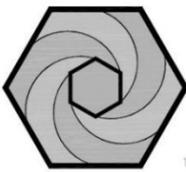
WATERSHED ACRES	Q100
COMMERCIAL	3.07 29
RESIDENTIAL	7.27 57

DETENTION			
	PRE	POST	DELTA
Q100	70	86	16

VOLUME REQUIRED
.3 ACFT

MAXIMUM DISCHARGE 100
52 CFS

**ORACLE JAYNES
DEVELOPED HYDROLOGY**



**ALLIANCE
ENGINEERING, PC**
CIVIL ENGINEERING

1440 W CANYON SHADOWS LN ORO VALLEY AZ 85737

DRWN BY: DATE: PROJ:



HYDROLOGIC DATA SHEET FOR PIMA COUNTY FLOOD PEAK PROCEDURE
Pima County Regional Flood Control District



Client: KB Home Prepared by: DMR
 Project Name: Oracle Jaynes Development Date: 11/13/2015
 Concentration Point: RESIDENTIAL Job #: 15-127

Watershed Area: 7.3 ac Watershed Type: High Density Urbanized

Watercourse Data By Reach				
Reach No.	Height (Hi)	Length (Li)	Slope (Si)	Basin Factor (Nb)
1	33.0	1,103	0.0299	.022

Length of Watercourse (Lc): 1,103 feet Mean Slope: 0.0299
 Length to Cen. of Gravity (Lca): 555 feet Weighted Basin Fac.: 0.022
 Veg. Cover Type(s): Desert Brush Veg. Cover Density: 5 %

RETURN PERIOD: 100-years

Rainfall Depths: NOAA Atlas 14 (90% UCL) @ Latitude: 32.3146 Longitude: 111.0136										
Duration:	5-min	10-min	15-min	30-min	60-min	2-hr	3-hr	6-hr	12-hr	24-hr
Point Values (in)	0.85	1.30	1.61	2.17	2.68	2.98	3.12	3.38	3.62	4.39
Areal Values (in)	0.85	1.30	1.61	2.17	2.68	2.98	3.12	3.38	3.62	4.39

Soils Data				
Soil Type	Percent	Curve # (CN)	Adj. Curve # (CN*)	Runoff Coef. (C)
B	71	84.	87.75	0.567
C	29	90.	92.4	0.707
D	0	.	.	0.000
Imp.	45	99.	99.	0.956

Weighted Runoff Coef. (Cw): 0.764
 Time of Concentration: 5.0 min
 Rainfall Intensity (i) @ Tc: 10.20 in/hr
 Runoff Supply Rate (q) @ Tc: 7.80 in/hr

PEAK DISCHARGE: 57 cfs

HYDROLOGIC DATA SHEET FOR PIMA COUNTY FLOOD PEAK PROCEDURE
Pima County Regional Flood Control District



Client: KB Home Prepared by: DMR
 Project Name: Oracle Jaynes Development Date: 11/13/2015
 Concentration Point: COMMERCIAL Job #: 15-127

Watershed Area: 3.1 ac Watershed Type: High Density Urbanized

Watercourse Data By Reach				
Reach No.	Height (Hi)	Length (Li)	Slope (Si)	Basin Factor (Nb)
1	3.0	667	0.0045	.022

Length of Watercourse (Lc): 667 feet Mean Slope: 0.0045
 Length to Cen. of Gravity (Lca): 300 feet Weighted Basin Fac.: 0.022
 Veg. Cover Type(s): Desert Brush Veg. Cover Density: 15 %

RETURN PERIOD: 100-years

Rainfall Depths: NOAA Atlas 14 (90% UCL) @ Latitude: 32.3146 Longitude: 111.0136										
Duration:	5-min	10-min	15-min	30-min	60-min	2-hr	3-hr	6-hr	12-hr	24-hr
Point Values (in)	0.85	1.30	1.61	2.17	2.68	2.98	3.12	3.38	3.62	4.39
Areal Values (in)	0.85	1.30	1.61	2.17	2.68	2.98	3.12	3.38	3.62	4.39

Soils Data				
Soil Type	Percent	Curve # (CN)	Adj. Curve # (CN*)	Runoff Coef. (C)
B	100	84.	87.75	0.567
C	0	.	.	0.000
D	0	.	.	0.000
Imp.	90	99.	99.	0.956

Weighted Runoff Coef. (Cw): 0.917
 Time of Concentration: 5.0 min
 Rainfall Intensity (i) @ Tc: 10.20 in/hr
 Runoff Supply Rate (q) @ Tc: 9.36 in/hr

PEAK DISCHARGE: 29 cfs



Exhibit III.D.2: PC Hydro Sheet (cont'd)
Culvert Calculator Report
CL3

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	2,275.00 ft	Headwater Depth/Height	1.23
Computed Headwater Elev.	2,273.69 ft	Discharge	50.00 cfs
Inlet Control HW Elev.	2,273.69 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	2,273.68 ft	Control Type	Inlet Control

Grades			
Upstream Invert	2,270.00 ft	Downstream Invert	2,269.00 ft
Length	116.00 ft	Constructed Slope	0.008621 ft/ft

Hydraulic Profile			
Profile	S2	Depth, Downstream	1.96 ft
Slope Type	Steep	Normal Depth	1.93 ft
Flow Regime	Supercritical	Critical Depth	2.30 ft
Velocity Downstream	10.21 ft/s	Critical Slope	0.005471 ft/ft

Section			
Section Shape	Circular	Mannings Coefficient	0.012
Section Material	HDPE (Smooth Interior)	Span	3.00 ft
Section Size	36 inch	Rise	3.00 ft
Number Sections	1		

Outlet Control Properties			
Outlet Control HW Elev.	2,273.68 ft	Upstream Velocity Head	1.15 ft
Ke	0.20	Entrance Loss	0.23 ft

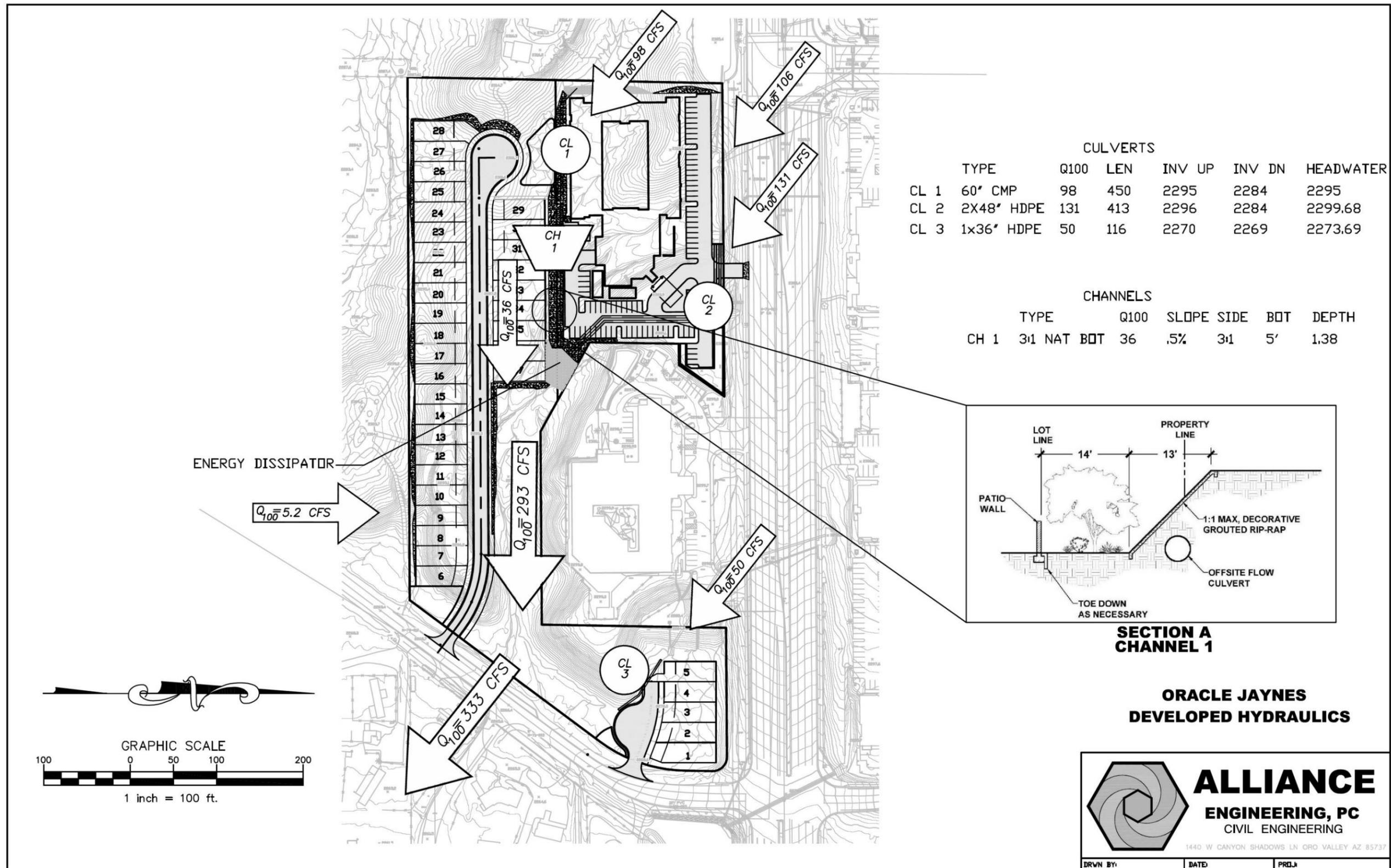
Inlet Control Properties			
Inlet Control HW Elev.	2,273.69 ft	Flow Control	Submerged
Inlet Type	Beveled ring, 33.7° bevels	Area Full	7.1 ft²
K	0.00180	HDS 5 Chart	3
M	2.50000	HDS 5 Scale	B
C	0.02430	Equation Form	1
Y	0.83000		

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© Haestad Methods, Inc. 37 Brookside Road, Waterbury, CT 06708 USA +1-203-755-1666

Project Engineer: Derek Roberts
 CulvertMaster v2.0 [2.005]
 Page 1 of 1



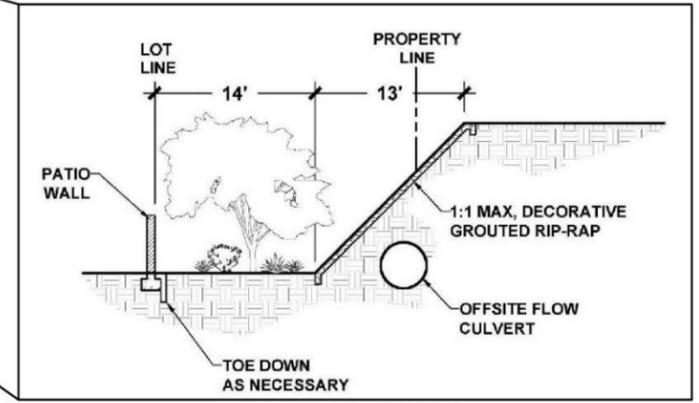


CULVERTS

	TYPE	Q100	LEN	INV UP	INV DN	HEADWATER
CL 1	60" CMP	98	450	2295	2284	2295
CL 2	2X48" HDPE	131	413	2296	2284	2299.68
CL 3	1x36" HDPE	50	116	2270	2269	2273.69

CHANNELS

	TYPE	Q100	SLOPE	SIDE	BOT	DEPTH
CH 1	3:1 NAT BOT	36	.5%	3:1	5'	1.38



**SECTION A
CHANNEL 1**

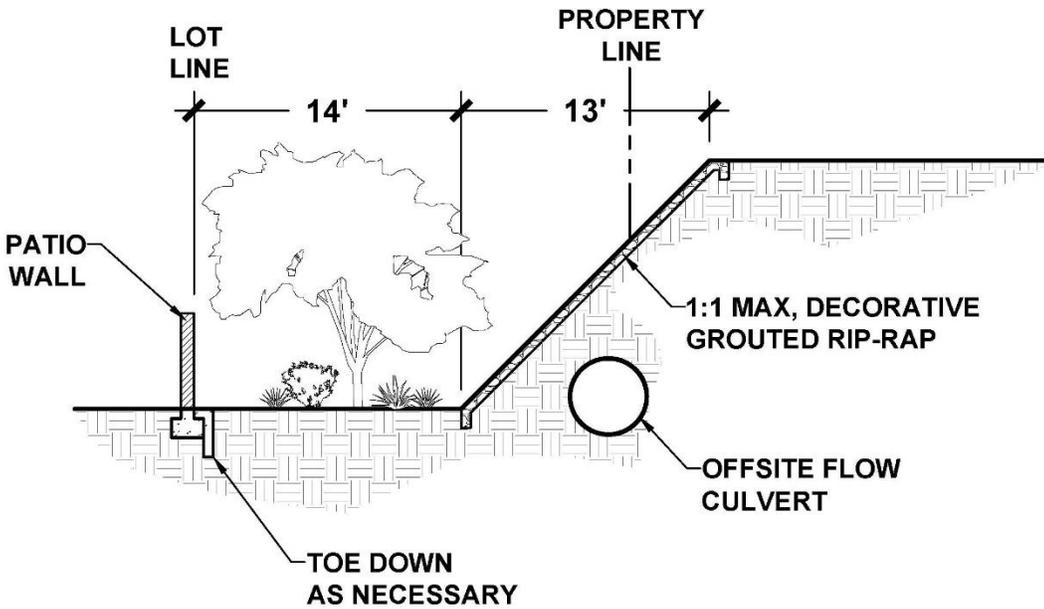
**ORACLE JAYNES
DEVELOPED HYDRAULICS**

ALLIANCE
ENGINEERING, PC
CIVIL ENGINEERING
1440 W CANYON SHADOWS LN ORO VALLEY AZ 85737

DRWN BY: _____ DATE: _____ PROJ: _____



Exhibit III.D.4: Channel Cross Section A



FILE NAME: SECTION - RIPRAP SLOPE.DWG/8.5X6.5 PT



E. Biological Resources

1. Expected Impacts

a. Conservation Lands System

The project site is not located within any areas designated by the Conservation Lands System (CLS). There will be no impacts on the CLS.

b. Saguaros

A site visit was conducted on September 24, 2015 and identified a total of 118 saguaro cacti located within the site boundaries. Saguaros are located in many locations across the site and cannot be completely avoided by development on the site. A preliminary analysis has indicated there are 85 viable saguaros and 33 non-viable saguaros. Saguaros located outside of developed areas will be preserved in place. Any remaining saguaros that meet the native plant preservation transplanting criteria will be salvaged and transplanted on the project site. The saguaros will be relocated within required bufferyards and/or common areas. Mitigation will be in accordance with Chapter 18.72 of the Pima County Code.

c. Ironwood Trees

A site visit was conducted on September 24, 2015 did not locate any Ironwood Trees on site. There will be no impacts to Ironwood Trees.

d. Pima Pineapple Cactus

A site visit was conducted on September 24, 2015 did not locate any Pima Pineapple Cacti on site. There will be no impacts to Pima Pineapple Cacti.

e. Needle-Spined Pineapple Cactus

A site visit was conducted on September 24, 2015 did not locate any Needle Spined Pineapple Cacti on site. There will be no impacts to Needle Spined Pineapple Cacti.

2. Landscape Connectivity

Since the site is not located within the CLS or Critical Landscape Connection, landscape connectivity is not required. However, the bufferyards around the perimeter of the site and the wash channel through the site will maintain some landscape connectivity across the site.



F. Landscape and Buffer Plan

1. Landscape Buffer Yard Plan

Table III.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 III.F.1: Buffer Plan.) The first table shows buffers and screening for the CR-5 residential portion of the project. The second table shows the buffers and screening for the TR commercial portion of the project.

Table III.F.1: CR-5 Buffer and Screening Plan

Adjacent Land Use	Required Buffer Yard	Provided Buffer Yard	Provided Screening
SR Residential (north)	Bufferyard C	20' Natural Bufferyard C	None
Public Street (Oracle Jaynes Station)	Bufferyard C	10' Bufferyard C	60" masonry wall
Public Street (La Cholla & Oracle Jaynes Station adjacent to Lot 1)	Hillside Bufferyard	20' Hillside Bufferyard	72" masonry wall
TR Non-residential (east & north, existing)	None	None	None
TR Non-residential (east, proposed)	None	None	None
CR-3 Vacant (west)	Bufferyard C	10' Bufferyard C	60" masonry wall

Table III.F.2: TR Buffer and Screening Plan

Adjacent Land Use	Required Buffer Yard	Provided Buffer Yard	Provided Screening
SR Residential (north)	Bufferyard D	10' Bufferyard D	72" decorative masonry wall
Public Street (La Cholla)	Bufferyard B	10' Bufferyard B	40" decorative masonry wall
TR Non-residential (south, existing)	None	None	None
CR-5 Residential (west, proposed)	Bufferyard D (None if platted together)	None	None



2. Buffer Yard/Open Space Conflicts

There are no known conflicts with the proposed bufferyards and open space with any easements, setbacks, or rights-of-way.

3. Vegetation Transplanted On-Site

Transplanted trees and shrubs will be located within the buffer yards and basins which are compatible with the plants size and water use. Saguaro cacti will not be transplanted to basin areas. Transplanted saguaros will be located in buffer yards and well drained common areas.

G. Viewsheds**4. Visual Impacts from Development****a. Views and Vistas from Off-Site Locations**

The majority of views in the area are in the distant background to the east, south and west, with the closest views of the Santa Catalina Mountains to the east. The proposed development will not impact views or vistas from off-site locations due to the large setbacks to adjacent land uses, amount of dedicated open space and the proposed landscape buffers and proposed screening along La Cholla Boulevard and Oracle Jaynes Station Road.

b. Areas of High and Medium Visibility

The site is not being developed under the Cluster Development Option, therefore this section is not applicable.

5. Measures to Minimize Visual Impacts from Development

The homes and proposed medical care facility will be finished using natural, non-reflective colors that blend with the natural environment of the surrounding desert. The site will consist of downward-facing external lighting in compliance with the Outdoor Lighting Code, Chapter 15.12 of the Pima County Code of Ordinances.



H. Transportation

1. Access Points

There will be three total access points to the subject property. The primary access point from Oracle Jaynes Station Road on the \pm 7 acre CR-5 parcel will serve lots 6-37, with a separate access point to serve lots 1-5. One access point from La Cholla Boulevard will be provided to serve the \pm 3 acre TR parcel.

2. Future Road Improvements

The PDP does not depend on future off-site road improvements for access.

3. Changes to Average Daily Trips

The proposed development will generate approximately 489 trips per day in accordance with the Trip Generation Manual, 7th Edition, Institute of Transportation Engineers. The average rate for single family detached homes is 10 trips per day multiplied by the number of units (37). The average rate for skilled nursing facilities is 2.37 trips per day multiplied by the number of beds (50).

4. Traffic Impacts Minimized by PDP

The project will have three access points, two located on Oracle Jaynes Station Road and the other located on La Cholla Boulevard. The concrete median located between the north and south traffic lanes on La Cholla Boulevard will mitigate impacts caused by the proposed project. Additionally, the northbound deceleration/left turn lane at the intersection of La Cholla Boulevard and Oracle Jaynes Station Road mitigates the traffic impacts from the project site on Oracle Jaynes Station Road.

5. Bicycle and Pedestrian Pathways

Sidewalks are proposed on both sides of the internal roadways to accommodate pedestrian traffic through the site.

6. Typical Roadway Sections

The interior roadway will be public with a 45-foot right-of-way. This road consists of a 24-foot paved driving surface with two-foot wedge curbing, three-foot open buffer, and four-foot sidewalk on each side of the roadway.

7. Transportation Concurrency

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



I. On-Site Wastewater Treatment and Disposal

1. On-Site Wastewater Treatment/Disposal Facilities

The site will be served by Pima County Regional Wastewater Reclamation Department.

J. Sewer

1. Method of Sewer Service

The site will connect to an existing sewer network served by Pima County Regional Wastewater Reclamation Department. An 8-inch public sewer (S-519) exists perpendicular to Oracle Jaynes Station Road south of the property at manhole 9539-05. (See *Exhibit II.G.1: Wastewater Letter*)

2. Collection Sewers

Sewers within this development will follow the right-of-way through the development, and will require a 20' easement for a right-of-way to enable connection to the existing sewer service.

3. Sewers within public right-of-way

Sewer service connects to as built pipe S-519 located perpendicular to Oracle Jayne Station Road and the subject property.

4. Site Constraints to Gravity Sewer

There are no site constraints to gravity sewer.



K. Water

Refer to Appendix A: Preliminary Integrated Water Management Plan.

L. Schools

1. Routes to Adjacent Schools

One charter school, Faith Community Academy, is located within a 1-mile vicinity proposed development site, which is accessed via Orange Grove Road. Additionally, three private schools are located within a one-mile radius: Carden of Tucson and Sonoran Science Academy-Tucson accessed via River Road, and Alternative High School accessed via La Cholla Boulevard. Walker Elementary school is the only public school within a one-mile radius and is accessed primarily via River Road. However, Laguna Elementary, La Cima Middle School and Donaldson Elementary are located just outside of the one-radius.

As shown on *Exhibit III.B.1*, a trail connection will be provided from the northern cul-de-sac within the CR-5 property along the northern property boundary to La Cholla Boulevard. The ultimate location of the trail will be determined by final block plat.

2. School Capacity

As shown in *Exhibit III.L.2: Existing Schools*, the site is located within the Amphitheater School District. There is one public school located within one mile of the project site. See *Table III.L.2* for all public schools that could potentially serve the site.

Table III.L.2: Public School Serving the Site

School Name	Location
Walker Elementary School	1750 W. Roller Coaster Road
La Cima Middle School	5600 N. La Cañada Drive
Amphitheater High School	125 W. Yavapai Road

Source: Amphitheater School District Website, 2015

a. Present and Projected Enrollments

Ms. Connie McFarland, Legal Assistant Todd A. Jaegar, J.D., was consulted for the current enrollment and capacity numbers for the public schools that will serve the site (*Exhibit III.L.3: Amphitheater School District Capacity*). Walker Elementary School currently has 482 students enrolled, and has the capacity to serve 630 students Continental School currently has 579 students enrolled, and has the current capacity to serve 800 students in grades K-5. La Cima Middle School currently has 446 students enrolled, and has the current capacity to serve 1,370 students in grades 6-8. Amphitheater High School currently has 1,261 students enrolled, and has the current capacity to serve 2,130 students in grades 9-12.



b. **Projected Increase to Enrollment**

The Amphitheater School District uses multipliers developed by the U.S. Department of Census, Bureau of Census, and adjusted for the district's school organization patterns to projected increases in enrollment from the proposed development. Using the multiplier of 0.2075 for elementary students per household, Amphitheater School District anticipates that the proposed development will increase enrollment by 9 elementary students. Using a multiplier of 0.2197 middle school students per household, Amphitheater School District anticipates that the proposed development will increase middle school enrollment by 9 students. Using a multiplier of 0.1282 high school students per household, Amphitheater School District anticipates that the proposed development will increase high school enrollment by 5 students.

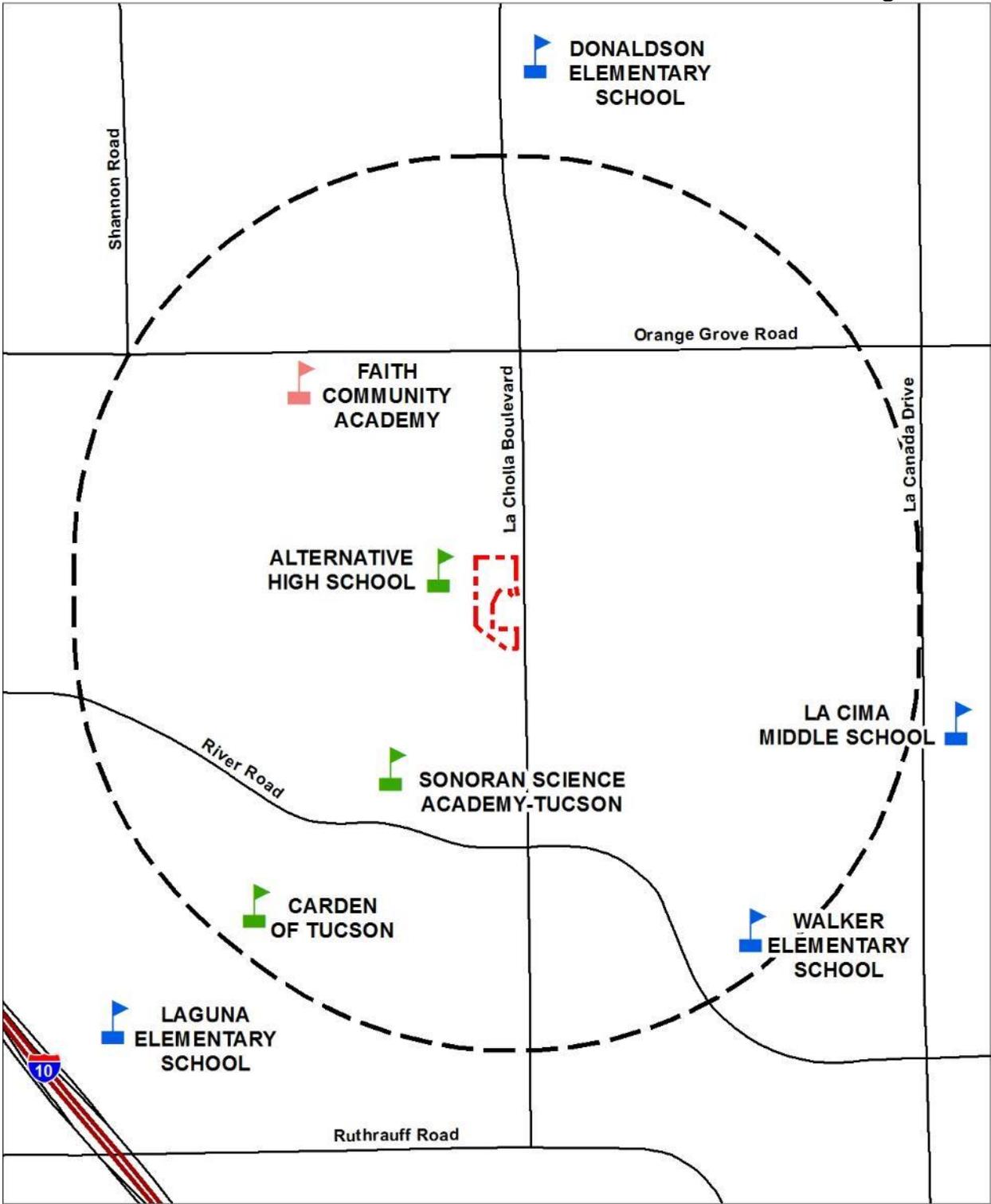
The Amphitheater School District has the capacity for projected increases in student enrollment as a result of the addition of 37 single family homes.

c. **School Facilities Improvements**

In November 2014, Amphitheater School District shared plans for a new STEM (Science, Technology, Engineering and Math) elementary school located northeast of La Cañada Boulevard and Moore Road. The school was funded through the sale of bonds that voters approved for capital need improvements in 2007. In April 2015, the Amphitheater Governing Board approved a one-year delay on the construction schedule that was set to open in the 2016-2017 school year.

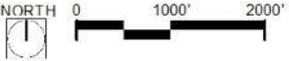


Exhibit III.L.2: Existing Schools



LEGEND

-  Site Boundary
-  Public School
-  Private School
-  Charter School
-  1-mile Radius



FILE NAME: schools_6x8.mxd
SOURCE: Pima County GIS, 2015



Exhibit III.L.3: Amphitheater School District Capacity

OFFICE OF LEGAL COUNSEL
Todd A. Jaeger, J.D.
Associate to the Superintendent
(520) 696-5156
FAX (520) 696-5074



701 W. Wetmore Road • Tucson, AZ 85705 • (520) 696-5000 • TDD (520) 696-5055

BOARD MEMBERS

P

AMPHITHEATER DISTRICT SUPERINTENDENT Patrick Nelson

Jo Grant Vice President

Kent Paul Barrabee, Ph.D.

Julie Cozad, M.Ed.

Scott A. Leska

November 2, 2015

Brian Underwood
Project Manager
The Planning Center
110 S Churce Ste 6320
Tucson AZ 85701

RE: Proposed Development of 41 single family homes on approximately 10 acres within the Amphitheater District Northwest of N La Cholla Blvd and W Oracle Jaynes Station Rd

Dear Mr. Underwood:

I am responding to your request for information regarding the capacity of Amphitheater schools impacted by your proposed development.

Using 2000 demographic multipliers developed by the U.S. Department of Census, Bureau of Census, and adjusted for Amphitheater District's school organizational patterns, we project the following student populations to result from this project when built:

Table with 2 columns: Academic Level and 41 Single Family Homes. Rows: Elementary (9), Middle (9), High School (5)

The census multipliers we use to obtain these projections are 0.2075 elementary students per household, 0.2197 middle school students per household and 0.1282 high school students per household.

The capacity of our schools noted below is based on our last confirmed enrollment calculations. The schools which would be impacted by this population are listed below, along with the physical capacity available at each school presently. Please note that these schools will also be impacted by other developments in this area which may have already been approved by the County but which are not yet built.

- Amphitheater High • Canyon del Oro High • Ironwood Ridge High
Amphitheater Middle School • Coronado K-8 School • Cross Middle School • La Cima Middle School • Wilson K-8 School
Copper Creek Elementary • Donaldson Elementary • Harelson Elementary • Holaway Elementary • Keeling Elementary • Mesa Verde Elementary
Nash Elementary • Painted Sky Elementary • Prince Elementary • Rio Vista Elementary • Walker Elementary • Rillito Center • El Hogar



Exhibit III.L.3: Amphitheater School District Capacity (Continued)

Developer Letter
September 25, 2015
Page 2

<u>School Name</u>	<u>School Capacity</u>	<u>Spaces Currently Available</u>
Walker Elementary	630	148
La Cima Middle	1370	924
Amphitheater High	2130	869

If I can provide any additional information, please feel free to contact me.

Sincerely,

Connie R. McFarland
Legal Assistant to Todd A. Jaeger, J.D.



M. Recreation and Trails

1. Recreation Areas to be Provided

The property owner has elected to pay the in-lieu fee, which will be determined at the time of the subdivision plat in accordance with the Pima County Zoning Code Section 18.69.090 for subdivisions of sixty-five lots or fewer.

2. Proposed Ownership of Open Space

A homeowners association will own and maintain the open space, as well as other common areas, proposed for this project.

3. Proposed Trails in Compliance with Eastern Pima County Trails System Master Plan

According to the Pima County Bicycle and Pedestrian Program, the property is located within one-mile of the Rillito River Park, an existing Shared-use path. Additionally, La Cholla has north- and southbound bike lanes with striped shoulders which is directly adjacent to the subject site. According to the Pima Regional Trail System Master Plan, the site is located just west of several singletrack trails. A trail connection will be provided from the northern cul-de-sac within the CR-5 property along the northern property boundary to La Cholla Boulevard. The ultimate location of the trail will be determined by final block plat.



N. Cultural Resources: Archaeological and Historic Sites

1. Mitigation Measures for Protection of Resources

Based on an Arizona State Museum check of the records, no archaeological or historic resources are known to exist on the property. However, no cultural resources surveys have been conducted on the property.

2. Archaeological Survey Measures

Based on the results of the ASM site records check, Pima County will determine whether survey is necessary for the currently proposed development. If a survey is recommended, it will be conducted prior to ground modifying activities. An on-the-ground archaeological and historic site survey shall be conducted on the subject property, and submitted to Pima County for review. 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 plan or development plan. 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

In the event that 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 unearthened materials (ARS 41-841.) If human skeletal remains or funerary objects are discovered, ASM will be contacted immediately (ARS 41-865 & 41-844.)

O. Environmental Quality

1. Control of Dust Pollution

Watering trucks will be on hand during construction to control dust pollution. In addition, all Parking Area Access Lanes will be paved.

2. Control of Emissions Greater than 100 tons per Year

a. Air Quality Code

The site is planned for residential development. The standards do not apply.



P. Agreements

1. Agreements with Neighboring Properties

No agreements with adjacent properties owners have been made at this time.



Bibliography:

Bicycle and Pedestrian Program, Pima County, Arizona, 2014

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. 2013.

Mapguide. Sonoran Desert Conservation Plan. 2013.

Regional Transportation Plan, 2040. Pima Association of Governments, Pima County, Arizona. 2013.

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



LA CHOLLA AND ORACLE JAYNES STATION
REZONING DOCUMENT | PIMA COUNTY
APPENDICES



Appendix A: Preliminary Integrated Water Management Plan

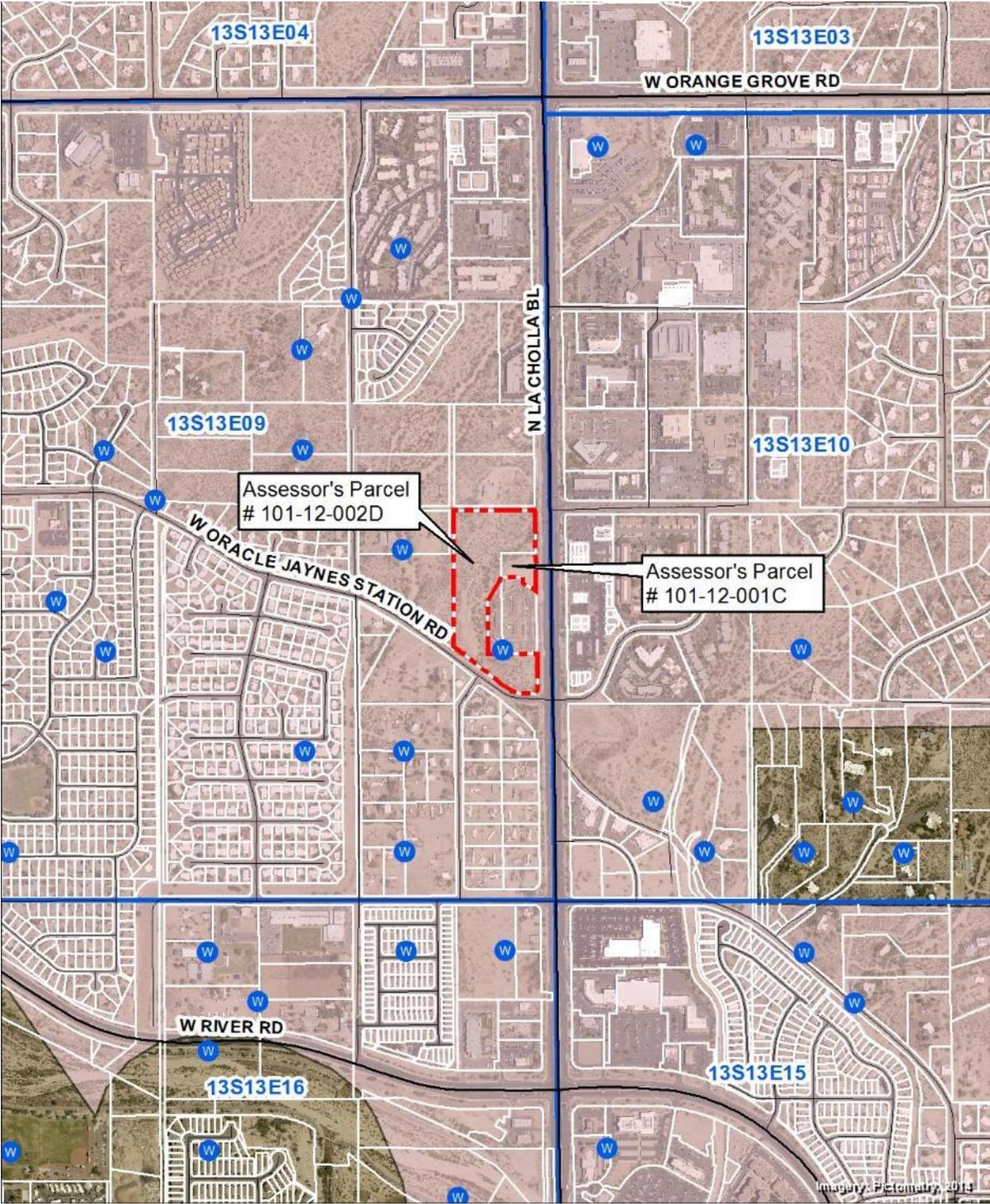
1. Water Context

The subject property is comprised of parcels #101-02-002C and #101-02-002D. The area of the combined parcels is approximately 10.3 acres. The site is located in northwestern Pima County at the northwest corner of La Cholla Boulevard and Oracle Jaynes Station Road within Township 13S, Range 13E and Section 09.

The property will be served by Metropolitan Domestic Water Improvement District, and is certified to provide water to the subject site and is designated as having a 100-year assured water supply. (See *Exhibit A.1: Water Context Map, Exhibit A.4: Water Supply Letter*)



Exhibit A.1: Water Context Map



LEGEND

- Site Boundary
- Parcels
- Metro Water District Service Area
- Township, Range, and Section
- Wells

NORTH 0' 500' 1000'

THE PLANNING CENTER
a division of TPC Group, INC.

FILE NAME: watercontext_6x8.mxd
SOURCE: Pima County GIS, 2015



2. Onsite Existing and Historic Water Use

The site is vacant and undeveloped. There are no wells located on-site.

3. Onsite Proposed Water Use

The subject property is planned for approximately 37 single family residential homes. Additionally, the subject property is planned to have a medical care facility or other medical services such as medical clinics, assisted living and skilled nursing centers, and outpatient services. The development will feature native, drought tolerant landscaping, and water harvesting.

4. Water Supply and Delivery

Metropolitan Domestic Water Improvement District has indicated that capacity exists to serve the development. (See *Exhibit A.4: Water Supply Letter*)



Exhibit A.4: Water Supply Letter:



October 8, 2015

Brian Underwood
The Planning Center
110 S. Church, Suite 6320
Tucson, AZ 85701

**Re: ±10.2 Acres at the NWC of La Cholla Blvd. and Oracle Jaynes Station Rd.
(PN 101-12-002D & PN 101-12-001C)
CAP15-08**

Dear Mr. Underwood,

The Metropolitan Domestic Water Improvement District (MDWID) is certified to provide water to the above referenced development and is designated as having a 100-year assured water supply.

Any onsite or offsite requirements deemed necessary to provide the domestic and fire flow water supply will be determined at the time of improvement plan submittal or whenever application for water service is received, and will be the financial responsibility of the owner or those developing the property. Pipe sizing and system augmentation, if necessary, will be based on calculated demand for both domestic and fire flows as needed to adequately supply this area.

This property lies within the La Cholla Fire Flow Impact Corridor, and is subject to fees per MDWID Resolution 1994-8.

If an improvement plan has not been submitted within 2 years after the date of this letter, a reevaluation and reissuance of this will-serve letter will be necessary.

Please let me know if you have any questions or concerns at 575-8100.

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy Dinkel", is written over the word "Sincerely,".

Timothy Dinkel
Development Supervisor

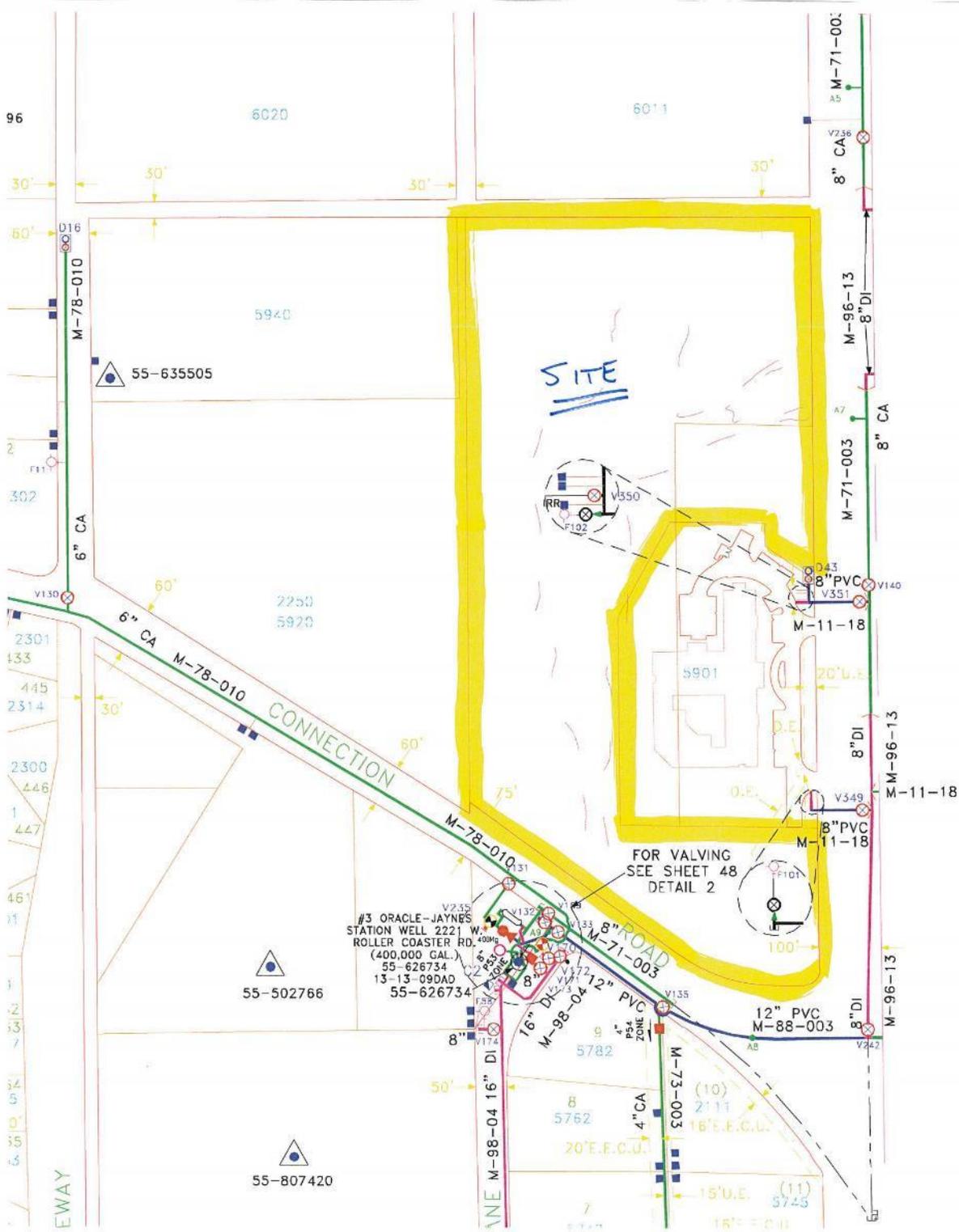
Enclosure

c: Project File / Charlie A. Maish, District Engineer
Signature File

Metropolitan Domestic Water Improvement District
P.O. Box 36870 Tucson, Arizona 85740 (520) 575-8100 (520) 575-8454 FAX www.metrowater.com



Exhibit A.4: Water Supply Letter (Continued):



5. Water Demand Projections

- a. Table 'A' of the PIWMP guidelines indicates that the residential development such as the one proposed in CR-5 zoning is likely to require approximately 0.34 acre-feet annually per household. The project is proposed to have 37 individual dwelling units, which equates to a demand of approximately 13.6 acre-feet annually. Additionally, Table 'A' of the PIWMP guidelines indicate that a development such as a skilled nursing facility in TR zoning is likely to require approximately 0.34 acre-feet annually per one thousand square-feet. The proposed approximately 50,000 square-foot medically related facility will demand approximately 17 acre-feet annually.
- b. Water conservation measures listed in Table B – Water Conservation Measures in the Pima County Site Analysis requirements to be included as part of the proposed project are as follows:
 - O-1, Rainwater Harvesting (50% capture) – 6 points
 - I-6, Low-flow faucets – 3 points
 - I-7, Low-flow shower heads – 3 points
 - I-8, Low-flow toilets – 3 points

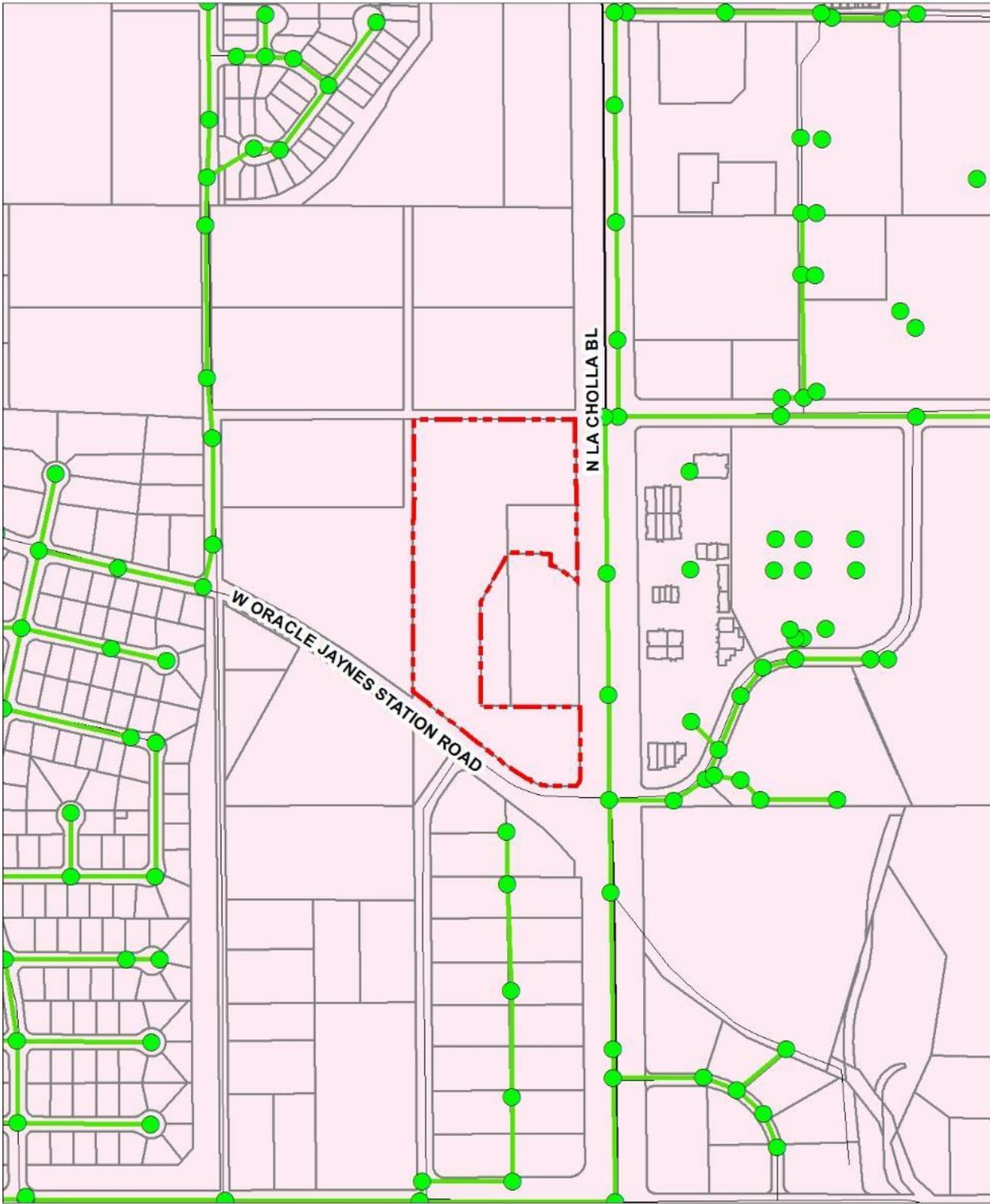
The development will include water conservation measures O-1, I-6, I-7, and I-8, but will retain flexibility to change options provided that the point totals of those options will meet or exceed the minimum of 15 points, and will include at least one outdoor measure.

6. Proximity to Renewable and Potable Water Supplies

Not Applicable



Exhibit A.5: Water Service Provider



LEGEND

-  Site Boundary
-  Parcels
-  Existing Sewer Network
-  Existing Sewer Manhole
-  Metro Water District Service Area



FILE NAME: water_provider_6x8.mxd
SOURCE: Pima County GIS, 2015



Appendix B: Hydrology Data

Worksheet
Worksheet for Trapezoidal Channel

Project Description	
Worksheet	OJ DET OUTLE
Flow Element	Trapezoidal Cha
Method	Manning's Form
Solve For	Channel Depth

Input Data	
Mannings Coeffic	0.035
Slope	005000 ft/ft
Left Side Slope	3.00 H : V
Right Side Slope	3.00 H : V
Bottom Width	5.00 ft
Discharge	36.00 cfs

Results	
Depth	1.38 ft
Flow Area	12.7 ft ²
Wetted Perim	13.75 ft
Top Width	13.30 ft
Critical Depth	0.96 ft
Critical Slope	0.020852 ft/ft
Velocity	2.84 ft/s
Velocity Head	0.13 ft
Specific Energ	1.51 ft
Froude Numb	0.51
Flow Type	Subcritical

Project Engineer: Derek Roberts
FlowMaster v6.1 [614k]
Page 1 of 1

untitled.fm2
04/21/16 11:11:33 AM © Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666



Culvert Calculator Report CL1

Solve For: Headwater Elevation

Culvert Summary			
Allowable HW Elevation	0.00 ft	Headwater Depth/Height	0.00
Computed Headwater Elev.	2,295.00 ft	Discharge	0.00 cfs
Inlet Control HW Elev.	2,295.00 ft	Tailwater Elevation	0.00 ft
Outlet Control HW Elev.	2,295.00 ft	Control Type	Inlet Control
Grades			
Upstream Invert	2,295.00 ft	Downstream Invert	2,284.00 ft
Length	450.00 ft	Constructed Slope	0.024444 ft/ft
Hydraulic Profile			
Profile	Dry	Depth, Downstream	0.00 ft
Slope Type	Dry	Normal Depth	0.00 ft
Flow Regime	Subcritical	Critical Depth	0.00 ft
Velocity Downstream	0.00 ft/s	Critical Slope	0.000000 ft/ft
Section			
Section Shape	Circular	Mannings Coefficient	0.012
Section Material	HDPE (Smooth Interior)	Span	5.00 ft
Section Size	60 inch	Rise	5.00 ft
Number Sections	1		
Outlet Control Properties			
Outlet Control HW Elev.	2,295.00 ft	Upstream Velocity Head	0.00 ft
Ke	0.20	Entrance Loss	0.00 ft
Inlet Control Properties			
Inlet Control HW Elev.	2,295.00 ft	Flow Control	N/A
Inlet Type	Beveled ring, 33.7° bevels	Area Full	19.6 ft ²
K	0.00180	HDS 5 Chart	3
M	2.50000	HDS 5 Scale	B
C	0.02430	Equation Form	1
Y	0.83000		



Culvert Calculator Report CL2

Solve For: Headwater Elevation

Culvert Summary

Allowable HW Elevation	0.00 ft	Headwater Depth/Height	0.92
Computed Headwater Elev.	2,299.68 ft	Discharge	131.00 cfs
Inlet Control HW Elev.	2,299.42 ft	Tailwater Elevation	2,271.50 ft
Outlet Control HW Elev.	2,299.68 ft	Control Type	Entrance Control

Grades

Upstream Invert	2,296.00 ft	Downstream Invert	2,267.50 ft
Length	413.00 ft	Constructed Slope	0.069007 ft/ft

Hydraulic Profile

Profile	CompositeS1S2	Depth, Downstream	4.00 ft
Slope Type	Steep	Normal Depth	1.08 ft
Flow Regime	N/A	Critical Depth	2.44 ft
Velocity Downstream	5.21 ft/s	Critical Slope	0.003717 ft/ft

Section

Section Shape	Circular	Mannings Coefficient	0.012
Section Material	HDPE (Smooth Interior)	Span	4.00 ft
Section Size	48 inch	Rise	4.00 ft
Number Sections	2		

Outlet Control Properties

Outlet Control HW Elev.	2,299.68 ft	Upstream Velocity Head	1.03 ft
Ke	0.20	Entrance Loss	0.21 ft

Inlet Control Properties

Inlet Control HW Elev.	2,299.42 ft	Flow Control	N/A
Inlet Type	Beveled ring, 33.7° bevels	Area Full	25.1 ft ²
K	0.00180	HDS 5 Chart	3
M	2.50000	HDS 5 Scale	B
C	0.02430	Equation Form	1
Y	0.83000		

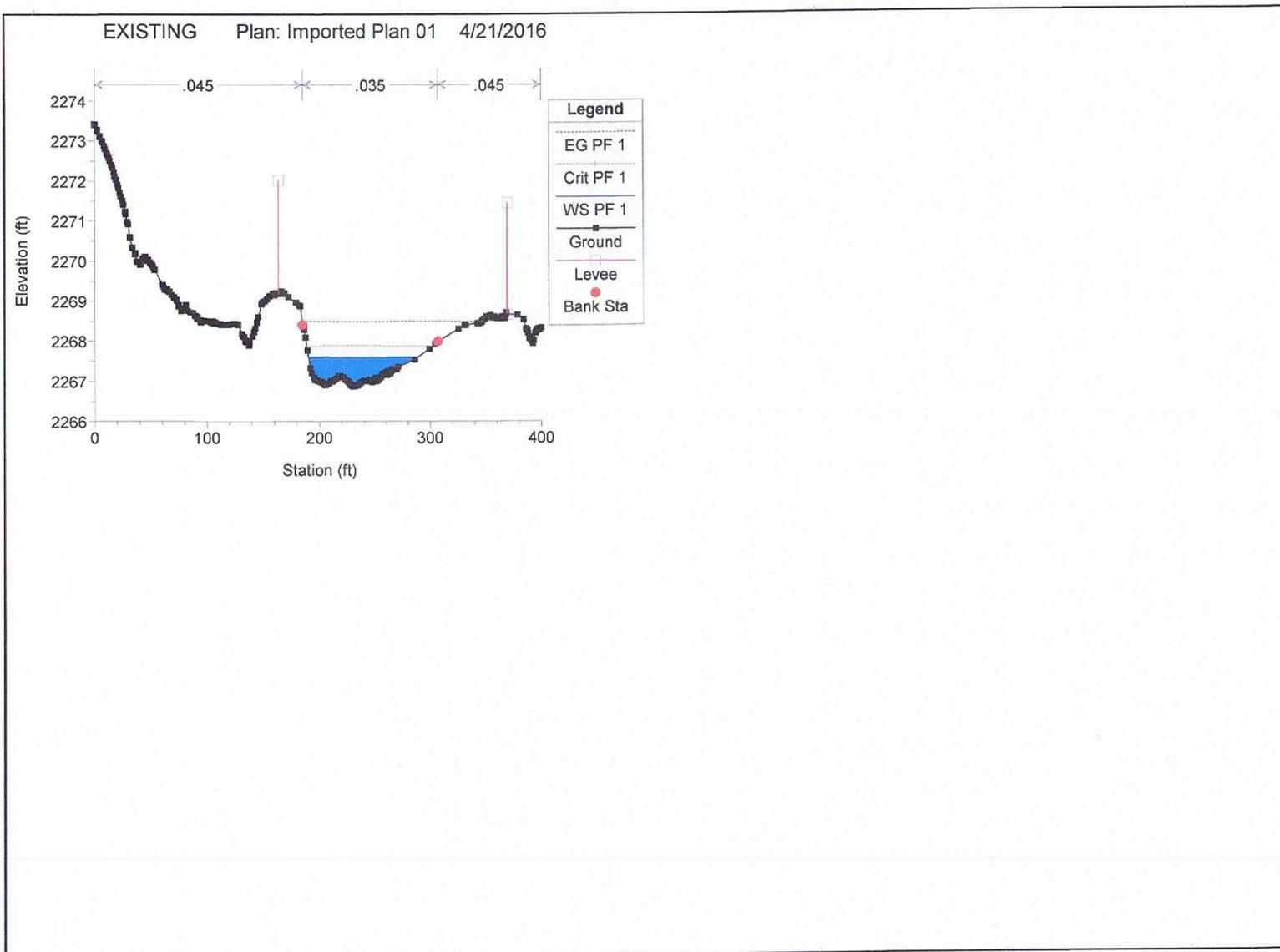


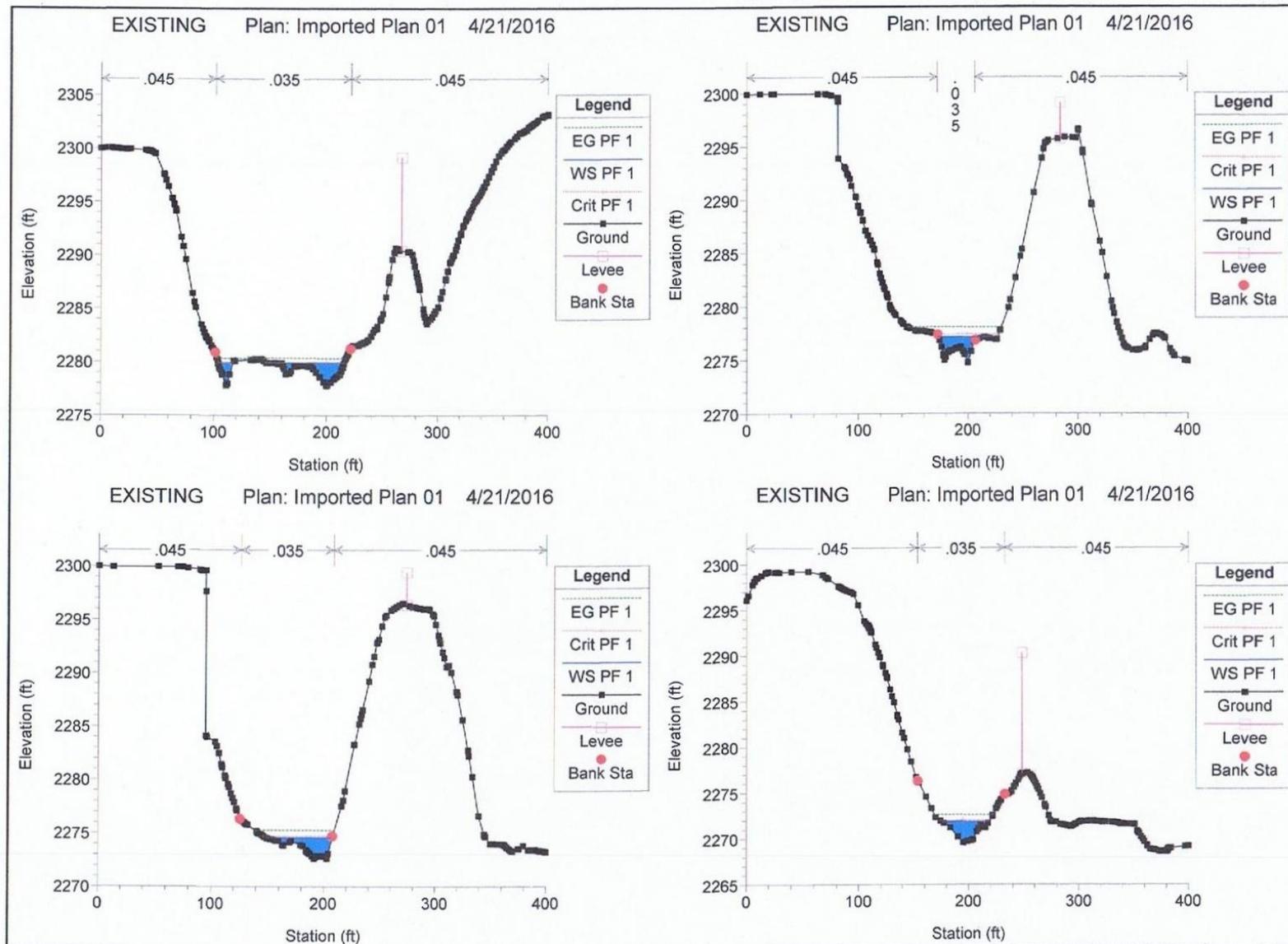
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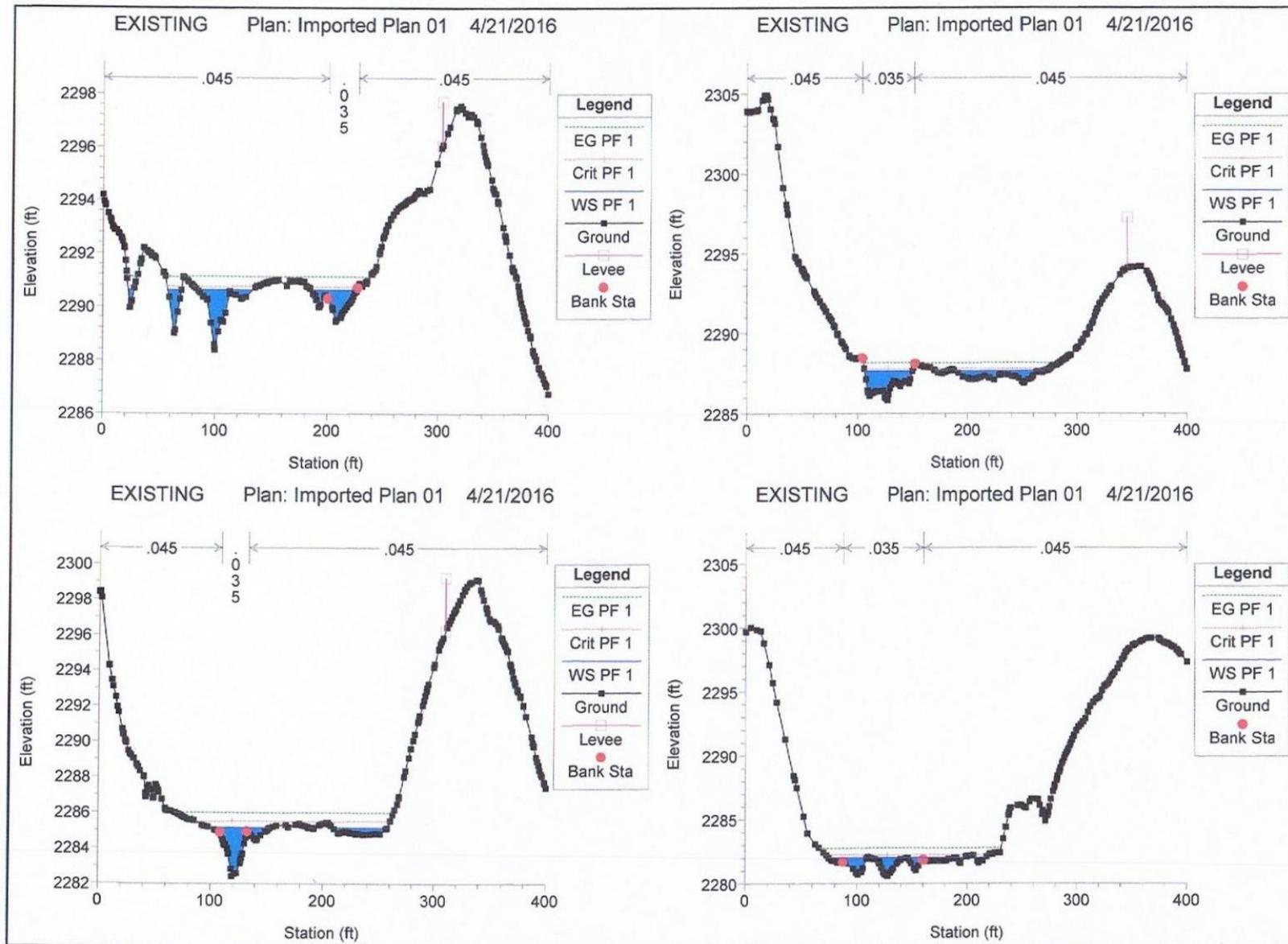
HEC-RAS Plan: Imported Pla River: RIVER-1 Reach: Reach-1 Profile: PF 1

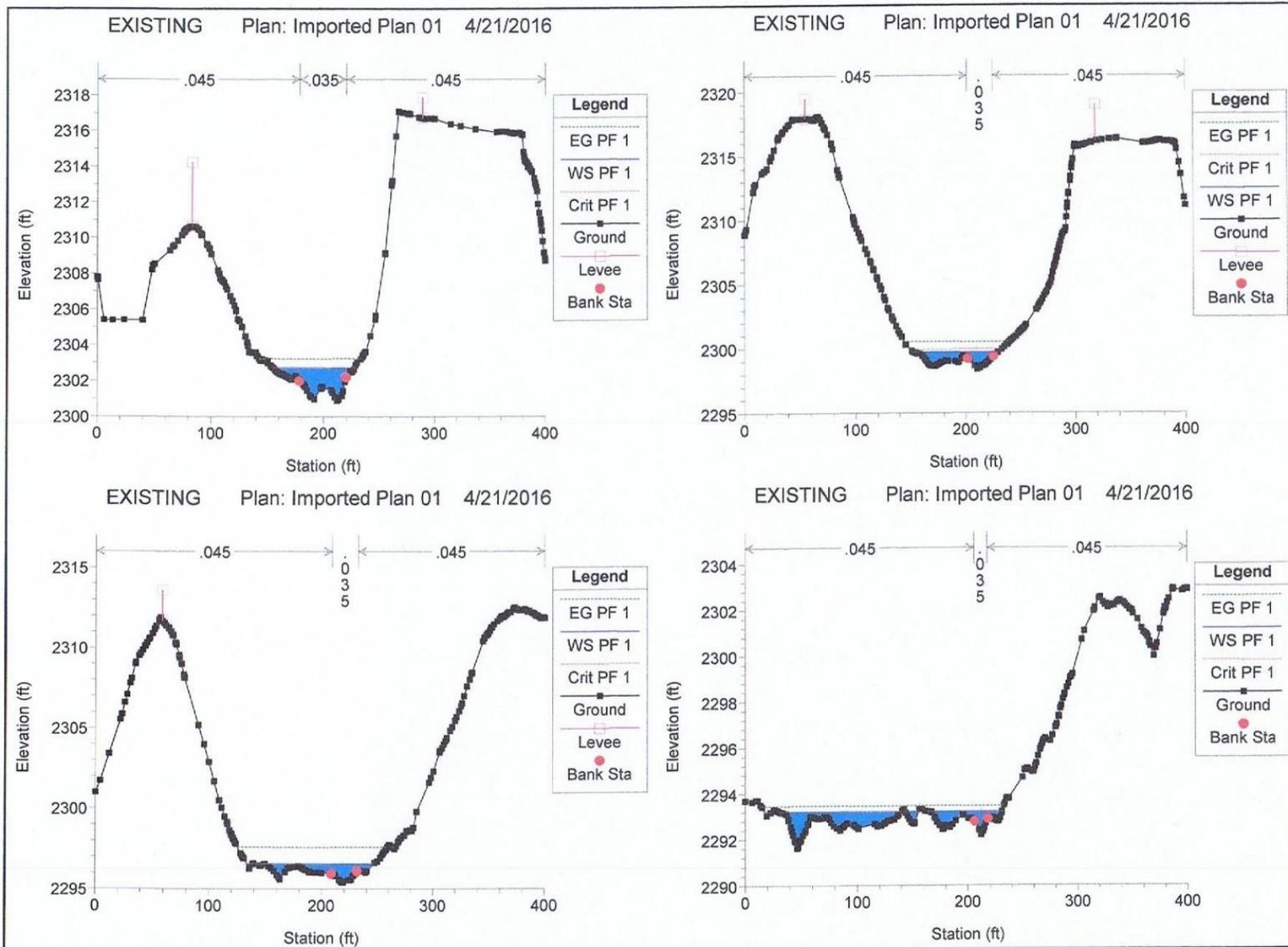
Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	1300.	PF 1	343.00	2300.90	2302.72	2302.72	2303.23	0.013752	5.92	65.53	72.17	0.91
Reach-1	1200.	PF 1	343.00	2298.40	2299.70	2299.95	2300.51	0.051306	8.67	51.62	77.11	1.65
Reach-1	1100.	PF 1	343.00	2295.40	2296.56	2296.56	2297.58	0.065975	9.96	51.59	110.23	1.88
Reach-1	1000.	PF 1	343.00	2292.20	2293.20	2293.20	2293.45	0.032543	5.88	89.73	192.55	1.26
Reach-1	900.	PF 1	343.00	2289.47	2290.64	2290.77	2291.14	0.046579	6.83	62.55	107.34	1.50
Reach-1	800.	PF 1	343.00	2285.83	2287.65	2287.81	2288.15	0.022547	6.25	72.95	135.19	1.11
Reach-1	700.	PF 1	343.00	2282.41	2285.14	2285.50	2285.99	0.020012	7.91	59.66	106.77	1.12
Reach-1	600.	PF 1	343.00	2280.58	2282.02	2282.25	2282.77	0.058410	7.29	54.64	129.48	1.65
Reach-1	500.	PF 1	343.00	2277.78	2279.94	2279.94	2280.35	0.020074	5.16	66.54	82.57	1.01
Reach-1	400.	PF 1	343.00	2274.75	2277.14	2277.38	2278.07	0.024729	7.78	46.46	53.61	1.20
Reach-1	300.	PF 1	343.00	2272.64	2274.56	2274.73	2275.27	0.030686	6.74	50.88	58.43	1.27
Reach-1	200.	PF 1	343.00	2269.56	2271.83	2271.97	2272.61	0.023259	7.06	48.58	42.22	1.16
Reach-1	100.	PF 1	343.00	2266.87	2267.59	2267.87	2268.49	0.090669	7.59	45.21	98.80	1.98











DEVELOPED

HEC-RAS Plan: Imported Pla River: RIVER-1 Reach: Reach-1 Profile: PF 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	600.	PF 1	343.00	2280.58	2282.30	2282.27	2282.62	0.015586	4.77	79.91	107.98	0.91
Reach-1	500.	PF 1	343.00	2277.78	2280.46	2280.46	2280.85	0.020125	5.02	68.27	87.18	1.00
Reach-1	400.	PF 1	343.00	2274.75	2277.02	2277.35	2278.18	0.034468	8.67	39.89	36.51	1.40
Reach-1	300.	PF 1	343.00	2272.64	2274.65	2274.73	2275.23	0.022974	6.10	56.22	60.34	1.11
Reach-1	200.	PF 1	343.00	2269.56	2271.75	2271.97	2272.65	0.028507	7.61	45.07	40.78	1.28
Reach-1	100.	PF 1	343.00	2266.87	2267.64	2267.87	2268.38	0.068834	6.92	49.58	101.20	1.74



