

# Appendix

# **Appendix A: Alternative Concept Plans of Potential Build-out Scenarios**





**Expanded Natural Area Set-Asides:**

Residential areas and lot yield to be modified and reduced accordingly at time of future subdivision platting, commercial area to be similarly reduced in size.

## Conceptual Build-out Schematic

### All Single-Family Residential Lots





## Conceptual Build-out Schematic

Single-Family Residential West of Camino de Oeste  
Multi-Family Rental Homes East of Camino de Oeste



# **Appendix B: Preliminary Traffic Study**



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# Cortaro 57

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## **Preliminary Traffic Study to Accompany the Specific Plan Submittal**

Prepared for submittal to:

**Pima County, AZ**

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**March 30, 2021**



**Cortaro 57**  
**Preliminary Traffic Study**  
**to Accompany the Specific Plan Submittal**

**For Submittal to:**

Pima County, AZ

**Prepared by:**

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**March 30, 2021**

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## 1. Introduction and Summary

### Purpose of Report and Study Objectives

This preliminary traffic study examines the anticipated traffic impacts from the Cortaro 57 Specific Plan. The project area is located south of Cortaro Farms Road and is bisected by the Camino de Oeste alignment south of Cortaro Farms Road. The project is bounded on the west by the Willow Vista residential neighborhood, on the east by Quail Cove residential development, and on the south by Bridlewood Ranch Estates (east of the Camino de Oeste south alignment) and the Country Highland development (west of the Camino de Oeste south alignment) in unincorporated Pima County, Arizona. The preliminary study has been prepared to support the submittal of the Cortaro 57 Specific Plan. The project includes a potential mix of residential uses and a smaller commercial parcel on approximately 57 acres of land. A complete Traffic Impact Study (TIS) will be prepared at the future subdivision platting stage of the project, when the land uses, intensities and site plan are better evolved. The location of this project in the context of the regional transportation system is illustrated in Exhibit 1.

This preliminary traffic study is provided to assess potential impacts in the vicinity of the project, based on the planned uses anticipated in the Specific Plan. This study addresses the impacts at the proposed site access drives and adjacent roadways for the opening year (2023). The project proposes access at three locations on Cortaro Farms Road, as well as at additional access points along an extension of Camino de Oeste.

### Executive Summary

#### Site Location and Study Area

The project is located south of Cortaro Farms Road and is bisected by the Camino de Oeste alignment south of Cortaro Farms Road. The project is bounded on the west by the Willow Vista residential neighborhood, on the east by Quail Cove residential development, and on the south by Bridlewood Ranch Estates (east of the Camino de Oeste south alignment) and the Country Highland development (west of the Camino de Oeste south alignment) in unincorporated Pima County, Arizona. The study area includes site access driveways and the adjacent roadways.

#### Development Description

The preliminary concept includes up to 235 single family residential lots and a commercial area of about 60,000 total square feet. The residential component could alternatively include a mix of single family and multi-family units. A very preliminary concept plan showing a possible lot layout is provided in Exhibit 2. This layout is illustrative only as a potential development scenario to provide a basis for this preliminary traffic study.

#### Principal Findings

Using a conservative land use plan assuming a mix of residential types (135 single family lots and 200 multi-family residential units), a coffee shop with drive through window and a medical office building, the total trip generation is estimated to be 4,722 trips per weekday, 505 trips during the AM peak hour and 340 trips during the PM peak hour. About eighty-nine percent of the coffee shop trips are anticipated to be “pass-by trips” which reduces the estimated total trips within the study area network. Traffic volumes will be distributed to the roadway system based on the location of the lots and the expected traffic patterns at the study area intersections.

A turn lane warrant analysis found that eastbound right turn lanes on Cortaro Farms Road may be warranted at two of the project area intersections. Based on a conservative assumption that a coffee shop with drive-through lanes would be in the commercial pad, a right turn lane would be warranted on Cortaro Farms

Road at the commercial driveway (Driveway 2). With the extension of Camino de Oeste to Cortaro Farms Road, the Specific Plan land use trips and the background volumes may warrant an eastbound right turn lane at this new intersection. It is recommended that the extension of Camino de Oeste have a three-lane cross section with one lane in each direction and a continuous left turn lane. This would match the existing section to the south.

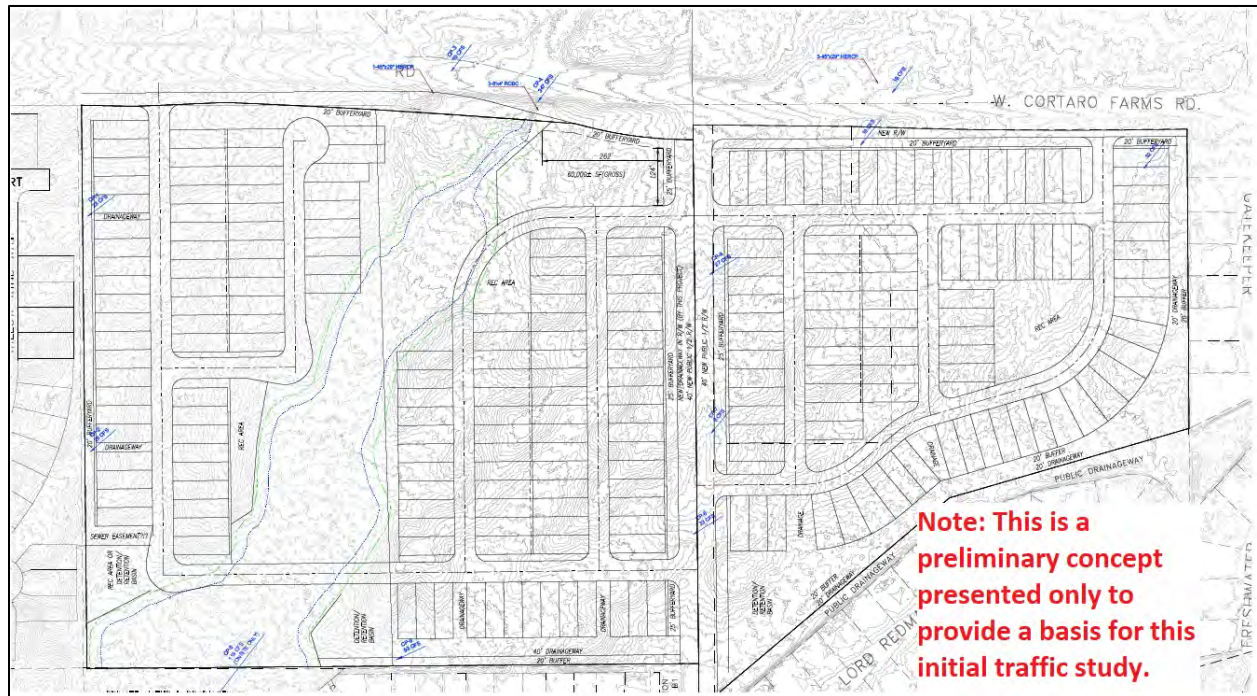
**Exhibit 1      Location Map**



Source: Pima County GIS



## Exhibit 2 Conceptual Site Plan



### Conclusions and Recommendations

1. This preliminary study addresses a 57-acre residential and commercial development located south of Cortaro Farms Road along the Camino de Oeste (south) alignment. This study is a supporting document to the Cortaro 57 Specific Plan submittal.
2. Along the project frontage, Cortaro Farms Road and Camino de Oeste are owned and maintained by Pima County.
3. This preliminary study analyzes a mix of single-family residential lots (135) and multi-family units (200) a coffee shop with drive through lanes and a medical office building. when completed. For the purpose of this traffic study, buildout is estimated to be around 2023, although the homebuyer's market will determine actual buildout. This mix was chosen to be a conservative choice, and the future development may likely produce fewer trips if a less intense commercial land use is constructed.
4. Access to the project will be from Cortaro Farms Road at four locations, one being an extension of Camino de Oeste from the south to its intersection with Cortaro Farms Road. All access locations on Cortaro Farms Road will be limited to right-in, right-out only due to the raised median on Cortaro Farms Road. There will be three new intersections on the extension of Camino de Oeste providing access to the project uses. These intersections will allow for full access movements.
5. The site adjoins existing residential development to the south, west and east.
6. The roadways and intersections currently operate at LOS D or better.
7. Based on this preliminary and conservative site plan and analysis, the project will generate about 4,722 trips per day, of which 505 will be in the AM peak and 340 in the PM peak. About 89% of the coffee shop trips will be pass-by trips, reducing the number of new trips on the surrounding roadway to about 3,173 net weekday trips, 244 net AM peak hour trips and 276 net PM peak hour trips.

8. Because the final land uses are conceptual and the future commercial uses are subject to change, we did not conduct intersection capacity analyses, as any mitigation recommendations would be very speculative and would likely overestimate the impacts at the study area off-site intersections. However, we did conduct a preliminary turn lane warrant analysis to anticipate any recommended turn lanes on Cortaro Farms Road.
9. The turn lane analysis found that right turn lanes may be warranted at the commercial driveway on Cortaro Farms Road and on Cortaro Farms Road at its new intersection with Camino de Oeste. If these turn lanes are found to be warranted at the actual development plan and subdivision platting stage, Pima County standards set minimum storage lengths at 110 feet for roadways with posted speed limits of 40 mph or less. A queuing analysis will also have to be conducted to determine the lengths of the turn lane queues.
10. When the full TIS is conducted, a queuing analysis should also be performed for the downstream U-turn locations on Cortaro Farms Road at Star Grass Drive and at Burke Drive/Freshwater Lane.
11. Discussions in conjunction with Pima County and Marana School District should be held to assess whether a pedestrian crossing is recommended and appropriate on Cortaro Farms Road from the project area to serve Quail Run Elementary School. Final determination as to the need for such a crossing will be, to some extent, based upon the final uses on the project's commercial site, as well as the amount of pedestrian traffic from the more than one-thousand existing homes located south of the Specific Plan site.



## 2. Proposed Development

### Site Location

The project is located south of Cortaro Farms Road and is bisected by the Camino de Oeste alignment south of Cortaro Farms Road. The project is bounded on the west by the Willow Vista residential neighborhood, on the east by Quail Cove residential development, and on the south by Bridlewood Ranch Estates (east of the Camino de Oeste south alignment) and the Country Highland development (west of the Camino de Oeste south alignment) in unincorporated Pima County, Arizona.

### Land Use and Intensity

The preliminary concept includes up to 235 single family residential lots and a commercial area of about 60,000 total square feet. The residential component could alternatively include a mix of single family (135 lots) and multi-family (200 units) uses. For the purposes of this traffic study, and to provide a preliminary conservative estimate, we assumed that a high generator, a coffee shop with drive through windows and a 7,000 square foot medical office building, and the mix of single-family (135 lots) and multi-family (200 units) residential uses would comprise the land uses on this site.

### Site Plan

The preliminary concept plan is shown in Exhibit 2.

### Access Geometrics

There will be three access locations on Cortaro Farms Road, as well as access from the extension of the Camino de Oeste to its intersection with Cortaro Farms Road. All access locations on Cortaro Farms Road will be limited to right-in, right-out due to the raised median on Cortaro Farms Road. There will be full access at the three intersections on the extended Camino de Oeste section.

### Development Phasing and Timing

For the purposes of this preliminary traffic study, we have assumed buildout by 2023. However, market forces will determine the actual rate of construction.

### 3. Study Area Conditions

#### Study Area and Horizon Year

For this preliminary traffic study, we have analyzed the project access locations on Cortaro Farms Road and on Camino de Oeste as well as the roadways themselves. The study area for a full Traffic Impact Study, which will be prepared at the development plan and future subdivision platting stage will be determined based on the trip generation of the land uses once they are better developed. The horizon year is 2023.

#### Land Use

##### Existing Land Use

The site is currently vacant. The land is generally surrounded by residential developments on the west, south and east. The Quail Run Elementary School is north of Cortaro Farms Road.

##### Site Accessibility

The site will be accessed from Cortaro Farms Road and the northern extension of Camino de Oeste.

##### Existing and Future Area Roadway System

Exhibit 3 is a tabulation of the major streets in the vicinity of the project with number of lanes, speed limits, facilities (bike lanes, sidewalks) and daily volumes.

Roadway segment levels of service is based on the Florida Department of Transportation (FDOT) Generalized Annual Average Daily Volumes for Florida's Urbanized Areas – Table 1. The estimated LOS D capacity of a four-lane non-state roadway such as Cortaro Farms Road is 35,820 vehicles per day (vpd). The estimated LOS D capacity of two-lane roadways such as Camino de Oeste and Oldfather Drive is between 10,700 and 13,990 vpd depending on the speed limit of the roadway and the presence of turn lanes along the roadway. Based on the existing volumes shown in Exhibit 3, all roadways currently operate well below the LOS D daily volume threshold.

**Exhibit 3 Roadway Inventory**

Roadway Segment	Road Classification (Pima County MSRP)	Owning/ Maintenance Jurisdiction	Existing Rights of-Way (feet)	# Lanes	Posted Speed Limit	Bike Facilities	Pedestrian Facilities	Bus Route	Public Roadway Improvements Within Five Years	Recorded ADT	Year	Data Source	LOS D Capacity
Cortaro Farms Road, West of Camino de Oeste (South)	Medium Volume Arterial (PC)	Marana/Pima County	150	4	40	Bike Route with Striped Shoulder	Sidewalk	No	No	19,000	2020	PAG	35,820
Cortaro Farms Road, East of Camino de Oeste (South)	Medium Volume Arterial (PC)	Pima County	150	4	40	Bike Route with Striped Shoulder	Sidewalk, South Side	No	No	16,651	2020	PAG	35,820
Camino de Oeste, North of Cortaro Farms Road	Collector (PC)	Marana/Pima County	80	2	35	No	Sidewalk, West Side	No	No	6,197	2020	PAG	10,700
Sandy Desert Trail, South of Cortaro Farms Road	Not Designated	Marana	75	2	30	No	Sidewalk	No	No	No Volumes Available			10,700
Camino de Oeste, South of Project Site	Collector (PC)	Pima County	80	2	35	No	No	No	No	4,147	2020	PAG	13,990
Pima Farms Road, West of Camino de Oeste	Local Road	Marana	95-120	2	35	No	No	No	No	No Volumes Available			10,700
Magee Road, East of Camino de Oeste	Low Volume Arterial (PC)	Pima County	90	2	35	Striped Shoulder	No	No	No	4,561	2020	PAG	10,700
Oldfather Road, South of Cortaro Farms Road	Not Classified	Pima County	90	2	35	Bike Route with Striped Shoulder	Sidewalk	No	No	7,383	2020	PAG	13,990
Oldfather Road, South of Magee Road	Not Classified	Pima County	90	2	35	Bike Route with Striped Shoulder	Sidewalk	No	No	7,810	2020	PAG	13,990



### Site Circulation

Site circulation will be typical for a residential subdivision as shown in the site plan.

## 4. Existing Conditions

### Physical Characteristics

#### Roadway Characteristics

Existing roadways serving the project are described below. The table in Exhibit 3 contains a summary of physical characteristics of these roadways and Exhibit 4 provides ground photographs of roadway segments and intersections.

Cortaro Farms Road was recently improved to a four-lane divided roadway from Camino de Oeste to Thornydale Road. The project was completed in 2019. The project included multi-use lanes, curbed median, storm drain system, cross drainage structures, retaining walls, public art, rubberized asphalt, traffic signal improvements, native re-vegetation landscaping and signage and pavement markings. The four-lane capacity of Cortaro Farms Road is about 35,800 vehicles per day at Level of Service D. It has a posted speed limit of 40 mph in the vicinity of the project but increases to 45 mph east of Thornydale Road. West of Camino de Oeste, and east of Thornydale Road the full four-lane divided arterial cross-section is already in place.

Camino de Oeste, north of Cortaro Farms Road is a two-lane undivided roadway with curb and sidewalk on the east side of the roadway to about 600 feet north of Cortaro Farms. The two-lane capacity of Camino de Oeste is 10,700 vehicles per day at Level of Service D. It has a posted speed limit of 35 mph. It continues south of Cortaro Farms Road as Sandy Desert Trail, a two-lane residential collector with a speed limit of 30 mph and sidewalks on each side.

Camino de Oeste south of the project site a two-lane roadway with a two-way center left turn lane. Its capacity is about 14,000 vehicles per day at Level of Service D. There is curb with no sidewalk on both sides of the roadway. It has a posted speed limit of 35 mph. The roadway will be constructed as a two-lane divided collector roadway north to its future intersection with Cortaro Farms Road.

Pima Farms Road is a paved, east-west two-lane roadway that extends west of Camino de Oeste about one-mile where it continues as Cerius Stravenue. It has a posted speed limit of 35 mph.

Magee Road is a paved, east-west two-lane arterial that extends east of Camino de Oeste about two miles where it continues as Shannon Road. It has a posted speed limit of 35 mph.

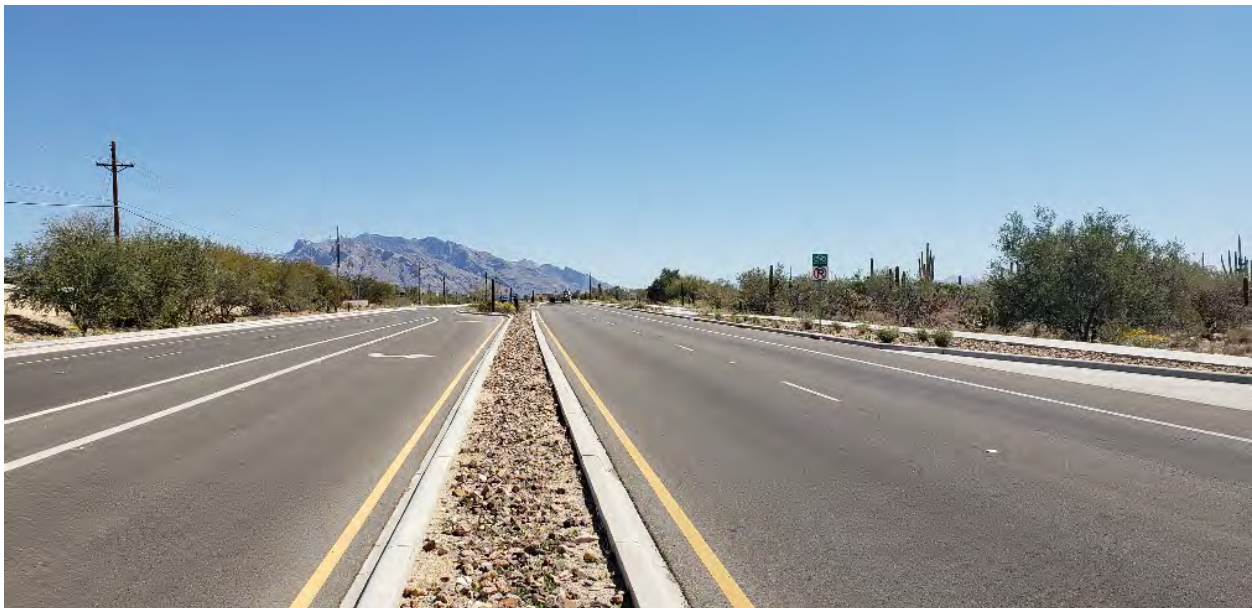
Oldfather Drive is a paved, north-south two-lane residential collector that extends from Cortaro Farms Road on the north to Ina Road on the south. It has a posted speed limit of 35 mph. Oldfather Drive is a bike route with striped shoulders and sidewalks on both sides of the roadway.



**Exhibit 4      Ground Photographs**



*Looking West on Cortaro Farms Road towards Star Grass Drive*



*Looking East on Cortaro Farms Road from Star Grass Drive*



**Exhibit 4 (cont.)**

**Ground Photographs**



*Looking North on Camino de Oeste Curb Cut toward Cortaro Farms Road*



*Looking South along Camino de Oeste South of Project Boundary*

**Exhibit 4 (cont.)**

**Ground Photographs**



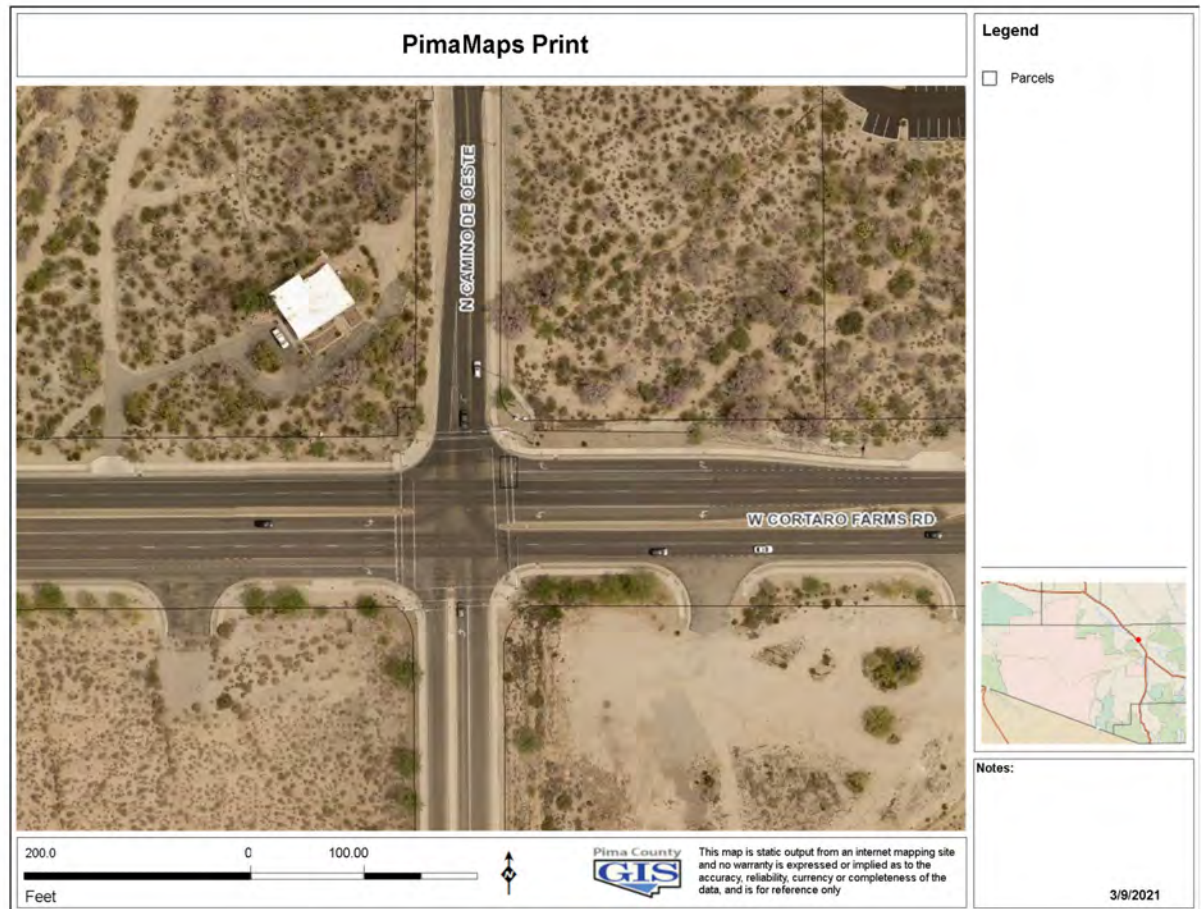
*Looking North along Camino de Oeste South of Project Boundary*

**Existing Intersections**

Cortaro Farms Road/Camino de Oeste (N)/Sandy Desert Trail is a four-legged signalized intersection. The eastbound and westbound approaches have left turn and right turn lanes. The north and south approaches have a left turn lane and a shared through/right turn lane. The eastbound and northbound approaches each have an exclusive left-turn lane and an exclusive right turn lane. The Cortaro Farms approaches have a permitted/protected left turn phase. The intersection is shown in Exhibit 5.

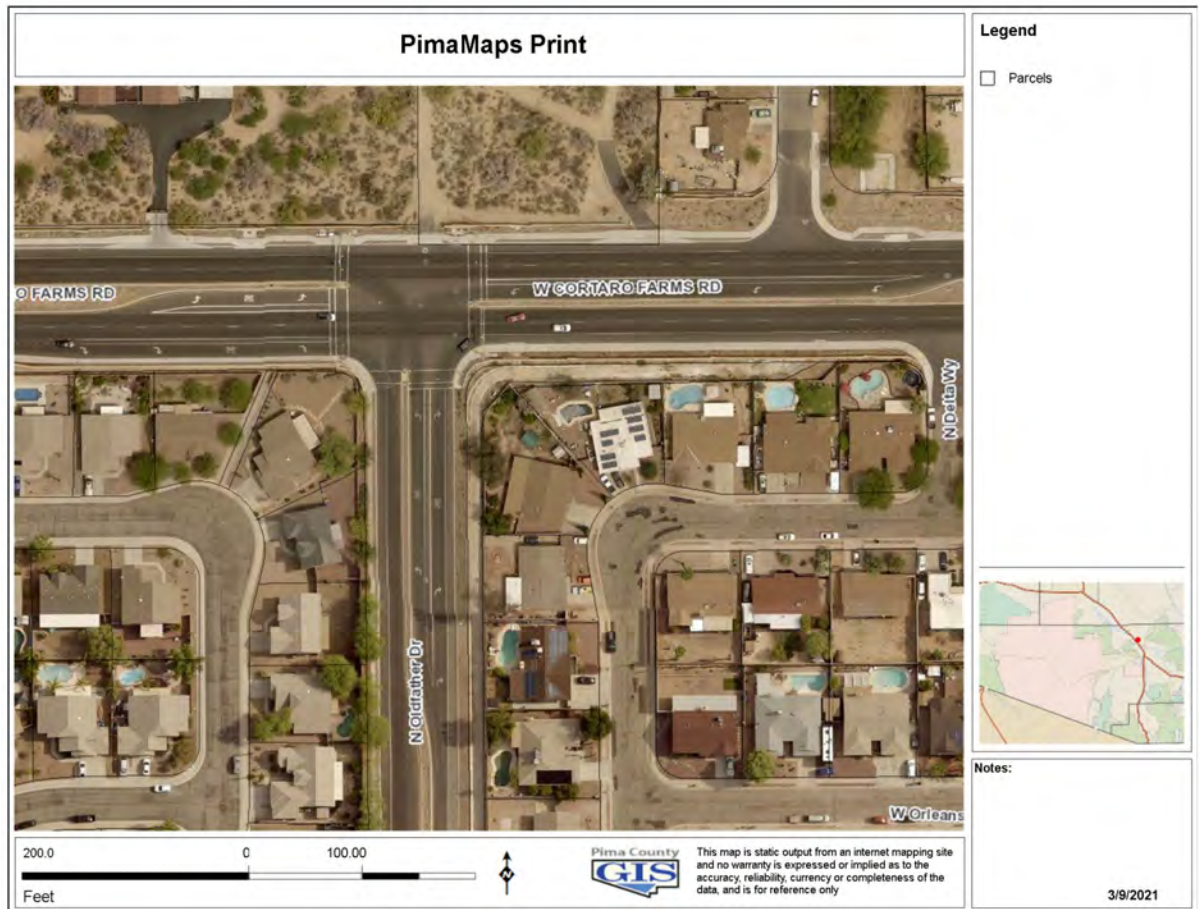


Exhibit 5 Cortaro Farms Road/Camino de Oeste/Sandy Desert Trail



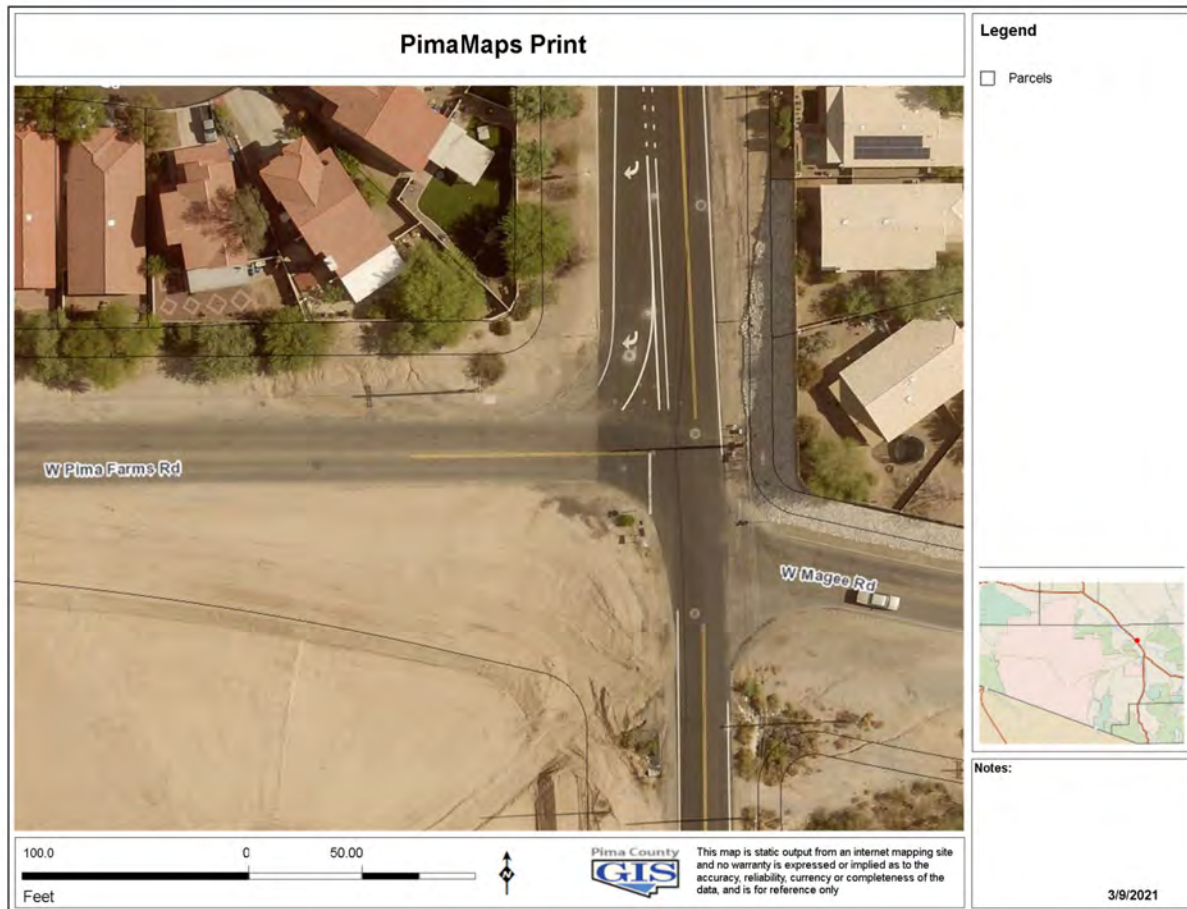
Cortaro Farms/Oldfather Drive is a three-legged signalized intersection with a left turn phase on the westbound approach. The intersection is configured with one left turn lane and one right turn lane on the south leg, a U-turn lane two through lanes and a right turn lane on the west leg, and a left turn lane and two through lanes on the east leg. The intersection is shown in Exhibit 6.

Exhibit 6 Cortaro Farms Road/Oldfather Drive



Camino de Oeste/Pima Farms Road/Magee Road is a four-legged intersection with stop control on the Pima Farms Road and Magee Road approaches. The southbound approach has a shared left/through lane and an exclusive right-turn lane. The other three legs are single-lane approaches. The west leg (Pima Farms Road) is offset by about 40 feet north of the east leg (Magee Road). The intersection is shown in Exhibit 7.

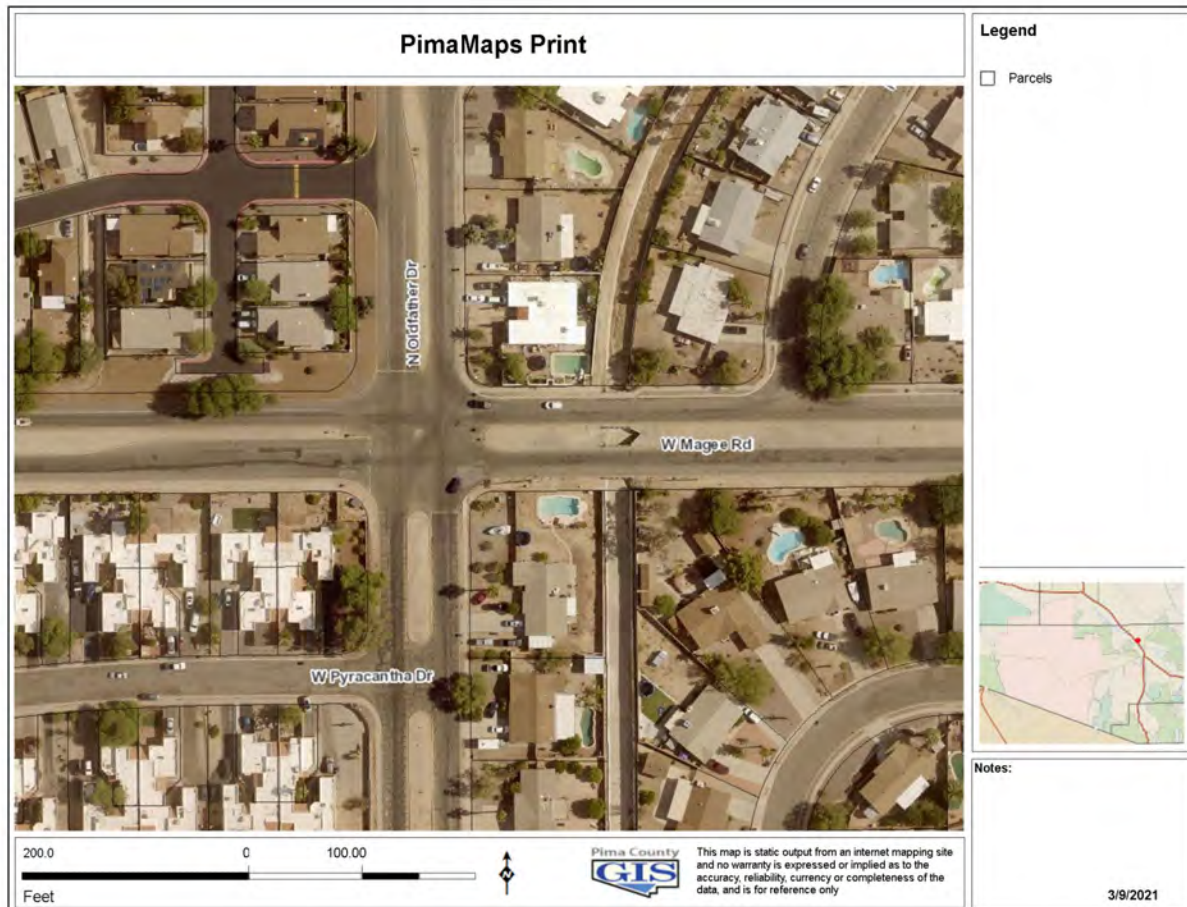
Exhibit 7 Camino de Oeste/Pima Farms Road/Magee Road



Magee Road/Oldfather Drive is a four-legged intersection with all-way stop control. The north and west legs each have an exclusive left turn lane and a shared through/right turn lane. The south and east legs have single-lane approaches. The intersection is shown in Exhibit 8.



## Exhibit 8 Magee Road/Oldfather Drive



### Transit Service

The closest transit route is Sun Shuttle Route 412 which runs on Thornydale Road with a stop at Cortaro Farms Road.

### Multi-Modal Impacts/Facilities

Cortaro Farms Road and Oldfather Drive are bike routes with striped lanes on both sides. Both streets have sidewalks on both sides of the streets. Magee Road, east of Camino de Oeste also has striped lanes for bicycle use on both sides.

### Sight Distance/Topography

Sight distances at the study area intersections appear to be acceptable. Acceptable sight distance should be ensured through clearing of vegetation if necessary.

### Connectivity

The project will construct an extension of Camino de Oeste to intersect with Cortaro Farms Road. This will complete a connection from Cortaro Farms Road to Ina Road. There will be better access to Quail Run Elementary School for families who live south of the project site.

## 5. Existing Traffic Conditions

### Roadway Traffic Volumes and Performance

Daily roadway volumes on Cortaro Farms Road and the surrounding roadways are available from Pima Association of Governments website. Because this study was prepared to support the Specific Plan, and a follow up TIS will be prepared when the actual tenants are known, this TIS only analyzes level of service conditions on the project roadways. More rigorous analyses, including peak hour intersection capacity analyses will be conducted at the development plan stage.

Level of service is a qualitative description of how well a roadway or intersection operates under prevailing traffic conditions based on traffic volumes and capacity. A grading system of A through F, similar to academic grades, is utilized. LOS A is free-flowing traffic, whereas LOS F is forced flow, delay, and extreme congestion. LOS D (Pima County) is generally accepted as the standards in urbanized areas.

Segment performance has been estimated using the planning methods contained in the Florida Department of Transportation (FDOT) Generalized Annual Average Daily Volumes for Florida's Urbanized Areas – Table 1<sup>1</sup>. Exhibit 9 shows that all project area roadways have daily volumes that are below the daily LOS D capacity thresholds.

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<sup>1</sup> Florida Department of Transportation Quality/Level of Service Handbook, Generalized Volumes for Urbanized Areas

**Exhibit 9 Current Traffic Volumes and LOS on Roadway Segments**

Roadway Segment	Recorded ADT	Year	Data Source	LOS D Capacity
Cortaro Farms Road, West of Camino de Oeste (South)	19,000	2020	PAG	35,820
Cortaro Farms Road, East of Camino de Oeste (South)	16,651	2020	PAG	35,820
Camino de Oeste, North of Cortaro Farms Road	6,197	2020	PAG	10,700
Sandy Desert Trail, South of Cortaro Farms Road	No Volumes Available			10,700
Camino de Oeste, South of Project Site	4,147	2020	PAG	13,990
Pima Farms Road, West of Camino de Oeste	No Volumes Available			10,700
Magee Road, East of Camino de Oeste	4,561	2020	PAG	10,700
Oldfather Road, South of Cortaro Farms Road	7,383	2020	PAG	13,990
Oldfather Road, South of Magee Road	7,810	2020	PAG	13,990

### Safety Related Deficiencies

ADOT collects crash data for all roadways within the state. We reviewed the data within the project study area for the most recently available five-year period (2015-2019). A summary of the crashes within the five-year period are provided in Exhibits 10a (intersection crashes) and 10b (roadway segment crashes).

It should be noted that the segment of Cortaro Farms Road between Camino de Oeste and Thornydale was recently improved to a four-lane urban arterial. The project was completed in Spring 2019, therefore, most of the crashes recorded along Cortaro Farms Road occurred when the roadway was a two-lane road or during the construction of the roadway.

The highest five-year intersection crash rate, 0.87 crashes per million vehicles entering (MVE) occurred at the Cortaro Farms Road/Oldfather signalized intersection. Nineteen crashes occurred over this period with sixteen being rear-end crashes.



The next highest intersection crash rate (0.82 crashes per MEV) was at the unsignalized Camino de Oeste/Pima Farms Road/Magee Road intersection. There were four rear end crashes and three angle crashes among the nine crashes recorded during the five-year period.

Cortaro Farms Road experienced a five-year crash rate of 0.89 crashes per million vehicle-miles during the five-year period. There was a total of thirty-one crashes during this period, with the majority occurring in 2017. The most common crash type was “rear-end” with 22 of the 31. There were only two crashes recorded in 2019, perhaps due to the safety improvements associated with the roadway widening project.

## Exhibit 10a Intersection Crash Data – 2015-2019

### Cortaro Farms Road/Camino de Oeste/Sandy Desert Trail

Crash Type	2015	2016	2017	2018	2019	Total	%
Left Turn	1	1			1	3	12%
Angle	1	1			1	3	12%
Rear End	6	2	3	3	2	16	64%
Sideswipe			1	1		2	8%
Other			1			1	4%
<b>Total</b>	<b>8</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>25</b>	
<b>Crash Rate (per MVE)</b>	<b>0.90</b>	<b>0.45</b>	<b>0.56</b>	<b>0.45</b>	<b>0.45</b>	<b>0.56</b>	

Severity						Total	%
Bodily Injury	2	1	1	1	2	7	28%
Property Damage	6	3	4	3	2	18	72%

### Cortaro Farms Road/Oldfather Drive

Crash Type	2015	2016	2017	2018	2019	Total	%
Single Vehicle	1		1			2	11%
Rear End	6	1	8	1		16	84%
Sideswipe	1					1	5%
<b>Total</b>	<b>8</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>19</b>	
<b>Crash Rate (per MVE)</b>	<b>1.82</b>	<b>0.23</b>	<b>2.05</b>	<b>0.23</b>	<b>0.00</b>	<b>0.87</b>	

Severity						Total	%
Bodily Injury	2		3			5	26%
Property Damage	6	1	6	1		14	74%

### Cortaro Farms Road/Star Grass

Crash Type	2015	2016	2017	2018	2019	Total	%
Left Turn				1		1	33%
Sideswipe	1					1	33%
Other		1				1	33%
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	
<b>Crash Rate (per MVE)</b>	<b>0.14</b>	<b>0.14</b>	<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>0.08</b>	

Severity						Total	%
Bodily Injury						0	0%
Property Damage	1	1		1		3	100%

### Cortaro Farms Road/Gatekeeper

Crash Type	2015	2016	2017	2018	2019	Total	%
Rear End				2		2	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	
<b>Crash Rate (per MVE)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.31</b>	<b>0.00</b>	<b>0.06</b>	

Severity						Total	%
Bodily Injury						0	0%
Property Damage				2		2	100%

### Cortaro Farms Road/Freshwater

Crash Type	2015	2016	2017	2018	2019	Total	%
Left Turn		1				1	17%
Rear End	2	2	1			5	83%
<b>Total</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	
<b>Crash Rate (per MVE)</b>	<b>0.27</b>	<b>0.41</b>	<b>0.14</b>	<b>0.00</b>	<b>0.00</b>	<b>0.16</b>	

Severity						Total	%
Bodily Injury	1					1	17%
Property Damage	1	3	1			5	83%

### Camino de Oeste/Pima Farms Road/Magee Road

Crash Type	2015	2016	2017	2018	2019	Total	%
Single Vehicle		1				1	11%
Angle	1	1	1			3	33%
Rear End			2	2		4	44%
Head On	1					1	11%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>9</b>	
<b>Crash Rate (per MVE)</b>	<b>0.91</b>	<b>0.91</b>	<b>1.37</b>	<b>0.91</b>	<b>0.00</b>	<b>0.82</b>	

Severity						Total	%
Bodily Injury						0	0%
Property Damage	2	2	3	2		9	100%

Note: MVE = Million Vehicles Entering the intersection

**Exhibit 10b Roadway Crash Data – 2015-2019**

**Cortaro Farms: Camino de Oeste to Oldfather Drive**

Crash Type	2015	2016	2017	2018	2019	Total	%
Single Vehicle		1	1	1	1	4	13%
Left Turn	1					1	3%
Rear End	6	1	13	2		22	71%
Sideswipe		3			1	4	13%
Total	7	5	14	3	2	31	
Crash Rate (per MVM)	1.01	0.72	2.02	0.43	0.29	0.89	

Severity						Total	%
Fatal						0	0%
Bodily Injury	2	1	2		1	6	19%
Property Damage	5	4	12	3	1	25	81%

Note: MVM = Million Vehicle Miles

**Data Sources**

- Pima Association of Governments – Traffic Volumes
- Florida Department of Transportation Generalized Annual Average Daily Volumes for Florida's Urbanized Areas – Table 1
- ADOT – Crash Records



## 6. Projected Traffic Conditions

### Site Traffic Forecasting

#### Trip Generation

Trips generated by the project have been estimated using the rates published in the *ITE Trip Generation Manual, 10<sup>th</sup> Edition* for land use categories 210– Single Family Detached Housing, 220–Multi-family Housing (Low-Rise), 938–Coffee/Donut Shop with Drive-Through Window and No Indoor Seating and 720–Medical-Dental Office Building. The residential component mix of single family and multi-family housing was found to generate a slightly higher trip generation than if the residential component only had single-family residential uses. The trip rates and resulting trip generation are provided in Exhibit 11.

The table shows that the total daily traffic generated by this project at buildout is about 4,722 trips during the average weekday, 505 during the AM peak hour and 340 during the PM peak hour.

**Exhibit 11 Site Trip Generation**

**Trip Generation Rates - Average Rates**

<b>Proposed Use</b>	<b>Unit</b>	<b>No.Units</b>	<b>ITE Categ.</b>	<b>Weekday AM</b>		<b>Weekday PM</b>		<b>Avg Weekday</b>	
				<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>
Single-Family Detached Housing	Dwelling Unit	135	210	0.74	0.99	0.74	0.99	9.44	
				25%	75%	63%	37%	50%	50%
Multifamily Housing (Low-Rise)	Dwelling Unit	200	220	0.46	0.56	0.46	0.56	7.32	
				23%	77%	63%	37%	50%	50%
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	1000 SF	0.87	938	337.04	83.33	337.04	83.33	2000	
				50%	50%	50%	50%	50%	50%
Medical-Dental Office Building	1000 SF	7.00	720	2.78	3.46	2.78	3.46	34.8	
				78%	22%	20%	72%	50%	50%

**Preliminary Trip Generation**

<b>Proposed Use</b>		<b>Unit</b>	<b>No. Units</b>	<b>Weekday AM</b>		<b>Weekday PM</b>		<b>Avg Weekday</b>	
				<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>
Single-Family Detached Housing		Dwelling Unit	135	100	134	100	134	1274	
				25	75	84	49	637	637
Multifamily Housing (Low-Rise) Housing		Dwelling Unit	200	92	112	92	112	1464	
				21	71	71	41	732	732
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating		1000 SF	0.87	293	72	293	72	1740	
				147	147	36	36	870	870
Medical-Dental Office Building		1000 SF	7.00	19	22	19	22	244	
				15	4	5	17	122	122
Totals				505	340	505	340	4722	
				208	297	196	145	2,361	2,361

Some numbers do not appear to add due to rounding.

#### Mode Split

All trips were assumed to be via motor vehicle. No trips were assigned to bike, pedestrian, or transit modes.

#### Pass-By Traffic

Pass-by trips associated with the coffee shop land use were calculated based on pass-by trip rates for this land use in the *ITE Trip Generation Handbook, 3<sup>rd</sup> Edition*, and are shown in Exhibit 12. The total net new trips (total trips minus pass-by trips) are shown in Exhibit 13.

## Exhibit 12 Pass-By Trip Generation

<b>Pass-by Trips</b>		<b>Unit</b>	<b>Pass By Rates</b>	<b>Weekday AM</b>		<b>Weekday PM</b>		<b>Avg Weekday*</b>	
				<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating		1000 SF	89%	130	130	32	32	774	774

## Exhibit 13 Net New Trips

<b>Net New Trips</b>		<b>Unit</b>	<b>No. Units</b>	<b>Weekday AM</b>		<b>Weekday PM</b>		<b>Avg Weekday</b>	
				<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>	<b>In</b>	<b>Out</b>
Single-Family Detached Housing		Dwelling Unit	135	25	100 75	84	134 49	637	1274 637
Multifamily Housing (Low-Rise) Housing		Dwelling Unit	200	21	92 71	71	112 41	732	1464 732
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating		1000 SF	0.87	16	32 16	4	8 4	96	191 96
Medical-Dental Office Building		1000 SF	7.00	15	19 4	5	22 17	122	244 122
Totals				77	244 166	164	276 112	1,587	3173 1,587

### Trip Distribution and Assignment

Trips generated by this project have been distributed to the surrounding roadway network. We distributed 40% of the trips to the west and 40% to the east, both via Cortaro Farms Road. We distributed the remaining 20% south on Camino de Oeste. The resulting peak hour assignments at the project access intersections are illustrated in Exhibits 14 (non pass-by trips) and 15 (pass-by trips).

Exhibit 14 Site Trips – Non Pass-By at Project Driveways

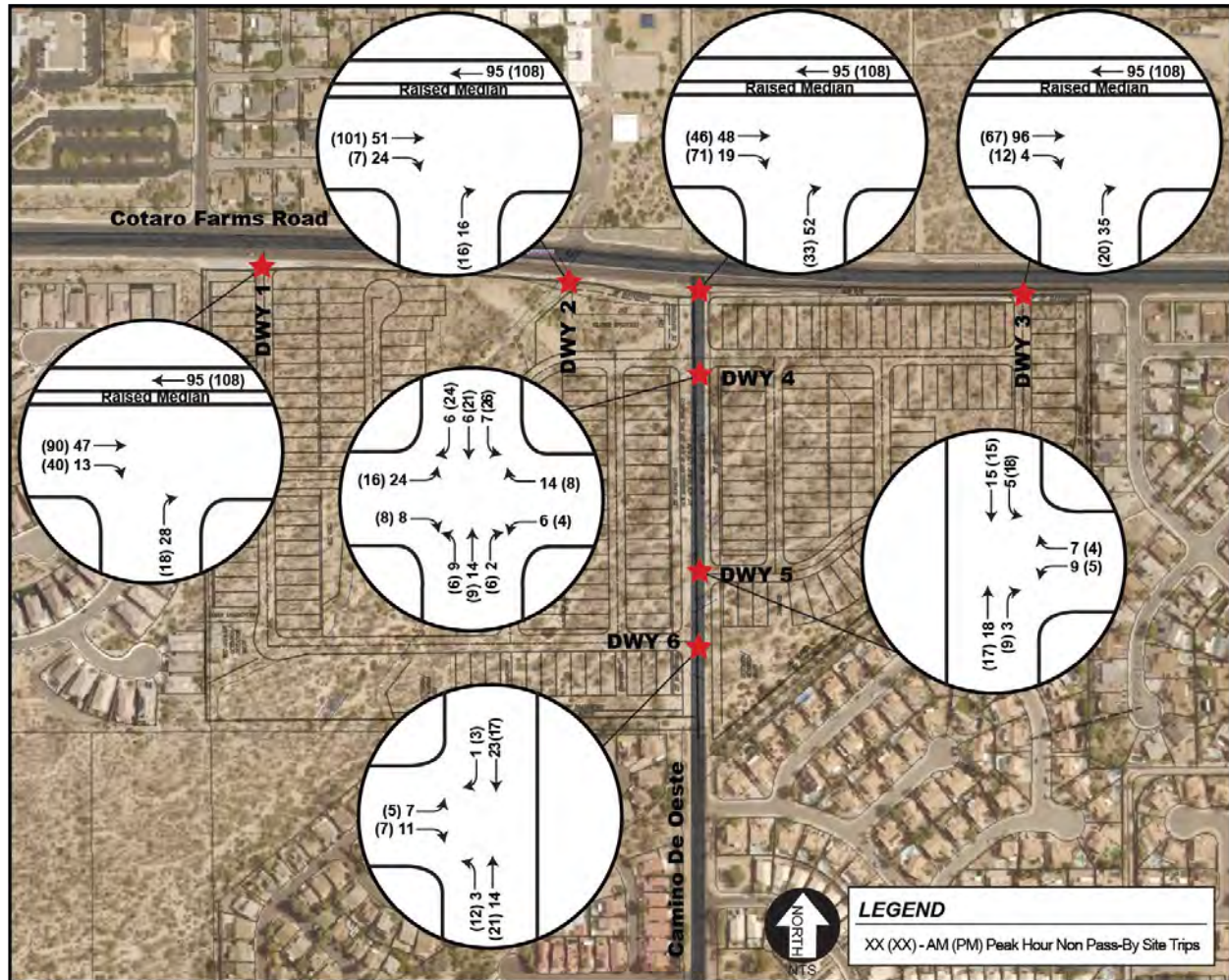
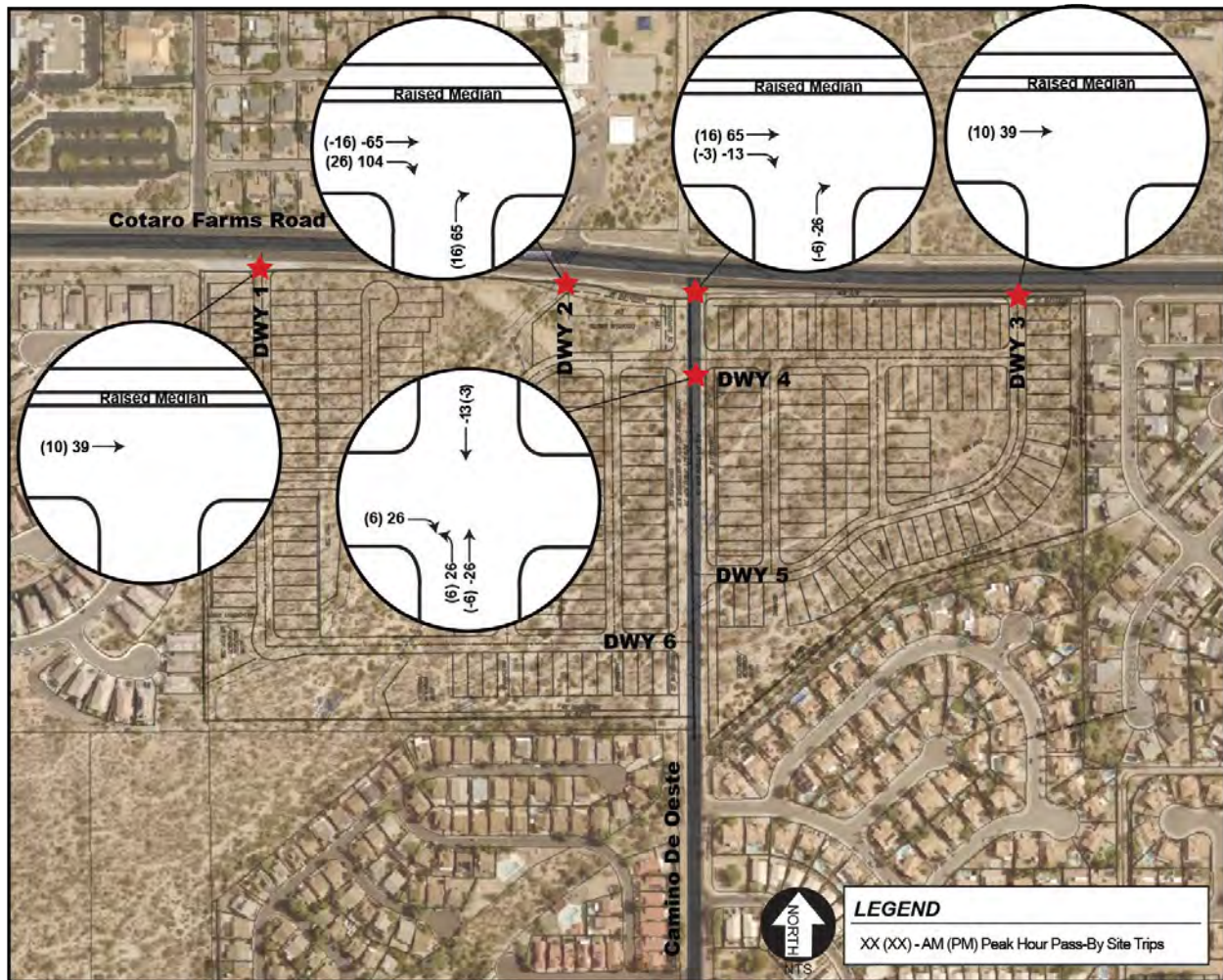




Exhibit 15 Site Trips – Pass By



### Non-Site Traffic Forecasting

There are no background intersection traffic volume data available beyond a 2017 turning movement count at the Cortaro Farms Road/Camino de Oeste/Sandy Desert Trail intersection for intersections in the vicinity of the project. There are roadway volumes on PAG's website in the vicinity of the project. We reviewed a 24-hour count on Cortaro Farms Road that was collected on September 11, 2019, after Cortaro Farms Road was widened to four lanes. We applied a growth rate of 2%/year to the highest peak hour volumes between 7-9 AM and 4-6 PM to estimate year 2023 traffic volumes on Cortaro Farms Road near its future intersection with the northern extension of Camino de Oeste.

The 2019 and 2023 peak hour volumes on Cortaro Farms Road are provided in Exhibit 16. These hourly volumes were used in the assessment of turn lane warrants at the project driveways on Cortaro Farms Road.

Exhibit 16 Cortaro Farms Road – Peak Hour Volumes



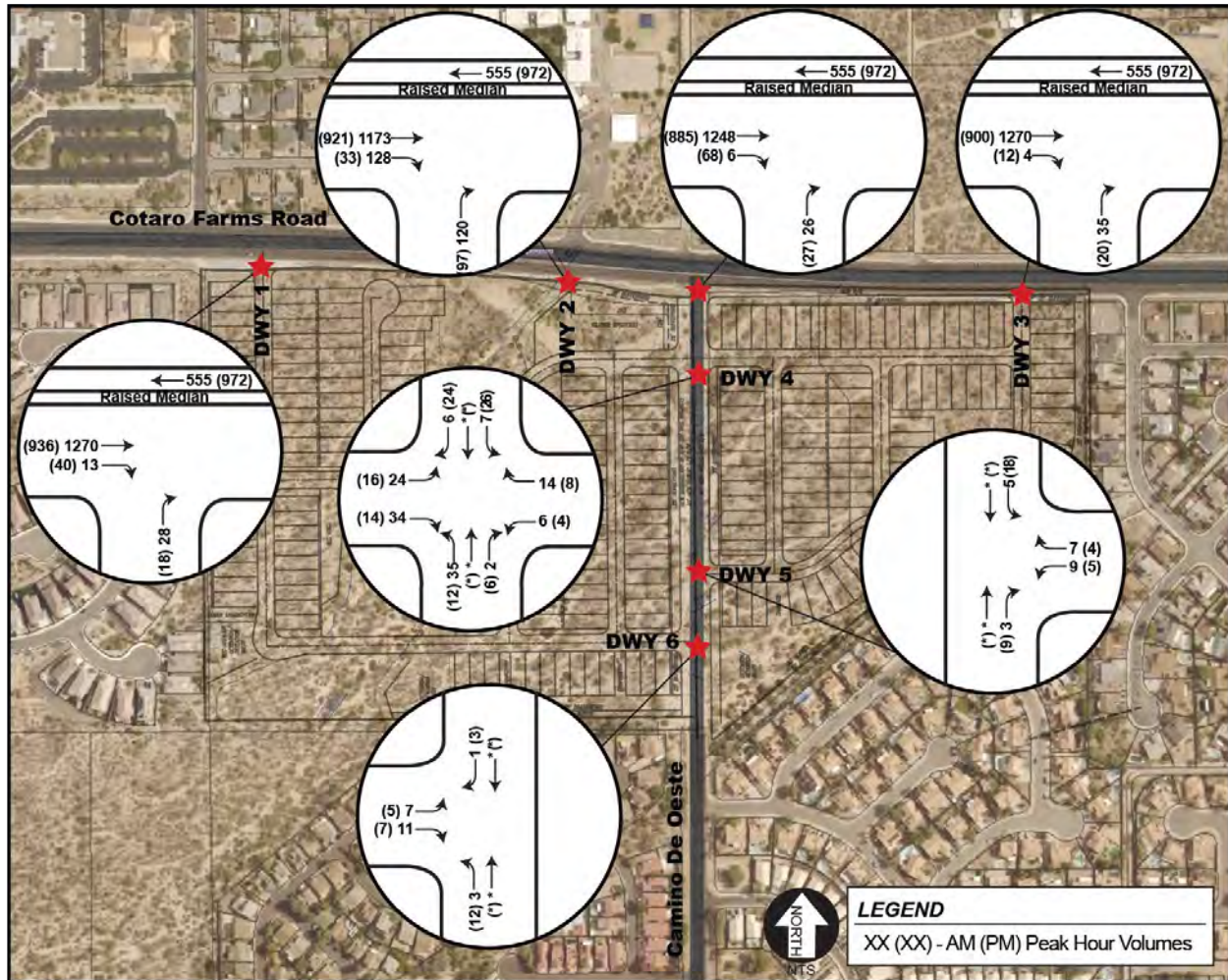
	Peak Hour Volumes	
	Year 2019	Year 2023
Eastbound AM	1,094	1,184
Eastbound PM	680	736
Westbound AM	425	460
Westbound PM	798	864

### Total Traffic

The background traffic was added to the site traffic to estimate total traffic at the project driveways. The resulting peak hour volumes at the project driveways are illustrated in Exhibit 17.

We did not estimate through traffic volumes on Camino de Oeste as these volumes would be speculative for this planning level analysis. However, there would have to be approximately 800 – 900 vehicles during the peak hour for southbound or northbound right turn lanes to be warranted at the project driveways based on Pima County right turn lane warrant criteria. It is unlikely that the future volumes on this roadway segment would be realized, thus right turn lanes are not projected to be warranted. A continuous left turn lane on Camino de Oeste is expected to be constructed, so a left turn lane warrant analysis was not conducted for left turns on Camino de Oeste.

## Exhibit 17 2023 Driveway Volumes



Through movements on Camino de Oeste have not been estimated for this report.

## 7. Traffic and Improvement Analysis

### Roadway Levels of Service

Exhibit 18 summarizes the new ADT and daily volume capacity (LOS D) of the roadway segment with and without the project in 2023.

The table show that based on the growth of 2%/year estimated for the background traffic, and the LOS D criteria found in FDOT's *Generalized Annual Average Traffic Volumes in Urbanized Areas*, the 2023 no project and with project volumes will not exceed the theoretical daily service volume LOS D thresholds.

**Exhibit 18      Year 2023 Roadway Future Volumes**

Roadway Segment	LOS D Capacity	2023 No Project ADT	Site Trips	2023 With Project*
Cortaro Farms Road, West of Camino de Oeste (South)	35,820	20,566	1,269	21,835
Cortaro Farms Road, East of Camino de Oeste (South)	35,820	18,024	1,269	19,293
Camino de Oeste, North of Cortaro Farms Road	10,700	6,708	159	6,866
Camino de Oeste, South of Project Site	13,990	4,489	635	5,123
Magee Road, East of Camino de Oeste	10,700	4,937	317	5,254
Oldfather Road, South of Cortaro Farms Road	13,990	7,992	159	8,150
Oldfather Road, South of Magee Road	13,990	8,454	159	8,612

*\*It is expected that the new intersection of Cortaro Farms Road/Camino de Oeste will draw background traffic to and from Cortaro Farms Road and Camino de Oeste, and that the traffic volumes shown in Exhibit 19 will likely be higher on Camino de Oeste and lower on Cortaro Farms Road. This will be analyzed more fully when the TIA is prepared at the future subdivision platting and development plan stages.*

### **Acceleration/Deceleration Lanes, Left Turn Lanes**

The Pima County Subdivision and Development Street Standards includes warrants for left and right turn lanes. For the right turn lane warrant, the hourly right turn volume is plotted against the major road volume (Exhibit 19).

Because of the raised median on Cortaro Farms Road and that the Camino de Oeste extension will have a continuous left turn lane, we did not conduct left turn warrant analyses for these roadways. We conducted a right turn lane warrant analysis for turns from Cortaro Farms Road into the project driveways and at its future intersection with Camino de Oeste.

The right turn lane warrant is met for the eastbound right turn into Driveway 2, the commercial driveway and on Cortaro Farms Road at its intersection with Camino de Oeste, based on the trip distribution estimate. A more detailed analysis will be conducted at the future subdivision platting and development plan stages.

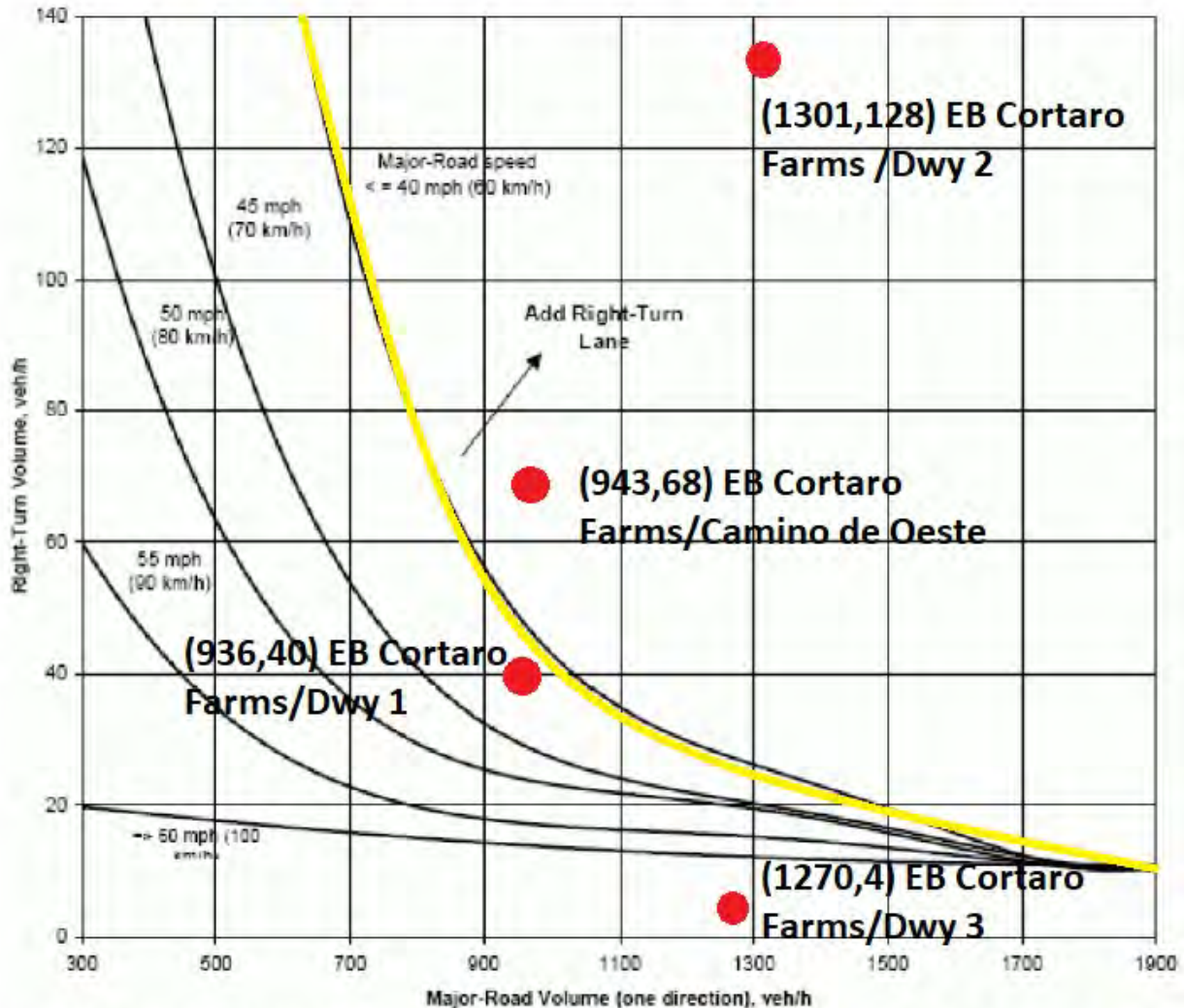
Based on this preliminary analysis, right turn lanes are not anticipated to be warranted at the other project driveways on Cortaro Farms Road.

Turn lanes should be 110 feet long at a minimum per Pima County turn lane standards for 40-mph roadways.



Exhibit 19 Right Turn Lane Warrant Criteria – Pima County

**A-3 RIGHT TURN LANE GUIDELINES FOR FOUR-LANE ROADS<sup>9</sup>**



Note: Existing roadway constraints may restrict the ability or need to install turning lanes. Traffic Engineering may require a traffic engineering analysis to support alternative recommendations for the installation of turning lanes.

**Quail Run School Crossing**

Quail Run Elementary School is on the north side of Cortaro Farms Road, directly opposite the project site. The school boundaries extend south on Camino de Oeste and parents will have better vehicular and pedestrian access to Cortaro Farms Road and the school, although there will be no direct vehicular connection to the school due to the raised median on Cortaro Farms Road. The future commercial use within the Specific Plan area may also be an attractor for employees and or students at the school. The potential for a pedestrian crossing, whether signalized or unsignalized should be discussed with Pima County and the Marana School District as the project continues to future subdivision platting and at the development plan stages.

### **Pedestrian, Bicycle, and Transit Considerations**

Pedestrian and bike facilities should be included in the internal subdivision streets as required by County subdivision street standards. The pedestrian circulation network for the residential land uses will be comprised of new public sidewalks, pedestrian paths and trails, and bike-friendly neighborhood streets. These circulation elements will accommodate both pedestrians and bicyclists and will connect to the public sidewalks and multi-use lanes on the adjacent public arterials (Cortaro Farms Road, the new Camino de Oeste extension).

The closest transit route is Sun Shuttle Route 412 which runs on Thornydale Road with a stop at Cortaro Farms Road.

### **Speed Considerations**

The posted speed limit on Camino de Oeste south of the project is currently 35 mph. It is expected that the extension of Camino de Oeste will also be posted for 35 mph.

Traffic calming measures may be desirable on internal streets. Traffic calming measures might include pedestrian tables, mini roundabouts, and curb “bump outs” at intersections along the more important pedestrian routes.

### **Other Mitigation**

This preliminary traffic study is intended to provide a general analysis of potential transportation conditions within and in the vicinity of the project site. A more comprehensive traffic impact study that will provide additional mitigation recommendation should be conducted at the future subdivision platting and development plan stages when land use intensities and the site plan are more evolved.

## 8. Conclusions and Recommendations

### Conclusions and Recommendations

1. This preliminary study addresses a 57-acre residential and commercial development located south of Cortaro Farms Road along the Camino de Oeste (south) alignment. This study is a supporting document to the Cortaro 57 Specific Plan submittal.
2. Along the project frontage, Cortaro Farms Road and Camino de Oeste are owned and maintained by Pima County.
3. This preliminary study analyzes a mix of single-family residential lots (135) and multi-family units (200) a coffee shop with drive through lanes and a medical office building. when completed. For the purpose of this traffic study, buildout is estimated to be around 2023, although the homebuyer's market will determine actual buildout. This mix was chosen to be a conservative choice, and the future development may likely produce fewer trips if a less intense commercial land use is constructed.
4. Access to the project will be from Cortaro Farms Road at four locations, one being an extension of Camino de Oeste from the south to its intersection with Cortaro Farms Road. All access locations on Cortaro Farms Road will be limited to right-in, right-out only due to the raised median on Cortaro Farms Road. There will be three new intersections on the extension of Camino de Oeste providing access to the project uses. These intersections will allow for full access movements.
5. The site adjoins existing residential development to the south, west and east.
6. The roadways and intersections currently operate at LOS D or better.
7. Based on this preliminary and conservative site plan and analysis, the project will generate about 4,722 trips per day, of which 505 will be in the AM peak and 340 in the PM peak. About 89% of the coffee shop trips will be pass-by trips, reducing the number of new trips on the surrounding roadway to about 3,173 net weekday trips, 244 net AM peak hour trips and 276 net PM peak hour trips.
8. Because the final land uses are conceptual and the future commercial uses are subject to change, we did not conduct intersection capacity analyses, as any mitigation recommendations would be very speculative and would likely overestimate the impacts at the study area off-site intersections. However, we did conduct a preliminary turn lane warrant analysis to anticipate any recommended turn lanes on Cortaro Farms Road.
9. The turn lane analysis found that right turn lanes may be warranted at the commercial driveway on Cortaro Farms Road and on Cortaro Farms Road at its new intersection with Camino de Oeste. If these turn lanes are found to be warranted at the actual development plan and subdivision platting stage, Pima County standards set minimum storage lengths at 110 feet for roadways with posted speed limits of 40 mph or less. A queuing analysis will also have to be conducted to determine the lengths of the turn lane queues.
10. When the full TIS is conducted, a queuing analysis should also be performed for the downstream U-turn locations on Cortaro Farms Road at Star Grass Drive and at Burke Drive/Freshwater Lane.
11. Discussions in conjunction with Pima County and Marana School District should be held to assess whether a pedestrian crossing is recommended and appropriate on Cortaro Farms Road from the project area to serve Quail Run Elementary School. Final determination as to the need for such a crossing will be, to some extent, based upon the final uses on the project's commercial site, as well as the amount of pedestrian traffic from the more than one-thousand existing homes located south of the Specific Plan site.

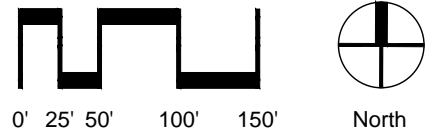


**Appendix C:**  
**Native Plant Inventory of**  
**Saguaros & Ironwood Trees**





Scale: 1" = 50'



IRONWOOD & SAGUARO INVENTORY SUMMARY	
<b>Ironwoods</b>	<b>Total</b>
Total Inventory	1,320
Non-Viable	508
Possibly Preserve in Place	175
Highly Salvageable	25
Moderately Salvageable	196
Possibly Salvageable	67
Not Salvageable	319
All quantities are approximate	
<b>Saguaros</b>	<b>Total</b>
Total Inventory	827
< 6' Tall	142
6' - < 18' Tall	540
18' - 25' (+/-)	71
25' +	74
All quantities are approximate	

## ABBREVIATIONS

The following abbreviations were used in the plant tables:

- BL - Broken Limbs; Tree has significant broken branches.  
BT - Broken Top, generally used in description of canchus.  
DW - Dead Wood; Tree has significant die back or dead/broken limbs.  
DY - Dying; Tree is dying.  
FD - Frost Damage.  
IN - Insect or Disease Infestation.  
LB - Low Branched; Tree has many low branches that will need to be removed for salvage and removal will destroy structure of tree.  
LE - Leaning; Tree is leaning to the point where salvage will be difficult.  
MS - Marginal Salvage; Used during field inventory to identify less desirable salvage candidates to be used if needed to meet % requirements.  
MT - Tree has significant mistletoe infestation.  
NV - Not Viable; These are trees which are not included in the calculations for the site because they are not in viable condition.  
OT - Tree has an old trunk indicating dieback at some point in the past.  
PD - Pruning Damage.  
PIP - Plants to be preserved in place.  
PIP-ROW - Plants to be preserved in place but located within the Right of Way. These plants are not included in the calculation of credits for PIP plants on the site.  
PROX- Other vegetation in the vicinity will make salvage difficult.  
PS - Possible Salvage; Used in the field to identify best potential salvage candidates.  
RD - Rodent Damage; Rodents have excavated at the base of the tree.  
RFS - Rinds to be removed from site, damaged or destroyed.  
RT - Rotted Trunk; Trunk has been broken off or rotted out and has hollow areas, making long term health and viability of the tree questionable.  
SAL- Salvage; Used during field inventory to identify trees that should be salvaged regardless of % requirements.  
SL - Slope; Tree is on steep slope where salvage will not be possible.  
SO - Soils; Soil is rocky or otherwise unsuitable for excavation.  
SR - Surface roots are evident, making excavation difficult.  
ST - Stunted.  
SZ - Size of the tree; either spread, caliper or height is not conducive to salvage.  
TD - Trunk Damage.  
TM - Too Multi; Tree has multiple trunks coming out of the ground that will make moving the tree difficult without significant damage.  
TOS- Plant to be transplanted on site.  
VMS - Very Marginal Salvage; Used during field inventory to identify least desirable salvage candidates to be used if needed to meet % requirements.

## CORTARO 57

### *SPECIFIC PLAN*

*SAGUARO & IRONWOOD INVENTORY*

sheet 1 of 9



35974 S. Desert Sun Drive  
Tucson, AZ 85739  
(520) 909-4678  
gregs@grslandscapearchitects.com

Date: 4/9/21  
Drawn by: LMW  
Checked by: GRS

- ☐ Design Review  
☐ Construction Documents  
☒ Agency Submittal  
☐ Construction Set  
☒ Not for Construction



CORTARO FARMS ROAD



MATCHLINE -- SEE SHEET 1

Scale: 1" = 50'



0' 25' 50' 100' 150'



North

MATCHLINE -- SEE SHEET 3



Expires 1-30-2023



35974 S. Desert Sun Drive  
Tucson, AZ 85739  
(520) 909-4678  
gregs@grslandscapearchitects.com

Date:	4/9/21	<input type="checkbox"/> Design Review
Drawn by:	LMW	<input type="checkbox"/> Construction Documents
Checked by:	GRS	<input checked="" type="checkbox"/> Agency Submittal
		<input type="checkbox"/> Construction Set
		<input checked="" type="checkbox"/> Not for Construction

**CORTARO 57**  
**SPECIFIC PLAN**

SAGUARO &amp; IRONWOOD INVENTORY

sheet 2 of 9





O NO.	DESCRIPTION	SIZE	ARMED	VIABILITY	TRANS.	COMMENTS
1	Carnegiea gigantea - Saguaro	12		H	H	PS
2	Carnegiea gigantea - Saguaro	8		H	H	PS
3	Carnegiea gigantea - Saguaro	8		H	H	PS
4	Carnegiea gigantea - Saguaro	18+	20+	M	L	SZ
5	Carnegiea gigantea - Saguaro	18+	18	M	L	SZ
6	Carnegiea gigantea - Saguaro	8		H	H	PS
7	Carnegiea gigantea - Saguaro	8		H	H	PS
12	Carnegiea gigantea - Saguaro	8		H	H	PS
13	Carnegiea gigantea - Saguaro	8		H	H	PS
16	Carnegiea gigantea - Saguaro	18+	20+	L	L	BT
21	Carnegiea gigantea - Saguaro	8		H	H	PS
23	Carnegiea gigantea - Saguaro	18+	18	M	L	SZ
25	Carnegiea gigantea - Saguaro	8		H	H	PS
26	Carnegiea gigantea - Saguaro	10		H	H	PS
31	Carnegiea gigantea - Saguaro	10		L	L	BT
42	Carnegiea gigantea - Saguaro	3		H	H	PS
45	Carnegiea gigantea - Saguaro	8		H	H	PS
46	Carnegiea gigantea - Saguaro	8		H	H	PS
47	Carnegiea gigantea - Saguaro	8		M	H	PS
48	Carnegiea gigantea - Saguaro	10		H	H	PS
49	Carnegiea gigantea - Saguaro	8		H	H	PS
50	Carnegiea gigantea - Saguaro	8		H	H	PS
51	Carnegiea gigantea - Saguaro	8		M	H	PS
54	Carnegiea gigantea - Saguaro	18+	12	M	L	SZ
56	Carnegiea gigantea - Saguaro	2		H	H	PS
58	Carnegiea gigantea - Saguaro	2		H	H	PS
60	Carnegiea gigantea - Saguaro	2		M	H	PS
69	Carnegiea gigantea - Saguaro	8		H	H	PS
73	Carnegiea gigantea - Saguaro	8		H	H	PS
87	Carnegiea gigantea - Saguaro	18+	8	H	L	SZ
88	Carnegiea gigantea - Saguaro	18+	8	H	H	PS
92	Carnegiea gigantea - Saguaro	4		H	H	PS
96	Carnegiea gigantea - Saguaro	8		H	H	PS
97	Carnegiea gigantea - Saguaro	8		H	H	PS
98	Carnegiea gigantea - Saguaro	8		H	H	PS
99	Carnegiea gigantea - Saguaro	8		H	H	PS
100	Carnegiea gigantea - Saguaro	12		H	H	PS
102	Carnegiea gigantea - Saguaro	8		H	H	PS
112	Carnegiea gigantea - Saguaro	3		M	H	PS
121	Carnegiea gigantea - Saguaro	18+	18	H	L	SZ
127	Carnegiea gigantea - Saguaro	8		M	L	BT
132	Carnegiea gigantea - Saguaro	12		H	H	PS
134	Carnegiea gigantea - Saguaro	15	2	H	H	PS
135	Carnegiea gigantea - Saguaro	15	1	H	H	PS
139	Carnegiea gigantea - Saguaro	3		M	H	PS
143	Carnegiea gigantea - Saguaro	18+	12	L	L	BT
144	Carnegiea gigantea - Saguaro	8		H	H	PS
145	Carnegiea gigantea - Saguaro	8		H	H	PS

165	Carnegiea gigantea - Saguaro	8		H	H	PS
166	Carnegiea gigantea - Saguaro	10		H	L	PROX
167	Carnegiea gigantea - Saguaro	2		H	H	PS
172	Carnegiea gigantea - Saguaro	18+	8	M	L	SZ
173	Carnegiea gigantea - Saguaro	8		M	M	MS
176	Carnegiea gigantea - Saguaro	8		H	M	MS
178	Carnegiea gigantea - Saguaro	18+		L	L	BT
179	Carnegiea gigantea - Saguaro	8		H	H	PS
180	Carnegiea gigantea - Saguaro	18+	2	L	L	SZ
181	Carnegiea gigantea - Saguaro	8		H	H	PS
182	Carnegiea gigantea - Saguaro	8		H	H	PS
184	Carnegiea gigantea - Saguaro	2		H	H	PS
186	Carnegiea gigantea - Saguaro	18+	10	H	L	SZ
190	Carnegiea gigantea - Saguaro	3		H	H	PS
191	Carnegiea gigantea - Saguaro	8		L	L	BT
196	Carnegiea gigantea - Saguaro	15		M	H	PS
198	Carnegiea gigantea - Saguaro	18+	12	M	L	LE
201	Carnegiea gigantea - Saguaro	8		M	H	PS
202	Carnegiea gigantea - Saguaro	8		M	M	MS
206	Carnegiea gigantea - Saguaro	8		H	H	PS
207	Carnegiea gigantea - Saguaro	12		H	H	PS
210	Carnegiea gigantea - Saguaro	8		H	H	PS
212	Carnegiea gigantea - Saguaro	5		H	H	PS
213	Carnegiea gigantea - Saguaro	6		H	H	PS
214	Carnegiea gigantea - Saguaro	6		H	H	PS
215	Carnegiea gigantea - Saguaro	6		H	H	PS
217	Carnegiea gigantea - Saguaro	10		H	H	PS
218	Carnegiea gigantea - Saguaro	10	1	H	H	PS
219	Carnegiea gigantea - Saguaro	6		L	L	
221	Carnegiea gigantea - Saguaro	4		H	H	PS
222	Carnegiea gigantea - Saguaro	5		H	H	PS
223	Carnegiea gigantea - Saguaro	6		H	H	PS
224	Carnegiea gigantea - Saguaro	4		H	H	PS
225	Carnegiea gigantea - Saguaro	4		H	H	PS
226	Carnegiea gigantea - Saguaro	8		H	H	PS
228	Carnegiea gigantea - Saguaro	3		H	H	PS
229	Carnegiea gigantea - Saguaro	2		H	H	PS
241	Carnegiea gigantea - Saguaro	18	5	L	L	BT
247	Carnegiea gigantea - Saguaro	12		H	H	PS
248	Carnegiea gigantea - Saguaro	6		H	H	PS
252	Carnegiea gigantea - Saguaro	4		H	H	PS
255	Carnegiea gigantea - Saguaro	8		H	H	PS
258	Carnegiea gigantea - Saguaro	2		H	H	PS
260	Carnegiea gigantea - Saguaro	10		H	H	PS
263	Carnegiea gigantea - Saguaro	18+	12	M	L	LE
265	Carnegiea gigantea - Saguaro	4		M	H	PS
266	Carnegiea gigantea - Saguaro	18+	7	M	L	SZ

271	Carnegiea gigantea - Saguaro	4		H	H	PS
272	Carnegiea gigantea - Saguaro	18+	20+	M	L	SZ
277	Carnegiea gigantea - Saguaro	8		H	H	PS
280	Carnegiea gigantea - Saguaro	8		H	H	PS
286	Carnegiea gigantea - Saguaro	8		H	H	PS
290	Carnegiea gigantea - Saguaro	18+	9	L	L	BT
292	Carnegiea gigantea - Saguaro	10		L	L	BT
293	Carnegiea gigantea - Saguaro	8		L	L	BT
294	Carnegiea gigantea - Saguaro	4		H	H	PS
295	Carnegiea gigantea - Saguaro	4		L	L	BT
304	Carnegiea gigantea - Saguaro	8		H	H	PS
325	Carnegiea gigantea - Saguaro	8		L	L	BT
327	Carnegiea gigantea - Saguaro	4		H	H	PS
331	Carnegiea gigantea - Saguaro	8		H	H	PS
332	Carnegiea gigantea - Saguaro	8		H	H	PS
333	Carnegiea gigantea - Saguaro	8		H	H	PS
334	Carnegiea gigantea - Saguaro	4		L	L	BT
335	Carnegiea gigantea - Saguaro	8		H	H	PS
336	Carnegiea gigantea - Saguaro	12		H	H	PS
337	Carnegiea gigantea - Saguaro	8		H	H	PS
338	Carnegiea gigantea - Saguaro	10		H	H	PS
339	Carnegiea gigantea - Saguaro	8		H	H	PS
344	Carnegiea gigantea - Saguaro	15		H	M	MS
345	Carnegiea gigantea - Saguaro	8		H	H	PS
346	Carnegiea gigantea - Saguaro	10		H	H	PS
347	Carnegiea gigantea - Saguaro	10		H	H	PS
348	Carnegiea gigantea - Saguaro	8		L	L	PROX
349	Carnegiea gigantea - Saguaro	8		M	M	MS
351	Carnegiea gigantea - Saguaro	18+	8	H	L	SZ
352	Carnegiea gigantea - Saguaro	8		H	M	MS
353	Carnegiea gigantea - Saguaro	8		H	M	MS
354	Carnegiea gigantea - Saguaro	5		H	H	PS
355	Carnegiea gigantea - Saguaro	10		H	H	PS
358	Carnegiea gigantea - Saguaro	8		H	H	PS
362	Carnegiea gigantea - Saguaro	18+	8	H	L	SZ
363	Carnegiea gigantea - Saguaro	10		H	H	PS
364	Carnegiea gigantea - Saguaro	8		H	L	PROX
365	Carnegiea gigantea - Saguaro	8		H	H	PS
366	Carnegiea gigantea - Saguaro	12		H	H	PS
369	Carnegiea gigantea - Saguaro	12		H	H	PS
370	Carnegiea gigantea - Saguaro	4		H	H	PS
372	Carnegiea gigantea - Saguaro	18+	3	H	H	PS
373	Carnegiea gigantea - Saguaro	18+	1	M	L	SZ
376	Carnegiea gigantea - Saguaro	10		H	H	PS
377	Carnegiea gigantea - Saguaro	8		H	H	PS
378	Carnegiea gigantea - Saguaro	3		H	H	PS
379	Carnegiea gigantea - Saguaro	8		H	H	PS

380	Carnegiea gigantea - Saguaro	8		H	H	PS
381	Carnegiea gigantea - Saguaro	8		H	H	PS
382	Carnegiea gigantea - Saguaro	8		H	H	PS
383	Carnegiea gigantea - Saguaro	8		H	H	PS
385	Carnegiea gigantea - Saguaro	8		H	H	PS
386	Carnegiea gigantea - Saguaro	8		H	H	PS
387	Carnegiea gigantea - Saguaro	8		H	H	PS
388	Carnegiea gigantea - Saguaro	8		H	H	PS
389	Carnegiea gigantea - Saguaro	10		H	H	PS
390	Carnegiea gigantea - Saguaro	9		H	H	PS
391	Carnegiea gigantea - Saguaro	8		H	H	PS
394	Carnegiea gigantea - Saguaro	15		H	H	PS
403	Carnegiea gigantea - Saguaro	8		H	H	PS
404	Carnegiea gigantea - Saguaro	15	1	H	M	MS
405	Carnegiea gigantea - Saguaro	10	1	H	H	PS
406	Carnegiea gigantea - Saguaro	15		H	H	PS
407	Carnegiea gigantea - Saguaro	10		H	H	PS
408	Carnegiea gigantea - Saguaro	10		H	H	PS
414	Carnegiea gigantea - Saguaro	8		H	H	PS
415	Carnegiea gigantea - Saguaro	12		H	H	PS
417	Carnegiea gigantea - Saguaro	15		H	H	PS
419	Carnegiea gigantea - Saguaro	8		H	H	PS
421	Carnegiea gigantea - Saguaro	15		H	H	PS
425	Carnegiea gigantea - Saguaro	4		H	H	PS
426	Carnegiea gigantea - Saguaro	8		H	H	PS
439	Carnegiea gigantea - Saguaro	15	1	H	H	PS
440	Carnegiea gigantea - Saguaro	8		H	H	PS
441	Carnegiea gigantea - Saguaro	18+	2	M	L	SZ
445	Carnegiea gigantea - Saguaro	8		H	L	PS
448	Carnegiea gigantea - Saguaro	8		H	H	PS
451	Carnegiea gigantea - Saguaro	8		L	L	BT
456	Carnegiea gigantea - Saguaro	8		H	H	PS
462	Carnegiea gigantea - Saguaro	4		H	H	PS
463	Carnegiea gigantea - Saguaro	15	4	M	M	MS
465	Carnegiea gigantea - Saguaro	8		H	H	PS
470	Carnegiea gigantea - Saguaro	8		H	H	PS
471	Carnegiea gigantea - Saguaro	10		H	H	PS
472	Carnegiea gigantea - Saguaro	12		H	H	PS
477	Carnegiea gigantea - Saguaro	8		H	H	PS
481	Carnegiea gigantea - Saguaro	4		H	H	PS
483	Carnegiea gigantea - Saguaro	18+		L	L	SZ
487	Carnegiea gigantea - Saguaro	10		H	H	PS
490	Carnegiea gigantea - Saguaro	8		H	H	PS
491	Carnegiea gigantea - Saguaro	8		H	H	PS
495	Carnegiea gigantea - Saguaro	10		H	H	PS
496	Carnegiea gigantea - Saguaro	8		H	H	PS
498	Carnegiea gigantea - Saguaro	15		H	H	PS

Scale: 1" = 50'



North

0' 25' 50' 100' 150'



35974 S. Desert Sun Drive  
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gregs@grslandscapearchitects.com

Date: 4/9/21  
Drawn by: LMW  
Checked by: GRS

☐ Design Review  
☐ Construction Documents  
☒ Agency Submittal  
☐ Construction Set  
☒ Not for Construction

CORTARO 57  
SPECIFIC PLAN

SAGUARO & IRONWOOD INVENTORY

sheet 3 of 9



O ID	DESCRIPTION	SIZE	VARIABILITY				COMMENTS
			PERIOD	AMPL	WAVE	PHASE	
587	Carnegiea gigantea - Sequoia	15		H	H	P5	
588	Carnegiea gigantea - Sequoia	15	8	H	H	P5	
589	Carnegiea gigantea - Sequoia	12		H	H	P5	
593	Carnegiea gigantea - Sequoia	4		H	H	P5	
594	Carnegiea gigantea - Sequoia	8		H	H	P5	
595	Carnegiea gigantea - Sequoia	8		H	H	P5	
598	Carnegiea gigantea - Sequoia	15	4	H	H	P5	
599	Carnegiea gigantea - Sequoia	12		L	L	O1	
601	Carnegiea gigantea - Sequoia	8		H	H	P5	
602	Carnegiea gigantea - Sequoia	18+	8	H	L	S2	
604	Carnegiea gigantea - Sequoia	4		H	H	P5	
605	Carnegiea gigantea - Sequoia	8		H	H	P5	
606	Carnegiea gigantea - Sequoia	18+	8	M	L	O1	
607	Carnegiea gigantea - Sequoia	10		H	H	P5	
608	Carnegiea gigantea - Sequoia	18+	10	L	L	S2	S2 LE
613	Carnegiea gigantea - Sequoia	15	1	H	H	P5	
614	Carnegiea gigantea - Sequoia	10		H	H	P5	
615	Carnegiea gigantea - Sequoia	8		L	L	RT	
618	Carnegiea gigantea - Sequoia	12		H	H	P5	
642	Carnegiea gigantea - Sequoia	15		H	M	MS SL	
643	Carnegiea gigantea - Sequoia	15	1	H	M	MS SL	
644	Carnegiea gigantea - Sequoia	6		H	M	MS	PROX
648	Carnegiea gigantea - Sequoia	10		H	H	P5	
649	Carnegiea gigantea - Sequoia	8		H	H	P5	
648	Carnegiea gigantea - Sequoia	12		H	H	P5	
649	Carnegiea gigantea - Sequoia	12		H	H	P5	
650	Carnegiea gigantea - Sequoia	18+	25+	L	L	S2	S2 RT
660	Carnegiea gigantea - Sequoia	8		H	H	P5	
664	Carnegiea gigantea - Sequoia	8		L	L	O1	
666	Carnegiea gigantea - Sequoia	4		H	H	P5	
667	Carnegiea gigantea - Sequoia	15		H	H	P5	
668	Carnegiea gigantea - Sequoia	10		H	H	P5	
662	Carnegiea gigantea - Sequoia	12		H	H	P5	
666	Carnegiea gigantea - Sequoia	15	1	H	H	P5	
668	Carnegiea gigantea - Sequoia	12		H	H	P5	
668	Carnegiea gigantea - Sequoia	10		H	H	P5	
669	Carnegiea gigantea - Sequoia	4		L	L		
668	Carnegiea gigantea - Sequoia	15		L	L	O1	
667	Carnegiea gigantea - Sequoia	15		H	H	P5	
668	Carnegiea gigantea - Sequoia	12		H	H	P5	
669	Carnegiea gigantea - Sequoia	15		H	H	P5	
670	Carnegiea gigantea - Sequoia	15		H	H	P5	
670	Carnegiea gigantea - Sequoia	12		H	H	P5	
671	Carnegiea gigantea - Sequoia	15		H	H	P5	
670	Carnegiea gigantea - Sequoia	8		H	H	P5	
670	Carnegiea gigantea - Sequoia	10		H	L		PROX PROX
671	Carnegiea gigantea - Sequoia	12		H	H	P5	
680	Carnegiea gigantea - Sequoia	4		H	H	P5	
681	Carnegiea gigantea - Sequoia	8		H	H	P5	
684	Carnegiea gigantea - Sequoia	12		H	H	P5	
685	Carnegiea gigantea - Sequoia	10	3	L	L	O1	
684	Carnegiea gigantea - Sequoia	18+	8	M	L	S2	S2
689	Carnegiea gigantea - Sequoia	8		M	M	MS	
689	Carnegiea gigantea - Sequoia	4		L	L	MS	
685	Carnegiea gigantea - Sequoia	8		H	H	P5	
686	Carnegiea gigantea - Sequoia	10		H	H	P5	
689	Carnegiea gigantea - Sequoia	18+	12	L	L	O1	
670	Carnegiea gigantea - Sequoia	8		H	H	P5	
671	Carnegiea gigantea - Sequoia	18+	9	M	L	S2	S2
672	Carnegiea gigantea - Sequoia	18+	3	M	L	S2	S2
674	Carnegiea gigantea - Sequoia	4		H	H	P5	
675	Carnegiea gigantea - Sequoia	8		H	H	P5	
676	Carnegiea gigantea - Sequoia	10		L	L	PROX	
678	Carnegiea gigantea - Sequoia	18+	3	M	L	SL	
679	Carnegiea gigantea - Sequoia	18+	4	H	L	SL	S2 S2
680	Carnegiea gigantea - Sequoia	18+	9	M	H		
686	Carnegiea gigantea - Sequoia	10	4	L	L	O1	
687	Carnegiea gigantea - Sequoia	15	2	H	H	P5	
688</							

768	Campeles pgarites - Sagum	5		M	M	MS
769	Campeles pgarites - Sagum	10+	6	H	L	SZ
782	Campeles pgarites - Sagum	10+	6	H	L	SZ
797	Campeles pgarites - Sagum	9		H	H	PS
798	Campeles pgarites - Sagum	8		H	M	MS
801	Campeles pgarites - Sagum	5		H	H	PS
802	Campeles pgarites - Sagum	5		H	H	PS
809	Campeles pgarites - Sagum	6		H	H	PS
804	Campeles pgarites - Sagum	4		H	H	PS
805	Campeles pgarites - Sagum	10+	7	L	L	BT
808	Campeles pgarites - Sagum	9		H	H	PS
809	Campeles pgarites - Sagum	6		H	L	SL
810	Campeles pgarites - Sagum	8		L	L	SL
814	Campeles pgarites - Sagum	6		H	H	PS
819	Campeles pgarites - Sagum	10		H	M	MS
817	Campeles pgarites - Sagum	15	3	M	L	PRO SL
819	Campeles pgarites - Sagum	6		H	H	PS
821	Campeles pgarites - Sagum	10+	6	H	L	SZ
822	Campeles pgarites - Sagum	15	2	L	L	BT
830	Campeles pgarites - Sagum	10+	12	M	L	LE SZ
838	Campeles pgarites - Sagum	10		H	M	MS
837	Campeles pgarites - Sagum	8		H	M	MS
868	Campeles pgarites - Sagum	15	2	H	H	PS
873	Campeles pgarites - Sagum	6		H	H	PS
894	Campeles pgarites - Sagum	10+	6	L	L	BT
897	Campeles pgarites - Sagum	10+	3	M	L	SZ
898	Campeles pgarites - Sagum	10+	3	H	L	SZ
904	Campeles pgarites - Sagum	9		H	H	PS
905	Campeles pgarites - Sagum	12		L	L	BT
908	Campeles pgarites - Sagum	10+		L	L	BT
910	Campeles pgarites - Sagum	6		H	H	PS
914	Campeles pgarites - Sagum	6		H	H	PS
918	Campeles pgarites - Sagum	10	1	L	L	BT
920	Campeles pgarites - Sagum	15		M	M	PRO MS
934	Campeles pgarites - Sagum	10+	5	H	L	SZ
945	Campeles pgarites - Sagum	10		L	L	LE
952	Campeles pgarites - Sagum	10+	9	L	L	SZ
958	Campeles pgarites - Sagum	6		H	H	PS
962	Campeles pgarites - Sagum	6		H	H	PS
964	Campeles pgarites - Sagum	6		H	H	PS
969	Campeles pgarites - Sagum	4		H	H	PS
971	Campeles pgarites - Sagum	12		H	H	PS
972	Campeles pgarites - Sagum	10		H	H	PS
973	Campeles pgarites - Sagum	6		H	M	MS
979	Campeles pgarites - Sagum	10+	10	H	L	SZ
990	Campeles pgarites - Sagum	6		H	H	PS
993	Campeles pgarites - Sagum	6		H	H	PS
997	Campeles pgarites - Sagum	6		H	H	PS
998	Campeles pgarites - Sagum	6		H	H	PS
1002	Campeles pgarites - Sagum	10		H	L	SL
1003	Campeles pgarites - Sagum	10	3	H	L	SZ
1013	Campeles pgarites - Sagum	6		L	L	BT
1014	Campeles pgarites - Sagum	10	4	M	L	SL
1015	Campeles pgarites - Sagum	6		H	M	SL
1018	Campeles pgarites - Sagum	4		H	M	SL
1019	Campeles pgarites - Sagum	10	2	H	H	PS
1020	Campeles pgarites - Sagum	15		H	H	PS
1021	Campeles pgarites - Sagum	9		H	H	PS
1022	Campeles pgarites - Sagum	15	9	H	H	PS
1024	Campeles pgarites - Sagum	15		H	H	PS
1025	Campeles pgarites - Sagum	6		H	H	PS
1044	Campeles pgarites - Sagum	6		L	L	BT
1048	Campeles pgarites - Sagum	6		H	H	PS
1050	Campeles pgarites - Sagum	10	1	H	M	MS
1053	Campeles pgarites - Sagum	6		H	H	PS
1055	Campeles pgarites - Sagum	6		H	H	PS
1057	Campeles pgarites - Sagum	6		H	H	PS
1058	Campeles pgarites - Sagum	6		H	H	PS
1061	Campeles pgarites - Sagum	9		H	H	PS
1069	Campeles pgarites - Sagum	10	3	L	L	BT
1070	Campeles pgarites - Sagum	9		H	H	PS
1081	Campeles pgarites - Sagum	15		H	H	PS
1082	Campeles pgarites - Sagum	10		H	H	PS
1084	Campeles pgarites - Sagum	10		H	H	PS
1088	Campeles pgarites - Sagum	10		H	H	PS
1089	Campeles pgarites - Sagum	10		H	H	PS
1093	Campeles pgarites - Sagum	6		H	H	PS
1104	Campeles pgarites - Sagum	10+	5	H	L	SZ
1105	Campeles pgarites - Sagum	10+	5	H	L	SZ
1107	Campeles pgarites - Sagum	10+	3	L	L	BT
1111	Campeles pgarites - Sagum	10+	14	H	L	SZ
1116	Campeles pgarites - Sagum	12	1	H	H	PS
1120	Campeles pgarites - Sagum	6		H	H	PS
1121	Campeles pgarites - Sagum	6		H	H	PS
1124	Campeles pgarites - Sagum	6		H	H	PS
1127	Campeles pgarites - Sagum	6		H	H	PS
1129	Campeles pgarites - Sagum	10		H	H	PS
1130	Campeles pgarites - Sagum	10		H	H	PS
1138	Campeles pgarites - Sagum	10+	2	H	M	MS
1140	Campeles pgarites - Sagum	6		M	L	PRO

1143	Carapies puerilis - Aquam	6		H	H	P3
1148	Carapies puerilis - Aquam	18•	16	H	H	P3 SZ ST
1149	Carapies puerilis - Aquam	10		G		P3
1151	Carapies puerilis - Aquam	10		G		P3
1152	Carapies puerilis - Aquam	6		G		P3
1153	Carapies puerilis - Aquam	8		G		P3
1156	Carapies puerilis - Aquam	12		G		P3
1167	Carapies puerilis - Aquam	18•	3	G		P3 SZ
1158	Carapies puerilis - Aquam	6		G		P3
1159	Carapies puerilis - Aquam	10		G		P3
1162	Carapies puerilis - Aquam	10		G		P3
1163	Carapies puerilis - Aquam	6		G		P3
1164	Carapies puerilis - Aquam	18•	10	F		P3 SZ ST
1168	Carapies puerilis - Aquam	10		G		P3
1167	Carapies puerilis - Aquam	6		G		P3
1168	Carapies puerilis - Aquam	6		G		P3
1170	Carapies puerilis - Aquam	18•	9	F		P3 SZ ST
1171	Carapies puerilis - Aquam	2		G		P3
1172	Carapies puerilis - Aquam	15	3	G		P3 SZ
1174	Carapies puerilis - Aquam	6		G		P3
1175	Carapies puerilis - Aquam	10		F		ST
1177	Carapies puerilis - Aquam	18	2	G		SZ
1178	Carapies puerilis - Aquam	10		G		P3
1179	Carapies puerilis - Aquam	8		G		P3
1183	Carapies puerilis - Aquam	6		G		P3
1184	Carapies puerilis - Aquam	6		G		P3
1187	Carapies puerilis - Aquam	3		G		P3
1190	Carapies puerilis - Aquam	4		G		P3
1191	Carapies puerilis - Aquam	12		G		P3
1192	Carapies puerilis - Aquam	6		G		P3
1195	Carapies puerilis - Aquam	4		P		ST
1197	Carapies puerilis - Aquam	15		P		ST
1198	Carapies puerilis - Aquam	3		G		P3
1199	Carapies puerilis - Aquam	6		G		P3
1200	Carapies puerilis - Aquam	6		G		P3
1201	Carapies puerilis - Aquam	6		G		P3
1202	Carapies puerilis - Aquam	5		G		P3
1204	Carapies puerilis - Aquam	8		G		P3
1205	Carapies puerilis - Aquam	18	3	G		ST
1208	Carapies puerilis - Aquam	6		G		P3
1211	Carapies puerilis - Aquam	6		G		P3
1215	Carapies puerilis - Aquam	6		G		P3
1218	Carapies puerilis - Aquam	6		G		P3
1217	Carapies puerilis - Aquam	18	5	G		SZ
1218	Carapies puerilis - Aquam	8		G		P3
1220	Carapies puerilis - Aquam	12	2	F		ST
1221	Carapies puerilis - Aquam	6		G		P3
1222	Carapies puerilis - Aquam	10		G		P3
1223	Carapies puerilis - Aquam	6		G		P3
1224	Carapies puerilis - Aquam	10		G		P3
1225	Carapies puerilis - Aquam	6		G		P3
1226	Carapies puerilis - Aquam	10		G		P3
1227	Carapies puerilis - Aquam	8		G		P3
1228	Carapies puerilis - Aquam	10		G		P3
1229	Carapies puerilis - Aquam	6		G		P3
1230	Carapies puerilis - Aquam	10		G		P3
1231	Carapies puerilis - Aquam	8		G		P3
1232	Carapies puerilis - Aquam	10		G		P3
1234	Carapies puerilis - Aquam	6		G		P3
1235	Carapies puerilis - Aquam	6		G		P3
1240	Carapies puerilis - Aquam	10		G		P3
1241	Carapies puerilis - Aquam	8		G		P3
1245	Carapies puerilis - Aquam	8		G		P3
1246	Carapies puerilis - Aquam	10		G		P3
1248	Carapies puerilis - Aquam	15		G		P3
1249	Carapies puerilis - Aquam	18•	8	F		SZ
1251	Carapies puerilis - Aquam	10		G		P3
1253	Carapies puerilis - Aquam	15	1	G		P3
1254	Carapies puerilis - Aquam	5		P		ST
1256	Carapies puerilis - Aquam	15		G		P3
1258	Carapies puerilis - Aquam	10		G		P3
1261	Carapies puerilis - Aquam	6		G		P3
1262	Carapies puerilis - Aquam	6		G		P3
1264	Carapies puerilis - Aquam	4		G		P3
1265	Carapies puerilis - Aquam	6		F		ST
1269	Carapies puerilis - Aquam	6		G		P3
1270	Carapies puerilis - Aquam	10		G		P3
1271	Carapies puerilis - Aquam	12		G		P3
1275	Carapies puerilis - Aquam	18•	1	G		SZ
1276	Carapies puerilis - Aquam	15		G		ST
1276	Carapies puerilis - Aquam	6		G		P3
1279	Carapies puerilis - Aquam	8		G		P3
1280	Carapies puerilis - Aquam	10		G		P3
1281	Carapies puerilis - Aquam	18	2	G		SZ
1282	Carapies puerilis - Aquam	8		G		P3
1284	Carapies puerilis - Aquam	12		F		P3
1288	Carapies puerilis - Aquam	18•	12	F		SZ ST ST
1286	Carapies puerilis - Aquam	6		G		P3
1289	Carapies puerilis - Aquam	6		G		P3
1292	Carapies puerilis - Aquam	6		G		P3
1293	Carapies puerilis - Aquam	6		G		P3
1295	Carapies puerilis - Aquam	12		G		P3
1296	Carapies puerilis - Aquam	6		G		P3
1297	Carapies puerilis - Aquam	10		G		P3
1298	Carapies puerilis - Aquam	15		G		P3
1299	Carapies puerilis - Aquam	4		G		P3
1301	Carapies puerilis - Aquam	8		G		P3
1303	Carapies puerilis - Aquam	18•	14	F		SZ SZ ST

1207	Campepe ggerita - legum	4		G		32
1209	Campepe ggerita - legum	12		G		32
1210	Campepe ggerita - legum	10		G		32
1212	Campepe ggerita - legum	18*	14	P		32 87
1214	Campepe ggerita - legum	18	2	G		32
1215	Campepe ggerita - legum	18*	8	G		32 32
1217	Campepe ggerita - legum	8		G		32
1218	Campepe ggerita - legum	8		G		32
1220	Campepe ggerita - legum	8		G		32
1224	Campepe ggerita - legum	18*	10	F		32
1225	Campepe ggerita - legum	10		G		32
1227	Campepe ggerita - legum	10		G		32
1228	Campepe ggerita - legum	10		G		32
1229	Campepe ggerita - legum	10		G		32
1230	Campepe ggerita - legum	12	2	G		32
1232	Campepe ggerita - legum	18	5	G		32
1241	Campepe ggerita - legum	8		G		32
1243	Campepe ggerita - legum	8		G		32
1244	Campepe ggerita - legum	15		G		32
1245	Campepe ggerita - legum	8		G		32
1247	Campepe ggerita - legum	8		G		32
1248	Campepe ggerita - legum	8		G		32
1251	Campepe ggerita - legum	8	1	F		32 87
1252	Campepe ggerita - legum	18*	4	G		32
1254	Campepe ggerita - legum	4	4	G		32
1256	Campepe ggerita - legum	8		G		32
1258	Campepe ggerita - legum	18*	8	G		32
1260	Campepe ggerita - legum	4		G		32
1261	Campepe ggerita - legum	18*	5	G		32
1262	Campepe ggerita - legum	8		G		32
1263	Campepe ggerita - legum	12		G		32
1264	Campepe ggerita - legum	10		G		32
1265	Campepe ggerita - legum	8		G		32
1268	Campepe ggerita - legum	15	4	G		32
1272	Campepe ggerita - legum	4		G		32
1273	Campepe ggerita - legum	18*	1	P		32 87
1274	Campepe ggerita - legum	8		G		32
1275	Campepe ggerita - legum	8		G		32
1278	Campepe ggerita - legum	8		G		32
1279	Campepe ggerita - legum	15	3	G		32
1280	Campepe ggerita - legum	8		G		32
1285	Campepe ggerita - legum	8		G		32
1286	Campepe ggerita - legum	18*	8	G		32 32
1287	Campepe ggerita - legum	12	2	G		32
1288	Campepe ggerita - legum	15	4	P		32 87
1289	Campepe ggerita - legum	8	1	P		32
1292	Campepe ggerita - legum	8		G		32
1293	Campepe ggerita - legum	10		G		32
1295	Campepe ggerita - legum	18	4	F		32
1296	Campepe ggerita - legum	18	1	F		32 32
1298	Campepe ggerita - legum	8		G		32
1299	Campepe ggerita - legum	8		G		32
1301	Campepe ggerita - legum	10		G		32
1302	Campepe ggerita - legum	8		G		32
1303	Campepe ggerita - legum	15	2	G		32
1304	Campepe ggerita - legum	18*	2	G		32
1305	Campepe ggerita - legum	8		G		32
1307	Campepe ggerita - legum	10		G		32
1310	Campepe ggerita - legum	15		G		32
1312	Campepe ggerita - legum	4		G		32
1318	Campepe ggerita - legum	18	1	G		32
1320	Campepe ggerita - legum	4		G		32
1322	Campepe ggerita - legum	8		G		32
1324	Campepe ggerita - legum	18*	7	F		32 32
1325	Campepe ggerita - legum	18	5	F		32
1331	Campepe ggerita - legum	8		G		32
1335	Campepe ggerita - legum	18*	2	F		32
1338	Campepe ggerita - legum	8		G		32
1342	Campepe ggerita - legum	8		G		32
1343	Campepe ggerita - legum	8		G		32
1345	Campepe ggerita - legum	3		G		32
1346	Campepe ggerita - legum	10		G		32
1347	Campepe ggerita - legum	12		G		32
1348	Campepe ggerita - legum	12		G		32
1350	Campepe ggerita - legum	8		F		32 38
1351	Campepe ggerita - legum	8		F		32 38
1354	Campepe ggerita - legum	5		G		32
1355	Campepe ggerita - legum	30		G		32
1358	Campepe ggerita - legum	4		G		32
1359	Campepe ggerita - legum	10		G		32
1361	Campepe ggerita - legum	18*	4	G		32
1362	Campepe ggerita - legum	15	3	P		32
1365	Campepe ggerita - legum	4		G		32
1366	Campepe ggerita - legum	10		G		32
1369	Campepe ggerita - legum	15	4	G		32
1370	Campepe ggerita - legum	18		G		32
1371	Campepe ggerita - legum	15		G		32
1372	Campepe ggerita - legum	15		G		32
1373	Campepe ggerita - legum	15		G		32
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1375	Campepe ggerita - legum	15		G		32
1376	Campepe ggerita - legum	15		G		32
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1380	Campepe ggerita - legum	15		G		32
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1382	Campepe ggerita - legum	15		G		32
1383	Campepe ggerita - legum	15		G		32
1384	Campepe ggerita - legum	15		G		32
1385	Campepe ggerita - legum	15		G		32
1386	Campepe ggerita - legum	15		G		32
1387	Campepe ggerita - legum	15		G		32
1388	Campepe ggerita - legum	15		G		32
1389	Campepe ggerita - legum	15		G		32
1390	Campepe ggerita - legum	15		G		32
1391	Campepe ggerita - legum	15		G		32
1392	Campepe ggerita - legum	15		G		32
1393	Campepe ggerita - legum	15		G		32
1394	Campepe ggerita - legum	15		G		32
1395	Campepe ggerita - legum	15		G		32
1396	Campepe ggerita - legum	15		G		32
1397	Campepe ggerita - legum	15		G		32
1398	Campepe ggerita - legum	15		G		32
1399	Campepe ggerita - legum	15		G		32
1400	Campepe ggerita - legum	15		G		32
1401	Campepe ggerita - legum	15		G		32
1402	Campepe ggerita - legum	15		G		32
1403	Campepe ggerita - legum	15		G		32
1404	Campepe ggerita - legum	15		G		32
1405	Campepe ggerita - legum	15		G		32
1406	Campepe ggerita - legum	15		G		32
1407	Campepe ggerita - legum	15		G		32
1408	Campepe ggerita - legum	15		G		32
1409	Campepe ggerita - legum	15		G		32
1410	Campepe ggerita - legum	15		G		32
1411	Campepe ggerita - legum	15		G		32
1412	Campepe ggerita - legum	15		G		32
1413	Campepe ggerita - legum	15		G		32
1414	Campepe ggerita - legum	15		G		32
1415	Campepe ggerita - legum	15		G		32
1416	Campepe ggerita - legum	15		G		32
1417	Campepe ggerita - legum	15		G		32
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1419	Campepe ggerita - legum	15		G		32
1420	Campepe ggerita - legum	15		G		32
1421	Campepe ggerita - legum	15		G		32
1422	Campepe ggerita - legum	15		G		32
1423	Campepe ggerita - legum	15		G		32
1424	Campepe ggerita - legum	15		G		32
1425	Campepe ggerita - legum	15		G		32
1426	Campepe ggerita - legum	15		G		32
1427	Campepe ggerita - legum	15		G		32
1428	Campepe ggerita - legum	15		G		32
1429	Campepe ggerita - legum	15		G		32
1430	Campepe ggerita - legum	15		G		32
1431	Campepe ggerita - legum	15		G		32
1432	Campepe ggerita - legum	15		G		32
1433	Campepe ggerita - legum	15		G		32
1434	Campepe ggerita - legum	15		G		32
1435	Campepe ggerita - legum	15		G		32
1436	Campepe ggerita - legum	15		G		32
1437	Campepe ggerita - legum	15		G		32
1438	Campepe ggerita - legum	15		G		32
1439	Campepe ggerita - legum	15		G		32
1440	Campepe ggerita - legum	15		G		32
1441	Campepe ggerita - legum	15		G		32
1442	Campepe ggerita - legum	15		G		32
1443	Campepe ggerita - legum	15		G		32
1444	Campepe ggerita - legum	15		G		32
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1446	Campepe ggerita - legum	15		G		32
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1450	Campepe ggerita - legum	15		G		32
1451	Campepe ggerita - legum	15		G		32
1452	Campepe ggerita - legum	15		G		32
1453	Campepe ggerita - legum	15		G		32
1454	Campepe ggerita - legum	15		G		32
1455	Campepe ggerita - legum	15		G		32
1456	Campepe ggerita - legum	15		G		32
1457	Campepe ggerita - legum	15		G		32
1458	Campepe ggerita - legum	15		G		32
1459	Campepe ggerita - legum	15		G		32
1460	Campepe ggerita - legum	15		G		32
1461	Campepe ggerita - legum	15		G		32
1462	Campepe ggerita - legum	15		G		32
1463	Campepe ggerita - legum	15		G		32
1464	Campepe ggerita - legum	15		G		32
1465	Campepe ggerita - legum	15		G		32
1466	Campepe ggerita - legum	15		G		32
1467	Campepe ggerita - legum	15		G		32
1468	Campepe ggerita - legum	15		G		32
1469	Campepe ggerita - legum	15		G		32
1470	Campepe ggerita - legum	15		G		32
1471	Campepe ggerita - legum	15		G		32
1472	Campepe ggerita - legum	15		G		32
1473	Campepe ggerita - legum	15		G		32
1474	Campepe ggerita - legum	15		G		32
1475	Campepe ggerita - legum	15		G		32
1476	Campepe ggerita - legum	15		G		32
1477	Campepe ggerita - legum	15		G		32
1478	Campepe ggerita - legum	15		G		32
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1480	Campepe ggerita - legum	15		G		32
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1482	Campepe ggerita - legum	15		G		32
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1484	Campepe ggerita - legum	15		G		32
1485	Campepe ggerita - legum	15		G		32
1486	Campepe ggerita - legum	15		G		32
1487	Campepe ggerita - legum	15		G		32
1488	Campepe ggerita - legum	15		G		32
1489	Campepe ggerita - legum	15		G		32
1490	Campepe ggerita - legum	15		G		32
1491	Campepe ggerita - legum	15		G		32
1492	Campepe ggerita - legum	15		G		32
1493	Campepe ggerita - legum	15		G		32
1494	Campepe ggerita - legum	15		G		32
1495	Campepe ggerita - legum	15		G		32
1496	Campepe ggerita - legum	15		G		32
1497	Campepe ggerita - legum	15		G		32
1498	Campepe ggerita - legum	15		G		32
1499	Campepe ggerita - legum	15		G		32
1500	Campepe ggerita - legum	15		G		32

## SAGUARO &amp; IRONWOOD INVENTORY



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Date:	4/9/21	<input type="checkbox"/> Design Review
Drawn by:	LMW	<input type="checkbox"/> Construction Documents
Checked by:	GRS	<input checked="" type="checkbox"/> Agency Submittal
		<input type="checkbox"/> Construction Set
		<input checked="" type="checkbox"/> Not for Construction



1881	Camelotus pectoratus - Seguros			G	P5
1882	Camelotus pectoratus - Seguros	12		O	P5
1883	Camelotus pectoratus - Seguros	18+	2	G	SZ
1884	Camelotus pectoratus - Seguros	13		O	P5
1885	Camelotus pectoratus - Seguros	8		O	P5
1886	Camelotus pectoratus - Seguros	2		O	P5
1887	Camelotus pectoratus - Seguros	2		O	P5
1888	Camelotus pectoratus - Seguros	18+	2	G	SZ
1889	Camelotus pectoratus - Seguros	8		O	P5
1890	Camelotus pectoratus - Seguros	18+	2	G	P5
1891	Camelotus pectoratus - Seguros	4		O	P5
1892	Camelotus pectoratus - Seguros	10		O	P5
1893	Camelotus pectoratus - Seguros	10		G	P5
1894	Camelotus pectoratus - Seguros	8		O	P5
1895	Camelotus pectoratus - Seguros	18+	2	O	SZ
1896	Camelotus pectoratus - Seguros	8		O	P5
1897	Camelotus pectoratus - Seguros	8		O	P5
1898	Camelotus pectoratus - Seguros	18	2	O	P5
1899	Camelotus pectoratus - Seguros	1		O	P5
1900	Camelotus pectoratus - Seguros	8		P	BT
1901	Camelotus pectoratus - Seguros	18+	2	O	SZ
1902	Camelotus pectoratus - Seguros	8		O	P5
1903	Camelotus pectoratus - Seguros	8		O	P5
1904	Camelotus pectoratus - Seguros	10		G	P5
1905	Camelotus pectoratus - Seguros	4		O	P5
1906	Camelotus pectoratus - Seguros	18	2	O	P5
1907	Camelotus pectoratus - Seguros	4		O	P5
1908	Camelotus pectoratus - Seguros	18	2	O	P5
1909	Camelotus pectoratus - Seguros	4		O	P5
1910	Camelotus pectoratus - Seguros	12		O	P5
1911	Camelotus pectoratus - Seguros	12		O	P5
1912	Camelotus pectoratus - Seguros	4		O	P5
1913	Camelotus pectoratus - Seguros	10		G	P5
1914	Camelotus pectoratus - Seguros	18	6	P	BT
1915	Camelotus pectoratus - Seguros	10		O	P5
1916	Camelotus pectoratus - Seguros	8		P	BT
1917	Camelotus pectoratus - Seguros	12		P	BT
1918	Camelotus pectoratus - Seguros	8		P	BT
1919	Camelotus pectoratus - Seguros	8		O	P5
1920	Camelotus pectoratus - Seguros	4		O	P5
1921	Camelotus pectoratus - Seguros	8		O	P5
1922	Camelotus pectoratus - Seguros	8		O	P5
1923	Camelotus pectoratus - Seguros	8		O	P5
1924	Camelotus pectoratus - Seguros	10		O	P5
1925	Camelotus pectoratus - Seguros	4		O	P5
1926	Camelotus pectoratus - Seguros	4		O	P5
1927	Camelotus pectoratus - Seguros	4		O	P5
1928	Camelotus pectoratus - Seguros	3		O	P5
1929	Camelotus pectoratus - Seguros	3		O	P5
1930	Camelotus pectoratus - Seguros	8		O	P5
1931	Camelotus pectoratus - Seguros	8		P	BT
1932	Camelotus pectoratus - Seguros	18	4	O	SZ
1933	Camelotus pectoratus - Seguros	12		O	P5
1934	Camelotus pectoratus - Seguros	18	2	O	P5
1935	Camelotus pectoratus - Seguros	8		P	BT
1936	Camelotus pectoratus - Seguros	8		O	P5
1937	Camelotus pectoratus - Seguros	18+	12	P	SZ
1938	Camelotus pectoratus - Seguros	12		O	P5
1939	Camelotus pectoratus - Seguros	8		P	BT
1940	Camelotus pectoratus - Seguros	8		O	P5
1941	Camelotus pectoratus - Seguros	8		P	BT
1942	Camelotus pectoratus - Seguros	12		O	P5
1943	Camelotus pectoratus - Seguros	10		O	P5
1944	Camelotus pectoratus - Seguros	10		P	BT
1945	Camelotus pectoratus - Seguros	8		P	BT
1946	Camelotus pectoratus - Seguros	8		P	BT
1947	Camelotus pectoratus - Seguros	8		O	P5
1948	Camelotus pectoratus - Seguros	12		O	P5
1949	Camelotus pectoratus - Seguros	12		O	P5
1950	Camelotus pectoratus - Seguros	12		O	P5
1951	Camelotus pectoratus - Seguros	12		O	P5
1952	Camelotus pectoratus - Seguros	12		O	P5
1953	Camelotus pectoratus - Seguros	12		O	P5
1954	Camelotus pectoratus - Seguros	12		O	P5
1955	Camelotus pectoratus - Seguros	12		O	P5
1956	Camelotus pectoratus - Seguros	12		O	P5
1957	Camelotus pectoratus - Seguros	12		O	P5
1958	Camelotus pectoratus - Seguros	12		O	P5
1959	Camelotus pectoratus - Seguros	12		O	P5
1960	Camelotus pectoratus - Seguros	12		O	P5
1961	Camelotus pectoratus - Seguros	12		O	P5
1962	Camelotus pectoratus - Seguros	12		O	P5
1963	Camelotus pectoratus - Seguros	12		O	P5
1964	Camelotus pectoratus - Seguros	12		O	P5
1965	Camelotus pectoratus - Seguros	12		O	P5
1966	Camelotus pectoratus - Seguros	12		O	P5
1967	Camelotus pectoratus - Seguros	12		O	P5
1968	Camelotus pectoratus - Seguros	12		O	P5
1969	Camelotus pectoratus - Seguros	12		O	P5
1970	Camelotus pectoratus - Seguros	12		O	P5
1971	Camelotus pectoratus - Seguros	12		O	P5
1972	Camelotus pectoratus - Seguros	12		O	P5
1973	Camelotus pectoratus - Seguros	12		O	P5
1974	Camelotus pectoratus - Seguros	12		O	P5
1975	Camelotus pectoratus - Seguros	12		O	P5
1976	Camelotus pectoratus - Seguros	12		O	P5
1977	Camelotus pectoratus - Seguros	12		O	P5
1978	Camelotus pectoratus - Seguros	12		O	P5
1979	Camelotus pectoratus - Seguros	12		O	P5
1980	Camelotus pectoratus - Seguros	12		O	P5
1981	Camelotus pectoratus - Seguros	12		O	P5
1982	Camelotus pectoratus - Seguros	12		O	P5
1983	Camelotus pectoratus - Seguros	12		O	P5
1984	Camelotus pectoratus - Seguros	12		O	P5
1985	Camelotus pectoratus - Seguros	12		O	P5
1986	Camelotus pectoratus - Seguros	12		O	P5
1987	Camelotus pectoratus - Seguros	12		O	P5
1988	Camelotus pectoratus - Seguros	12		O	P5
1989	Camelotus pectoratus - Seguros	12		O	P5
1990	Camelotus pectoratus - Seguros	12		O	P5
1991	Camelotus pectoratus - Seguros	12		O	P5
1992	Camelotus pectoratus - Seguros	12		O	P5
1993	Camelotus pectoratus - Seguros	12		O	P5
1994	Camelotus pectoratus - Seguros	12		O	P5
1995	Camelotus pectoratus - Seguros	12		O	P5
1996	Camelotus pectoratus - Seguros	12		O	P5
1997	Camelotus pectoratus - Seguros	12		O	P5
1998	Camelotus pectoratus - Seguros	12		O	P5
1999	Camelotus pectoratus - Seguros	12		O	P5
2000	Camelotus pectoratus - Seguros	12		O	P5

1876	<i>Camponotus gigas</i>	Sagueni	0	0	PS	
1880	<i>Camponotus gigas</i>	Sagueni	1	0	PS	
1882	<i>Camponotus gigas</i>	Sagueni	7	0	PS	
1886	<i>Camponotus gigas</i>	Sagueni	18+	9	0	SZ SZ LE
1890	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
1894	<i>Camponotus gigas</i>	Sagueni	5	0	PS	
1898	<i>Camponotus gigas</i>	Sagueni	7	0	PS	
1897	<i>Camponotus gigas</i>	Sagueni	18	1	0	MS SZ
1908	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
1914	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
1918	<i>Camponotus gigas</i>	Sagueni	7	0	PS	
1927	<i>Camponotus gigas</i>	Sagueni	5	0	PS	
1932	<i>Camponotus gigas</i>	Sagueni	5	0	PS	
1936	<i>Camponotus gigas</i>	Sagueni	7	0	PS	
1938	<i>Camponotus gigas</i>	Sagueni	18+	9	0	SZ SZ LE
1954	<i>Camponotus gigas</i>	Sagueni	18+	2	0	PS BT
2001	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
2009	<i>Camponotus gigas</i>	Sagueni	18+	6	0	SZ SZ
2011	<i>Camponotus gigas</i>	Sagueni	4	0	PS	
2017	<i>Camponotus gigas</i>	Sagueni	18+	4	0	BT BT
2018	<i>Camponotus gigas</i>	Sagueni	18+	10	0	LE
2021	<i>Camponotus gigas</i>	Sagueni	4	2	0	BT
2022	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2023	<i>Camponotus gigas</i>	Sagueni	4	0	BT	
2030	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
2040	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
2047	<i>Camponotus gigas</i>	Sagueni	13	0	PS	
2058	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2060	<i>Camponotus gigas</i>	Sagueni	11	0	PS	
2060	<i>Camponotus gigas</i>	Sagueni	10	1	0	PS
2078	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
2081	<i>Camponotus gigas</i>	Sagueni	3	0	PS	
2082	<i>Camponotus gigas</i>	Sagueni	18+	14	0	LE BT
2083	<i>Camponotus gigas</i>	Sagueni	18+	10	0	OV
2087	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2089	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
2090	<i>Camponotus gigas</i>	Sagueni	12	0	PS	
2092	<i>Camponotus gigas</i>	Sagueni	9	0	PS	
2093	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
2094	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2098	<i>Camponotus gigas</i>	Sagueni	8	0	BT	
2098	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2097	<i>Camponotus gigas</i>	Sagueni	4	0	PS	
2098	<i>Camponotus gigas</i>	Sagueni	4	0	PS	
2099	<i>Camponotus gigas</i>	Sagueni	4	0	PS	
2101	<i>Camponotus gigas</i>	Sagueni	18+	8	0	SZ SZ LE
2104	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2108	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
2113	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
2118	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
2128	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2127	<i>Camponotus gigas</i>	Sagueni	12	0	BT	
2129	<i>Camponotus gigas</i>	Sagueni	18+	8	0	SZ SZ
2134	<i>Camponotus gigas</i>	Sagueni	4	0	PS	
2137	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2138	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2137	<i>Camponotus gigas</i>	Sagueni	15	0	PS	
2140	<i>Camponotus gigas</i>	Sagueni	5	0	PS	
2148	<i>Camponotus gigas</i>	Sagueni	18+	3	0	SZ SZ
2146	<i>Camponotus gigas</i>	Sagueni	18+	9	0	BT SZ SZ
2150	<i>Camponotus gigas</i>	Sagueni	4	0	PS	
2154	<i>Camponotus gigas</i>	Sagueni	6	0	PS	
2150	<i>Camponotus gigas</i>	Sagueni	10	0	PS	
2158	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2157	<i>Camponotus gigas</i>	Sagueni	8	0	PS	
2161	<i>Camponotus gigas</i>	Sagueni	18+	8	0	SZ SZ
2162	<i>Camponotus gigas</i>	Sagueni	8	0	BT	
2168	<i>Camponotus gigas</i>	Sagueni	18+	8	0	SZ

IRONWOOD INVENTORY						
ID NO	DESCRIPTION	SIZE	VARIETY		COMMENTS	
				TRANS		
4	Chrys. female - Desert Ironwood	12+	L	L	OT TM	
5	Chrys. female - Desert Ironwood	12+	L	L	OT TM RD	
6	Chrys. female - Desert Ironwood	12+	L	L	DW TM RD	
10	Chrys. female - Desert Ironwood	10	L	L	DW BL	
11	Chrys. female - Desert Ironwood	12+	L	L	DW AL TM	
14	Chrys. female - Desert Ironwood	12+	M	M	DW SZ TM	
15	Chrys. female - Desert Ironwood	12+	L	L	DW RD TM	
17	Chrys. female - Desert Ironwood	8	M	M		
18	Chrys. female - Desert Ironwood	5	M	M	VMS MT	
19	Chrys. female - Desert Ironwood	5	M	M	VMS DW	
20	Chrys. female - Desert Ironwood	10	M	M	MS RT	
22	Chrys. female - Desert Ironwood	12+	L	L	RD TM MT	
23	Chrys. female - Desert Ironwood	8	M	M	VMS OT LB	
24	Chrys. female - Desert Ironwood	12+	L	L	TM MT DW	
25	Chrys. female - Desert Ironwood	12+	L	L	TM OT DW	
26	Chrys. female - Desert Ironwood	5	M	M	VMS OT DW	
27	Chrys. female - Desert Ironwood	5	L	L	RD OT BL	
28	Chrys. female - Desert Ironwood	12+	L	L	RD OT MT	
29	Chrys. female - Desert Ironwood	10	M	M	VMS DW LB	
30	Chrys. female - Desert Ironwood	12+	L	L	OT	
31	Chrys. female - Desert Ironwood	12+	M	L	TM DW LB	
32	Chrys. female - Desert Ironwood	5	L	L	MT	
34	Chrys. female - Desert Ironwood	12+	H	L	LS SZ	
37	Chrys. female - Desert Ironwood	12+	M	L	TM SZ	
38	Chrys. female - Desert Ironwood	12+	M	L	TM SZ	
39	Chrys. female - Desert Ironwood	12+	L	L	RT TM	
40	Chrys. female - Desert Ironwood	10	L	L	MT DW	
43	Chrys. female - Desert Ironwood	12+	L	L	OT DW	
44	Chrys. female - Desert Ironwood	12+	L	L	RD DW MT	
52	Chrys. female - Desert Ironwood	10	M	M	VMS DW	
53	Chrys. female - Desert Ironwood	10	M	M	VMS TM	
55	Chrys. female - Desert Ironwood	8	M	M	VMS DW	
57	Chrys. female - Desert Ironwood	12+	L	L	RD DW SZ	
59	Chrys. female - Desert Ironwood	12+	L	L	RT DW SZ	
61	Chrys. female - Desert Ironwood	12+	L	L	RT DW RD	
62	Chrys. female - Desert Ironwood	12+	L	L	OT DW LB	
63	Chrys. female - Desert Ironwood	12+	L	L	OT	
64	Chrys. female - Desert Ironwood	12	L	L	BL DW	
65	Chrys. female - Desert Ironwood	5	M	M	OT VMS	
66	Chrys. female - Desert Ironwood	10	M	L	TM DW	
67	Chrys. female - Desert Ironwood	12+	L	L	OT RT	
69	Chrys. female - Desert Ironwood	8	M	M	VMS DW	
70	Chrys. female - Desert Ironwood	12+	M	L	SZ OT	
71	Chrys. female - Desert Ironwood	12+	L	L	SZ RT DW	
72	Chrys. female - Desert Ironwood	9	M	M	MS	
73	Chrys. female - Desert Ironwood	12	M	L	OT RT	
74	Chrys. female - Desert Ironwood	8	M	M	VMS OT	
76	Chrys. female - Desert Ironwood	5	M	M	MS DW	
77	Chrys. female - Desert Ironwood	12+	M	L	SZ RD	
78	Chrys. female - Desert Ironwood	5	M	M	MS DW	
79	Chrys. female - Desert Ironwood	8	M	M	MS DW	
80	Chrys. female - Desert Ironwood	12	L	L	DY	
81	Chrys. female - Desert Ironwood	10	M	M	VMS DW	
82	Chrys. female - Desert Ironwood	5	M	M	MS DW	
83	Chrys. female - Desert Ironwood	12+	M	L	SZ	
84	Chrys. female - Desert Ironwood	18+	L	L	RD RT	
85	Chrys. female - Desert Ironwood	5	H	H	PS	
88	Chrys. female - Desert Ironwood	12	M	L	OT DW	
89	Chrys. female - Desert Ironwood	12+	L	L	OT RD	
90	Chrys. female - Desert Ironwood	5	H	H	PS	
91	Chrys. female - Desert Ironwood	12+	M	L	BL DW	
93	Chrys. female - Desert Ironwood	12+	L	L	TM LB BL	
94	Chrys. female - Desert Ironwood	5	H	H	PS	
95	Chrys. female - Desert Ironwood	12+	M	L	TM DW	
101	Chrys. female - Desert Ironwood	8	H	H	PS	
103	Chrys. female - Desert Ironwood	12+	L	L	BL DW TM	
104	Chrys. female - Desert Ironwood	5	M	M	VMS DW	
105	Chrys. female - Desert Ironwood	12	M	L	LB DW OT	
106	Chrys. female - Desert Ironwood	8	M	L	LB DW TM	
107	Chrys. female - Desert Ironwood	5	M	M	VMS DW	
108	Chrys. female - Desert Ironwood	10	L	L	TM OT	
109	Chrys. female - Desert Ironwood	18+	M	L	OT SZ	
110	Chrys. female - Desert Ironwood	12	M	L	OT DW	
111	Chrys. female - Desert Ironwood	12+	L	L	TM OT	
112	Chrys. female - Desert Ironwood	8	M	M	TM VMS	
114	Chrys. female - Desert Ironwood	5	L	L	TM DW	
115	Chrys. female - Desert Ironwood	5	M	M	VMS DW	
116	Chrys. female - Desert Ironwood	5	M	M	VMS DW	
117	Chrys. female - Desert Ironwood	5	M	M	VMS DW	
118	Chrys. female - Desert Ironwood	4	M	M	VMS DW	
119	Chrys. female - Desert Ironwood	12+	M	L	TM DW RD	
120	Chrys. female - Desert Ironwood	12	M	L	TM DW	
121	Chrys. female - Desert Ironwood	12	L	L	TM DW BL	
121	Chrys. female - Desert Ironwood	5	M	M	TM DW VMS	
124	Chrys. female - Desert Ironwood	12	M	L	OT DW	
125	Chrys. female - Desert Ironwood	5	M	M	TM VMS	
126	Chrys. female - Desert Ironwood	12	L	L	DW BL	
128	Chrys. female - Desert Ironwood	12+	L	L	DW BL	

## SAGUARO &amp; IRONWOOD INVENTORY



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Date:	4/9/21	<input type="checkbox"/> Design Review
Drawn by:	LMW	<input type="checkbox"/> Construction Documents
Checked by:	GRS	<input checked="" type="checkbox"/> Agency Submittal
		<input type="checkbox"/> Construction Set
		<input checked="" type="checkbox"/> Not for Construction



90	Onyx Islets	Deepest	12	M	L	TM	SZ
91	Onyx Islets	Deepest	8	H	H	PS	
92	Onyx Islets	Deepest	12+	L	L	TM	DW
93	Onyx Islets	Deepest	8	H	H	PS	
94	Onyx Islets	Deepest	8	H	M	MS	
95	Onyx Islets	Deepest	8	H	H	PS	
96	Onyx Islets	Deepest	8	H	M	MS	LB
97	Onyx Islets	Deepest	12	M	L	TM	
98	Onyx Islets	Deepest	8	M	L	LB	
99	Onyx Islets	Deepest	10	M	M	MS	MS
100	Onyx Islets	Deepest	10	M	M	SZ	MS
101	Onyx Islets	Deepest	18+	M	L	SZ	RO
102	Onyx Islets	Deepest	8	H	M	MS	
103	Onyx Islets	Deepest	18+	L	L	LB	SZ DW
104	Onyx Islets	Deepest	8	M	L	LB	
105	Onyx Islets	Deepest	12	M	L	SZ	TM
106	Onyx Islets	Deepest	12+	M	L	SZ	TM
107	Onyx Islets	Deepest	12+	L	L	RT	BL
108	Onyx Islets	Deepest	18+	M	L	SZ	DW
109	Onyx Islets	Deepest	12	M	L	SZ	DW
110	Onyx Islets	Deepest	12+	M	L	SZ	DW
111	Onyx Islets	Deepest	8	M	L	LB	
112	Onyx Islets	Deepest	18+	H	L	SZ	
113	Onyx Islets	Deepest	8	H	H	PS	
114	Onyx Islets	Deepest	8	L	L		DW
115	Onyx Islets	Deepest	12	M	L	TM	DW
116	Onyx Islets	Deepest	8	M	M	MS	DW
117	Onyx Islets	Deepest	12+	L	L	BL	RT
118	Onyx Islets	Deepest	12+	L	L	TM	DW
119	Onyx Islets	Deepest	8	H	H	PS	
120	Onyx Islets	Deepest	8	H	H	PS	
121	Onyx Islets	Deepest	12	L	L	BL	
122	Onyx Islets	Deepest	10	L	L	RT	DW
123	Onyx Islets	Deepest	18+	M	L	SZ	DW
124	Onyx Islets	Deepest	4	L	L	PS	
125	Onyx Islets	Deepest	18+	L	L	RT	DW
126	Onyx Islets	Deepest	12+	L	L	TM	DW
127	Onyx Islets	Deepest	8	H	H	PS	
128	Onyx Islets	Deepest	8	H	H	PS	
129	Onyx Islets	Deepest	12	L	L	BL	
130	Onyx Islets	Deepest	10	L	L	RT	DW
131	Onyx Islets	Deepest	18+	M	L	SZ	DW
132	Onyx Islets	Deepest	4	L	L	PS	
133	Onyx Islets	Deepest	18+	L	L	RT	DW
134	Onyx Islets	Deepest	12+	L	L	RT	DW
135	Onyx Islets	Deepest	12+	L	L	RT	RO
136	Onyx Islets	Deepest	12+	L	L	DW	TM
137	Onyx Islets	Deepest	8	L	L	DW	TM
138	Onyx Islets	Deepest	12+	M	L	RO	TM
139	Onyx Islets	Deepest	12+	L	L	N	DW
140	Onyx Islets	Deepest	12+	L	L	N	DW
141	Onyx Islets	Deepest	8	L	L	RO	DW
142	Onyx Islets	Deepest	12+	L	L	PS	DW
143	Onyx Islets	Deepest	12+	L	L	PS	DW
144	Onyx Islets	Deepest	12+	L	L	PS	DW
145	Onyx Islets	Deepest	12+	L	L	PS	DW
146	Onyx Islets	Deepest	12+	L	L	PS	DW
147	Onyx Islets	Deepest	12+	L	L	PS	DW
148	Onyx Islets	Deepest	12+	L	L	PS	DW
149	Onyx Islets	Deepest	12+	L	L	PS	DW
150	Onyx Islets	Deepest	12+	L	L	PS	DW
151	Onyx Islets	Deepest	12+	L	L	PS	DW
152	Onyx Islets	Deepest	12+	L	L	PS	DW
153	Onyx Islets	Deepest	12+	L	L	PS	DW
154	Onyx Islets	Deepest	12+	L	L	PS	DW
155	Onyx Islets	Deepest	12+	L	L	PS	DW
156	Onyx Islets	Deepest	12+	L	L	PS	DW
157	Onyx Islets	Deepest	12+	L	L	PS	DW
158	Onyx Islets	Deepest	12+	L	L	PS	DW
159	Onyx Islets	Deepest	12+	L	L	PS	DW
160	Onyx Islets	Deepest	12+	L	L	PS	DW
161	Onyx Islets	Deepest	12+	L	L	PS	DW
162	Onyx Islets	Deepest	12+	L	L	PS	DW
163	Onyx Islets	Deepest	12+	L	L	PS	DW
164	Onyx Islets	Deepest	12+	L	L	PS	DW
165	Onyx Islets	Deepest	12+	L	L	PS	DW
166	Onyx Islets	Deepest	12+	L	L	PS	DW
167	Onyx Islets	Deepest	12+	L	L	PS	DW
168	Onyx Islets	Deepest	12+	L	L	PS	DW
169	Onyx Islets	Deepest	12+	L	L	PS	DW
170	Onyx Islets	Deepest	12+	L	L	PS	DW
171	Onyx Islets	Deepest	12+	L	L	PS	DW
172	Onyx Islets	Deepest	12+	L	L	PS	DW
173	Onyx Islets	Deepest	12+	L	L	PS	DW
174	Onyx Islets	Deepest	12+	L	L	PS	DW
175	Onyx Islets	Deepest	12+	L	L	PS	DW
176	Onyx Islets	Deepest	12+	L	L	PS	DW
177	Onyx Islets	Deepest	12+	L	L	PS	DW
178	Onyx Islets	Deepest	12+	L	L	PS	DW
179	Onyx Islets	Deepest	12+	L	L	PS	DW
180	Onyx Islets	Deepest	12+	L	L	PS	DW
181	Onyx Islets	Deepest	12+	L	L	PS	DW
182	Onyx Islets	Deepest	12+	L	L	PS	DW
183	Onyx Islets	Deepest	12+	L	L	PS	DW
184	Onyx Islets	Deepest	12+	L	L	PS	DW
185	Onyx Islets	Deepest	12+	L	L	PS	DW
186	Onyx Islets	Deepest	12+	L	L	PS	DW
187	Onyx Islets	Deepest	12+	L	L	PS	DW
188	Onyx Islets	Deepest	12+	L	L	PS	DW
189	Onyx Islets	Deepest	12+	L	L	PS	DW
190	Onyx Islets	Deepest	12+	L	L	PS	DW
191	Onyx Islets	Deepest	12+	L	L	PS	DW
192	Onyx Islets	Deepest	12+	L	L	PS	DW
193	Onyx Islets	Deepest	12+	L	L	PS	DW
194	Onyx Islets	Deepest	12+	L	L	PS	DW
195	Onyx Islets	Deepest	12+	L	L	PS	DW
196	Onyx Islets	Deepest	12+	L	L	PS	DW
197	Onyx Islets	Deepest	12+	L	L	PS	DW
198	Onyx Islets	Deepest	12+	L	L	PS	DW
199	Onyx Islets	Deepest	12+	L	L	PS	DW
200	Onyx Islets	Deepest	12+	L	L	PS	DW
201	Onyx Islets	Deepest	12+	L	L	PS	DW
202	Onyx Islets	Deepest	12+	L	L	PS	DW
203	Onyx Islets	Deepest	12+	L	L	PS	DW
204	Onyx Islets	Deepest	12+	L	L	PS	DW
205	Onyx Islets	Deepest	12+	L	L	PS	DW
206	Onyx Islets	Deepest	12+	L	L	PS	DW
207	Onyx Islets	Deepest	12+	L	L	PS	DW
208	Onyx Islets	Deepest	12+	L	L	PS	DW
209	Onyx Islets	Deepest	12+	L	L	PS	DW
210	Onyx Islets	Deepest	12+	L	L	PS	DW
211	Onyx Islets	Deepest	12+	L	L	PS	DW
212	Onyx Islets	Deepest	12+	L	L	PS	DW
213	Onyx Islets	Deepest	12+	L	L	PS	DW
214	Onyx Islets	Deepest	12+	L	L	PS	DW
215	Onyx Islets	Deepest	12+	L	L	PS	DW
216	Onyx Islets	Deepest	12+	L	L	PS	DW
217	Onyx Islets	Deepest	12+	L	L	PS	DW
218	Onyx Islets	Deepest	12+	L	L	PS	DW
219	Onyx Islets	Deepest	12+	L	L	PS	DW
220	Onyx Islets	Deepest	12+	L	L	PS	DW
221	Onyx Islets	Deepest	12+	L	L	PS	DW
222	Onyx Islets	Deepest	12+	L	L	PS	DW
223	Onyx Islets	Deepest	12+	L	L	PS	DW
224	Onyx Islets	Deepest	12+	L	L	PS	DW
225	Onyx Islets	Deepest	12+	L	L	PS	DW
226	Onyx Islets	Deepest	12+	L	L	PS	DW
227	Onyx Islets	Deepest	12+	L	L	PS	DW
228	Onyx Islets	Deepest	12+	L	L	PS	DW
229	Onyx Islets	Deepest	12+	L	L	PS	DW
230	Onyx Islets	Deepest	12+	L	L	PS	DW
231	Onyx Islets	Deepest	12+	L	L	PS	DW
232	Onyx Islets	Deepest	12+	L	L	PS	DW
233	Onyx Islets	Deepest	12+	L	L	PS	DW
234	Onyx Islets	Deepest	12+	L	L	PS	DW
235	Onyx Islets	Deepest	12+	L	L	PS	DW
236	Onyx Islets	Deepest	12+	L	L	PS	DW
237	Onyx Islets	Deepest	12+	L	L	PS	DW
238	Onyx Islets	Deepest	12+	L	L	PS	DW
239	Onyx Islets	Deepest	12+	L	L	PS	DW
240	Onyx Islets	Deepest	12+	L	L	PS	DW
241	Onyx Islets	Deepest	12+	L	L	PS	DW
242	Onyx Islets	Deepest	12+	L	L	PS	DW
243	Onyx Islets	Deepest	12+	L	L	PS	DW
244	Onyx Islets	Deepest	12+	L	L	PS	DW
245	Onyx Islets	Deepest	12+	L	L	PS	DW
246	Onyx Islets	Deepest	12+	L	L	PS	DW
247	Onyx Islets	Deepest	12+	L	L	PS	DW
248	Onyx Islets	Deepest	12+	L	L	PS	DW
249	Onyx Islets	Deepest	12+	L	L	PS	DW
250	Onyx Islets	Deepest	12+	L	L	PS	DW
251	Onyx Islets	Deepest	12+	L	L	PS	DW
252	Onyx Islets	Deepest	12+	L	L	PS	DW
253	Onyx Islets	Deepest	12+	L	L	PS	DW
254	Onyx Islets	Deepest	12+	L	L	PS	DW
255	Onyx Islets	Deepest	12+	L	L	PS	DW
256	Onyx Islets	Deepest	12+	L	L	PS	DW
257	Onyx Islets	Deepest	12+	L	L	PS	DW
258	Onyx Islets	Deepest	12+	L	L	PS	DW
259	Onyx Islets	Deepest	12+	L	L	PS	DW
260	Onyx Islets	Deepest	12+	L	L	PS	DW
261	Onyx Islets	Deepest	12+	L	L	PS	DW
262	Onyx Islets	Deepest	12+	L	L	PS	DW
263	Onyx Islets	Deepest	12+	L	L	PS	DW
264	Onyx Islets	Deepest	12+	L	L	PS	DW
265	Onyx Islets	Deepest	12+	L	L	PS	DW
266	Onyx Islets	Deepest	12+	L	L	PS	DW
267	Onyx Islets	Deepest	12+	L	L	PS	DW
268	Onyx Islets	Deepest	12+	L	L	PS	DW
269	Onyx Islets	Deepest	12+	L	L	PS	DW
270	Onyx Islets	Deepest	12+	L	L	PS	DW
271	Onyx Islets	Deepest	12+	L	L	PS	DW
272	Onyx Islets	Deepest	12+	L	L	PS	DW
273	Onyx Islets	Deepest	12+	L	L	PS	DW
274	Onyx Islets	Deepest	12+	L	L	PS	DW
275	Onyx Islets	Deepest	12+	L	L	PS	DW
276	Onyx Islets	Deepest	12+	L	L	PS	DW
277	Onyx Islets	Deepest	12+	L	L	PS	DW
278	Onyx Islets	Deepest	12+	L	L	PS	DW
279	Onyx Islets	Deepest	12+	L	L	PS	DW
280	Onyx Islets	Deepest	12+	L	L	PS	DW
281	Onyx Islets	Deepest	12+	L	L	PS	DW
282	Onyx Islets	Deepest	12+	L	L	PS	DW
283	Onyx Islets	Deepest	12+	L	L	PS	DW
284	Onyx Islets	Deepest	12+	L	L	PS	DW
285	Onyx Islets	Deepest	12+	L	L	PS	DW
286	Onyx Islets	Deepest	12+	L	L	PS	DW
287	Onyx Islets	Deepest	12+	L	L	PS	DW
288	Onyx Islets	Deepest	12+	L	L	PS	DW
289	Onyx Islets	Deepest	12+	L	L	PS	DW
290	Onyx Islets	Deepest	12+	L	L	PS	DW
291	Onyx Islets	Deepest	12+	L	L	PS	DW
292	Onyx Islets	Deepest	12+	L	L	PS	DW
293	Onyx Islets	Deepest	12+	L	L	PS	DW
294	Onyx Islets	Deepest	12+	L	L	PS	DW
295	Onyx Islets	Deepest	12+	L	L	PS	DW
296	Onyx Islets	Deepest	12+	L	L	PS	DW
297	Onyx Islets	Deepest	12+	L	L	PS	DW
298	Onyx Islets	Deepest	12+	L	L	PS	DW
299	Onyx Islets	Deepest	12+	L	L	PS	DW
300	Onyx Islets	Deepest	12+	L	L	PS	DW

467	Onyiah Isaac	Onyiah Emmanuel	52	M	L		DW
468	Onyiah Isidore	Onyiah Emmanuel	52+	M	L	RT	DW
469	Onyiah Isidore	Onyiah Emmanuel	52	M	L	RT	TM
473	Onyiah Isidore	Onyiah Emmanuel	6	M	L	SL	
474	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	DW
475	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	LB
476	Onyiah Isidore	Onyiah Emmanuel	6	M	SL	MT	LB
478	Onyiah Isidore	Onyiah Emmanuel	52	L	L	TM	LB DW
479	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
480	Onyiah Isidore	Onyiah Emmanuel	52	L	L	LE	RT DW
482	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
484	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	DW
485	Onyiah Isidore	Onyiah Emmanuel	52+	M	L	TM	SZ
488	Onyiah Isidore	Onyiah Emmanuel	6	F	H	PS	
489	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	DT	
490	Onyiah Isidore	Onyiah Emmanuel	50	M	L	TM	
492	Onyiah Isidore	Onyiah Emmanuel	52	M	L	DW	
493	Onyiah Isidore	Onyiah Emmanuel	6	F	H	PS	
494	Onyiah Isidore	Onyiah Emmanuel	6	L	L	DW	SL
497	Onyiah Isidore	Onyiah Emmanuel	52	M	SL	VMS	
498	Onyiah Isidore	Onyiah Emmanuel	4	F	H	PS	
499	Onyiah Isidore	Onyiah Emmanuel	6	L	L	SL	DW
500	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	TM	RT
501	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	DW
502	Onyiah Isidore	Onyiah Emmanuel	50	L	L	RT	DW
503	Onyiah Isidore	Onyiah Emmanuel	6	L	L	RT	DW
504	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	DW
506	Onyiah Isidore	Onyiah Emmanuel	52	L	L	SL	DW
508	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	DW
511	Onyiah Isidore	Onyiah Emmanuel	6	L	L	TM	DW
512	Onyiah Isidore	Onyiah Emmanuel	6	M	L	LE	DW
516	Onyiah Isidore	Onyiah Emmanuel	50	L	L	SL	DW
517	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	DT	
518	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	N	DW RT
519	Onyiah Isidore	Onyiah Emmanuel	6	F	M	MT	SO
520	Onyiah Isidore	Onyiah Emmanuel	6	L	L	SL	DW
521	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	HO	SL
531	Onyiah Isidore	Onyiah Emmanuel	6	F	H	PS	
532	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	TM	RT
537	Onyiah Isidore	Onyiah Emmanuel	6	L	L	DW	RT
538	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	DW	RT
539	Onyiah Isidore	Onyiah Emmanuel	50	M	M	DW	VMS
540	Onyiah Isidore	Onyiah Emmanuel	52	M	L	DW	TM
541	Onyiah Isidore	Onyiah Emmanuel	6	L	L	DW	SL
543	Onyiah Isidore	Onyiah Emmanuel	58+	L	L	DW	RT TM
551	Onyiah Isidore	Onyiah Emmanuel	6	F	H	PS	
552	Onyiah Isidore	Onyiah Emmanuel	50	L	L	DT	
558	Onyiah Isidore	Onyiah Emmanuel	52	L	L	RT	DW SL
559	Onyiah Isidore	Onyiah Emmanuel	6	M	L	TM	DW SL
560	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
561	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	HO	SL
562	Onyiah Isidore	Onyiah Emmanuel	50	M	M	MT	
568	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
569	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	RT	SL
570	Onyiah Isidore	Onyiah Emmanuel	52	M	L	TM	
571	Onyiah Isidore	Onyiah Emmanuel	6	M	M	VMS	
572	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
573	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	TM	DW
574	Onyiah Isidore	Onyiah Emmanuel	6	L	L	TM	HO
575	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	TM	HO
578	Onyiah Isidore	Onyiah Emmanuel	4	F	H	PS	
579	Onyiah Isidore	Onyiah Emmanuel	52	M	L	RT	DW
580	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	RT	HO SL
581	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
585	Onyiah Isidore	Onyiah Emmanuel	6	M	L	RT	DW
586	Onyiah Isidore	Onyiah Emmanuel	6	M	L	TM	SL
590	Onyiah Isidore	Onyiah Emmanuel	52	M	L	TM	SL
597	Onyiah Isidore	Onyiah Emmanuel	6	M	M	VMS	
599	Onyiah Isidore	Onyiah Emmanuel	52	L	L	TM	RT LB
600	Onyiah Isidore	Onyiah Emmanuel	50	M	L	TM	DW LB
601	Onyiah Isidore	Onyiah Emmanuel	52	L	L	TM	DW
602	Onyiah Isidore	Onyiah Emmanuel	52	L	L	TM	DW
603	Onyiah Isidore	Onyiah Emmanuel	6	L	L	TM	RT DW
604	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	TM	HO DW
605	Onyiah Isidore	Onyiah Emmanuel	50	L	L	TM	RT DW
606	Onyiah Isidore	Onyiah Emmanuel	52+	L	L	TM	RT LB
607	Onyiah Isidore	Onyiah Emmanuel	6	M	L	DW	
608	Onyiah Isidore	Onyiah Emmanuel	6	M	M	MT	
609	Onyiah Isidore	Onyiah Emmanuel	6	L	L	LE	
610	Onyiah Isidore	Onyiah Emmanuel	6	M	M	VMS	TM

811	Olneya leucis - Desert Ironwood	8	M	M	VMS	DW	
812	Olneya leucis - Desert Ironwood	8	L	L	TM	DW	
813	Olneya leucis - Desert Ironwood	12+	L	L	TM	RD	
814	Olneya leucis - Desert Ironwood	12+	L	L	TM	WT	
815	Olneya leucis - Desert Ironwood	10	L	L	TM	WT	BL
816	Olneya leucis - Desert Ironwood	10	L	L	TM	WT	BL
817	Olneya leucis - Desert Ironwood	12+	L	L	DW	WT	BL
818	Olneya leucis - Desert Ironwood	12+	L	L	DW	WT	RD
819	Olneya leucis - Desert Ironwood	12+	L	L	SL	WT	RD
820	Olneya leucis - Desert Ironwood	8	H	H	PS		
821	Olneya leucis - Desert Ironwood	8	H	H	MS		
822	Olneya leucis - Desert Ironwood	12+	M	L	SL		BL
823	Olneya leucis - Desert Ironwood	10	M	M	MS		
824	Olneya leucis - Desert Ironwood	8	L	L	LE		SL
825	Olneya leucis - Desert Ironwood	12	L	L	RD		SL
826	Olneya leucis - Desert Ironwood	8	H	H	P.S		
827	Olneya leucis - Desert Ironwood	8	M	H	PS		DW
828	Olneya leucis - Desert Ironwood	8	H	H	PS		SL
829	Olneya leucis - Desert Ironwood	8	H	H	PS		SL
830	Olneya leucis - Desert Ironwood	12+	L	L	TM	WT	
831	Olneya leucis - Desert Ironwood	18+	L	L	TM	WT	DW
832	Olneya leucis - Desert Ironwood	8	WT	WT	PS		
833	Olneya leucis - Desert Ironwood	8	M	L	TM		
834	Olneya leucis - Desert Ironwood	8	L	L	SL		
835	Olneya leucis - Desert Ironwood	8	M	M	MS		
836	Olneya leucis - Desert Ironwood	12+	M	L	SL	WT	
837	Olneya leucis - Desert Ironwood	8	M	M	MS	SD	
838	Olneya leucis - Desert Ironwood	8	M	M	MS	DW	
839	Olneya leucis - Desert Ironwood	10	M	L	SL	DW	
840	Olneya leucis - Desert Ironwood	18	M	L	SL	DW	
841	Olneya leucis - Desert Ironwood	12+	L	L	SL	TM	
842	Olneya leucis - Desert Ironwood	12+	L	L	TM	BL	DW
843	Olneya leucis - Desert Ironwood	12+	L	L	TM	RD	N
844	Olneya leucis - Desert Ironwood	10	M	L	DW		
845	Olneya leucis - Desert Ironwood	18+	L	L	DW	RD	
846	Olneya leucis - Desert Ironwood	8	M	M	MS	SD	
847	Olneya leucis - Desert Ironwood	8	M	L	DW	SL	
848	Olneya leucis - Desert Ironwood	10	L	L	DW	TM	
849	Olneya leucis - Desert Ironwood	12+	L	L	DW	WT	
850	Olneya leucis - Desert Ironwood	12+	M	L	DW	SL	TM
851	Olneya leucis - Desert Ironwood	8	H	H	PS		
852	Olneya leucis - Desert Ironwood	8	P	L	LE		
853	Olneya leucis - Desert Ironwood	10	H	M	MS	SL	
854	Olneya leucis - Desert Ironwood	8	M	L	WT		
855	Olneya leucis - Desert Ironwood	8	M	M	MS	SL	
856	Olneya leucis - Desert Ironwood	8	M	M	MS	SL	
857	Olneya leucis - Desert Ironwood	12	L	L	WT	DW	
858	Olneya leucis - Desert Ironwood	10	M	L	WT	DW	
859	Olneya leucis - Desert Ironwood	8	L	L	LE	SD	
860	Olneya leucis - Desert Ironwood	8	M	M	MS	SD	
861	Olneya leucis - Desert Ironwood	8	M	M	MS	SD	
862	Olneya leucis - Desert Ironwood	4	H	H	PS		
863	Olneya leucis - Desert Ironwood	8	L	L	WT		
864	Olneya leucis - Desert Ironwood	18+	M	L	SL	TM	
865	Olneya leucis - Desert Ironwood	8	M	M	MS	SL	
866	Olneya leucis - Desert Ironwood	10	M	L	TM	DW	
867	Olneya leucis - Desert Ironwood	18+	L	L	WT		
868	Olneya leucis - Desert Ironwood	8	H	H	PS		
869	Olneya leucis - Desert Ironwood	10	M	L	WT		
870	Olneya leucis - Desert Ironwood	12	L	L	TM	LE	
871	Olneya leucis - Desert Ironwood	8	M	L	DW	LE	
872	Olneya leucis - Desert Ironwood	12	M	L	DW		
873	Olneya leucis - Desert Ironwood	12	M	L	DW		
874	Olneya leucis - Desert Ironwood	12	M	L	DW		
875	Olneya leucis - Desert Ironwood	10	M	M	MS		
876	Olneya leucis - Desert Ironwood	8	M	M	VMS		
877	Olneya leucis - Desert Ironwood	10	M	L	DW	PS	
878	Olneya leucis - Desert Ironwood	10	M	L	DW	TM	</



845	Onyeke Isinda - Desert Eyewitness	12+	L	L	RT	BL
846	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
847	Onyeke Isinda - Desert Eyewitness	8	H	H	PS	
848	Onyeke Isinda - Desert Eyewitness	10	M	M	MS	
849	Onyeke Isinda - Desert Eyewitness	8	M	L	LB	
850	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
851	Onyeke Isinda - Desert Eyewitness	8	M	L	SO	
852	Onyeke Isinda - Desert Eyewitness	8	M	L	SO	
853	Onyeke Isinda - Desert Eyewitness	8	L	L	SO	RT
854	Onyeke Isinda - Desert Eyewitness	4	M	M	MS	
855	Onyeke Isinda - Desert Eyewitness	6	M	L	RT	
856	Onyeke Isinda - Desert Eyewitness	12+	M	L	RT	SL
857	Onyeke Isinda - Desert Eyewitness	8	M	L	RT	
858	Onyeke Isinda - Desert Eyewitness	10	L	L	RT	
859	Onyeke Isinda - Desert Eyewitness	10	L	L	OY	
860	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
861	Onyeke Isinda - Desert Eyewitness	12+	L	L	RT	TM
862	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	
863	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
864	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	DW
865	Onyeke Isinda - Desert Eyewitness	8	M	M	VMS	SO
866	Onyeke Isinda - Desert Eyewitness	8	H	H	PS	
867	Onyeke Isinda - Desert Eyewitness	8	H	H	PS	
868	Onyeke Isinda - Desert Eyewitness	8	M	L	SO	
869	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
870	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
871	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
872	Onyeke Isinda - Desert Eyewitness	8	M	M	VMS	SO
873	Onyeke Isinda - Desert Eyewitness	10	M	L	SL	SO
874	Onyeke Isinda - Desert Eyewitness	8	H	H	PS	
875	Onyeke Isinda - Desert Eyewitness	8	H	M	MS	LB
876	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
877	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
878	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
879	Onyeke Isinda - Desert Eyewitness	18+	L	L	RO	
880	Onyeke Isinda - Desert Eyewitness	8	M	L	SL	
881	Onyeke Isinda - Desert Eyewitness	8	L	L	SL	
882	Onyeke Isinda - Desert Eyewitness	8	L	L	RT	
883	Onyeke Isinda - Desert Eyewitness	8	L	L	RT	TM
884	Onyeke Isinda - Desert Eyewitness	8	L	L	RT	TM
885	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	
886	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	
887	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	
888	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	SL
889	Onyeke Isinda - Desert Eyewitness	10	L	L	RO	SL
890	Onyeke Isinda - Desert Eyewitness	8	M	M	VMS	SO
891	Onyeke Isinda - Desert Eyewitness	12+	L	L	TM	RT
892	Onyeke Isinda - Desert Eyewitness	10	M	L	TM	RT
893	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	
894	Onyeke Isinda - Desert Eyewitness	12	L	L	OY	
895	Onyeke Isinda - Desert Eyewitness	8	M	M	VMS	
896	Onyeke Isinda - Desert Eyewitness	12+	L	L	TM	RT
897	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	
898	Onyeke Isinda - Desert Eyewitness	8	M	L	LB	
899	Onyeke Isinda - Desert Eyewitness	12+	L	L	OY	
900	Onyeke Isinda - Desert Eyewitness	12+	M	L	RT	SO
901	Onyeke Isinda - Desert Eyewitness	8	M	L	TM	SO
902	Onyeke Isinda - Desert Eyewitness	12+	M	L	SL	SL
903	Onyeke Isinda - Desert Eyewitness	12	L	L	SL	RT
904	Onyeke Isinda - Desert Eyewitness	4	M	M	MS	
905	Onyeke Isinda - Desert Eyewitness	8	M	L	SL	
906	Onyeke Isinda - Desert Eyewitness	12	M	L	RT	TM
907	Onyeke Isinda - Desert Eyewitness	18+	M	L	SL	TM
908	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	SO
909	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	SO
910	Onyeke Isinda - Desert Eyewitness	12+	M	L	RT	SO
911	Onyeke Isinda - Desert Eyewitness	8	M	L	TM	SO
912	Onyeke Isinda - Desert Eyewitness	12+	M	L	SL	SL
913	Onyeke Isinda - Desert Eyewitness	12	L	L	SL	RT
914	Onyeke Isinda - Desert Eyewitness	4	M	M	MS	
915	Onyeke Isinda - Desert Eyewitness	8	M	L	SL	
916	Onyeke Isinda - Desert Eyewitness	12	M	L	RT	TM
917	Onyeke Isinda - Desert Eyewitness	18+	M	L	SL	TM
918	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	SO
919	Onyeke Isinda - Desert Eyewitness	8	M	M	MS	SO
920	Onyeke Isinda - Desert Eyewitness	12+	M	L	RT	SO
921	Onyeke Isinda - Desert Eyewitness	8	M	L	TM	SO
922	Onyeke Isinda - Desert Eyewitness	12+	M	L	SL	SL
923	Onyeke Isinda - Desert Eyewitness	12	L	L	SL	RT
924	Onyeke Isinda - Desert Eyewitness	4	M	M	MS	
925	Onyeke Isinda - Desert Eyewitness	8	M	L	SL	
926	Onyeke Isinda - Desert Eyewitness	12	M	L	RT	TM
927	Onyeke Isinda - Desert Eyewitness	12	M	L	RT	TM
928	Onyeke Isinda - Desert Eyewitness	18+	M	L	SL	TM
929	Onyeke Isinda - Desert Eyewitness	8	L	L	SO	TM
930	Onyeke Isinda - Desert Eyewitness	18+	L	L	RT	TM
931	Onyeke Isinda - Desert Eyewitness	18+	L	L	RT	NO
932	Onyeke Isinda - Desert Eyewitness	10	L	L	RT	TM
933	Onyeke Isinda - Desert Eyewitness	12+	L	L	RT	TM
934	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
935	Onyeke Isinda - Desert Eyewitness	8	M	L	LB	
936	Onyeke Isinda - Desert Eyewitness	18+	M	L	SL	TM
937	Onyeke Isinda - Desert Eyewitness	8	L	L	SO	TM
938	Onyeke Isinda - Desert Eyewitness	18+	L	L	RT	TM
939	Onyeke Isinda - Desert Eyewitness	18+	L	L	RT	NO
940	Onyeke Isinda - Desert Eyewitness	10	L	L	RT	TM
941	Onyeke Isinda - Desert Eyewitness	12+	L	L	RT	TM
942	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
943	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
944	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
945	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
946	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
947	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
948	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
949	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
950	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
951	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
952	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
953	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
954	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
955	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
956	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
957	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
958	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
959	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
960	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
961	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
962	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
963	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
964	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
965	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
966	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
967	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
968	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
969	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
970	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
971	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
972	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
973	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
974	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
975	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
976	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
977	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
978	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
979	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
980	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
981	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
982	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
983	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
984	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
985	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
986	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
987	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
988	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
989	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
990	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
991	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
992	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
993	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
994	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
995	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
996	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
997	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
998	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
999	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM
1000	Onyeke Isinda - Desert Eyewitness	12	L	L	RT	TM

1301	Orange Islands - Desert Horned Lizard	12+	L	L	N	RT
1304	Orange Islands - Desert Horned Lizard	8	M	M	VMS	
1305	Orange Islands - Desert Horned Lizard	8	L	L	RT	
1306	Orange Islands - Desert Horned Lizard	8	M	L	SL	
1307	Orange Islands - Desert Horned Lizard	8	M	L	SL	
1308	Orange Islands - Desert Horned Lizard	15+	M	L	TM	SJ
1309	Orange Islands - Desert Horned Lizard	10	M	L	QW	SO
1310	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1311	Orange Islands - Desert Horned Lizard	10	M	M	VMS	OW
1313	Orange Islands - Desert Horned Lizard	12+	L	L	QW	SL
1317	Orange Islands - Desert Horned Lizard	12+	L	L	RT	N
1318	Orange Islands - Desert Horned Lizard	12	L	L	RT	N
1321	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1325	Orange Islands - Desert Horned Lizard	8	M	M	MS	OW
1326	Orange Islands - Desert Horned Lizard	8	M	M	MS	SO
1327	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1328	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1329	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1330	Orange Islands - Desert Horned Lizard	8	L	L	SL	
1331	Orange Islands - Desert Horned Lizard	8	M	M	VMS	
1332	Orange Islands - Desert Horned Lizard	8	M	M	VMS	
1333	Orange Islands - Desert Horned Lizard	8	M	M	VMS	
1334	Orange Islands - Desert Horned Lizard	8	M	M	VMS	
1336	Orange Islands - Desert Horned Lizard	10	M	L		OW
1337	Orange Islands - Desert Horned Lizard	12	L	L	N	OW
1338	Orange Islands - Desert Horned Lizard	12	L	L	N	RT
1339	Orange Islands - Desert Horned Lizard	10	M	M	MS	RT
1340	Orange Islands - Desert Horned Lizard	8	M	M	MS	RT
1341	Orange Islands - Desert Horned Lizard	10	M	L	TM	RT
1342	Orange Islands - Desert Horned Lizard	8	M	L	TM	RT
1343	Orange Islands - Desert Horned Lizard	8	L	L	QW	RT
1345	Orange Islands - Desert Horned Lizard	12	L	L	QW	RT
1346	Orange Islands - Desert Horned Lizard	8	M	L	QW	RT
1347	Orange Islands - Desert Horned Lizard	12+	L	L	QW	RT
1348	Orange Islands - Desert Horned Lizard	12+	L	L	QY	
1351	Orange Islands - Desert Horned Lizard	12	L	L	RT	OW
1352	Orange Islands - Desert Horned Lizard	12	L	L	RT	TM
1354	Orange Islands - Desert Horned Lizard	8	M	L	RT	
1356	Orange Islands - Desert Horned Lizard	12+	M	L	RT	TM
1358	Orange Islands - Desert Horned Lizard	18+	L	L	SL	OW
1360	Orange Islands - Desert Horned Lizard	10	M	L	RT	OW
1362	Orange Islands - Desert Horned Lizard	10	M	L	TM	OW
1363	Orange Islands - Desert Horned Lizard	12+	M	L	TM	SJ
1364	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1365	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1366	Orange Islands - Desert Horned Lizard	8	M	M	MS	SL
1367	Orange Islands - Desert Horned Lizard	8	M	M	VMS	SL
1368	Orange Islands - Desert Horned Lizard	12+	M	L	SL	SL
1371	Orange Islands - Desert Horned Lizard	4	M	M	MS	LB
1372	Orange Islands - Desert Horned Lizard	12+	M	L	TM	LB
1373	Orange Islands - Desert Horned Lizard	4	M	M	VMS	LB
1374	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1375	Orange Islands - Desert Horned Lizard	18+	M	L	SL	
1376	Orange Islands - Desert Horned Lizard	12	M	L	SO	
1377	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1378	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1379	Orange Islands - Desert Horned Lizard	10	L	L	QY	RT
1380	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1382	Orange Islands - Desert Horned Lizard	12+	M	L	QY	
1385	Orange Islands - Desert Horned Lizard	8	M	M	MS	OW
1386	Orange Islands - Desert Horned Lizard	8	M	M	MS	OW
1387	Orange Islands - Desert Horned Lizard	12+	L	L	RT	OW
1390	Orange Islands - Desert Horned Lizard	8	M	L	SL	
1391	Orange Islands - Desert Horned Lizard	8	L	L	SL	
1392	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1394	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1395	Orange Islands - Desert Horned Lizard	10	M	M	MS	
1396	Orange Islands - Desert Horned Lizard	10	M	L	TM	
1397	Orange Islands - Desert Horned Lizard	10	M	L	RT	
1398	Orange Islands - Desert Horned Lizard	10	M	L	SO	
1399	Orange Islands - Desert Horned Lizard	10	M	L	SO	TM
1400	Orange Islands - Desert Horned Lizard	12	L	L	SO	OW
1401	Orange Islands - Desert Horned Lizard	8	L	L	SO	LE
1402	Orange Islands - Desert Horned Lizard	8	M	M	VMS	
1403	Orange Islands - Desert Horned Lizard	8	M	L	SL	
1404	Orange Islands - Desert Horned Lizard	8	M	L	SL	OW
1406	Orange Islands - Desert Horned Lizard	8	M	M	MS	
1408	Orange Islands - Desert Horned Lizard	15+	M	L	SL	
1412	Orange Islands - Desert Horned Lizard	10	L	L	QY	
1413	Orange Islands - Desert Horned Lizard	8	M	L	SO	
1414	Orange Islands - Desert Horned Lizard	10	L	L	SL	OW
1415	Orange Islands - Desert Horned Lizard	10	M	M		
1417	Orange Islands - Desert Horned Lizard	12+	M	L	N	RT
1418	Orange Islands - Desert Horned Lizard	8	M	L	SO	
1419	Orange Islands - Desert Horned Lizard	12+	L	L	QY	
1422	Orange Islands - Desert Horned Lizard	12+	L	L	QY	
1423	Orange Islands - Desert Horned Lizard	10	M	L	QY	
1425	Orange Islands - Desert Horned Lizard	12+	M	L	RT	OW
1426	Orange Islands - Desert Horned Lizard	12+	L	L	RT	OW
1431	Orange Islands - Desert Horned Lizard	12+	L	L	RT	SJ



☐ Design Review  
☐ Construction Documents  
☒ Agency Submittal  
☐ Construction Set  
☒ Not for Construction

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1332	Chryse Ischia	Desert Increased	10	F		VMS	SZ
1333	Chryse Ischia	Desert Increased	6	F		LM	DW
1334	Chryse Ischia	Desert Increased	8	L	L	RD	TM
1335	Chryse Ischia	Desert Increased	10	F		VMS	LB
1337	Chryse Ischia	Desert Increased	12*	L	L	RY	DW
1344	Chryse Ischia	Desert Increased	12*	F		LB	DW
1345	Chryse Ischia	Desert Increased	12*	L	L	RD	RT
1346	Chryse Ischia	Desert Increased	10	L	L	SL	RT
1348	Chryse Ischia	Desert Increased	6	O		SL	MS
1349	Chryse Ischia	Desert Increased	10	L	L	SL	DW
1352	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1353	Chryse Ischia	Desert Increased	10	F		MS	SO
1354	Chryse Ischia	Desert Increased	6	O		MS	SO
1360	Chryse Ischia	Desert Increased	12*	L	L	RD	RT
1363	Chryse Ischia	Desert Increased	4	O		PS	
1364	Chryse Ischia	Desert Increased	12	L	L	OT	RT
1369	Chryse Ischia	Desert Increased	10	F		TM	LB
1380	Chryse Ischia	Desert Increased	6	F		VMS	DW
1383	Chryse Ischia	Desert Increased	12*	L	L	RT	TM
1377	Chryse Ischia	Desert Increased	8	L	L	RY	SL
1378	Chryse Ischia	Desert Increased	8	L	L	RT	SL
1381	Chryse Ischia	Desert Increased	10	F		VMS	SL
1383	Chryse Ischia	Desert Increased	12	L	L	LB	RT
1384	Chryse Ischia	Desert Increased	12*	L	L	OT	RT
1386	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1390	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1391	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1392	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1397	Chryse Ischia	Desert Increased	12	L	L	RT	DW
1398	Chryse Ischia	Desert Increased	10	L	L	RY	DW
1400	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1402	Chryse Ischia	Desert Increased	8	L	L	RT	DW
1403	Chryse Ischia	Desert Increased	4	F		MS	SL
1407	Chryse Ischia	Desert Increased	8	F		TM	DW
1409	Chryse Ischia	Desert Increased	8	F		MS	
1409	Chryse Ischia	Desert Increased	12*	L	L	RT	RD
1415	Chryse Ischia	Desert Increased	12*	L	L	RT	RD
1416	Chryse Ischia	Desert Increased	12*	F		LB	TM
1418	Chryse Ischia	Desert Increased	12*	L	L	RD	TM
1420	Chryse Ischia	Desert Increased	10	L	L	RT	DW
1424	Chryse Ischia	Desert Increased	12	F		RT	SL
1425	Chryse Ischia	Desert Increased	8	L	L	RT	SL
1428	Chryse Ischia	Desert Increased	8	L	L	RT	OT
1430	Chryse Ischia	Desert Increased	8	O		PS	
1431	Chryse Ischia	Desert Increased	8	O		MS	LB
1436	Chryse Ischia	Desert Increased	12*	L	L	OT	RT
1437	Chryse Ischia	Desert Increased	12*	L	L	RD	RT
1439	Chryse Ischia	Desert Increased	12*	L	L	TM	DW
1440	Chryse Ischia	Desert Increased	12*	L	L	OT	DW
1445	Chryse Ischia	Desert Increased	12*	L	L	OT	TM
1446	Chryse Ischia	Desert Increased	6	L	L	RT	DW
1454	Chryse Ischia	Desert Increased	8	F		MS	
1455	Chryse Ischia	Desert Increased	8	L	L	RT	DW
1467	Chryse Ischia	Desert Increased	8	L	L	RT	DW
1468	Chryse Ischia	Desert Increased	12*	L	L	RT	DW
1469	Chryse Ischia	Desert Increased	10	F		MS	DW
1469	Chryse Ischia	Desert Increased	6	F		MS	
1474	Chryse Ischia	Desert Increased	8	F		MS	
1475	Chryse Ischia	Desert Increased	12*	L	L	RY	SL
1476	Chryse Ischia	Desert Increased	6	F		SL	
1477	Chryse Ischia	Desert Increased	12	F		SL	
1478	Chryse Ischia	Desert Increased	6	F		MS	
1479	Chryse Ischia	Desert Increased	10	L	L	RT	DW
1480	Chryse Ischia	Desert Increased	12*	L	L	OT	
1481	Chryse Ischia	Desert Increased	10	F		TM	
1483	Chryse Ischia	Desert Increased	10	F		VMS	SZ
1485	Chryse Ischia	Desert Increased	6	O		PS	
1487	Chryse Ischia	Desert Increased	10	F		SL	
1488	Chryse Ischia	Desert Increased	12*	F		OT	RT
1489	Chryse Ischia	Desert Increased	8	L	L	OT	RT
1490	Chryse Ischia	Desert Increased	6	F		SL	RT
1494	Chryse Ischia	Desert Increased	4	O		PS	
1494	Chryse Ischia	Desert Increased	6	F		LB	
1495	Chryse Ischia	Desert Increased	6	F		MS	
1503	Chryse Ischia	Desert Increased	8	L	L	RT	DW
1503	Chryse Ischia	Desert Increased	8	L	L	RT	DW
1505	Chryse Ischia	Desert Increased	4	O		PS	
1505	Chryse Ischia	Desert Increased	12*	L	L	OT	RT
1507	Chryse Ischia	Desert Increased	10	F		MS	SZ
1508	Chryse Ischia	Desert Increased	12*	L	L	RD	RT
1512	Chryse Ischia	Desert Increased	12	L	L	RY	
1516	Chryse Ischia	Desert Increased	8	O		PS	
1518	Chryse Ischia	Desert Increased	6	L	L	RT	DW
1520	Chryse Ischia	Desert Increased	12*	L	L	OT	
1521	Chryse Ischia	Desert Increased	12	F		LB	
1522	Chryse Ischia	Desert Increased	6	F		MS	
1523	Chryse Ischia	Desert Increased	12*	L	L	OT	RT
1527	Chryse Ischia	Desert Increased	10	F		MS	SZ
1528	Chryse Ischia	Desert Increased	12*	F		SZ	
1529	Chryse Ischia	Desert Increased	12*	F		SZ	
1536	Chryse Ischia	Desert Increased	12	F		RY	SZ

1736	Onyia Isreal	Desert Homestead	4	F		MS	
1737	Onyia Isreal	Desert Homestead	8	F		MS	
1738	Onyia Isreal	Desert Homestead	12	L	J	RT	DW
1739	Onyia Isreal	Desert Homestead	15	F		MS	DW
1740	Onyia Isreal	Desert Homestead	16	F		BL	DW
1741	Onyia Isreal	Desert Homestead	12+	L	L	DT	
1742	Onyia Isreal	Desert Homestead	12+	L	L	RT	MS
1743	Onyia Isreal	Desert Homestead	12+	L	L	DT	
1744	Onyia Isreal	Desert Homestead	12+	F		VMS	SO
1745	Onyia Isreal	Desert Homestead	15	L	L	DT	
1746	Onyia Isreal	Desert Homestead	8	L	L	RT	
1747	Onyia Isreal	Desert Homestead	8	L	L	RT	
1748	Onyia Isreal	Desert Homestead	8	F		MS	
1751	Onyia Isreal	Desert Homestead	8	F		MS	DW
1752	Onyia Isreal	Desert Homestead	8	F		MS	DW
1753	Onyia Isreal	Desert Homestead	12	L	L	RT	BL
1756	Onyia Isreal	Desert Homestead	8	F		MS	
1759	Onyia Isreal	Desert Homestead	8	L	L	DW	BL
1760	Onyia Isreal	Desert Homestead	8	F		MS	
1761	Onyia Isreal	Desert Homestead	8	F		MS	
1761	Onyia Isreal	Desert Homestead	8	F		MS	
1766	Onyia Isreal	Desert Homestead	8	F		MS	
1768	Onyia Isreal	Desert Homestead	4	L	L	MS	RT
1770	Onyia Isreal	Desert Homestead	8	L	L	TM	RT
1771	Onyia Isreal	Desert Homestead	8	F		MS	
1772	Onyia Isreal	Desert Homestead	8	F		MS	
1773	Onyia Isreal	Desert Homestead	8	F		MS	
1775	Onyia Isreal	Desert Homestead	12+	L	L	RD	RT
1776	Onyia Isreal	Desert Homestead	12+	L	L	BL	RT
1778	Onyia Isreal	Desert Homestead	8	F		MS	
1779	Onyia Isreal	Desert Homestead	8	L	L	RT	DW
1781	Onyia Isreal	Desert Homestead	10	L	L	RT	BL
1782	Onyia Isreal	Desert Homestead	8	F		MS	
1783	Onyia Isreal	Desert Homestead	8	F		MS	
1784	Onyia Isreal	Desert Homestead	8	D		PS	
1785	Onyia Isreal	Desert Homestead	12	L	L	DW	RT
1787	Onyia Isreal	Desert Homestead	8	F		MS	
1788	Onyia Isreal	Desert Homestead	12	F		DT	
1789	Onyia Isreal	Desert Homestead	8	F		DT	
1800	Onyia Isreal	Desert Homestead	8	F		MS	
1801	Onyia Isreal	Desert Homestead	8	F		MS	
1802	Onyia Isreal	Desert Homestead	12	L	L	RT	
1803	Onyia Isreal	Desert Homestead	12+	L	L	RT	BL
1804	Onyia Isreal	Desert Homestead	8	F		MS	
1806	Onyia Isreal	Desert Homestead	8	F		MS	
1808	Onyia Isreal	Desert Homestead	12+	L	L	RT	DW
1814	Onyia Isreal	Desert Homestead	12+	L	L	DT	DW
1818	Onyia Isreal	Desert Homestead	12+	L	L	DT	RT
1819	Onyia Isreal	Desert Homestead	8	F		SO	MS
1821	Onyia Isreal	Desert Homestead	15	F		SO	MS
1822	Onyia Isreal	Desert Homestead	8	F		MS	
1824	Onyia Isreal	Desert Homestead	12+	L	L	RT	RD
1825	Onyia Isreal	Desert Homestead	8	G		PS	
1827	Onyia Isreal	Desert Homestead	12+	L	L	RT	
1829	Onyia Isreal	Desert Homestead	12+	L	L	RT	BL
1830	Onyia Isreal	Desert Homestead	8	L	L	RT	BL
1831	Onyia Isreal	Desert Homestead	8	L	L	RT	OT
1833	Onyia Isreal	Desert Homestead	8	F		DW	
1835	Onyia Isreal	Desert Homestead	8	L	L	DW	RT
1845	Onyia Isreal	Desert Homestead	8	F		MS	DW
1846	Onyia Isreal	Desert Homestead	12+	F		DT	DW
1848	Onyia Isreal	Desert Homestead	8	L	L	PS	
1851	Onyia Isreal	Desert Homestead	8	F		RT	DW
1852	Onyia Isreal	Desert Homestead	8	L	L	RT	DW
1853	Onyia Isreal	Desert Homestead	12+	L	L	RT	DW
1857	Onyia Isreal	Desert Homestead	8	L	L	RT	DW
1858	Onyia Isreal	Desert Homestead	12	L	L	RT	DW
1861	Onyia Isreal	Desert Homestead	8	L	L	RT	DW
1862	Onyia Isreal	Desert Homestead	15	L	L	RT	DW
1864	Onyia Isreal	Desert Homestead	8	L	L	RT	DW
1881	Onyia Isreal	Desert Homestead	8	G		PS	
1886	Onyia Isreal	Desert Homestead	12	L	L	RT	DW
1872	Onyia Isreal	Desert Homestead	12+	L	L	RT	DW
1875	Onyia Isreal	Desert Homestead	12	L	L	RT	DW
1876	Onyia Isreal	Desert Homestead	12	F		LB	DW
1879	Onyia Isreal	Desert Homestead	8	F		MS	DW
1881	Onyia Isreal	Desert Homestead	12+	L	L	DT	
1887	Onyia Isreal	Desert Homestead	15	G		PS	
1884	Onyia Isreal	Desert Homestead	12+	L	L	DT	
1885	Onyia Isreal	Desert Homestead	12	L	L	OT	RT
1887	Onyia Isreal	Desert Homestead	12+	L	L	DT	
1888	Onyia Isreal	Desert Homestead	8	G		PS	
1889	Onyia Isreal	Desert Homestead	12	F		RT	
1921	Onyia Isreal	Desert Homestead	8	F		VMS	DW
1910	Onyia Isreal	Desert Homestead	12+	L	L	RT	DW
1993	Onyia Isreal	Desert Homestead	8	F		MS	
1985	Onyia Isreal	Desert Homestead	12	L	L	MT	DW
1989	Onyia Isreal	Desert Homestead	12	L	L	OT	DW
1995	Onyia Isreal	Desert Homestead	15	L	L	OT	DW
1992	Onyia Isreal	Desert Homestead	15	L	L	RD	DW
1991	Onyia Isreal	Desert Homestead	12+	F		RT	DW

1902	Onyea Islets - Desert Inwood	8	L	L	RT	DW	LE
1903	Onyea Islets - Desert Inwood	10	F		VMS	SZ	RT
1904	Onyea Islets - Desert Inwood	12*	F		SZ	TM	RT
1905	Onyea Islets - Desert Inwood	12*	L	L	DY		
1907	Onyea Islets - Desert Inwood	8	F		MS	DW	
1908	Onyea Islets - Desert Inwood	10	F		BL	DW	
1909	Onyea Islets - Desert Inwood	8	F		VMS	LE	
1910	Onyea Islets - Desert Inwood	12	F		SZ	TM	
1911	Onyea Islets - Desert Inwood	12*	L	L	SZ	BL	RT
1912	Onyea Islets - Desert Inwood	12*	F		SZ	LE	
1913	Onyea Islets - Desert Inwood	12*	L	L	SZ	LE	
1915	Onyea Islets - Desert Inwood	12*	L	L	SZ	LE	
1916	Onyea Islets - Desert Inwood	10	L	L	SZ	LE	
1917	Onyea Islets - Desert Inwood	12*	L	L	DY		
1919	Onyea Islets - Desert Inwood	12	L	L	LE	DW	BL
1920	Onyea Islets - Desert Inwood	12	F		LE	DW	
1921	Onyea Islets - Desert Inwood	8	F		RT	VMS	
1922	Onyea Islets - Desert Inwood	12	F		RT	SZ	
1923	Onyea Islets - Desert Inwood	12*	F		RT	SZ	
1924	Onyea Islets - Desert Inwood	10	F		MS		
1925	Onyea Islets - Desert Inwood	12*	F		RT	SZ	
1926	Onyea Islets - Desert Inwood	10	L	L	RT	TM	
1927	Onyea Islets - Desert Inwood	8	F		DW	VMS	
1929	Onyea Islets - Desert Inwood	8	F		DW	VMS	
1930	Onyea Islets - Desert Inwood	10	L	L	DW	RT	
1931	Onyea Islets - Desert Inwood	8	F		VMS	LE	
1931	Onyea Islets - Desert Inwood	12	F		TM	RT	
1934	Onyea Islets - Desert Inwood	12	L	L	OT	RT	
1937	Onyea Islets - Desert Inwood	12	L	L	DY		
1938	Onyea Islets - Desert Inwood	12*	L	L	DY		
1939	Onyea Islets - Desert Inwood	12	L	L	RT	DW	
1940	Onyea Islets - Desert Inwood	10	F		BL	DW	
1941	Onyea Islets - Desert Inwood	12*	L	L	OT	RT	
1942	Onyea Islets - Desert Inwood	8	L	L	OT	RT	
1943	Onyea Islets - Desert Inwood	12	L	L	OT	RT	BL
1944	Onyea Islets - Desert Inwood	12	L	L	OT	RT	BL
1945	Onyea Islets - Desert Inwood	12*	L	L	DY		
1946	Onyea Islets - Desert Inwood	12*	L	L	DY		
1947	Onyea Islets - Desert Inwood	12*	L	L	RT	MY	
1948	Onyea Islets - Desert Inwood	8	F		VMS	RT	
1949	Onyea Islets - Desert Inwood	12	L	L	DY		
1950	Onyea Islets - Desert Inwood	8	F		MS		
1951	Onyea Islets - Desert Inwood	10	F		VMS		
1952	Onyea Islets - Desert Inwood	6	F		PS		
1953	Onyea Islets - Desert Inwood	12	L	L	LE		
1955	Onyea Islets - Desert Inwood	12	F		TM	SZ	
1956	Onyea Islets - Desert Inwood	8	F		LE	LE	
1957	Onyea Islets - Desert Inwood	8	F		RT	LE	
1958	Onyea Islets - Desert Inwood	12	L	L	TM	LE	
1959	Onyea Islets - Desert Inwood	8	F		MS		
1960	Onyea Islets - Desert Inwood	12	L	L	RT	TM	OT
1961	Onyea Islets - Desert Inwood	12*	L	L	RT	TM	OT
1962	Onyea Islets - Desert Inwood	12*	L	L	DY		
1963	Onyea Islets - Desert Inwood	8	F		RT		
1964	Onyea Islets - Desert Inwood	12*	L	L	DY		
1965	Onyea Islets - Desert Inwood	12*	L	L	MY	TM	
1966	Onyea Islets - Desert Inwood	12*	L	L	RT	OT	
1967	Onyea Islets - Desert Inwood	8	L	L	RT	OT	
1968	Onyea Islets - Desert Inwood	8	L	L	LE	OT	
1969	Onyea Islets - Desert Inwood	12	L	L	SG	OT	
1970	Onyea Islets - Desert Inwood	12	L	L	BL	RT	
1971	Onyea Islets - Desert Inwood	12*	L	L	BL	RT	OT
1972	Onyea Islets - Desert Inwood	10	G		TM	RT	OT
1973	Onyea Islets - Desert Inwood	12*	L	L	DY		
1974	Onyea Islets - Desert Inwood	12	F		DW		
1975	Onyea Islets - Desert Inwood	12	F		DW	TM	
1976	Onyea Islets - Desert Inwood	12*	L	L	DY		
1977	Onyea Islets - Desert Inwood	10	F		RT		
1978	Onyea Islets - Desert Inwood	10	F		LE		
1979	Onyea Islets - Desert Inwood	12*	F		TM		
1980	Onyea Islets - Desert Inwood	12*	L	L	DY		
1981	Onyea Islets - Desert Inwood	12*	L	L	RT	OT	
1982	Onyea Islets - Desert Inwood	8	F		MS		
1983	Onyea Islets - Desert Inwood	12*	L	L	HO	DW	
1984	Onyea Islets - Desert Inwood	12	L	L	DY		
1985	Onyea Islets - Desert Inwood	12*	L	L	OT	RT	DW
1986	Onyea Islets - Desert Inwood	12*	L	L	OT	RT	DW
1987	Onyea Islets - Desert Inwood	8	F		MS		
1988	Onyea Islets - Desert Inwood	12*	F		OT	TM	
1989	Onyea Islets - Desert Inwood	12	L	L	OT	RT	
1990	Onyea Islets - Desert Inwood	12*	F		SZ		
1991	Onyea Islets - Desert Inwood	12*	L	L	RT	TM	
1992	Onyea Islets - Desert Inwood	10	L	L	RT	OT	
1993	Onyea Islets - Desert Inwood	12*	L	L	RT	OT	TM
1994	Onyea Islets - Desert Inwood	10	F		TM		
1995	Onyea Islets - Desert Inwood	8	F		TM		
1996	Onyea Islets - Desert Inwood	8	L	L	RT	DW	
1997	Onyea Islets - Desert Inwood	10	F		TM	DW	



SAGUARO INVENTORY									
VARIETY									
ID NO	DESCRIPTION	SIZE	TRUNK	COMMENTS					
1389	Olneya tesota - Desert Ironwood	8	L	BL	DW				
1390	Olneya tesota - Desert Ironwood	52	F	BL	TM	SL			
1391	Olneya tesota - Desert Ironwood	12	L	BL	RT	OT			
1392	Olneya tesota - Desert Ironwood	12	L	BL	RT	SL			
1393	Olneya tesota - Desert Ironwood	8	F	MS					
1394	Olneya tesota - Desert Ironwood	12+	L	RT	OT	TM			
1395	Olneya tesota - Desert Ironwood	12+	F	SL	RT				
1396	Olneya tesota - Desert Ironwood	12	L	OT	RT				
1397	Olneya tesota - Desert Ironwood	12	F	OT	RT	TM			
1398	Olneya tesota - Desert Ironwood	10	F	VMS	RT				
1399	Olneya tesota - Desert Ironwood	10	F	MS					
1400	Olneya tesota - Desert Ironwood	12+	L	TM	OT	RT			
1401	Olneya tesota - Desert Ironwood	10	F	VMS					
1402	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1403	Olneya tesota - Desert Ironwood	10	F	MS					
1404	Olneya tesota - Desert Ironwood	12+	L	RT	DW	TM			
1405	Olneya tesota - Desert Ironwood	12	L	RT	DW	OT			
1406	Olneya tesota - Desert Ironwood	12	L	RT	DW	OT			
1407	Olneya tesota - Desert Ironwood	12	F	TM	RT	OT			
1408	Olneya tesota - Desert Ironwood	12+	L	DW	RT	OT			
1409	Olneya tesota - Desert Ironwood	12+	F	SZ	RT	OT			
1410	Olneya tesota - Desert Ironwood	8	F	MS					
1411	Olneya tesota - Desert Ironwood	8	F	TM					
1412	Olneya tesota - Desert Ironwood	8	F	TM					
1413	Olneya tesota - Desert Ironwood	12+	L	TM	RT	OT			
1414	Olneya tesota - Desert Ironwood	10	F	MS					
1415	Olneya tesota - Desert Ironwood	8	F	MS					
1416	Olneya tesota - Desert Ironwood	12+	L	RT	OT				
1417	Olneya tesota - Desert Ironwood	8	F	LE					
1418	Olneya tesota - Desert Ironwood	8	F	TM					
1419	Olneya tesota - Desert Ironwood	12+	L	OT	RT	MT			
1420	Olneya tesota - Desert Ironwood	8	F	MS					
1421	Olneya tesota - Desert Ironwood	12+	L	OT	RT				
1422	Olneya tesota - Desert Ironwood	12+	F	TM	DW				
1423	Olneya tesota - Desert Ironwood	12+	L	RT	DW	RT			
1424	Olneya tesota - Desert Ironwood	8	L	OT	DW	RT			
1425	Olneya tesota - Desert Ironwood	8	G	PS					
1426	Olneya tesota - Desert Ironwood	8	G	PS					
1427	Olneya tesota - Desert Ironwood	12+	F	TM	SZ				
1428	Olneya tesota - Desert Ironwood	8	G	PS					
1429	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1430	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1431	Olneya tesota - Desert Ironwood	10	F	MS	LB				
1432	Olneya tesota - Desert Ironwood	12+	F	SZ	TM				
1433	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1434	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1435	Olneya tesota - Desert Ironwood	12	L	DW	LB				
1436	Olneya tesota - Desert Ironwood	12	F	DW	SZ				
1437	Olneya tesota - Desert Ironwood	8	F	MS					
1438	Olneya tesota - Desert Ironwood	8	F	MS					
1439	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1440	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1441	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1442	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1443	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1444	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1445	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1446	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1447	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1448	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1449	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1450	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1451	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1452	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1453	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1454	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1455	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1456	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1457	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1458	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1459	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1460	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1461	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1462	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1463	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1464	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1465	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1466	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1467	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1468	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1469	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1470	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1471	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1472	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1473	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1474	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1475	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1476	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1477	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1478	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1479	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1480	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1481	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1482	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1483	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1484	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1485	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1486	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1487	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1488	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1489	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1490	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1491	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1492	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1493	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1494	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1495	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1496	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1497	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1498	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1499	Olneya tesota - Desert Ironwood	8	F	MS	LB				
1500	Olneya tesota - Desert Ironwood	8	F	MS	LB				

1501	Olneya tesota - Desert Ironwood	12	L	L	RT	SC
1502	Olneya tesota - Desert Ironwood	12	L	L	RT	OT
1503	Olneya tesota - Desert Ironwood	8	L	L	RT	TM
1504	Olneya tesota - Desert Ironwood	10	F		MS	
1505	Olneya tesota - Desert Ironwood	10	F		VMS	SC
1506	Olneya tesota - Desert Ironwood	12+	F		DW	SC
1507	Olneya tesota - Desert Ironwood	8	F		MS	
1508	Olneya tesota - Desert Ironwood	10	G		MS	
1509	Olneya tesota - Desert Ironwood	12+	F		SZ	TM
1510	Olneya tesota - Desert Ironwood	12+	F		SZ	RT
1511	Olneya tesota - Desert Ironwood	12+	L	L	RT	OT
1512	Olneya tesota - Desert Ironwood	12+	F	L	SZ	TM
1513	Olneya tesota - Desert Ironwood	12	L	L	DW	RT
1514	Olneya tesota - Desert Ironwood	12+	G		SZ	
1515	Olneya tesota - Desert Ironwood	12+	L	L	TM	SL
1516	Olneya tesota - Desert Ironwood	12+	F		TM	SL

## ABBREVIATIONS

The following abbreviations were used in the plant list.

- BL - Broken Limbs: Tree has significant broken branches.
- BT - Broken Top: generally used in description of cactus.
- DW - Dead Wood: Tree has significant dead limb or dead broken limb.
- DY - Dying: Tree is dying.
- FD - Frost Damage.
- IN - Insect or Disease Infestation.
- LB - Low Branches: Tree has many low branches that will need to be removed for salvage and removal will destroy conductors of line.
- LE - Leaking: Tree is leaking to the point where salvage will be difficult.
- MS - Marginal Salvage: Used during field inventory to identify less desirable salvage candidates to be used if needed to meet % requirements.
- MT - Tree has significant mistletoe infestation.
- NV - Not Viable: These are trees which are not included in the calculations for the site because they are not in viable condition.
- OT - Tree has an old trunk indicating pastwork at some point in the past.
- PD - Pruning Damage.
- PP - Plants to be preserved in place.
- PP-HDW - Plants to be preserved in place but located within the Right of Way. These plants are not included in the calculation of viability for PP plants on the site.
- PPV - Other vegetation in the vicinity will make salvage difficult.
- PS - Possible Salvage: Used in the field to identify best possible salvage candidates.
- RD - Root Damage: Rodents have excavated at the base of the tree.
- RFD - Plants to be removed from site, damaged or destroyed.
- RT - Rotted Trunk: Trunk has been broken off or rotted out and has hollow areas, making long term health and stability of the tree questionable.
- SAL - Salvage: Used during field inventory to identify trees that should be salvaged regardless of % requirements.
- SC - Slope: Tree is on steep slope where salvage will not be possible.
- SO - Rock: Soil is rocky or otherwise unsuitable for excavation.
- SR - Surface roots are evident, making excavation difficult.
- ST - Skewed.
- SZ - Size of the tree, either spread, caliper or height is not conducive to salvage.
- TD - Trunk Damage.
- TM - Too Much: Tree has multiple trunks coming out of the ground that will make moving the tree difficult without significant damage.
- TOS - Plant to be transplanted on site.
- VMS - Very Marginal Salvage: Used during field inventory to identify less desirable salvage candidates to be used if needed to meet % requirements.



**GRS**  
LANDSCAPE ARCHITECTURE, INC.

35974 S. Desert Sun Drive  
Tucson, AZ 85739  
(520) 909-4678  
gregs@grslandscapearchitects.com

Date: 4/9/21  
Drawn by: LMW  
Checked by: GRS  
☐ Design Review  
☐ Construction Documents  
☒ Agency Submitted  
☐ Construction Set  
☒ Not for Construction

## CORTARO 57 SPECIFIC PLAN

### SAGUARO & IRONWOOD INVENTORY

Sheet 9 of 9



**Appendix D:  
Pima County Regional  
Wastewater Reclamation  
Department (RWRD) Type I  
Capacity Letters & Tucson Water  
Will-Serve Letter**

April 30, 2021

Martin Magelli  
Baker & Associates Engineering, Inc  
3561 E Sunrise Drive, #225  
Tucson, AZ 85718

**Sewerage Capacity Investigation No. P21WC00121 Type I**

RE: **Cortaro 57 - West, Parcel 22116029D**  
**Estimated Flow 14,040 gpd (ADWF)**

Greetings:

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

Capacity is currently available for a project this size in the public sewer G-2015-067, downstream from manhole 2628-13.

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

If further information is needed, please feel free to contact us at (520) 724-6488.

Reviewed by: Mirela Hromatka, Planner Sr.



April 30, 2021

Martin Magelli  
Baker & Associates Engineering, Inc  
3561 E Sunrise Dr., #225  
Tucson, AZ 85718

**Sewerage Capacity Investigation No. P21WC00120 Type I**

**RE: Cortaro 57 - East, Parcels 22116029E, 22533059M, 22533059R**  
**Estimated Flow 61,560 gpd (ADWF)**

Greetings:

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

Capacity is currently available for a project this size in the public sewer G-79-121, downstream from manhole 1728-16.

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

If further information is needed, please feel free to contact us at (520) 724-6488.

Reviewed by: Mirela Hromatka, Planner Sr.



February 4, 2021

CBRE- Ben Becker  
7320 N. San Blas Drive  
Tucson, AZ 85704

Attn: Ben Becker

**SUBJECT: Water Availability for Project: Near Camino de Oeste & Lord Redman, APN: 229-33-059R  
Case # WA3403, T-12 R-13 S-30, Lots: 9999, Location Code: UNI: Total Area: 15.9ac, Zoning: SR**

**WATER SUPPLY**

Tucson Water will provide water service to this project based on the subject zoning of the above parcels. Tucson Water has an assured water supply (AWS) designated from the State of Arizona Department of Water Resources (ADWR). An AWS designation means Tucson Water has met the criteria established by ADWR for demonstration of a 100-year water supply - it does not mean that water service is currently available to the subject project.

**WATER SERVICE**

The approval of water meter applications is subject to the current availability of water service at the time an application is received. The developer shall be required to submit a water master plan identifying, but not limited to: 1) Water Use; 2) Fire Flow Requirements; 3) Offsite/Onsite Water Facilities; 4) Loops and Proposed Connection Points to Existing Water System; and 5) Easements/Common Areas.

Any specific area plan fees, protected main/facility fees and/or other needed facilities' cost, are to be paid by the developer. *If the existing water system is not capable of meeting the requirements of the proposed development, the developer shall be financially responsible for modifying or enhancing the existing water system to meet those needs. This letter shall be null and void two years from the date of issuance.*

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

If you have any questions, please call New Development at 791-4718.

Sincerely,

Michael Mourreale  
Engineering Manager  
Tucson Water New Development

MM:ka

cc: 22533059R.docx/New Area/Committed Demand/WAL parcels



# **Appendix E: Cultural Resources Surveys**

**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

1

**1. REPORT TITLE**

**1a. Report Title:** Cultural Resources Class III Survey of Parcels 221-16-029C and 225-33-059M in Unincorporated Pima County, Arizona.

**1b. Report Author(s):** Chance Copperstone, M.A.

**1c. Date:** December 31, 2020 **1d. Report No.:** Tierra Archaeological Report No. 2020-165

**2. PROJECT REGISTRATION/PERMITS**

**2a. ASM Accession Number:** N/A

**2b. AAA Permit Number:** 2020-048bl

**2c. ASLD Lease Application Number(s):** N/A

**2d. Other Permit Number(s):** N/A

**3. ORGANIZATION/CONSULTING FIRM**

**3a. Name:** Tierra Right of Way Services, Ltd.

**3b. Internal Project Number:** 20TA00-486.01

**3c. Internal Project Name:** Cortaro Farms 57 Class III

**3d. Contact Name:** Barbara Montgomery

**3e. Contact Address:** 1575 East River Road, Suite 201, Tucson, AZ 85718

**3f. Contact Phone:** 520.319.2106

**3g. Contact Email:** bmontgomery@tierra-row.com

**4. SPONSOR/LEAD AGENCY**

**4a. Sponsor:** ACM Ventures

**4b. Lead Agency:** Pima County

**4c. Agency Project Number(s):** N.A

**4d. Agency Project Name:** N/A

**4e. Funding Source(s):** Private

**4f. Other Involved Agencies:** N/A

**4g. Applicable Regulations:** Pima County Ordinance No. 2018-027

December 2020



**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

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**5. DESCRIPTION OF PROJECT OR UNDERTAKING:** ACM Ventures is seeking to purchase and rezone parcels 221-16-029C and 225-33-059M for residential use.

**6. PROJECT AREA/AREA OF POTENTIAL EFFECTS:** The project area consists of 41.75 acres (16.9 hectares) encompassing the two parcels mentioned above, located to the south of the intersection of Cortaro Farms Road and Camino de Oeste (Figures 1 and 2).

**7. PROJECT LOCATION**

**7a. Address:**

**7b. Route:** N/A                      **7c. Mileposts Limits:** N/A

**7d. Nearest City/Town:** Marana   **7e. County:** Pima County

**7f. Project Locator UTM:** 494159 Easting 3580218 Northing   **7g. NAD 83**   **7h. Zone:** 12

**7i. Baseline & Meridian:** G&SR   **7j. USGS Quadrangle(s):** Jaynes

**7k. Legal Description(s):** T12S, R12E, Section 25; T12S, R13E, Section 30

**8. SURVEY AREA**

**8a. Total Acres:** 41.75 acres

**8b. Survey Area.**

1. Land Jurisdiction	2. Total Acres Surveyed	3. Total Acres Not Surveyed	4. Justification for Areas Not Surveyed
Private	41.75	0	N/A

**9. ENVIRONMENTAL CONTEXTS**

**9a. Landform:** Terrace

**9b. Elevation:** 2,300 ft amsl

**9c. Surrounding Topographic Features:** Urban development

**9d. Nearest Drainage:** Santa Cruz River, ca. 1 miles to the west

**9e. Local Geology:** Quaternary Surface Deposits (Arizona Geological Survey 2020)

**9f. Vegetation:** Arizona Upland Subdivision of the Sonoran Desertscrub biotic community (Brown 1994). Mesquite, cholla, saguaro, palo verde, creosote and prickly pear are all present (Photo 1).

**9g. Soils/Deposition:** Rough, broken land- Palos Verdes Complex (NRCS 2020).

**9h. Buried Deposits:** Not likely

December 2020

**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

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**9i. Justification:** The project area is located on a terrace, so depth is possible but nothing was found on the surface that suggests cultural deposits are present.

**10. BUILT ENVIRONMENT:** The built environment adjacent to the project area includes modern residential developments and the recently widened Cortaro Farms Road. Camino de Oeste is a dirt road near the center of the project area, and existing buried and aerial utilities pass along the edge of the road.

**11. INVENTORY CLASS COMPLETED**

**11a. Class I Inventory:** ☐

**11b. Researcher(s):**

**11c. Class II Survey:** ☐

**11d Sampling Strategy:**

**11e. Class III Inventory:** ☒

**12. BACKGROUND RESEARCH SOURCES**

**12a. AZSITE:** ☒

**12b. ASM Archaeological Records Office:** ☐

**12c. SHPO Inventories and/or SHPO Library:** ☐

**12d. NRHP Database:** ☒

**12e. ADOT Portal:** ☐

**12f. GLO Maps:** GLO Map Nos. 1955 (T12S, R12E), dated February 23, 1897, and 1958 (T12S, R13E), dated September 27, 1912, show only an unnamed road within the project area (Figure 3). No sign of the road was encountered during the survey.

**12g. Land- Managing Agency Files:** N/A

**12h. Tribal Cultural Resources Files:** N/A

**12i. Local Government Websites:** N/A

**12j. Other:** N/A



**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

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**13. BACKGROUND RESEARCH RESULTS**

**13a. Previous Projects within Project Area (Figure 4 REDACTED)**

1. Project Reference Number	2. Project Name	3. Author(s)	4. Year
1981-174.ASM	Sierra Vista Project	Wirth Associates	1981
1988-200.ASM	CAP Northwest, Phase III	Heuett	1988
1994-424.ASM	Wastewater Pump Station Survey	Myers	1994
2001-42.ASM	Cortaro Farms Survey	Brack	2001
20TA00-085.01	Tri-Church Casitas Survey	Copperstone	2020

**13b. Previously Recorded Cultural Resources within Project Area**

1. Site Number	2. Affiliation	3. Site Type	4. Eligibility Status	5. Associated Reference(s)
N/A				

**13c. Historic Buildings/Districts/Neighborhoods. (None in project area)**

1. Property Name or Address	2. Year	3. Eligibility Status
N/A		

**14. CULTURAL CONTEXTS**

**14a. Prehistoric Culture:** Hohokam

**14b. Protohistoric Culture:** O'odham

**14c. Indigenous Historic Culture:** O'odham

**14d. Euro-American Culture:** A.D. 1500-1970

**15. FIELD SURVEY PERSONNEL**

**15a. Principal Investigator:** Barbara Montgomery, PhD.

**15b. Field Supervisor:** Chance Copperstone, M.A.

**15c. Crew:** Sean Parsons and Alison Talbot

**15d. Fieldwork Date(s):** 12/30/2020

**16. SURVEY METHODS**

**16a. Transect Intervals:** 20 m apart

**16b. Coverage (%):** 100

**16c. Site Recording Criteria:** ASM

**16d. Ground Surface Visibility:** 50%

December 2020

**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

5

**16e. Observed Disturbances:** Modern trash is present throughout the project area and one small camp is present.

**17. FIELD SURVEY RESULTS**

**17a. No Cultural Resources Identified:** ☒

**17b. Isolated Occurrences (IOs) Only:** ☐

**17c. Number of IOs Recorded:** N/A

**17d. Table of IOs.**

1. IO Number	2. Description	3. Date Range	4. UTM's

**18. COMMENTS:** No sites, historic buildings, or isolates were observed in the project area during the survey. Tierra recommends that ACM Ventures should be allowed to proceed with the proposed project without further archaeological work.



## SECTION 19. ATTACHMENTS

- 19a. Project Location Map: ☒ Figures 1 and 2  
19b. Land Jurisdiction Map: ☒ Figure 1  
19c. Background Research Map(s): ☒ Figure 4  
19d. GLO Map(s): ☒ Figure 3  
19e. References: ☒

## SECTION 20. CONSULTANT CERTIFICATION

I certify the information provided herein has been reviewed for content and accuracy and all work meets applicable agency standards.



\_\_\_\_\_  
Signature

\_\_\_\_\_  
Principal Investigator  
Title

## SECTION 21. DISCOVERY CLAUSE

---

In the event that previously unreported cultural resources are encountered during ground disturbing activities, all work must immediately cease within 30 meters (100 feet) until a qualified archaeologist has documented the discovery and evaluated its eligibility for the Arizona or National Register of Historic Places in consultation with the lead agency, the SHPO, and Tribes, as appropriate. Work must not resume in this area without approval of the lead agency.

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## References Cited

Arizona Geological Survey

2020 The Geologic Map of Arizona. Available at: <http://data.azgs.az.gov/geologic-map-of-arizona/>. Accessed on December 30, 2020.

Brack, Michael L.

2001 *A Cultural Resources Survey of Cortaro Farms Road between Interstate 10 and Thornydale Road, Pima County, Arizona*. Project Report No. 00-131. Desert Archaeology, Inc., Tucson.

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1994 *Biotic Communities: Southwestern United States and Northwestern Mexico*. University of Utah Press, Salt Lake City.

Copperstone, Chance

2020 *Cultural Resources Class III Survey for the Tri-Church Casitas Project, Pima County, Arizona*. Tierra Archaeological Report No. 2020-pending. Tierra Right of Way Services, Ltd, Tucson.

Heuett, Mary Lou

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Natural Resources Conservation Service (NRCS)

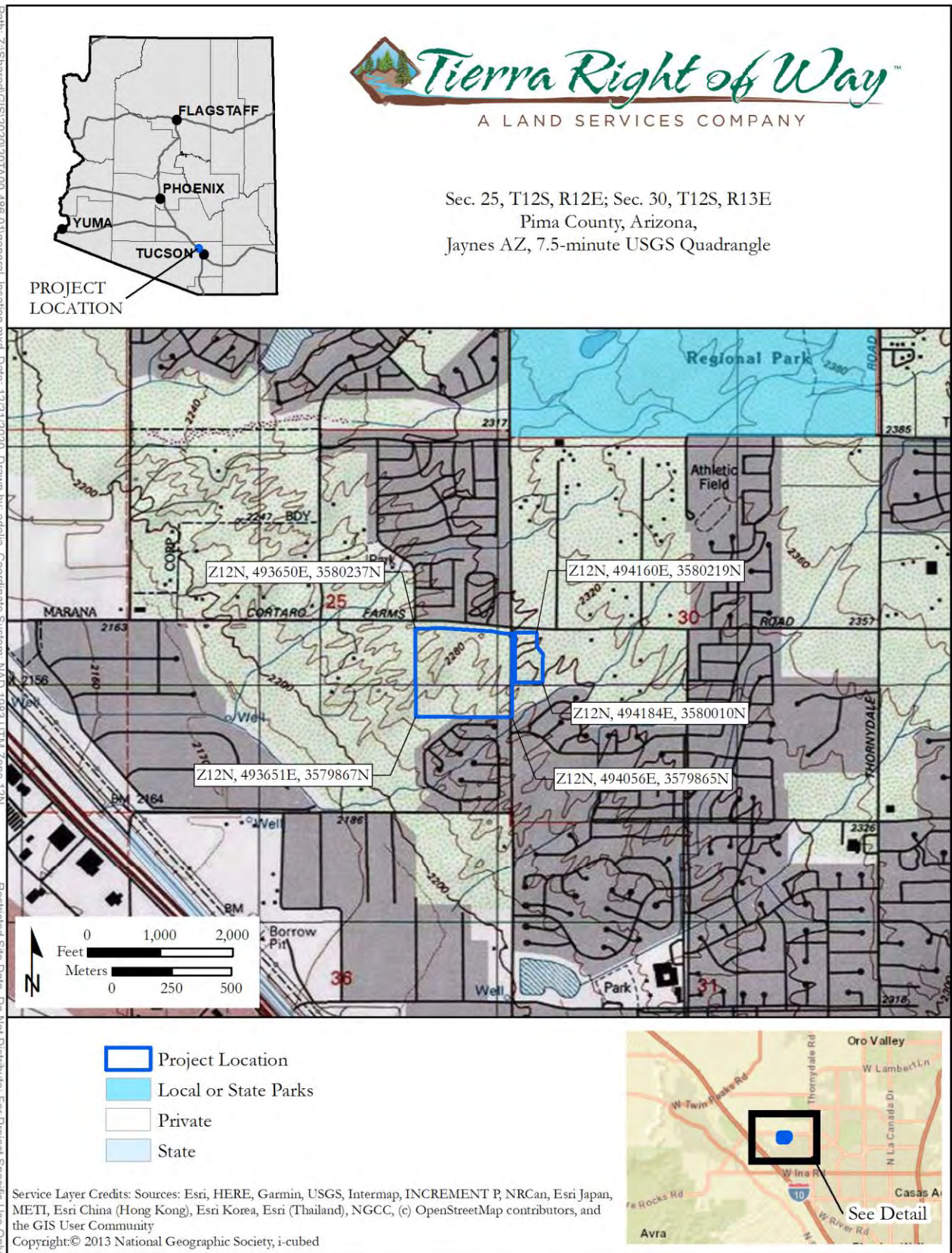
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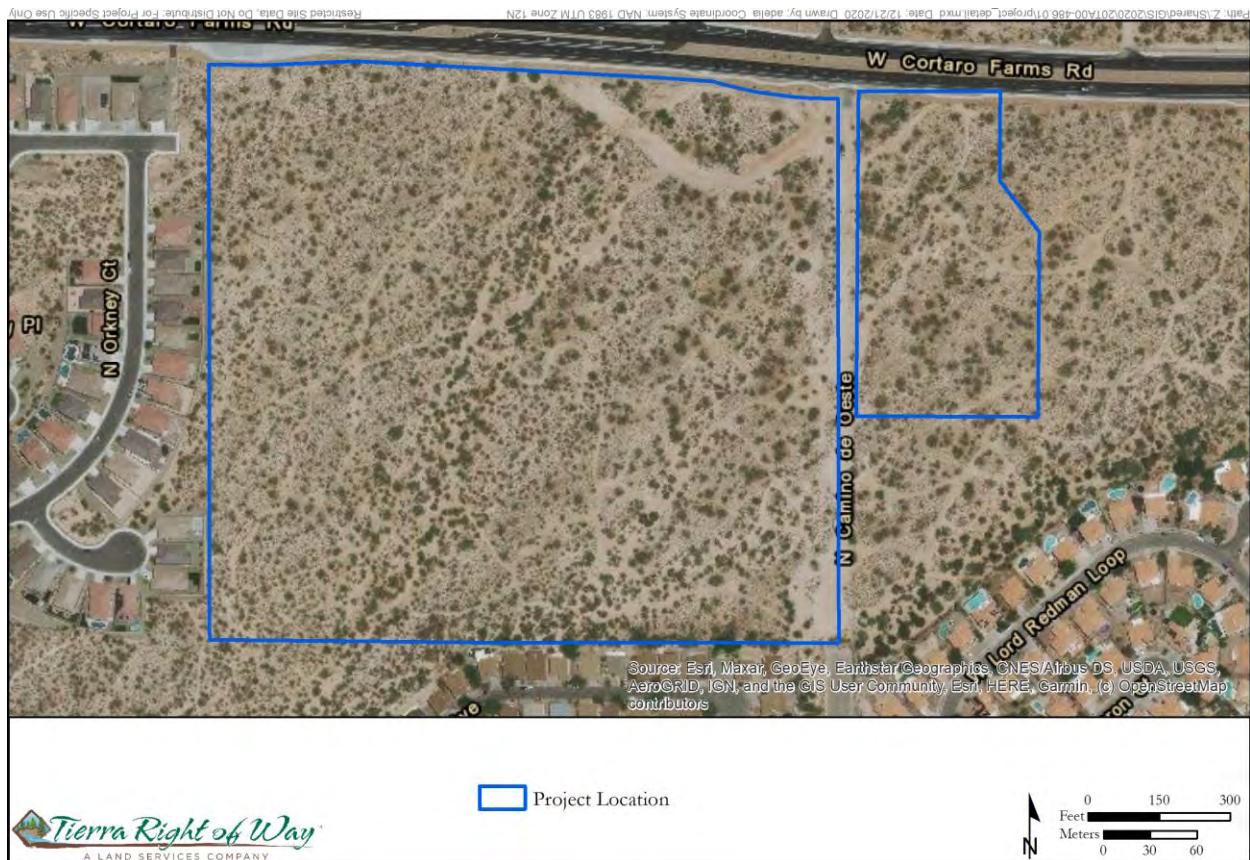
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Restricted Site Data. Do Not Distribute. For Project Specific Use Only



**Figure 1. Project location.**

December 2020





**Figure 2. Detail of project location.**





## **Figure 4 REDACTED**

**Figure 4. Previous projects and archaeological sites within 1 mile of project area.  
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**Photo 1. Project area overview looking east.**

December 2020

**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

1

**1. REPORT TITLE**

**1a. Report Title:** *Cultural Resources Class III Survey for the Tri-Church Casitas Project, Pima County, Arizona*

**1b. Report Author(s):** Chance Copperstone, M.A.

**1c. Date:** March 6, 2020 **1d. Report No.:** Tierra Archaeological Report No. 2020-pending

**2. PROJECT REGISTRATION/PERMITS**

**2a. ASM Accession Number:** N/A

**2b. AAA Permit Number:** 2020-048bl

**2c. ASLD Lease Application Number(s):** N/A

**2d. Other Permit Number(s):** N/A

**3. ORGANIZATION/CONSULTING FIRM**

**3a. Name:** Tierra Right of Way Services, Ltd.

**3b. Internal Project Number:** 20TA00-085.01

**3c. Internal Project Name:** Tri-Church Casitas Survey

**3d. Contact Name:** Barbara Montgomery

**3e. Contact Address:** 1575 East River Road, Suite 201, Tucson, AZ 85718

**3f. Contact Phone:** 520.319.2106

**3g. Contact Email:** bmontgomery@tierra-row.com

**4. SPONSOR/LEAD AGENCY**

**4a. Sponsor:** ACM Ventures

**4b. Lead Agency:** Pima County

**4c. Agency Project Number(s):** N.A

**4d. Agency Project Name:** N/A

**4e. Funding Source(s):** Private

**4f. Other Involved Agencies:** N/A

**4g. Applicable Regulations:** Pima County Ordinance No. 2018-027

March 2020



**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

2

**5. DESCRIPTION OF PROJECT OR UNDERTAKING:** ACM Ventures is seeking to purchase and rezone parcels 22533059P and 22533059Q for residential use.

**6. PROJECT AREA/AREA OF POTENTIAL EFFECTS:** The project area consists of 14.2 acres (5.75 hectares) encompassing the two parcels mentioned above, located at the southeast corner of the intersection of Cortaro Farms Road and Camino de Oeste (Figures 1 and 2).

**7. PROJECT LOCATION**

**7a. Address:**

**7b. Route:** N/A

**7c. Mileposts Limits:** N/A

**7d. Nearest City/Town:** Marana **7e. County:** Pima County

**7f. Project Locator UTM:** 494160 Easting 3580219 Northing **7g. NAD 83** **7h. Zone:** 12

**7i. Baseline & Meridian:** G&SR **7j. USGS Quadrangle(s):** Jaynes

**7k. Legal Description(s):** T12S, R13E, Section 30

**8. SURVEY AREA**

**8a. Total Acres:** 14.2 acres

**8b. Survey Area.**

1. Land Jurisdiction	2. Total Acres Surveyed	3. Total Acres Not Surveyed	4. Justification for Areas Not Surveyed
Private	14.2	0	N/A

**9. ENVIRONMENTAL CONTEXTS**

**9a. Landform:** Terrace

**9b. Elevation:** 2,300 ft amsl

**9c. Surrounding Topographic Features:** Urban development

**9d. Nearest Drainage:** Santa Cruz River, ca. 1 miles to the west

**9e. Local Geology:** Quaternary Surface Deposits (Arizona Geological Survey 2019)

**9f. Vegetation:** Arizona Upland Subdivision of the Sonoran Desertscrub biotic community (Brown 1994). Mesquite, cholla, saguaro, palo verde, creosote and prickly pear are all present.

**9g. Soils/Deposition:** Anthony and Sonoita soils, a sandy loam (NRCS 2020).

**9h. Buried Deposits:** Likely possible

March 2020

**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

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**9i. Justification:** The project area is located on a terrace, so depth is possible but nothing was found on the surface that suggests cultural deposits are present.

**10. BUILT ENVIRONMENT:** The built environment adjacent to the project area includes modern residential developments and the recently widened Cortaro Farms Road. Camino de Oeste is a dirt road along the west edge of the project area, and existing buried and aerial utilities pass along the edge of the road.

**11. INVENTORY CLASS COMPLETED**

**11a. Class I Inventory:** ☐

**11b. Researcher(s):**

**11c. Class II Survey:** ☐

**11d Sampling Strategy:**

**11e. Class III Inventory:** ☒

**12. BACKGROUND RESEARCH SOURCES**

**12a. AZSITE:** ☒

**12b. ASM Archaeological Records Office:** ☐

**12c. SHPO Inventories and/or SHPO Library:** ☐

**12d. NRHP Database:** ☒

**12e. ADOT Portal:** ☐

**12f. GLO Maps:** GLO Map No. 1958 (T12S, R13E), dated September 27, 1912, shows no historic features within the project area (Figure 3).

**12g. Land- Managing Agency Files:** N/A

**12h. Tribal Cultural Resources Files:** N/A

**12i. Local Government Websites:** N/A

**12j. Other:** N/A

**13. BACKGROUND RESEARCH RESULTS**

**13a. Previous Projects within Project Area (Figure 4)**

1. Project Reference Number	2. Project Name	3. Author(s)	4. Year
1981-174.ASM	Sierra Vista Project	Wirth Associates	1981

March 2020



**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

4

1988-200.ASM	CAP Northwest, Phase III	Heuett	1988
1994-424.ASM	Wastewater Pump Station Survey	Myers	1994

**13b. Previously Recorded Cultural Resources within Project Area**

1. Site Number	2. Affiliation	3. Site Type	4. Eligibility Status	5. Associated Reference(s)
N/A				

**13c. Historic Buildings/Districts/Neighborhoods. (None in project area)**

1. Property Name or Address	2. Year	3. Eligibility Status
N/A		

**14. CULTURAL CONTEXTS**

**14a. Prehistoric Culture:** Hohokam

**14b. Protohistoric Culture:** O'odham

**14c. Indigenous Historic Culture:** O'odham

**14d. Euro-American Culture:** A.D. 1500-1969

**15. FIELD SURVEY PERSONNEL**

**15a. Principal Investigator:** Barbara Montgomery, PhD.

**15b. Field Supervisor:** Chance Copperstone, M.A.

**15c. Crew:** N/A

**15d. Fieldwork Date(s):** 3/5/2020

**16. SURVEY METHODS**

**16a. Transect Intervals:** 20 m apart

**16b. Coverage (%):** 100

**16c. Site Recording Criteria:** ASM

**16d. Ground Surface Visibility:** 50%

**16e. Observed Disturbances:** Dirt two-tracks and possible mountain bike paths cross through the project area at multiple points. There are several borrow pits throughout the project area where it looks like gravel was removed.

**17. FIELD SURVEY RESULTS**

**17a. No Cultural Resources Identified:** ☒

**17b. Isolated Occurrences (IOs) Only:** ☐

March 2020

**STATE HISTORIC PRESERVATION OFFICE  
SURVEY REPORT SUMMARY FORM**

5

**17c. Number of IOs Recorded:** N/A

**17d. Table of IOs.**

1. IO Number	2. Description	3. Date Range	4. UTM's

**18. COMMENTS:** No sites, historic buildings, or isolates were observed in the project area during the survey. Tierra recommends that ACM Ventures should be allowed to proceed with the proposed project without further archaeological work.

March 2020

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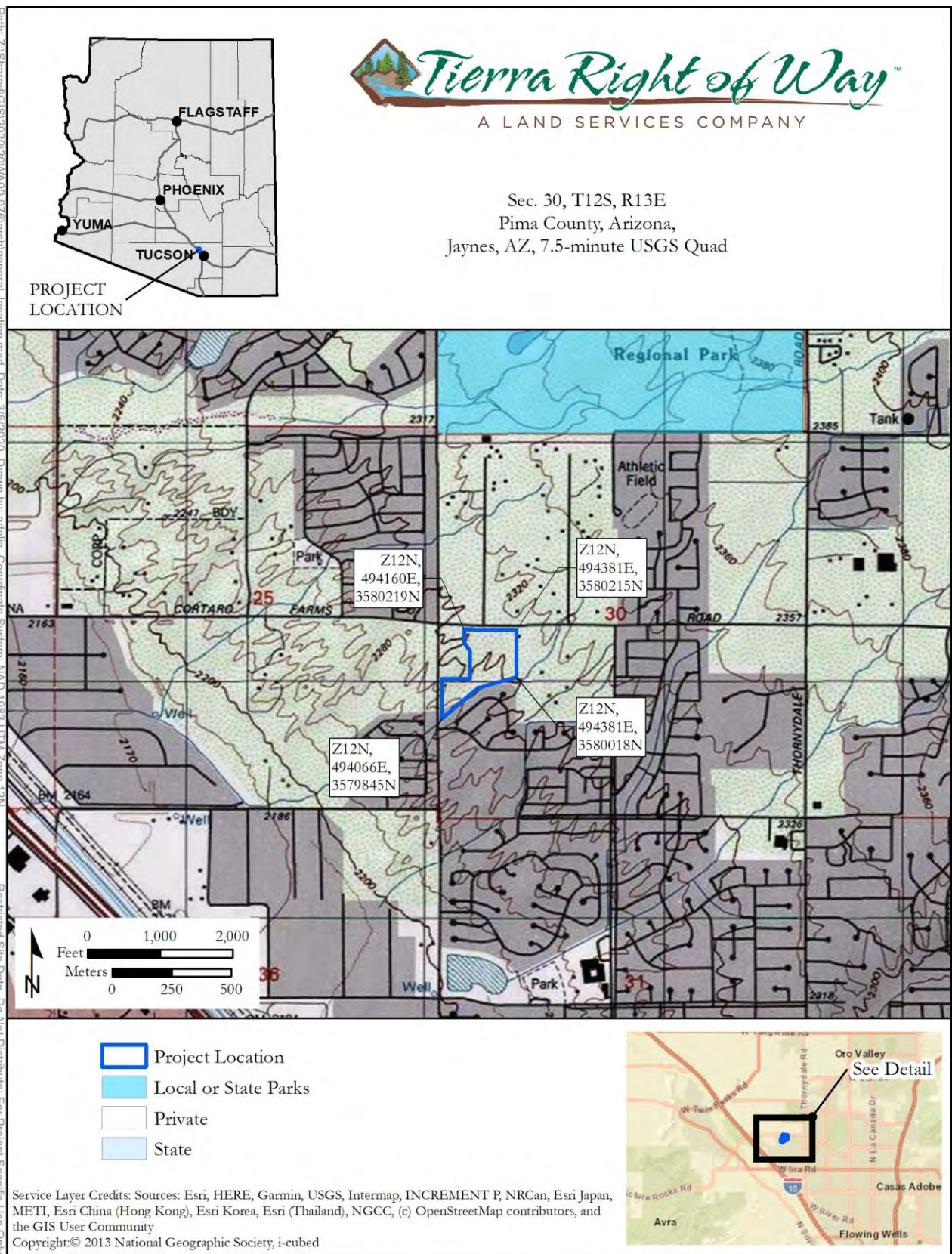
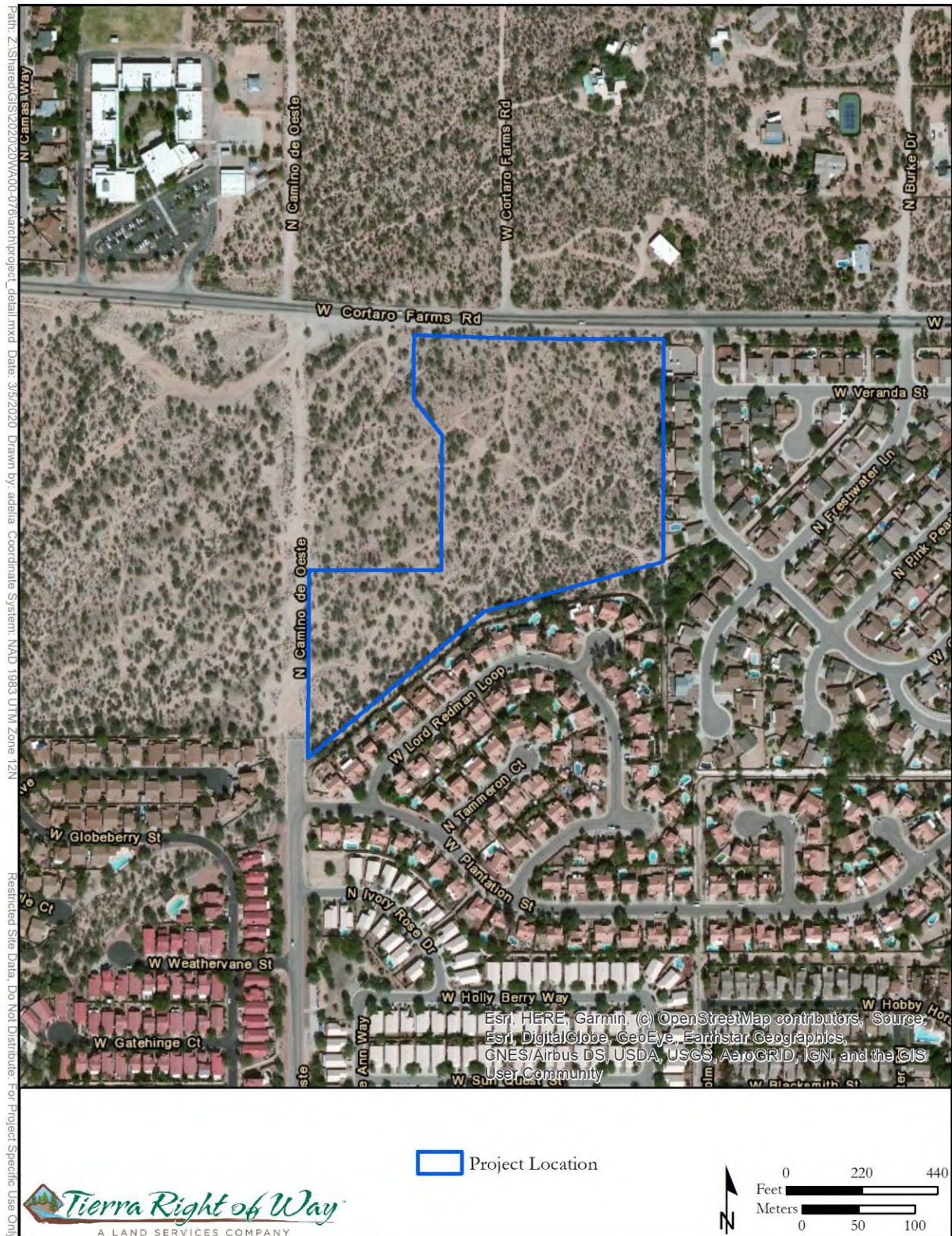


Figure 1. Project location.

March 2020





**Figure 2. Detail of project location.**

March 2020



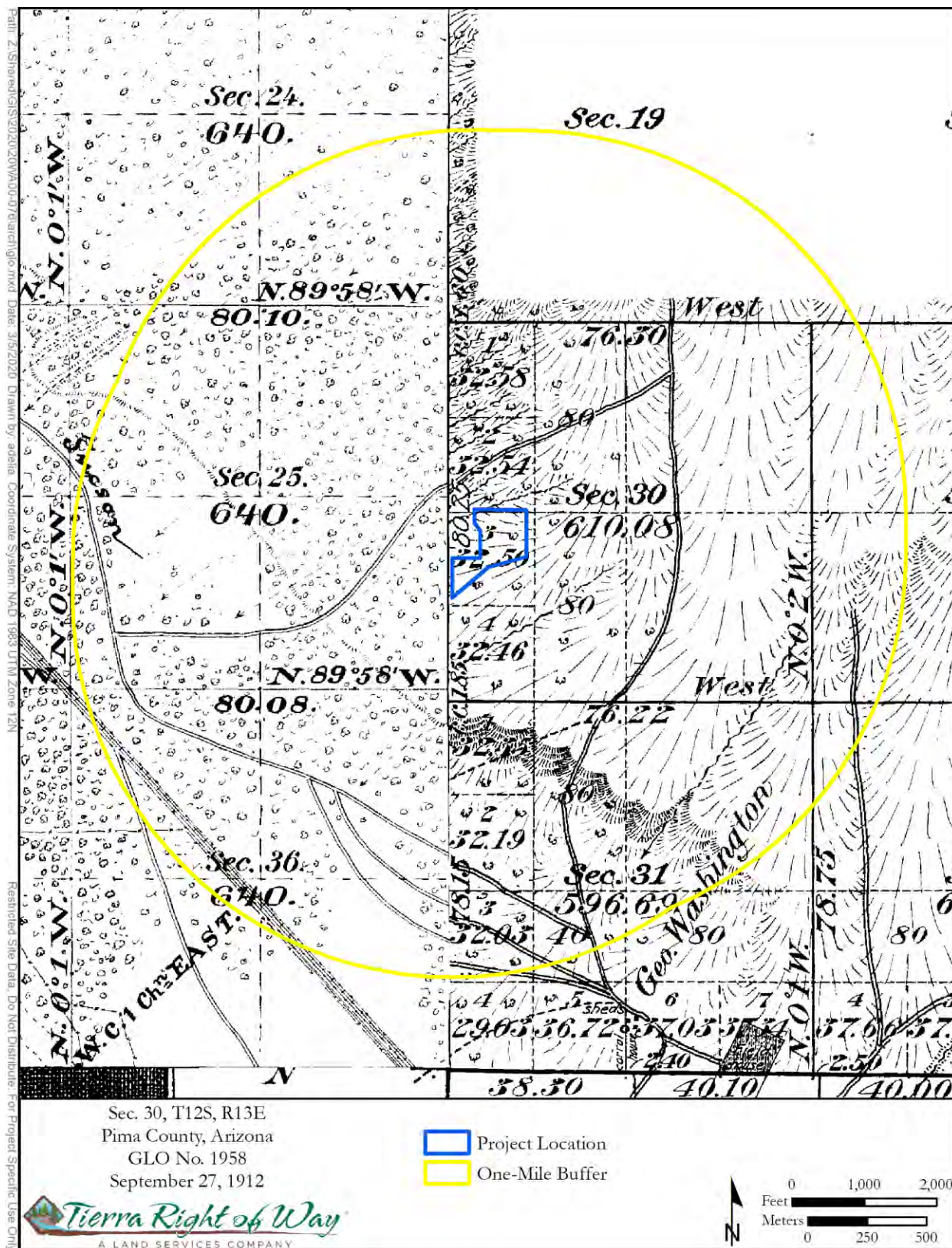


Figure 3. Portions of General Land Office Map #1958 of Township 12 South, Range 13 East.

March 2020

Figure 4 has been redacted.

**Figure 4. Previous projects and archaeological sites within 1 mile of project area.**  
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**Photo 1. Project area overview from southwest corner, looking northeast.**



**Photo 2. Project area overview from north end, looking south.**

March 2020



**Appendix F:  
Willow Vista HOA Letter of  
Understanding**



## PROJECTS INTERNATIONAL, Inc.

STRATEGIC GUIDANCE  
ENTITLEMENT PROCESSES  
LOCAL ADVICE & COUNSEL

10836 E. Armada Lane  
Tucson, Arizona 85749-9460  
520-850-0917  
jportner@projectsintl.com  
www.projectsintl.com

June 28, 2021

### WILLOW VISTA HOMEOWNERS ASSOCIATION

Clare Smith, President

Melissa York, Vice-President

Stanley Caine, Secretary & Treasurer

Jack Kline, Member At Large

Jeff Belokin, Member At Large

**RE: CORTARO 57 SPECIFIC PLAN  
Pima County Case No. P21SP00001**

Dear President Smith and Members of the Board:

This letter shall serve to summarize the conversations we've had to date regarding issues impacting your neighborhood and the joint understandings we've achieved. Specifically:

- We will limit the first tier of lots along our entire western property boundary (shared with Willow Vista) to one-story residences only; we will include verbiage to this effect within the Specific Plan document. We will do our best to set the finished grade of these adjacent lots as low as possible, but must also recognize prevailing topographic constraints. As such, I can make no firm promises in this latter regard.
- We will lessen the existing drainage that currently enters Willow Vista from our property via the southernmost concentration point along our shared boundary. We will route our contribution to this existing drainage to our planned detention basin at the southwest corner of our project. This will materially reduce the erosive impacts at your southern detention basin and the nearby residential lot abutting it.
- In conjunction with the future construction we'll be undertaking to connect our public sewer to the existing one beneath W. Willow Wind Place, we will incorporate simple protective measures to best control the remaining natural drainage in that area so as to mitigate its erosive potential at the "pinch point" between your street cul-de-sac and the nearby residential lot. Please recognize that the westernmost portion of our project within Planning Area "A" is presently envisioned as the last phase of site development. Our sewer construction and above related work will not occur until this final phase proceeds.

I believe the above accurately memorializes our discussions to date. I've very much enjoyed the mutually respectful, considerate, and cordial air in which those conversations have proceeded. It has been a genuine pleasure meeting and working with your HOA.

Best Regards:  
PROJECTS INTERNATIONAL, INC.

Jim Portner, Principal  
Specific Plan Applicant & Authorized Representative of the Owners