

The Residences at Miller Ranch

Rezoning Application

OV914-006

Submitted to:
Town of Oro Valley
Development and Infrastructure Services
11000 N La Canada Drive
Oro Valley, Arizona 85737

Prepared for:
DESCO Southwest
1795 E. Skyline Drive, Suite 193
Tucson, AZ 85718

Prepared by:

418 North Taale Avenue
Tucson, Arizona 85701
P 520.622.9565
F 303.622.8316

www.norris-design.com



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PART 1 - INVENTORY AND ANALYSIS

A. Existing Land Uses

1. Site Location

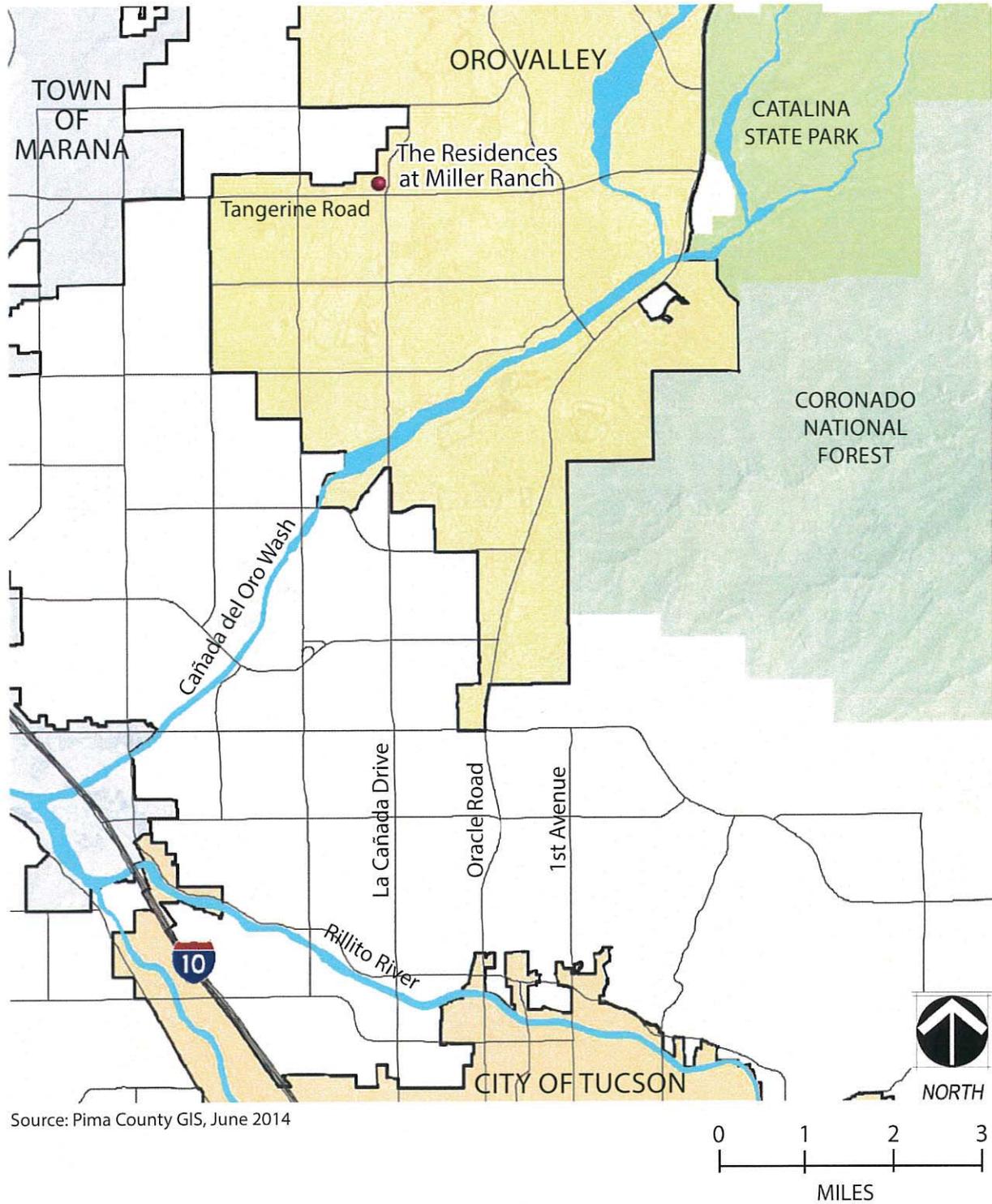
Located within the Town of Oro Valley in Pima County, Arizona, the Residences at Miller Ranch site is located in Section 34, Township 11 South, Range 13 East, G. & S.R.M. Approximately 16.3 acres, the property is located west of La Cañada Drive, and north of Tangerine Road. *See Exhibit 1-A.1, Regional Context, p. 2.*

2. Existing On-Site Land Uses

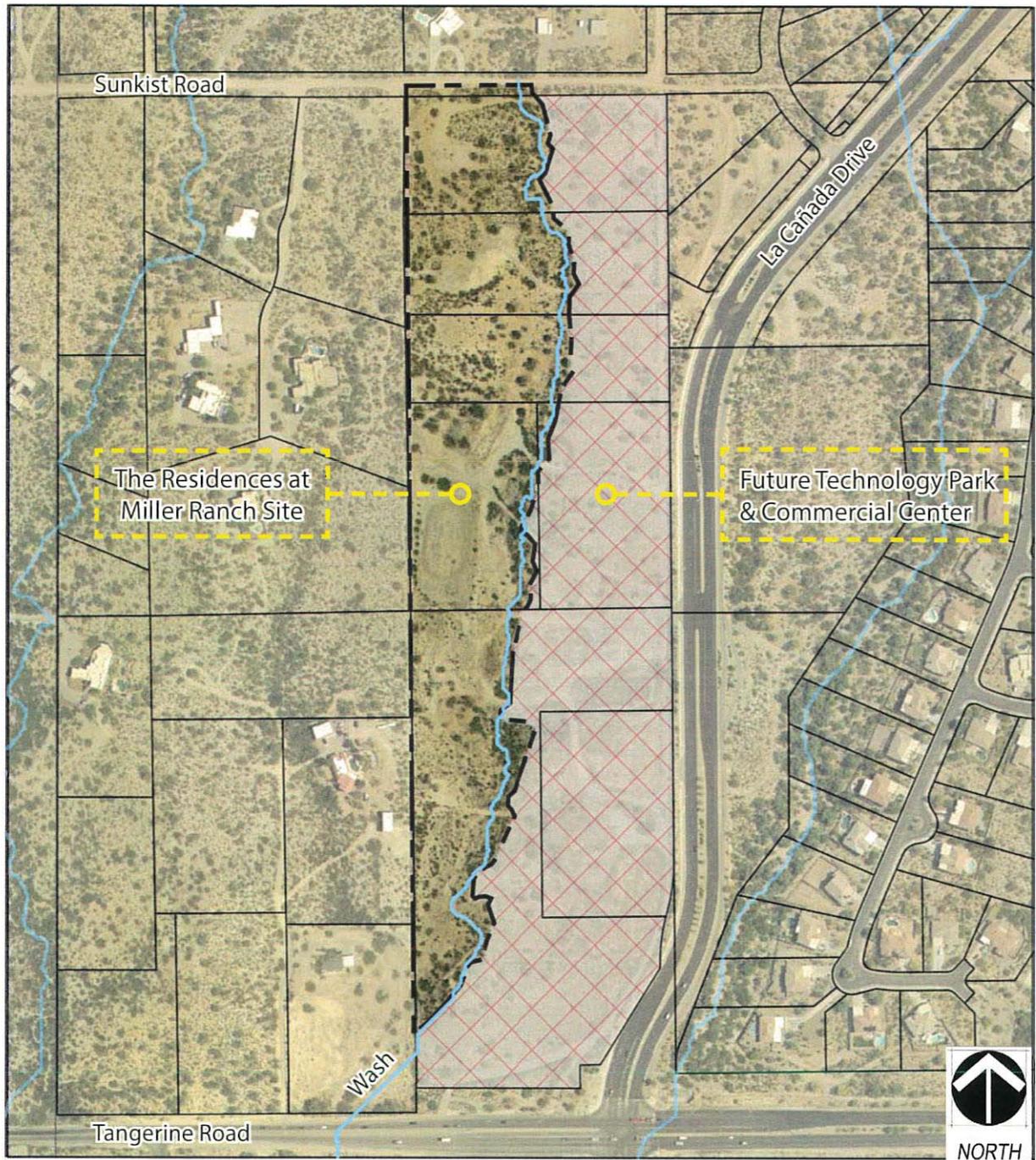
The Residences at Miller Ranch site is currently undeveloped. In February 2014 the Town of Oro Valley approved a General Plan Amendment for the subject property revising the land use category from Rural Low Density Residential (RLD, 0 - 0.3 DU/AC) and Low Density Residential (LDR, 0.4 - 1.2 DU/AC) to Medium Density Residential (MDR, 2.1 - 5.0 DU/AC) with a maximum allowable density of 2.5 DU/AC. As per the Town of Oro Valley Zoning Code, the property's current zoning is R1-144 (Single-Family Residential District). The proposed zoning for the property is R1-7 (Single-Family Residential District) with Environmentally Sensitive Lands (ESL) Development Incentives. *See Exhibit 1-A.2, Existing On-Site Land Uses, p. 3.*

Inventory and Analysis

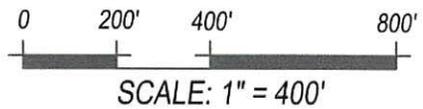
Exhibit 1-A.1: Regional Context



Source: Pima County GIS, June 2014



Source: Pima County GIS, June 2014



Inventory and Analysis

3. Contextual Information on Property within a 1/4 mile

The information in *Table 1-A.3, this page*, is provided for all property within a 1/4 mile radius of the Residences at Miller Ranch site.

TABLE 1-A.3: CONTEXTUAL INFORMATION ON PROPERTY WITHIN 1/4 MILE

Property	Zoning ¹	Land Use ²	Building Heights [*]
The Residences at Miller Ranch	Rezone Request from R1-144 to R1-7	Currently Undeveloped; Medium Density Residential (MDR, 2.1 – 5.0 DU/AC)	NA
North, NW	SR	Rural Low Density Residential (RLD, 0 - 0.3 DU/AC)	34'
East	R1-144 R1-36 R1-20 T-P	Low Density Residential (LDR, 0.4 - 1.2 DU/AC and 1.3 - 2.0 DU/AC); Commerce/Office Park; Open Space; Significant Resource Area	18' - 34'
SE	R-4 R-6 C-1	Medium Density Residential (MDR, 2.1 - 5.0 DU/AC); High Density Residential (HDR, 5.0+ DU/AC); Public/Semi-Public	25' or 2 stories
South	R1-7	Medium Density Residential (MDR, 2.1 - 5.0 DU/AC); Significant Resource Area	25' or 2 stories
SW	R1-10	Medium Density Residential (MDR, 2.1 - 5.0 DU/AC)	25' or 2 stories
West	SR R1-144	Rural Low Density Residential (RLD, 0 - 0.3 DU/AC) and Low Density Residential (LDR, 0.4 - 1.2 DU/AC)	18' - 34'

¹ PIMA COUNTY GIS JUNE 2014

² ORO VALLEY 2005 GENERAL PLAN

^{*} AS PER TOWN OF ORO VALLEY ZONING CODE

a. Existing Zoning

See *Table 1-A.3, this page, and Exhibit 1-A.3, Existing Zoning, p. 5.*

b. Existing Land Uses

See *Table 1-A.3, this page.*

c. Heights of Existing Structures

See *Table 1-A.3, this page.*

d. Pending Rezoning

Per Town of Oro Valley Planning, there are no pending rezonings.

e. Conditionally Approved Zonings

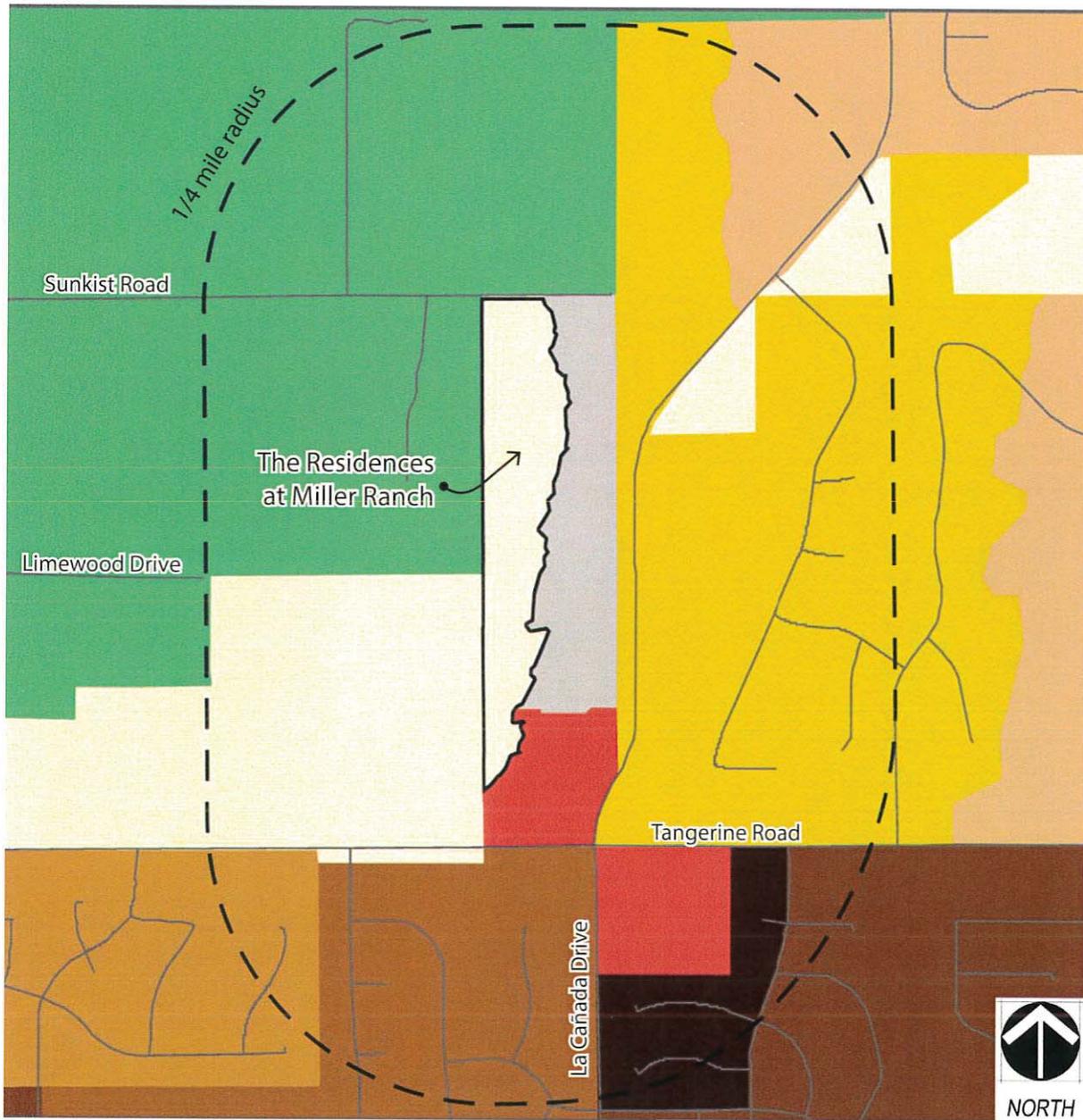
Per Town of Oro Valley Planning, there are no conditionally approved zonings.

f. Subdivisions and/or Development Plans Approved

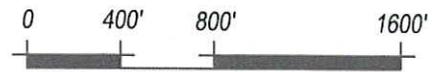
Per Town of Oro Valley Planning, there are no subdivisions/development plans approved. For existing subdivisions see *Exhibit 1-A.3f, Existing Subdivisions, p. 6.*

g. Architectural Styles of Adjacent Structures

Traditional Southwestern Ranch per the Oro Valley Design Guidelines.



Source: Pima County GIS, June 2014



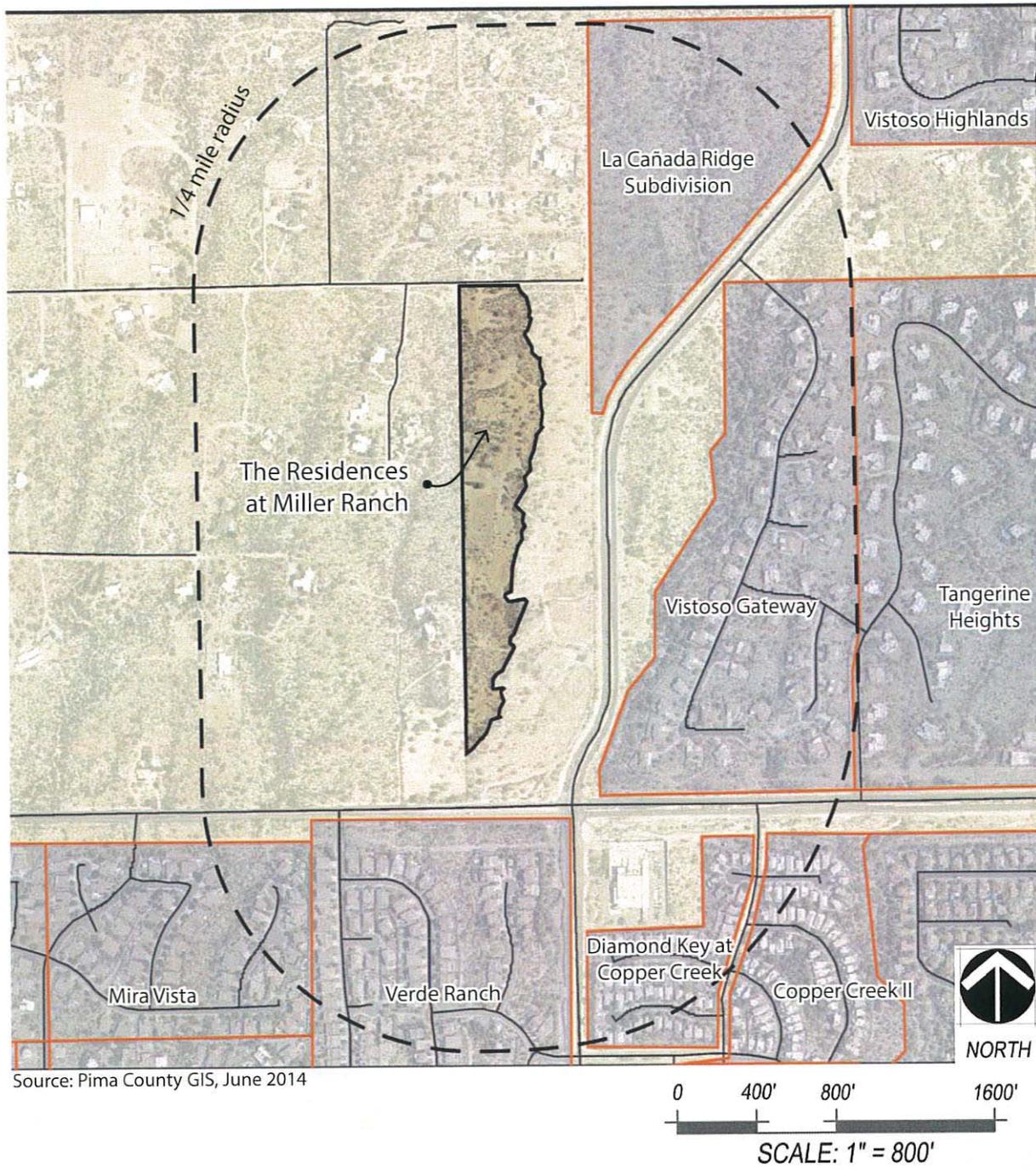
SCALE: 1" = 800'

LEGEND

- | | |
|--|--|
| SR: Suburban Ranch | R1-7: Single Family Residential |
| R1-144: Single Family Residential | R-4: Townhouse Residential |
| R1-36: Single Family Residential | R-6: Multi-Family Residential |
| R1-20: Single Family Residential | C1: Commercial District |
| R1-10: Single Family Residential | T-P: Technological Park |

Inventory and Analysis

Exhibit 1-A.3f: Existing Subdivisions



Source: Pima County GIS, June 2014

4. Location and Ownership of wells/well sites (100' radius from site)
 According to the Arizona Department of Water Resources, there are three (3) well sites within 100 feet of the site. All wells are owned by Desco-Miller, LLC and are currently abandoned. *See Exhibit 1-A.4, Wells within 100' of Site, p. 8.*

B. Topography

1. Significant Site Topography
 No significant natural topographic features are found on the Residences at Miller Ranch property. *See Exhibit 1-B.1, Topography, p. 9.*
 - a. Hillside Conservation Area
 No Hillside Conservation Areas exist on the site.
 - b. Rock Outcroppings
 No rock outcropping exist on the site.
 - c. Slopes Greater than 15%
 No slopes greater than 15% exist on the site.
 - d. Significant Topographic Features
 No significant topographic features exist on the site.
2. Pre-Development Cross-Slope
 A pre-development average cross slope analysis was performed using the Pima County methodology as noted below. The average cross slope for parcels located within the Residences at Miller Ranch site were calculated using Pima County Geographic Information Systems' cross slope calculator tool. The existing average cross slope for the entire site is 5.35%.

Average Cross-slope Calculation

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

I = Contour Interval

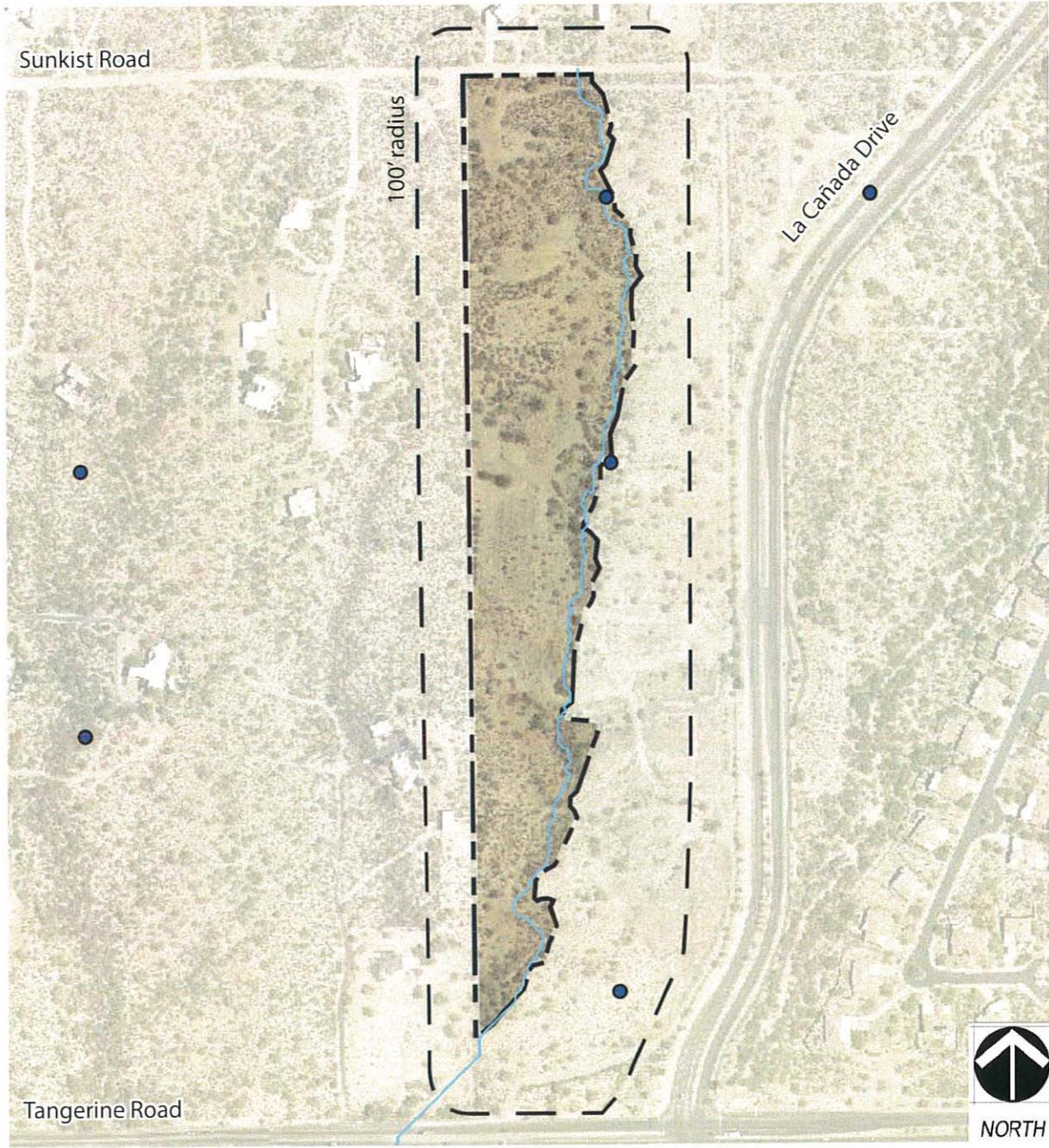
L = Contour Length

0.0023 = Constant to convert square feet
 to acres and slope to percent

A = Acres in Site

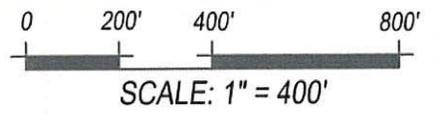
Inventory and Analysis

Exhibit 1-A.4: Wells within 100' of Site



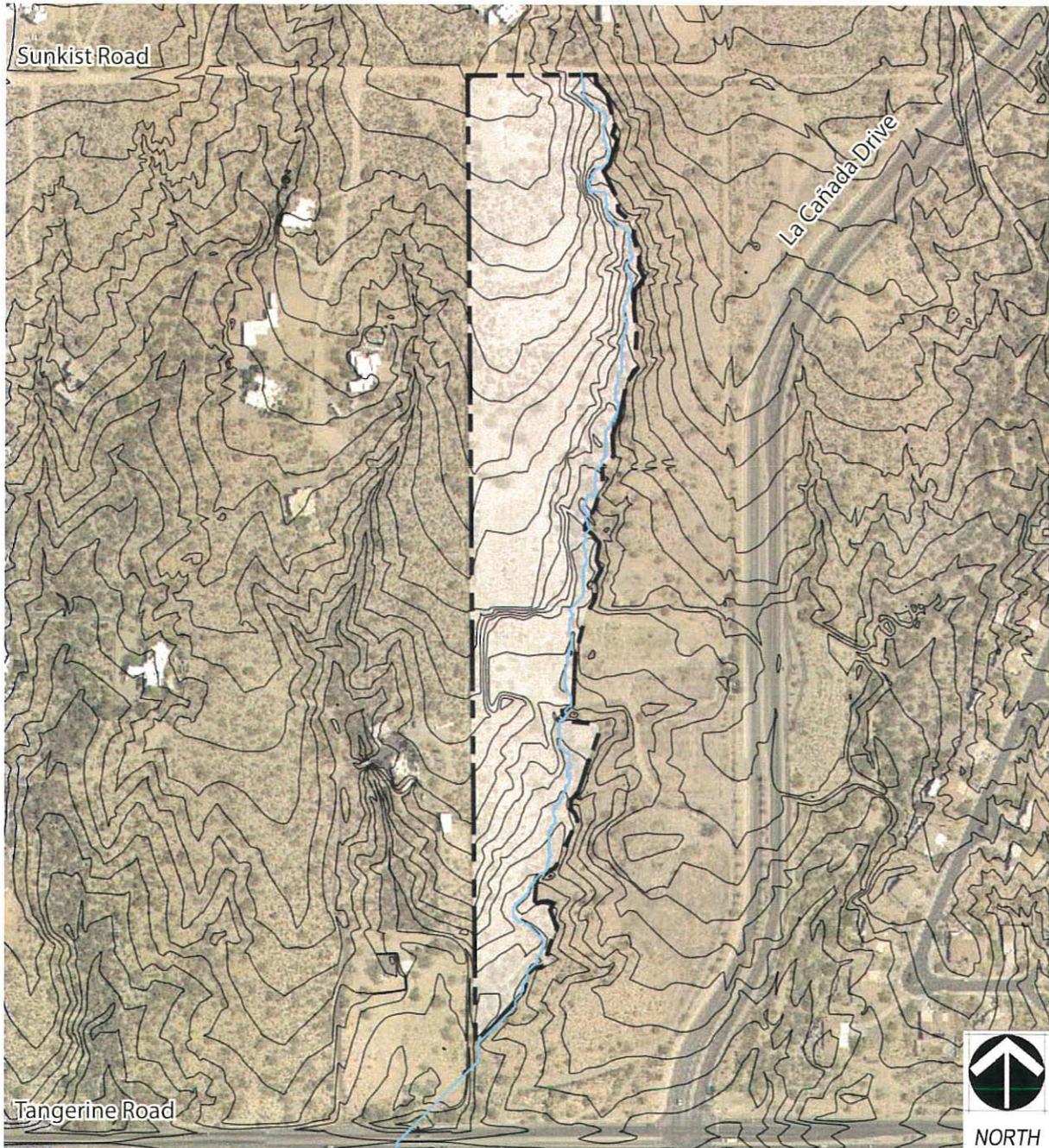
Source: Pima County GIS; Arizona Department of Water Resources, July 2014

- LEGEND
- Water Well



Inventory and Analysis

Exhibit 1-B.1: Topography



Source: Pima County GIS, July 2014

LEGEND

Contour Interval: 2'



SCALE: 1" = 400'

C. Hydrology

1. Off-Site Watersheds

There are seven (7) off-site watersheds that affect The Residences at Miller Ranch project See *Exhibit I.C.1: Off-Site Watersheds p. 13*. Off-site Watersheds 1 through 6 (OS-1 through OS-6) are undeveloped or developed for low density residential use. These six watersheds contribute flows to the unnamed wash along the east project boundary. Off-site Watershed 7 (OS-7) is developed for low density residential use. OS-7 combines with flow from the unnamed wash near the project southwest corner.

All off-site watersheds are located within Critical Basins. The areas within Town of Oro Valley jurisdiction are considered critical basins due to the Town's criteria that all basins shall be considered Critical Basins for the purpose of hydrological analysis and detention design. Areas outside Town of Oro Valley jurisdiction are considered Critical Basins as defined by Pima County Regional Flood Control District (per "Critical Basins within Unincorporated Pima County" map, effective 03/15/2007).

The nature and quantity of these off-site flows will be further evaluated in the drainage report(s) prepared for the development of the project. The necessary improvements to convey the flows will be determined at that time and will be incorporated into the drainage improvements for the development.

2. Significant Off-Site Features

West Tangerine Road is located to the south of the project and North La Canada Drive is located to the east. Improvements associated with these roadways affect the quantity and location of the flows onto the site through the use of culverts, catch basins and other drainage structures. Flows at Concentration Point (CP) OS-7 are conveyed under West Tangerine Road by an existing culvert (see Exhibit I.C.1: Off-Site Watersheds). A portion of these flows are conveyed across West Tangerine Road due to the inadequate sizing of the existing 48" RCP culvert at this location. The backwater associated with this undersized culvert impacts the hydraulic characteristics of the unnamed wash near the project southwest corner.

Low density residential subdivisions exist to the north and west. Natural drainage patterns have generally been preserved with the development of these adjacent residential areas and minimal drainage infrastructure exists.

The proposed commercial development associated with the approved Master Development Plan for Miller Ranch (OV12-08-07) is located to the east, along the entire easterly boundary of this project. Detention is provided for this commercial development to satisfy Critical Basin criteria (per the Master Drainage Report for

Miller Ranch prepared by Rick Engineering Company, dated May 19, 2010). The drainage concept for the commercial development incorporates various detention basins along the existing wash with no encroachments into the existing floodplain.

3. Acreage of Upstream Off-Site Watersheds

Watershed OS-1 has a contributing area of 22.7-acres and a peak discharge of 133 cfs. Watershed OS-2 has a contributing area of 1.4-acres and a peak discharge of 11 cfs. Watershed OS-3 has a contributing area of 4.2-acres and a peak discharge of 31 cfs. Watershed OS-4 has a contributing area of 3.6-acres and a peak discharge of 27 cfs. Watershed OS-5 has a contributing area of 5.0-acres and a peak discharge of 37 cfs. Watershed OS-6 has a contributing area of 5.6-acres and a peak discharge of 42 cfs. Watershed OS-7 has a contributing area of 31.4-acres and associated peak discharge of 184 cfs. The cumulative peak discharge at CP OS-7 is 422 cfs.

The reported peak discharges were taken from approved studies, reports, and plans or were calculated based on hydrology methodology presented within the Town of Oro Valley Drainage Criteria Manual, 2010 edition. See *Exhibit I.C.1, Off-Site Watersheds*, p. 13, for the watersheds and concentration points described above.

4. On-Site Hydrology

The Residences at Miller Ranch project has five (5) on-site watersheds as delineated on *Exhibit I.C.2, Existing On-Site Hydrology*, p. 15. On-site Watersheds 1E through 4E generally drain from the west to the east and contribute flows to the regulatory floodplain ($Q_{100} > 50\text{cfs}$) that exists along the project east boundary. On-site Watershed 5E generally flows from east to west and discharges across the project west boundary. The project is located within a Critical Basin for the purposes of hydrological analysis.

a. On-site Regulatory Floodplains

The Residences at Miller Ranch project is impacted by a natural, unnamed wash along the project east boundary. The existing regulatory floodplain and associated erosion hazard setback is provided on *Exhibit I.C.2, Existing On-Site Hydrology*, p. 15. The existing 100-year peak discharge within the wash is 133 cfs at the north project boundary and 287 cfs where it discharges across the west boundary near the project southwest corner.

b. Areas of Sheet Flooding and Average Depth

The project is not impacted by sheet flooding.

c. Federally Mapped Floodways and Floodplains

According to FEMA Flood Insurance Rate Map (FIRM) number 04019C1090L (effective June 16, 2011), there are no Federally Mapped Floodways and

Inventory and Analysis

and Floodplains on the project. Refer to *Exhibit I.C.3, FEMA FIRM, p. 17*, for a portion of map referenced above.

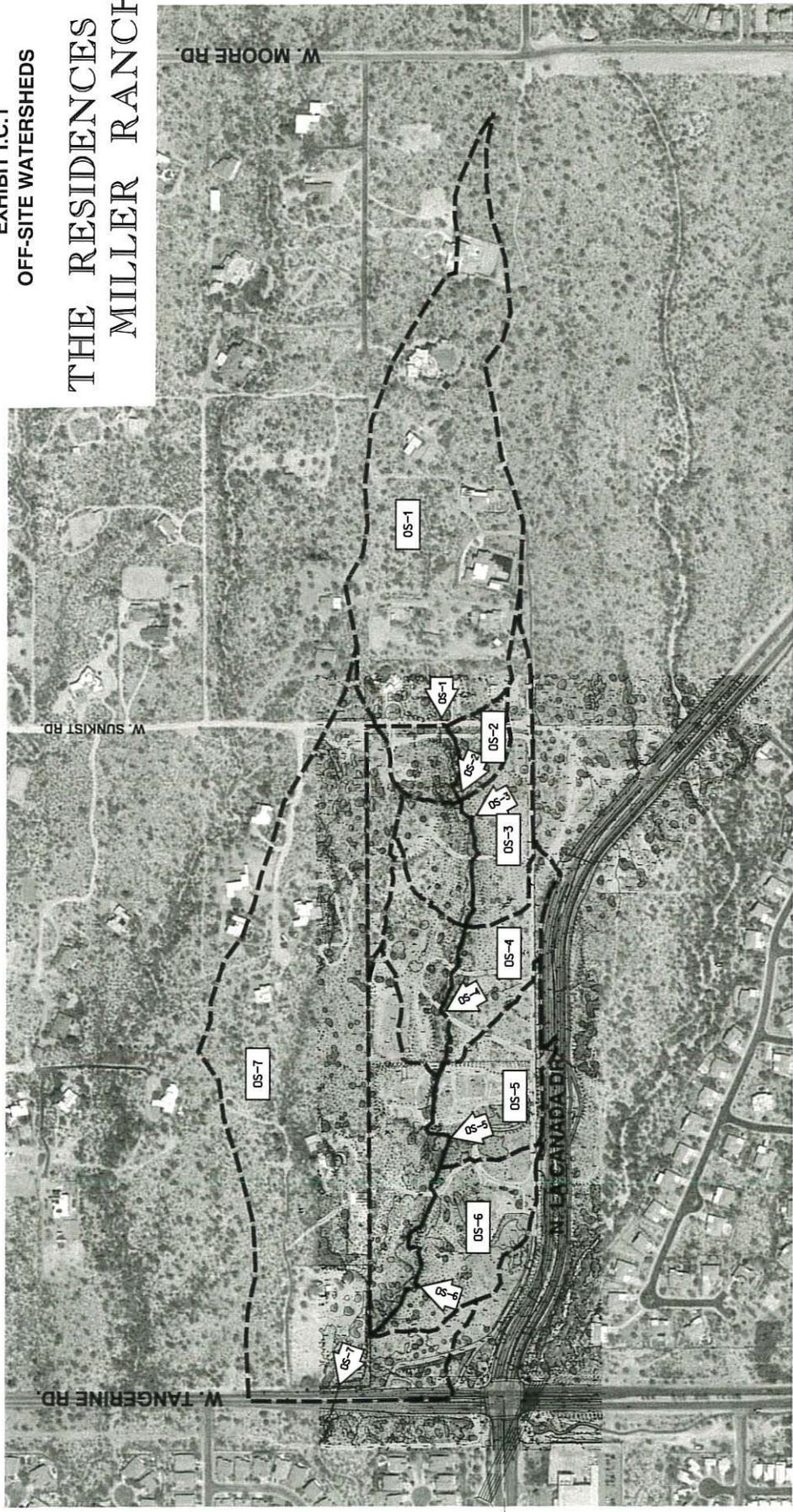
d. 100-year Peak Discharges

On-site Watershed 1E generates 13 cfs with a cumulative discharge of 150 cfs at CP 1E. On-site Watershed 2E generates 19 cfs with a cumulative discharge of 184 cfs at CP 2E. On-site Watershed 3E generates 27 cfs with a cumulative discharge of 218 cfs at CP 3E. On-site Watershed 4E generates 40 cfs with a cumulative discharge of 287 cfs at CP 4E. The existing 100-year peak discharge for On-site Watershed 5E is 14 cfs. Refer to *Exhibit I.C.2, Existing On-Site Hydrology, p. 15*.

5. Existing Downstream Drainage Conditions

All runoff originating on-site or originating off-site and conveyed through the site discharges across West Tangerine Road by way of an existing 48" RCP culvert and by flow overtopping the roadway at Concentration Point OS-7. The backwater associated with this roadway drainage crossing impacts the project southwest corner. The on-site regulatory floodplain discharges across the west, downstream boundary near the southwest project boundary and contributes flow to Concentration Point OS-7. *Exhibit I.C.2, Existing On-Site Hydrology, p. 15*.

EXHIBIT I.C.1
OFF-SITE WATERSHEDS
THE RESIDENCES AT
MILLER RANCH



LEGEND

-  DS-1
 - 
 - 
- WATERSHED
CONCENTRATION POINT
WATERSHED BOUNDARY

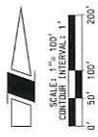
SCALE: 1" = 400'
0' 200' 400'

OFFSITE PEAK FLOWS			
WATERSHED CP's	AREA [ac]	Q100 [cfs]	CUMULATIVE Q100 [cfs]
DS-1	22.7	133	-
DS-2	1.4	11	-
DS-3	4.2	31	-
DS-4	3.6	27	-
DS-5	5.0	37	-
DS-6	5.6	42	-
DS-7	31.4	184	422*

* Per T.O.M. Proj. No. 2005-061
Tangerine Road-Thornycroft Road to La Canada Dr."

3945 EAST FORT LOWELL ROAD - SUITE 111
TUCSON, AZ 85712
520.795.1000
(FAX) 520.322.6956



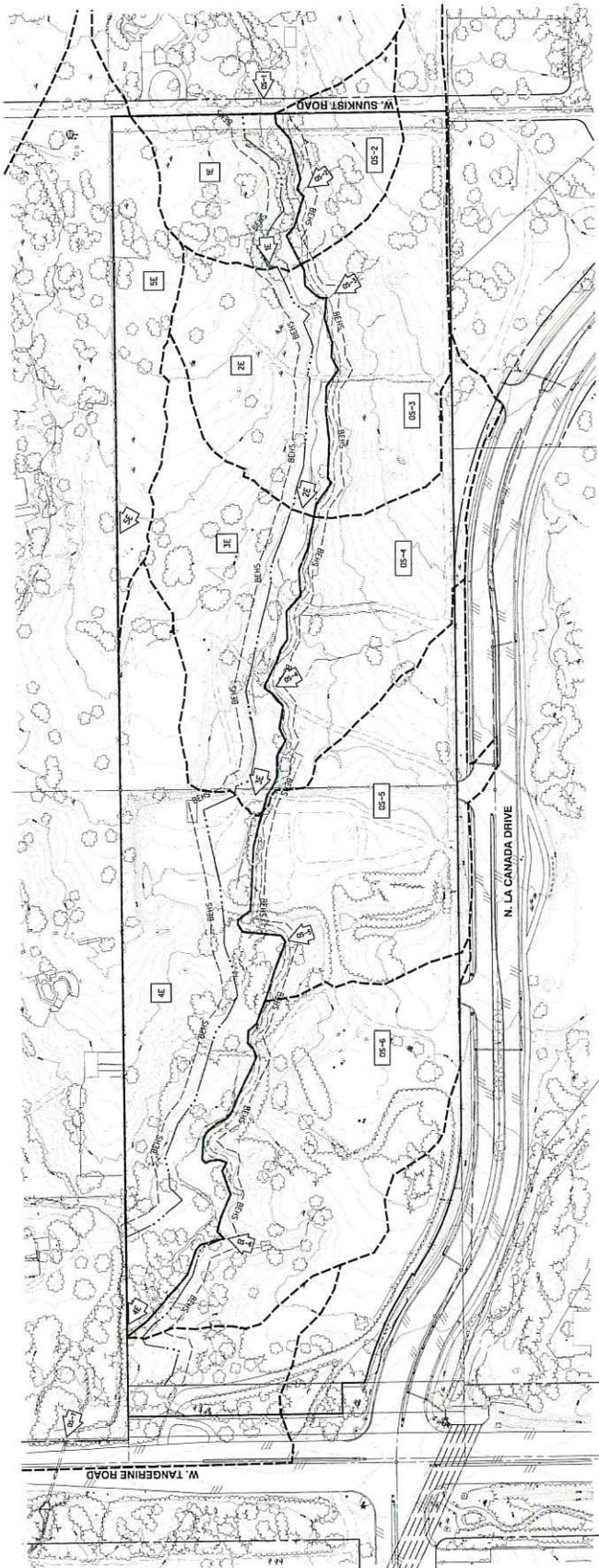


EXISTING PEAK FLOWS		
WATERSHED	AREA (ac)	CUMULATIVE Q100 (cfs)
OS-1	1.1	1.1
OS-2	5.4	6.5
OS-3	6.2	12.7
OS-4	5.0	17.7
OS-5	5.6	23.3
OS-6	4.7	28.0
OS-7	4.7	32.7
OS-8	4.7	37.4
OS-9	4.7	42.1
OS-10	4.7	46.8
OS-11	4.7	51.5
OS-12	4.7	56.2
OS-13	4.7	60.9
OS-14	4.7	65.6
OS-15	4.7	70.3
OS-16	4.7	75.0
OS-17	4.7	79.7
OS-18	4.7	84.4
OS-19	4.7	89.1
OS-20	4.7	93.8
OS-21	4.7	98.5
OS-22	4.7	103.2
OS-23	4.7	107.9
OS-24	4.7	112.6
OS-25	4.7	117.3
OS-26	4.7	122.0
OS-27	4.7	126.7
OS-28	4.7	131.4
OS-29	4.7	136.1
OS-30	4.7	140.8
OS-31	4.7	145.5
OS-32	4.7	150.2
OS-33	4.7	154.9
OS-34	4.7	159.6
OS-35	4.7	164.3
OS-36	4.7	169.0
OS-37	4.7	173.7
OS-38	4.7	178.4
OS-39	4.7	183.1
OS-40	4.7	187.8
OS-41	4.7	192.5
OS-42	4.7	197.2
OS-43	4.7	201.9
OS-44	4.7	206.6
OS-45	4.7	211.3
OS-46	4.7	216.0
OS-47	4.7	220.7
OS-48	4.7	225.4
OS-49	4.7	230.1
OS-50	4.7	234.8
OS-51	4.7	239.5
OS-52	4.7	244.2
OS-53	4.7	248.9
OS-54	4.7	253.6
OS-55	4.7	258.3
OS-56	4.7	263.0
OS-57	4.7	267.7
OS-58	4.7	272.4
OS-59	4.7	277.1
OS-60	4.7	281.8
OS-61	4.7	286.5
OS-62	4.7	291.2
OS-63	4.7	295.9
OS-64	4.7	300.6
OS-65	4.7	305.3
OS-66	4.7	310.0
OS-67	4.7	314.7
OS-68	4.7	319.4
OS-69	4.7	324.1
OS-70	4.7	328.8
OS-71	4.7	333.5
OS-72	4.7	338.2
OS-73	4.7	342.9
OS-74	4.7	347.6
OS-75	4.7	352.3
OS-76	4.7	357.0
OS-77	4.7	361.7
OS-78	4.7	366.4
OS-79	4.7	371.1
OS-80	4.7	375.8
OS-81	4.7	380.5
OS-82	4.7	385.2
OS-83	4.7	389.9
OS-84	4.7	394.6
OS-85	4.7	399.3
OS-86	4.7	404.0
OS-87	4.7	408.7
OS-88	4.7	413.4
OS-89	4.7	418.1
OS-90	4.7	422.8
OS-91	4.7	427.5
OS-92	4.7	432.2
OS-93	4.7	436.9
OS-94	4.7	441.6
OS-95	4.7	446.3
OS-96	4.7	451.0
OS-97	4.7	455.7
OS-98	4.7	460.4
OS-99	4.7	465.1
OS-100	4.7	469.8

Per T.O.M. Proj. No. 2005-061 "Cedar the Road to La Canada Dr."

EXISTING PEAK FLOWS		
WATERSHED	AREA (ac)	CUMULATIVE Q100 (cfs)
OS-1	1.1	1.1
OS-2	5.4	6.5
OS-3	6.2	12.7
OS-4	5.0	17.7
OS-5	5.6	23.3
OS-6	4.7	28.0
OS-7	4.7	32.7
OS-8	4.7	37.4
OS-9	4.7	42.1
OS-10	4.7	46.8
OS-11	4.7	51.5
OS-12	4.7	56.2
OS-13	4.7	60.9
OS-14	4.7	65.6
OS-15	4.7	70.3
OS-16	4.7	75.0
OS-17	4.7	79.7
OS-18	4.7	84.4
OS-19	4.7	89.1
OS-20	4.7	93.8
OS-21	4.7	98.5
OS-22	4.7	103.2
OS-23	4.7	107.9
OS-24	4.7	112.6
OS-25	4.7	117.3
OS-26	4.7	122.0
OS-27	4.7	126.7
OS-28	4.7	131.4
OS-29	4.7	136.1
OS-30	4.7	140.8
OS-31	4.7	145.5
OS-32	4.7	150.2
OS-33	4.7	154.9
OS-34	4.7	159.6
OS-35	4.7	164.3
OS-36	4.7	169.0
OS-37	4.7	173.7
OS-38	4.7	178.4
OS-39	4.7	183.1
OS-40	4.7	187.8
OS-41	4.7	192.5
OS-42	4.7	197.2
OS-43	4.7	201.9
OS-44	4.7	206.6
OS-45	4.7	211.3
OS-46	4.7	216.0
OS-47	4.7	220.7
OS-48	4.7	225.4
OS-49	4.7	230.1
OS-50	4.7	234.8
OS-51	4.7	239.5
OS-52	4.7	244.2
OS-53	4.7	248.9
OS-54	4.7	253.6
OS-55	4.7	258.3
OS-56	4.7	263.0
OS-57	4.7	267.7
OS-58	4.7	272.4
OS-59	4.7	277.1
OS-60	4.7	281.8
OS-61	4.7	286.5
OS-62	4.7	291.2
OS-63	4.7	295.9
OS-64	4.7	300.6
OS-65	4.7	305.3
OS-66	4.7	310.0
OS-67	4.7	314.7
OS-68	4.7	319.4
OS-69	4.7	324.1
OS-70	4.7	328.8
OS-71	4.7	333.5
OS-72	4.7	338.2
OS-73	4.7	342.9
OS-74	4.7	347.6
OS-75	4.7	352.3
OS-76	4.7	357.0
OS-77	4.7	361.7
OS-78	4.7	366.4
OS-79	4.7	371.1
OS-80	4.7	375.8
OS-81	4.7	380.5
OS-82	4.7	385.2
OS-83	4.7	389.9
OS-84	4.7	394.6
OS-85	4.7	399.3
OS-86	4.7	404.0
OS-87	4.7	408.7
OS-88	4.7	413.4
OS-89	4.7	418.1
OS-90	4.7	422.8
OS-91	4.7	427.5
OS-92	4.7	432.2
OS-93	4.7	436.9
OS-94	4.7	441.6
OS-95	4.7	446.3
OS-96	4.7	451.0
OS-97	4.7	455.7
OS-98	4.7	460.4
OS-99	4.7	465.1
OS-100	4.7	469.8

Per REC-HMS model



LEGEND

- 1 WATERSHED
- CONCENTRATION POINT
- WATERSHED BOUNDARY
- BUILDING EROSION HAZARD SETBACK
- REGULATORY 100-YEAR FLOOD LIMITS (EXISTING)

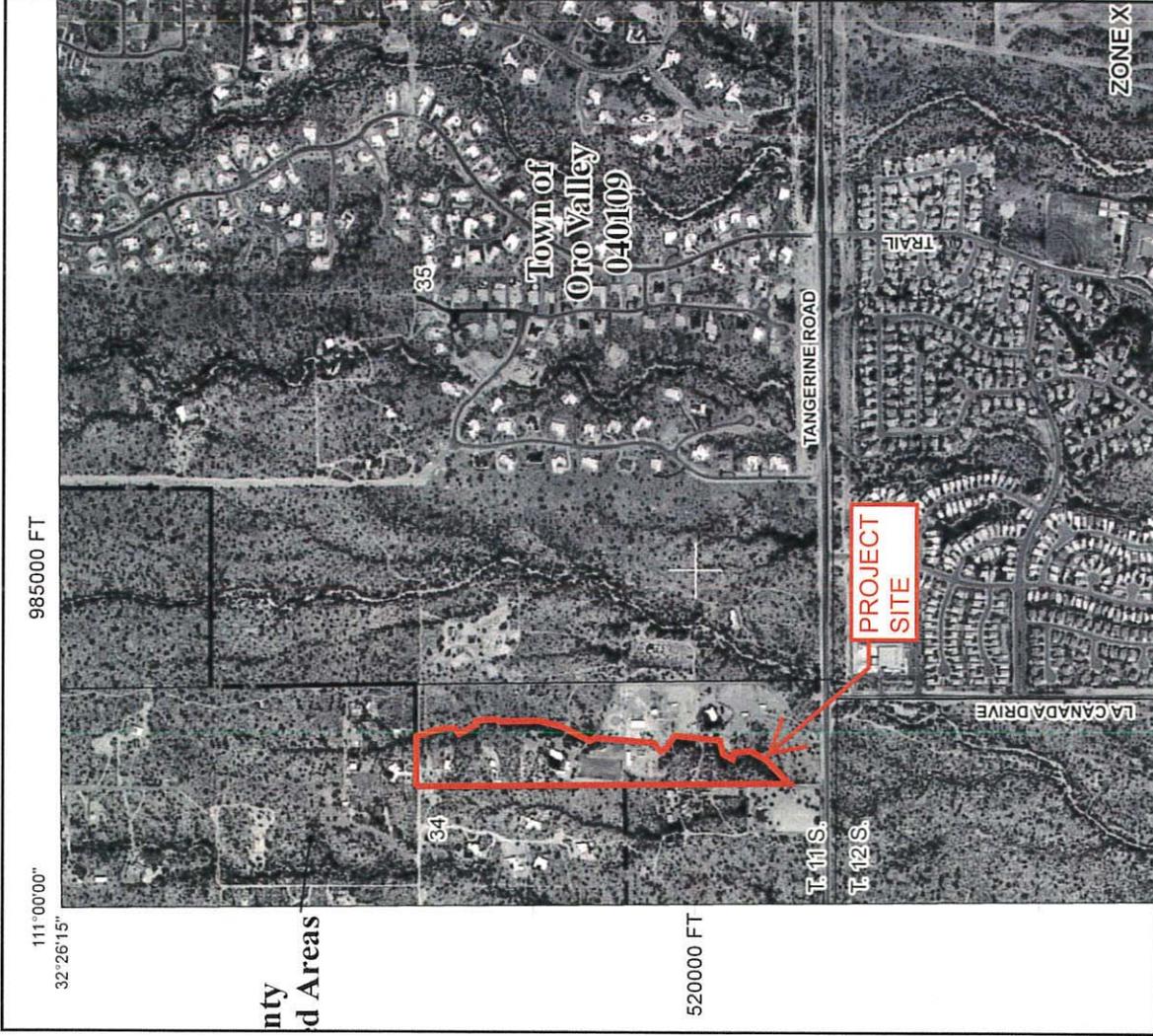
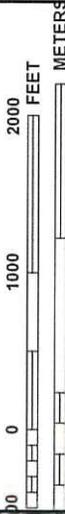
EXHIBIT I.C.2
EXISTING ON-SITE HYDROLOGY
THE RESIDENCES AT
MILLER RANCH
 A PORTION OF THE SOUTHEAST QUARTER OF SECTION 36, TOWNSHIP 11 SOUTH, RANGE 16 EAST, COUNTY OF MARICOPA, STATE OF ARIZONA
 OVI14-020 DATE: 11/26/2014
 SHEET 1 OF 1

RICK
ENGINEERING COMPANY
 1100 N. CENTRAL AVENUE, SUITE 100
 PHOENIX, ARIZONA 85004
 PHONE: 602.998.8888
 FAX: 602.998.8889
 WWW.RICKENGINEERING.COM

National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1090L

FIRM
FLOOD INSURANCE RATE MAP
PIMA COUNTY,
ARIZONA
AND INCORPORATED AREAS

PANEL 1090 OF 4750
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS	NUMBER	PANEL	SUFFIX
COMMUNITY	040109	1090	L
ORO VALLEY TOWN OF	040109	1090	L
PIMA COUNTY	040109	1090	L

Notice to User: The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community.



Federal Emergency Management Agency

MAP NUMBER
04019C1090L
MAP REVISED
JUNE 16, 2011

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the face of the latest product. For more information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Exhibit I.C.3 - FEMA FIRM

D. Vegetation

1. Vegetative Communities and Associations on the Site

The Residences at Miller Ranch site consists primarily of native vegetation characteristic of the Arizona Uplands subdivision of the Sonoran Desert-Scrub biotic community. Pima County Geographic Information Systems classifies the site as “Sonoran Desert-Scrub; Paloverde-Mixed Cacti (Arizona Uplands) Series”. See *Exhibit 1-D.1a, Vegetative Communities, p. 20*.

The wash comprising the site’s eastern boundary is classified as “Sonoran Riparian Scrub” and designated as “Xeroriparian C Habitat”. See *Exhibit 1-D.1b, Riparian Habitat, p. 21*.

A Biological Evaluation completed by Westland Resources Inc., Engineering and Environmental Consultants in April, 2008 identifies common plant species observed within the project site. See *Table 1-D.1, Common Plant Species, this page*. A copy of the Biological Evaluation is provided *under separate cover*.

TABLE 1-D.1: COMMON PLANT SPECIES

Scientific Name	Common Name	Oro Valley Protected Native Plant List	Legal Protection
<i>Acacia constricta</i>	Whitehorn Acacia	N	
<i>Acacia greggii</i>	Catclaw Acacia	Y	
<i>Ambrosia dumosa</i>	Common Bursage	Y	
<i>Baccharis sarothroides</i>	Desert Broom	N	
<i>Carnegiea gigantea</i>	Saguaro	Y	NPL-SR
<i>Celtis spinosa</i>	Desert Hackberry	Y	
<i>Ferocactus wislizenii</i>	Fishhook Barrel Cactus	Y	NPL-SR
<i>Larrea tridentata</i>	Creosote	Y	
<i>Opuntia engelmannii</i>	Prickly Pear Cactus	Y	NPL-SR
<i>Opuntia spp.</i>	Cholla	Y	SR
<i>Parkinsonia floridum</i>	Blue Palo Verde	Y	NPL-SA
<i>Parkinsonia microphyllum</i>	Foothill Palo Verde	Y	NPL-SA
<i>Prosopis velutina</i>	Velvet Mesquite	Y	NPL-HR/SA

Key:

NPL - Plants regulated by the Arizona Native Plant Law

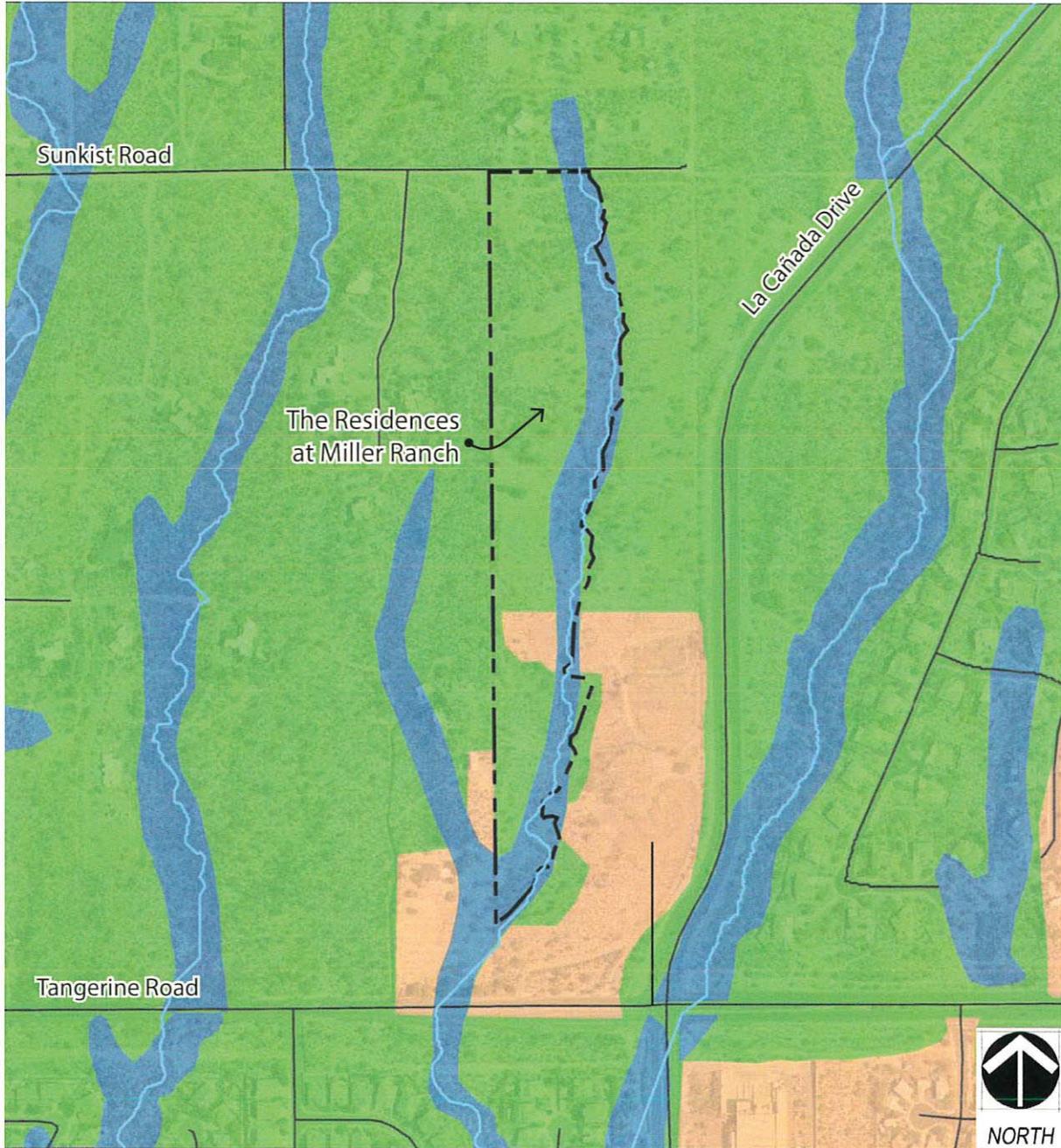
HR - Harvest Restricted

SR - Salvage Restricted

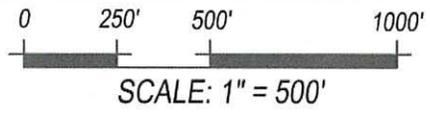
SA - Salvage Assessed

Inventory and Analysis

Exhibit 1-D.1a: Vegetative Communities

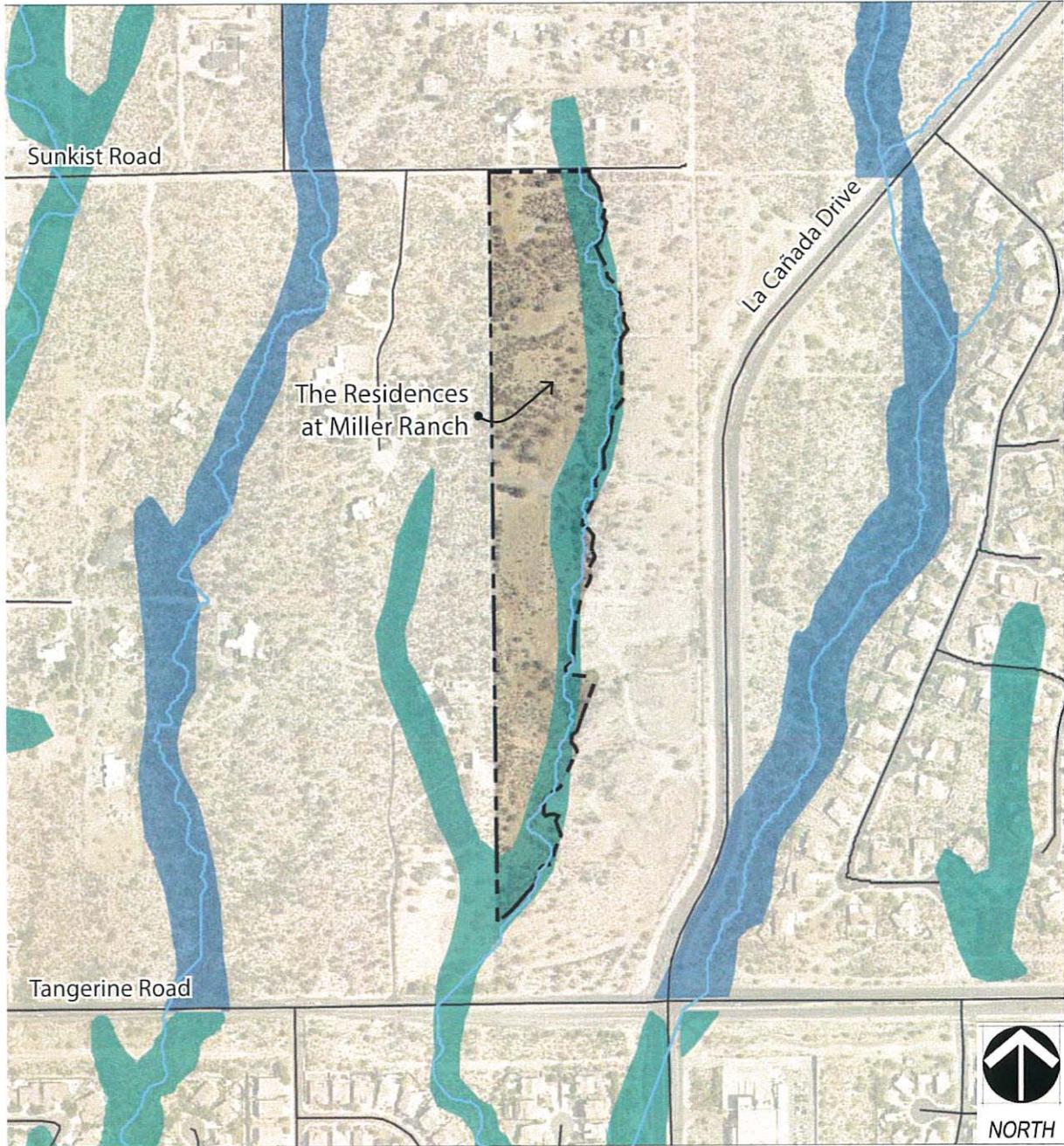


Source: Pima County GIS, July 2014

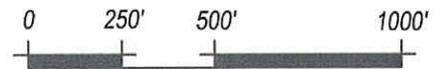


LEGEND

-  Sonoran Riparian Scrub
-  Sonoran Desert Scrub; Paloverde / Mixed Cacti (Arizona Uplands) Series
-  Agriculture / Developed / Water / Bare Ground



Source: Pima County GIS, June 2014



SCALE: 1" = 500'

LEGEND

-  Xeroriparian B: Vegetative volume less than or equal to $0.856 \text{ M}^3/\text{M}^2$ and greater than $0.675 \text{ M}^3/\text{M}^2$
-  Xeroriparian C: Vegetative volume less than or equal to $0.675 \text{ M}^3/\text{M}^2$ and greater than $0.675 \text{ M}^3/\text{M}^2$

Inventory and Analysis

2. **Significant Vegetation and Federally-Listed Threatened or Endangered Species**
Please refer to the Site Resource Inventory (SRI) and Native Plant Preservation Plan (NPPP) for information regarding “Significant Vegetation” as defined by the General Development Standards listed in the Oro Valley Zoning Code (Section 27.6, Landscape Conservation).

The Arizona Game and Fish Department’s Heritage Data Management System (HDMS) does not identify any plant species of Special Status within three (3) miles of the project vicinity. *See Exhibit 1-E.2, Arizona Game and Fish Department Letter, p. 28.*

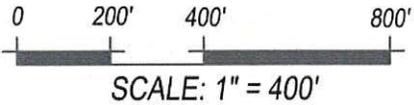
3. **Vegetative Densities**
Vegetative densities slightly vary across the site with most dense areas being located along the eastern site boundary’s wash and northwest corner. Through on-site observation, densities were qualified into two (2) categories: (1) Low Density: ground coverage density between 0 and 25%, and Medium-Low Density: ground coverage density between 26% and 50%. *See Exhibit 1-D.3, On-Site Vegetative Densities, p. 23.*



Source: Site Observation, April 2014

LEGEND

- Low Density (0 - 25%)
- Medium-Low Density (26% - 50%)



Inventory and Analysis

E. Wildlife

1. Presence of State-Listed Threatened or Endangered Species

According to the Arizona Game and Fish Department, the Residences at Miller Ranch site lies in the vicinity of proposed critical habitat of the Golden Eagle, Cactus Ferruginous Pygmy-Owl, Sonoran Desert Tortoise, and the Lesser Long-Nosed Bat. *See Table 1-E.1a, Species of Special Status, this page, and Table 1-E.1b, Status Definitions, p. 25.* The United States Fish and Wildlife Service identifies the Lesser Long-Nosed Bat (LLNB) as Listed Endangered (LE), a status designated for species in imminent jeopardy of extinction, however no critical habitat has been designated for this species. A Biological Evaluation completed by WestLand Resources, Inc., Engineering and Environmental Consultants in April, 2008 includes a detailed analysis of this special-interest species (a copy of the Biological Evaluation is provided *under separate cover.*) The LLNB is the only species within the report determined to have potential for occurrence on the property due to their ability to forage over long distances and the availability of foraging resources on site, such as saguaros. *See Exhibit 1-E.1a, Lesser Long-nosed Bat Habitat Model, p. 26.* The report concludes that there are no foreseeable adverse impacts likely to result from the implementation of this project due to the site's limited number of saguaros and the abundance of suitable forage resources (saguaros, landscaped agave, hummingbird feeders) throughout the Tucson Basin.

The Residences at Miller Ranch site also lies within a three mile radius of the planned Tucson - Tortolita - Santa Catalina Mountains Linkage Design, a wildlife corridor serving to reconnect critical habitat. *See Exhibit 1-E.1.b, Wildlife Corridors, p. 27 and Exhibit 1-E.2, Arizona Game and Fish Department Letter, p. 28.*

TABLE 1-E.1A: SPECIES OF SPECIAL STATUS

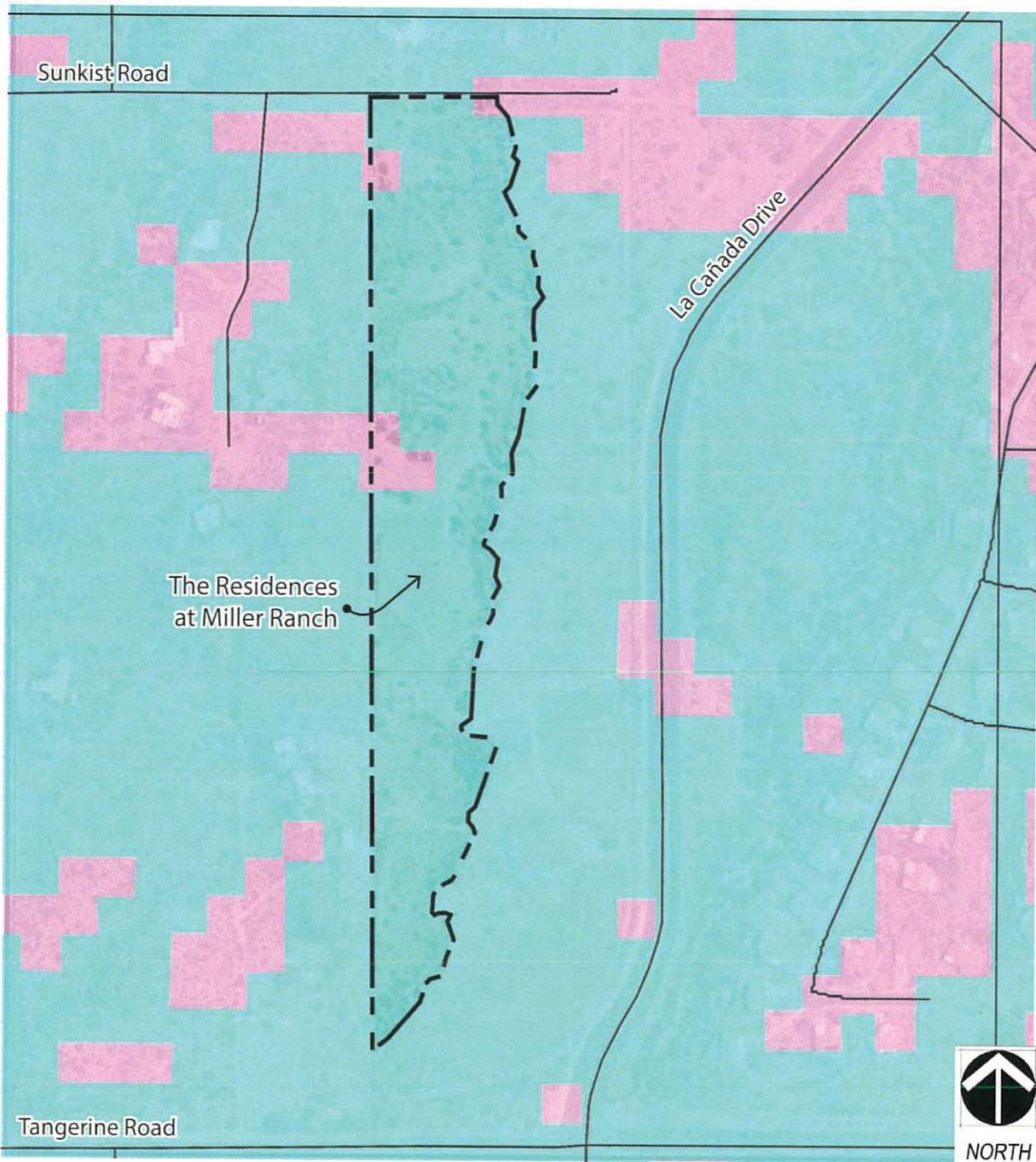
Scientific Name	Common Name	FSW	USFS	BLM	State
<i>Aquila chrysaetos</i>	Golden Eagle	BGA		S	
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-Owl	SC	S	S	WSC
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	C*	S		WSC
<i>Leptonycteris curasoae yerbabuenae</i>	Lesser Long-Nosed Bat	LE			WSC

TABLE 1-E.1B: STATUS DEFINITIONS

Agency	Status	Definition
FWS (Fish and Wildlife Service, Federal US Status; Endangered Species Act, 1973 as amended)	BGA: Bald and Golden Eagle Protection	Prohibits take of bald and golden eagles without prior USFWS permit.
	SC: Species of Concern	The terms "Species of Concern" or "Species at Risk" should be considered as terms-of-art that describe the entire realm of taxa whose conservation status may be of concern to the US Fish and Wildlife Service, but neither term has official status (currently all former C2 species).
	C*: Candidate	The Service identifies species for which they made a continued warranted-but-precluded finding on a resubmitted petition by the code "C*" in the category column. This code was put into use starting in 2008.
	LE: Listed Endangered	Imminent jeopardy of extinction.
USFS (US Forest Service, US Department of Agriculture)	S: Sensitive	Those taxa occurring on National Forests in Arizona which are considered sensitive by the Regional Forester.
BLM (US Bureau of Land Management, US Department of the Interior)	S: Sensitive	Those taxa occurring on BLM Field Office Lands in Arizona which are considered sensitive by the Arizona State Office.
State - WSCA (Wildlife of Special Concern in Arizona, 1996 in prep, Arizona Game and Fish Department)	WCS: Wildlife of Special Concern in Arizona	Species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines, as described by the Arizona Game and Fish Department's listing of Wildlife of Special Concern in Arizona (WSCA, in prep). Species indicated on printouts as WC are currently the same as those in Threatened Native Wildlife in Arizona (1988).

Inventory and Analysis

Exhibit 1-E.1a: Lesser Long-Nosed Bat Habitat Model



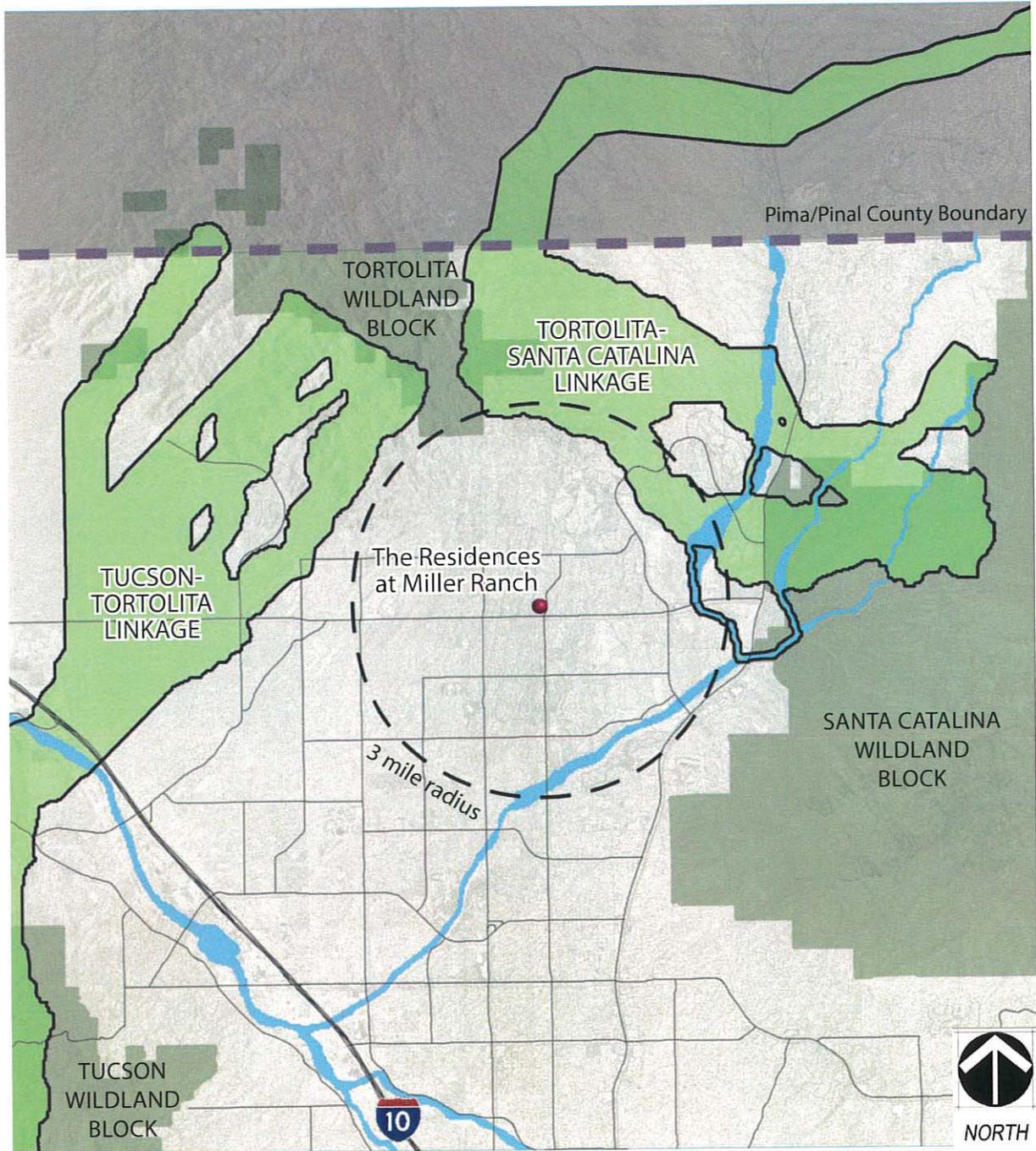
Source: Pima County GIS, July 2014

LEGEND

-  High Value Habitat
-  Medium Value Habitat



SCALE: 1" = 400'



Source: Pima County GIS, July 2014; *1



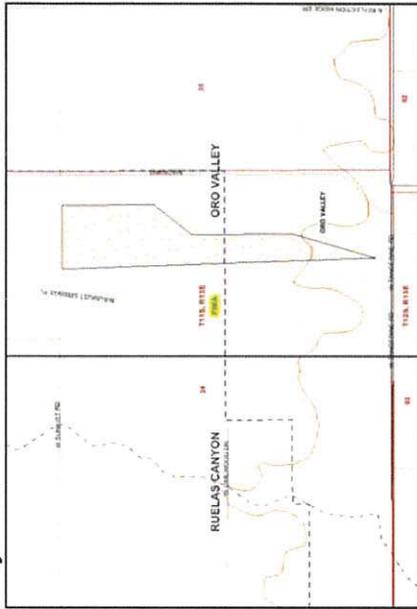
*1
Beir, P., E. Garding, and D. Majka. 2006. Arizona Missing Linkages: Tucson - Tortolita - Santa Catalina Mountains Linkage Design. Report to Arizona Game and Fish Department. School of Forestry, Northern Arizona University.

Inventory and Analysis

Exhibit 1-E.2: Arizona Game and Fish Department Letter

Arizona's On-line Environmental Review Tool
 Search ID: 20140618023733
 Project Name: The Residences at Miller Ranch
 Date: 6/18/2014 2:37:11 PM

Project Location



Project Name: The Residences at Miller Ranch
Submitted By: Christian Sobekli
On behalf of: PRIVATE

Project Search ID: 20140618023733

Date: 6/18/2014 2:37:07 PM

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

Project Coordinates (UTM Zone 12-NAD 83): 500274.924, 3587953.209 meter

Project Area: 16.441 acres

Project Perimeter: 1699.113 meter

County: PIMA

USGS 7.5 Minute Quadrangle ID: 1684

Quadrangle Name: ORO VALLEY

Project locality is not anticipated to change

Location Accuracy Disclaimer

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

The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 3 miles of Project Vicinity:

Name	Common Name	FWS	USFS	BLM	State
Aquila chrysaetos	Golden Eagle	BGA		S	
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	SC	S	S	WSC
Gopherus morafkai	Sonoran Desert Tortoise	C'	S		WSC
Leptonycteris curasoae yerbabuena	Lesser Long-nosed Bat	LE			WSC
Tucson - Tortolita - Santa Catalina Mountains Linkage Design	Wildlife Corridor				

Page 1 of 7 APPLICATION INITIALS: _____

Arizona's On-line Environmental Review Tool

Search ID: 20140618023733

Project Name: The Residences at Miller Ranch

Date: 6/18/2014 2:37:11 PM

Please review the entire receipt for project type recommendations and/or species or location information and retain a copy for future reference. If any of the information you provided did not accurately reflect this project, or if project plans change, another review should be conducted, as this determination may not be valid.

Arizona's On-line Environmental Review Tool:

1. This On-line Environmental Review Tool inquiry has generated recommendations regarding the potential impacts of your project on Special Status Species (SSS) and other wildlife of Arizona. SSS include all U.S. Fish and Wildlife Service federally listed, U.S. Bureau of Land Management sensitive, U.S. Forest Service sensitive, and Arizona Game and Fish Department (Department) recognized species of concern.
2. These recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation). These recommendations are preliminary in scope, designed to provide early considerations for all species of wildlife, pertinent to the project type you entered.
3. This receipt, generated by the automated On-line Environmental Review Tool does not constitute an official project review by Department biologists and planners. Further coordination may be necessary as appropriate under the National Environmental Policy Act (NEPA) and/or the Endangered Species Act (ESA).

The U.S. Fish and Wildlife Service (USFWS) has regulatory authority over all federally listed species under the ESA. Contact USFWS Ecological Services Offices: <http://arizonaes.fws.gov>.

Phoenix Main Office
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021
Phone 602-242-0210
Fax 602-242-2513

Tucson Sub-Office
201 North Bonita, Suite 141
Tucson, AZ 85745

Phone 520-670-6144
Fax 520-670-6154

Flagstaff Sub-Office
323 N. Leroux Street, Suite 101
Flagstaff, AZ 86001

Phone 928-226-0614
Fax 928-226-1099

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area.
2. The Department's Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there.
3. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HDMS data contains information about species occurrences that have actually been reported to the Department.

Arizona Game and Fish Department Mission

To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and

Inventory and Analysis

Exhibit 1-E.2: Arizona Game and Fish Department Letter

Arizona's On-line Environmental Review Tool
Search ID: 20140618023733
Project Name: The Residences at Miller Ranch
Date: 6/18/2014 2:37:11 PM

management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.

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

Project Type Recommendations:

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

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

Based on the project type entered; coordination with Arizona Department of Water Resources may be required (<http://www.water.az.gov/adwr/>)

Based on the project type entered; coordination with County Flood

Control districts may be required.

Based on the project type entered; coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>)

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

Communities can actively support the sustainability and mobility of wildlife by incorporating wildlife planning into their regional/comprehensive plans, their regional transportation plans, and their open space/conservation land system programs. An effective approach to wildlife planning begins with the identification of the wildlife resources in need of protection, an assessment of important habitat blocks and connective corridors, and the incorporation of these critical wildlife components into the community plans and programs.

Community planners should identify open spaces and habitat blocks that can be maintained in their area, and the necessary connections between those blocks to be preserved or protected. Community planners should also work with State and local transportation planning entities, and planners from other communities, to foster coordination and cooperation in developing compatible development plans to ensure wildlife habitat connectivity. The Department's guidelines for incorporating wildlife considerations into community planning and developments can be found at <http://www.azgfd.gov/hgis/guidelines.aspx>.

Development plans should provide for open natural space for wildlife movement, while also minimizing the potential for wildlife-human interactions through design features. Please contact Project Evaluation Program for more information on living with urban wildlife.

During planning and construction, minimize potential introduction or spread of exotic invasive species. Invasive species can be plants,

Arizona's On-line Environmental Review Tool

Search ID: 20140618023733

Project Name: The Residences at Miller Ranch

Date: 6/18/2014 2:37:11 PM

animals (exotic snails), and other organisms (e.g. microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g. livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before and after project activities to reduce the spread of invasive species. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants

<http://www.azda.gov/PSD/quarantine5.htm>. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control: <http://www.usda.gov/wps/portal/usdahome>. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information http://www.azgfd.gov/h_f/hunting_rules.shtml.

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

Hydrological considerations: design culverts to minimize impacts to

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

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

Planning: consider impacts of lighting intensity on mammals and birds and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use.

Page 4 of 7 APPLICATION INITIALS: _____

Inventory and Analysis

Exhibit 1-E.2: Arizona Game and Fish Department Letter

Arizona's On-line Environmental Review Tool

Search ID: 20140618023733

Project Name: The Residences at Miller Ranch

Date: 6/18/2014 2:37:11 PM

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

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly.

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

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

Project Location and/or Species recommendations:

Heritage Data Management System records indicate that one or more listed, proposed, or candidate species or Critical Habitat (Designated or Proposed) have been documented in the vicinity of your project (refer to page 1 of the receipt). Please contact:

Ecological Services Office
US Fish and Wildlife Service
2321 W. Royal Palm Rd.
Phoenix, AZ 85021-4951
Phone: 602-242-0210
Fax: 602-242-2513

HDMS records indicate your project is in or near an identified wildlife habitat linkage corridor. Project planning and implementation efforts should focus on maintaining adequate opportunities for wildlife permeability. For information on the linkage assessment and wildlife species that may be affected refer to:
<http://www.corridoridesign.org/arizona>. Contact your Arizona Game and Fish Department Regional Office for specific project recommendations: http://www.azgfd.gov/inside_azgfd/agency_directory.shtml

Recommendations Disclaimer:

1. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project.
2. These recommendations are proposed actions or guidelines to be considered during **preliminary project development**.
3. Additional site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. The Department is interested in the conservation of all fish and wildlife resources, including those Special Status Species listed on this receipt, and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
6. **Further coordination requires the submittal of this initialed and signed Environmental Review Receipt with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map).**

Arizona's On-line Environmental Review Tool
Search ID: 20140618023733
Project Name: The Residences at Miller Ranch
Date: 6/18/2014 2:37:11 PM

7. Upon receiving information by AZGFD, please allow 30 days for completion of project reviews. Mail requests to:

**Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366**

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By using this site, you acknowledge that you have read and understand the terms of use. Department staff may revise these terms periodically. If you continue to use our website after we post changes to these terms, it will mean that you accept such changes. If at any time you do not wish to accept the Terms, you may choose not to use the website.

1. This Environmental Review and project planning website was developed and intended for the purpose of screening projects for potential impacts on resources of special concern. By indicating your agreement to the terms of use for this website, you warrant that you will not use this website for any other purpose.
2. Unauthorized attempts to upload information or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. The Department reserves the right at any time, without notice, to enhance, modify, alter, or suspend the website and to terminate or restrict your access to the website.
4. This Environmental Review is based on the project study area that was entered. The review must be redone if the project study area, location, or the type of project changes. If additional information becomes available, this review may need to be reconsidered.
5. A signed and initialed copy of the Environmental Review Receipt

indicates that the entire receipt has been read by the signer of the Environmental Review Receipt.

Security:

The Environmental Review and project planning web application operates on a complex State computer system. This system is monitored to ensure proper operation, to verify the functioning of applicable security features, and for other like purposes. Anyone using this system expressly consents to such monitoring and is advised that if such monitoring reveals possible evidence of criminal activity, system personnel may provide the evidence of such monitoring to law enforcement officials. Unauthorized attempts to upload or change information; to defeat or circumvent security measures; or to utilize this system for other than its intended purposes are prohibited.

This website maintains a record of each environmental review search result as well as all contact information. This information is maintained for internal tracking purposes. Information collected in this application will not be shared outside of the purposes of the Department.

If the Environmental Review Receipt and supporting material are not mailed to the Department or other appropriate agencies within six (6) months of the Project Review Receipt date, the receipt is considered to be null and void, and a new review must be initiated.

Print this Environmental Review Receipt using your Internet browser's print function and keep it for your records. Signature of this receipt indicates the signer has read and understands the information provided.

Signature: _____

Inventory and Analysis

Exhibit 1-E.2: Arizona Game and Fish Department Letter

Arizona's On-line Environmental Review Tool
Search ID: 20140618023733
Project Name: The Residences at Miller Ranch
Date: 6/18/2014 2:37:11 PM

Date: _____

Proposed Date of Implementation: _____

Please provide point of contact information regarding this Environmental Review.

Application or organization responsible for project implementation

Agency/organization: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

Person Conducting Search (if not applicant)

Agency/organization: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

F. Viewsheds

1. Views Onto and Across the Site from Adjacent Properties

Views onto the site from adjacent properties to the north, east, west, and south are shown in *Exhibit 1-F.1 Views onto Site, p. 37*. Anticipated impact on viewsheds from the proposed developments are described in *Table 1-F.1, Views onto Site, this page*.

TABLE 1-F.1: VIEWS ONTO SITE

#	View	Anticipated Impact
1	From property north of site, looking south	The majority of existing vegetation will remain along the south side of Sunkist Drive, except where minimal clearing will need to be done to allow for the project entry. The area will be enhanced with native plant species creating a landscaped buffer between Sunkist Drive and side yard walls of future Miller Ranch homes.
2	From La Cañada Drive, looking west	Some existing vegetation east of the site will be cleared for the development of the Technological Park & Retail Center. Enhancement/supplementation of vegetation in the riparian area will increase overall vegetative density between the Technological Park & Retail Center and the Residences at Miller Ranch.
3	From Tangerine Road, looking north	Enhancement of the riparian area and landscaping will screen the site's southern most homes from Tangerine Road.
4	From property west of site, looking east	An enhanced vegetation buffer will aid in screening the road and homes along the western site boundary. Attempts will be made through the use of setbacks, architecture and home placement to preserve distant views of the Santa Catalina Mountains.

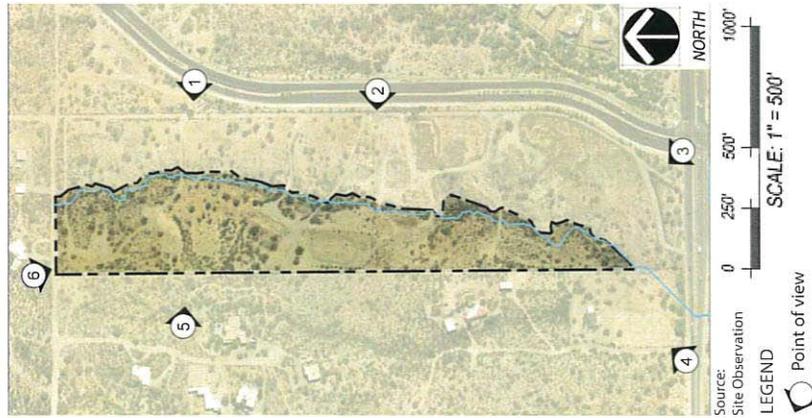
2. Areas of High Visibility from Off-site Locations

The Residences at Miller Ranch site does not include any areas that would be considered highly visible as most views onto the site are filtered by vegetation.

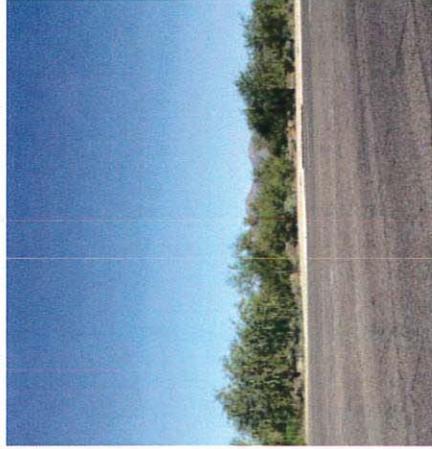
3. Impact of Proposed Structures on Existing Landscapes

A photo-simulation of proposed structures on-site is shown in *Exhibit 1-F.3, Visual Impacts of Proposed Structures, p. 39*.

Photo Locator Map



① View onto the site looking west from La Cañada Drive at existing median break north of proposed access road.



② View onto the site looking west from La Cañada Drive at existing median break south of proposed access road.



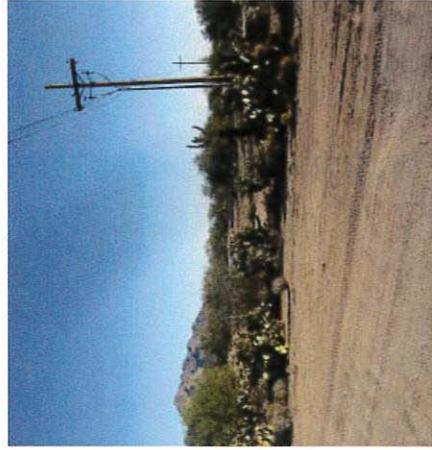
③ View onto the site looking northwest from the intersection of two closest arterial streets, La Cañada Drive and Tangerine Road.



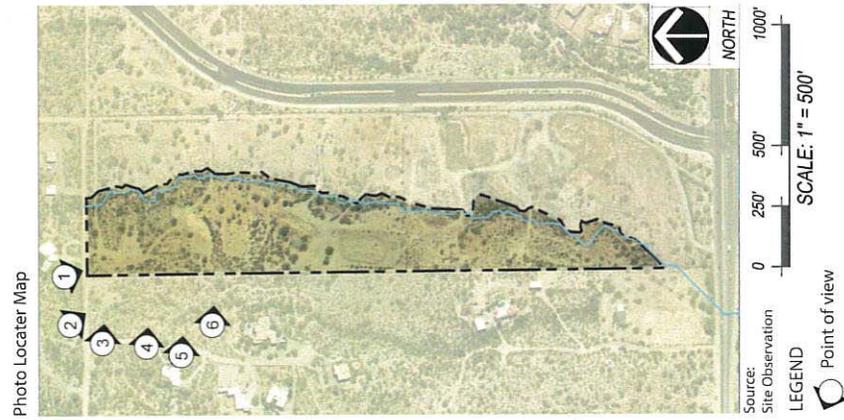
④ View onto the site looking northeast from Tangerine Road shortly before road transitions from two to four lanes heading eastward.



⑤ View onto the site looking east from adjacent residential properties located outside of the site's western boundary.



⑥ View onto the site looking southeast from residential properties located outside the site's northwest corner.



① Existing / Proposed



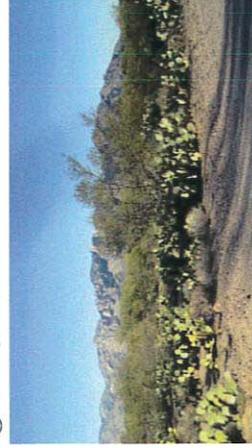
② Existing / Proposed



③ Existing / Proposed



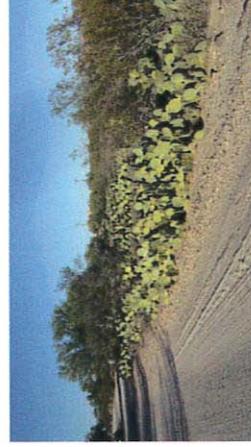
④ Existing / Proposed



⑤ Existing / Proposed



⑥ Existing / Proposed



G. Traffic

1. Existing and Proposed Off-site Streets

The Residences at Miller Ranch is generally located at the northwest corner of the Tangerine Road and La Cañada Drive intersection. Both of these roads are classified as urban minor arterials. Currently there are no existing off-site roads located between the subject property and these two (2) arterial roadways. The project proposes the development of 37 single-family residential units. The site proposes to take primary access from Sunkist Drive via a proposed full-turn intersection at an existing median break along La Cañada Drive. It should be noted that there is an approved future commercial component located just east of the residential site. Phase I of the commercial development proposes about 19,800 sf of commercial retail, 6,000 sf of bank use and 67,900 sf general office use. Phase I commercial development proposes to take access to Tangerine Road via a proposed right in right out driveway and to La Cañada Drive via a proposed full access driveway and a right -in right-out driveway. The opening year of the commercial component is unknown at this time. In addition, the proposed La Canada Ridge subdivision (33 dwelling units) located just north of the Miller Ranch development is an approved project that is anticipated to be constructed in the near future. Although the TIA has been prepared to evaluate the Miller Ranch residential component, the analysis also includes an analysis scenario that assumes both the Miller Ranch Commercial - Phase I and La Canada Ridge Subdivision are built. *See Exhibit 1-G.1, Proposed Access and On-Site Vehicular Circulation, p. 43.*

2. Arterial Streets within 1 mile of the Project Site

Tangerine Road is an east-west roadway and “Urban Principal Arterial” serving the site. The posted speed limit is 45 mph and no on-street parking is provided. There is a traffic signal at its intersection with La Canada Drive. The existing right-of-way width is 300’, which conforms to minimum Oro Valley requirements. Between La Cañada Drive and Oracle Road (SR 77), Tangerine Road is four-lane, divided cross section with a raised median, paved shoulders, and exclusive left-turn bays at median openings. West of La Cañada Drive, Tangerine Road transitions into a two-lane, undivided cross section with unpaved shoulders for approximately ten miles before widening back to a four-lane divided cross section at the I-10 underpass. The Town of Oro Valley currently has plans to widen the ten mile stretch of road between La Cañada Drive and Interstate 10 from two to four lanes with sidewalks and multi use lanes, known as the Tangerine Road Corridor Project. Construction is expected to start in 2016. None of these improvements will directly affect the access to the project.

As per the official FHWA-approved Functional Classification Map (2009), there are two other arterial streets located within a one mile radius of the Residences at Miller Ranch site. Classified as “Urban Minor Arterial” these north-south oriented roads are the adjacent La Cañada Drive and La Cholla Boulevard located to the west. *See Table 1-G.2a, Existing Arterial Streets within 1 Mile Radius, p. 42, and Exhibit 1-G.2a, Road Improvements an Arterials within 1 Mile Radius, p. 44.*

Inventory and Analysis

Existing traffic volumes at the project area intersection of La Cañada Drive/Tangerine Road were obtained from traffic counts conducted by Field Data Services of Arizona on Wednesday, March 19, 2014. The turning movement counts were conducted during the AM (7-9) and PM (4-6) periods. *Exhibit 1-G.2b, Existing Traffic Volumes, p. 46*, shows the existing intersection turning movement counts within the study area. Manual turning movement count sheets are provided under separate cover within the Miller Ranch Residential Development Traffic Impact Analysis by Rick Engineering Company. *Table 1-G.2b, Existing (2014) Intersection Operations, this page*, shows that the signalized intersection of La Cañada Drive/Tangerine Road to currently operate at LOS C during the AM and PM peak periods.

TABLE 1-G.2A: EXISTING ARTERIAL STREETS WITHIN 1 MILE RADIUS

Road	Class	Cross-Section	Ownership	Speed	Right of Way
Tangerine Road	Urban Principal Arterial	Four Lane Divided with Paved Shoulder	Town of Oro Valley	45 mph	300'
La Cañada Drive	Urban Minor Arterial	Four Lane Divided with Paved Shoulder	Town of Oro Valley	45 mph	150'
La Cholla Boulevard	Urban Minor Arterial	Two Lane Undivided with unpaved shoulder	Town of Oro Valley	45 mph	150'

SOURCE: FHWA, SITE OBSERVATION, JULY 2014

TABLE PARAMETERS BASED UPON ROAD SEGMENTS CLOSEST TO SITE

Tangerine Road ADT = 18,900 (Year 2016)

La Cañada Drive ADT = 16,100 (Year 2016)

TABLE 1-G.2B: EXISTING (2014) INTERSECTION OPERATIONS

Intersection	Existing (2014)	
	DELAY	LOS
Tangerine Road / La Cañada Drive (S)		
AM Peak	27.8	C
PM Peak	27.9	C

Source: Rick Engineering Company, August 2014

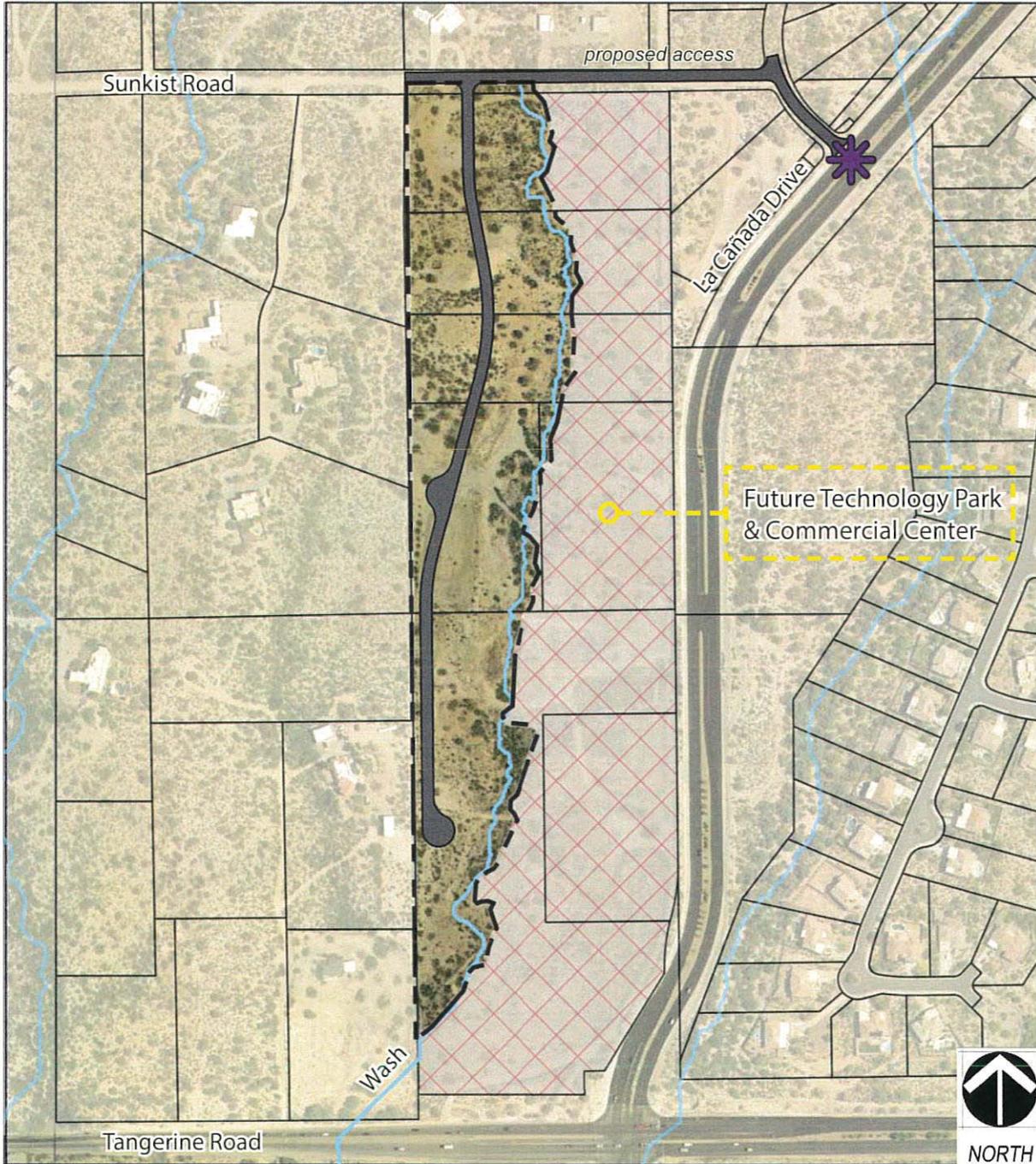
- Delays and Level of Service calculated utilizing the methodologies described in Chapters 16 & 17 of the 2000 Highway Capacity Manual (HCM).

DELAY is measured in seconds

LOS = Level of Service

(S) = Signalized Intersection

Exhibit 1-G.1: Proposed Access and On-Site Vehicular Circulation



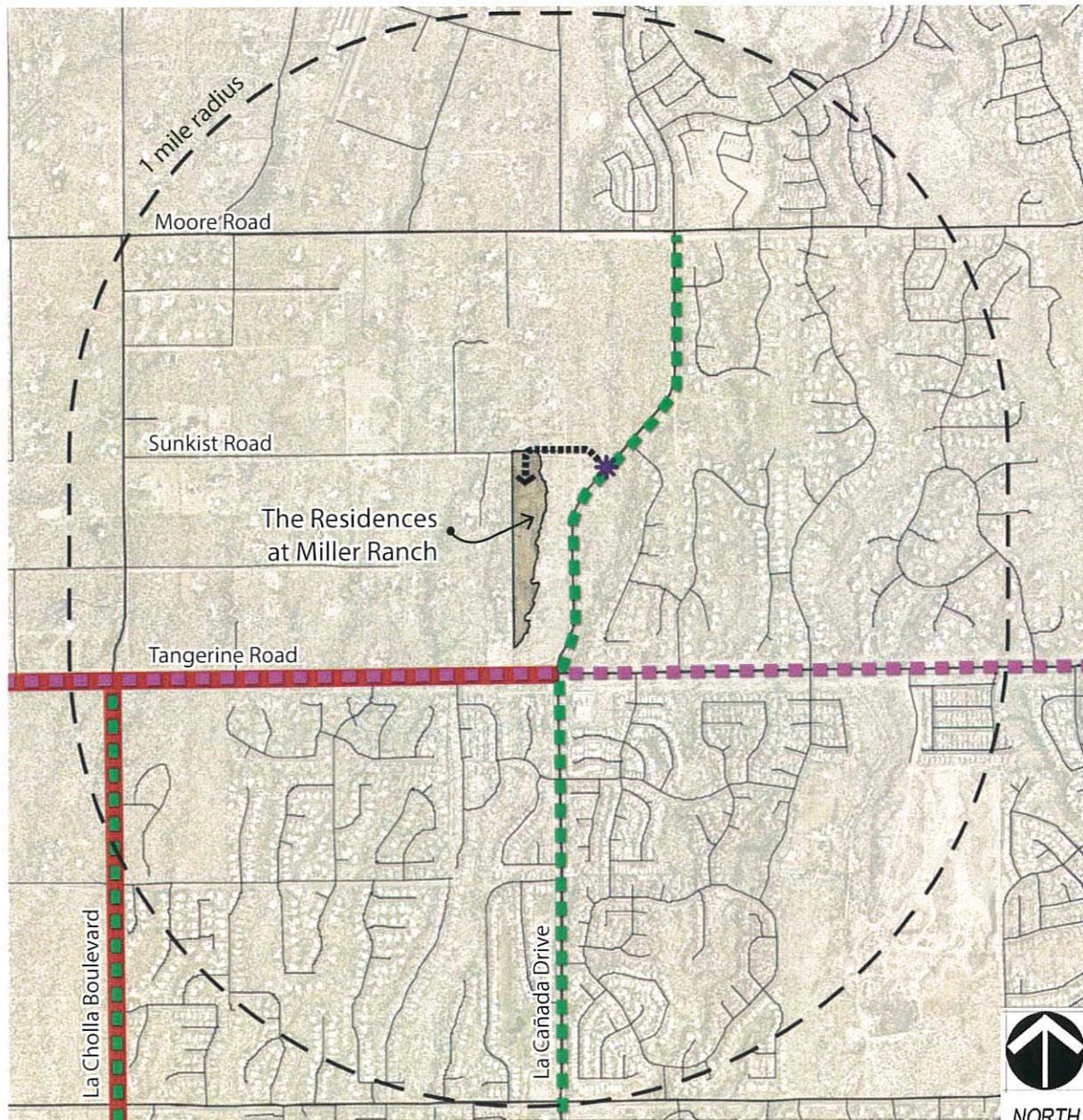
Source: Pima County GIS, The Residences At Miller Ranch Concept Plan, November 2014

LEGEND

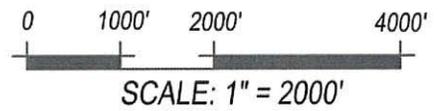
 Full-Turn Intersection

Inventory and Analysis

Exhibit 1-G.2a: Road Improvements and Arterials within 1 Mile Radius



Source: ADOT; Town of Oro Valley, July 2014



LEGEND

- Scheduled Road Improvement
- - - Urban Principal Arterial Street
- - - Urban Minor Arterial Street
- - - - Site Access
- * Full-Turn Intersection

3. Existing and Proposed Intersections on Arterials

There are three (3) median breaks located along the segment of La Cañada Drive that parallels the Miller Ranch site's eastern boundary. A full-turn intersection is proposed at the northern most median break, granting access to the site from Sunkist Road via La Cañada Drive. There is currently no median along Tangerine Road west of La Cañada Drive with exception of along the left-hand turn lane at the intersection of the two roads. The intersection at La Cañada Drive and Tangerine Road is signalized.

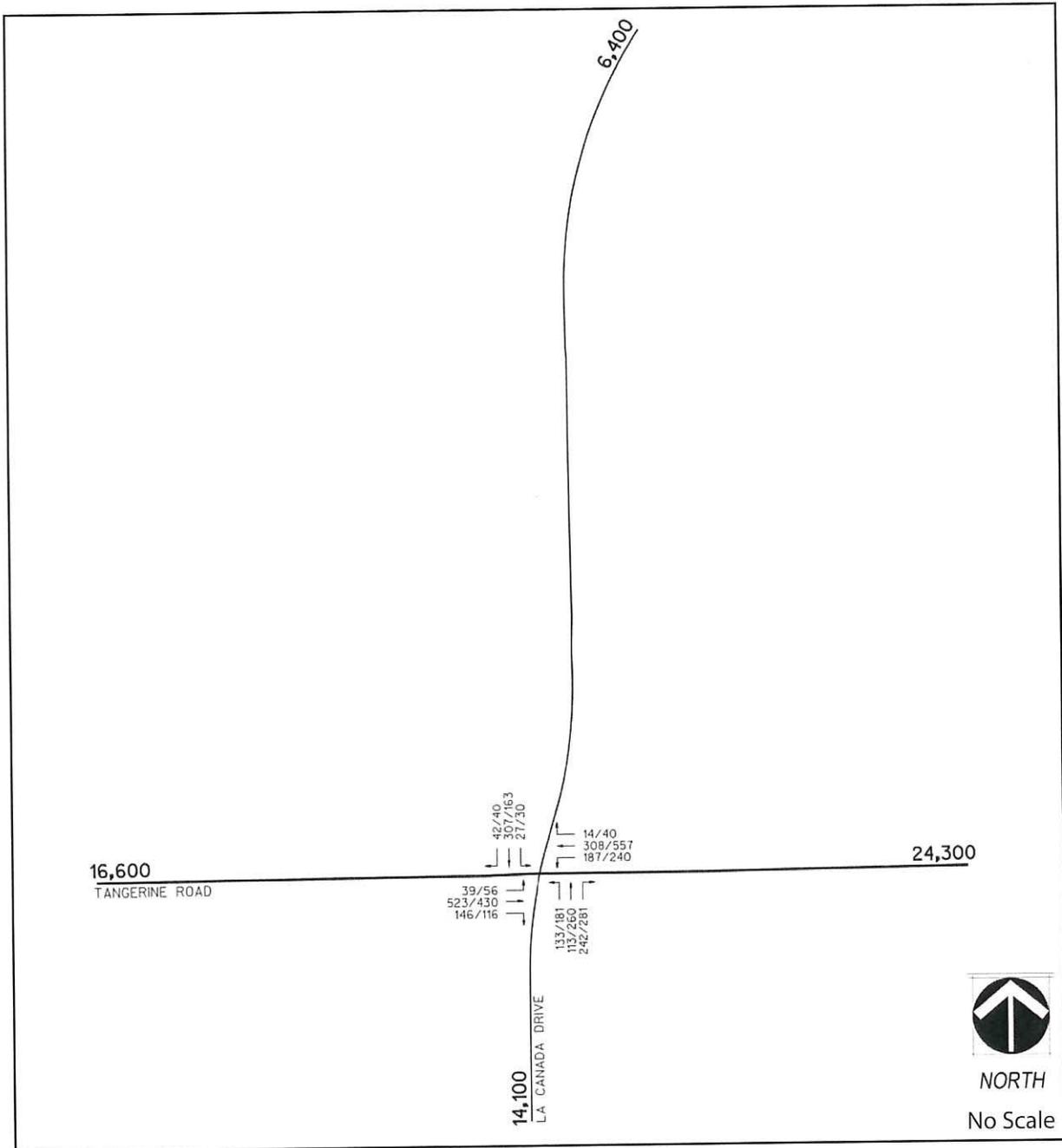
Existing arterial intersections within a mile of the site include Tangerine Road and La Cañada Drive to the east and Tangerine Road and La Cholla Boulevard to the west. Although Moore Road is classified as an Urban Collector as per the FHWA-approved Functional Classification Map (2009), this street's intersection with La Cañada north of the site, falls within a mile radius of the site.

4. Existing Bicycle and Pedestrian Ways

Hard surfaced shared-use paths supporting pedestrian and bicycle circulation and striped-shoulder bicycle routes follow road alignments, particularly along La Cañada Drive and Tangerine Road (east of La Cañada Drive). Bicycle and pedestrian ways are further detailed and mapped in *Section H. Recreation and Trails, pgs. 47- 48.*

Inventory and Analysis

Exhibit 1-G.2b: Existing Traffic Volumes



Source: Rick Engineering Company, August 2014

H. Recreation and Trails

1. Description of Trails, Parks, and Recreation Areas within 1-mile of Site

Multiple trails, a portion of Naranja Townsite Park, and several golf courses lie within a one mile radius of the Residences at Miller Ranch site. *See Exhibit 1-H.1, Parks, Recreation, & Trails, p. 48.*

a. Trails:

All trails within one mile of the site are hard-surfaced, shared-use paths following major road alignments. Striped shoulder bicycle routes are also present along major road segments.

b. Naranja Townsite Park:

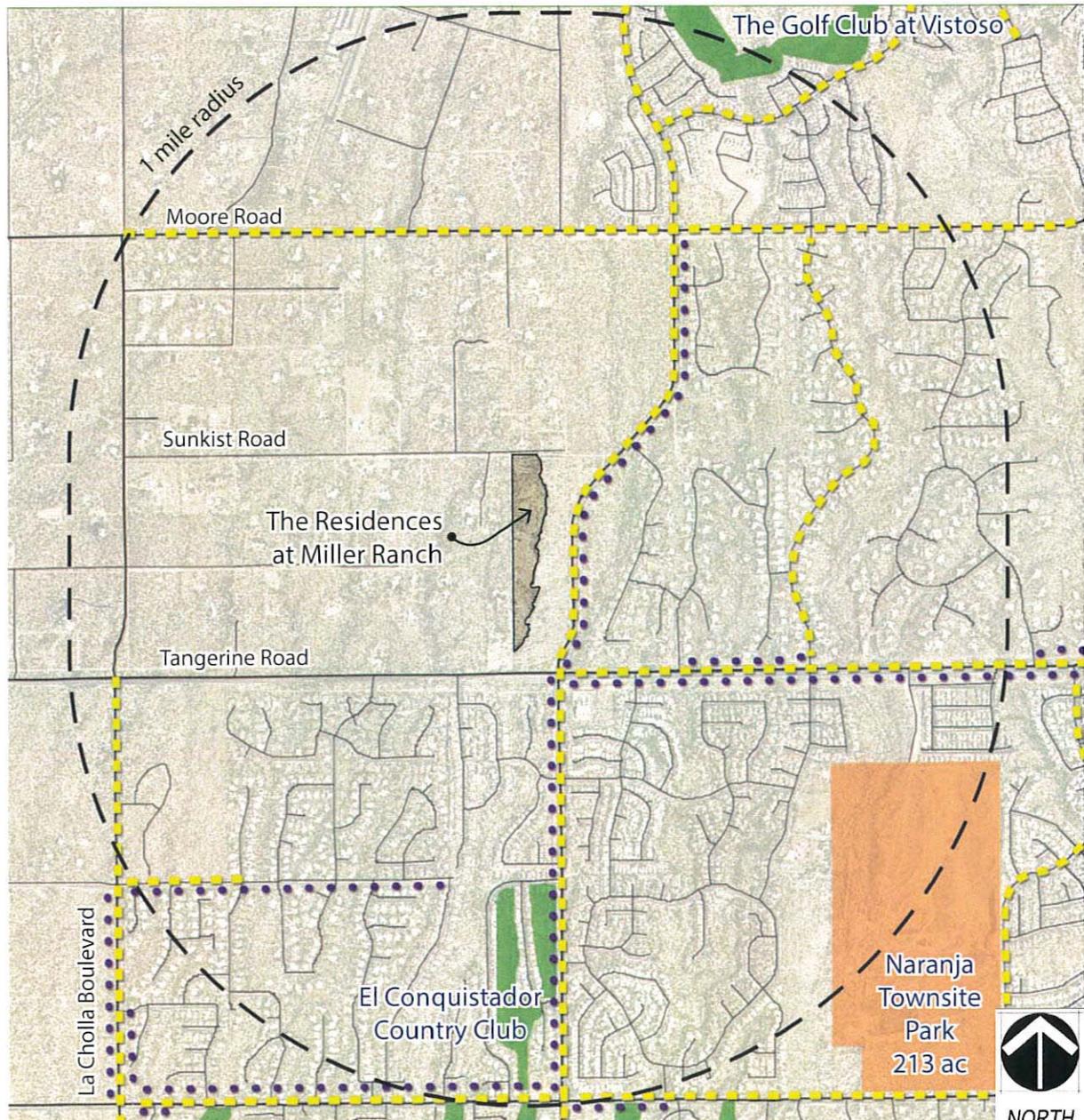
South of Tangerine Road and east of La Cañada Drive, the 213-acre Naranja Townsite Park features a network of trails and an archery course. As of June 2014, the park is currently under construction for Phase 1 Park Improvements which include two (2) multi-use sports field, a dog park, and parking lot.

c. Golf Courses:

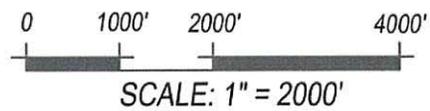
There are two (2) golf courses located within one mile of the Residences at Miller Ranch site: The Golf Club at Vistoso north of Moore Road, and El Conquistador Country Club north of Naranja Drive and west of La Cañada Drive.

Inventory and Analysis

Exhibit 1-H.1: Parks, Recreation, & Trails



Source: Pima County GIS, June 2014



LEGEND

- Parks
- Golf Courses
- Shared-use Paths
- Striped Shoulder Bicycle Route

I. Cultural/Archaeological/Historic Resources

1. Report of Available Site Information

See Exhibit 1-I.1, Cultural Resources, p. 50, for a reliance letter from Fred Huntington, Director of Cultural Resources of Westland Resources, Inc. Engineering and Environmental Consultants. The letter states that upon completion of a cultural resources inventory survey in April, 2008 by Westland Resources, no prehistoric or historic period cultural resources were discovered within the project area. Westland recommends that no further cultural resources work be required due to the lack of archaeological and historic resources within the project site.

Inventory and Analysis

Exhibit 1-I.1: Cultural Resources



July 8, 2014

Mr. Stacey Weaks
NORRIS DESIGN
418 N Toole Avenue
Tucson, AZ 85701

RE: CULTURAL RESOURCES SURVEY REPORT FOR THE 37.2 ACRE MILLER RANCH PROPERTY AT LA CAÑADA DR AND TANGERINE ROAD, ORO VALLEY, ARIZONA WESTLAND PROJECT NO. 1544.01

Dear Mr. Weaks,

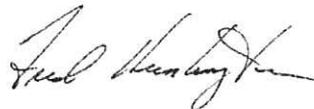
WestLand Resources Inc. (WestLand) completed a cultural resources inventory survey of the above referenced project in January of 2008. A draft report of the findings was submitted in April of 2008 and was forwarded for review to the State Historic Preservation Office (SHPO) by Shirley Gay of the Town of Oro Valley. SHPO comments on the report were received on September 8, 2008 and a revised cultural resources inventory report that included WestLand's responses to the SHPO comments was submitted on September 15, 2008.

No prehistoric or historic period cultural resources were discovered within the project area during the survey. Archival research indicated that the oldest building on the property was a stable built in 1972 and was, therefore, too young to be considered eligible for inclusion on the National Register of Historic Places (NRHP). In the six years since the original survey, this building has still not reached the minimum 50 year threshold to be considered eligible for the NRHP.

Due to the lack of archeological and historic period resources on the property, WestLand recommended that no further cultural resources work be required prior to the development of the property. The report met all applicable state and federal standards at the time it was written and can be relied upon to accurately reflect the lack of cultural resources on the property at the time of the survey. In addition, since no buildings on the property have reached the minimum 50 year threshold for listing on the NRHP, the recommendation that no cultural properties will be affected by the development of the project has not changed.

Should you have any questions or require additional information, please do not hesitate to call.

Respectfully,
WestLand Resources, Inc.



Fred Huntington
Director of Cultural Resources

cc: Jim Tress, WestLand Resources, Inc.

4001 E. Paradise Falls Drive • Tucson, AZ 85712 • 520•206•9585 Fax 520•206•9518
2020 N. Central Avenue • Suite 695 • Phoenix, AZ 85004 • 602•888•7000 Fax 866•457•2838
1750 S. Woodlands Village Blvd. • Suite 150 • Flagstaff, AZ 86001 • 928•225•2218 Fax 866•457•2838

J. Schools

Located southeast and within a one mile radius of the Residences at Miller Ranch site, is Copper Creek Elementary School. *See Exhibit 1-J.1a, Schools within 1 Mile Radius, p. 52.* Accessible from Tangerine Road, the school is located off of N Copper Springs Trail and is a part of the Amphitheater Public School District.

Other schools not located within a one mile radius but could potentially serve the Residences at Miller Ranch are Painted Sky Elementary School, Wilson K-8 School, Ironwood Ridge Highschool, and Casas Christian School. *See Exhibit 1-J.1b, Schools Serving the Area, p. 53.*

K. Water

Water Service Provider:
Oro Valley Water Utility
11000 N. La Cañada Drive
Oro Valley, Arizona 85737

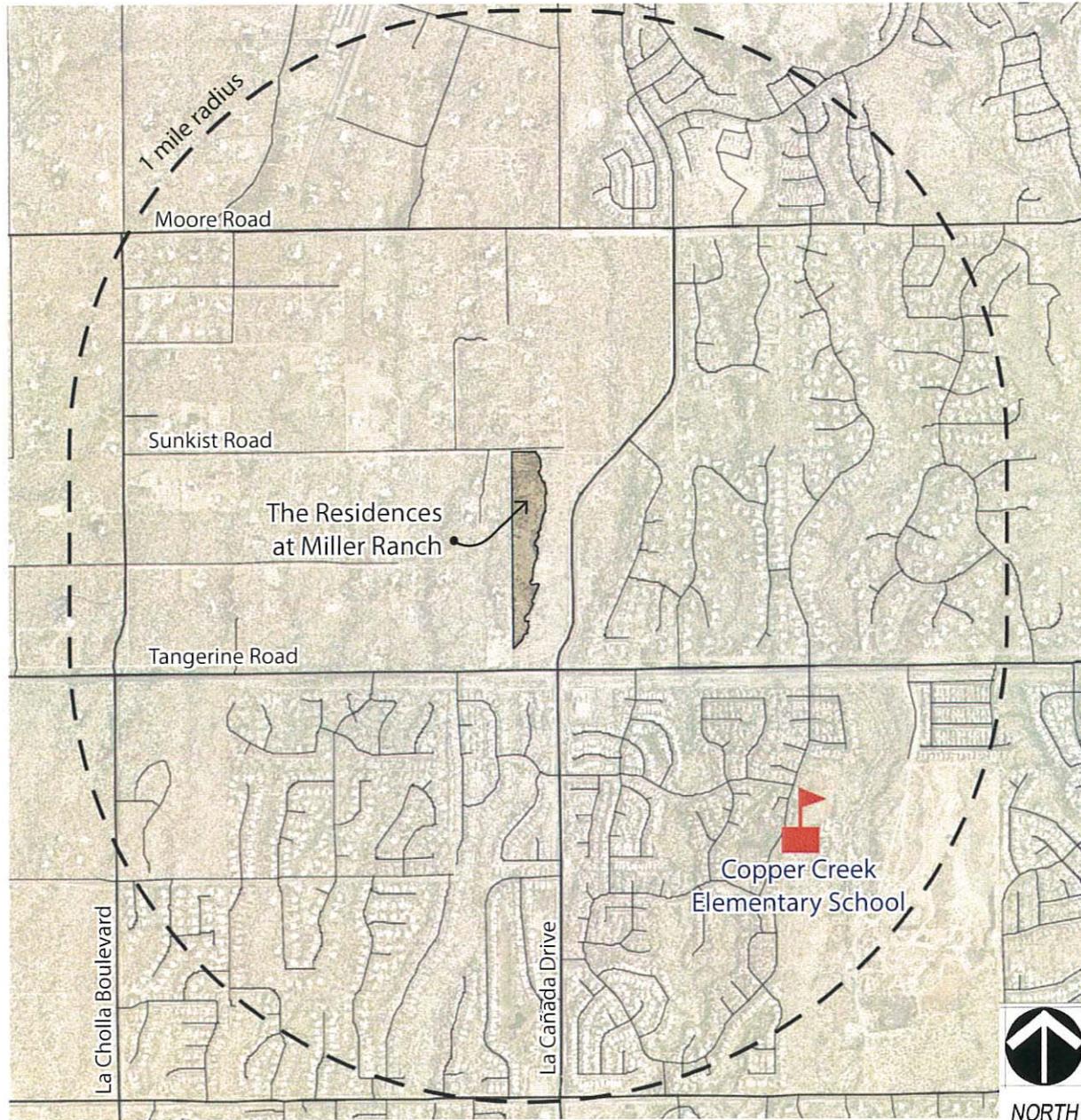
Philip C. Saletta, P.E., Water Utility Director
Tel: 520-229-5000

L. Sewer

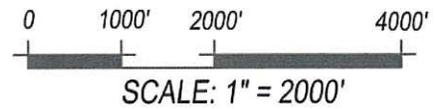
Exhibit 1-L.1, Sanitary Sewer Pipes & Structures p. 54, shows existing public sewer in relation to the project site. Sanitary sewer service will be extended from the 8" Public Sewer, P.N. G-2003-064, at Manhole Number 3890-09 located in the Tangerine Road right-of-way.

Inventory and Analysis

Exhibit 1-J.1a: Schools within 1 Mile Radius



Source: Pima County GIS June 2014

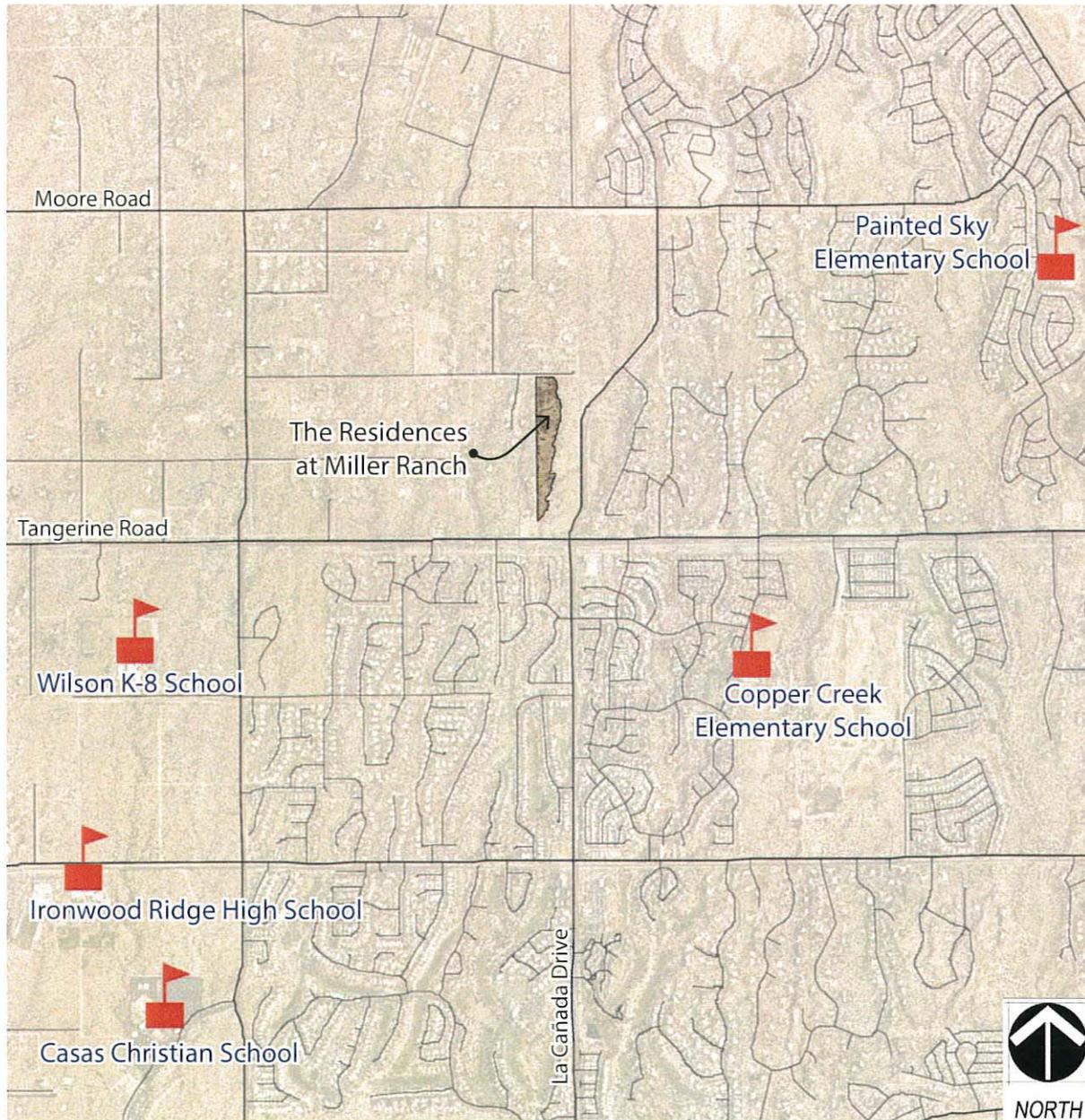


LEGEND

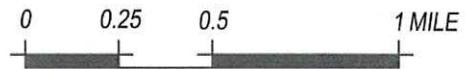
-  Schools

Inventory and Analysis

Exhibit 1-J.1b: Schools Serving the Area



Source: Pima County GIS, June 2014



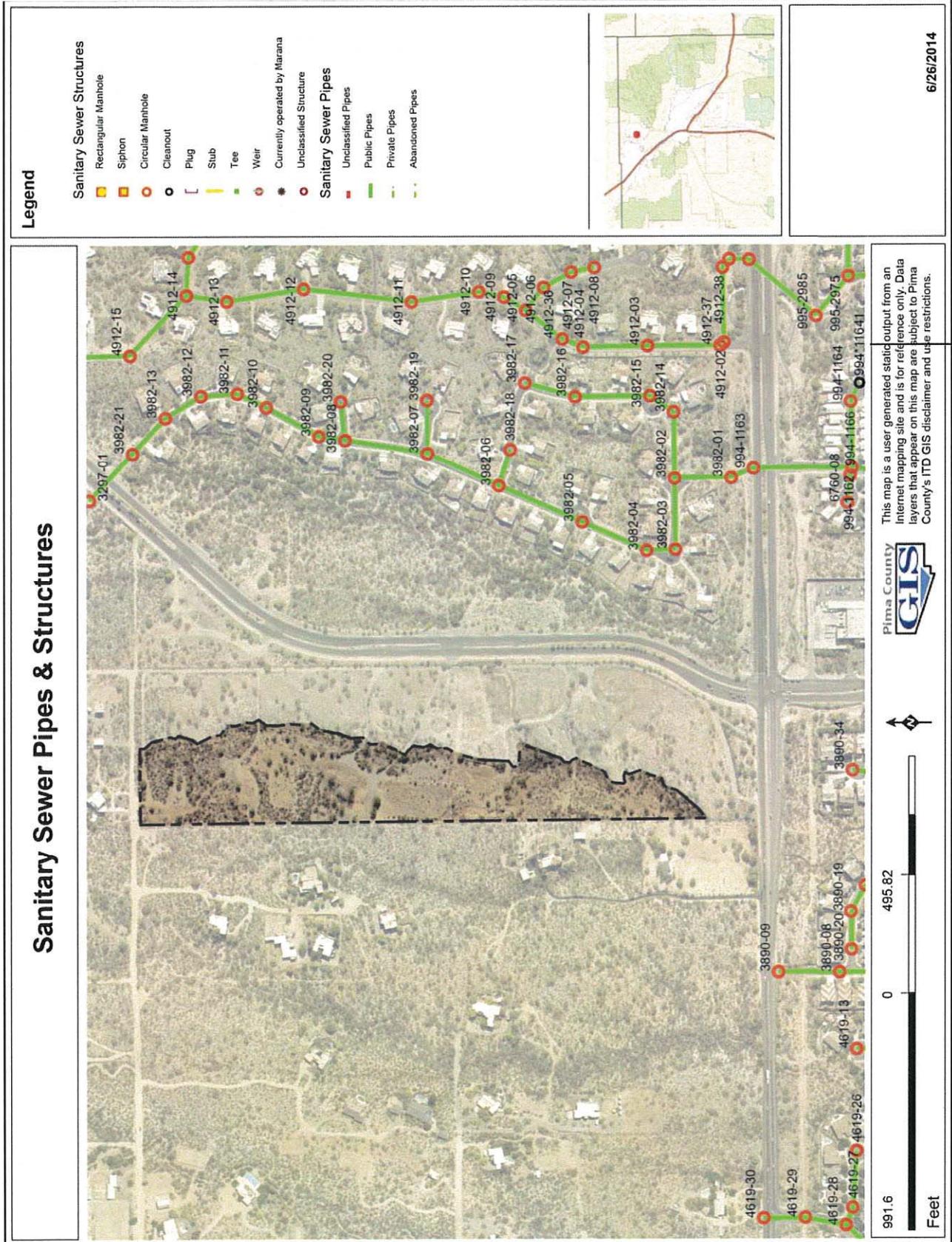
SCALE: 1" = 0.50 MILES

LEGEND

-  Schools

Inventory and Analysis

Exhibit 1-L.1: Sanitary Sewer Pipes & Structures

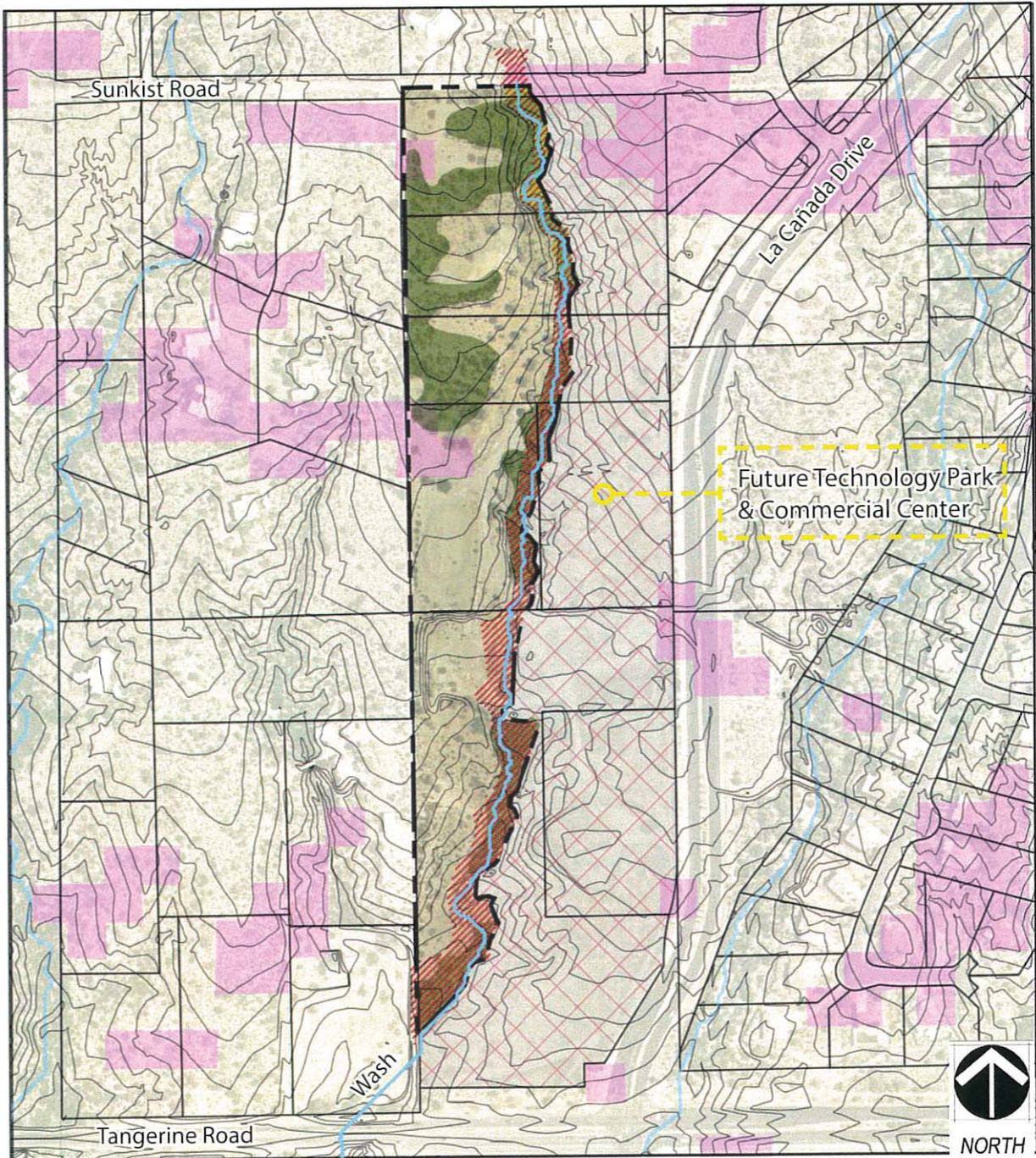


M. Composite Map

A composite map showing Topography, Hydrology, Vegetation, and Wildlife is shown in *Exhibit 1-M.1, Composite Map, p. 56*. Viewsheds are not included in the composite map but are shown in *Exhibit 1-F.1 Views onto Site, p.37*, as most views onto the site are screened by vegetation and will not be significantly impacted.

Inventory and Analysis

Exhibit 1-M.1: Composite Map



Source: Pima County GIS & Rick Engineering Company, July 2014;
Site Observation, April 2014



SCALE: 1" = 400'

LEGEND

- | | |
|---|--|
|  Medium-Low Vegetative Density (26% - 50%) |  Undisturbed Wash |
|  Lesser Long-nosed Bat High Value Habitat | Contour Interval: 2' |
|  100-year Flood Limits | |

PART 2 - LAND USE PROPOSAL

A. Project Overview

Miller Ranch is located at the northwest corner of Tangerine Road and La Cañada Drive. The eastern portion of Miller Ranch has an approved development plan integrating a Technology Park and Commercial Center. The Residences at Miller Ranch is planned to be a 16.3 acre residential development to complement the future Technology Park and Commercial Center. The existing land use designation is Medium Density Residential (MDR, 2.1 - 5.0 DU/AC), however through the General Plan Amendment process, the residential portion of Miller Ranch was stipulated to a maximum allowable density of 2.5 DU/AC. The Medium Density Residential classification aligns with the Low, Medium and High Density Residential designations of the existing residential parcels in the vicinity of the property. The Residences at Miller Ranch features twenty-six (26) lots with a minimum lot size of 8,050 square feet and eleven (11) 10,000 square foot minimum lots, totaling thirty-seven (37) residential lots with a gross density of 2.3 DU/AC. As part of the ESL requirements, the Critical Resource Area (CRA) requires a minimum of 95% preservation and the Resource Management Area requires 25% open space. Approximately 2.0 acres of open space serves to restore and protect the site's disturbed unnamed wash corridor, satisfying the ESL minimum requirement.

Concept Plan | Open Space Summary

The Residences at Miller Ranch provides a collection of open space comprised of ESL Critical Resource Area, ESL Resource Management Area, and revegetated common areas. Approximately 6.4 acres (40%) of the site will be open space and common areas. The neighborhood will enhance the landscape areas along the property edges, create an attractive streetscape and blend the drainage systems into the site. Many of the drainage features will serve as passive amenities for the neighborhood in conformance with the provisions per the ESL. In addition, a portion of the wash will be enhanced to become an amenity for the community. The project will include an at-grade, natural surface trail connection across the wash at the south end of the project to connect with the future trail on the Technology Park and Commercial Center campus. *See Exhibit 2-A, Miller Ranch Concept Plan, p. 60 and Table 2-A, ESL Open Space, p. 58, for a summary of the open space for Miller Ranch.*

TABLE 2-A ESL OPEN SPACE

ESL Open Space	Required	Provided
Critical Resource Area	3.3AC	3.4AC
Resource Management Area - Tier 2	3.2AC	2.2AC*
Common Area / Open Space	N/A	0.7AC
Total Open Space	N/A	6.4AC (40%)

* Wash Restoration Credit (1.0AC) to be applied to the Resource Management Area open space

Rezoning Development Incentives

As part of our zoning request for a R1-7 district, we are requesting the following development incentives per Section 27.10 Environmental Sensitive Lands (ESL) of the Oro Valley Zoning Code.

Wash Restoration Credit

Request: We are requesting credit for the restoration of a majority of the existing unnamed wash within the residential development.

Overview: The entire property and wash have been significantly denuded over the years by the ranching activities on the site. As part of the development program, the project will enhance the disturbed portions of the existing wash including the removal of the invasive plants. Approximately two (2) acres of the wash will be enhanced to improve the function of the wash and overall aesthetic quality of this resource. A one (1) acre credit will be applied towards the overall environmentally sensitive open space (ESOS) requirements and specifically applied to the Resource Management Area (RMA) open space requirement.

Code Reference: Town of Oro Valley Zoning Code, Chapter 27: General Development Standards, Section 27.10 Environmentally Sensitive Lands, (D) Environmentally Sensitive Lands Conservation Systems, (3) Conservation Categories, (b) Critical Resource Area (CRA) Category, (ii) Conservation (c,1), Page 278.8.

Development Incentives

Building Setback

Request: We are requesting a front setback of 10' to allow for front porches, courtyards, facade articulation and side loaded garages, when appropriate, with a minimum 20' setback for a standard front loaded garage.

Overview: The reduced front setback will enhance the streetscape by promoting architectural features along the street frontage that activate the streetscape. Porches, courtyards and enhanced architectural articulation allows for a unique streetscape building on the goals of the residential design guidelines. The goal is to create an unique aesthetic for the community and the residents of Miller Ranch.

Code Reference: Town of Oro Valley Zoning Code, Chapter 27: General Development Standards, Section 27.10 Environmentally Sensitive Lands, (F) ESOS Use and Conservation Development, (2) Development Balance and Incentives, (c, i, ii & iii) Flexible Development , Page 278.62-64

Modified Review Process

Request: We are requesting to apply the Modified Review Process for the subsequent design and infrastructure plan submittals.

Overview: We anticipate the rezoning and public engagement process will address critical planning elements for the project. Thus, this will result in a refined plan that can subsequently be approved administratively. We understand if modifications were considered to be more than minor revisions, future submittals may not be able to be approved administratively.

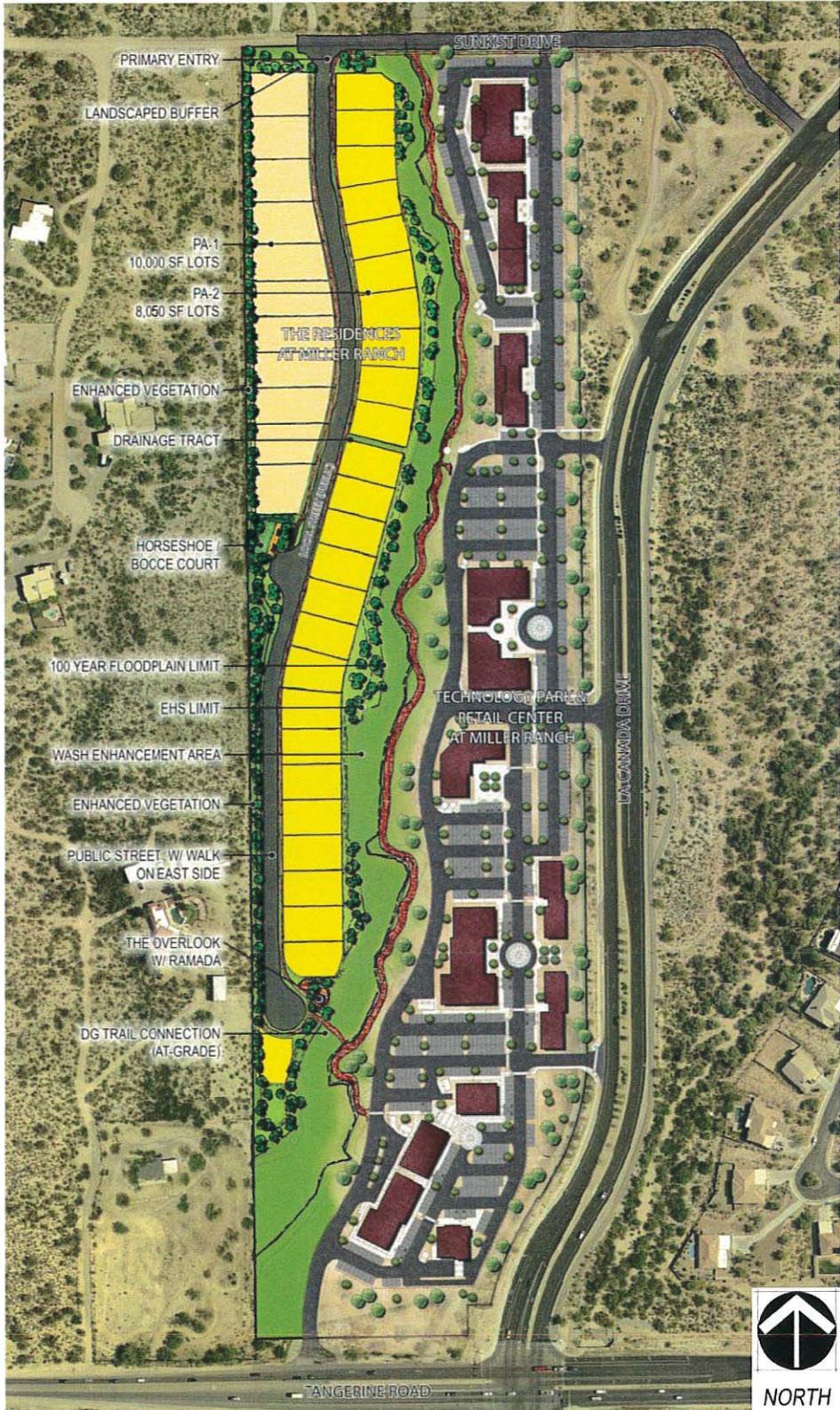
Code Reference: Town of Oro Valley Zoning Code, Chapter 27: General Development Standards, Section 27.10 Environmentally Sensitive Lands, (F) ESOS Use and Conservation Development, (2) Development Balance and Incentives, (c, iii) Flexible Development, (h) Modified Review Process, Page 278.64.

B. Tentative Development Plan

Provided under separate cover.

Land Use Proposal

Exhibit 2-A: Miller Ranch Concept Plan



Not to scale

C. Existing Land Uses

1. Map of Zoning Boundaries and Existing Land Uses on Adjacent Properties

The Residences at Miller Ranch site (parcel numbers 219-47-017A, 018A, 0050, 0060, 004A, 004C, and 004B as identified by the Pima County Assessor) is currently zoned R1-144. Requested zoning for the site is R1-7. Current zoning of site and adjacent property is shown in *Exhibit 2-C.1, Zoning Boundaries/Land Uses*, p. 62. Section 1-A.3 contains additional information on existing zoning and land uses.

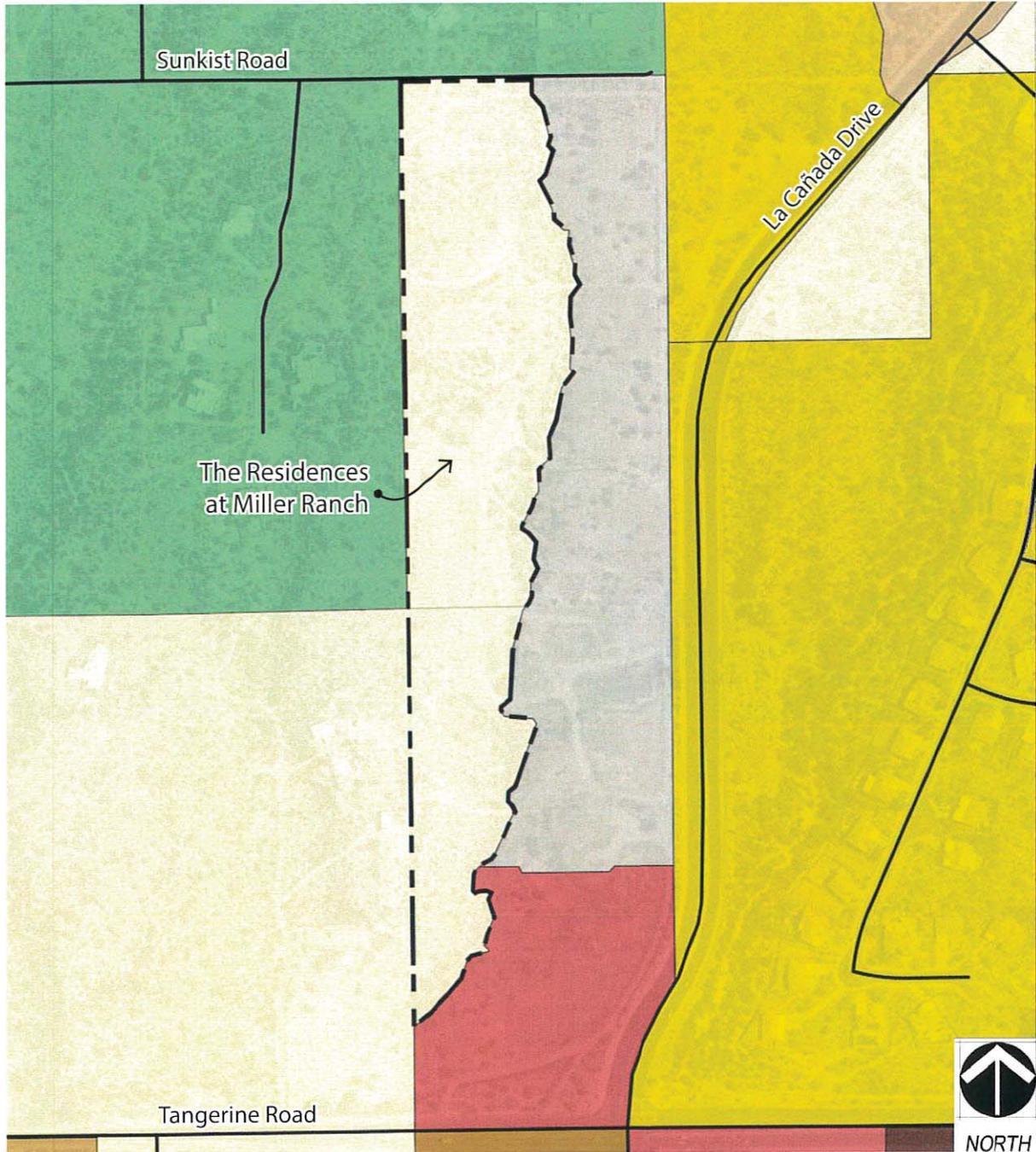
2. Effects of Proposed Development on Existing Land Uses

The Residences at Miller Ranch proposes a viable land use that is complementary to development patterns in the vicinity along the Tangerine Road and La Cañada Corridors. Currently undeveloped, the site is zoned for R1-144 Single Family Residential with a density of 0.3 DU/AC. The proposed rezoning requests rezoning the site to R1-7 Single Family Residential with a density of 2.3 DU/AC. The property was approved for a General Plan Amendment in February 2014 receiving a Medium Density Residential (MDR, 2.0 - 5.0 DU/AC) designation with a maximum allowable density of 2.5 DU/AC. As per the Oro Valley General Plan's definition for MDR, this use should be located adjacent to schools, shopping and employment. The project is adjacent to the future Miller Ranch Technology Park and Commercial Center which will eventually serve as a shopping and employment node along the Tangerine Corridor. The Residences at Miller Ranch may potentially provide housing for employees of nearby future employers.

Development at the lower end of the MDR density range also creates a compatible and logical transition between the existing residential land use to the west and the future Technology Park and Commercial Center. This transition is complemented by integrating enhanced vegetative buffers between the project and existing residential properties while minimizing impacts to distant ridgeline views.

Land Use Proposal

Exhibit 2-C.1: Zoning Boundaries/Land Uses



Source: Pima County GIS, June 2014

LEGEND

SR: Suburban Ranch

R1-144: Single Family Residential

R1-36: Single Family Residential

R1-20: Single Family Residential

R1-10: Single Family Residential

R1-7: Single Family Residential

R-6: Multi-Family Residential

C-1: Commercial District

T-P: Technological Park

0 200' 400' 800'

SCALE: 1" = 400'



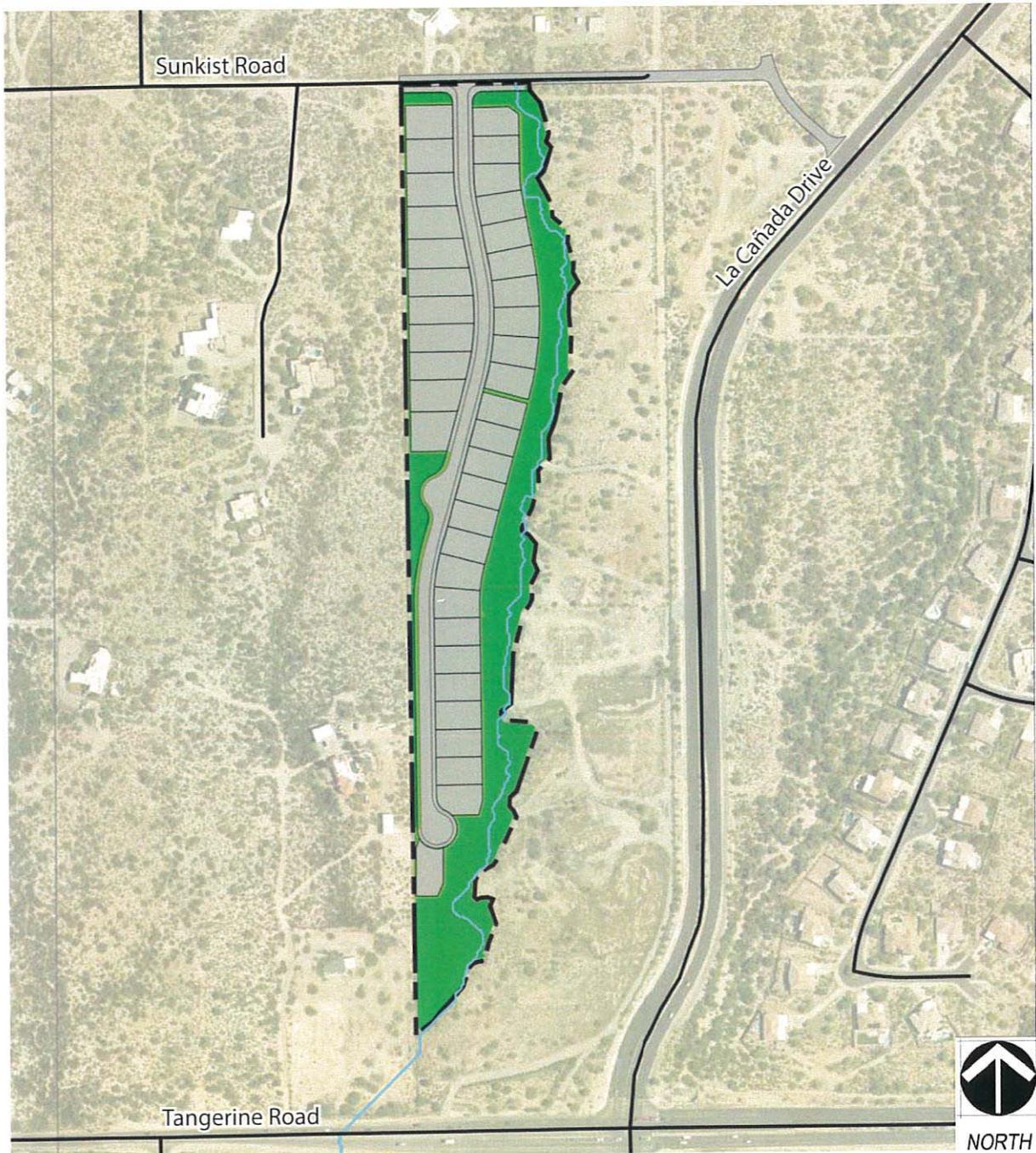
NORTH

D. Effects of Proposed Development on Topography

1. **Response of TDP to Site's Topographic Characteristics**
The existing topography slopes gently from the site's northwestern corner south and east towards the unnamed wash along the eastern site boundary. In effort to minimize site disturbance and preserve the wash along the eastern boundary, the site plan minimizes the grading by matching existing grades, where possible, on the northern and western portions of the subject property.
2. **Encroachment onto Slopes of 15% or Greater**
There is no encroachment onto slopes of 15% or greater.
3. **New Average Cross-slope**
The new post-development cross-slope is 6.2% based on the graded area of 10.8AC.
4. **Area Used in Cross-Slope Calculations**
The cross-slope calculations are based on the graded area of 10.8AC.
5. **Areas to be Disturbed, Graded, and/or Revegetated**
The extent of grading on the site is shown in *Exhibit 2-D.5, Areas to be Disturbed/Graded/Revegetated p. 64*. 10.8AC (66%) of the site will be disturbed/graded and 1.6AC (approx. 6%) of the site will be revegetated. In addition, 2.0AC of the wash will be restored and portions of the ESL open space will be enhanced to mitigate for the existing disturbed conditions, including the eradication of invasive species.
6. **Map Extent of Grading on Site**
Grading on-site is limited to lots and roadways. Refer to *Exhibit 2-D.5, Areas to be Disturbed/Graded/Revegetated p. 64*.

Land Use Proposal

Exhibit 2-D.5: Areas to be Disturbed/Graded/Revegetated



Source: Concept Plan, November 2014

LEGEND

-  Developable Area 9.7AC (60% of total site)
-  Revegetated Area 1.0AC
-  Open Space 6.4AC (40% of total site)



SCALE: 1" = 400'

E. Effects of Proposed Development on Hydrology

1. Response of TDP to Site's Hydrological Characteristics

The proposed development area limits are based on the location of the existing unnamed wash along the east project boundary and associated floodplain limits. Proposed uses and drainage improvements are intended to be compatible with this existing wash and impact the wash as little as practicable. The project will accept the existing off-site runoff and discharge on-site flows at an attenuated level in accordance with Town of Oro Valley Drainage Criteria Manual (2010 edition).

Note that the approved Master Development Plan for Miller Ranch (OV12-08-07) associated with the proposed commercial development along the easterly boundary of this project incorporates detention basins to meet Town of Oro Valley detention design criteria. These proposed detention basins provide adequate attenuation to offset the increased runoff due to this proposed project and detention basins will not be required within The Residences at Miller Ranch (this project) as currently designed. See *Exhibit II.E.1: Post-Development Hydrology p. 69* for the preliminary drainage plan for the overall Miller Ranch site including The Residences at Miller Ranch and the future commercial center. Refer to *Exhibit II.E.2: Post-Development Hydrology – Interim Condition, p. X* for the preliminary drainage plan for the overall Miller Ranch site in the interim condition assuming The Residences at Miller Ranch is constructed before any phase of the commercial center.

2. Encroachment/Modification of Drainage Patterns

Proposed development intends to modify existing drainage patterns as little as practicable. The majority of the developed site will discharge to the unnamed wash along the project boundary, which is similar to existing conditions. Proposed drainage improvements along the wash include a roadway crossing and slope protection with cut-off wall at the toe of slope along the back of pads where proposed lot grading encroaches within the erosion hazard setback. The roadway crossing will incorporate culverts sized to ensure all-weather access, prevent adverse impacts to upstream properties, and minimize the impact to the hydraulic characteristics of the wash. Erosion protection will be provided upstream and downstream of this crossing.

To facilitate the construction of building pads along the west project boundary grading will be required that will reduce the flows to adjacent properties. The existing discharge from On-site Watershed 5E is 14 cfs and it is anticipated this will be reduced to 2 cfs. This reduction will not adversely impact adjacent properties and is not anticipated to have a significant impact on downstream flows sustaining riparian areas.

3. Potential Drainage Impacts to Off-site Land Uses Upstream and Downstream

This project is bounded along its northerly upstream boundary by low density residential

developments. Improvements along the north boundary will be designed to accept existing off-site flows and will ensure the adequate conveyance of these flows. This will prevent drainage impacts to land uses of upstream properties.

The existing wash along The Residences at Miller Ranch project east boundary is not proposed for significant modifications beyond one roadway crossing and slope protection at isolated locations along the west edge. In the interim, prior to the construction of the Miller Ranch commercial development, off-site flows from the east will be accepted in a manner similar to existing conditions (except where detention basins are constructed as described below).

Drainage improvements for this project will include the construction of detention basins to attenuate runoff from the developed site and ensure there no adverse impacts to downstream properties. Detention basins will be designed to ensure the post-development peak discharge from the project matches the existing condition or is reduced by no greater than 10%, in compliance with the Town of Oro Valley Drainage Criteria Manual (2010 edition).

4. Engineering/Design Features to Mitigate Drainage and Erosion Problems

As described previously, there are off-site flows from the north and east that impact the project. The nature and quantity of these flows will be further evaluated in the drainage report(s) prepared for the development of the site. The necessary improvements to convey the flows will be determined at that time and will be incorporated into the drainage improvements for the development. In general, the existing unnamed wash along the east project boundary will remain undisturbed. The use of stabilized side slopes and cut-off walls at the toe of slope will be incorporated where improvements encroach within the existing erosion hazard setback. See *Exhibit II.E.1: Post-Development Hydrology p. 69* for the preliminary drainage plan for the overall Miller Ranch site including The Residences at Miller Ranch and the future commercial center.

Detention is required to ensure the post-development peak discharge from the project matches the existing condition or is reduced by no greater than 10%, in compliance with the Town of Oro Valley Drainage Criteria Manual (2010 edition). The design and construction of the proposed basin system will be in accordance with the requirements of the Pima County Stormwater Detention/Retention Manual, and any modifications adopted by the Town of Oro Valley.

Detention to offset the increased runoff resulting from the development of The Residences at Miller Ranch project will be provided within the overall Miller Ranch property, within the commercial portion of the site on the east side of the unnamed wash. The approved commercial site layout associated with the Master Development Plan for Miller Ranch (OV12-08-07) and analyzed by the Master Drainage Report

for Miller Ranch (Rick Engineering Company, dated May 19, 2010) includes eight detention basins. These proposed detention basins on the commercial side of the Miller Ranch site provide adequate detention to offset the increased runoff from both the commercial center and The Residences at Miller Ranch and ensure that Town of Oro Valley detention criteria is satisfied at the downstream boundary of the overall Miller Ranch site. The details of this detention system design will be provided in the drainage report(s) prepared for the development of the site. As discussed above, no detention is required or proposed within The Residences at Miller Ranch and all detention will be provided within the commercial portion of the Miller Ranch site.

In an interim condition, if The Residences at Miller Ranch is constructed prior to the commercial portion of the site, the proposed detention basins associated with the commercial center can be constructed to meet the Town of Oro Valley detention requirements for The Residences. Assuming none of the commercial center has been constructed, construction of Detention Basin 3 in conjunction with The Residences at Miller Ranch will be adequate to mitigate the effects of increased runoff from the residential project. Refer to Exhibit II.E.2: Post-Development Hydrology – Interim Condition for a preliminary hydrologic analysis of this interim condition of the overall Miller Ranch site. The phased construction of the detention basins will be further evaluated in the drainage report(s) prepared for the development of the site.

Proposed residential lots along the existing wash will be rear-draining and will drain directly to the wash. The remaining lots will drain to the proposed roadway. The roadway will convey runoff to scuppers and/or catch basins that convey flows to the wash. Streets will be designed in accordance with Town of Oro Valley street drainage criteria by ensuring runoff is contained within the curbing and does not exceed 50 cfs.

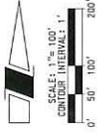
Appropriate erosion protection and energy dissipation will be provided at basin inlet and outlet structures, at storm drain, culvert, and channel outlets, and as necessary at other concentrated flows.

One wash crossing will be required where West Sunkist Road is improved to provide access to the project from North La Canada Drive. This crossing will provide all-weather access by conveyance of the unnamed wash below the roadway by an appropriately sized culvert structure. The crossing will not adversely impact upstream properties and will be designed to maintain wash sediment transport stability as much as practicable. A preliminary analysis indicates that 4-48" RCP or 2-6'x3' RCBC culvert structures will be acceptable. The detailed design of this culvert structure, including a backwater analysis, will be included in the future drainage report for the project.

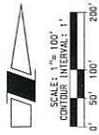
First flush treatment is not required for residential projects within the Town of Oro Valley. If first flush treatment is provided it will be at scuppers and catch basins where

runoff drains from paved surfaces. If utilized, treatment BMPs will be sized for the 2-year, 1-hour storm in accordance with Town of Oro Valley Drainage Criteria Manual (2010 edition), section 11.7.2.

5. **Conformance of TDP to Area Plans, Basin Management Plans, and Town Policies**
The project will conform with applicable policies related to drainage and floodplain management. Applicable policies include but are not limited to those contained within the Town of Oro Valley Drainage Criteria Manual (2010 edition) and the Pima County Stormwater Detention/Retention Manual. Development will include the following to comply with applicable policies:
 - Detention will be provided and demonstrated as adequate through hydrologic modeling
 - The existing unnamed wash will remain mostly undisturbed



WATERSHED	AREA (SQ FT)	CUMULATIVE AREA (SQ FT)	CUMULATIVE Q (CFS)
05-1	22.7	22.7	133
05-2	1.4	24.1	11
05-3	3.6	27.7	21
05-4	5.0	32.7	31
05-5	3.1	35.8	42
05-6	3.1	38.9	52
05-7	3.1	42.0	62
05-8	3.1	45.1	72
05-9	3.1	48.2	82
05-10	3.1	51.3	92
05-11	3.1	54.4	102
05-12	3.1	57.5	112
05-13	3.1	60.6	122
05-14	3.1	63.7	132
05-15	3.1	66.8	142
05-16	3.1	69.9	152
05-17	3.1	73.0	162
05-18	3.1	76.1	172
05-19	3.1	79.2	182
05-20	3.1	82.3	192
05-21	3.1	85.4	202
05-22	3.1	88.5	212
05-23	3.1	91.6	222
05-24	3.1	94.7	232
05-25	3.1	97.8	242
05-26	3.1	100.9	252
05-27	3.1	104.0	262
05-28	3.1	107.1	272
05-29	3.1	110.2	282
05-30	3.1	113.3	292
05-31	3.1	116.4	302
05-32	3.1	119.5	312
05-33	3.1	122.6	322
05-34	3.1	125.7	332
05-35	3.1	128.8	342
05-36	3.1	131.9	352
05-37	3.1	135.0	362
05-38	3.1	138.1	372
05-39	3.1	141.2	382
05-40	3.1	144.3	392
05-41	3.1	147.4	402
05-42	3.1	150.5	412
05-43	3.1	153.6	422
05-44	3.1	156.7	432
05-45	3.1	159.8	442
05-46	3.1	162.9	452
05-47	3.1	166.0	462
05-48	3.1	169.1	472
05-49	3.1	172.2	482
05-50	3.1	175.3	492
05-51	3.1	178.4	502
05-52	3.1	181.5	512
05-53	3.1	184.6	522
05-54	3.1	187.7	532
05-55	3.1	190.8	542
05-56	3.1	193.9	552
05-57	3.1	197.0	562
05-58	3.1	200.1	572
05-59	3.1	203.2	582
05-60	3.1	206.3	592
05-61	3.1	209.4	602
05-62	3.1	212.5	612
05-63	3.1	215.6	622
05-64	3.1	218.7	632
05-65	3.1	221.8	642
05-66	3.1	224.9	652
05-67	3.1	228.0	662
05-68	3.1	231.1	672
05-69	3.1	234.2	682
05-70	3.1	237.3	692
05-71	3.1	240.4	702
05-72	3.1	243.5	712
05-73	3.1	246.6	722
05-74	3.1	249.7	732
05-75	3.1	252.8	742
05-76	3.1	255.9	752
05-77	3.1	259.0	762
05-78	3.1	262.1	772
05-79	3.1	265.2	782
05-80	3.1	268.3	792
05-81	3.1	271.4	802
05-82	3.1	274.5	812
05-83	3.1	277.6	822
05-84	3.1	280.7	832
05-85	3.1	283.8	842
05-86	3.1	286.9	852
05-87	3.1	290.0	862
05-88	3.1	293.1	872
05-89	3.1	296.2	882
05-90	3.1	299.3	892
05-91	3.1	302.4	902
05-92	3.1	305.5	912
05-93	3.1	308.6	922
05-94	3.1	311.7	932
05-95	3.1	314.8	942
05-96	3.1	317.9	952
05-97	3.1	321.0	962
05-98	3.1	324.1	972
05-99	3.1	327.2	982
05-100	3.1	330.3	992
05-101	3.1	333.4	1002
05-102	3.1	336.5	1012
05-103	3.1	339.6	1022
05-104	3.1	342.7	1032
05-105	3.1	345.8	1042
05-106	3.1	348.9	1052
05-107	3.1	352.0	1062
05-108	3.1	355.1	1072
05-109	3.1	358.2	1082
05-110	3.1	361.3	1092
05-111	3.1	364.4	1102
05-112	3.1	367.5	1112
05-113	3.1	370.6	1122
05-114	3.1	373.7	1132
05-115	3.1	376.8	1142
05-116	3.1	379.9	1152
05-117	3.1	383.0	1162
05-118	3.1	386.1	1172
05-119	3.1	389.2	1182
05-120	3.1	392.3	1192
05-121	3.1	395.4	1202
05-122	3.1	398.5	1212
05-123	3.1	401.6	1222
05-124	3.1	404.7	1232
05-125	3.1	407.8	1242
05-126	3.1	410.9	1252
05-127	3.1	414.0	1262
05-128	3.1	417.1	1272
05-129	3.1	420.2	1282
05-130	3.1	423.3	1292
05-131	3.1	426.4	1302
05-132	3.1	429.5	1312
05-133	3.1	432.6	1322
05-134	3.1	435.7	1332
05-135	3.1	438.8	1342
05-136	3.1	441.9	1352
05-137	3.1	445.0	1362
05-138	3.1	448.1	1372
05-139	3.1	451.2	1382
05-140	3.1	454.3	1392
05-141	3.1	457.4	1402
05-142	3.1	460.5	1412
05-143	3.1	463.6	1422
05-144	3.1	466.7	1432
05-145	3.1	469.8	1442
05-146	3.1	472.9	1452
05-147	3.1	476.0	1462
05-148	3.1	479.1	1472
05-149	3.1	482.2	1482
05-150	3.1	485.3	1492
05-151	3.1	488.4	1502
05-152	3.1	491.5	1512
05-153	3.1	494.6	1522
05-154	3.1	497.7	1532
05-155	3.1	500.8	1542
05-156	3.1	503.9	1552
05-157	3.1	507.0	1562
05-158	3.1	510.1	1572
05-159	3.1	513.2	1582
05-160	3.1	516.3	1592
05-161	3.1	519.4	1602
05-162	3.1	522.5	1612
05-163	3.1	525.6	1622
05-164	3.1	528.7	1632
05-165	3.1	531.8	1642
05-166	3.1	534.9	1652
05-167	3.1	538.0	1662
05-168	3.1	541.1	1672
05-169	3.1	544.2	1682
05-170	3.1	547.3	1692
05-171	3.1	550.4	1702
05-172	3.1	553.5	1712
05-173	3.1	556.6	1722
05-174	3.1	559.7	1732
05-175	3.1	562.8	1742
05-176	3.1	565.9	1752
05-177	3.1	569.0	1762
05-178	3.1	572.1	1772
05-179	3.1	575.2	1782
05-180	3.1	578.3	1792
05-181	3.1	581.4	1802
05-182	3.1	584.5	1812
05-183	3.1	587.6	1822
05-184	3.1	590.7	1832
05-185	3.1	593.8	1842
05-186	3.1	596.9	1852
05-187	3.1	600.0	1862
05-188	3.1	603.1	1872
05-189	3.1	606.2	1882
05-190	3.1	609.3	1892
05-191	3.1	612.4	1902
05-192	3.1	615.5	1912
05-193	3.1	618.6	1922
05-194	3.1	621.7	1932
05-195	3.1	624.8	1942
05-196	3.1	627.9	1952
05-197	3.1	631.0	1962
05-198	3.1	634.1	1972
05-199	3.1	637.2	1982
05-200	3.1	640.3	1992
05-201	3.1	643.4	2002
05-202	3.1	646.5	2012
05-203	3.1	649.6	2022
05-204	3.1	652.7	2032
05-205	3.1	655.8	2042
05-206	3.1	658.9	2052
05-207	3.1	662.0	2062
05-208	3.1	665.1	2072
05-209	3.1	668.2	2082
05-210	3.1	671.3	2092
05-211	3.1	674.4	2102
05-212	3.1	677.5	2112
05-213	3.1	680.6	2122
05-214	3.1	683.7	2132
05-215	3.1	686.8	2142
05-216	3.1	689.9	2152
05-217	3.1	693.0	2162
05-218	3.1	696.1	2172
05-219	3.1	699.2	2182
05-220	3.1	702.3	2192
05-221	3.1	705.4	2202
05-222	3.1	708.5	2212
05-223	3.1	711.6	2222
05-224	3.1	714.7	2232
05-225	3.1	717.8	2242
05-226	3.1	720.9	2252
05-227	3.1	724.0	2262
05-228	3.1	727.1	2272
05-229	3.1	730.2	2282
05-230	3.1	733.3	2292
05-231	3.1	736.4	2302
05-232	3.1	739.5	2312
05-233	3.1	742.6	2322
05-234	3.1	745.7	2332
05-235	3.1	748.8	2342
05-236	3.1	751.9	2352
05-237	3.1	755.0	2362
05-238	3.1	758.1	2372
05-239	3.1	761.2	2382
05-240	3.1	764.3	2392
05-241	3.1	767.4	2402
05-242	3.1	770.5	2412
05-243	3.1	773.6	2422
05-244	3.1	776.7	2432
05-245	3.1	779.8	2442
05-246	3.1	782.9	2452
05-247	3.1	786.0	2462
05-248	3.1	789.1	2472
05-249	3.1	792.2	2482
05-250	3.1	795.3	2492
05-251	3.1	798.4	2502
05-252	3.1	801.5	2512
05-253	3.1	804.6	2522
05-254	3.1	807.7	2532
05-255	3.1	810.8	2542
05-256	3.1	813.9	2552
05-257	3.1	817.0	2562
05-258	3.1	820.1	2572
05-259	3.1	823.2	2582
05-260	3.1	826.3	2592
05-261	3.1	829.4	2602
05-262	3.1	832.5	2612
05-263	3.1	835.6	2622
05-264	3.1	838.7	2632
05-265	3.1	841.8	2642
05-266	3.1	844.9	2652
05-267	3.1	848.0	2662
05-268	3.1	851.1	2672
05-269	3.1	854.2	2682
05-270	3.1	857.3	2692
05-271	3.1	860.4	2702
05-272	3.1	863.5	2712
05-273	3.1	866.6	2722
05-274	3.1	869.7	2732
05-275	3.1	872.8	2742
05-276	3.1	875.9	2752
05-277	3.1	879.0	2762
05-278	3.1	882.1	2772
05-279	3.1	885.2	2782
05-280	3.1	888.3	2792
05-281	3.1	891.4	2802
05-282	3.1	894.5	2812
05-283	3.1	897.6	2822
05-284	3.1	900.7	2832
05-285	3.1	903.8	2842
05-286	3.1	906.9	2852
05-287	3.1	910.0	2862
05-288	3.1	913.1	2872
05-289	3.1	916.2	2882
05-290	3.1	919.3	



WATERSHED	AREA (AC)	PEAK FLOWS (CFS)	CUMULATIVE AREA (AC)	CUMULATIVE FLOWS (CFS)
CP-5	1.0	10.0	1.0	10.0
CP-6	1.0	10.0	2.0	20.0
CP-7	1.0	10.0	3.0	30.0
CP-8	1.0	10.0	4.0	40.0
CP-9	1.0	10.0	5.0	50.0
CP-10	1.0	10.0	6.0	60.0
CP-11	1.0	10.0	7.0	70.0
CP-12	1.0	10.0	8.0	80.0
CP-13	1.0	10.0	9.0	90.0
CP-14	1.0	10.0	10.0	100.0
CP-15	1.0	10.0	11.0	110.0
CP-16	1.0	10.0	12.0	120.0
CP-17	1.0	10.0	13.0	130.0
CP-18	1.0	10.0	14.0	140.0
CP-19	1.0	10.0	15.0	150.0
CP-20	1.0	10.0	16.0	160.0
CP-21	1.0	10.0	17.0	170.0
CP-22	1.0	10.0	18.0	180.0
CP-23	1.0	10.0	19.0	190.0
CP-24	1.0	10.0	20.0	200.0
CP-25	1.0	10.0	21.0	210.0
CP-26	1.0	10.0	22.0	220.0
CP-27	1.0	10.0	23.0	230.0
CP-28	1.0	10.0	24.0	240.0
CP-29	1.0	10.0	25.0	250.0
CP-30	1.0	10.0	26.0	260.0
CP-31	1.0	10.0	27.0	270.0
CP-32	1.0	10.0	28.0	280.0
CP-33	1.0	10.0	29.0	290.0
CP-34	1.0	10.0	30.0	300.0
CP-35	1.0	10.0	31.0	310.0
CP-36	1.0	10.0	32.0	320.0
CP-37	1.0	10.0	33.0	330.0
CP-38	1.0	10.0	34.0	340.0
CP-39	1.0	10.0	35.0	350.0
CP-40	1.0	10.0	36.0	360.0
CP-41	1.0	10.0	37.0	370.0
CP-42	1.0	10.0	38.0	380.0
CP-43	1.0	10.0	39.0	390.0
CP-44	1.0	10.0	40.0	400.0
CP-45	1.0	10.0	41.0	410.0
CP-46	1.0	10.0	42.0	420.0
CP-47	1.0	10.0	43.0	430.0
CP-48	1.0	10.0	44.0	440.0
CP-49	1.0	10.0	45.0	450.0
CP-50	1.0	10.0	46.0	460.0
CP-51	1.0	10.0	47.0	470.0
CP-52	1.0	10.0	48.0	480.0
CP-53	1.0	10.0	49.0	490.0
CP-54	1.0	10.0	50.0	500.0
CP-55	1.0	10.0	51.0	510.0
CP-56	1.0	10.0	52.0	520.0
CP-57	1.0	10.0	53.0	530.0
CP-58	1.0	10.0	54.0	540.0
CP-59	1.0	10.0	55.0	550.0
CP-60	1.0	10.0	56.0	560.0
CP-61	1.0	10.0	57.0	570.0
CP-62	1.0	10.0	58.0	580.0
CP-63	1.0	10.0	59.0	590.0
CP-64	1.0	10.0	60.0	600.0
CP-65	1.0	10.0	61.0	610.0
CP-66	1.0	10.0	62.0	620.0
CP-67	1.0	10.0	63.0	630.0
CP-68	1.0	10.0	64.0	640.0
CP-69	1.0	10.0	65.0	650.0
CP-70	1.0	10.0	66.0	660.0
CP-71	1.0	10.0	67.0	670.0
CP-72	1.0	10.0	68.0	680.0
CP-73	1.0	10.0	69.0	690.0
CP-74	1.0	10.0	70.0	700.0
CP-75	1.0	10.0	71.0	710.0
CP-76	1.0	10.0	72.0	720.0
CP-77	1.0	10.0	73.0	730.0
CP-78	1.0	10.0	74.0	740.0
CP-79	1.0	10.0	75.0	750.0
CP-80	1.0	10.0	76.0	760.0
CP-81	1.0	10.0	77.0	770.0
CP-82	1.0	10.0	78.0	780.0
CP-83	1.0	10.0	79.0	790.0
CP-84	1.0	10.0	80.0	800.0
CP-85	1.0	10.0	81.0	810.0
CP-86	1.0	10.0	82.0	820.0
CP-87	1.0	10.0	83.0	830.0
CP-88	1.0	10.0	84.0	840.0
CP-89	1.0	10.0	85.0	850.0
CP-90	1.0	10.0	86.0	860.0
CP-91	1.0	10.0	87.0	870.0
CP-92	1.0	10.0	88.0	880.0
CP-93	1.0	10.0	89.0	890.0
CP-94	1.0	10.0	90.0	900.0
CP-95	1.0	10.0	91.0	910.0
CP-96	1.0	10.0	92.0	920.0
CP-97	1.0	10.0	93.0	930.0
CP-98	1.0	10.0	94.0	940.0
CP-99	1.0	10.0	95.0	950.0
CP-100	1.0	10.0	96.0	960.0
CP-101	1.0	10.0	97.0	970.0
CP-102	1.0	10.0	98.0	980.0
CP-103	1.0	10.0	99.0	990.0
CP-104	1.0	10.0	100.0	1000.0

Per T.O.M. Proj., No. 2005-061, "Enlarge the Road-Thruway to Road to La Canada Dr."

WATERSHED	AREA (AC)	PEAK FLOWS (CFS)	CUMULATIVE AREA (AC)	CUMULATIVE FLOWS (CFS)
CP-5	1.0	10.0	1.0	10.0
CP-6	1.0	10.0	2.0	20.0
CP-7	1.0	10.0	3.0	30.0
CP-8	1.0	10.0	4.0	40.0
CP-9	1.0	10.0	5.0	50.0
CP-10	1.0	10.0	6.0	60.0
CP-11	1.0	10.0	7.0	70.0
CP-12	1.0	10.0	8.0	80.0
CP-13	1.0	10.0	9.0	90.0
CP-14	1.0	10.0	10.0	100.0
CP-15	1.0	10.0	11.0	110.0
CP-16	1.0	10.0	12.0	120.0
CP-17	1.0	10.0	13.0	130.0
CP-18	1.0	10.0	14.0	140.0
CP-19	1.0	10.0	15.0	150.0
CP-20	1.0	10.0	16.0	160.0
CP-21	1.0	10.0	17.0	170.0
CP-22	1.0	10.0	18.0	180.0
CP-23	1.0	10.0	19.0	190.0
CP-24	1.0	10.0	20.0	200.0
CP-25	1.0	10.0	21.0	210.0
CP-26	1.0	10.0	22.0	220.0
CP-27	1.0	10.0	23.0	230.0
CP-28	1.0	10.0	24.0	240.0
CP-29	1.0	10.0	25.0	250.0
CP-30	1.0	10.0	26.0	260.0
CP-31	1.0	10.0	27.0	270.0
CP-32	1.0	10.0	28.0	280.0
CP-33	1.0	10.0	29.0	290.0
CP-34	1.0	10.0	30.0	300.0
CP-35	1.0	10.0	31.0	310.0
CP-36	1.0	10.0	32.0	320.0
CP-37	1.0	10.0	33.0	330.0
CP-38	1.0	10.0	34.0	340.0
CP-39	1.0	10.0	35.0	350.0
CP-40	1.0	10.0	36.0	360.0
CP-41	1.0	10.0	37.0	370.0
CP-42	1.0	10.0	38.0	380.0
CP-43	1.0	10.0	39.0	390.0
CP-44	1.0	10.0	40.0	400.0
CP-45	1.0	10.0	41.0	410.0
CP-46	1.0	10.0	42.0	420.0
CP-47	1.0	10.0	43.0	430.0
CP-48	1.0	10.0	44.0	440.0
CP-49	1.0	10.0	45.0	450.0
CP-50	1.0	10.0	46.0	460.0
CP-51	1.0	10.0	47.0	470.0
CP-52	1.0	10.0	48.0	480.0
CP-53	1.0	10.0	49.0	490.0
CP-54	1.0	10.0	50.0	500.0
CP-55	1.0	10.0	51.0	510.0
CP-56	1.0	10.0	52.0	520.0
CP-57	1.0	10.0	53.0	530.0
CP-58	1.0	10.0	54.0	540.0
CP-59	1.0	10.0	55.0	550.0
CP-60	1.0	10.0	56.0	560.0
CP-61	1.0	10.0	57.0	570.0
CP-62	1.0	10.0	58.0	580.0
CP-63	1.0	10.0	59.0	590.0
CP-64	1.0	10.0	60.0	600.0
CP-65	1.0	10.0	61.0	610.0
CP-66	1.0	10.0	62.0	620.0
CP-67	1.0	10.0	63.0	630.0
CP-68	1.0	10.0	64.0	640.0
CP-69	1.0	10.0	65.0	650.0
CP-70	1.0	10.0	66.0	660.0
CP-71	1.0	10.0	67.0	670.0
CP-72	1.0	10.0	68.0	680.0
CP-73	1.0	10.0	69.0	690.0
CP-74	1.0	10.0	70.0	700.0
CP-75	1.0	10.0	71.0	710.0
CP-76	1.0	10.0	72.0	720.0
CP-77	1.0	10.0	73.0	730.0
CP-78	1.0	10.0	74.0	740.0
CP-79	1.0	10.0	75.0	750.0
CP-80	1.0	10.0	76.0	760.0
CP-81	1.0	10.0	77.0	770.0
CP-82	1.0	10.0	78.0	780.0
CP-83	1.0	10.0	79.0	790.0
CP-84	1.0	10.0	80.0	800.0
CP-85	1.0	10.0	81.0	810.0
CP-86	1.0	10.0	82.0	820.0
CP-87	1.0	10.0	83.0	830.0
CP-88	1.0	10.0	84.0	840.0
CP-89	1.0	10.0	85.0	850.0
CP-90	1.0	10.0	86.0	860.0
CP-91	1.0	10.0	87.0	870.0
CP-92	1.0	10.0	88.0	880.0
CP-93	1.0	10.0	89.0	890.0
CP-94	1.0	10.0	90.0	900.0
CP-95	1.0	10.0	91.0	910.0
CP-96	1.0	10.0	92.0	920.0
CP-97	1.0	10.0	93.0	930.0
CP-98	1.0	10.0	94.0	940.0
CP-99	1.0	10.0	95.0	950.0
CP-100	1.0	10.0	96.0	960.0
CP-101	1.0	10.0	97.0	970.0
CP-102	1.0	10.0	98.0	980.0
CP-103	1.0	10.0	99.0	990.0
CP-104	1.0	10.0	100.0	1000.0

Per REC - HAS and 7/5/07 Interim Condition (no commercial)

BASIN	0100 (CFS)	0200 (CFS)	0300 (CFS)	0400 (CFS)	0500 (CFS)	0600 (CFS)	0700 (CFS)	0800 (CFS)	0900 (CFS)	1000 (CFS)	1100 (CFS)	1200 (CFS)	1300 (CFS)	1400 (CFS)	1500 (CFS)	1600 (CFS)	1700 (CFS)	1800 (CFS)	1900 (CFS)	2000 (CFS)	2100 (CFS)	2200 (CFS)	2300 (CFS)	2400 (CFS)	2500 (CFS)	2600 (CFS)	2700 (CFS)	2800 (CFS)	2900 (CFS)	3000 (CFS)	3100 (CFS)	3200 (CFS)	3300 (CFS)	3400 (CFS)	3500 (CFS)	3600 (CFS)	3700 (CFS)	3800 (CFS)	3900 (CFS)	4000 (CFS)	4100 (CFS)</
-------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	------------	--------------

F. Vegetation

1. TDP Response to Vegetative Characteristics Described in Part 1

The Residences at Miller Ranch site is sporadically vegetated and contains minimal areas of Significant Vegetation, as defined under Oro Valley Zoning Code, Section 27.6. Building envelopes and roadways have been sited to minimize vegetative disturbance and will not affect designated Significant Vegetation. A saguaro cactus (*Carnegiea gigantea*) located near the site's northwestern corner meets criteria established within the Oro Valley Zoning Code; the saguaro will be preserved-in-place as it located within the rear setback outside the building envelope. Native vegetation within the undisturbed, northern portion of the unnamed wash is also considered significant and will not be negatively impacted by the development of the site. The project will follow mitigation requirements outlined in section 27.6.B of the Oro Valley Zoning Code as needed.

Please refer to the Site Resource Inventory (SRI) and Native Plant Preservation Plan (NPPP), under separate cover, for additional information regarding significant vegetation and mitigation.

2. Discussion of Vegetation to be Transplanted

Vegetation will be preserved in place where possible to minimize disturbance. Transplantability of vegetation will be determined per Oro Valley Zoning Code, Section 27.6.B. All trees, shrubs, and cacti that meet the salvage and transplantability criteria will either be preserved in place or relocated on-site. Please refer to the Native Plant Preservation Plan, under separate cover, for additional information regarding disposition of native plants.

G. Wildlife

Destruction of wildlife habitat within the developable area is anticipated to be very minimal. The Biological Evaluation completed by WestLand Resources, Inc., Engineering and Environmental Consultants, provided under separate cover, does not identify any Critical Habitat within the site's boundaries. Pima County Geographic Information Systems recognizes areas of High Value Habitat on-site for the endangered Lesser Long-nosed Bat (*Leptonycteris curasoae yerbabuena*), however due to the species' ability to forage over long distances and the abundance of suitable forage resources throughout the Tucson Basin, it was concluded that no foreseeable adverse impacts are likely to result from the implementation of this project. The development will revitalize wildlife habitat by integrating enhanced vegetative buffers and restoring 2.0 acres of the site's disturbed wash corridor, enhancing riparian habitat for migratory birds and other wildlife.

See Section 1-E.1, Wildlife, p. 24.

H. Buffer Plan

1. Map of Buffer Areas, Mitigation Techniques

Buffer yard requirements are based on adjacent property zoning. *Table 2-H.1, Required Buffer Yards, p. 73* shows the required buffer yards for the Residences at Miller Ranch site. Landscape buffer yards will be used on the west and north boundaries of the site as shown in *Exhibit 2-H.1 Buffer Areas, p. 76*. No landscape buffer is required along the east property border as it is adjacent to T-P and C-1 zoning (per Town of Oro Valley Planning, no buffer yards or building setbacks are required between commercial properties). However, the unnamed wash corridor creates a natural vegetative buffer between the east property boundary and the proposed technology park and commercial center. The Residences at Miller Ranch lacks a definitive southern boundary and the area south of the site is undeveloped land zoned C-1. Directly north of the site is Sunkist Road, defining the north border and separating R1-7 and SR zones. The developer of the Residences at Miller Ranch is prepared to integrate landscaping enhancements to the northern edge of the Sunkist Drive improvements to mitigate potential impacts to the northern property. We plan to continue discussing the improvements with the northern property owner to address any necessary mitigation.

Sound. Due to the proximity of the Residences at Miller Ranch to arterial roads and the future Technology Park and Commercial Center, mitigation of sound is highly desirable and will be achieved through the use of sound filtering mechanisms such as vegetated buffers and five (5) foot property walls.

Visibility. As a private residential community, screening from arterial roads and adjacent land uses is desired. This will be accomplished by integrating densely vegetated buffers along the site's boundaries. Each lot will also include a five (5) foot property wall for additional privacy.

Outdoor Lighting. Per the Town of Oro Valley Zoning Code, Section 27.5 Outdoor Lighting, the Residences at Miller Ranch is designated as a E2a Lighting Zone and will meet all minimum requirements established for that zone.

Traffic. It is anticipated that traffic generated by the proposed development will be nominal due to the limited number of residential lots and the site's proximate location to two (2) arterial roadways. Access to the Residences at Miller Ranch is provided by a local access road off of Sunkist Road via La Cañada Drive, an arterial street with capacity to support estimated traffic flows. The proposed development will not significantly or negatively impact existing traffic conditions in the immediate area.

2. Cross-Section Illustrations—Treatments Adjacent to Existing Development/Streets *See Exhibit 2-H.2: Cross-Section Illustrations, p. 77*

TABLE 2-H.1: REQUIRED BUFFER YARDS

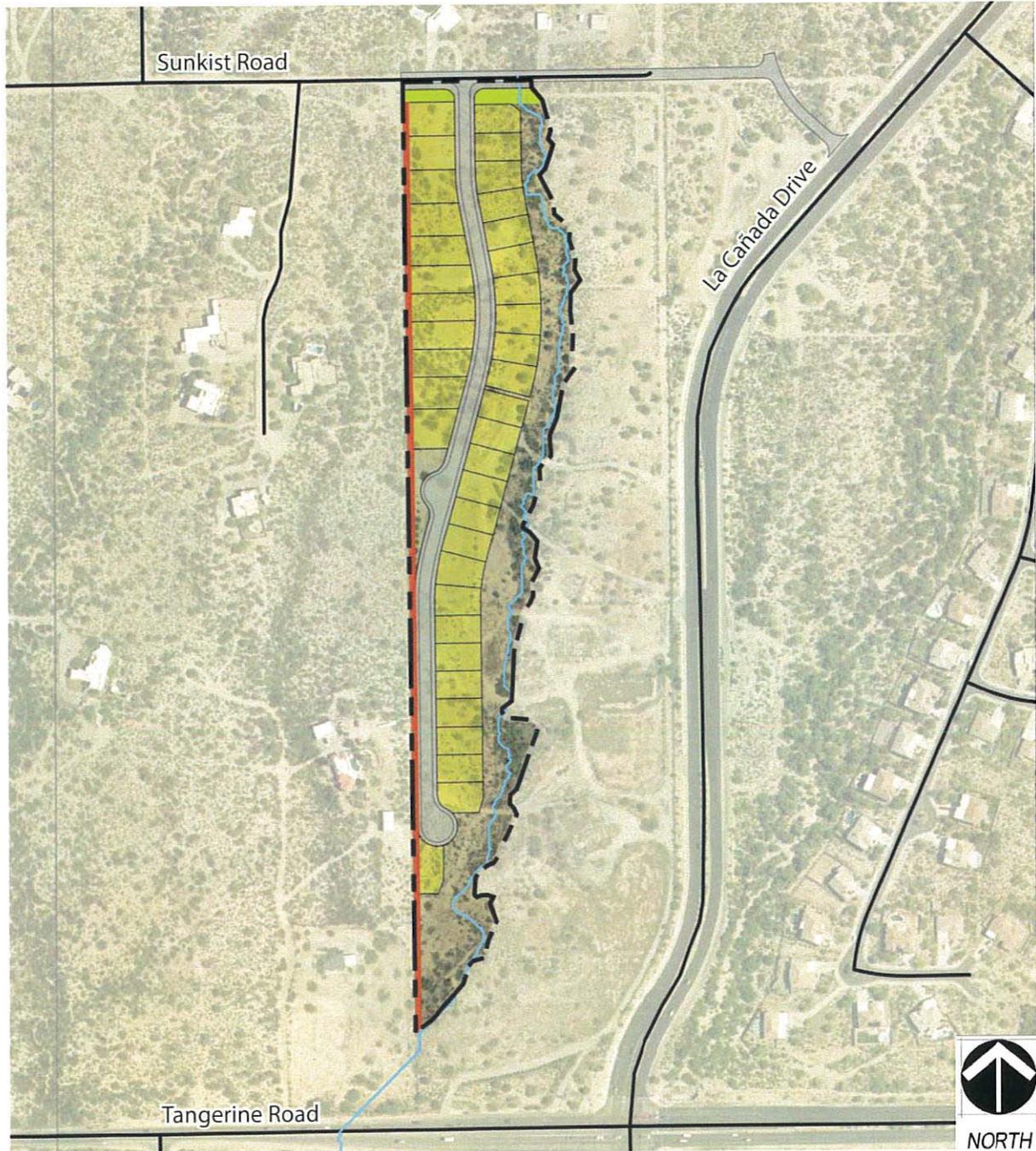
The Residences at Miller Ranch Boundary	Adjacent Property Zoning ¹	Provided Buffer		Required Buffer ²	
		Width	Plants per Linear 100'	Minimum Width	Plants per Linear 100'
West	R1-144, SR	14'	5 Trees, 5 Shrubs, 10 Accents min.	10'	4 Trees, 5 Shrubs, 10 Accents
North	Street, SR	30'	5 Trees, 5 Shrubs, 10 Accents min.	15'	N/A
East	T-P, C-1	Varies		0'	N/A

¹ Pima County GIS, June 2014

² Oro Valley Zoning Code, June 2014, Section 27.6

Land Use Proposal

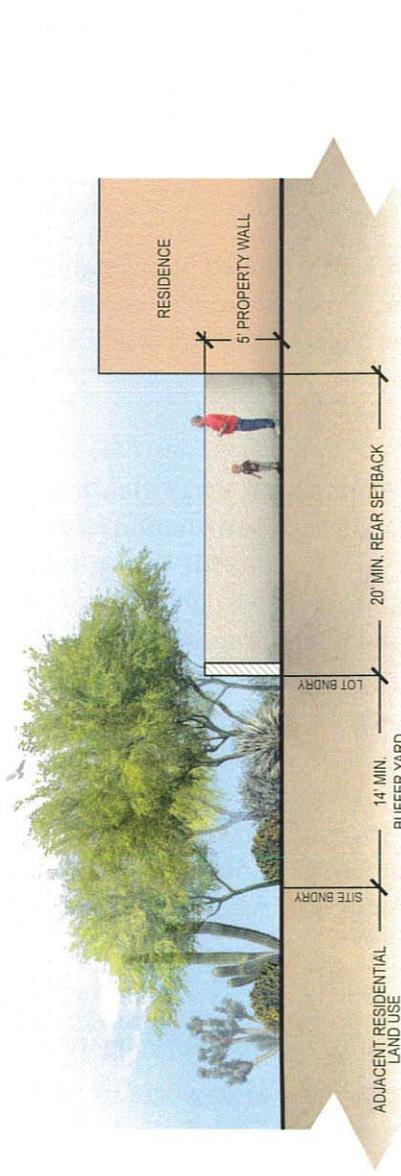
Exhibit 2-H.1: Buffer Areas



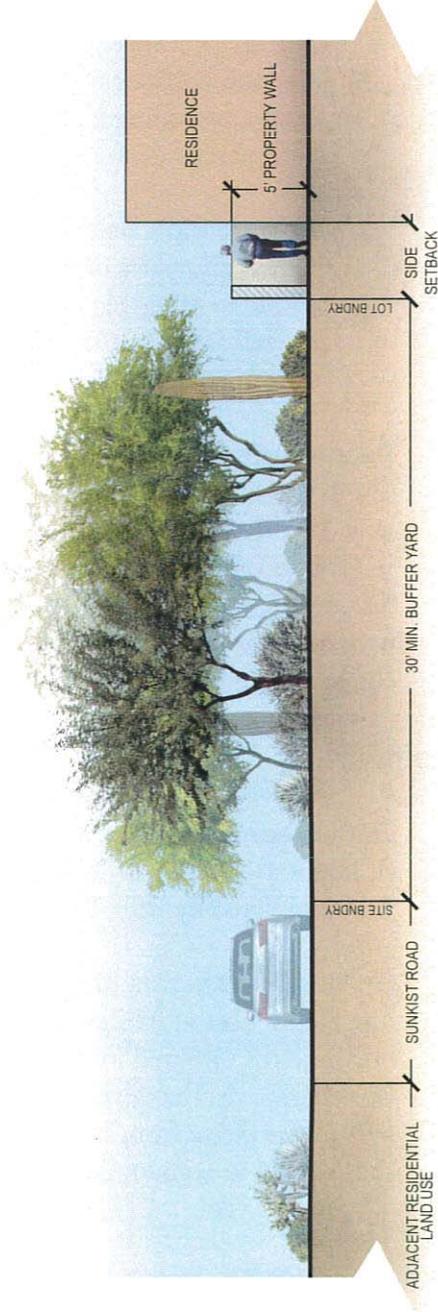
Source: Concept Plan, November 2014

LEGEND

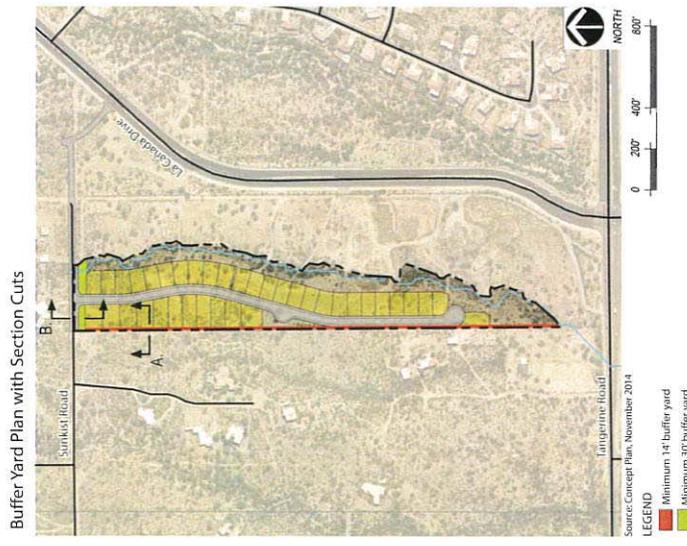
-  Minimum 14' buffer yard
-  Minimum 30' buffer yard



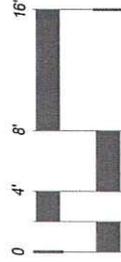
A.) WESTERN SITE BOUNDARY SECTION



B.) NORTHERN SITE BOUNDARY SECTION



Source: Concept Plan, November 2014
 LEGEND
 Minimum 14' buffer yard
 Minimum 30' buffer yard



I. Viewsheds

1. Viewshed Mitigation

a. Views and vistas from off-site

The proposed development will not negatively impact current views onto the site or desirable distant vistas across the site, see *Exhibit 1-F.3, Visual Impacts of Proposed Structures, p. 39*. Buffers designed for the western and northern site boundaries will be enhanced with vegetation and property walls to buffer the proposed homes from the existing, adjacent residential properties. These buffers will mitigate the views on-site of proposed homes, however will not negatively impact distant mountain views for neighboring residents. The existing riparian corridor on the eastern boundary will create a natural, lush, vegetative buffer, providing screening between the proposed homes and the tech park and commercial center.

b. Areas of high visibility

Currently, views onto the site are predominantly filtered by vegetation. Implementing vegetated buffers along the site's western and northern boundaries, as well as the natural buffer created by the riparian corridor will mitigate views onto the site.

2. Roadway Construction

The Residences at Miller Ranch has been designed in such a way to minimize grading and site disturbances as much as possible. The roadway configuration works with the natural terrain, requires no wash crossings, and does not provide through access to Tangerine Road to the south. The roadway on-site will be a public, local roadway with access off Sunkist Road via La Canada Drive. Roadway improvements will conform to the requirements per the Town of Oro Valley Subdivision Street Standards.

J. Traffic

1. Traffic Report

A Traffic Impact Analysis for The Residences at Miller Ranch dated November 25, 2014 was completed by Rick Engineering Company and is included under separate cover.

2. On-site Street Rights-of-Way

The Residences at Miller Ranch will include one proposed internal street, a public north-south oriented local residential roadway, accessible from Sunkist Road via La Cañada Drive. The developer will construct the roadway improvements for the portion of Sunkist Drive from La Canada to the project frontage within the La Cañada Ridge subdivision in conjunction with the improvements to Sunkist Drive along the Miller

Ranch northern boundary. The Sunkist Drive roadway improvements will be complete at the time of the C.O. for the Residences at Miller Ranch. The developer will bear the financial responsibility for the improvements with a reimbursement agreement with the La Cañada Ridge developer and/or roadway impact fee reimbursement agreement with the Town of Oro Valley if such improvements occur prior to the development commencing on the La Cañada Ridge subdivision.

The proposed local roadway is a paved 28' undivided cross section with a 50' right-of-way. A cul-de-sac is located at the south end of the roadway with a vehicular turnaround located mid-block of the property. As a result of one point of access and an over length cul-de-sac, homes within the Residences at Miller Ranch will incorporate residential sprinkler systems for increased fire protection. For cross-sections of the residential roadway refer to sheet 9 of *Exhibit 2-B, Tentative Development Plan, under separate cover*.

3. Proposed Bicycle and Pedestrian Pathways

The Residences at Miller Ranch will incorporate a four (4) foot wide, detached, concrete sidewalk where residential lots front the local, internal road. Additional pedestrian pathways will be included, where appropriate, to provide access to the proposed riparian corridor trail as part of the neighboring technology park and commercial center.

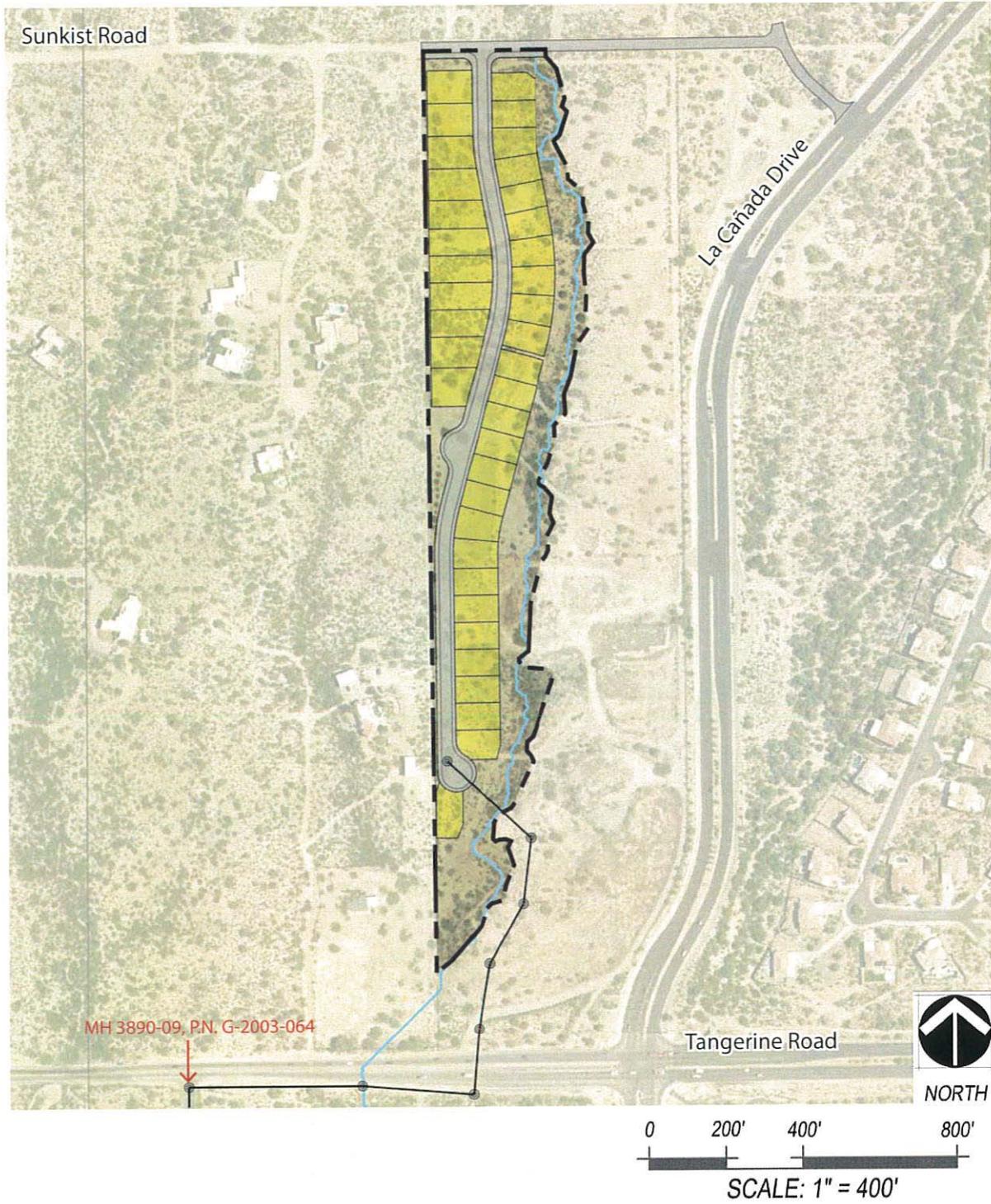
K. Sewer

1. Method for Providing Sewer Service

Public sewer service for the proposed residential subdivision will be extended from the 8" Public Sewer, P.N. G-2003-064, at Manhole Number 3890-09 located in the Tangerine Road right-of-way. See *Exhibit 2-K.1a: Method for Providing Sewer Service, p. 81*. Pima County Regional Wastewater Reclamation Department (RWRD) confirmed the request for public sewer service on August 11, 2014. Request logged as 2014-200. See *Exhibit 2-K.1b: Sewerage Capacity Investigation Request, p. 82*.

L. Recreation and Trails

A map of trails, parks, and recreation areas is shown in *Exhibit 1-H.1, Parks, Recreation, & Trails, p. 48*. To facilitate access to existing recreational features, The Residences at Miller Ranch will connect to striped bicycle lanes and shared use paths on La Cañada Drive through the project access off Sunkist Road. A four (4) foot wide concrete sidewalk is proposed along the frontage of all homes located within the project and a pedestrian linkage will be located at the south end of the property to connect with the Technology Park and Commercial Center's proposed trail within the riparian corridor. Recreational amenities on-site include passive recreational elements such as a ramada, seating, horseshoes and bocce ball courts located within the retention basins.



Land Use Proposal

Exhibit 2-K.1b: Sewerage Capacity Investigation Request



201 N Stone Ave., 3rd Floor Tucson, Arizona 85701 (520) 724-6642

TYPE I - SEWERAGE CAPACITY INVESTIGATION REQUEST

A Type I - Capacity Investigation is a general determination issued to satisfy the submittal requirements for new Rezonings and Site Analysis.

Completed requests must be transmitted electronically to RWTD.CapacityResponse@pima.gov

DOCUMENTATION THAT MUST BE SUBMITTED WITH THE REQUEST:

SUBMITTED	NOT APPLICABLE	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1/2" x 11" Location Map - Requests without location maps cannot be processed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All Calculations used to determine Flow Volumes
<input type="checkbox"/>	<input checked="" type="checkbox"/>	If capacity availability has been previously prepared for this property, please provide the previous response #.

PROJECT NAME AND LOCATION

Project Name: MILLER RANCH - RESIDENTIAL SUBDIVISION

Township: 11 S, Range: 13 E, Section: 34 Total No. of Acres: 16.3

Assessor's Parcel Numbers for all parcels for which sewer service is requested: 219-07-004A, 004B, 004C, 005D, 006D, 017A & 018A

PROJECTED AVERAGE DRY WEATHER FLOW (ADWF) - FROM SEWER DESIGN REPORT

Number of proposed residential lots/units:	38	x 216 gpd per lot or unit	8,208	gpd
Non-Residential - Attach Calculations using http://www.dwg.pima.gov/water/PDF/RLS-4_Table_1.pdf				gpd
Total ADWF =			8,208	gpd

PROPOSED POINT OF CONNECTION TO THE PUBLIC SEWER SYSTEM

Please use the **Sanitary Sewers** layers of Map Guide (<http://gis.pima.gov/maps/RWTD/>) to identify where the project will connect to the public sewer system, using the construction plan numbers and IMS manhole numbers. If the proposed connection will be to a public sewer line that has not yet been built, please identify the proposed point of connection as shown on the approved construction plans.

To Public Sewer Line #: G-2003-004 Existing OR Proposed

At public sewer manhole: IMS# 3890-09 OR Between manholes: IMS MH# and IMS MH#

Via a connection to a private sewer that discharges to the point described above. Please provide the details of such a connection in an attachment.

CONTACT INFORMATION

Contact's Name: TRIMMER

Name of Contact's Firm: TRICK ENGINEERING COMPANY INC.

Mailing Address for Firm: Street: 3045 EAST FORT LOWELL ROAD, SUITE 111

City: TUCSON State: AZ Zip Code: 85712

E-Mail Address: ttrimmer@trickengineering.com

Phone #: +1 (520) 795-1000

Fax #: +1 (520) 322-8856

M. Cultural Resources

Upon completion of a cultural resources inventory survey in April, 2008 by Westland Resources, no prehistoric or historic period cultural resources were discovered within the project area. See *Exhibit 1-I.1, Cultural Resources, p. 50*, for a reliance letter from Fred Huntington, Director of Cultural Resources of Westland Resources, Inc. Engineering and Environmental Consultants.

N. Schools

See *Exhibit 2-N.1, Letter from Amphitheater Public Schools, p. 84*, for anticipated impacts the Residences at Miller Ranch will have on nearby schools including the number of elementary, junior and senior high school students that will likely be generated from the proposed development and current capacities.

O. Water

1. Additional Domestic Water Demand

See *Exhibit 2-O.1, Letter from Oro Valley Water Utility p. 86*, for a reliance letter from Oro Valley Water Utility addressing additional domestic water demand.

2. Water Service Capacity

See *Exhibit 2-O.1, Letter from Oro Valley Water Utility p. 86*, for reliance letter from Oro Valley Water Utility addressing water service capacity.

Land Use Proposal

Exhibit 2-N.1: Letter from Amphitheater Public Schools



OFFICE OF LEGAL COUNSEL

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

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

GOVERNING BOARD MEMBERS

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Susan Zibrat
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Kent Paul Barrabee, Ph.D.
Vice President

Julie Cozad, M.Ed.

Deanna M. Day, M.Ed.

Jo Grant

August 5, 2014

Jennifer Scott
Senior Associate
NORRIS DESIGN
4450 N 12th St, Ste 236
Phoenix AZ 85014

RE: The Residences at Miller Ranch

Dear Ms. Scott:

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

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

<u>Academic Level</u>	<u>38 Single Family Homes</u>
Elementary	8
Middle	8
High School	5

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

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

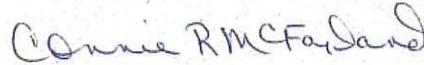
Amphitheater High • Canyon del Oro High • Ironwood Ridge High
Amphitheater Middle School • Coronado K-8 School • Cross Middle School • La Cima Middle School • Wilson K-8 School
Copper Creek Elementary • Donaldson Elementary • Harelson Elementary • Holaway Elementary • Keeling Elementary
Mesa Verde Elementary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

Page 2
August 5, 2014

<u>School Name</u>	<u>School Capacity</u>	<u>Spaces Currently Available</u>
Wilson K-5 (Elementary)	750	116
Wilson 6-8 (Middle)	800	189
Ironwood Ridge High	2290	402

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

Sincerely,



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

Land Use Proposal

Exhibit 2-O.1: Letter from Oro Valley Water Utility



Oro Valley Water Utility

August 11, 2014

Tri Miller
RICK ENGINEERING COMPANY
3945 East Fort Lowell Road, Suite 111
Tucson, Arizona 85712-1046

Subject: WATER AVAILABILITY

**Parcels: 219-47-004B, 219-47-004C, 219-47-004A, 219-47-0050, 219-47-0060,
219-47-017A, 219-47-018A**

To whom it may concern:

The Town of Oro Valley Water Utility currently has water service available to the above property under the following conditions:

- A Water Plan is submitted by the applicant and approved by the Water Utility
- A Line Extension Agreement is executed by the applicant.
- All construction is in accordance with the approved Water Plan and the new facilities are accepted by the Water Utility in accordance with the requirements of the Line Extension Agreement.
- Payment of all water development impact fees, meter fees and other required fees and charges. (A water meter for residential and/or commercial use cannot be sold until after the issuance of an approved building permit.)

WATER SUPPLY

The Town of Oro Valley Water Utility has been designated by the State of Arizona, Department of Water Resources, as having an Assured Water Supply (AWS No. 2003-001 Decision and Order No. 26-400765). This development lies within the boundary of the Oro Valley Water Utility's planned water service area. Once the property is platted, it will be noted on the plat(s) for these properties that the property meets the State requirement of an Assured Water Supply because it will be served by Oro Valley Water Utility.

www.orovalleyaz.gov
11000 N. La Cañada Drive · Oro Valley, Arizona 85737
Phone: (520) 229-5000 · fax: (520) 229-5029



Oro Valley Water Utility

WATER SERVICE

The developer shall be required to submit a Water Plan identifying water system improvements. These include but are not limited to:

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

Once a Water Plan is submitted, it will be determined if the proposed plan can meet the water requirements of the proposed development. The developer shall be fiscally and financially responsible for all water system improvements and modifying/enhancing the existing water system to meet those needs. It is recommended that the applicant contact the Water Utility to discuss the construction of water system improvements prior to submitting a Water Plan for the property.

This letter and the comments herein regarding water availability are valid for a period of one year only through August 11, 2015. Issuance of this letter is not to be construed as approval of a Water Plan and/or acceptance of any construction for water service.

If you have any questions or would like more details regarding any construction improvements that may be required in a Water Plan, please call me at 229-5017.

Sincerely,

A handwritten signature in black ink that reads 'Mark Moore'.

Mark Moore
New Development Coordinator

cc: Phillip C. Saletta, P.E. Water Utility Director

www.orovalleyaz.gov
11000 N. La Cañada Drive · Oro Valley, Arizona 85737
Phone: (520) 229-5000 · fax: (520) 229-5029

TENTATIVE DEVELOPMENT PLAN & CONCEPTUAL SITE PLAN FOR THE RESIDENCES AT MILLER RANCH

OV914-006



LOCATION MAP
A PORTION OF SECTION 34, T. 11 S., R. 1 E.
TOWN OF ORO VALLEY, PIMA COUNTY, ARIZONA

OWNER/DEVELOPER
AN ARIZONA LIMITED LIABILITY COMPANY
1755 EAST SATYLINE DRIVE SUITE 103
TUCSON, AZ 85718
PHONE: (520) 795-0000
WWW.MILLER-RANCH.COM
EMAIL: jphillips@theofficeclub.com

CIVIL ENGINEER
RICK ENGINEERING COMPANY
1000 N. GILBERT AVENUE SUITE 200
ATTA, TEXAS 76801
TUCSON, AZ 85712
PHONE: (520) 795-0000
WWW.RICKENGINEERING.COM
EMAIL: rick@rickeng.com

LEGEND

ITEM	STANDARD DETAIL	SYMBOL
6" VERTICAL CURB	---	23
6" WIDE CURB	---	FS
ZONING BOUNDARY	---	HP
PROPERTY LINE	---	LP
LANDSCAPE BUFFER/PAVED LIMITS	---	CP
LANDSCAPE SETBACKS	---	---
EXISTING RIGHT-OF-WAY	---	---
PROPOSED RIGHT-OF-WAY	---	---
GRADE LIMIT	---	---
SECTION LINE	---	---
ROADWAY CENTERLINE	---	---
LOT NUMBERS	---	---
FINISHED SURFACE	---	---
HIGH POINT	---	---
LOW POINT	---	---
GRADE BREAK	---	---
NO. YR FLOOD PHONE LINE	---	---
BUILDING ENDSION STRACK LINE	---	---
DETAIL REFERENCE	---	---
DETAIL CROSS SECTION	---	---
PROPOSED PRIVATE SEWER W/M	---	---
PROPOSED FIRE WATER MAIN AND VALVE	---	---
PROPOSED FIRE HYDRANT	---	---
FLOW ARROW	---	---
FLOW CONDITIONS	---	---
FLOW ARROW FOR 0'00' DISCHARGE	---	---
OPEN SPACE	---	---
SCHEMATIC WALL	---	---
PROPOSED SLOPE	---	---
CURB ACCESS RAMP	---	---
CONCRETE SIDEWALK	---	---
PROPOSED TYPE 3 SCUMPER	---	---
TELEPHONE FEEDSIAL	---	---
TRAFFIC DIRECTIONAL SIGN	---	---

GENERAL NOTES - CONTINUED

26. ALL UTILITIES SHALL BE INSTALLED PRIOR TO ANY WORK ON THE WATER INFRASTRUCTURE BEFORE THIS PROJECT BEGINS.

27. THE DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AGENCIES AND AGENCIES.

28. APPROVED FIRE APPARATUS ACCESS ROADS MUST BE INSTALLED AND IN SERVICE PRIOR TO COMMENSAL DELIVERY TO THE SITE.

29. APPROVED AUTOMATIC SPRINKLER SYSTEMS IN NEW BUILDINGS AND STRUCTURES SHALL BE PROVIDED THROUGHOUT ALL GROUP A, B, F, L, M, P, AND S OCCUPANCIES FOR EVERY FACILITY. APPROVED AUTOMATIC SPRINKLER SYSTEMS SHALL BE PROVIDED THROUGHOUT ALL ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES USED AS MODEL HOMES WITH SALES EXCEED 3,000 SQUARE FEET IN FIRE-FLOW CALCULATION AREA HEREFTER CONSTRUCTED WITHIN OR MOVED INTO THE JURISDICTION.

30. TEMPORARY STREET SIGNS MUST BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE OF VEHICLES. ALL STRUCTURES UNDER CONSTRUCTION MUST BE CLEARLY IDENTIFIED WITH AN APPROVED ADDRESS.

31. THE INSTALLATION OF TRAFFIC CONTROL SIGNALING DEVICES AND/OR ELECTRICAL EQUIPMENT COMPATIBLE WITH THE FIRE DEPARTMENT'S EXISTING SYSTEM.

32. THE FOLLOWING PROVISIONS APPLY TO ALL STRUCTURES AND UTILITY EQUIPMENT WITHIN 200' EGRESS DISTANCE 27.02.01.A.1. GLASS SURFACES SHALL NOT EXCEED A REFLECTIVITY OF TWENTY PERCENT (0.20) COLOR, HUE AND TONE WITH THE SURROUNDING NATURAL DESERT SETTING. GREEN ENVIRONMENTALLY SENSITIVE AREAS.

33. TRAIL EASEMENT IS A PERMANENT NON-MOTORIZED PUBLIC RECREATION EASEMENT THAT IS GRANTED TO THE TOWN.

34. THE FOLLOWING CODES AND STANDARDS SHALL BE APPLICABLE TO THIS DEVELOPMENT:
- 2012 INTERNATIONAL CODES WITH LOCAL AMENDMENTS
- 2012 AMERICAN SOCIETY OF MECHANICAL ENGINEERS
- 2008 CALIFORNIA FIRE DISTRICT STANDARDS AND CODES
- 2003 CALIFORNIA STATE SPECIFICATIONS & DETAILS FOR PUBLIC IMPROVEMENTS
- 2010 TOWN OF ORO VALLEY DRAINAGE CRITERIA MANUAL
- TOWN OF ORO VALLEY 2008 SUBDIVISION STREET STANDARDS
- ORO VALLEY TOWN CODE, CURRENT REVISION

35. THE TOTAL AMOUNT OF EGRESS AREA TO BE RESTORED IS 2.0 ACRES.

36. RECREATION AREA REQUIREMENTS: 0.631 SF PER S.F./LOT, 0.000 SF PROVIDED (1,000 SF + 15,000 SF)

37. THE APPLICANT SHALL RESTORE FIFTY (50%) OF THE RESIDENTIAL DEVELOPMENT AND THE REMAINING PORTION AT THE TIME OF COMMERCIAL DEVELOPMENT.

38. THE TOWN SHALL REQUIRE THE DEVELOPER TO POST ASSURANCES PRIOR TO RELEASE OF THE GRADING PERMIT.

39. THE TOWN MAY PROVIDE THE DEVELOPER WITH A RELEASE OF ASSURANCE FOR THE PORTION OF THE WASH TO BE RESTORED PROVIDED THAT ALL OF THE IMPROVEMENTS REQUIRED IN THE WASH ARE COMPLETED AND THE WASH IS MAINTAINED AND MONITORED AND ACCEPTED BY THE PLANNING AND ZONING ADMINISTRATOR OR HIS/HER DESIGNEE.

40. ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED TO MEET THE DESIGN SPEED OF 25 MPH. THE DESIGN VEHICLE IS WB-40. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

41. THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS A PRIORITY PROJECT AND WILL BE CONSIDERED FOR WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER WATER REGULATIONS.

42. THE DESIGN SPEED FOR THESE STREETS IS 25 MPH. THE DESIGN VEHICLE IS WB-40.

43. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

44. THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS A PRIORITY PROJECT AND WILL BE CONSIDERED FOR WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER WATER REGULATIONS.

45. ASSURANCES FOR WATER SERVICE, SITE STABILIZATION, AND LANDSCAPING MUST BE POSTED PRIOR TO ISSUANCE OF GRADING PERMITS.

46. AREA OF OPEN SPACE:
ESL: CRITICAL RESOURCE AREA (CRA)
PROVIDED - 3.4 ACRES (80)
ESL: RESOURCE MANAGEMENT AREA (RMA)
REQUIRED - 3.5 ACRES (80)
OPEN SPACE - COMMON AREA
REQUIRED - N/A
TOTAL OPEN SPACE - 0.5 ACRES (80)

47. *WASH RESTORATION CREDIT: 1.2 ACRES - RESTORES A PORTION OF THE DISTURBED WASH WITHIN THE ORO VALLEY ZONING CODE, CHAPTER 20, GENERAL DEVELOPMENT STANDARDS, SECTION 21.0 ENVIRONMENTALLY SENSITIVE LANDS, (B) CATEGORY, (C) CRITICAL RESOURCE AREA (CRA) CATEGORY, (D) CONSERVATION (C.A.) PAGE 27.02

48. LANDSCAPED BUFFER YARDS PROVIDED REQUIRED:
NORTH STREET - 30' BUFFER A, REQUIRED 9' BUFFER A
EAST COMWAY - 0'
WEST - 0'
MIN. 14' BUFFER A, INCLUDES SITE WALL FOR LOTS (REQUIRED MIN. 9')

49. REQUIRED BUILDING SETBACKS:
FRONT YARD - 20 FEET
SIDE YARD - 5 FEET
REAR YARD - 20 FEET
PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
REAR YARD - 20 FEET MIN.

*20' MINIMUM SETBACK FOR THE FRONT LOADED GARAGE PORTION OF THE BUILDING.

50. ALL COMMON AREA AND EGGS OPEN SPACE WILL BE OWNED AND MAINTAINED BY THE HOA. APPROVAL PROCESS.

51. DEVELOPMENT INCENTIVES:
1. WASH RESTORATION CREDIT
2. WASH RESTORATION CREDIT (NOTE *10)

52. EXISTING REGULATORY FLOODPLAINS WILL BE PRESERVED AS NATURAL TO THE MAXIMUM EXTENT PRACTICABLE. ALTERATION WILL OCCUR WHERE NECESSARY TO ACCOMMODATE ROAD CLOSURES AND PAD GRADING.

53. ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED TO MEET THE DESIGN SPEED OF 25 MPH. THE DESIGN VEHICLE IS WB-40. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

54. THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS A PRIORITY PROJECT AND WILL BE CONSIDERED FOR WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER WATER REGULATIONS.

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ESL: RESOURCE MANAGEMENT AREA (RMA)
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OPEN SPACE - COMMON AREA
REQUIRED - N/A
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REAR YARD - 20 FEET
PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
REAR YARD - 20 FEET MIN.

*20' MINIMUM SETBACK FOR THE FRONT LOADED GARAGE PORTION OF THE BUILDING.

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2. WASH RESTORATION CREDIT (NOTE *10)

62. EXISTING REGULATORY FLOODPLAINS WILL BE PRESERVED AS NATURAL TO THE MAXIMUM EXTENT PRACTICABLE. ALTERATION WILL OCCUR WHERE NECESSARY TO ACCOMMODATE ROAD CLOSURES AND PAD GRADING.

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PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
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REAR YARD - 20 FEET MIN.

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2. WASH RESTORATION CREDIT (NOTE *10)

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OPEN SPACE - COMMON AREA
REQUIRED - N/A
TOTAL OPEN SPACE - 0.5 ACRES (80)

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EAST COMWAY - 0'
WEST - 0'
MIN. 14' BUFFER A, INCLUDES SITE WALL FOR LOTS (REQUIRED MIN. 9')

89. REQUIRED BUILDING SETBACKS:
FRONT YARD - 20 FEET
SIDE YARD - 5 FEET
REAR YARD - 20 FEET
PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
REAR YARD - 20 FEET MIN.

*20' MINIMUM SETBACK FOR THE FRONT LOADED GARAGE PORTION OF THE BUILDING.

90. ALL COMMON AREA AND EGGS OPEN SPACE WILL BE OWNED AND MAINTAINED BY THE HOA. APPROVAL PROCESS.

91. DEVELOPMENT INCENTIVES:
1. WASH RESTORATION CREDIT
2. WASH RESTORATION CREDIT (NOTE *10)

92. EXISTING REGULATORY FLOODPLAINS WILL BE PRESERVED AS NATURAL TO THE MAXIMUM EXTENT PRACTICABLE. ALTERATION WILL OCCUR WHERE NECESSARY TO ACCOMMODATE ROAD CLOSURES AND PAD GRADING.

93. ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED TO MEET THE DESIGN SPEED OF 25 MPH. THE DESIGN VEHICLE IS WB-40. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

94. THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS A PRIORITY PROJECT AND WILL BE CONSIDERED FOR WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER WATER REGULATIONS.

95. ASSURANCES FOR WATER SERVICE, SITE STABILIZATION, AND LANDSCAPING MUST BE POSTED PRIOR TO ISSUANCE OF GRADING PERMITS.

96. AREA OF OPEN SPACE:
ESL: CRITICAL RESOURCE AREA (CRA)
PROVIDED - 3.4 ACRES (80)
ESL: RESOURCE MANAGEMENT AREA (RMA)
REQUIRED - 3.5 ACRES (80)
OPEN SPACE - COMMON AREA
REQUIRED - N/A
TOTAL OPEN SPACE - 0.5 ACRES (80)

97. *WASH RESTORATION CREDIT: 1.2 ACRES - RESTORES A PORTION OF THE DISTURBED WASH WITHIN THE ORO VALLEY ZONING CODE, CHAPTER 20, GENERAL DEVELOPMENT STANDARDS, SECTION 21.0 ENVIRONMENTALLY SENSITIVE LANDS, (B) CATEGORY, (C) CRITICAL RESOURCE AREA (CRA) CATEGORY, (D) CONSERVATION (C.A.) PAGE 27.02

98. LANDSCAPED BUFFER YARDS PROVIDED REQUIRED:
NORTH STREET - 30' BUFFER A, REQUIRED 9' BUFFER A
EAST COMWAY - 0'
WEST - 0'
MIN. 14' BUFFER A, INCLUDES SITE WALL FOR LOTS (REQUIRED MIN. 9')

99. REQUIRED BUILDING SETBACKS:
FRONT YARD - 20 FEET
SIDE YARD - 5 FEET
REAR YARD - 20 FEET
PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
REAR YARD - 20 FEET MIN.

*20' MINIMUM SETBACK FOR THE FRONT LOADED GARAGE PORTION OF THE BUILDING.

100. ALL COMMON AREA AND EGGS OPEN SPACE WILL BE OWNED AND MAINTAINED BY THE HOA. APPROVAL PROCESS.

101. DEVELOPMENT INCENTIVES:
1. WASH RESTORATION CREDIT
2. WASH RESTORATION CREDIT (NOTE *10)

102. EXISTING REGULATORY FLOODPLAINS WILL BE PRESERVED AS NATURAL TO THE MAXIMUM EXTENT PRACTICABLE. ALTERATION WILL OCCUR WHERE NECESSARY TO ACCOMMODATE ROAD CLOSURES AND PAD GRADING.

103. ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED TO MEET THE DESIGN SPEED OF 25 MPH. THE DESIGN VEHICLE IS WB-40. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

104. THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS A PRIORITY PROJECT AND WILL BE CONSIDERED FOR WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER WATER REGULATIONS.

105. ASSURANCES FOR WATER SERVICE, SITE STABILIZATION, AND LANDSCAPING MUST BE POSTED PRIOR TO ISSUANCE OF GRADING PERMITS.

106. AREA OF OPEN SPACE:
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ESL: RESOURCE MANAGEMENT AREA (RMA)
REQUIRED - 3.5 ACRES (80)
OPEN SPACE - COMMON AREA
REQUIRED - N/A
TOTAL OPEN SPACE - 0.5 ACRES (80)

107. *WASH RESTORATION CREDIT: 1.2 ACRES - RESTORES A PORTION OF THE DISTURBED WASH WITHIN THE ORO VALLEY ZONING CODE, CHAPTER 20, GENERAL DEVELOPMENT STANDARDS, SECTION 21.0 ENVIRONMENTALLY SENSITIVE LANDS, (B) CATEGORY, (C) CRITICAL RESOURCE AREA (CRA) CATEGORY, (D) CONSERVATION (C.A.) PAGE 27.02

108. LANDSCAPED BUFFER YARDS PROVIDED REQUIRED:
NORTH STREET - 30' BUFFER A, REQUIRED 9' BUFFER A
EAST COMWAY - 0'
WEST - 0'
MIN. 14' BUFFER A, INCLUDES SITE WALL FOR LOTS (REQUIRED MIN. 9')

109. REQUIRED BUILDING SETBACKS:
FRONT YARD - 20 FEET
SIDE YARD - 5 FEET
REAR YARD - 20 FEET
PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
REAR YARD - 20 FEET MIN.

*20' MINIMUM SETBACK FOR THE FRONT LOADED GARAGE PORTION OF THE BUILDING.

110. ALL COMMON AREA AND EGGS OPEN SPACE WILL BE OWNED AND MAINTAINED BY THE HOA. APPROVAL PROCESS.

111. DEVELOPMENT INCENTIVES:
1. WASH RESTORATION CREDIT
2. WASH RESTORATION CREDIT (NOTE *10)

112. EXISTING REGULATORY FLOODPLAINS WILL BE PRESERVED AS NATURAL TO THE MAXIMUM EXTENT PRACTICABLE. ALTERATION WILL OCCUR WHERE NECESSARY TO ACCOMMODATE ROAD CLOSURES AND PAD GRADING.

113. ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED TO MEET THE DESIGN SPEED OF 25 MPH. THE DESIGN VEHICLE IS WB-40. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

114. THIS PROJECT WILL BE SERVED BY ORO VALLEY WATER UTILITY WHICH HAS BEEN DESIGNATED AS A PRIORITY PROJECT AND WILL BE CONSIDERED FOR WATER RESOURCES. ANY AND ALL WELLS MUST BE ABANDONED PER WATER REGULATIONS.

115. ASSURANCES FOR WATER SERVICE, SITE STABILIZATION, AND LANDSCAPING MUST BE POSTED PRIOR TO ISSUANCE OF GRADING PERMITS.

116. AREA OF OPEN SPACE:
ESL: CRITICAL RESOURCE AREA (CRA)
PROVIDED - 3.4 ACRES (80)
ESL: RESOURCE MANAGEMENT AREA (RMA)
REQUIRED - 3.5 ACRES (80)
OPEN SPACE - COMMON AREA
REQUIRED - N/A
TOTAL OPEN SPACE - 0.5 ACRES (80)

117. *WASH RESTORATION CREDIT: 1.2 ACRES - RESTORES A PORTION OF THE DISTURBED WASH WITHIN THE ORO VALLEY ZONING CODE, CHAPTER 20, GENERAL DEVELOPMENT STANDARDS, SECTION 21.0 ENVIRONMENTALLY SENSITIVE LANDS, (B) CATEGORY, (C) CRITICAL RESOURCE AREA (CRA) CATEGORY, (D) CONSERVATION (C.A.) PAGE 27.02

118. LANDSCAPED BUFFER YARDS PROVIDED REQUIRED:
NORTH STREET - 30' BUFFER A, REQUIRED 9' BUFFER A
EAST COMWAY - 0'
WEST - 0'
MIN. 14' BUFFER A, INCLUDES SITE WALL FOR LOTS (REQUIRED MIN. 9')

119. REQUIRED BUILDING SETBACKS:
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SIDE YARD - 5 FEET
REAR YARD - 20 FEET
PROVIDED BUILDING SETBACKS:
SIDE YARD - 5 FEET MIN.
REAR YARD - 20 FEET MIN.

*20' MINIMUM SETBACK FOR THE FRONT LOADED GARAGE PORTION OF THE BUILDING.

120. ALL COMMON AREA AND EGGS OPEN SPACE WILL BE OWNED AND MAINTAINED BY THE HOA. APPROVAL PROCESS.

121. DEVELOPMENT INCENTIVES:
1. WASH RESTORATION CREDIT
2. WASH RESTORATION CREDIT (NOTE *10)

122. EXISTING REGULATORY FLOODPLAINS WILL BE PRESERVED AS NATURAL TO THE MAXIMUM EXTENT PRACTICABLE. ALTERATION WILL OCCUR WHERE NECESSARY TO ACCOMMODATE ROAD CLOSURES AND PAD GRADING.

123. ALL NEW PUBLIC ROADS WITHIN AND ADJACENT TO THIS PROJECT WILL BE CONSTRUCTED TO MEET THE DESIGN SPEED OF 25 MPH. THE DESIGN VEHICLE IS WB-40. THIS DEVELOPMENT MUST COMPLY WITH THE ORO VALLEY WATER UTILITY SPECIFICATIONS MANUAL DURING ALL PHASES OF CONSTRUCTION.

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125. ASSURANCES FOR WATER SERVICE, SITE STABILIZATION, AND LANDSCAPING MUST BE POSTED PRIOR TO ISSUANCE OF GRADING PERMITS.

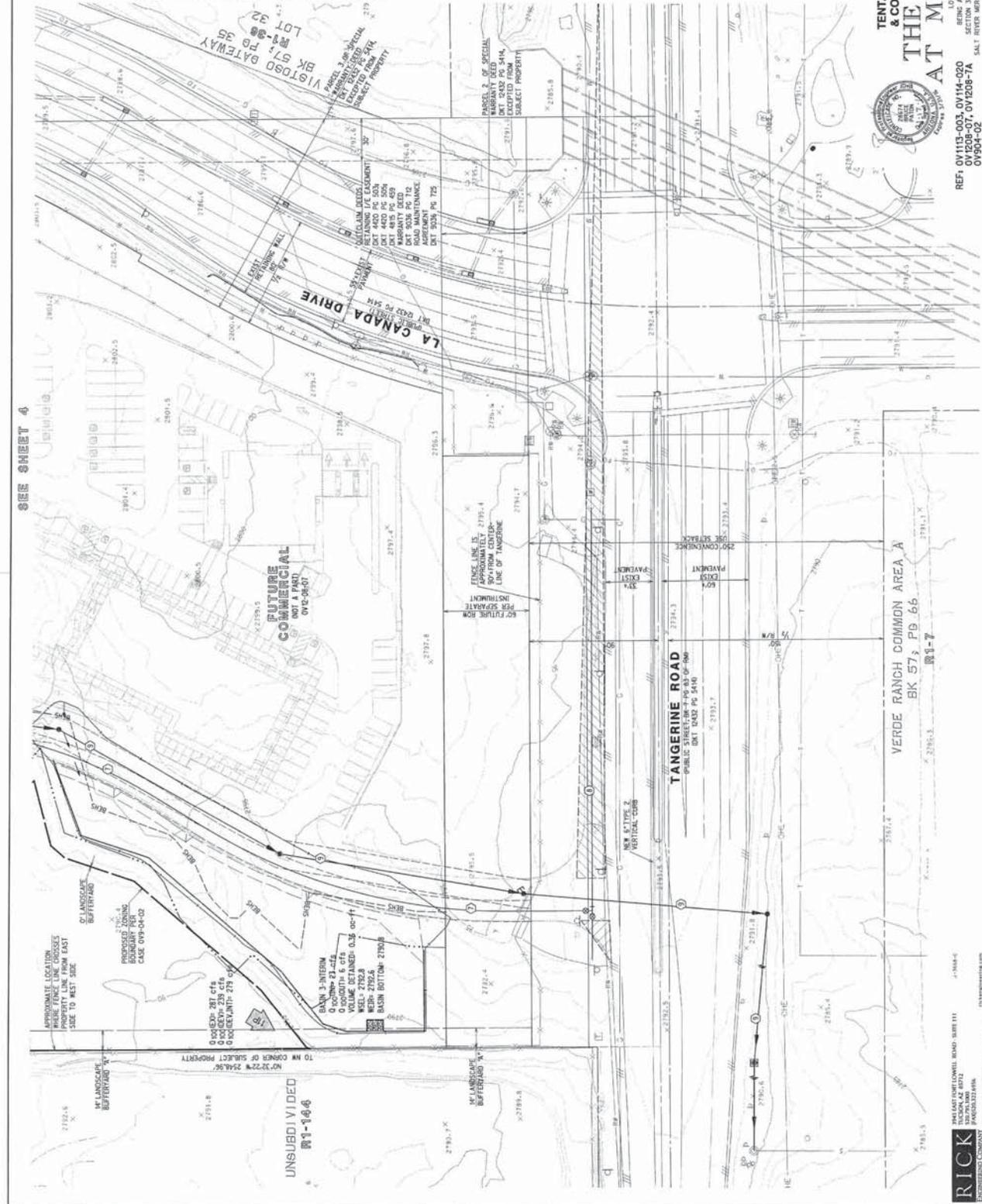
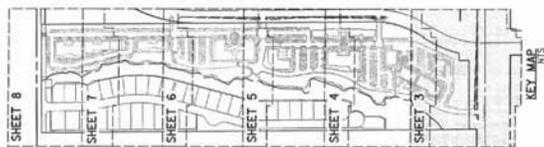
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ESL: RESOURCE MANAGEMENT AREA (RMA)
REQUIRED - 3.5 ACRES (80)
OPEN SPACE - COMMON AREA
REQUIRED - N/A
TOTAL OPEN SPACE - 0.5 ACRES (80)

127. *WASH RESTORATION CREDIT: 1.2 ACRES - RESTORES A PORTION OF THE DISTURBED WASH WITHIN THE ORO VALLEY ZONING CODE, CHAPTER 20, GENERAL DEVELOPMENT STANDARDS, SECTION 21.0 ENVIRONMENTALLY SENSITIVE LANDS, (B) CATEGORY, (C) CRITICAL RESOURCE AREA (CRA) CATEGORY, (D) CONSER



KEYNOTES

- 1 NEW 6" VERTICAL CURB (TYP)
- 2 NEW 6" WEDGE CURB (TYP)
- 3 RETAINING WALL AT PROPERTY LINE
- 4 SAWCUT AT 1" MINIMUM REMOVE EXIST CURB AND PAVEMENT AS NECESSARY, TACK AND JOIN NEW PAVEMENT TO EXIST PAVEMENT
- 5 CURB ACCESS RAMP WITH TRUNCATED DOMES PER ADA STANDARDS (TYP)
- 6 CONCRETE SIDEWALK (TYP)
- 7 PROPOSED #10PC PUBLIC WATER LINE
- 8 PROPOSED #10PC PUBLIC WATER LINE
- 9 PROPOSED #10PC PUBLIC WATER LINE
- 10 PROPOSED #10PC PUBLIC WATER LINE
- 11 W/ALSO RY SCREEN WALL



0V914-006
 TENTATIVE DEVELOPMENT PLAN
 & CONCEPTUAL SITE PLAN FOR
**THE RESIDENCES
 AT MILLER RANCH**

DATE: AUGUST 8, 2014

REF: 0V1113-003, 0V114-020
 0V1208-07, 0V1208-7A
 0V904-02

SCALE: 1"=30'
 CONTOUR INTERVALS: 1'

11-AUG-2015



RICK
 ENGINEERING COMPANY

11-AUG-2015

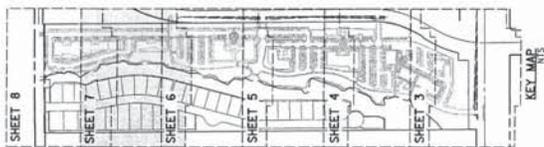
11-AUG-2015



KEYNOTES

- 1 NEW 6" VERTICAL CURB (TYP)
- 2 NEW 6" WEDGE CURB (TYP)
- 3 RETAINING WALL AT PROPERTY LINE
- 4 SAWCUT AT 1" MINIMUM REMOVE EXIST CURB AND PAVER TO EXIST PAVEMENT AND JOIN NEW PAVEMENT TO EXIST PAVEMENT
- 5 CURB ACCESS RAMP WITH TRUNCATED DOMES PER ADA STANDARDS (TYP)
- 6 CONCRETE SIDEWALK (TYP)
- 7 PROPOSED 8" PVC PUBLIC WATER LINE
- 8 PROPOSED 12" PVC PUBLIC WATER LINE
- 9 PROPOSED 8" PVC PUBLIC SEWER
- 10 MASONRY SCREEN WALL

LA CANADA RIDGE
BK 64; PG 12
M1-36
LOT 1

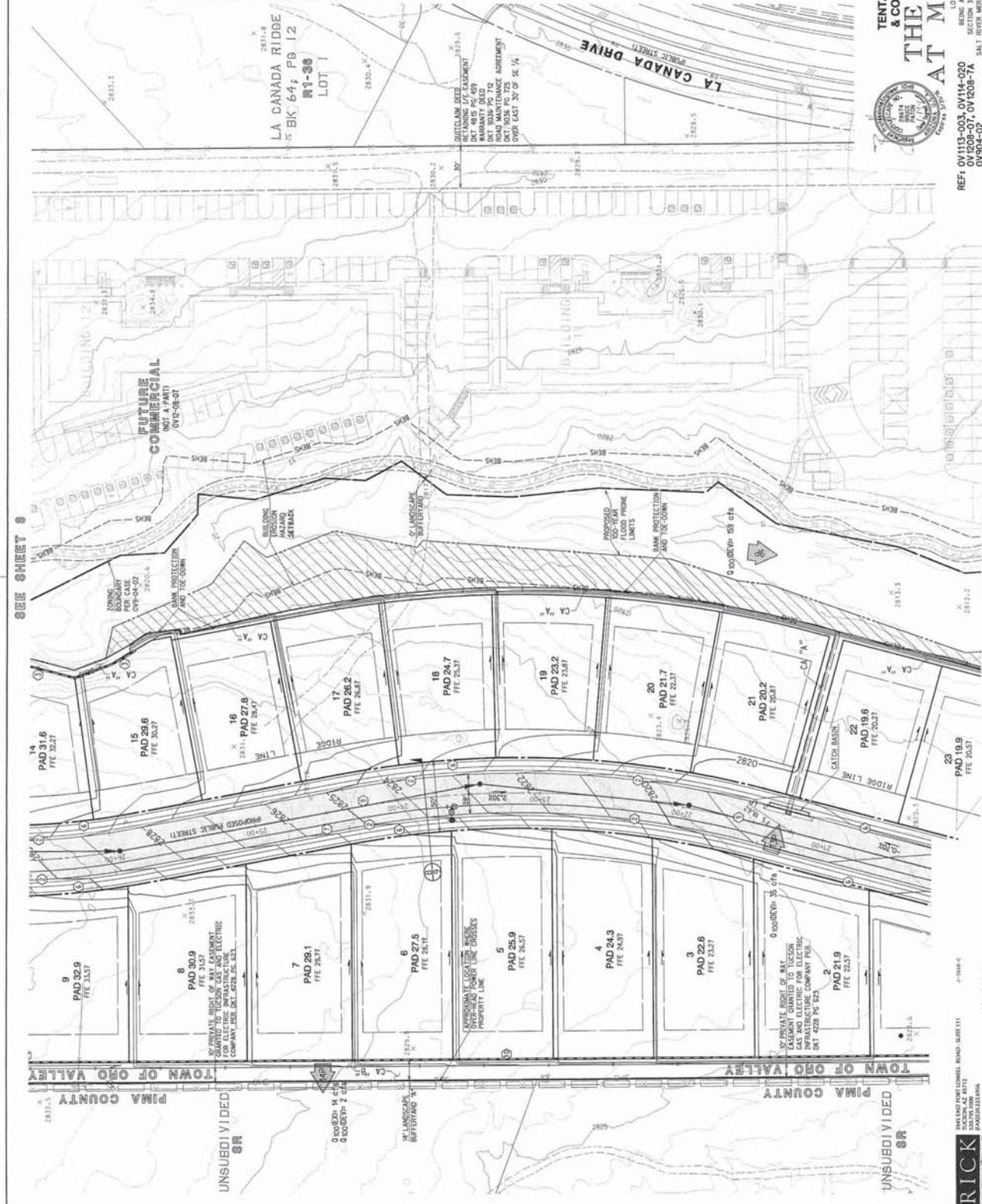


OV914-006

**TENTATIVE DEVELOPMENT PLAN
& CONCEPTUAL SITE PLAN FOR
THE RESIDENCES
AT MILLER RANCH**

REF: 0V115-003, 0V114-020, 0V120-07, 0V120-7A, 0V904-02
SCALE: 1/4" = 1'-0" (SEE NOTES)
DATE: AUGUST 8, 2014

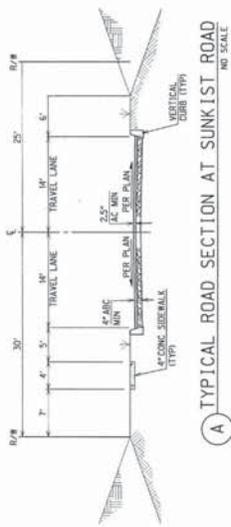
SHEET 7 OF 9



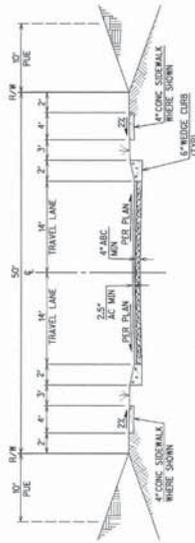
SEE SHEET 8

SEE SHEET 6

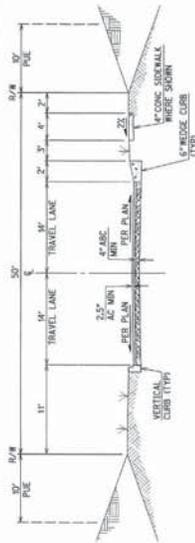
RICK
ENGINEERS & ARCHITECTS
1445 EAST FORT LOWELL ROAD, SUITE 111
TUCSON, AZ 85711
PAXSON 323-8966
www.rick-engineers.com



A TYPICAL ROAD SECTION AT SUNKIST ROAD
NO SCALE



B 50' R/W STREET SECTION
W/UNIT ON BOTH SIDES
NO SCALE



C 50' R/W STREET SECTION
W/UNIT ON ONE SIDE
NO SCALE

OV914-006
TENTATIVE DEVELOPMENT PLAN
& CONCEPTUAL SITE PLAN FOR
**THE RESIDENCES
AT MILLER RANCH**
LOTS 1-37 AND COMMON AREAS 11A, 11B
BEING A PORTION OF THE SOUTHEAST QUARTER OF
SECTION 16, TOWNSHIP 17N, RANGE 13 EAST, GILA
COUNTY, MARICOPA COUNTY, ARIZONA
SALT RIVER WATERSHED, TOWN OF SOD VALLEY, TOWN OF GILBERT, ARIZONA
DATE: AUGUST 8, 2014
SCALE: N/A CONTINUED INTERVAL: N/A SHEET 9 OF 9
11-JAN-2015



REF: 0V115-003, 0V114-020
0V108-007, 0V108-7A
0V109-002

DATE: AUGUST 8, 2014

RICK
L. JOHNSON
PROFESSIONAL ENGINEER
LICENSE NO. 11000
STATE OF ARIZONA
1845 EAST FORT WHEEL ROAD - SUITE 111
TUCSON, AZ 85712
P. 520.325.2494
F. 520.325.2494
www.rickjohnson.com

