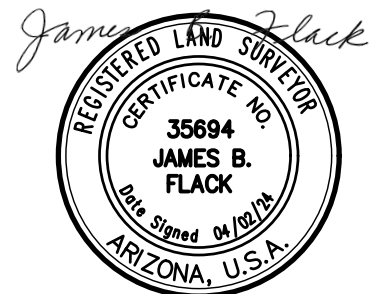


EXHIBIT 'A'
LEGAL DESCRIPTION OF THE PROPERTY
FOR WHICH EXISTING DRAINAGE EASEMENT IS
DEDICATED HEREIN

LOT 29, STONE CANYON AMENDED, ACCORDING TO BOOK 371 OF MAPS,
PAGE 31, RECORDS OF MARICOPA COUNTY, ARIZONA.

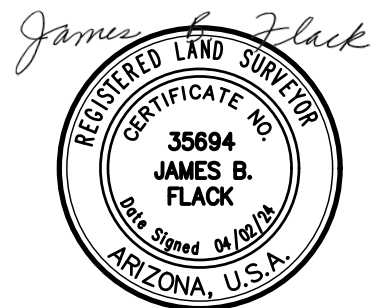


P 602 889 1984 | F 602 889 0501
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020 PHOENIX @ LDGENG.COM

EXHIBIT 'B'
LEGAL DESCRIPTION
DEDICATION OF DRAINAGE & FLOOD CONTROL EASEMENT

THAT PART OF LOT 29, STONE CANYON AMENDED ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, IN BOOK 371 OF MAPS, PAGE 31.
MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY PROPERTY CORNER OF SAID LOT 29;
THENCE ALONG THE WESTERLY PROPERTY LINE OF SAID LOT, NORTH 06°45'00" EAST, A DISTANCE OF 51.60 FEET;
THENCE LEAVING SAID PROPERTY LINE, NORTH 67°49'33" EAST, A DISTANCE OF 69.08 FEET;
THENCE NORTH 54°01'11" EAST, A DISTANCE OF 58.60 FEET;
THENCE NORTH 10°45'09" EAST, A DISTANCE OF 61.48 FEET;
THENCE NORTH 07°32'32" EAST, A DISTANCE OF 42.98 FEET, TO A POINT ON THE NORTHERLY PROPERTY LINE OF SAID LOT, ALSO BEING THE SOUTHERLY RIGHT OF WAY LINE OF SOLANO DRIVE;
THENCE ALONG SAID LINE, SOUTH 89°53'20" EAST, A DISTANCE OF 29.00 FEET;
THENCE LEAVING SAID PROPERTY LINE, SOUTH 08°17'58" WEST, A DISTANCE OF 135.00 FEET;
THENCE SOUTH 60°37'20" WEST, A DISTANCE OF 165.34 FEET, TO THE **POINT OF BEGINNING**.
CONTAINING 8,970 S.F. (0.206 AC.); MORE OR LESS.

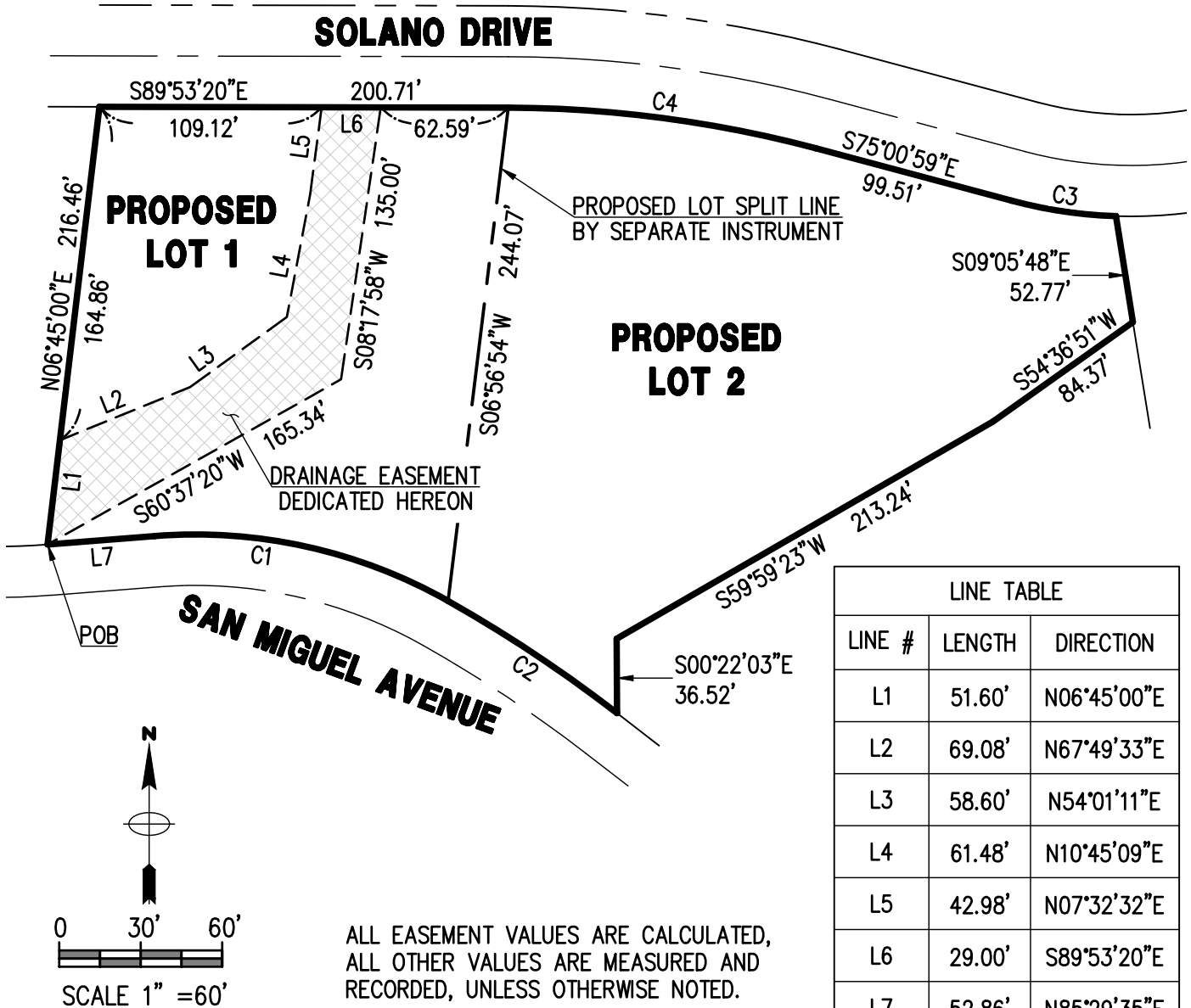


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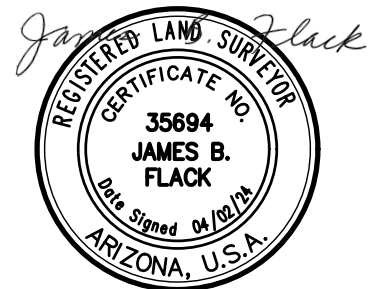
EXHIBIT 'B'

GRAPHIC DEPICTION

DEDICATION OF DRAINAGE & FLOOD CONTROL EASEMENT



CURVE TABLE						
CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CH. DIRECTION	CH. LENGTH
C1	252.27'	149.61'	33°58'45"	77.08'	N77°30'15"W	147.43'
C2	698.64'	99.64'	8°10'18"	49.91'	N56°25'07"W	99.56'
C3	226.92'	51.93'	13°06'48"	26.08'	S81°33'44"E	51.82'
C4	591.56'	152.64'	14°47'02"	76.75'	N82°28'36"W	152.22'



P 602 889 1984 | F 602 889 0501
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020 PHOENIX @ LDGENG.COM



DRAINAGE REPORT

**5338 E San Miguel Avenue,
Paradise Valley, Arizona 85253**

LDG PROJECT #2106249

Prepared for:

Kate & Joseph Hogan
5339 E San Tan Miguel Ave,
Paradise Valley, Arizona 85253

Submitted to:

Town of Paradise Valley
Engineering Department
6401 E Lincoln Dr.
Paradise Valley, Arizona 85253

Prepared by:

Land Development Group, LLC
8808 N Central Ave., Ste 288
Phoenix, Arizona 85020
Contact: Nick Prodanov, PE, PMP
P: 602 889 1984



Nick Prodanov

April 29th, 2022

TABLE OF CONTENTS

	<u>PAGE</u>
1. Introduction.....	1
2. Description of Existing Drainage Conditions	1
3. FEMA Flood Zone	3
4. Proposed Drainage Plan	3
5. Conclusions and Recommendations	3
6. References	4

APPENDICES

Appendix A-1 – Vicinity Map	5
Appendix A-2 – Drainage Map	6
Appendix A-3 – FEMA FIRM Exhibit	7
Appendix A-4 – Aerial Map Exhibit	8
Appendix A-5 – Topographic Map Exhibit.....	9
Appendix A-6 – Soils Map and Data	10
Appendix A-7 – Drainage Calculations	11



April 29th, 2022

1. INTRODUCTION

This drainage report and related design have been developed in accordance with the current Maricopa County and Town of Paradise Valley drainage ordinances, standards and policies. It provides engineering analysis and assessment of the current drainage conditions that affect parcel 172-47-086, located at 5338 E San Miguel Avenue, Paradise Valley, AZ 85253 and also being Lot 29, Stone Canyon Amended, a subdivision recorded in Book 371 of Maps, Page 31 MCR, being a portion of the NE $\frac{1}{4}$ of Section 17, Township 2 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Refer to Appendix A-1 – Vicinity Map.

The project site is located within a residential subdivision Stone Canyon Amended and it is zoned R-43 (Hillside). The property was previously disturbed by the construction of a single family residence. Currently the 2.342 acres lot is cleared from all buildings and hardscape. Property access will be provided from Solano Drive at the north property line. The site is surrounded by large residential lots on the west and east. It is proposed to split the property in two separate lots.

A field survey and inspection were conducted in June, 2021 to collect important information regarding the existing topographic characteristics, drainage conditions, and to verify and confirm the extent of the tributary areas, local disturbances to the historic flows, and location and condition of existing storm drainage structures. A topographic map was developed with a one-foot contour interval for the site and adjacent streets. The elevation contours and survey spot elevations are tied to the GDACS monuments and are based on the Town of Paradise Valley vertical datum (NAVD 88).

Aerial and topographic maps were collected from the Maricopa County GIS and USGS web sites to facilitate further and clearly delineate the limits of each drainage tributary area and conveyance corridors for historic and current conditions. Maricopa County, FCDMC and USGS maps, aerial photography and surveyed topographic map for the site were reviewed and used to establish the tributary areas.

The analysis presented herein focuses on evaluating existing and proposed drainage conditions, as well as stormwater runoff resulting from a statistical evaluation of storm events of particular frequency, up to and including 100-year event as required by the Governing Agency. A storm event exceeding the 100-year will probably cause or create the risk of a greater storm impact than is presented and addressed herein.

2. DESCRIPTION OF EXISTING DRAINAGE CONDITIONS AND CHARACTERISTICS

The site is currently disturbed for the limits of the existing development and covered with native desert vegetation. The overall terrain is sloping northeasterly at an average slope of 8.33 %. Four flow lines were observed on site. One major flow line enters the site near the southwesterly property corner and flows in a northerly direction. The flow exits the site at the north property line. The flow was observed to be formed at the beginning of 52nd Place and runs downstream along the street until it reaches the site. The remaining three flows are relatively small and run in an

northeasterly direction. Two of the flows are being formed on-site along the north and east sides of the lot. The third flow is formed upstream of the project and reached the project through and was observed to cross San Miguel Avenue enters the site new the southwest property corner.

Property access from San Miguel Avenue and Solano Drive are through an existing concrete driveway with concrete retaining wall and a gate. Both streets have a super elevated pavement section with approximately 0.5% cross slope. San Miguel Avenue longitudinal slope was estimated at 1.85%, sloping easterly. Solano Drive longitudinal slope was estimated at 5.70%, sloping easterly.

Soils in the watershed are indicated in the NRCS report as:

85.0% of *Rock land*; 15.0% of *Rough broken land*. Soils in the watershed fall under Hydrologic Group C (for the project site), which is classified as: *"Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission."*, however soils of the upstream tributary area are considered to have negligible infiltration rate, thus having higher runoff contribution. The above data was used to adjust the runoff coefficient values of the hydrologic model.

Computations have been performed to estimate the 100-year design peak discharges for the overall tributary area of Major Basin that contribute to the offsite flows. Since the total drainage area is less than 160 acres, the Rational Method has been used in accordance with the Flood Control District of Maricopa County (FCDMC) Drainage Design Manual Volume I – Hydrology. FCDMC Drainage Design Management System software was utilized for calculating the Rational Method parameters and the peak discharge of the contributing drainage areas. Precipitation data was derived from the NOAA Atlas 14, Volume 1, Version 5.

Detailed hydrologic analysis and modeling were performed in accordance with procedures presented in the Drainage Design Manual of Maricopa County, Volumes 1 & 2 to estimate the 100-year storm design peak discharges for the overall contributing areas and determine the swale sections that will safely convey the design flows.

Comparing the extent of the tributary areas of the historic and current conditions and the produced results of the peak discharges at each concentration point, there are minor changes from the historic conditions.

The Major Basin of the watershed is 5.17 acres and consists of four Sub Basins. Sub Basin 10 is 3.69 acres and generates 22.4 cfs from 100-year storm. Sub Basin 11 is 0.59 acres and generates 4.0 cfs. Sub Basin 12 being 0.63 acres and generates 4.3 cfs. Sub Basin 13 is 0.26 acres and generates 1.7 cfs.

Please refer to the project Drainage Map in Appendix A-2.

3. FEMA FLOOD ZONE CLASSIFICATION

Site is located in FEMA Flood Zone "X" according to Flood Insurance Rate Map (FIRM) #: 04013C, Panel 1765 of 4425, Suffix L, dated October 16th, 2013, as published by FEMA. The FIRM Panel defines Zone "X" as follows: *"Areas determined to be outside the 0.2% annual chance floodplain"*.

See Appendix A-3 for FEMA Flood Insurance Rate Map exhibit.

4. PROPOSED DRAINAGE PLAN

The project will consist of the demolition of the existing single-family residence, garage, pool and the existing driveway and proposed lot split plat map to create two new parcels. Separate grading and drainage plans will be prepared for each lot. The plans will be based on the individual architectural designs approved by the Town of Paradise Valley Hillside Committee and Building Department. Ultimate outfall of the subject property is located near the northeasterly property corner at elevation of 1462.78.

On-lot stormwater retention will be required for both lots. Required retention will be calculated for the Pre vs Pos development condition or first flush, which ever derives greater volume for the limits of disturbance. On-lot retention will be provided via surface retention basins or underground storage.

Summary printouts of the drainage calculations are enclosed in Appendix A-7.

5. CONCLUSIONS AND RECOMMENDATIONS

Grading and Drainage plan for Demolition has been designed in conformance with the recommendations and results presented in this report as well as the Town of Paradise Valley, Maricopa County, Arizona State and Federal requirements and standards.

Off-site flows shall be allowed to pass through the site and to exit the property in a manner similar to the existing conditions. Grading around the residence shall provide for positive drainage away from the structures as shown on the Grading and Drainage plan for Demolition.

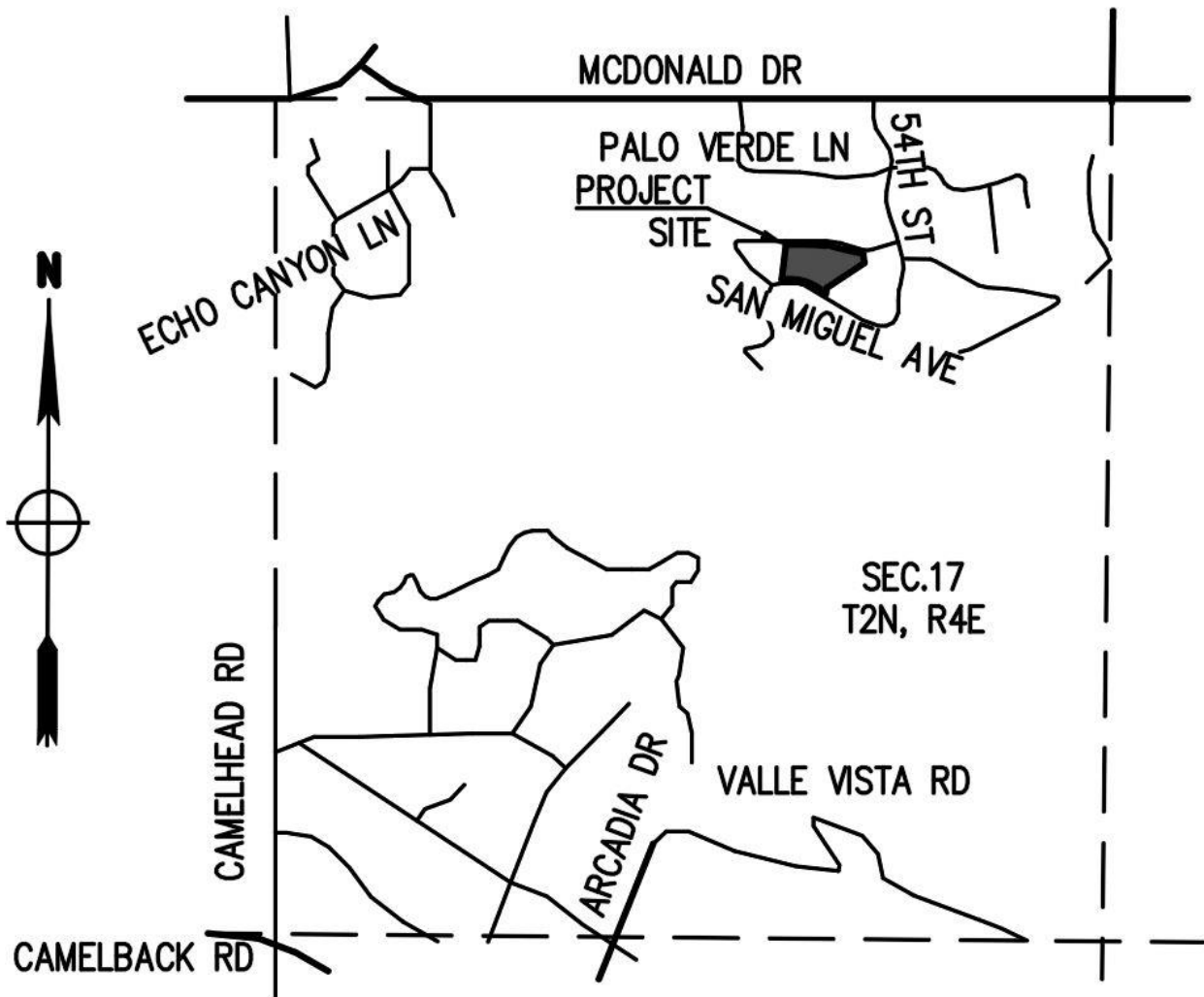
In conclusion the project site has the potential to collect, convey and discharge runoff safely and effectively. The proposed improvements do not impact drainage conditions of neighboring lots and will not result in significant changes to the existing drainage patterns or magnitudes.

6. REFERENCES

- Drainage Design Manual for Maricopa County, Arizona – Volume I Hydrology, Flood Control District of Maricopa County
- Drainage Design Manual for Maricopa County, Arizona – Volume II Hydraulics, Flood Control District of Maricopa County
- Drainage Policies and Standards Manual for Maricopa County, Arizona, Flood Control District of Maricopa County
- Capacity Charts for the Hydraulic Design of Highway Culverts, HEC 10, FHWA
- Hydraulic Design of Highway Culverts, HDS 5, FHWA
- Hydraulic Design of Energy Dissipaters for Culverts and Channels, HEC 14, FHWA

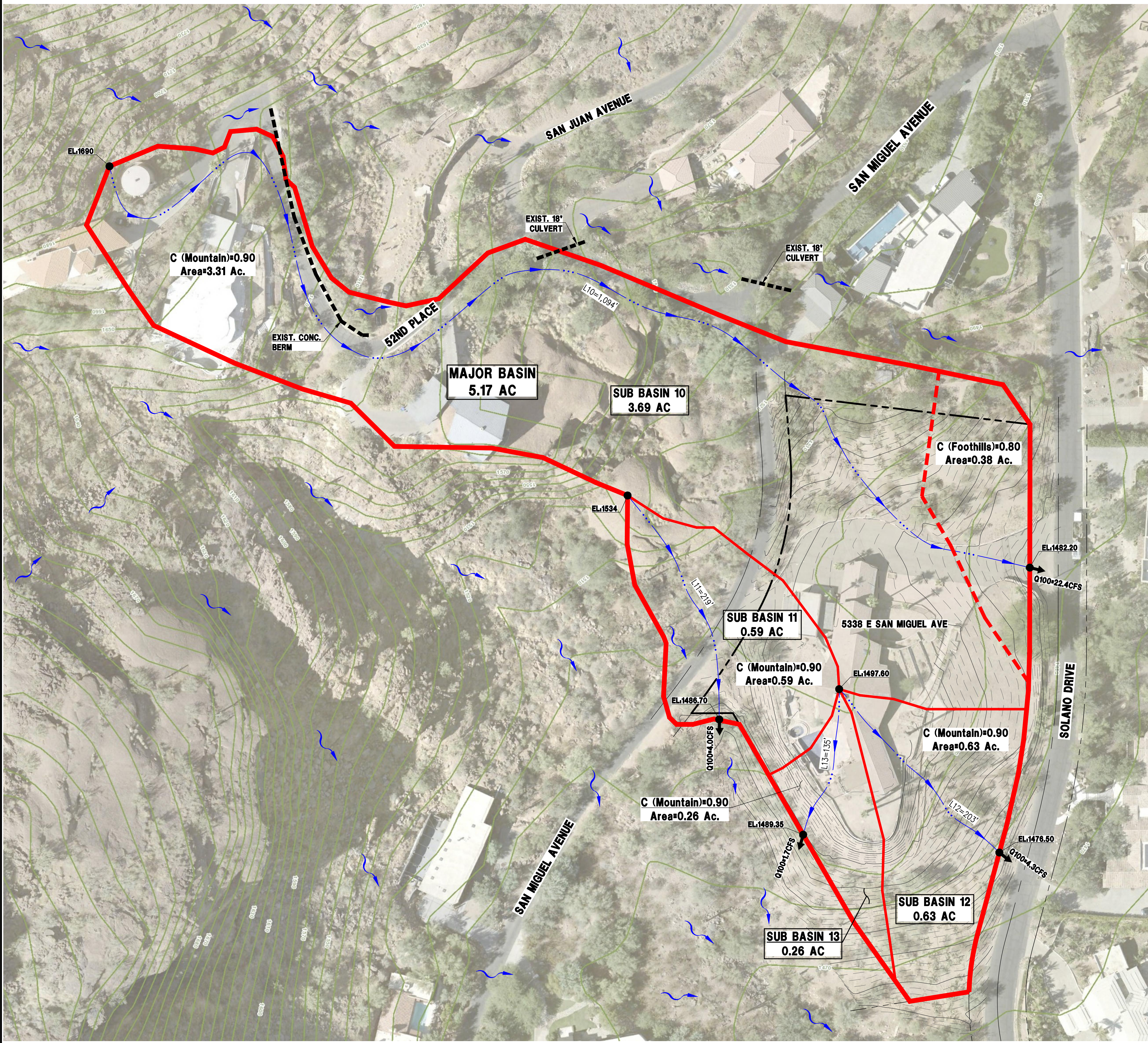
APPENDIX A-1

Vicinity Map

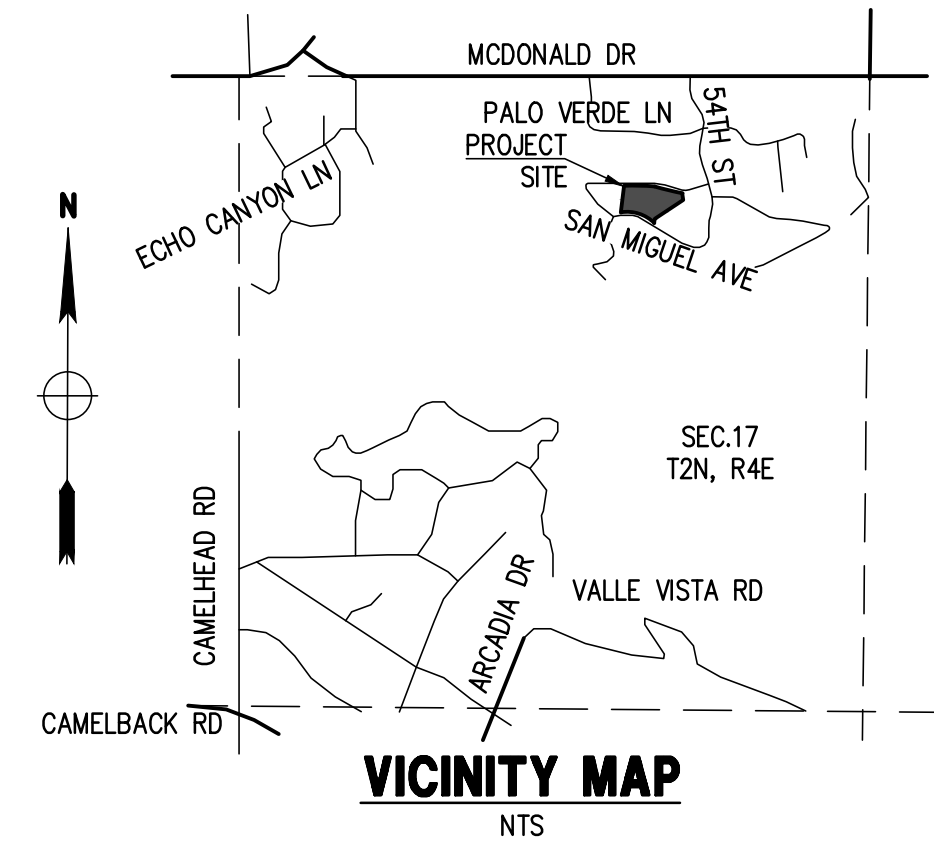


APPENDIX A-2

Drainage Map



DRAINAGE MAP
5338 E SAN MIGUEL AVE.,
PARADISE VALLEY, AZ 85253
LOT 29 - STONE CANYON AMENDED
A SUBDIVISION PLAT RECORDED IN
BOOK 249 OF MAPS, PAGE 35, MCR.,
LOCATED IN A PORTION OF THE S 1/2 OF THE NW 1/4
OF THE NE 1/4 OF SECTION 17, T.2N, R.4E
OF THE GILA & SALT RIVER BASE AND MERIDIAN,
MARICOPA COUNTY, ARIZONA



OWNER

KATE & JOSEPH HOGAN
5339 E SAN TAN MIGUEL AVE.,
PARADISE VALLEY, AZ 85253

SITE DATA

APN: 172-47-086
ADDRESS: 5338 E SAN MIGUEL AVE.,
PARADISE VALLEY, AZ 85253
ZONING: R-43 (HILLSIDE)
LOT AREA: 102,029 S.F. (2.342 AC.)
OS #: 20-40

BENCHMARK

BRASS CAP FLUSH AT THE NORTHEAST CORNER OF THE INTERSECTION OF
56TH STREET AND McDONALD DRIVE, HAVING AN ELEVATION OF 1417.248
(NAVD 88) DATUM.

BASIS OF BEARINGS

NORTH 06 DEGREES 45 MINUTES 00 SECONDS EAST ALONG THE WEST
LINE OF LOT 29, STONE CANYON AMENDED, AS RECORDED IN BOOK 371
OF MAPS, PAGE 31, RECORDS OF MARICOPA COUNTY, ARIZONA.

LEGAL DESCRIPTION

LOT 29, STONE CANYON AMENDED, ACCORDING TO BOOK 371 OF MAPS, PAGE
31, RECORDS OF MARICOPA COUNTY, ARIZONA.

EXCEPT ALL COAL AND OTHER MINERALS, AS RESERVED IN THE PATENT.

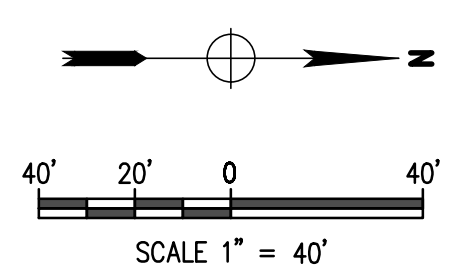
FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX	BASE FLOOD
040049	1765 OF 4425	L	ELEVATION
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE
04013C	10/16/2013	11/04/2015	X*
			N/A

*AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE
FLOODPLAIN.

LEGEND

- DRAINAGE FLOW
- SPOT ELEVATION
- TRIBUTARY AREA BOUNDARY
- FLOW LINE
- PIPE/CULVERT



REVISIONS:

DATE:

SCALE: 1"=40'

DESIGNED BY: NP

DRAWN BY: AT

CHECKED BY: NP

DATE: 04/29/22

JOB: 2106249

VERSION: 1.1

PLOT DATE: 04/29/22

DRAINAGE MAP

LOT 29 - STONE CANYONE
AMENDED

5338 E SAN MIGUEL AVE.,
PARADISE VALLEY
AZ 85253

P 602 889 1984 | F 602 445 9482
8808 N CENTRAL AVE., SUITE 288
PHOENIX, AZ 85020
PHOENIXVALDEVELOPMENT.COM

LAND
DEVELOPMENT GROUP

NICKOLA J. PRODANOV
REGISTERED PROFESSIONAL ENGINEER
NO. 41005
STATE OF ARIZONA

DM
1 OF 1

APPENDIX A-3

FEMA FIRM Exhibit

NFIP**PANEL 1765L****NATIONAL FLOOD INSURANCE PROGRAM**

FIRM

FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA

AND INCORPORATED AREAS

PANEL 1765 OF 4425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
MARICOPA COUNTY	040037	1765	L
PARADISE VALLEY, TOWN OF	040049	1765	L
PHOENIX, CITY OF	040051	1765	L
SCOTTSDALE, CITY OF	045012	1765	L

Notice: This map was reissued on July 31, 2015 to make a correction. This version replaces any previous versions. See the Notice-to-User Letter that accompanied this correction for details.

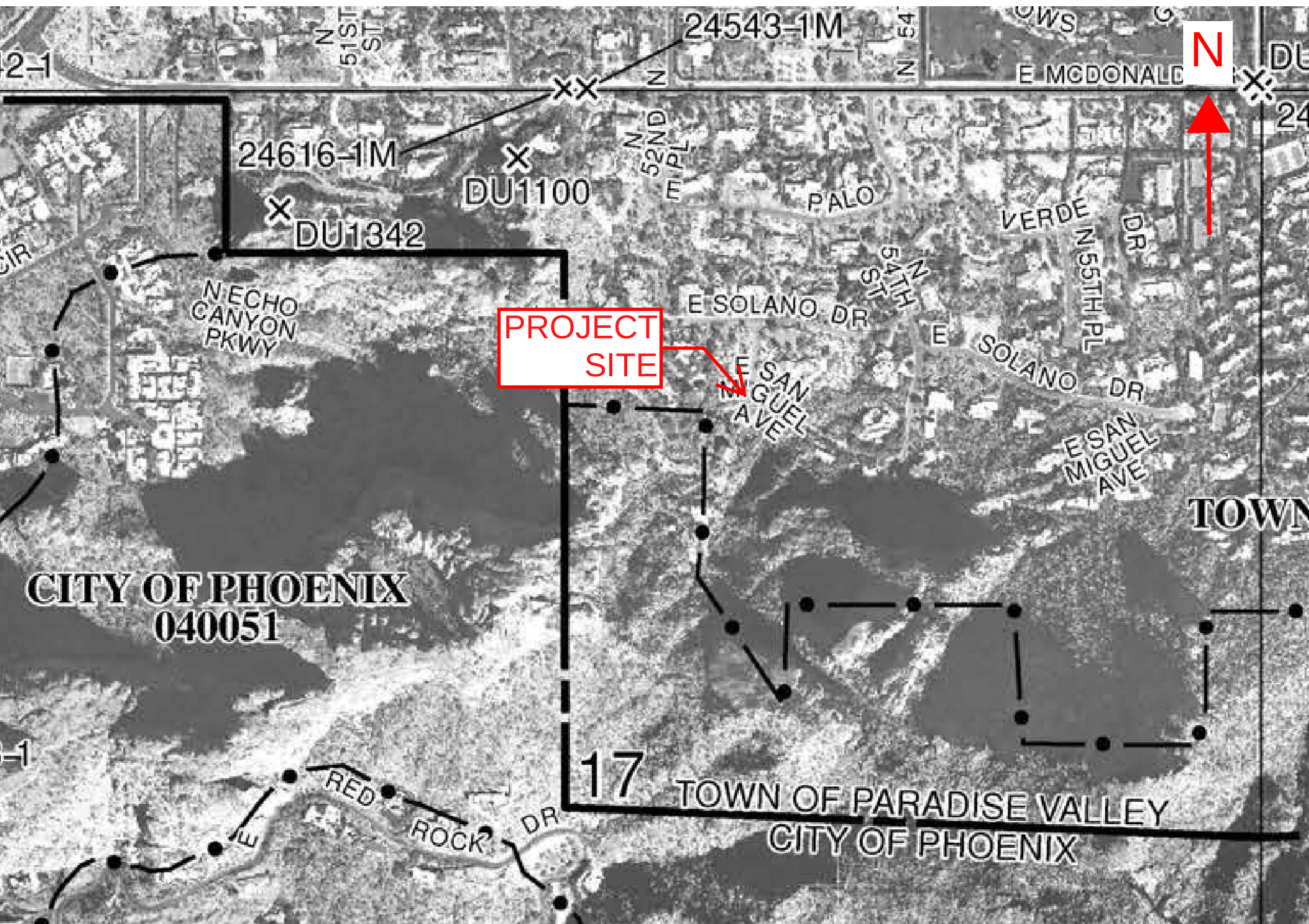
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
04013C1765L

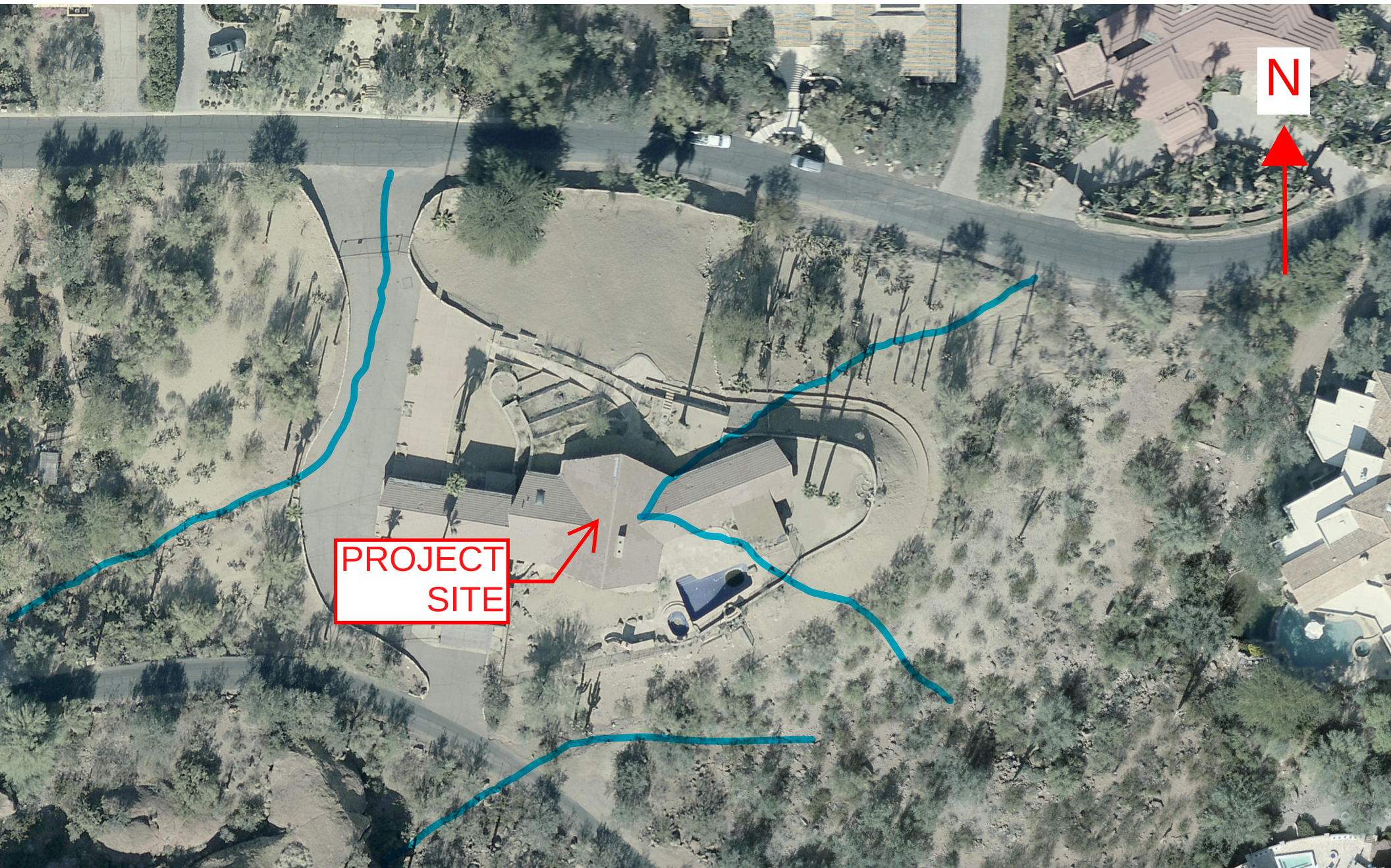
MAP REVISED
OCTOBER 16, 2013

Federal Emergency Management Agency



APPENDIX A-4

Aerial Map Exhibit



PROJECT
SITE

N

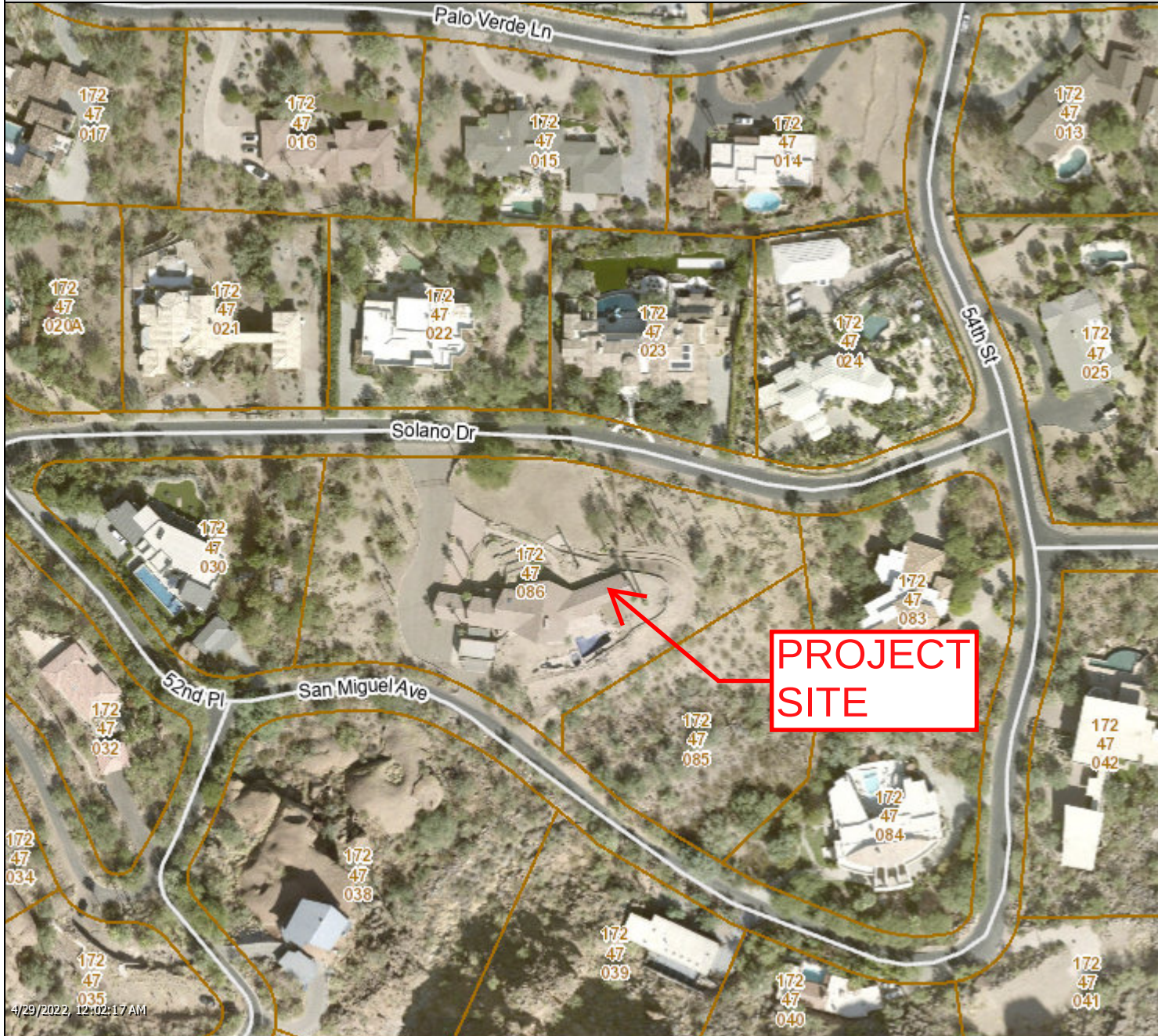


PROJECT
SITE

APPENDIX A-5

FCDMC Floodplain Viewer

Floodplain and Elevation Certificate Map



Elevation Certificate

Highway

Interstate Highway

State\US\Other Highway

Interchange\Ramp

Arterial

Local

Parcel

Floodplain (Pending FEMA Approval)

Floodway

100-Year Flood Zone

Floodplain (FEMA Effective)

Floodway

100-Year Flood Zone



Flood Control District of Maricopa County

2801 W Durango St
Phoenix, AZ 85009

(602) 506-2419
<http://www.fcd.maricopa.gov>

Unofficial Document

This document cannot be used for floodplain determinations. Current studies, erosion setbacks and other factors may also affect the floodplain status of the property. The information shown for pending floodplains are the best technical information available at this time to determine the 1% chance flood and are subject to change.



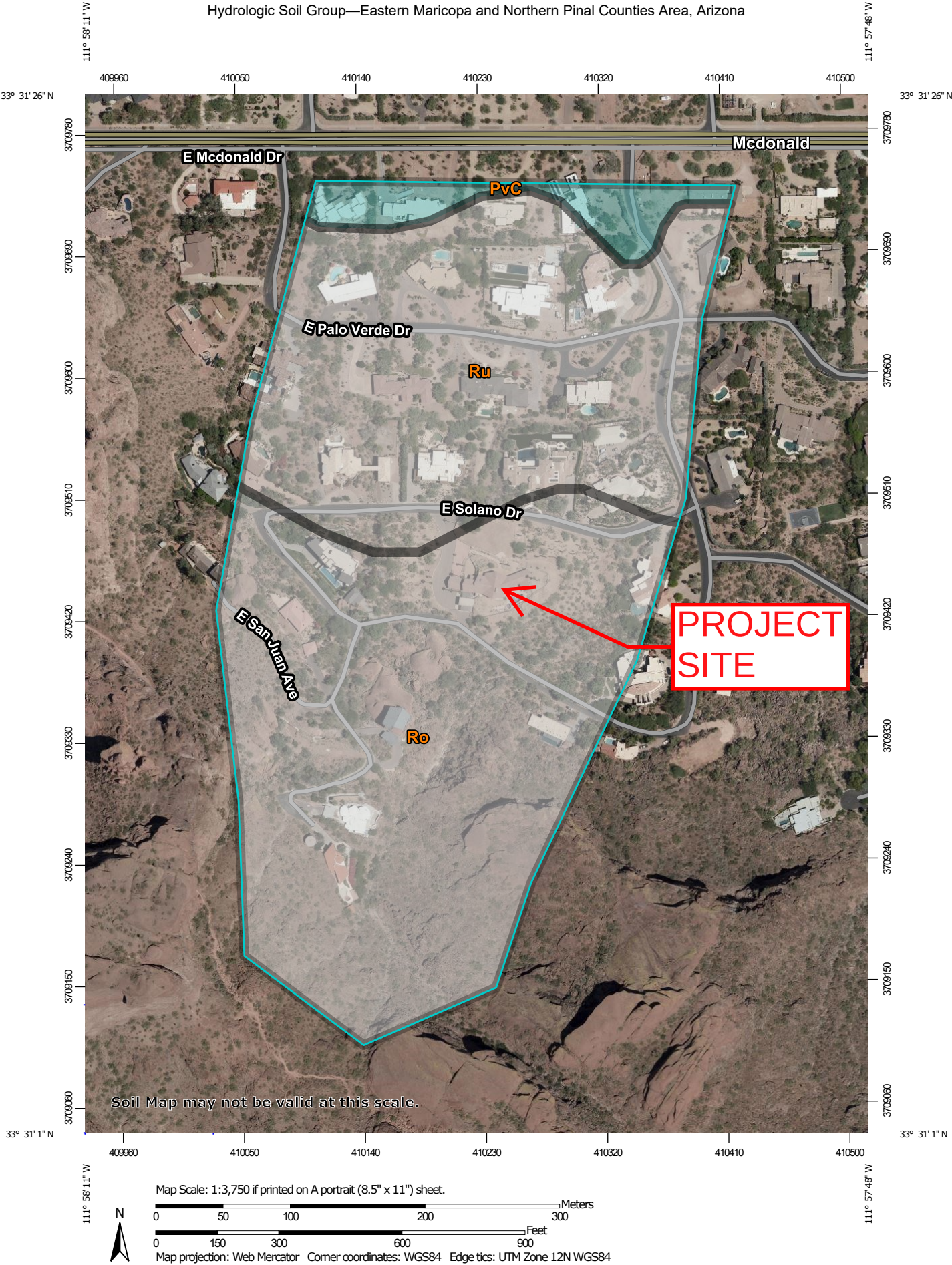
N 1:2,257

0 0.0175 0.035 0.07 mi
1 inch = 188 feet

APPENDIX A-6

Soils Map and Data

Hydrologic Soil Group—Eastern Maricopa and Northern Pinal Counties Area, Arizona



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Maricopa and Northern Pinal Counties Area, Arizona
 Survey Area Data: Version 15, Sep 16, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 15, 2020—May 22, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
PvC	Pinamt very gravelly loam, 3 to 5 percent slopes	C	2.1	4.8%
Ro	Rock land		23.6	54.4%
Ru	Rough broken land		17.7	40.8%
Totals for Area of Interest			43.4	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX A-7

Drainage Calculations

Project

Reference	2106249
Title	5338 E San Miguel Ave.
Location	5338 E San Miguel Ave., Paradise Valley, AZ 85253
Agency	Town of Paradise Valley

Project Defaults

Model	Rational
Land Use Agency	FCDMC
Rainfall	NOAA14
Roads Agency	MCDOT
Inlets Agency	MCDOT

Comments

Town of Paradise Valley
Drainage Design Management System
RAINFALL DATA
Project Reference: 2106249

Page 1

4/29/2022

ID	Method	Duration	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
DEFAULT	NOAA14	5 MIN	0.245	0.334	0.401	0.491	0.562	0.632
	NOAA14	10 MIN	0.374	0.508	0.610	0.747	0.854	0.962
	NOAA14	15 MIN	0.463	0.629	0.756	0.927	1.059	1.192
	NOAA14	30 MIN	0.624	0.847	1.018	1.248	1.426	1.605
	NOAA14	1 HOUR	0.772	1.048	1.260	1.544	1.765	1.987
	NOAA14	2 HOUR	0.883	1.182	1.410	1.720	1.957	2.203
	NOAA14	3 HOUR	0.955	1.255	1.491	1.823	2.086	2.362
	NOAA14	6 HOUR	1.137	1.457	1.710	2.058	2.331	2.615
	NOAA14	12 HOUR	1.276	1.617	1.885	2.246	2.522	2.808
	NOAA14	24 HOUR	1.540	1.997	2.358	2.861	3.256	3.671

Town of Paradise Valley
Drainage Design Management System
MAJOR BASINS
Project Reference: 2106249

Page 1

4/29/2022

Major Basin	Area (acres)	Description
01	5.17	Major Basin 01

Town of Paradise Valley
Drainage Design Management System
LAND USE
Project Reference: 2106249

Page 1

4/29/2022

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01											
10	130	0.38	10.3	0.036	0.48	0.48	0.48	0.53	0.58	0.80*	Large Lot Residential - Single Family (1 du per acre to 2 du
	730	3.31	89.7	0.183	0.55	0.55	0.55	0.61	0.66	0.90*	Passive Open Space (Includes mountain preserves and washes)
		3.690	100.0								
11	730	0.59	100.0	0.207	0.55	0.55	0.55	0.61	0.66	0.90*	Passive Open Space (Includes mountain preserves and washes)
		0.590	100.0								
12	730	0.63	100.0	0.206	0.55	0.55	0.55	0.61	0.66	0.90*	Passive Open Space (Includes mountain preserves and washes)
		0.630	100.0								
13	730	0.26	100.0	0.218	0.55	0.55	0.55	0.61	0.66	0.90*	Passive Open Space (Includes mountain preserves and washes)
		0.260	100.0								

* Non default value

(stLuDatRat.rpt)

Town of Paradise Valley
Drainage Design Management System
SUB BASINS
Project Reference: 2106249

Page 1

4/29/2022

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb		2 Year	5 Year	10 Year	25 Year	50 Year	100 Year
Major Basin ID: 01													
10	3.7	1,094	1,690.00	1,482.20	1,002.9	0.168	Q (cfs)	4.4	6.3	7.9	11.2	14.4	22.4
							C	0.54	0.54	0.54	0.60	0.65	0.89
							CA (ac)	1.99	1.99	1.99	2.21	2.40	3.28
							Volume (ac-ft)	0.0858	0.1066	0.1235	0.1586	0.1907	0.2842
							Tc (min)	11	9	9	8	7	7
							i (in/hr)	2.19	3.18	3.97	5.08	5.98	6.84
11	0.6	219	1,534.00	1,486.70	1,140.4	0.207	Q (cfs)	0.9	1.3	1.5	2.1	2.6	4.0
							C	0.55	0.55	0.55	0.61	0.66	0.90
							CA (ac)	0.32	0.32	0.32	0.36	0.39	0.53
							Volume (ac-ft)	0.0083	0.0120	0.0138	0.0193	0.0239	0.0368
							Tc (min)	5	5	5	5	5	5
							i (in/hr)	2.94	4.01	4.81	5.89	6.74	7.58
12	0.6	203	1,497.60	1,476.50	548.8	0.206	Q (cfs)	1.0	1.4	1.7	2.2	2.8	4.3
							C	0.55	0.55	0.55	0.61	0.66	0.90
							CA (ac)	0.35	0.35	0.35	0.38	0.42	0.57
							Volume (ac-ft)	0.0101	0.0129	0.0156	0.0202	0.0257	0.0395
							Tc (min)	6	5	5	5	5	5
							i (in/hr)	2.86	4.01	4.81	5.89	6.74	7.58
13	0.3	135	1,497.60	1,489.30	324.6	0.218	Q (cfs)	0.4	0.6	0.7	0.9	1.1	1.7
							C	0.55	0.55	0.55	0.61	0.66	0.90
							CA (ac)	0.14	0.14	0.14	0.16	0.17	0.23
							Volume (ac-ft)	0.0040	0.0055	0.0064	0.0083	0.0101	0.0156
							Tc (min)	5	5	5	5	5	5
							i (in/hr)	2.88	4.01	4.81	5.89	6.74	7.58

* Non default value

(stSubBasRat.rpt)



NOAA Atlas 14, Volume 1, Version 5
Location name: Paradise Valley, Arizona, USA*
Latitude: 33.5208°, Longitude: -111.9666°
Elevation: 1500.35 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic,
 Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel
 Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

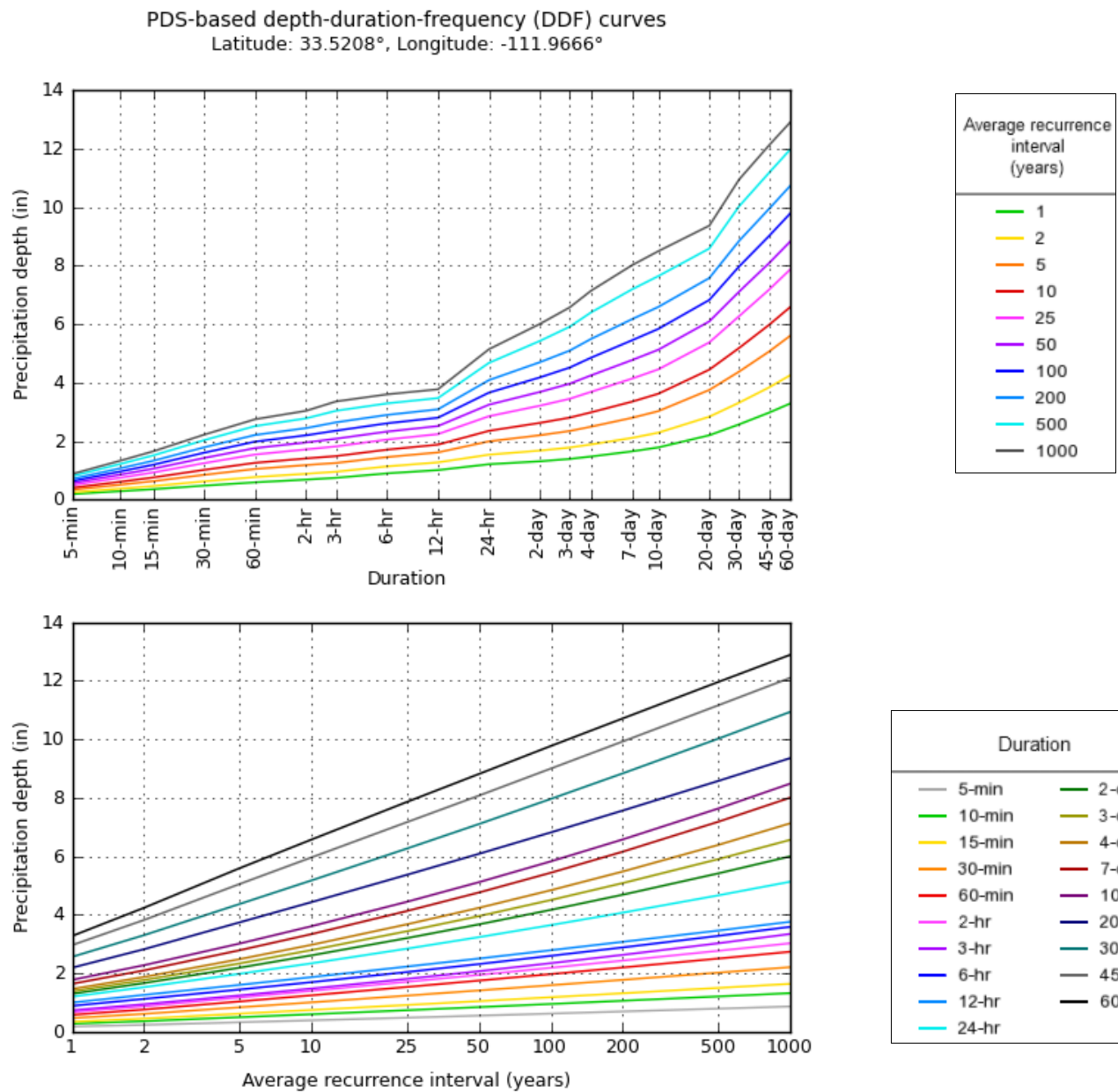
PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.187 (0.156-0.227)	0.244 (0.205-0.297)	0.332 (0.277-0.402)	0.399 (0.331-0.481)	0.489 (0.399-0.588)	0.559 (0.451-0.668)	0.629 (0.498-0.750)	0.702 (0.546-0.836)	0.798 (0.605-0.952)	0.872 (0.648-1.04)
10-min	0.284 (0.238-0.346)	0.371 (0.313-0.452)	0.505 (0.421-0.612)	0.607 (0.503-0.733)	0.744 (0.608-0.895)	0.850 (0.686-1.02)	0.958 (0.758-1.14)	1.07 (0.831-1.27)	1.22 (0.921-1.45)	1.33 (0.986-1.59)
15-min	0.352 (0.295-0.429)	0.460 (0.387-0.561)	0.626 (0.522-0.759)	0.753 (0.625-0.909)	0.923 (0.754-1.11)	1.05 (0.850-1.26)	1.19 (0.940-1.42)	1.32 (1.03-1.58)	1.51 (1.14-1.80)	1.65 (1.22-1.97)
30-min	0.474 (0.397-0.577)	0.620 (0.522-0.755)	0.843 (0.703-1.02)	1.01 (0.841-1.22)	1.24 (1.01-1.49)	1.42 (1.15-1.70)	1.60 (1.27-1.91)	1.78 (1.39-2.12)	2.03 (1.54-2.42)	2.22 (1.65-2.65)
60-min	0.587 (0.491-0.715)	0.767 (0.646-0.935)	1.04 (0.870-1.26)	1.25 (1.04-1.51)	1.54 (1.26-1.85)	1.76 (1.42-2.10)	1.98 (1.57-2.36)	2.21 (1.72-2.63)	2.51 (1.90-2.99)	2.74 (2.04-3.28)
2-hr	0.680 (0.578-0.810)	0.879 (0.749-1.05)	1.18 (1.00-1.40)	1.40 (1.18-1.67)	1.71 (1.42-2.03)	1.95 (1.60-2.30)	2.19 (1.77-2.58)	2.44 (1.94-2.87)	2.77 (2.15-3.27)	3.03 (2.30-3.59)
3-hr	0.741 (0.627-0.892)	0.949 (0.808-1.15)	1.25 (1.06-1.50)	1.48 (1.24-1.78)	1.81 (1.50-2.16)	2.08 (1.69-2.46)	2.35 (1.88-2.79)	2.64 (2.07-3.12)	3.03 (2.31-3.59)	3.35 (2.49-3.97)
6-hr	0.893 (0.772-1.06)	1.13 (0.982-1.34)	1.45 (1.25-1.71)	1.70 (1.46-2.00)	2.05 (1.73-2.39)	2.32 (1.93-2.69)	2.60 (2.13-3.02)	2.89 (2.32-3.36)	3.29 (2.57-3.82)	3.59 (2.75-4.19)
12-hr	1.00 (0.878-1.17)	1.27 (1.11-1.48)	1.61 (1.40-1.87)	1.88 (1.62-2.17)	2.24 (1.91-2.58)	2.51 (2.12-2.89)	2.80 (2.32-3.22)	3.08 (2.53-3.56)	3.47 (2.77-4.02)	3.77 (2.96-4.40)
24-hr	1.21 (1.07-1.38)	1.53 (1.35-1.75)	1.99 (1.75-2.27)	2.35 (2.06-2.68)	2.85 (2.48-3.24)	3.24 (2.81-3.68)	3.65 (3.14-4.15)	4.08 (3.48-4.64)	4.67 (3.94-5.31)	5.14 (4.30-5.86)
2-day	1.31 (1.15-1.49)	1.67 (1.48-1.90)	2.20 (1.94-2.49)	2.62 (2.30-2.97)	3.21 (2.81-3.64)	3.68 (3.20-4.16)	4.17 (3.61-4.73)	4.69 (4.03-5.32)	5.42 (4.60-6.16)	6.00 (5.04-6.84)
3-day	1.39 (1.22-1.58)	1.78 (1.57-2.02)	2.34 (2.06-2.66)	2.80 (2.45-3.17)	3.44 (3.00-3.90)	3.96 (3.43-4.48)	4.51 (3.88-5.11)	5.09 (4.35-5.77)	5.91 (4.98-6.70)	6.57 (5.48-7.46)
4-day	1.47 (1.29-1.67)	1.88 (1.65-2.14)	2.49 (2.18-2.82)	2.98 (2.60-3.38)	3.68 (3.20-4.17)	4.24 (3.66-4.80)	4.85 (4.16-5.48)	5.49 (4.67-6.21)	6.39 (5.37-7.24)	7.13 (5.93-8.09)
7-day	1.65 (1.45-1.88)	2.11 (1.85-2.40)	2.79 (2.45-3.18)	3.35 (2.92-3.80)	4.13 (3.59-4.69)	4.77 (4.11-5.40)	5.44 (4.66-6.17)	6.16 (5.24-7.00)	7.18 (6.03-8.16)	8.01 (6.65-9.11)
10-day	1.78 (1.57-2.03)	2.28 (2.01-2.60)	3.02 (2.65-3.43)	3.62 (3.16-4.10)	4.45 (3.87-5.04)	5.12 (4.42-5.78)	5.83 (5.01-6.59)	6.58 (5.61-7.45)	7.64 (6.43-8.65)	8.49 (7.08-9.62)
20-day	2.20 (1.94-2.48)	2.83 (2.50-3.19)	3.75 (3.31-4.22)	4.44 (3.90-4.99)	5.37 (4.70-6.04)	6.09 (5.32-6.84)	6.82 (5.93-7.68)	7.57 (6.54-8.53)	8.58 (7.35-9.69)	9.36 (7.95-10.6)
30-day	2.57 (2.26-2.91)	3.31 (2.92-3.75)	4.37 (3.84-4.94)	5.18 (4.54-5.85)	6.27 (5.47-7.07)	7.11 (6.18-8.01)	7.97 (6.89-8.97)	8.84 (7.61-9.95)	10.0 (8.57-11.3)	10.9 (9.28-12.4)
45-day	2.97 (2.63-3.36)	3.83 (3.39-4.32)	5.06 (4.47-5.71)	5.97 (5.26-6.73)	7.17 (6.29-8.09)	8.08 (7.07-9.11)	9.00 (7.84-10.2)	9.93 (8.61-11.2)	11.2 (9.60-12.7)	12.1 (10.3-13.7)
60-day	3.28 (2.92-3.70)	4.25 (3.77-4.78)	5.60 (4.96-6.29)	6.58 (5.81-7.40)	7.86 (6.92-8.83)	8.82 (7.74-9.90)	9.78 (8.54-11.0)	10.7 (9.33-12.1)	12.0 (10.3-13.5)	12.9 (11.1-14.6)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
 Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
 Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical



NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Fri Apr 29 14:15:01 2022

[Back to Top](#)

Maps & aerials

Small scale terrain



NOAA Atlas 14, Volume 1, Version 5
Location name: Paradise Valley, Arizona, USA*
Latitude: 33.5208°, Longitude: -111.9666°
Elevation: 1500.35 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic,
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NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

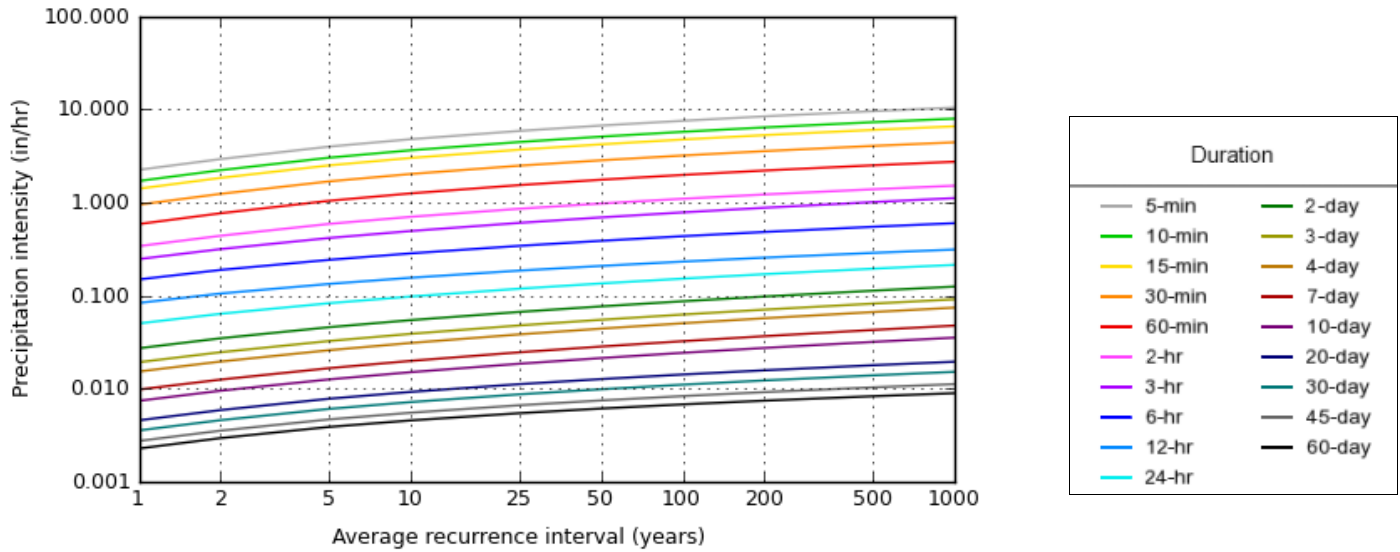
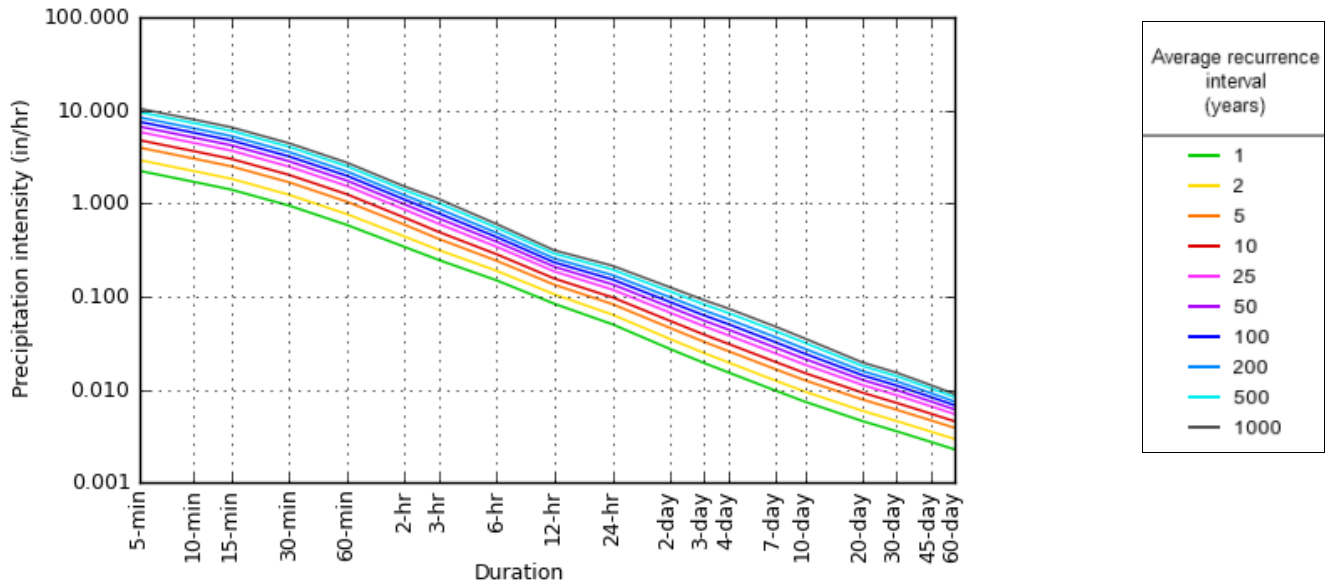
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	2.24 (1.87-2.72)	2.93 (2.46-3.56)	3.98 (3.32-4.82)	4.79 (3.97-5.77)	5.87 (4.79-7.06)	6.71 (5.41-8.02)	7.55 (5.98-9.00)	8.42 (6.55-10.0)	9.58 (7.26-11.4)	10.5 (7.78-12.5)
10-min	1.70 (1.43-2.08)	2.23 (1.88-2.71)	3.03 (2.53-3.67)	3.64 (3.02-4.40)	4.46 (3.65-5.37)	5.10 (4.12-6.10)	5.75 (4.55-6.85)	6.41 (4.99-7.63)	7.29 (5.53-8.69)	7.96 (5.92-9.52)
15-min	1.41 (1.18-1.72)	1.84 (1.55-2.24)	2.50 (2.09-3.04)	3.01 (2.50-3.64)	3.69 (3.02-4.44)	4.22 (3.40-5.04)	4.75 (3.76-5.66)	5.30 (4.12-6.31)	6.02 (4.57-7.18)	6.58 (4.89-7.87)
30-min	0.948 (0.794-1.15)	1.24 (1.04-1.51)	1.69 (1.41-2.04)	2.03 (1.68-2.45)	2.49 (2.03-2.99)	2.84 (2.29-3.39)	3.20 (2.53-3.81)	3.57 (2.78-4.25)	4.06 (3.08-4.84)	4.43 (3.29-5.30)
60-min	0.587 (0.491-0.715)	0.767 (0.646-0.935)	1.04 (0.870-1.26)	1.25 (1.04-1.51)	1.54 (1.26-1.85)	1.76 (1.42-2.10)	1.98 (1.57-2.36)	2.21 (1.72-2.63)	2.51 (1.90-2.99)	2.74 (2.04-3.28)
2-hr	0.340 (0.289-0.405)	0.440 (0.374-0.526)	0.589 (0.500-0.701)	0.702 (0.590-0.834)	0.856 (0.712-1.01)	0.975 (0.800-1.15)	1.10 (0.886-1.29)	1.22 (0.968-1.44)	1.39 (1.07-1.63)	1.52 (1.15-1.80)
3-hr	0.247 (0.209-0.297)	0.316 (0.269-0.383)	0.416 (0.351-0.500)	0.494 (0.414-0.591)	0.604 (0.499-0.718)	0.692 (0.563-0.820)	0.783 (0.626-0.928)	0.878 (0.691-1.04)	1.01 (0.770-1.20)	1.12 (0.830-1.32)
6-hr	0.149 (0.129-0.176)	0.189 (0.164-0.223)	0.242 (0.209-0.285)	0.284 (0.243-0.333)	0.342 (0.289-0.399)	0.388 (0.322-0.450)	0.435 (0.356-0.505)	0.483 (0.388-0.561)	0.549 (0.430-0.638)	0.600 (0.459-0.700)
12-hr	0.083 (0.073-0.097)	0.105 (0.092-0.123)	0.134 (0.116-0.155)	0.156 (0.134-0.180)	0.186 (0.158-0.214)	0.208 (0.176-0.240)	0.232 (0.193-0.268)	0.256 (0.210-0.295)	0.288 (0.230-0.334)	0.313 (0.245-0.365)
24-hr	0.050 (0.044-0.057)	0.064 (0.056-0.073)	0.083 (0.073-0.095)	0.098 (0.086-0.112)	0.119 (0.103-0.135)	0.135 (0.117-0.153)	0.152 (0.131-0.173)	0.170 (0.145-0.193)	0.195 (0.164-0.221)	0.214 (0.179-0.244)
2-day	0.027 (0.024-0.031)	0.035 (0.031-0.040)	0.046 (0.040-0.052)	0.055 (0.048-0.062)	0.067 (0.058-0.076)	0.077 (0.067-0.087)	0.087 (0.075-0.099)	0.098 (0.084-0.111)	0.113 (0.096-0.128)	0.125 (0.105-0.142)
3-day	0.019 (0.017-0.022)	0.025 (0.022-0.028)	0.033 (0.029-0.037)	0.039 (0.034-0.044)	0.048 (0.042-0.054)	0.055 (0.048-0.062)	0.063 (0.054-0.071)	0.071 (0.060-0.080)	0.082 (0.069-0.093)	0.091 (0.076-0.104)
4-day	0.015 (0.013-0.017)	0.020 (0.017-0.022)	0.026 (0.023-0.029)	0.031 (0.027-0.035)	0.038 (0.033-0.043)	0.044 (0.038-0.050)	0.050 (0.043-0.057)	0.057 (0.049-0.065)	0.067 (0.056-0.075)	0.074 (0.062-0.084)
7-day	0.010 (0.009-0.011)	0.013 (0.011-0.014)	0.017 (0.015-0.019)	0.020 (0.017-0.023)	0.025 (0.021-0.028)	0.028 (0.024-0.032)	0.032 (0.028-0.037)	0.037 (0.031-0.042)	0.043 (0.036-0.049)	0.048 (0.040-0.054)
10-day	0.007 (0.007-0.008)	0.010 (0.008-0.011)	0.013 (0.011-0.014)	0.015 (0.013-0.017)	0.019 (0.016-0.021)	0.021 (0.018-0.024)	0.024 (0.021-0.027)	0.027 (0.023-0.031)	0.032 (0.027-0.036)	0.035 (0.029-0.040)
20-day	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.011 (0.010-0.013)	0.013 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.014-0.018)	0.018 (0.015-0.020)	0.019 (0.017-0.022)
30-day	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.009 (0.008-0.010)	0.010 (0.009-0.011)	0.011 (0.010-0.012)	0.012 (0.011-0.014)	0.014 (0.012-0.016)	0.015 (0.013-0.017)
45-day	0.003 (0.002-0.003)	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.007)	0.007 (0.007-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.010 (0.009-0.012)	0.011 (0.010-0.013)
60-day	0.002 (0.002-0.003)	0.003 (0.003-0.003)	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.005 (0.005-0.006)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.010)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
 Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
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[Back to Top](#)

PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 33.5208°, Longitude: -111.9666°



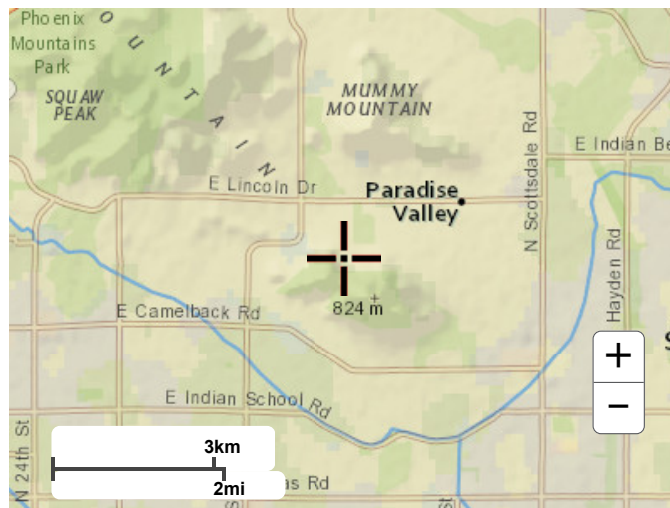
NOAA Atlas 14, Volume 1, Version 5

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[Back to Top](#)

Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

TOWN OF PARADISE VALLEY NOTES

1. GRADING SHALL BE IN CONFORMANCE WITH 2015 IBC.
2. PRIOR TO FIRST FOOTING INSPECTION OF ANY TYPE, ALL PROPERTY PINS SHALL BE PLACED BY A REGISTERED LAND SURVEYOR OF THE STATE OF ARIZONA, AND PROPERTY LINES MUST BE PHYSICALLY IDENTIFIED PRIOR TO INSPECTION.
3. WHERE EXCAVATION IS TO OCCUR THE TOP 4" OF EXCAVATED NATIVE SOIL SHALL REMAIN ON THE SITE AND SHALL BE REUSED IN A MANNER THAT TAKES ADVANTAGE OF THE NATURAL SOIL SEED BANK IT CONTAINS.
4. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) SPECIFICATIONS AND STANDARD DETAILS.
5. ALL EXTERIOR SITE LIGHTING SHALL COMPLY WITH REQUIREMENTS OF SECTION 2208 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCES FOR FUTURE TYPE, LOCATION, HEIGHT, WATTAGE BASED UPON FIXTURES INSTALLED.
6. A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
8. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
9. EAVE PROJECTIONS INTO REQUIRED SETBACKS ARE LIMITED TO A MAXIMUM OF 24" PURSUANT TO SECTION 1008 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCES.
10. ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
11. ALL NEW AND EXISTING ELECTRICAL SERVICE TO BE BURIED UNDERGROUND PER THE TOWN OF PARADISE VALLEY STANDARDS.
12. POOL, SPA, BARBECUE AND ANY PROPOSED STRUCTURES OVER 8 INCHES ABOVE GRADE REQUIRE SEPARATE PERMIT APPLICATIONS.
13. POOLS SHALL BE CONSTRUCTED BY SEPARATE PERMIT AND SECURED FROM UNWANTED ACCESS PER SECTION 5-2-2 OF THE TOWN OF PARADISE VALLEY ORDINANCES.
14. A SETBACK CERTIFICATION IS REQUIRED AND MUST BE GIVEN TO TOWN INSPECTOR AT STEM WALL INSPECTION.
15. MAIL BOX TO COMPLY WITH THE TOWN OF PARADISE VALLEY STANDARDS FOR MAIL BOXES IN THE R.O.W. FOR HEIGHT, WIDTH AND BREAK AWAY FEATURES.
16. ALL PATIOS, WALKS, AND DRIVES TO SLOPE AWAY FROM BUILDING AND GARAGES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS SPECIFIED OTHERWISE. ALL LAWN AREAS ADJOINING WALKS OR SLABS WILL BE GRADED TO 2" BELOW THE TOP OF SLAB. TYPICAL FINISHED GRADE AROUND PERIMETER OF BUILDING IS MINUS 6" BELOW FINISHED FLOOR UNLESS SPECIFIED OTHERWISE.
17. ALL MATERIAL TO BE UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95% PER ASTM D698.
18. SOILS COMPACTION TEST RESULTS MUST BE SUBMITTED TO THE TOWN ENGINEER'S OFFICE FOR BUILDING PADS THAT HAVE ONE (1) FOOT OR MORE OF FILL MATERIAL INDICATED. THIS INFORMATION MUST BE SUPPLIED PRIOR TO REQUEST FOR FINAL INSPECTION.
19. TRENCH BED SHALL BE FREE OF ROCKS AND DEBRIS.
20. REGULATION II RULE 20-3 OF THE MARICOPA COUNTY HEALTH DEPARTMENT, BUREAU OF AIR POLLUTION CONTROL SHALL BE OBSERVED AND ENFORCED.
21. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
22. THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
23. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
24. ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION.
25. THE TOWN ONLY APPROVES THE SCOPE, NOT THE DETAIL, OF ENGINEERING DESIGNS; THEREFORE, IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE TOWN.
26. THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF AN ENCROACHMENT PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS, THE PLANS MUST BE RESUBMITTED TO THE TOWN FOR RE-APPROVAL.
27. A PUBLIC WORKS INSPECTOR WILL INSPECT ALL WORKS WITHIN THE TOWN OF PARADISE VALLEY RIGHTS-OF-WAY AND IN EASEMENTS. NOTICE INSPECTION SERVICES 24 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING 480- 312-5750.
28. WHENEVER EXCAVATION IS NECESSARY, CALL THE BLUE STAKE CENTER, 602-263-1100, TWO WORKING DAYS BEFORE EXCAVATION BEGINS. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT. CALL "COLLECT" IF NECESSARY.
29. ENCROACHMENT PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. AN ENCROACHMENT PERMIT WILL BE ISSUED BY THE TOWN ONLY AFTER THE REGISTRANT HAS PAID A BASE FEE PLUS A FEE FOR INSPECTION SERVICES. COPIES OF ALL PERMITS MUST BE RETAINED ON-SITE AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE SUSPENSION OF ALL WORK UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.
30. ALL EXCAVATION AND GRADING THAT IS NOT IN THE PUBLIC RIGHTS-OF-WAY OR NOT IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO CHAPTER 70, EXCAVATION AND GRADING, OF THE LATEST EDITION OF THE IBC BY THE ICC. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE TOWN FOR A FEE ESTABLISHED BY THE UNIFORM BUILDING CODE.
31. EXCAVATIONS SHALL COMPLY WITH REQUIREMENTS OF OSHA EXCAVATION STANDARDS (29 CFR, PART 1926, SUBPART P). UNDER NO CIRCUMSTANCES WILL THE CONTRACTORS BE ALLOWED TO WORK IN A TRENCH LOCATED WITHIN THE TOWN'S RIGHT-OF-WAY WITHOUT PROPER SHORING OR EXCAVATION METHODS.
32. ON DEMOLITION, GRADING, REMODELING AND NEW CONSTRUCTION PROJECTS, PERMITTEE MUST NOTIFY ADJACENT PROPERTY OWNERS REGARDING THE NATURE OF THE PROJECT, THE TIME PERIOD FOR CONSTRUCTION, AND ANY UNUSUAL ACTIVITIES THAT MAY CAUSE DISRUPTION OF THE NORMAL COURSE OF TRAFFIC DURING CONSTRUCTION.
33. ALL PERMITTEES MUST POST A 6 SQUARE FOOT (2'X3') IDENTIFICATION SIGN, MADE OF DURABLE MATERIAL, IN THE FRONT YARD OF SUBJECT PROPERTY AND NOT IN THE TOWN RIGHT-OF-WAY. THE SIGN MAY NOT EXCEED A MAXIMUM OF 6 FEET IN HEIGHT FROM GRADE TO TOP OF THE SIGN. THE SIGN MUST INCLUDE THE PERMITTEE OR COMPANY NAME, PHONE NUMBER, TYPE OF WORK, AND ADDRESS OF PROJECT.
34. WHEN DEEMED NECESSARY, A 6-FOOT HIGH CHAIN LINK FENCE MUST BE INSTALLED AROUND THE CONSTRUCTION AREA TO PREVENT ANY POTENTIAL SAFETY HAZARD FOR THE PUBLIC. THE FENCE SHALL BE SETBACK AT LEAST 10 FEET FROM ALL RIGHTS-OF-WAY AND HAVE A 50-FOOT STREET CORNER SITE TRIANGLE WHERE APPLICABLE.
35. CLEAR ACCESS FOR NEIGHBORING PROPERTIES AND EMERGENCY VEHICLES MUST BE MAINTAINED AT ALL TIMES. CONSTRUCTION RELATED VEHICLES MUST BE LEGALLY PARKED ONLY ON ONE SIDE OF THE STREET OR JOB SITE PROPERTY. IF A STAGING AREA IS NEEDED ON A PROPERTY OTHER THAN THE CONSTRUCTION SITE FOR CONSTRUCTION SUPPLIES AND EQUIPMENT, THE PERMITTEE MUST OBTAIN PROPERTY OWNER AND TOWN APPROVAL FIRST AND MUST INFORM THE ADJACENT PROPERTY OWNERS OF THE LOCATION OF STAGING AREA, AND TIME AND HOURS DURING THE DAY THE AREA WILL BE USED.
36. EXCEPT AS OUTLINED IN ITEM 4, ALL CONSTRUCTION DEBRIS AND EQUIPMENT MUST BE CONTAINED ON SITE AT ALL TIMES. CONTRACTOR AND PROPERTY OWNER MUST MAINTAIN THE JOB SITE FREE OF LITTER AND UNSIGHTLY MATERIALS AT ALL TIMES. CONSTRUCTION MATERIALS ARE PROHIBITED IN THE TOWN RIGHT-OF-WAY OR NEAR ADJACENT PROPERTIES.
37. BUILDING CONSTRUCTION MUST NOT START SOONER THAN SUNRISE AND MUST STOP NO LATER THAN SUNSET. ALSO, ORDINANCE #561 IMPOSES RESTRICTIONS ON CONSTRUCTION WORK ON SATURDAYS, SUNDAYS AND MAJOR BUSINESS HOLIDAYS. HILLSIDE PROJECTS MAY HAVE ADDITIONAL RESTRICTIONS. EQUIPMENT WITH AUDIBLE REVERSE DIRECTION WARNINGS MUST NOT BE OPERATED PRIOR TO 7:00 A.M. THE USE AND OPERATION OF FUEL-FIRED GENERATORS ON ANY CONSTRUCTION SITE, NEW, EXISTING OR REMODELING, IS PROHIBITED UNLESS DUE TO A HARDSTOP TOWN APPROVAL IS OBTAINED.
38. THE CONTRACTOR AND PROPERTY OWNER WILL BE LIABLE FOR ANY DAMAGE DONE TO ANY PUBLIC PROPERTY AS A RESULT OF ANY CONSTRUCTION OR CONSTRUCTION RELATED ACTIVITIES. NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL AFFECTED RIGHTS-OF-WAY ARE CLEANED AND/OR REPAIRED TO THEIR ORIGINAL CONDITION AND UNTIL ANY AND ALL DAMAGES TO AFFECTED PROPERTIES ARE RESTORED TO ORIGINAL CONDITION, OR UNTIL SUCH TIME THAT A WRITTEN, SIGNED AND LEGALLY BINDING AGREEMENT HAS BEEN REACHED BY THE PARTIES INVOLVED TO REMEDY ANY VIOLATION WITHIN A REASONABLE TIME PERIOD, AND UNTIL ALL REQUIRED FEES ARE PAID IN FULL.
40. THE NATURAL FLOW OF RAINWATER AND OTHER SURFACE DRAINAGE FROM THE PROPERTY MAY NOT BE ALTERED IN ANY WAY.
41. A KEY SWITCH SHALL BE REQUIRED ON ALL NEW AND EXISTING ELECTRIC ENTRY CONTROL GATES. THE KEY SWITCH SHALL BE INSTALLED IN A LOCATION ON THE GATE CONTROL PANEL THAT IS READILY VISIBLE AND ACCESSIBLE. KNOX BOX ORDER FORMS ARE AVAILABLE AT THE PARADISE VALLEY BUILDING DEPARTMENT.
42. ALL EQUIPMENT OF ALL TRADES ON OR AFFECTING THE JOB MUST BE CLEANED ONLY IN A PRE-DETERMINED AND DESIGNATED AREA. DEBRIS AND RUNOFF FROM SAID AREA MAY NOT EXTEND BEYOND THE BUILDING AREA.
43. PROPERTY OWNER, BUILDER, OR GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR CONTROLLING DUST FROM THE SITE AT ALL TIMES. ALL MEANS NECESSARY SHALL BE USED BY THE BUILDER OR GENERAL CONTRACTOR TO CONTROL THE EXISTENCE OF DUST CAUSED BY ANY EARTHWORK, SPRAY APPLICATION OF MATERIALS, OR OTHER DUST-CAUSING PRACTICES REQUIRED BY THE CONSTRUCTION PROCESS.
44. AN INSPECTION FEE WILL BE CHARGED IF THE INSPECTION IS REQUIRED AS A RESULT OF A CODE VIOLATION.
45. FOR DEMOLITION INSPECTION OWNER OR PERMITTEE SHALL NOTIFY OSHA FOR ASBESTOS INSPECTION. ALL DEMOLITIONS AND ALL RENOVATION ACTIVITIES THAT WILL DISTURB FRIABLE ASBESTOS CONTAINING MATERIALS MUST BE REPORTED TO THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT.

GRADING & DRAINAGE PLAN FOR DEMOLITION
5338 E SAN MIGUEL AVE., PARADISE VALLEY, AZ 85253
LOT 29 - STONE CANYON AMENDED
A SUBDIVISION PLAT RECORDED IN BOOK 249 OF MAPS, PAGE 35, MCR.,
LOCATED IN A PORTION OF THE S 1/2 OF THE NW 1/4 OF THE NE 1/4 OF SECTION 17, T.2N, R.4E
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

ENGINEERS NOTES

1. MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
2. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
3. GRADING SHALL BE IN CONFORMANCE WITH 2015 IBC SEC. 1803 AND APPENDIX J.
4. 5% MINIMUM SLOPE AWAY FROM BUILDING FOR A MINIMUM 10', U.N.O.
5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) SPECIFICATIONS AND STANDARD DETAILS.
6. A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
8. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
9. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPT DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
10. ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
11. ALL PATIOS, WALKS, AND DRIVES TO SLOPE AWAY FROM BUILDING AND GARAGES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS SPECIFIED OTHERWISE. ALL LAWN AREAS ADJOINING WALKS OR SLABS WILL BE GRADED TO 2" BELOW THE TOP OF SLAB. TYPICAL FINISHED GRADE AROUND PERIMETER OF BUILDING IS MINUS 6" BELOW FINISHED FLOOR UNLESS SPECIFIED OTHERWISE.
12. ALL MATERIAL TO BE UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95% PER ASTM D698.
13. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
15. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE.
16. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL CALL 48 HOURS IN ADVANCE FOR BLUE STAKE (1-800-STAKE-IT) PRIOR TO ANY EXCAVATION.
17. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
18. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT, FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS.
19. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES AT POINTS OF TIE-IN PRIOR TO COMMENCING ANY NEW CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION DIFFER FROM THAT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNER'S AGENT.
20. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND SITE LAYOUT WITH ARCHITECTURE'S FINAL SITE PLAN AND FINAL BUILDING DIMENSIONS BEFORE STARTING WORK. REPORT DISCREPANCIES TO OWNER'S AGENT.
21. COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
22. CONTRACTOR IS RESPONSIBLE FOR PROJECT AND SITE CONDITIONS, AND TO WORK WITH WEATHER CONDITIONS AS THE PROJECT SITE MAY BE LOCATED IN A FLOOD PRONE AREA AND SUBJECT TO FLOODING AND ITS HAZARDS.
23. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER, OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS-SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THESE PLANS NOT ABLE TO BE CONSTRUCTED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
24. CONTRACTOR IS RESPONSIBLE TO COORDINATE UTILITY CROSSINGS AT CULVERT CROSSINGS BEFORE STARTING WORK ON CULVERT. COORDINATE WITH OWNER REPRESENTATIVE. VERIFY UTILITY LINES AND/OR CONDUITS ARE IN PLACE BEFORE STARTING CULVERT WORK.
25. ALL ON-SITE UTILITIES PER OTHERS.
26. THIS PROJECT REQUIRES A REGULAR ONGOING MAINTENANCE PROGRAM FOR THE DESIGNED DRAINAGE SYSTEM(S) TO PRESERVE THE DESIGN INTEGRITY AND THE ABILITY TO PERFORM ITS OPERATIONAL INTENT. FAILURE TO PROVIDE MAINTENANCE WILL JEOPARDIZE THE DRAINAGE SYSTEM(S) PERFORMANCE AND MAY LEAD TO ITS INABILITY TO PERFORM PROPERLY AND/OR CAUSE DAMAGE ELSEWHERE IN THE PROJECT.
27. IF A DISCREPANCY IS FOUND BETWEEN ENGINEER'S PLAN OR SURVEYOR'S STAKING AND THE ARCHITECTURAL PLAN, ENGINEER SHALL BE NOTIFIED IMMEDIATELY. FAILURE TO NOTIFY ENGINEER SHALL NEGATE ENGINEER'S LIABILITY.
28. ALL DISTURBED AREAS ARE TO BE ROPED AND ROPING MUST MATCH PLAN.
29. VEGETATION OUTSIDE OF CONSTRUCTION AREA TO REMAIN.
30. AREAS OUTSIDE THE WALL AND CUT AND FILL SLOPES SHALL BE REVEGETATED WITH SIMILAR PLANT TYPES AND DENSITIES FOUND ON THE SITE. REVEGETATION SHALL BE COMPLETED PRIOR TO OCCUPANCY AND THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
31. MECHANICAL EQUIPMENT SHALL BE SCREENED TO A MINIMUM OF ONE FOOT ABOVE TOP OF EQUIPMENT.
32. ANY FUTURE IMPROVEMENTS SHOWN HEREON SHALL REQUIRE A SEPARATE PERMIT.
33. ANY POINTS OF DRAINAGE CONCENTRATION SHOULD BE PROTECTED AGAINST EROSION WITH NATIVE STONE.
34. THIS PLAN IS DESIGNED TO SHOW SITE GRADING AND DRAINAGE. CONTRACTOR SHALL USE THE ARCHITECTURAL SITE PLAN TO DETERMINE FINAL HOUSE, WALL, STEP, ETC., LOCATIONS AND ELEVATIONS.
35. ALL DRAINAGE FACILITIES TO BE MAINTAINED BY HOMEOWNER.
36. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR SITE AND RETAINING WALLS LAYOUT, DIMENSIONS, AND DETAILS. TOP OF FOOTING ELEVATIONS SHOWN IN PLAN ARE APPROXIMATE ONLY. ACTUAL TOP OF FOOTINGS TO BE DETERMINED AT TIME OF CONSTRUCTION AND TO BE A MINIMUM OF SIX INCHES BELOW EXISTING NATURAL GRADE OR FINISHED GRADE WHICHEVER IS LOWER (TYPICAL).
37. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING LAYOUT, DIMENSIONS AND ELEVATIONS.
38. REFER TO STRUCTURAL DRAWINGS, DETAILS AND CALCULATIONS FOR ALL PROPOSED RETAINING WALLS.
39. FOR CHANGE IN ELEVATION THAT ARE GREATER THAN 30", PROVIDE 36" HIGH GUARDRAILS FOR TOTAL OF 42" FALL PROTECTION BARRIER U.N.O.
40. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE - 5% MIN SLOPE FOR FIRST 10 FEET, U.N.O.
41. ALL WATER AND SEWER LINES AND CONNECTIONS MUST BE INSTALLED PER IPC 2015, MAG AND TOWN OF PARADISE VALLEY SUPPLEMENT TO MAG.
42. WATERPROOF ALL EXTERIOR WALLS 18" ABOVE FINISH GRADE--(BITUTHENE® 3000 HC MEMBRANE W/ GRACE PROTECTION 03 OR APPROVED EQUAL).
43. ALL PIPES AND FITTINGS SHALL BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS AND DETAILS.
44. ABANDONMENT OF EXISTING AND INSTALLATION OF NEW SEPTIC SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT RULES AND STANDARDS, AND WILL REQUIRE SEPARATE PERMIT. COORDINATE RIPRAP COLOR WITH LANDSCAPE PLANS AND DETAILS.
45. VERIFY AND COORDINATE WITH LANDSCAPE PLANS FINAL LOCATION AND GRATE TYPE OF SPECIFIED AREA DRAINS AND TRENCH DRAINS.
47. VERIFY AND COORDINATE WITH ARCHITECTURAL AND LANDSCAPE PLANS LOCATION AND HEIGHT OF ALL SITE WALLS.
48. DISTURBED AREA- TOTAL ACRES = 1.170 ACRES > 1 ACRE; NPDES PERMIT IS REQUIRED.
49. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR DEMOLITION AND REMOVAL OF ANY EXISTING BUILDING STRUCTURES, SITE WALLS, POOL, AND PAVEMENT ETC.
50. REFER TO GEOTECHNICAL REPORT FOR SPECIFIC RECOMMENDATIONS AND MAXIMUM ALLOWED FILL AND CUT SLOPES. STABILITY OF EXISTING ROCK PINNING AND NET SHALL BE INSPECTED AND APPROVED BY GEOTECHNICAL ENGINEER.

UTILITIES NOTES

HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE ONLY AND WILL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION WORK. CALL BLUE STAKE ® (602) 263-1100.

LEGEND

- FOUND REBAR OR AS NOTED
- PROPERTY LINE
- EASEMENT LINE
- MONUMENT LINE
- CTV CABLE TV RISER
- TRANSFORMER
- 1501 --- EXISTING CONTOUR
- ~ 72.06 ~ EXIST. SPOT ELEVATION
- ~ EXIST. DRAINAGE FLOW
- ★ PALM TREE
- TREE
- +1560 --- HISTORIC NATURAL GRADES PER FDCMC & COP AERIAL TOPOGRAPHY
- EXISTING DISTURBED AREA

ABBREVIATIONS

- BC BACK OF CURB
- BSL BUILDING SETBACK LINE
- (C) CALCULATED
- EG EXISTING GRADE
- EL, ELEV ELEVATION
- EP EDGE OF PAVEMENT
- EX, EXIST. EXISTING
- FG FINISH GRADE
- G GUTTER, GAS
- INV INVERT
- (M) MEASURED
- MCR MARICOPA COUNTY RECORDER
- P, PWMT PAVEMENT
- (R), REC. RECORDED
- R RADIUS
- R/W RIGHT OF WAY
- T TANGENT, TELEPHONE
- W WEST, WATERLINE
- WM WATER METER

SHEET INDEX

- SHEET C-1 - COVER SHEET
- SHEET C-2 - GRADING & DRAINAGE PLAN FOR DEMOLITION

GRADING SPECIFICATIONS

1. EXCAVATION AND GRADING OF THIS SITE IS CLASSIFIED AS "ENGINEERED GRADING" PER 2015 I.B.C. AND WILL BE PERFORMED ACCORDINGLY.
2. THE CONTRACTOR WILL RETAIN A SOILS ENGINEER DURING CONSTRUCTION TO INSPECT PROGRESS OF CONSTRUCTION, CONCERNING PREPARATION OF GROUND TO RECEIVE FILLS, TESTING AND REQUIRED COMPACTION STABILITY OF ALL FINISH SLOPES INCLUDING CUT SLOPES.
3. COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 AND PROVISIONS AS SET FORTH IN THE SOILS REPORT.
4. BEARING MATERIALS FOR FILL UNDER RESIDENCE PAD IF NATIVE MATERIAL IS USED. LARGE ROCK FRAGMENTS MUST BE REMOVED THAT ARE IN EXCESS OF SIX INCHES. REMAINING MATERIAL MUST BE SMALLER PARTICLES OF SAND AND ROCK THAT CAN BE COMPACTED INTO A DENSE CONDITION.
5. CUT-SLOPES: MAXIMUM ROCK CUT SLOPE TO BE 1.0 FEET HORIZONTAL TO 3.0 FEET VERTICAL PER GEOTECHNICAL STUDY.
6. FILL SLOPES: MAXIMUM FILL SLOPE TO BE 2.0 FEET HORIZONTAL TO 1.0 FEET VERTICAL.
7. COMPACTION FILL MATERIAL MUST BE PLACED ON LEVELLED BENCHES CUT INTO UNDISTURBED EXISTING HILLSIDE. PLACE FILL IN HORIZONTAL LIFTS OF THICKNESS COMPACTED WITH THE COMPACTION EQUIPMENT USED. COMPACT TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM A.S.T.M. DENSITY AT THE OPTIMUM MOISTURE CONTENT OF ± TWO PERCENT. THIS PERTAINS TO ALL ENGINEERED STRUCTURAL FILL SUPPORTING STRUCTURES AND INCLUDING FILL UNDER ANY OF THE RETAINING WALLS. COMPACTION TEST RESULTS SHALL BE SUBMITTED TO THE SOILS ENGINEER AND TOWN OF PARADISE VALLEY BUILDING AND SAFETY DEPARTMENT.
8. ANY RETAINING WALLS ADJACENT TO THE PROPERTY LINES WILL BE UNDER THE SCOPE OF SPECIAL INSPECTION BY THE SOILS ENGINEER. THE DEVELOPER SHALL NOTIFY THE ADJOINING PROPERTY OWNERS IN WRITING, TEN DAYS PRIOR TO START OF CONSTRUCTION ON THESE WALLS PER SECTION 2903-B OF IBC. THE DEVELOPER WILL HAVE TO PROVIDE MEANS OF PROTECTION OF ADJACENT PROPERTY WHILE THIS WORK IS UNDER CONSTRUCTION.
9. ALL EXPOSED CUT AND FILL SHALL BE TREATED WITH AN APPROVED AGING AGENT TO MINIMIZE TO VISUAL CONTINUITY.

TOWN OF PARADISE VALLEY HILLSIDE NOTES

- A. NO CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL ALL HILLSIDE STIPULATIONS AND ALL TOWN CODE REQUIREMENTS ARE COMPLIED INCLUDING, BUT NOT LIMITED TO LANDSCAPING, GROUND RESTORATION, FIRE FLOW, FIRE SAFETY, AND ALL ONSITE AND OFFSITE IMPROVEMENTS.
- B. ALL OUTDOOR LIGHTING SHALL BE IN CONFORMANCE WITH ARTICLE XXII OF THE TOWN ZONING ORDINANCE.
- C. ALL EXCESS FILL MATERIAL SHALL BE REMOVED FROM THE SITE WITH NO NEW SPILL SLOPES.
- D. THE USE OF HYDROLOGIC RAM HAMMERS, OR OTHER HEAVY EQUIPMENT USED TO CUT THROUGH ROCK, INCLUDING MACHINERY WITH AUDIBLE BACK UP WARNING DEVICES SHALL BE LIMITED TO USE BETWEEN THE HOURS OF 7:00AM OR SUNRISE, WHICHEVER IS LATER, AND 6:00PM OR SUNSET, WHICHEVER IS EARLIER, MONDAY THROUGH FRIDAY, WITH LIMITED WORK ON SATURDAY AND NO WORK ON SUNDAY OR LEGAL HOLIDAYS. RAM HAMMERS AND OTHER HEAVY EQUIPMENT CANNOT BE USED ON SATURDAYS WITHOUT A WAIVER FROM THE TOWN MANAGER.
- E. CONSTRUCTION STAKING AND/OR FENCING SHALL BE PLACES AROUND THE CONSTRUCTION SITE SO AS TO PROTECT THE UNDISTURBED NATURAL AREA.
- F. ALL RETAINING WALLS SHALL NOT EXTEND MORE THAN 6 INCHES ABOVE THE MATERIAL THEY RETAIN (WITH EXCEPTION OF DRIVEWAY RETAINING WALLS IN ACCORDANCE WITH 2207.V.6).

EARTHWORK CALCULATIONS

VOLUME OF CUT: 862 C.Y.
VOLUME OF FILL: 4,023 C.Y.
TOTAL CUT&FILL: 4,885 C.Y.
HILLSIDE ASSURANCE = 35 TIMES THE GRADING PERMIT FEE. = \$172,970
GRADING PERMIT FEE: \$4,942 (\$142 FIRST 100 CY / \$95 EA. ADDITIONAL 100 CY).
ALL QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE QUANTITIES AND BASE THEIR BIDS ON THEIR ESTIMATES.

*NO NEW DISTURBANCE IS PROPOSED WITH THE CURRENT PLAN, BEYOND THE EXISTING DISTURBED AREA.
** EARTHWORK AMOUNTS ARE BASED ON COMPARISON OF THE HISTORIC NATURAL GRADES AND EXISTING TERRAIN ELEVATIONS.

DRAINAGE STATEMENT

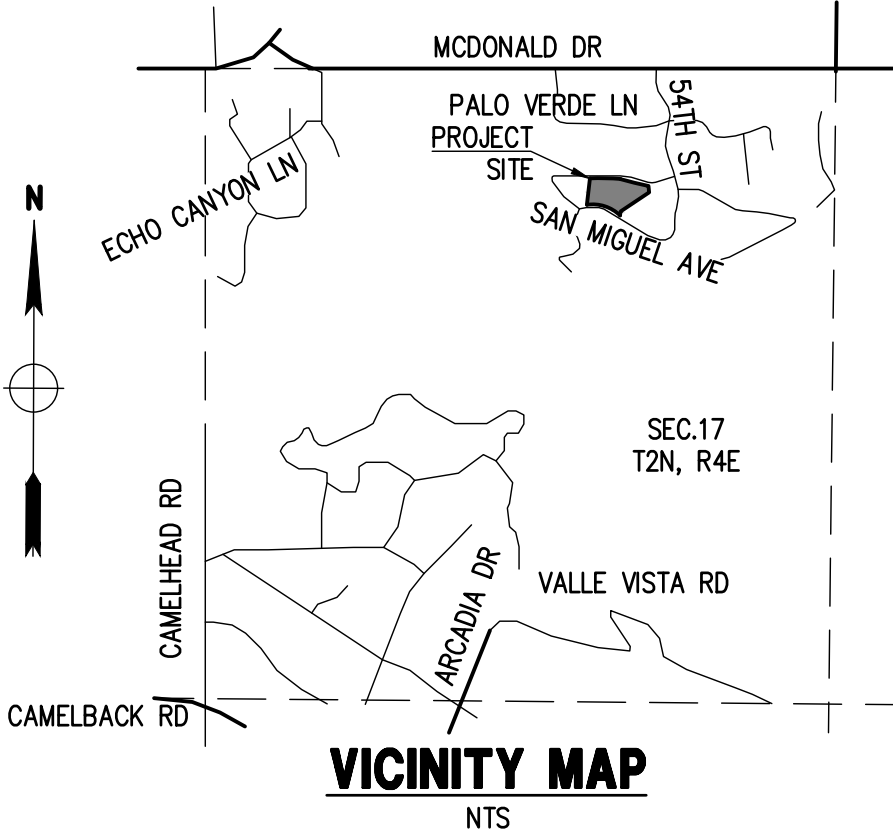
1. ULTIMATE STORM OUTFALL IS LOCATED AT THE NORTHEASTERLY PROPERTY CORNER AT ELEVATION OF 1462.78'
2. DEMOLITION OF EXIST. SINGLE FAMILY RESIDENCE IS PROPOSED WITH THIS PROJECT.
3. PROPOSED DEVELOPMENT DOES NOT IMPACT DRAINAGE CONDITIONS OF ADJOINING LOTS.
4. EXISTING DRAINAGE PATTERNS ARE PRESERVED.
5. NO OFFSITE FLOWS ARE IMPACTING THE SITE.

UTILITIES

WATER: CITY OF PHOENIX
SANITARY SEWER: CITY OF PHOENIX
ELECTRIC: SRP
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS
NATURAL GAS: SOUTHWEST GAS
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

PROJECT DESCRIPTION

DEMOLITION OF EXISTING SINGLE FAMILY RESIDENCE WITH TEMPORARY ON SITE RETENTION.



OWNER

KATE & JOSEPH HOGAN
5338 E SAN MIGUEL AVE.,
PARADISE VALLEY, AZ 85253

SITE DATA

APN: 172-47-086
ADDRESS: 5338 E SAN MIGUEL AVE.,
PARADISE VALLEY, AZ 85253
ZONING: R-43 (HILLSIDE)
LOT AREA: 102,029 S.F. (2,342 AC.)
QS #: 102-670-8635

CIVIL ENGINEER

LAND DEVELOPMENT GROUP, LLC
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020
CONTACT: NICK PRODANOV, PE
P: 602-889-1984

LAND SURVEYING

INFINITY ENGINEERING SERVICES, LTD
P.O. BOX 88034
PHOENIX, AZ 85080
P: 602-670-8635

NOTE: CIVIL ENGINEERING DESIGN PRESENTED HEREIN IS BASED ON THE TOPOGRAPHIC SURVEY MAP, PROVIDED IN AN ELECTRONIC FORMAT BY SURVEYOR LISTED ABOVE. LAND DEVELOPMENT GROUP, LLC ASSUMES NO LIABILITY FOR ERRORS AND OMISSIONS SHOWN ON THE SURVEY AND INFORMATION PROVIDED BY OTHERS.

BENCHMARK

BRASS CAP FLUSH AT THE NORTHEAST CORNER OF THE INTERSECTION OF 56TH STREET AND McDONALD DRIVE, HAVING AN ELEVATION OF 1417.248 (NAVD 88) DATUM.

BASIS OF BEARINGS

NORTH 06 DEGREES 45 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF LOT 29, STONE CANYON AMENDED, AS RECORDED IN BOOK 371 OF MAPS, PAGE 31, RECORDS OF MARICOPA COUNTY, ARIZONA.

LEGAL DESCRIPTION

LOT 29, STONE CANYON AMENDED, ACCORDING TO BOOK 371 OF MAPS, PAGE 31, RECORDS OF MARICOPA COUNTY, ARIZONA.

EXCEPT ALL COAL AND OTHER MINERALS, AS RESERVED IN THE PATENT.

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX L	BASE FLOOD ELEVATION
040049	1765 OF 4425		
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE
04013C	10/16/2013	11/04/2015	X*

*AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREIN WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER / LAND SURVEYOR

DATE

REGISTRATION NUMBER

APPROVAL

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH TOWN OF PARADISE VALLEY REQUIREMENTS PRIOR TO ISSUANCE OF PERMIT. THE TOWN NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLYING APPROVAL SHALL NOT PREVENT THE TOWN ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN THE PLANS TO BE FOUND IN VIOLATION OF LAWS OR ORDINANCES.

TOWN ENGINEER
TOWN OF PARADISE VALLEY

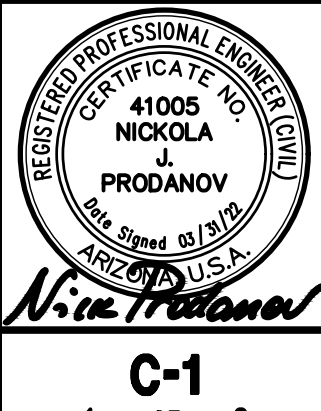
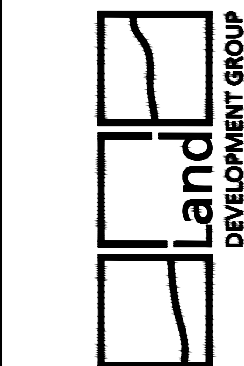
DATE

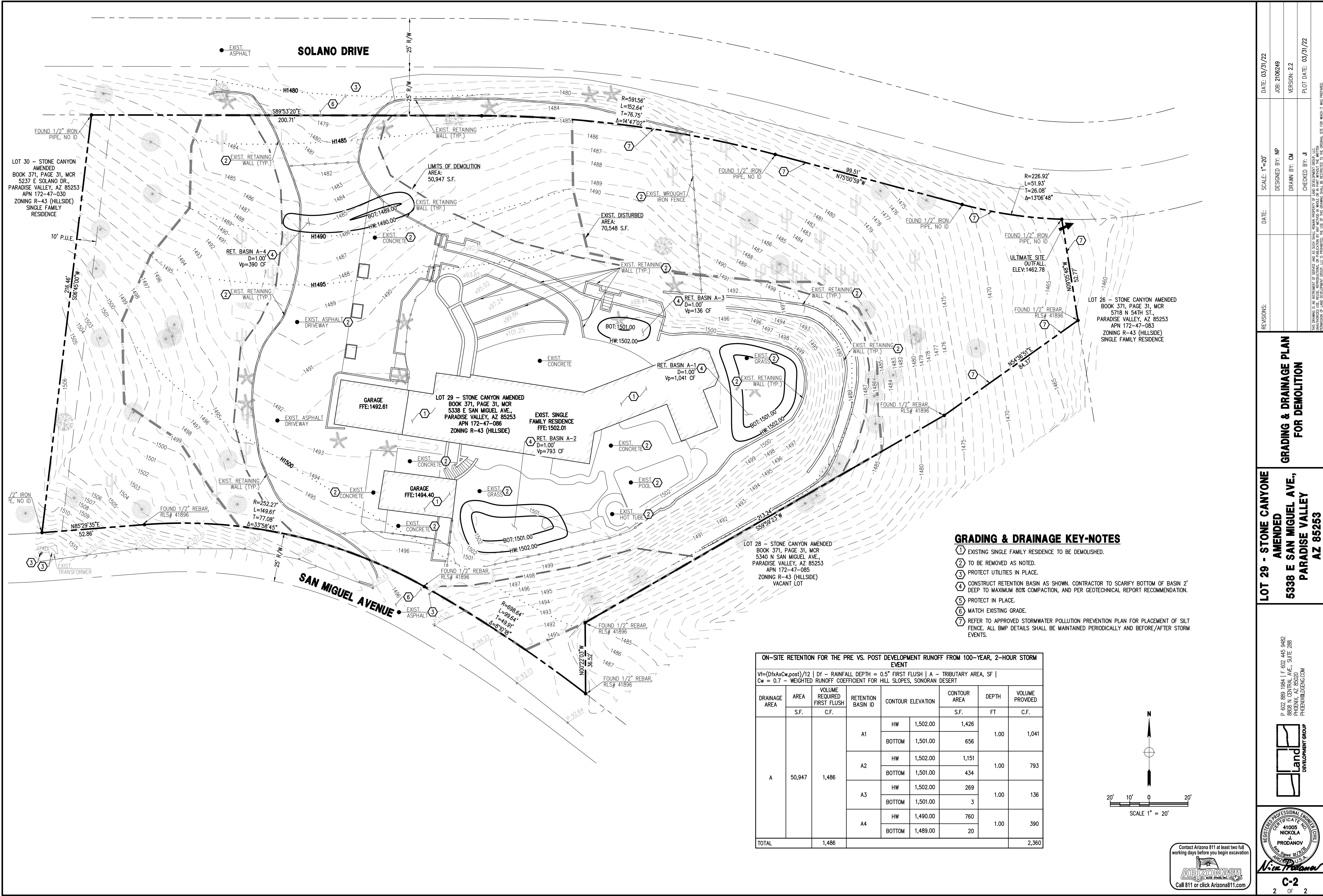
Contact Arizona 811 at least two full working days before you begin excavation



LOT 29 - STONE CANYONE AMENDED
5338 E SAN MIGUEL AVE.,
PARADISE VALLEY
AZ 85253
GRADING & DRAINAGE PLAN
FOR DEMOLITION
COVER SHEET

P 602 889 1984 | F 602 445 9492
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020
PHOENIX@LDG.COM

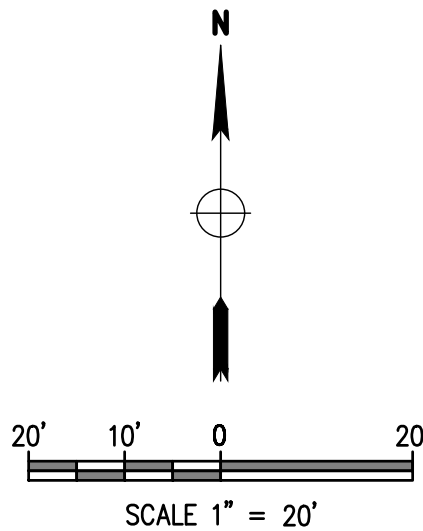




GRADING & DRAINAGE KEY-NOTES

- 1 EXISTING SINGLE FAMILY RESIDENCE TO BE DEMOLISHED.
- 2 TO BE REMOVED AS NOTED.
- 3 PROTECT UTILITIES IN PLACE.
- 4 CONSTRUCT RETENTION BASIN AS SHOWN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN 2' DEEP TO MAXIMUM 80% COMPACTION, AND PER GEOTECHNICAL REPORT RECOMMENDATION.
- 5 PROTECT IN PLACE.
- 6 MATCH EXISTING GRADE.
- 7 REFER TO APPROVED STORMWATER POLLUTION PREVENTION PLAN FOR PLACEMENT OF SILT FENCE. ALL BMP DETAILS SHALL BE MAINTAINED PERIODICALLY AND BEFORE/AFTER STORM EVENTS.

ON-SITE RETENTION FOR THE PRE VS. POST DEVELOPMENT RUNOFF FROM 100-YEAR, 2-HOUR STORM EVENT								
Vf=(DfxAxCw.post)/12 Df – RAINFALL DEPTH = 0.5" FIRST FLUSH A – TRIBUTARY AREA, SF Cw = 0.7 – WEIGHTED RUNOFF COEFFICIENT FOR HILL SLOPES, SONORAN DESERT								
DRAINAGE AREA	AREA	VOLUME REQUIRED FIRST FLUSH	RETENTION BASIN ID	CONTOUR ELEVATION		CONTOUR AREA	DEPTH	VOLUME PROVIDED
	S.F.	C.F.				S.F.	FT	C.F.
A	50,947	1,486	A1	HW	1,502.00	1,426	1.00	1,041
				BOTTOM	1,501.00	656		
			A2	HW	1,502.00	1,151	1.00	793
				BOTTOM	1,501.00	434		
			A3	HW	1,502.00	269	1.00	136
				BOTTOM	1,501.00	3		
			A4	HW	1,490.00	760	1.00	390
				BOTTOM	1,489.00	20		
TOTAL		1,486						2,360



REVISIONS:

DATE:

SCALE: 1"=20'

DESIGNED BY: NP

DRAWN BY: CM

CHECKED BY: J

DATE: 03/31/22

JOB: 2106249

VERSION: 2.2

PLOT DATE: 03/31/22

LOT 29 - STONE CANYONE AMENDED

5338 E SAN MIGUEL AVE.,

PARADISE VALLEY

AZ 85253

GRADING & DRAINAGE PLAN FOR DEMOLITION

P 602 889 1984 | F 602 445 9482

8808 N CENTRAL AVE., SUITE 288

PHOENIX, AZ 85020

PHOENIXVALDENG.COM

C-2

2 OF 2