



November 2<sup>nd</sup>, 2022

Mr. George Burton  
Senior Planner  
**Town of Paradise Valley**  
6401 E. Lincoln Drive  
Paradise Valley, Arizona 85253

**Re: Non-Administrative Lot Split**  
**5639 E. Joshua Tree Lane**  
**Paradise Valley, AZ 85253**  
**Parcel 169-32-932**

Dear Mr. Burton:

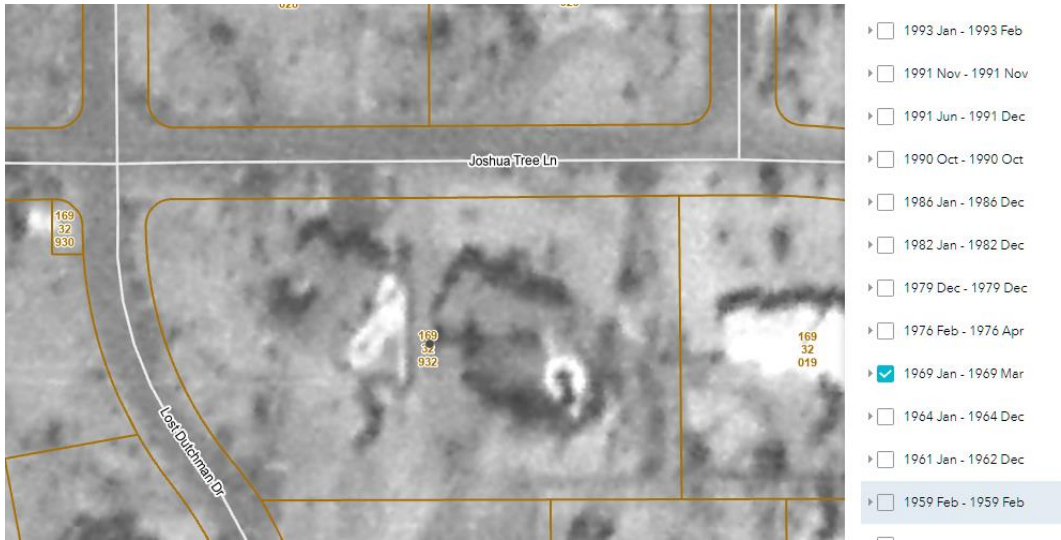
We are pleased to submit this application for a lot split of an existing parcel, located at 5639 E Joshua Tree Lane.

The subject property is Lot 1 of Club Estates 3 (Book 1217, Page 14, MCR), which is a replat (lot combination) of Lots 18 & 19 of Club Estates, a subdivision recorded in Book 74, Page 49, MCR and it is also being a portion of the NW ¼ of Section 9, T2N, R4E.

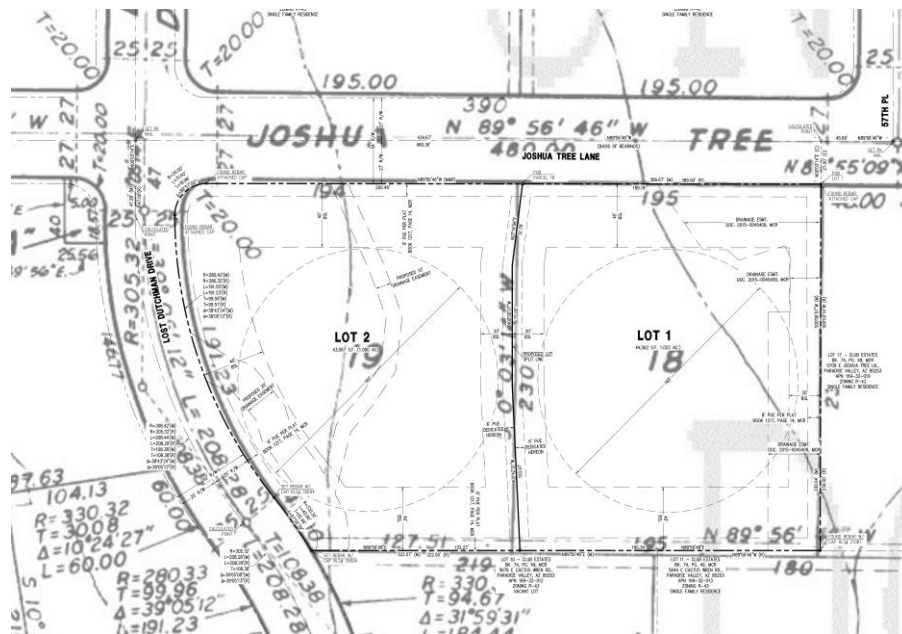
The property is bounded by Joshua Tree Lane (north), Lost Dutchman Drive (west), and residential properties from south and east. The 2.023-acre lot is zoned R-43, which in accordance with the Town of Paradise Valley Zoning Ordinance allows for one dwelling unit per acre density.

As a part of the project development process, a lot split plat map subject to the Town of Paradise Valley review and approval is prepared and enclosed herein. The owner is proposing to split the property into two lots. The proposed lot split map defines the new property divider line, location and distances of new building setback lines and public utility easements. Both lots will exceed the minimum required area of 1 acre per Chapter 6 of Town of Paradise Valley Code.

Based on our research of the historic aerial maps, there were two homes built on Lots 18 & 19 since 1969. The house on the east half (Lot 18) was demoed in 2002. The house on the west half (Lot 19) was demoed in 2011. A new house was built in 2010 on the east half of the lot. There are no existing buildings or walls on the west half of the property.



The proposed split closely matches the original Lots 18 and 19 of Club Estates, Book 74 of Maps, Page 49, MCR, platted in 1957 and were combined in 2010.



Due to the proximity to an existing wash running from north to south along the east side, the new house built in 2010 was shifted to the west. In order to avoid any encroachments, we are proposing an unorthodox split line to avoid creating building setbacks encroachments. Owner is willing to remove the ramada structure in order to bring the lot coverage within 25%. All height restrictions will be met in accordance with the Town's Open Space Criteria Ordinance.

EPCOR Water supplies domestic water in the vicinity. There are two water mains (6" CIU) in both Lost Dutchman Drive and Joshua Tree Lane. No water meter was found for the future Lot 2 (west half of the property), however since there were two homes for 40 years in the past, it is safe to say that there is enough water capacity. There is an existing fire hydrant, 194' from the northwest property corner. Per the performed Hydrant Fire Flow Test, the fire hydrant could supply 1,622 gpm at 20 psi, which meets and exceeds the Town of Paradise Valley Code 13.1.6 (1,500 gpm at 20 psi) and the Building Code requirements. Will Serve Letters have been provided by the utility provider. A second fire hydrant is located along Lost Dutchman Drive being approximately 247' south of the southwest property corner.

The Town of Paradise Valley is the sanitary sewer provider in the vicinity of this project. There are currently no sanitary sewer mains in the streets. There is an existing sanitary sewer main located in Joshua Tree Lane.

New 6' wide public utility easements are proposed along the divider line.

There are two washes entering the property from north and west. The washes run in southerly direction and exit the site at the south property line. New drainage easement encompassing the washes' limits will be dedicated and are shown on the proposed lot split map.

Should you have any questions regarding our application, please feel free to contact me.

Sincerely,



Nick Prodanov, PE, PMP  
Principal  
**Land Development Group, LLC**  
8808 N Central Ave., Suite 288  
Phoenix, AZ 85020  
P: 602 889 1984  
nick@ldgeng.com

**DEDICATION**

STATE OF ARIZONA

COUNTY OF MARICOPA

KNOW ALL MEN BY THESE PRESENTS:

JOSE MERAZ JR AND NUVIA M GARDEA FRIAS, AS LEGAL OWNER OF SAID REAL PROPERTY, HAS SUBDIVIDED PARCEL NO. 169-32-932, MARICOPA COUNTY RECORDS, LOCATED WITHIN THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 4 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA UNDER THE NAME OF "CLUB ESTATES NO. 7", AS SHOWN AND PLATTED HEREON AND HEREBY PUBLISHES THIS LOT SPLIT AND HEREBY DECLARES THAT THIS LOT SPLIT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF THE LOTS, EASEMENTS AND STREETS CONSTITUTING SAME AND THAT EACH LOT, EASEMENT AND STREET SHALL BE KNOWN BY THE NUMBER OR NAME GIVEN EACH RESPECTIVELY ON THIS PLAT.

IN WITNESS WHEREOF:

JOSE MERAZ JR AND NUVIA M GARDEA FRIAS, AS OWNERS, HAS HEREUNTO AFFIXED THEIR SIGNATURES THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

**ACKNOWLEDGEMENT**

STATE OF ARIZONA

COUNTY OF MARICOPA

ON THIS \_\_\_\_\_ OF \_\_\_\_\_, 2023, BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED JOSE MERAZ JR AND NUVIA M GARDEA FRIAS, WHO ACKNOWLEDGED THEMSELVES TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE INSTRUMENT WITHIN, AND WHO EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC \_\_\_\_\_ DATE \_\_\_\_\_, 2023

MY COMMISSION EXPIRES \_\_\_\_\_, 2023

**LOT 2 - LEGAL DESCRIPTION**

THAT PORTION OF LOT 1, OF "CLUB ESTATES 3", ACCORDING TO THE SURVEY PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14, AND LYING IN THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEASTERLY PROPERTY CORNER OF SAID LOT 1; THENCE, LEAVING SAID CORNER, CONTINUING ALONG NORTHERLY PROPERTY LINE, NORTH 89°56'46" WEST, A DISTANCE OF 189.18 FEET, TO A POINT ON NORTHERLY PROPERTY LINE, ALSO BEING THE POINT OF BEGINNING;

THENCE, LEAVING SAID PROPERTY LINE, SOUTH 07°14'06" WEST, A DISTANCE OF 51.79 FEET;

THENCE, SOUTH 00°00'07" EAST, A DISTANCE OF 75.00 FEET;

THENCE, SOUTH 02°42'01" EAST, A DISTANCE OF 103.97 FEET, TO A POINT ON SOUTHERLY PROPERTY LINE OF SAID LOT 1;

THENCE, CONTINUING ALONG SOUTHERLY PROPERTY LINE, SOUTH 89°59'48" WEST, A DISTANCE OF 132.23 FEET, TO THE SOUTHWESTERLY PROPERTY CORNER OF SAID LOT 1;

THENCE, CONTINUING ALONG WESTERLY PROPERTY BOUNDARY, BEING NON-TANGENT A CURVE TO LEFT, HAVING A RADIUS OF 330.32 FEET, A CENTRAL ANGLE OF 07°05'39", A TANGENT LENGTH OF 20.48 FEET, A CHORD THAT BEARS NORTH 35°29'04" WEST, A DISTANCE OF 40.87 FEET, FOR AN ARC LENGTH OF 40.90 FEET;

THENCE, CONTINUING ALONG WESTERLY PROPERTY BOUNDARY, BEING A CURVE TO RIGHT, HAVING A RADIUS OF 283.42 FEET, A CENTRAL ANGLE OF 38°43'24", A TANGENT LENGTH OF 99.59 FEET, A CHORD THAT BEARS NORTH 19°33'53" WEST, A DISTANCE OF 187.92 FEET, FOR AN ARC LENGTH OF 191.55 FEET, TO A NORTHWESTERLY PROPERTY CORNER OF SAID LOT 1;

THENCE, LEAVING SAID CORNER, CONTINUING ALONG SAID PROPERTY BOUNDARY, BEING A CURVE TO RIGHT, HAVING A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 90°15'25", A TANGENT LENGTH OF 20.09 FEET, A CHORD THAT BEARS NORTH 44°55'31" EAST, A DISTANCE OF 28.35 FEET, FOR AN ARC LENGTH OF 31.51 FEET, TO A NORTHWESTERLY PROPERTY CORNER OF SAID LOT 1;

THENCE, LEAVING SAID PROPERTY CORNER, CONTINUING ALONG NORTHERLY PROPERTY LINE, SOUTH 89°56'46" EAST, A DISTANCE OF 200.49 FEET, TO THE POINT OF BEGINNING;

**"CLUB ESTATES NO. 7"**

**A LOT SPLIT OF LOT 1 CLUB ESTATES 3, RECORDED IN BOOK 1217 OF MAPS, PAGE 14, MCR., LOCATED IN A PORTION OF THE SW 1/4 OF THE NW 1/4 OF THE NW 1/4 OF SECTION 9, T.2N, R.4E OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA**

**LOT 1 - LEGAL DESCRIPTION**

THAT PORTION OF LOT 1, OF "CLUB ESTATES 3", ACCORDING TO THE SURVEY PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14, AND LYING IN THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY PROPERTY CORNER OF SAID LOT 1;

THENCE, LEAVING SAID CORNER, CONTINUING ALONG EASTERLY PROPERTY LINE, SOUTH 00°06'57" WEST, A DISTANCE OF 230.04 FEET, TO THE SOUTHEASTERLY PROPERTY CORNER OF SAID LOT 1;

THENCE, LEAVING SAID CORNER, CONTINUING ALONG SOUTHERLY PROPERTY LINE, SOUTH 89°59'48" WEST, A DISTANCE OF 190.34 FEET;

THENCE, LEAVING SAID PROPERTY LINE, NORTH 02°42'01" WEST, A DISTANCE OF 103.97 FEET;

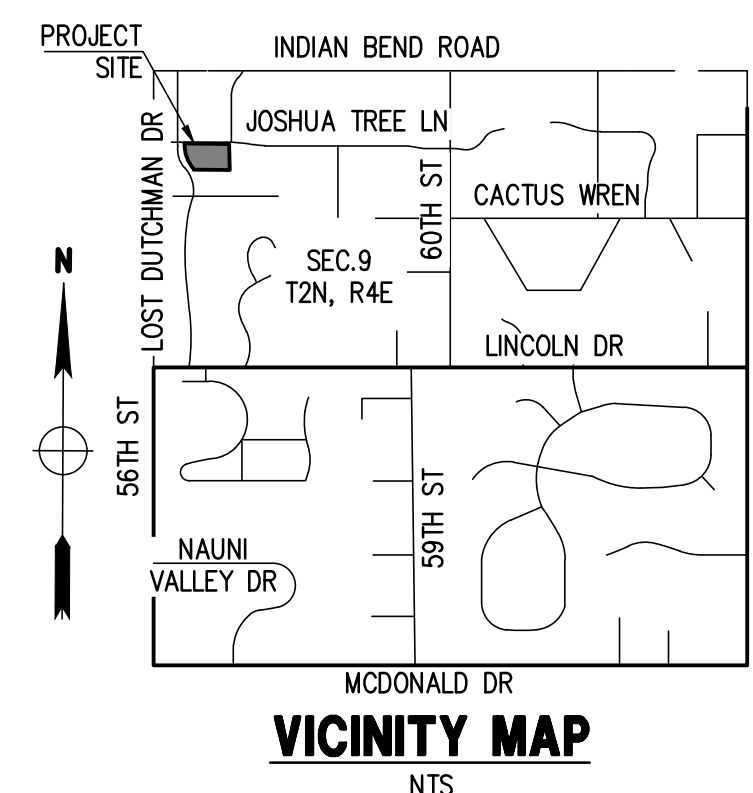
THENCE NORTH 00°00'07" WEST, A DISTANCE OF 75.00 FEET;

THENCE NORTH 07°14'06" EAST, A DISTANCE OF 51.79 FEET, TO A POINT ON NORTHERLY PROPERTY LINE OF SAID LOT 1;

THENCE, CONTINUING ALONG NORTHERLY PROPERTY LINE, SOUTH 89°56'46" EAST, A DISTANCE OF 189.18 FEET, TO THE NORTHEASTERLY PROPERTY LINE OF SAID LOT 1, ALSO BEING THE POINT OF BEGINNING;

**NOTES**

- 1. THIS IS NOT AN ALTA/ACSM TITLE SURVEY.
- 2. NO CC&R'S ARE CREATED WITH THIS MAP, SURVEYOR WAS UNABLE TO RETRIEVE ANY RECORD OF EXISTING CC&R'S EITHER.
- 3. BUILDING SETBACK LINES, ZONING, FLOOD AREA ZONES, OWNERSHIP INFORMATION, AND ADDRESSES THAT MAY BE SHOWN ARE SUPPLIED BY THE GOVERNING AGENCY OR TAKEN FROM THE BEST AVAILABLE RECORDS. THE SURVEYOR WILL NOT ACCEPT RESPONSIBILITY FOR THE ACCURACY OF ANY INFORMATION SUPPLIED BY OTHERS.
- 4. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS MAP, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, OTHER THAN POSSIBLE EASEMENTS, WHICH WERE VISIBLE AT THE TIME OF MAKING THIS SURVEY; BUILDING SETBACK LINES; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS, AND ANY OTHER FACTS WHICH AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
- 5. THE DESCRIPTION OF PROPERTY BOUNDARIES AND EASEMENTS SHOWN HEREON, REPRESENT THAT INFORMATION PROVIDED IN WARRANTY DEED RECORDED IN DOC. NO 2019-045564, M.C.R. & SURVEY PLAT RECORDED IN BOOK 1217, PAGE 14, M.C.R.
- 6. EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED OR AVAILABLE TO THE SURVEYOR AT THE TIME OF THE SURVEY.
- 7. ANY INFORMATION SHOWN WHICH MAY VARY FROM THE CONTENTS OF THE REPORT(S) NOTED ABOVE, REPRESENTS INFORMATION AND MEASUREMENTS FOUND DURING THE COURSE OF THE SURVEY.
- 8. UNLESS OTHERWISE NOTED, ALL DIMENSIONS SHOWN ARE MEASURED.
- 9. THE EXISTING POOL RAMADA STRUCTURE ON LOT 1 WILL BE DEMOLISHED AS WELL AS PORTION OF EXISTING FENCE WALL THAT ENCLOSES ON LOT 2. THE TOWN WILL NOT RECORD A PLAT UNTIL A DEMO PERMIT IS APPLIED, ISSUED, AND FINALIZED.
- 10. ALL LANDSCAPING WITHIN THE RIGHTS-OF-WAY WILL BE LANDSCAPED IN ACCORDANCE WITH SECTION 5-10-7.D OF THE TOWN CODE AND THE TOWN LANDSCAPE GUIDELINES.



**OWNER**  
JOSE MERAZ JR. AND NUVIA M. GARDEA FRIAS  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

**PARENT SITE DATA**

APN: 169-32-932  
ADDRESS: 5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253  
ZONING: R-43  
PARENT LOT AREA: 88,130 S.F. (2.023 AC.)  
CONSTRUCTION YEAR: 2011  
QS #: 22-42

**AREAS**

LOT 1: 44,562 S.F. (1.023 AC.)  
LOT 2: 43,567 S.F. (1.000 AC.)

**BASIS OF BEARINGS**

THE NORTH LINE OF LOT 1, THE BEARING OF WHICH IS S89°56'46"E

**PARENT LEGAL DESCRIPTION**

LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.

**SURVEY REFERENCES**

- 1. WARRANTY DEED RECORDED IN DOC. NO. 2019-045564, M.C.R.
- 2. RECORDED PLAT PER BOOK 1217 OF MAPS, PAGE 14, M.C.R.
- 3. RECORDED PLAT PER BK. 74, PG. 49, M.C.R.
- 4. DRAINAGE EASEMENT AGREEMENT PER DOC. 2015-0045409, M.C.R.

**UTILITIES**

WATER: EPCOR WATER  
SANITARY SEWER: TOWN OF PARADISE VALLEY  
ELECTRIC: APS  
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS  
NATURAL GAS: SOUTHWEST GAS  
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

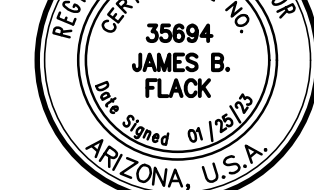
**DRAINAGE EASEMENT RESTRICTIONS**

PURSUANT TO A.R.S. §9-463.01 (c), AND SECTIONS 6-3-8, 6-4-3 (E) AND 8-7 ET. SEQ. OF THE CODE OF ORDINANCES OF THE TOWN OF PARADISE VALLEY, DRAINAGE EASEMENTS ARE FOR THE PURPOSE OF ALLOWING STORM, FLOOD, AND OTHER WATERS TO PASS OVER, UNDER OR THROUGH THE LAND SET ASIDE FOR SUCH EASEMENTS, AND NOTHING WHICH MAY, TO ANY DEGREE, IMPEDE OR OBSTRUCT THE FLOW OF SUCH WATERS, SHALL BE CONSTRUCTED, PLACED, PLANTED, OR ALLOWED TO GROW ON OR IN SUCH EASEMENTS. THE MAINTENANCE AND CLEARING OF THESE DRAINAGE EASEMENTS SHALL BE THE SOLE RESPONSIBILITY AND DUTY OF THE OWNER OF THE PROPERTY ON WHICH SAID EASEMENTS ARE PLATTED. HOWEVER, THE TOWN OF PARADISE VALLEY, A MUNICIPAL CORPORATION, MAY, IF THE TOWN DEEMS IT TO BE IN THE BEST INTERESTS OF THE HEALTH, SAFETY, OR WELFARE OF THE TOWN OF PARADISE VALLEY, CONSTRUCT AND/OR MAINTAIN DRAINAGE FACILITIES ON OR UNDER SUCH EASEMENTS. AGENTS AND EMPLOYEES OF THE TOWN OF PARADISE VALLEY SHALL HAVE FREE ACCESS TO AND FROM ALL PORTIONS OF SUCH EASEMENTS AT ALL TIMES.

**SURVEYOR'S CERTIFICATION**

THIS IS TO CERTIFY THAT (1) THE SURVEY OF THE PREMISES DESCRIBED AND PLATTED HEREIN WERE MADE UNDER MY DIRECTION DURING THE MONTH OF JUNE, 2022, AND (2) THIS PLAT IS CORRECT AND ACCURATE, AND (3) THE MONUMENT OR MONUMENTS SHOWN HEREIN HAVE BEEN LOCATED AS DESCRIBED.

*James B. Flack*



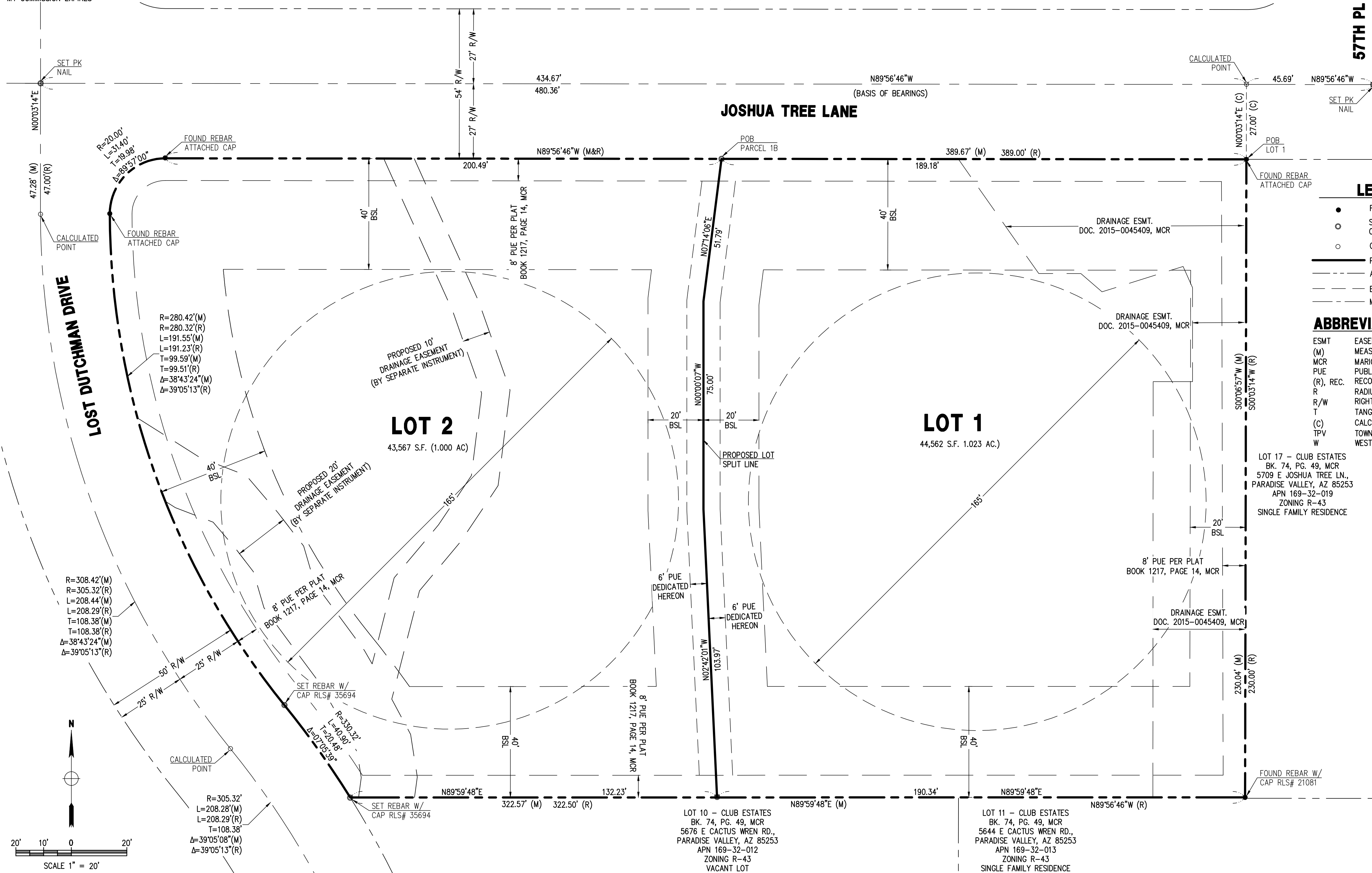
JAMES FLACK, RLS

01/25/23  
DATE

**APPROVAL:**

APPROVED BY THE TOWN COUNCIL OF THE TOWN OF PARADISE VALLEY, ARIZONA  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

BY: \_\_\_\_\_  
TOWN ENGINEER  
  
BY: \_\_\_\_\_  
COMMUNITY DEVELOPMENT DIRECTOR  
  
BY: \_\_\_\_\_  
MAYOR  
  
BY: \_\_\_\_\_  
TOWN CLERK



REVISIONS: DATE: 01/25/23 SCALE: 1"=20' DESIGNED BY: NP DRAWN BY: DL CHECKED BY: JF PLOT DATE: 01/25/23

LOT 1 - CLUB ESTATES 7  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

P. 602.889.1984 | F. 602.445.9482  
8808 N CENTRAL AVE., SUITE 288  
PHOENIX, AZ 85020  
PHOENIXLANDING.COM

1 OF 1

**LEGEND**

- BRASS CAP FLUSH
- CALCULATED POINT
- FOUND REBAR AS NOTED
- SET 1/2" REBAR & TAG OR AS NOTED
- PROPERTY LINE
- EASEMENT LINE
- MONUMENT LINE
- ⊗ WATER VALVE
- ⊙ SEWER MANHOLE
- ⊕ FIRE HYDRANT
- ⊞ TELEPHONE PEDESTAL
- ⊟ SEWER CLEANOUT
- ⊠ MAILBOX
- ⊡ ELECTRIC METER
- ⊢ A/C UNIT
- ⊣ WATER METER
- ⊤ GAS METER
- ⊥ MAILBOX
- ⊦ UTILITY BOX/VAULT
- COMMUNICATIONS LINE
- CATV, PHONE
- GAS LINE
- WATER LINE
- ELECTRIC LINE
- SEWER LINE
- EXISTING CONTOUR
- EXIST. DRAINAGE FLOW
- EXIST. SPOT ELEVATION
- ⊙ MESQUITE TREE
- ⊙ SAQUARO
- ⊙ PALO VERDE
- ⊙ PALM TREE

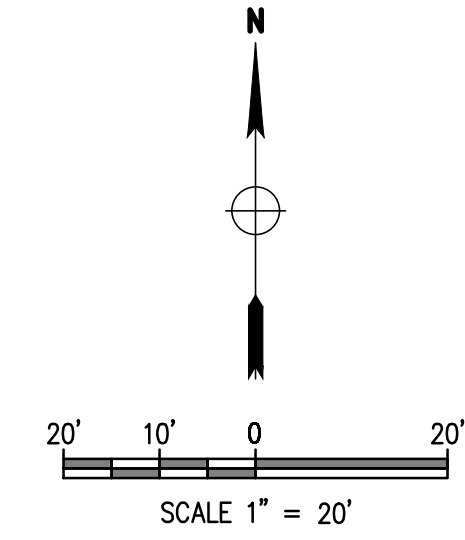
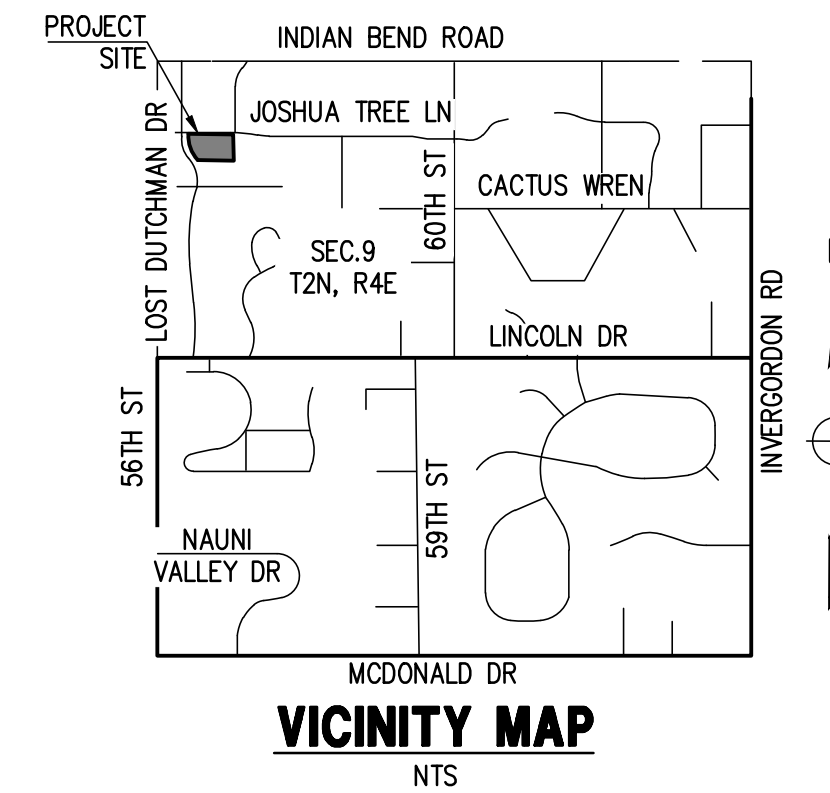
**ABBREVIATIONS**

- BSL BUILDING SETBACK LINE
- EG EXISTING GRADE
- EL, ELEV ELEVATION
- EP EDGE OF PAVEMENT
- ESMT EASEMENT
- EX, EXIST. EXISTING
- G GUTTER, GAS
- INV INVERT
- (M) MEASURED
- MCR MARICOPA COUNTY RECORDER
- MH MANHOLE
- P, PVMT PAVEMENT
- PUE PUBLIC UTILITY EASEMENT
- (R), REC. RECORDED
- R RADIUS
- R/W RIGHT OF WAY
- T TANGENT, TELEPHONE
- TC TOP OF CURB
- TPV TOWN OF PARADISE VALLEY
- W WEST, WATERLINE
- WDO WALL DRAINAGE OPENING
- WM WATER METER

**NEW PROPERTY LINE EXHIBIT**  
**5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253**

**LOT 1 - CLUB ESTATES NO. 7**

**A LOT SPLIT OF LOT 1, CLUB ESTATES 3, AS RECORDED IN BOOK 1217 OF MAPS, PAGE 14, MCR, LOCATED IN A PORTION OF THE SW 1/4 OF THE NW 1/4 OF THE NW 1/4 OF SECTION 9, T.2N, R.4E OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA**



**PARENT SITE DATA**

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 ADDRESS: 5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253  
 ZONING: R-43  
 LOT AREA: 88,130 S.F. (2.023 AC.)  
 CONSTRUCTION YEAR: 2011  
 OS #: 22-42  
 FAR: BUILDING UNDER ROOF: 10,840 S.F. / 12.3%  
 RAMADA UNDER ROOF: 360 S.F. / 0.41%

**OWNER**

JOSE MERAZ JR. AND NUVA M.  
 GARDEA FRIAS  
 5639 E JOSHUA TREE LN.,  
 PARADISE VALLEY, AZ 85253

**NEW AREAS**

LOT 1: 44,562 S.F. (1.023 AC.)  
 FAR: BUILDING UNDER ROOF: 10,840 S.F. / 24.3%  
 LOT 2: 43,567 S.F. (1.000 AC.)

**BASIS OF BEARINGS**

THE NORTH LINE OF LOT 1, THE BEARING OF WHICH IS S89°56'46"E.

**LEGAL DESCRIPTION**

LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.

**BENCHMARK**

BRASS CAP FLUSH AT THE INTERSECTION OF 56TH STREET AND McDONALD DRIVE HAVING AN ELEVATION OF 1417.53, NAVD 88 DATUM, GDACS# 24544-1.

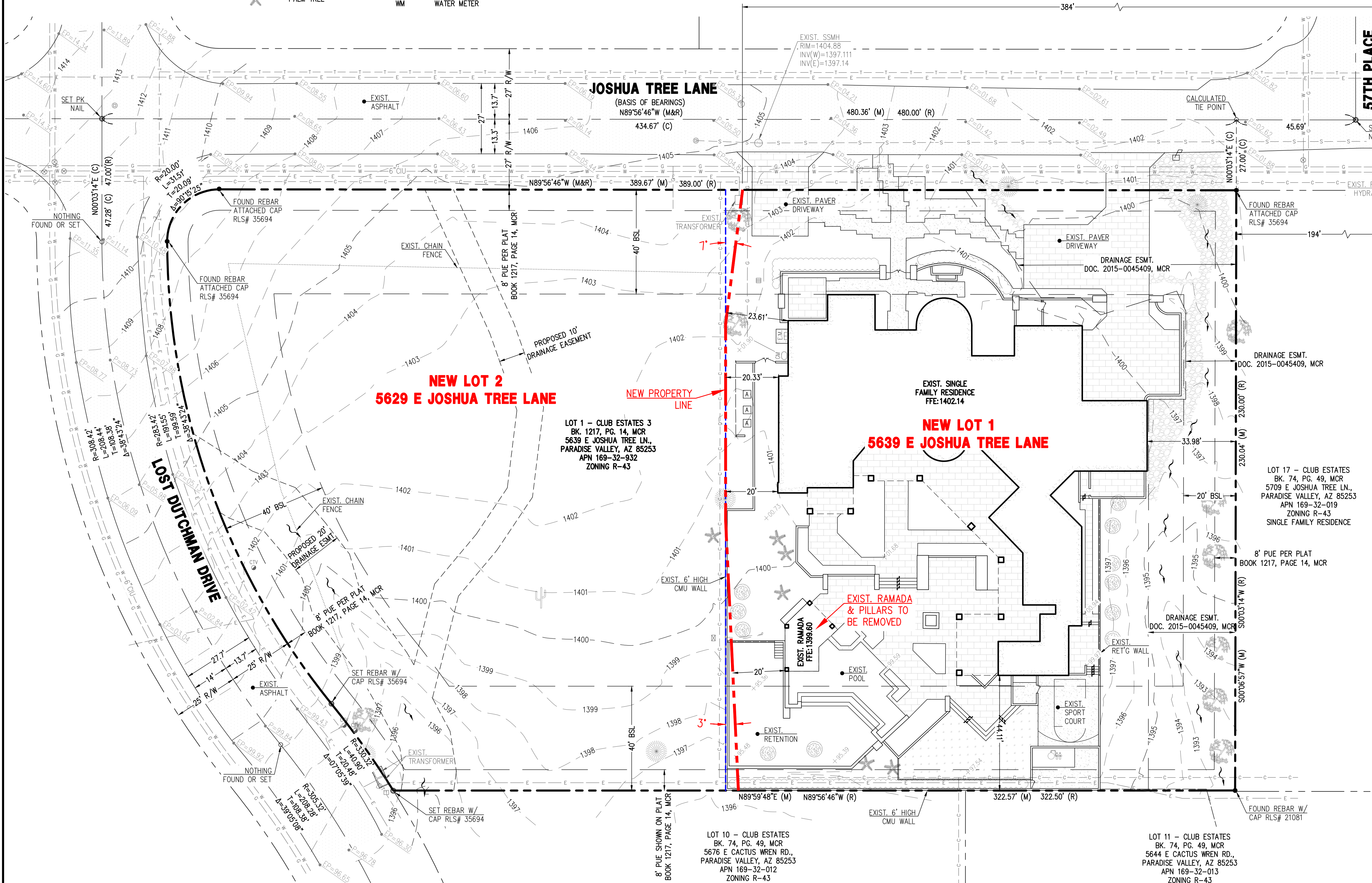
**UTILITIES**

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 ELECTRIC: APS  
 TELEPHONE: CENTURY LINK, COX COMMUNICATIONS  
 NATURAL GAS: SOUTHWEST GAS  
 CABLE TV: CENTURY LINK, COX COMMUNICATIONS

**FLOOD INSURANCE RATE MAP (FIRM) DATA**

COMMUNITY #	PANEL #	SUFFIX	BASE FLOOD ELEVATION
040049	1765 OF 4425	L	N/A
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.



DATE: 07/25/23  
 JOB: 2104186  
 VERSION: 1.1  
 PLOT DATE: 07/25/23

SCALE: 1"=20'  
 DESIGNED BY: NP  
 DRAWN BY: DW  
 CHECKED BY: JF

REVISIONS:

**NEW PROPERTY LINE EXHIBIT**

**LOT 1 - CLUB ESTATES 7  
 5639 E JOSHUA TREE LN.,  
 PARADISE VALLEY, AZ 85253**

P. 602.889.1984 | F. 602.445.9482  
 8808 N CENTRAL AVE., SUITE 288  
 PHOENIX, AZ 85020  
 PHOENIXLANDDEV.COM

**land DEVELOPMENT GROUP**

REGISTERED PROFESSIONAL ENGINEER  
 CERTIFICATE NO. 41005  
 NICKOLA J. PRODANOV  
 State of Arizona  
 No. 123456789

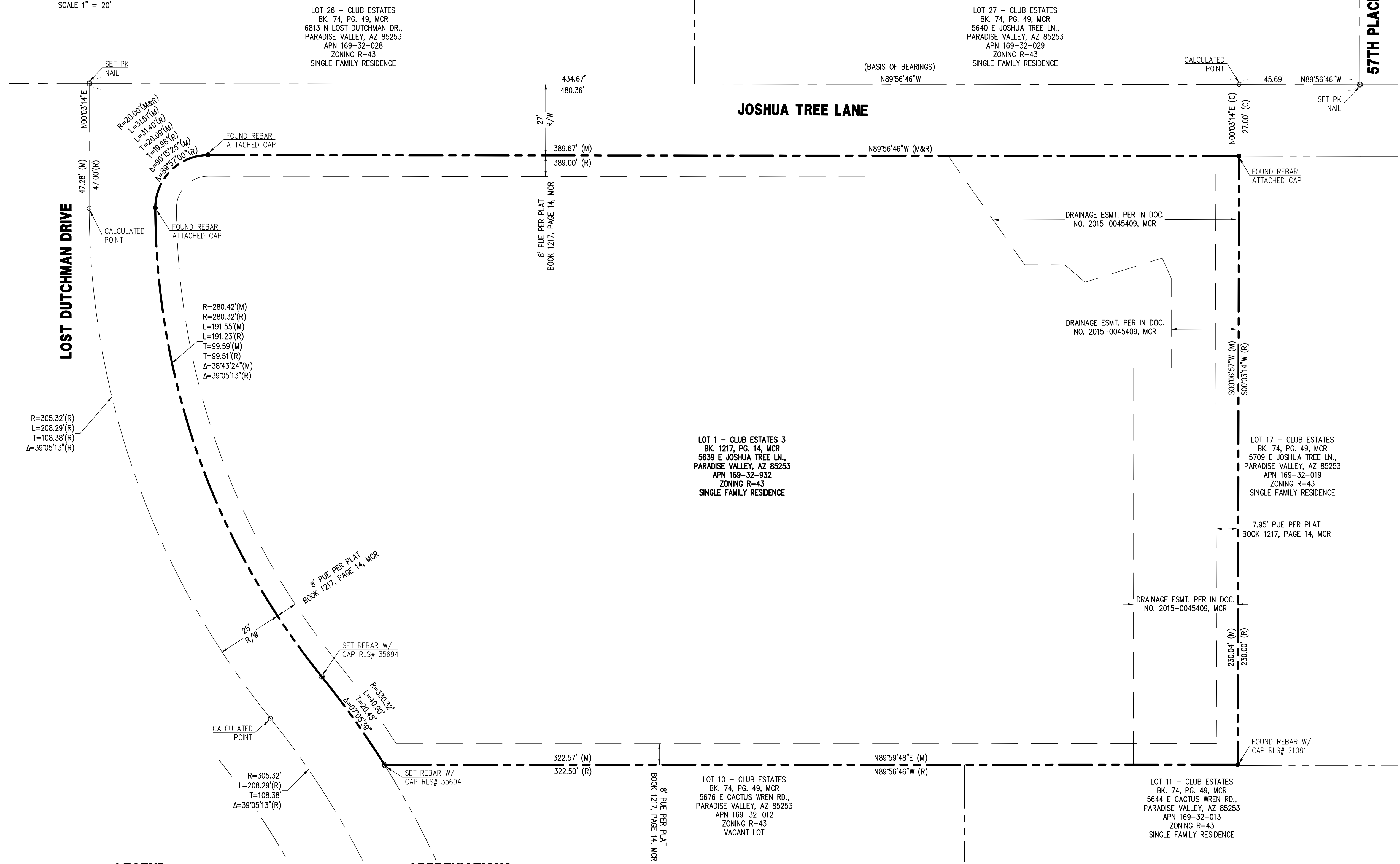
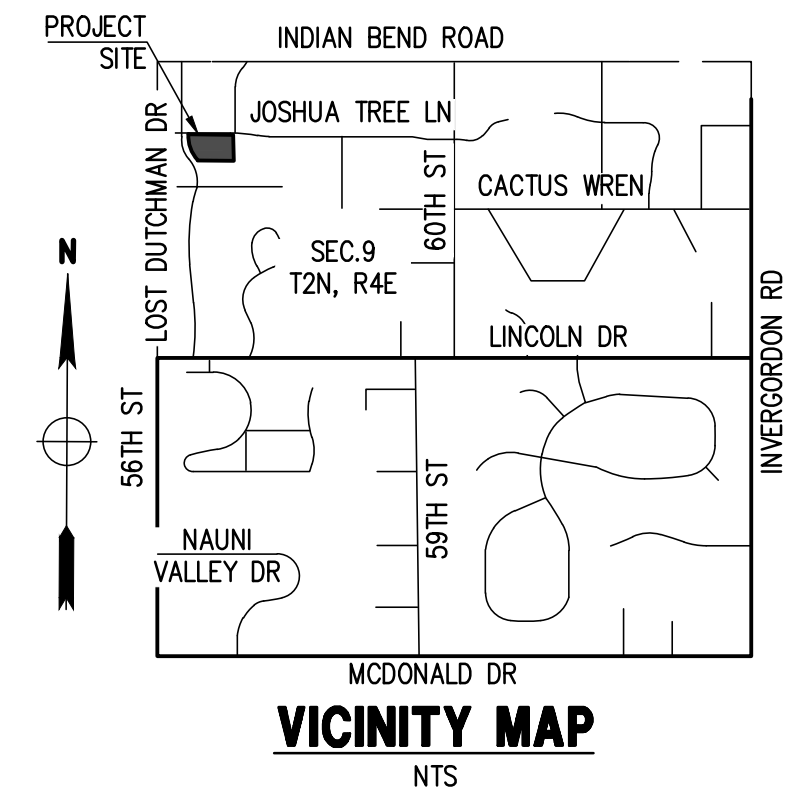
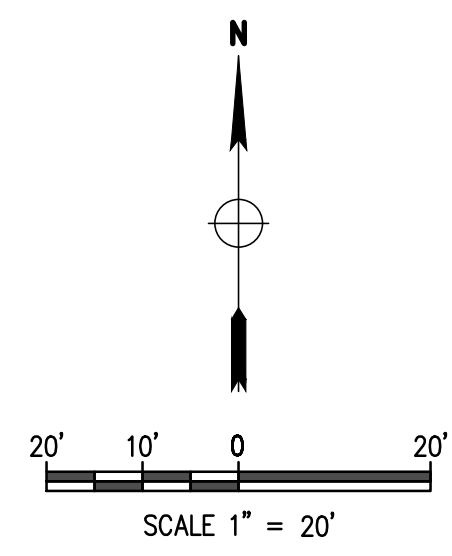
1 OF 1

# BOUNDARY SURVEY

## 5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253

### LOT 1 - CLUB ESTATES 3

A SUBDIVISION PLAT RECORDED IN BOOK 1217 OF MAPS, PAGE 14, MCR.,  
LOCATED IN A PORTION OF THE SW 1/4 OF THE NW 1/4 OF THE NW 1/4 OF SECTION 9, T.2N, R.4E  
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



R=305.32'(R)  
L=208.29'(R)  
T=108.38'(R)  
Δ=39°05'13"(R)

R=280.42'(M)  
R=280.32'(R)  
L=191.55'(M)  
L=191.23'(R)  
T=99.59'(M)  
T=99.51'(R)  
Δ=38°43'24"(M)  
Δ=39°05'13"(R)

R=230.22'  
L=140.90'  
T=107.16'  
Δ=39°05'13"

R=305.32'  
L=208.29'(R)  
T=108.38'  
Δ=39°05'13"(R)

#### LEGEND

- FOUND REBAR OR AS NOTED
- SET 1/2" REBAR & TAG OR AS NOTED
- CALCULATED POINT
- PROPERTY LINE
- - - EASEMENT LINE
- - - MONUMENT LINE

#### ABBREVIATIONS

- ESMT EASEMENT MEASURED
- (M) MARICOPA COUNTY RECORDER
- MCR PUBLIC UTILITY EASEMENT
- PUE RECORDED
- (R), REC. RADIUS
- R/W RIGHT OF WAY
- T TANGENT
- (C) CALCULATED
- TPV TOWN OF PARADISE VALLEY
- W WEST, WATERLINE

#### GENERAL NOTES

- THE PREMISES SURVEYED HAVE NO KNOWN DISCREPANCIES, BOUNDARY LINE CONFLICTS, ENCROACHMENTS, OVERLAPPING OF IMPROVEMENTS, EASEMENTS OR RIGHT-OF-WAYS EXCEPT AS SHOWN, AND HAS ACCESS TO OR FROM A DEDICATED ROADWAY.
- EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS MAP, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, OTHER THAN POSSIBLE EASEMENTS, WHICH WERE VISIBLE AT THE TIME OF MAKING THIS SURVEY; BUILDING SETBACK LINES; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS, AND ANY OTHER FACTS WHICH AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
- THE DESCRIPTION OF PROPERTY BOUNDARIES AND EASEMENTS SHOWN HEREON, REPRESENT THAT INFORMATION PROVIDED ON BOOK 1217 OF MAPS, PAGE 14, WARRANTY DEED REC. DOC. 2019-045564, RECORDS OF MARICOPA COUNTY, ARIZONA.
- EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED OR AVAILABLE TO THE SURVEYOR AT THE TIME OF THE SURVEY. THERE MAY EXIST OTHER DOCUMENTS OF RECORD, WHICH WOULD AFFECT THIS PARCEL.
- ANY INFORMATION SHOWN WHICH MAY VARY FROM THE CONTENTS OF THE REPORT(S) NOTED ABOVE, REPRESENTS INFORMATION AND MEASUREMENTS FOUND DURING THE COURSE OF THE SURVEY.
- ALL MEASURED BEARINGS AND DISTANCES EQUAL RECORD UNLESS NOTED OTHERWISE.
- ANY AERIAL MAPS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND DO NOT NECESSARILY DEPICT THE EXACT CURRENT CONDITIONS.

LOT 1 - CLUB ESTATES 3  
BK. 74, PG. 14, MCR  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253  
APN 169-32-932  
ZONING R-43  
SINGLE FAMILY RESIDENCE

LOT 17 - CLUB ESTATES  
BK. 74, PG. 49, MCR  
5709 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253  
APN 169-32-019  
ZONING R-43  
SINGLE FAMILY RESIDENCE

LOT 10 - CLUB ESTATES  
BK. 74, PG. 49, MCR  
5676 E CACTUS WREN RD.,  
PARADISE VALLEY, AZ 85253  
APN 169-32-012  
ZONING R-43  
VACANT LOT

LOT 11 - CLUB ESTATES  
BK. 74, PG. 49, MCR  
5644 E CACTUS WREN RD.,  
PARADISE VALLEY, AZ 85253  
APN 169-32-013  
ZONING R-43  
SINGLE FAMILY RESIDENCE

LOT 26 - CLUB ESTATES  
BK. 74, PG. 49, MCR  
6813 N LOST DUTCHMAN DR.,  
PARADISE VALLEY, AZ 85253  
APN 169-32-028  
ZONING R-43  
SINGLE FAMILY RESIDENCE

LOT 27 - CLUB ESTATES  
BK. 74, PG. 49, MCR  
5640 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253  
APN 169-32-029  
ZONING R-43  
SINGLE FAMILY RESIDENCE

#### OWNER

JOSE MERAZ JR. AND NUMA M. GARDEA FRIAS  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

#### SITE DATA

APN: 169-32-932  
ADDRESS: 5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253  
ZONING: R-43  
LOT AREA: 88,130 S.F. (2.023 AC.)  
CONSTRUCTION YEAR: 2011  
QS #: 22-42

#### BASIS OF BEARINGS

THE NORTH LINE OF LOT 1, THE BEARING OF WHICH IS S89°56'46"E.

#### LEGAL DESCRIPTION

LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.

#### SURVEY REFERENCES

- MARICOPA COUNTY PARCEL 825-09-02-02.
- WARRANTY DEED RECORDED IN DOC. NO. 2019-045564, M.C.R.
- RECORDED PLAT PER BOOK 1217 OF MAPS, PAGE 14, M.C.R.

#### UTILITIES

WATER: EPCOR WATER  
SANITARY SEWER: SEPTIC  
ELECTRIC: APS  
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS  
NATURAL GAS: SOUTHWEST GAS  
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

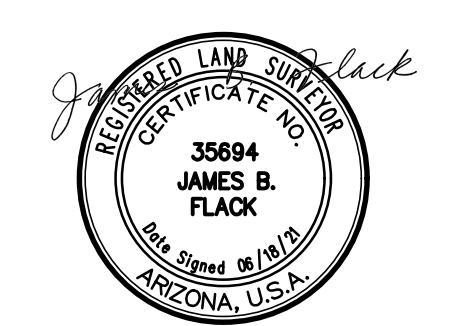
#### FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX	BASE FLOOD ELEVATION
040049	1765 OF 4425	L	N/A
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.

#### CERTIFICATE OF SURVEY

THIS IS TO CERTIFY THAT THIS MAP AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE CURRENT "MINIMUM STANDARDS FOR ARIZONA BOUNDARY AND TOPOGRAPHIC SURVEYS", AND THAT THE SURVEY SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND WAS SURVEYED AND DRAWN UNDER MY DIRECTION IN THE MONTH OF JUNE, 2021.



JAMES FLACK, RLS

06/18/21  
DATE

REVISIONS:	DATE:	SCALE: 1"=20'	DESIGNED BY: NP	DATE: 06/18/21
			DRAWN BY: DL	JOB: 2104168
			CHECKED BY: JF	VERSION: 1.1
				PLOT DATE: 06/18/21

BOUNDARY SURVEY MAP

LOT 1 - CLUB ESTATES 3  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

P. 602.889.1984 | F. 602.445.9482  
8808 N CENTRAL AVE., SUITE 288  
PHOENIX, AZ 85020  
PHOENIXLANDSCAPE.COM

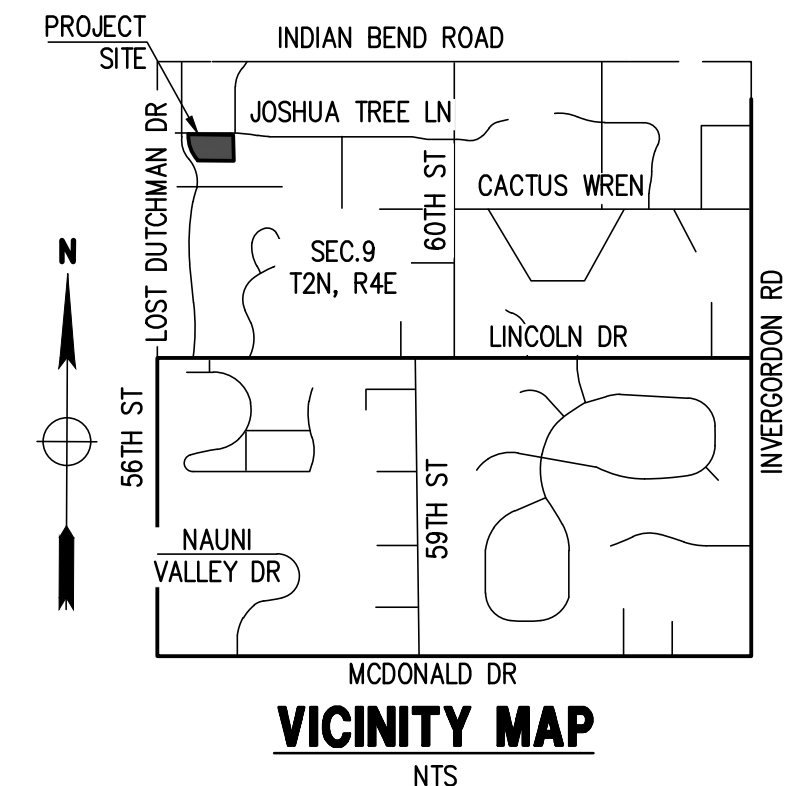
1 OF 1

# BOUNDARY SURVEY

## 5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253

### LOT 1 - CLUB ESTATES 3

A SUBDIVISION PLAT RECORDED IN BOOK 1217 OF MAPS, PAGE 14, MCR.,  
LOCATED IN A PORTION OF THE SW 1/4 OF THE NW 1/4 OF THE NW 1/4 OF SECTION 9, T.2N, R.4E  
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



**OWNER**  
JOSE MERAZ JR. AND NUMA M. GARDEA FRIAS  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

**SITE DATA**  
APN: 169-32-932  
ADDRESS: 5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253  
ZONING: R-43  
LOT AREA: 88,130 S.F. (2.023 AC.)  
CONSTRUCTION YEAR: 2011  
OS #: 22-42

**BASIS OF BEARINGS**  
THE NORTH LINE OF LOT 1, THE BEARING OF WHICH IS S89°56'46"E.

**LEGAL DESCRIPTION**  
LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.

**SURVEY REFERENCES**

- MARICOPA COUNTY PARCEL 825-09-02-02.
- WARRANTY DEED RECORDED IN DOC. NO. 2019-0455664, M.C.R.
- RECORDED PLAT PER BOOK 1217 OF MAPS, PAGE 14, M.C.R.

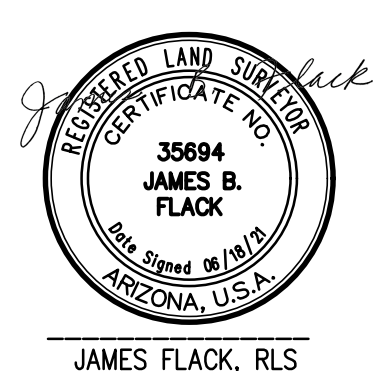
**UTILITIES**  
WATER: EPCOR WATER  
SANITARY SEWER: SEPTIC  
ELECTRIC: APS  
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS  
NATURAL GAS: SOUTHWEST GAS  
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

**FLOOD INSURANCE RATE MAP (FIRM) DATA**

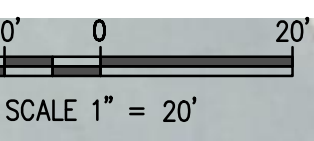
COMMUNITY #	PANEL #	SUFFIX L	BASE FLOOD ELEVATION
040049	1765 OF 4425	L	N/A
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE
04013C	10/16/2013	11/04/2015	X*

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

**CERTIFICATE OF SURVEY**  
THIS IS TO CERTIFY THAT THIS MAP AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE CURRENT "MINIMUM STANDARDS FOR ARIZONA BOUNDARY AND TOPOGRAPHIC SURVEYS", AND THAT THE SURVEY SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND WAS SURVEYED AND DRAWN UNDER MY DIRECTION IN THE MONTH OF JUNE, 2021.



JAMES FLACK, RLS  
DATE: 06/18/21



LOST DUTCHMAN DRIVE

57TH PLACE

- LEGEND**
- FOUND REBAR OR AS NOTED
  - SET 1/2" REBAR & TAG OR AS NOTED
  - CALCULATED POINT
  - PROPERTY LINE
  - EASEMENT LINE
  - MONUMENT LINE

- ABBREVIATIONS**
- ESMT EASEMENT MEASURED
  - (M) MARICOPA COUNTY RECORDER
  - MCR PUBLIC UTILITY EASEMENT
  - PUE RECORDED
  - (R), REC. RADIUS
  - R/W RIGHT OF WAY
  - T TANGENT
  - (C) CALCULATED
  - TPV TOWN OF PARADISE VALLEY
  - W WEST, WATERLINE

- GENERAL NOTES**
- THE PREMISES SURVEYED HAVE NO KNOWN DISCREPANCIES, BOUNDARY LINE CONFLICTS, ENCROACHMENTS, OVERLAPPING OF IMPROVEMENTS, EASEMENTS OR RIGHT-OF-WAYS EXCEPT AS SHOWN, AND HAS ACCESS TO OR FROM A DEDICATED ROADWAY.
  - EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS MAP, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, OTHER THAN THOSE SHOWN ON THIS MAP; BUILDING SETBACK LINES; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS, AND ANY OTHER FACTS WHICH AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
  - THE DESCRIPTION OF PROPERTY BOUNDARIES AND EASEMENTS SHOWN HEREON, REPRESENT THAT INFORMATION PROVIDED ON BOOK 1217 OF MAPS, PAGE 14, WARRANTY DEED REC. DOC. 2019-0455664, RECORDS OF MARICOPA COUNTY, ARIZONA.
  - EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED OR AVAILABLE TO THE SURVEYOR AT THE TIME OF THE SURVEY. THERE MAY EXIST OTHER DOCUMENTS OF RECORD, WHICH WOULD AFFECT THIS PARCEL.
  - ANY INFORMATION SHOWN WHICH MAY VARY FROM THE CONTENTS OF THE REPORT(S) NOTED ABOVE, REPRESENTS INFORMATION AND MEASUREMENTS FOUND DURING THE COURSE OF THE SURVEY.
  - ALL MEASURED BEARINGS AND DISTANCES EQUAL RECORD UNLESS NOTED OTHERWISE.
  - ANY AERIAL MAPS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND DO NOT NECESSARILY DEPICT THE EXACT CURRENT CONDITIONS.

**BOUNDARY SURVEY MAP**

**LOT 1 - CLUB ESTATES 3  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253**

P. 602.889.1984 | F. 602.445.9482  
8808 N CENTRAL AVE., SUITE 288  
PHOENIX, AZ 85020  
PHOENIXLANDSCAPE.COM

DATE: 06/18/21  
JOB#: 2104186  
VERSION: 1.1  
PLOT DATE: 06/18/21

REVISIONS: SCALE: 1"=20'  
DESIGNED BY: NP  
DRAWN BY: DL  
CHECKED BY: JF

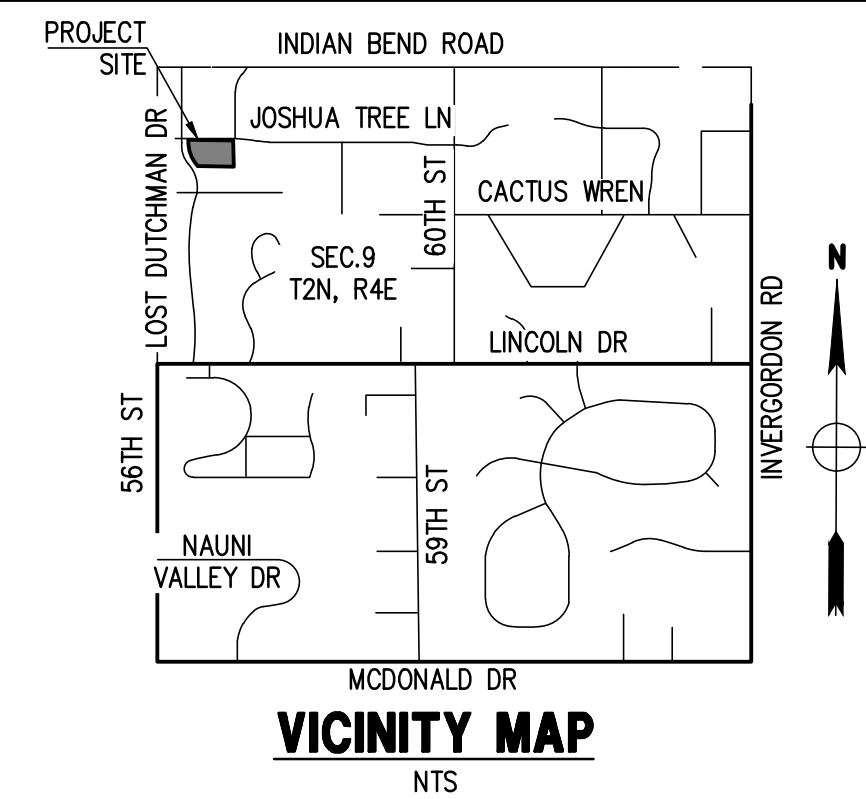
1 OF 1

# OFFSITE PAVING PLAN

## 5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253

### LOT 1 - CLUB ESTATES NO. 7

**A LOT SPLIT OF LOT 1, CLUB ESTATES 3, AS RECORDED IN BOOK 1217 OF MAPS, PAGE 14, MCR,  
LOCATED IN A PORTION OF THE SW 1/4 OF THE NW 1/4 OF THE NW 1/4 OF SECTION 9, T.2N, R.4E  
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA**



DATE: 07/25/23  
 JOB: 2104186  
 VERSION: 1.1  
 PLOT DATE: 07/25/23

- ### LEGEND
- PROPERTY LINE
  - EASEMENT LINE
  - MONUMENT LINE
  - ⊙ WATER VALVE
  - ⊙ SEWER MANHOLE
  - ⊙ FIRE HYDRANT
  - ⊙ TELEPHONE PEDESTAL
  - ⊙ SEWER CLEANOUT
  - ⊙ MAILBOX
  - ⊙ ELECTRIC METER
  - ⊙ A/C UNIT
  - ⊙ WATER METER
  - ⊙ GAS METER
  - ⊙ MAILBOX
  - ⊙ UTILITY BOX/VAULT
  - COMMUNICATIONS LINE
  - CATV, PHONE
  - GAS LINE
  - WATER LINE
  - ELECTRIC LINE
  - SEWER LINE
  - EXISTING CONTOUR
  - EXIST. DRAINAGE FLOW
  - EXIST. SPOT ELEVATION

- ### ABBREVIATIONS
- BSL BUILDING SETBACK LINE
  - EG EXISTING GRADE
  - EL, ELEV ELEVATION
  - EP EDGE OF PAVEMENT
  - ESMT EASEMENT
  - EX, EXIST. EXISTING
  - G GUTTER, GAS
  - INV INVERT
  - M MEASURED
  - MCR MARICOPA COUNTY RECORDER
  - MH MANHOLE
  - P, PVMT PAVEMENT
  - PUE PUBLIC UTILITY EASEMENT
  - (R), REC. RECORDED
  - R RADIUS
  - R/W RIGHT OF WAY
  - T TANGENT, TELEPHONE
  - TC TOP OF CURB
  - TPV TOWN OF PARADISE VALLEY
  - W WEST, WATERLINE
  - WDO WALL DRAINAGE OPENING
  - WM WATER METER

- ### ENGINEER'S NOTES
- MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTALS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
  - 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 SUPPLEMENTALS 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.
  - A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED. REGULATION II RULE 20-3 OF THE MARICOPA COUNTY HEALTH DEPARTMENT, BUREAU OF AIR POLLUTION CONTROL SHALL BE OBSERVED AND ENFORCED.
  - CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
  - CONTRACTOR IS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
  - CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
  - 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.
  - 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.
  - CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND FEATURES PRIOR TO CONSTRUCTION.
  - COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
  - 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.
  - CONTRACTOR TO PROVIDE TRAFFIC CONTROL AND BARRICADES PER CITY OF PHOENIX CODES AND STANDARDS.
  - ALL FRAMES, COVERS, VALVE BOXES & MANHOLE COVERS SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO COMPLETION OF PAVING OR RELATED CONSTRUCTION.
  - NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
  - 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 CUTTER, 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.

- ### TOWN OF PARADISE VALLEY PAVING NOTES
- CONSTRUCTION WITHIN THE TOWN'S RIGHT-OF-WAY SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
  - COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601.
  - OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE RIGHT-OF-WAY SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
  - PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER M.A.G. SECTION 336. (1/2" COP LOW VOLUME MIX - 3" AC ON 6" AB MINIMUM REQUIRED OR MATCH EXISTING, WHICHEVER IS GREATER. CRACK SEAL JOINTS. CURB AND CUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER M.A.G. STANDARD DETAIL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER M.A.G. STANDARD DETAIL 230.
  - CONCRETE SIDEWALKS SHALL BE DAVIS SAN DIEGO BUFF COLOR OR APPROVED EQUAL. VERIFY WITH TOWN INSPECTOR FOR REQUIRED COLOR OF CONCRETE PRIOR TO COMMENCEMENT OF THE WORK.
  - WATER VALVES AND SEWER MANHOLES SHALL HAVE A BLACK CONCRETE COLLAR.
  - TREES AND SHRUBBERY IN THE RIGHT-OF-WAY THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE TOWN.

- ### OFFSITE PAVING KEY-NOTES
- SAWCUT & REMOVE & REPLACE 2" MIN. A.C. PAVEMENT IN KIND TO PROVIDE A CLEAN STRAIGHT EDGE.
  - CONSTRUCT 2" WIDE RIBBON CURB PER MAG STD DET 220-1, TYPE B. MATCH EXISTING GRADE. (PAVEMENT GRADE OR CONTINUED SLOPE OF EXIST. ROADWAY.)
  - PROTECT IN PLACE.
- NOTE: IF EXISTING PAVEMENT IS DAMAGED DUE TO CONSTRUCTION THE TOWN RESERVES THE RIGHT TO REQUIRE THE DEVELOPER TO EITHER MILL AND OVERLAY OR PMM THE ENTIRE STREET (POLYMER MODIFIED MASTER SEAL APPLICATION)

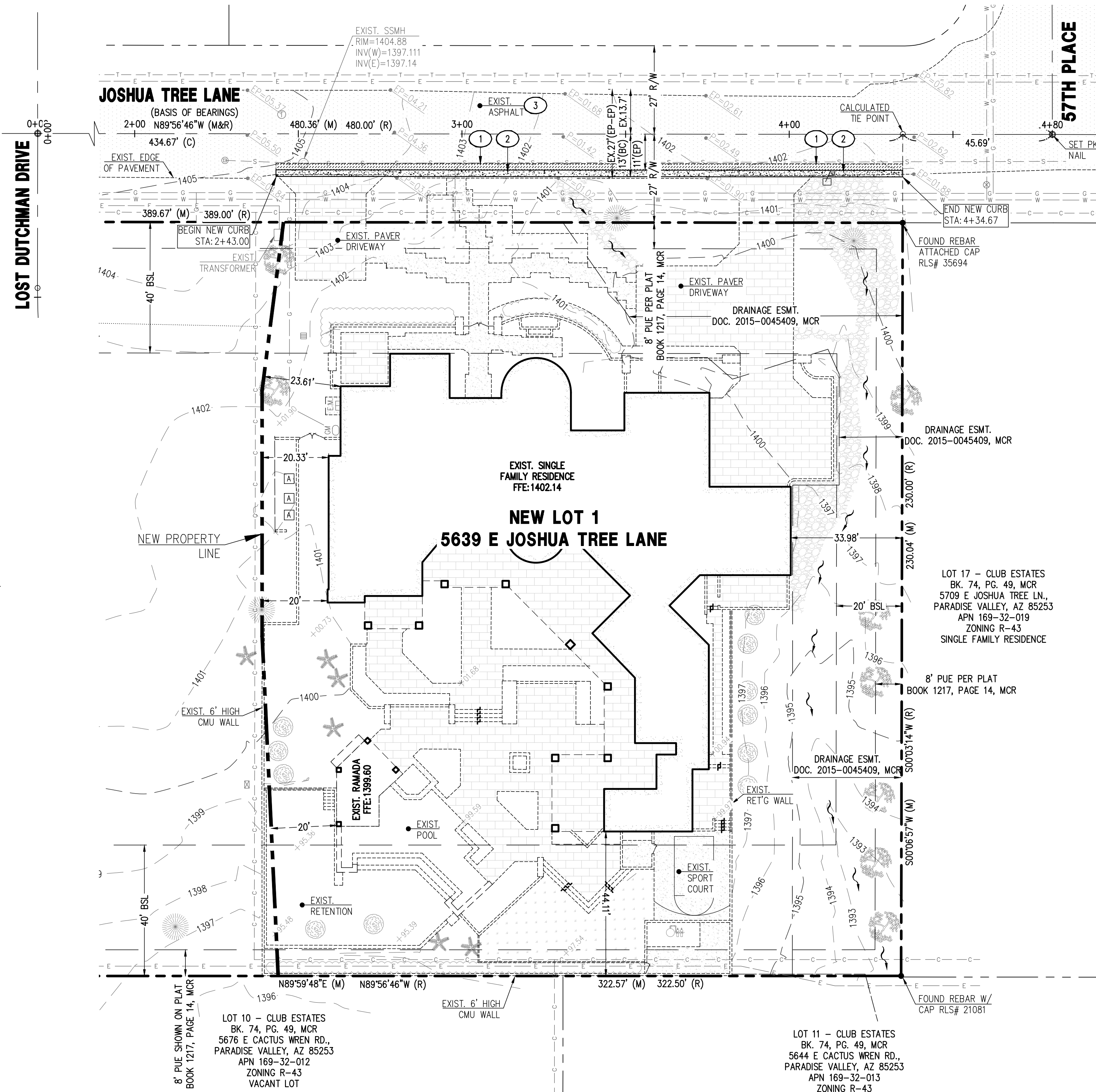
### ESTIMATED OFFSITE QUANTITIES

DESCRIPTION	QUANTITY
SAWCUT, REMOVE AND REPLACE AC PAVEMENT.....	43 SY
2" WIDE CONC. RIBBON CURB.....	192 LF

ALL QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. NO SHRINK OR SWELL IS ASSUMED. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE QUANTITIES AND BASE THEIR BIDS ON THEIR ESTIMATES.

### SHEET INDEX

PV-1 COVER SHEET/PAVING PLAN



### PARENT SITE DATA

APN: 169-32-932  
 ADDRESS: 5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253  
 ZONING: R-43  
 LOT AREA: 88,130 S.F. (2.023 AC.)  
 CONSTRUCTION YEAR: 2011  
 OS #: 22-42  
 FAR: BUILDING + RAMADA UNDER ROOF: 11,200 S.F. / 88,130 S.F. = 12.71%

### OWNER

JOSE MERAZ JR. AND NUVA M.  
 GARDEA FRIAS  
 5639 E JOSHUA TREE LN.,  
 PARADISE VALLEY, AZ 85253

### NEW AREAS

LOT 1: 44,562 S.F. (1.023 AC.)  
 FAR: BUILDING UNDER ROOF: 10,840 S.F. / 44,562 S.F. = 24.3%

LOT 2: 43,567 S.F. (1.000 AC.)

### BASIS OF BEARINGS

THE NORTH LINE OF LOT 1, THE BEARING OF WHICH IS S89°56'46\"/>

### LEGAL DESCRIPTION

LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.

### BENCHMARK

BRASS CAP FLUSH AT THE INTERSECTION OF 56TH STREET AND MCDONALD DRIVE HAVING AN ELEVATION OF 1417.53, NAVD 88 DATUM, GDACS# 24544-1.

### UTILITIES

WATER: EPCOR WATER  
 SANITARY SEWER: TOWN OF PARADISE VALLEY  
 ELECTRIC: APS  
 TELEPHONE: CENTURY LINK, COX COMMUNICATIONS  
 NATURAL GAS: SOUTHWEST GAS  
 CABLE TV: CENTURY LINK, COX COMMUNICATIONS

### FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX	BASE FLOOD ELEVATION
040049	1765 OF 4425	L	N/A

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

### AS-BUILT CERTIFICATION

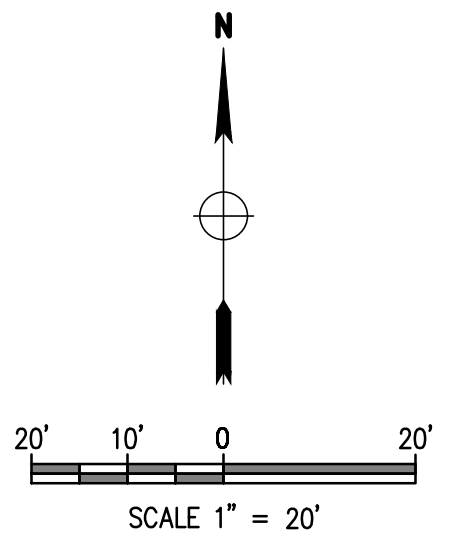
I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/LAND SURVEYOR  
 REGISTRATION NUMBER \_\_\_\_\_ DATE \_\_\_\_\_

### 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 COMPLIANCE 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.

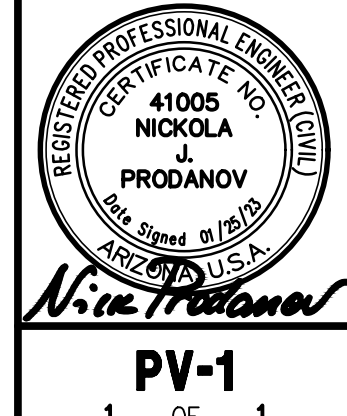
TOWN ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
 TOWN OF PARADISE VALLEY



OFFSITE PAVING PLAN

LOT 1 - CLUB ESTATES 7  
 5639 E JOSHUA TREE LN.,  
 PARADISE VALLEY, AZ 85253

P. 602.889.1984 | F. 602.445.9492  
 41005 CENTRAL AVE., SUITE 288  
 PHOENIX, AZ 85020  
 PHOENIXVALLEYAZ.COM



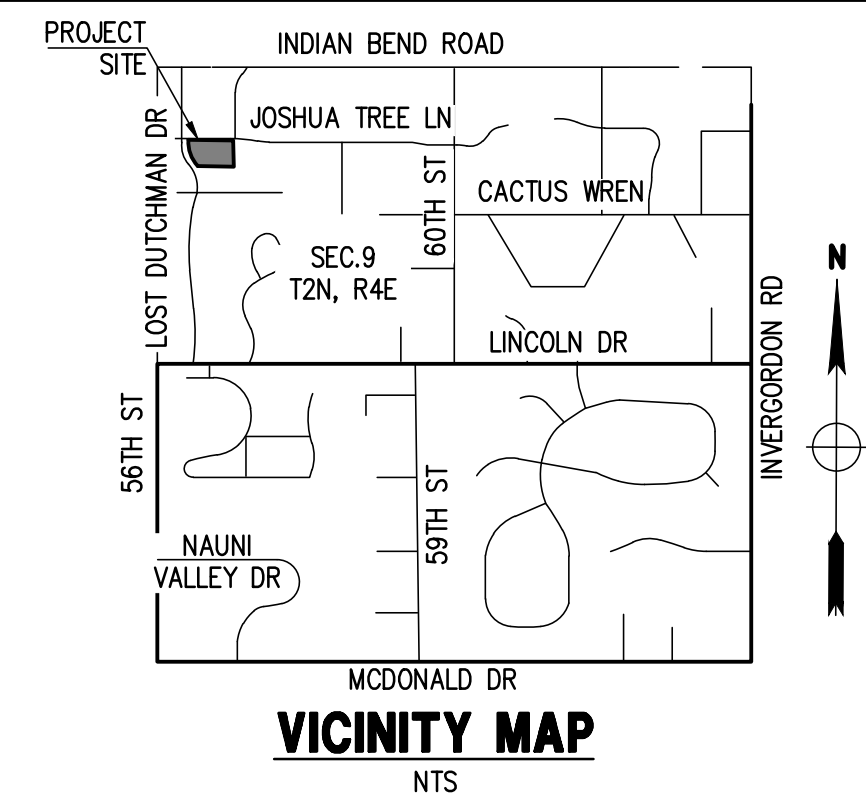


# OFFSITE PAVING PLAN

## 5629 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253

### LOT 2 - CLUB ESTATES NO. 7

A LOT SPLIT OF LOT 1, CLUB ESTATES 3, AS RECORDED IN BOOK 1217 OF MAPS, PAGE 14, MCR.,  
LOCATED IN A PORTION OF THE SW 1/4 OF THE NW 1/4 OF THE NW 1/4 OF SECTION 9, T.2N, R.4E  
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



- ### LEGEND
- PROPERTY LINE
  - EASEMENT LINE
  - MONUMENT LINE
  - ⊙ WATER VALVE
  - ⊙ SEWER MANHOLE
  - ⊙ FIRE HYDRANT
  - ⊙ TELEPHONE PEDESTAL
  - ⊙ SEWER CLEANOUT
  - ⊙ MAILBOX
  - ⊙ ELECTRIC METER
  - ⊙ A/C UNIT
  - ⊙ WATER METER
  - ⊙ GAS METER
  - ⊙ MAILBOX
  - ⊙ UTILITY BOX/VAULT
  - COMMUNICATIONS LINE
  - CATV, PHONE
  - GAS LINE
  - WATER LINE
  - ELECTRIC LINE
  - SEWER LINE
  - EXISTING CONTOUR
  - EXIST. DRAINAGE FLOW
  - EXIST. SPOT ELEVATION

- ### ABBREVIATIONS
- BSL BUILDING SETBACK LINE
  - EG EXISTING GRADE
  - EL, ELEV ELEVATION
  - EP EDGE OF PAVEMENT
  - ESMT EASEMENT
  - EX, EXIST. EXISTING
  - G GUTTER, GAS
  - INV INVERT
  - (M) MEASURED
  - MCR MARICOPA COUNTY RECORDER
  - MH MANHOLE
  - P, PVMT PAVEMENT
  - PUE PUBLIC UTILITY EASEMENT
  - (R), REC. RECORDED
  - R RADIUS
  - R/W RIGHT OF WAY
  - T TANGENT, TELEPHONE
  - TC TOP OF CURB
  - TPV TOWN OF PARADISE VALLEY
  - W WEST, WATERLINE
  - WDO WALL DRAINAGE OPENING
  - WM WATER METER

- ### ENGINEER'S NOTES
- MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTALS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
  - 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 SUPPLEMENTALS 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.
  - A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED. REGULATION II RULE 20-3 OF THE MARICOPA COUNTY HEALTH DEPARTMENT, BUREAU OF AIR POLLUTION CONTROL SHALL BE OBSERVED AND ENFORCED.
  - CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
  - CONTRACTOR IS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
  - CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
  - 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.
  - 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.
  - CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND FEATURES PRIOR TO CONSTRUCTION.
  - COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
  - 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.
  - CONTRACTOR TO PROVIDE TRAFFIC CONTROL AND BARRICADES PER CITY OF PHOENIX CODES AND STANDARDS.
  - ALL FRAMES, COVERS, VALVE BOXES & MANHOLE COVERS SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO COMPLETION OF PAVING OR RELATED CONSTRUCTION.
  - NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
  - 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 CUTTER, 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.

- ### TOWN OF PARADISE VALLEY PAVING NOTES
- CONSTRUCTION WITHIN THE TOWN'S RIGHT-OF-WAY SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
  - COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601.
  - OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE RIGHT-OF-WAY SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
  - PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER M.A.G. SECTION 336. (1/2" COP LOW VOLUME MIX - 3" AC ON 6" AB MINIMUM REQUIRED OR MATCH EXISTING, WHICHEVER IS GREATER. CRACK SEAL JOINTS. CURB AND CUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER M.A.G. STANDARD DETAIL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER M.A.G. STANDARD DETAIL 230.
  - CONCRETE SIDEWALKS SHALL BE DAVIS SAN DIEGO BUFF COLOR OR APPROVED EQUAL. VERIFY WITH TOWN INSPECTOR FOR REQUIRED COLOR OF CONCRETE PRIOR TO COMMENCEMENT OF THE WORK.
  - WATER VALVES AND SEWER MANHOLES SHALL HAVE A BLACK CONCRETE COLLAR.
  - TREES AND SHRUBBERY IN THE RIGHT-OF-WAY THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE TOWN.

- ### OFFSITE PAVING KEY-NOTES
- SAWCUT & REMOVE & REPLACE 2" MIN. A.C. PAVEMENT IN KIND TO PROVIDE A CLEAN STRAIGHT EDGE.
  - CONSTRUCT 2" WIDE RIBBON CURB PER MAG STD DET 220-1, TYPE B. MATCH EXISTING GRADE. (PAVEMENT GRADE OR CONTINUED SLOPE OF EXIST. ROADWAY.)
  - PROTECT IN PLACE.
- NOTE: IF EXISTING PAVEMENT IS DAMAGED DUE TO CONSTRUCTION THE TOWN RESERVES THE RIGHT TO REQUIRE THE DEVELOPER TO EITHER MILL AND OVERLAY OR PMM THE ENTIRE STREET (POLYMER MODIFIED MASTER SEAL APPLICATION)

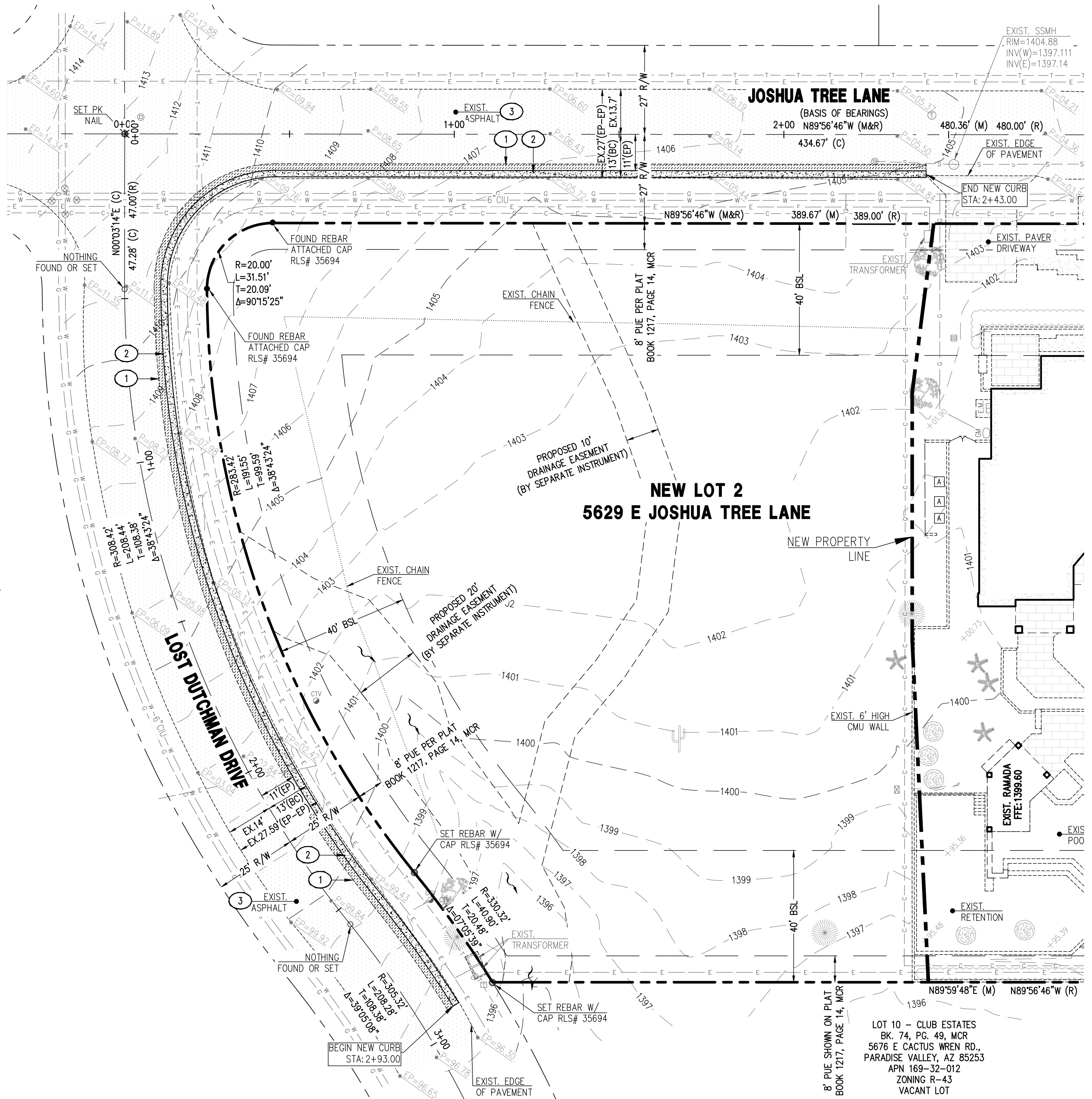
### ESTIMATED OFFSITE QUANTITIES

DESCRIPTION	QUANTITY
SAWCUT, REMOVE AND REPLACE AC PAVEMENT.....	110 SY
2" WIDE CONC. RIBBON CURB.....	489 LF

ALL QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. NO SHRINK OR SWELL IS ASSUMED. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE QUANTITIES AND BASE THEIR BIDS ON THEIR ESTIMATES.

### SHEET INDEX

PV-1 COVER SHEET/PAVING PLAN



### PARENT SITE DATA

APN: 169-32-932  
ADDRESS: 5639 E JOSHUA TREE LN., PARADISE VALLEY, AZ 85253  
ZONING: R-43  
LOT AREA: 88,130 S.F. (2.023 AC.)  
CONSTRUCTION YEAR: 2011  
OS #: 22-42  
FAR: BUILDING + RAMADA UNDER ROOF: 11,200 S.F. / 88,130 S.F. = 12.71%

### OWNER

JOSE MERAZ JR. AND NUVA M.  
GARDEA FRIAS  
5639 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

### NEW AREAS

LOT 1: 44,562 S.F. (1.023 AC.)  
FAR: BUILDING UNDER ROOF: 10,840 S.F. / 44,562 S.F. = 24.3%  
LOT 2: 43,567 S.F. (1.000 AC.)

### BASIS OF BEARINGS

THE NORTH LINE OF LOT 1, THE BEARING OF WHICH IS S89°56'46"E.

### LEGAL DESCRIPTION

LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.

### BENCHMARK

BRASS CAP FLUSH AT THE INTERSECTION OF 56TH STREET AND MCDONALD DRIVE HAVING AN ELEVATION OF 1417.53, NAVD 88 DATUM, GDACS# 24544-1.

### UTILITIES

WATER: EPCOR WATER  
SANITARY SEWER: TOWN OF PARADISE VALLEY  
ELECTRIC: APS  
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS  
NATURAL GAS: SOUTHWEST GAS  
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

### FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX	BASE FLOOD ELEVATION
040049	1765 OF 4425	L	N/A
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

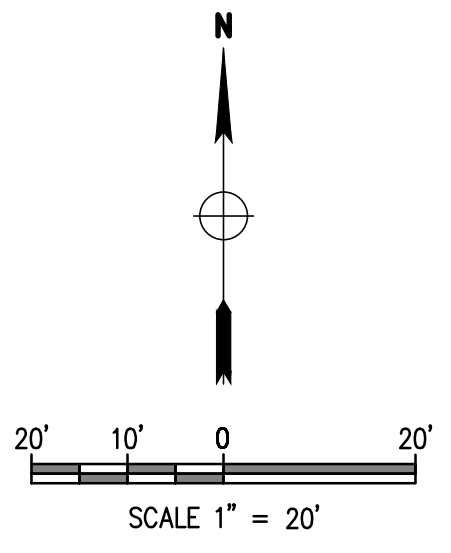
I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/LAND SURVEYOR  
REGISTRATION NUMBER \_\_\_\_\_ DATE \_\_\_\_\_

### 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 COMPLIANCE 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 \_\_\_\_\_ DATE \_\_\_\_\_  
TOWN OF PARADISE VALLEY



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

Call 811 or click Arizona811.com

DATE: 07/25/23  
JOB: 2104186  
VERSION: 1.1  
PLOT DATE: 07/25/23

SCALE: 1"=20'  
DESIGNED BY: NP  
DRAWN BY: DW  
CHECKED BY: JF

REVISIONS:

OFFSITE PAVING PLAN

LOT 2 - CLUB ESTATES 7  
5629 E JOSHUA TREE LN.,  
PARADISE VALLEY, AZ 85253

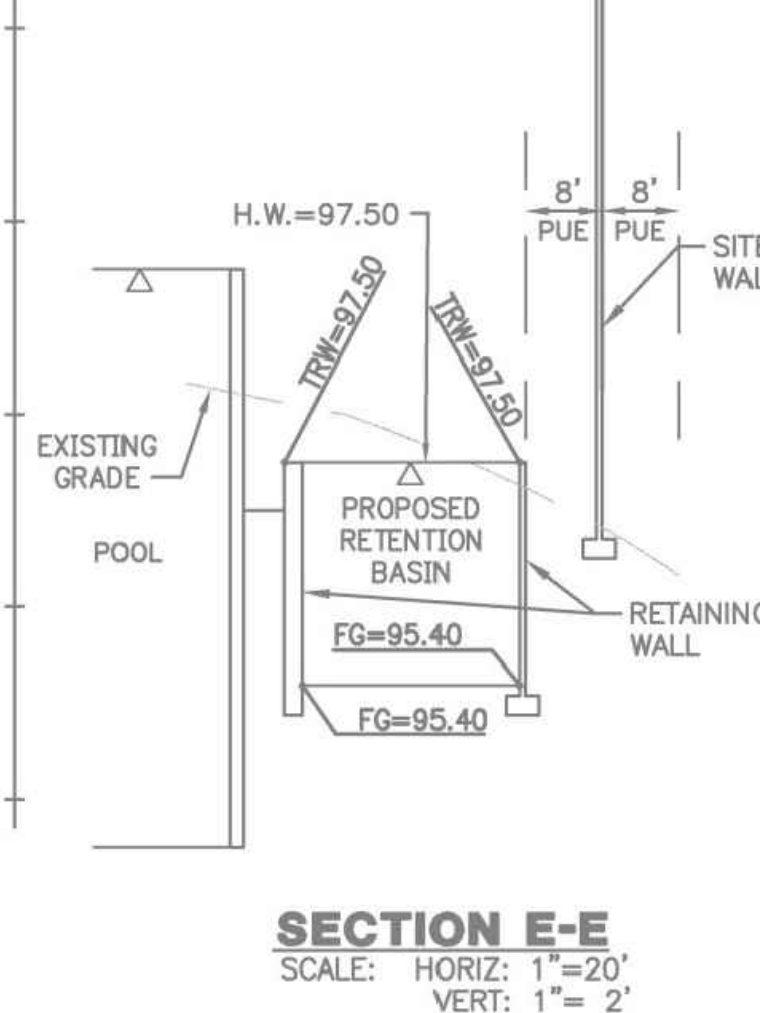
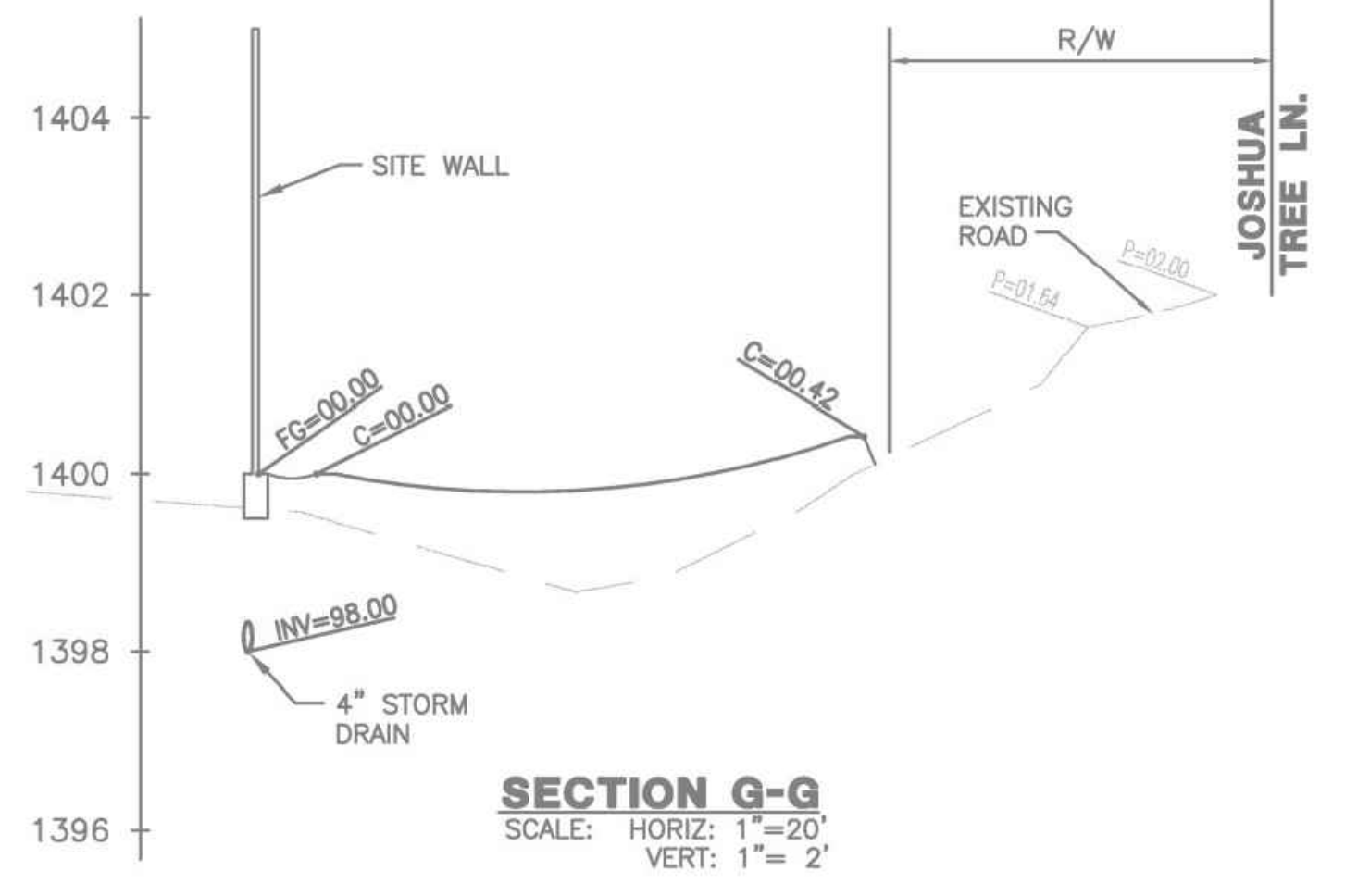
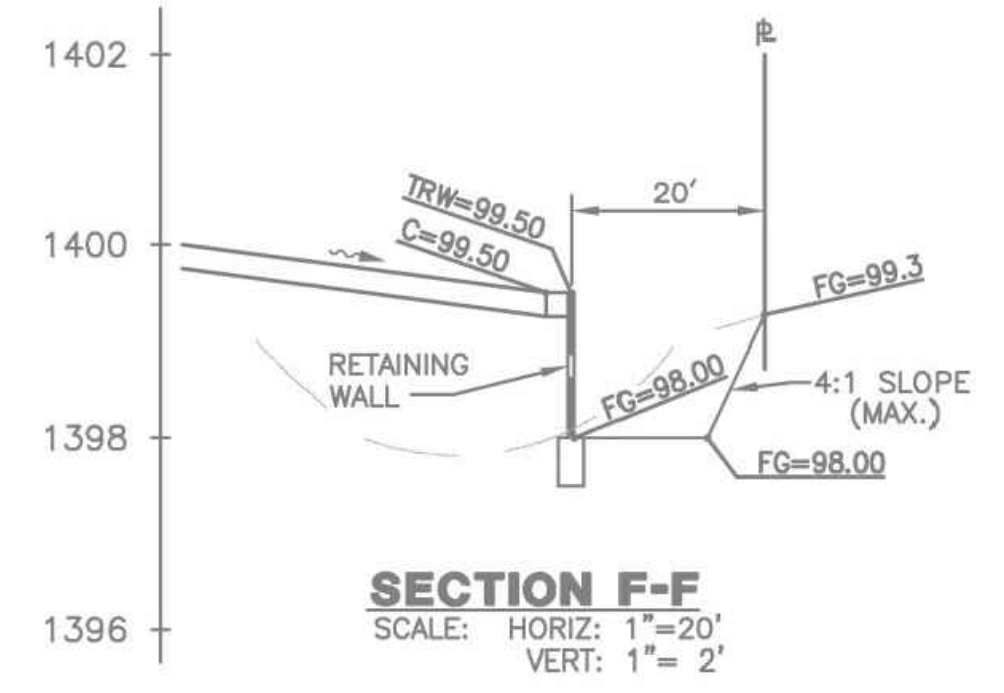
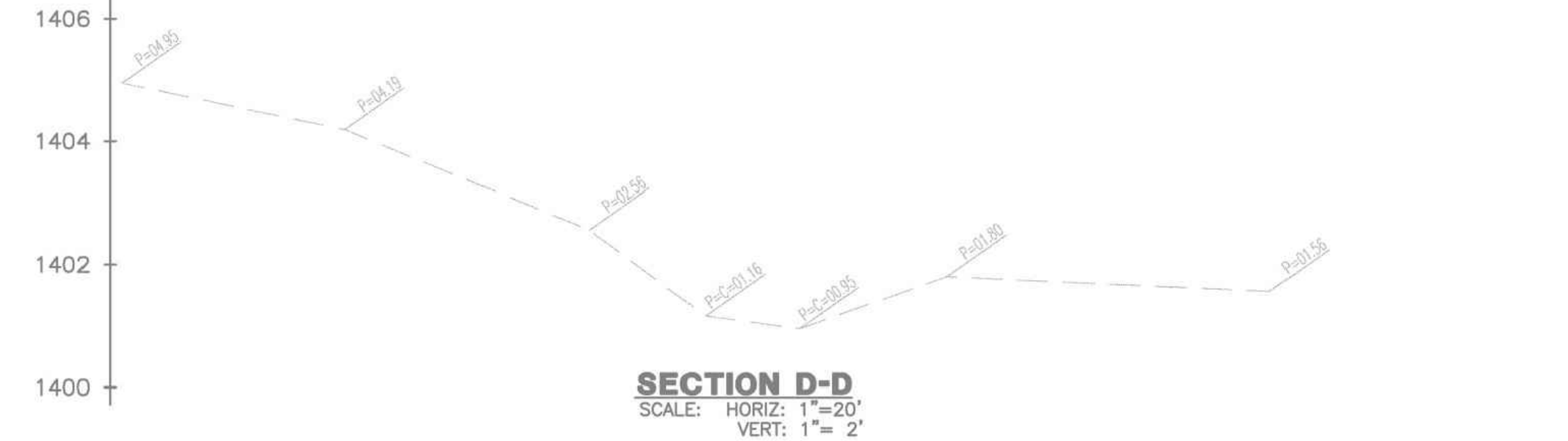
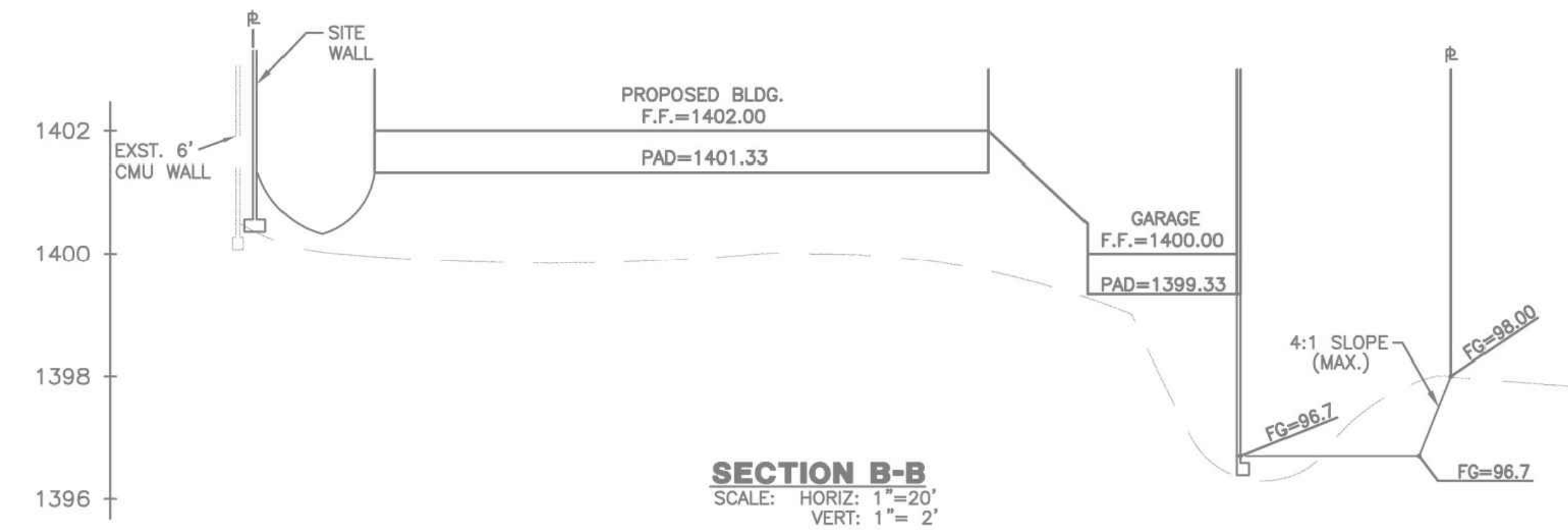
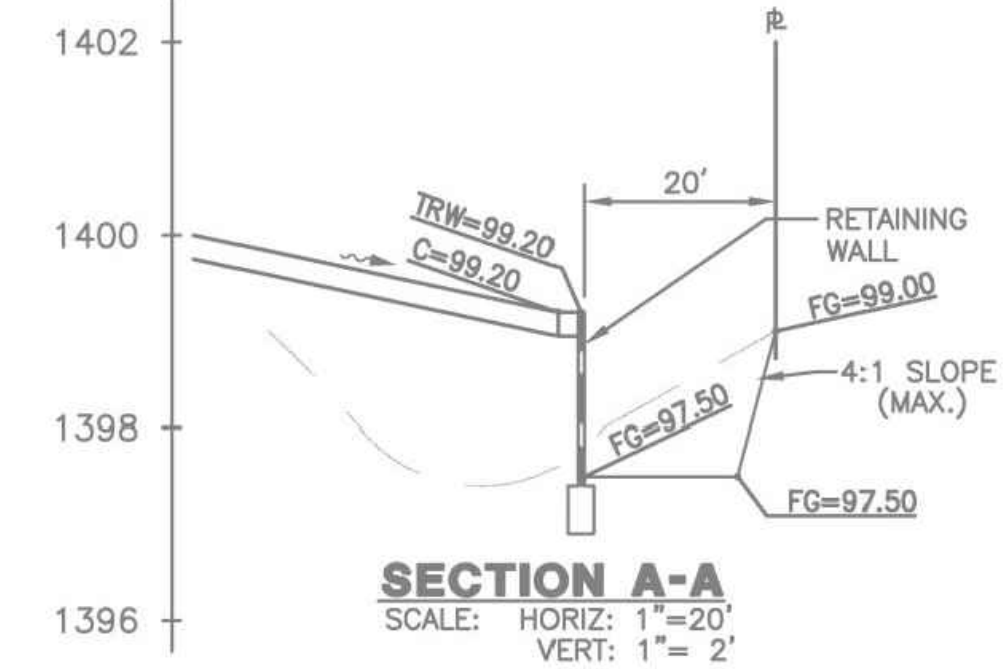
P. 602.889.1984 | F. 602.445.9492  
8808 N CENTRAL AVE., SUITE 288  
PHOENIX, AZ 85020  
PHOENIX@LANDDEVELOPMENT.COM

REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 12/31/24  
41005  
NICKOLA J. PRODANOV  
REGISTERED P.E. IN ARIZONA

PV-1  
1 OF 1

**CONSTRUCTION NOTES #**

- GRADING & DRAINAGE:
- 1 CONSTRUCT 6 FOOT HIGH MASONRY WALL WITH DRAINAGE OPENINGS PER TOWN OF PARADISE VALLEY WALL DETAIL.
  - 2 CONSTRUCT RETAINING WALL TO ELEVATIONS SHOWN.
  - 3 CONSTRUCT RETENTION BASIN TO ELEVATIONS SHOWN WITH RETAINING WALL ON ALL SIDES.
  - 4 INSTALL 18" BY 18" P.V.C. CATCH BASIN WITH BRONZE LID.
  - 5 INSTALL 12" H.D.P.E. SMOOTH INTERIOR STORM DRAIN PIPE.
  - 6 INSTALL SEWER CLEANOUT PER MAG STD. DET. 441.
  - 7 AT 4" BY 3" ROOF DRAIN LEADER, CONVERT TO 4" CIRCULAR PIPE AND CONNECT TO NEW STORM DRAIN.
  - 8 GRADE WASH TO CONTOURS INDICATED.
  - 9 MATCH EXISTING.
  - 10 INSTALL 4" PVC SCH. 40 STORM DRAIN BETWEEN BASINS.
  - 11 INSTALL 4" PVC SCH. 40 STORM DRAIN FROM ROOF DRAIN LEADER TO DAYLIGHT.



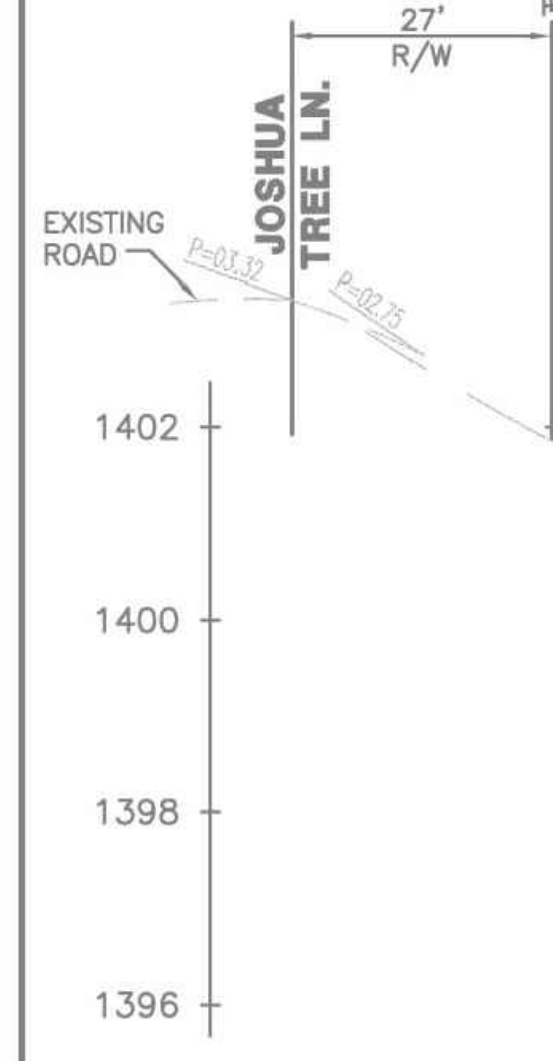
**RETENTION BASIN CALCULATIONS**

RETENTION BASIN ID	CONTOUR ELEVATION	CONTOUR AREA S.F.	DEPTH FT	VOLUME PROVIDED C.F.
A1	HW 97.50 BOTTOM 94.90	1,359	2.60	3,533

DESCRIPTION OF REVISION:  
-REVISED SITE WALLS & RETENTION BASIN PER NEW PROPERTY LINE LOCATION



RELOCATE EXISTING SITE WALL TO ALONG NEW PROPERTY LINE  
UPRIGHT 4" CONDUIT  
RETENTION BASIN  
H.W. = 97.50  
BTM. = 94.90  
VOL. REQ. = 3,480 C.F.  
VOL. PROV. = 3,533 C.F.  
LOWER BOTTOM OF BASIN 0.5' TO ACHIEVE REQUIRED VOLUME



**ACCESSORS PARCEL #169-32-020**

**GRADING & DRAINAGE PLAN**

**The Drummond Residence**

5639 East Joshua Tree Lane  
Paradise Valley, Az 85253

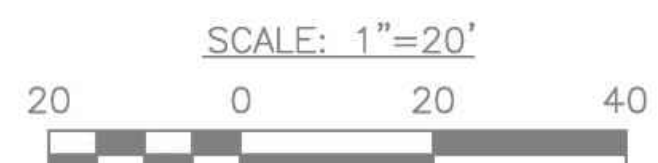


**ATHERTON ENGINEERING, INC.**  
Civil Engineers and Land Surveyors  
1203 E. MEADOWBROOK AVE. PHOENIX, AZ 85014-4028  
(602) 278-7331 \* FAX (602) 230-1908

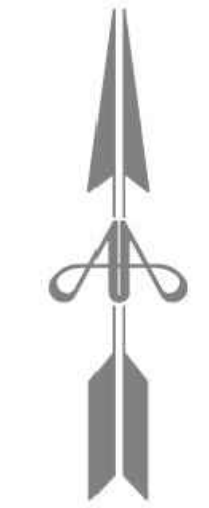
DRAWN BY:	RLS
DESIGNED BY:	RBA
CHECKED BY:	RBA
SCALE:	1"=20'
DATE:	7/26/10
JOB NO.:	10-01
SHEET NO.:	C2
	SHEET 2 OF 2

QS-22-41 (CITY OF SCOTTSDALE QUARTER SECTION) BD10-36072

CALL TWO WORKING DAYS BEFORE YOU DIG  
**(602)263-1100**  
**1-800-STAKE-IT**  
(OUTSIDE MARICOPA COUNTY)



SCALE: 1"=20'



**EXTERIOR WALL FINISH SCHEDULE**

ALL WALLS TO BE STUCCO SYSTEM FINISHED EXCEPT WHERE REPRESENTATIVE 'STONE' TEXTURE IS SHOWN ON THE BUILDING ELEVATIONS.

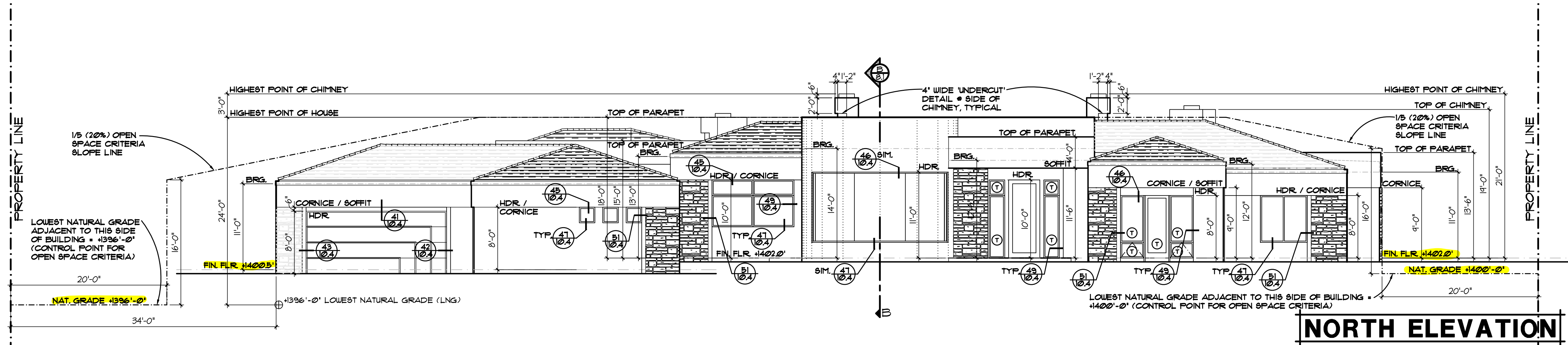
**STUCCO SYSTEM FINISH AS FOLLOWS:**

1. ALL EXTERIOR STUCCO TO BE 'WESTERN ONE KOTE' STUCCO SYSTEM (E.S.R. #607) ON METAL LATH ON 1" x 1/4" x 1/4" EPS BOARD (E.S.R. #2006) ON ONE LAYER GRADE 'D' BUILDING PAPER @ OPEN FRAMING.
2. AT 3-COAT STUCCO and THIN COAT STUCCO SYSTEMS, PROVIDE (2) LAYERS GRADE 'D' KRAFT WATER PROOF BUILDING PAPER OVER ALL WOOD BASED WALL SHEATHING OR PROVIDE (1) LAYER TYPE 15 ASPHALT-SATURATED ORGANIC FELT PAPER.
3. THE EXTERIOR SIDE OF ALL EXTERIOR WALLS SHALL BE BRACED AT EACH END OF INSIDE AND OUTSIDE CORNER, ALONG WITH BEING BRACED AT LEAST EVERY 25 FEET IN HORIZ. LENGTH. WHERE 1x4 LET-IN BRACING CANNOT BE UTILIZED DUE TO OPENINGS, PROVIDE A MIN. OF 3/8" PLYUD. OR OSB SHEATHING FOR BRACING FROM THE CORNER TO 4'-0" BEYOND THE WALL OPENING (OR TO THE NEXT CORNER -WHICHEVER COMES FIRST). SEE FRAMING PLANS AND SHEAR WALL SCHEDULES FOR REQUIRED WALL SHEATHING TYPES AND LOCATIONS.
4. AT FRAMED CONSTRUCTION, BRACE ENTIRE GARAGE DOOR OPENING WITH A MIN. OF 3/8" PLYUD. / OSB SHEATHING.
5. M.A.G. ONE-COAT STUCCO COMPLIANCE PROGRAM:

ALL ONE-COAT STUCCO SYSTEMS SHALL BE APPLIED BY MANUFACTURER APPROVED INSTALLERS. AN APPROVED WEATHER-RESISTIVE BARRIER SHALL BE INSTALLED OVER ALL WOOD-BASED SHEATHING.

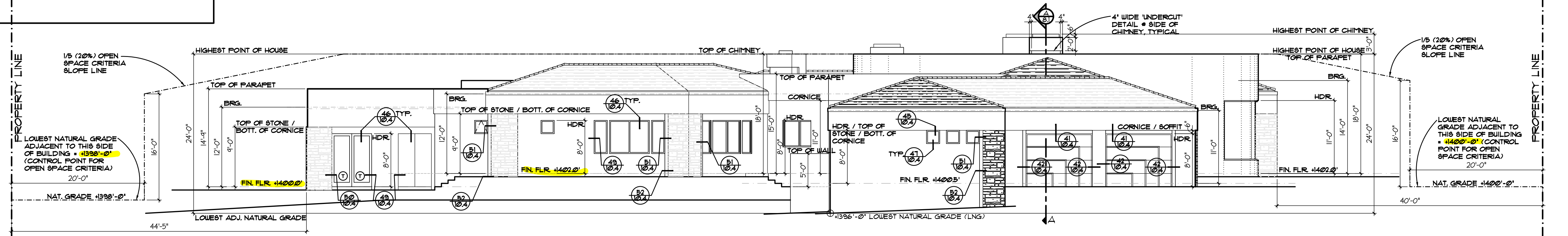
**STONE FINISH (WHERE SHOWN ON ELEVATIONS) AS FOLLOWS:**

- ALL STONE TO BE 4" MAX. THICKNESS REAL STONE w/ PREDOMINANTLY RECTANGULAR / HORIZONTAL STACKED ORIENTATION FOR 'CONTEMPORARY' APPEARANCE.
- PROVIDE SAMPLES FOR OWNER REVIEW & APPROVAL (VERIFY STONE TYPE, COLOR & PATTERN WITH OWNER PRIOR TO BIDDING & CONSTRUCTION)



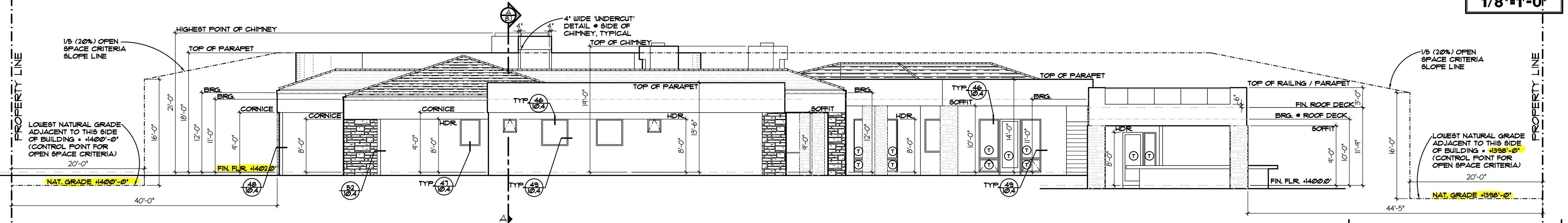
**NORTH ELEVATION**

SCALE  
1/8"=1'-0"



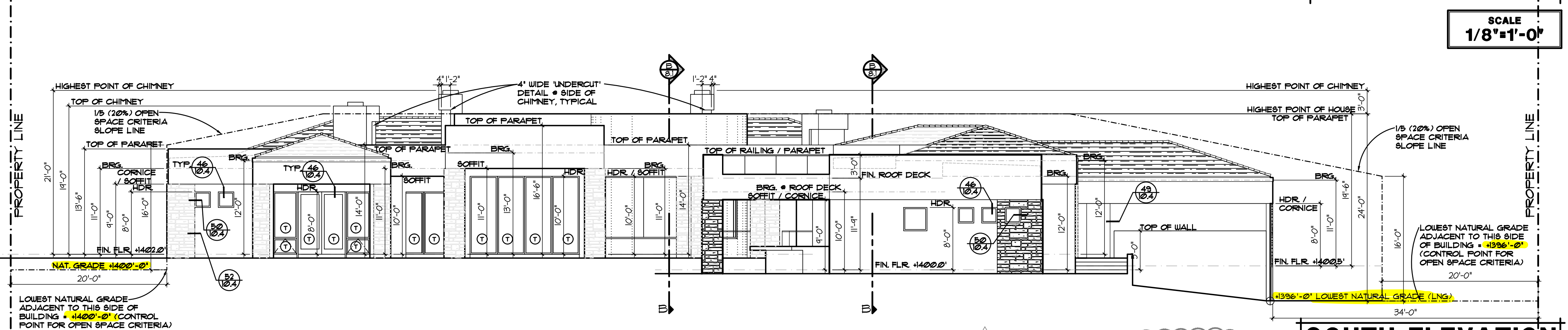
**EAST ELEVATION**

SCALE  
1/8"=1'-0"



**WEST ELEVATION**

SCALE  
1/8"=1'-0"



**SOUTH ELEVATION**

SCALE  
1/8"=1'-0"

**DOOR & WINDOW OPENING NOTES:**

SEE SHEET 10.4 FOR ALL DOOR & WINDOW HEADER, JAMB & SILL DETAILS.

REFERENCE THE INDICATED WALL FINISH (STUCCO OR STONE) TO FIND THE PERTINENT DETAIL ON SHEET 10.4 FOR ANY DETAIL TYPES NOT SPECIFICALLY KEYED ON THESE ELEVATIONS.

OPEN SPACE CRITERIA ADDED TO EACH SIDE OF EACH ELEVATION

PARADISE VALLEY, ARIZONA  
 THE DRUMMOND RESIDENCE  
 CLUB ESTATES, LOT 18  
 architecture plus, ltd.  
 phoenix, az. 85020 602-264-7500  
 a+

drawn by: K.V.M.  
 date: 06-01-10  
 checked: 09120.000  
 job no.: 06-03-10  
 revised: 07-14-10 City Review  
 06-23-10 Builder  
 06-23-10 Builder

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7.1



## DRAINAGE REPORT

# 5639 E Joshua Tree Lane, Paradise Valley, Arizona

LDG PROJECT #2104186

**Prepared for:**

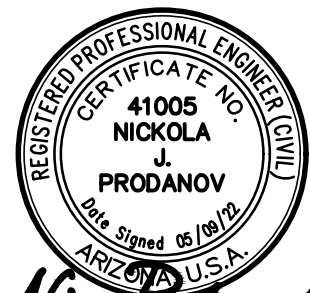
Jose Meraz Jr. & Nuvia M. Gardea Frias  
5639 E Joshua Tree Ln.,  
Paradise Valley, Arizona 85253

**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*  
May 9<sup>th</sup>, 2022

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May 9<sup>th</sup>, 2022

## **1. INTRODUCTION**

This drainage report and related civil engineering 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 169-32-932, located at 5639 E Joshua Tree Lane, Paradise Valley, AZ 85253, and also being Lot 1 of Club Estates 3, a subdivision recorded in Book 1217 of Maps, Page 14, MCR, which is a portion of the NW  $\frac{1}{4}$  of Section 9, 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, at the southwesterly foothills of Mummy Mountain and it is zoned R-43. The property is currently fully developed with a single-family residence built in 2011, sparsely vegetated and it is approximately 2.023 acres. The lot is facing the public right of way of Joshua Tree Lane (from the north property line) and Lost Dutchman Drive along the west property line. The site is surrounded by large residential lots from the south and east sides. The project will consist of the split of Lot 1 into two lots (Lot 1 & Lot 2, Club Estates No.7) and the future construction of a new single-family residence on Lot 2.

A field survey and site inspections were conducted in April, 2021 to collect important information regarding the existing topographic characteristics, existing drainage conditions, to verify and confirm the extent of the tributary areas, local disturbances to the historic flows, and location and condition of the existing storm drainage structures. A topographic map was developed with a one-foot contour interval for the site and the adjacent street. Invert elevations of the existing culverts were picked up to facilitate the hydraulic calculations. Existing drainage flow lines were identified in the field. 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 contributing runoff the subject property and conveyance corridors.

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 a single-family residence, covered with native desert vegetation. The overall terrain is sloping southerly at an average slope of 3.20%. Five flow lines are observed to impact the site (one major wash and four relatively minor flows). The major wash was estimated to be formed at one of the southern ridges of Mummy Mountain. Running from north to south the flow crosses the residential lots through an existing bridge and culverts until it enters the site near the northeast

property corner and flows along the easterly property line. One of the minor flow discharge onto the major wash. The second minor flow is formed along the right-of-way of 57<sup>th</sup> Place and enters the site at the northeast property corner and it is combined with the major wash. A drainage easement covering the limits of the wash has been recorded in Doc. 2015-0045409, MCR. The third minor wash enters the site near the northwest property corner and flow southerly through an existing swale until it exists the site at the south property line. The final minor flow enters at the west property line and discharged it's flow onto the third minor flow.

Drainage courses upstream of the site were significantly altered over the years. For design purposes, the most conservative approach was taken. Diversions due to overtopping of the public roadways flows were ignored in order to achieve the most conservative peak discharges.

Both Joshua Tree Lane and Lost Dutchman Drive are asphalt paved streets with a typical crown cross section (Joshua Tree Lane) and one-sided cross section (Lost Dutchman Drive). Both street have no existing curbing. Joshua Tree Lane has longitudinal slope of 0.60%, sloping easterly. Lost Dutchman Drive has longitudinal slope of 5.60%, sloping southeasterly.

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

53.6% of *Pinamt very gravelly loam, 3 to 5 percent slopes*; 46.4% of Rock 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."*. 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 from the sub-basins that contribute offsite flows to the site. Computer program DDMS provided by the Flood Control District of Maricopa County was utilized to generate the hydrology model and to estimate the 100-year peak discharges. Since the total drainage area of the watershed 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. Precipitation data was derived from the NOAA Atlas 14, Volume 1, Version 5.

Based on the observed field evidence and research of collected aerial maps, currently there are five sub-basins' drainage areas that contribute offsite flows. See Drainage Map - Appendix A-2.

Sub-basin 10 is 17.12 acres and generates 87.4 cfs. Sub-basin 11 is 4.23 acres and generates a peak discharge of 20.3 cfs onto Sub Basin 10. Sub-basin 13 is 3.23 acres and generates 14.8 cfs. Sub-basin 12 is 1.73 acres and generates a peak discharge of 7.9 cfs onto Sub Basin 13. Sub-basin 14 is 1.73 acres and generates a peak discharge of 7.9 cfs onto Sub Basin 10. As stated earlier, no diversions upstream were accounted for in order to achieve the most conservative magnitudes that potentially could reach the subject project.

Detailed hydrologic and hydraulic analysis and modeling were performed in accordance with procedures presented in the Drainage Design Manual of Maricopa County, Volumes 1 & 2 to

determine the 100-year storm design peak discharges for the contributing areas in the watershed. The swale was analyzed in a typical cross section for flow hydraulics using the estimated 100-year peak discharges, the existing topography and the proposed grading design.

### **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 16<sup>th</sup>, 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**

Currently, there are no plans to build on the west lot. The ultimate intent is to construct a new single-family residence.

New drainage easements are proposed to cover the alignment of the offsite flows that run through the site along the east property line.

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

### **5. CONCLUSIONS AND RECOMMENDATIONS**

Lot Split plan 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.

A Drainage Easement and Maintenance Agreement for Drainage Easement Area will be required for this project.

In conclusion, the project site has the potential to collect, convey and discharge runoff safely and effectively with no adverse impact to downstream properties. 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 downstream.

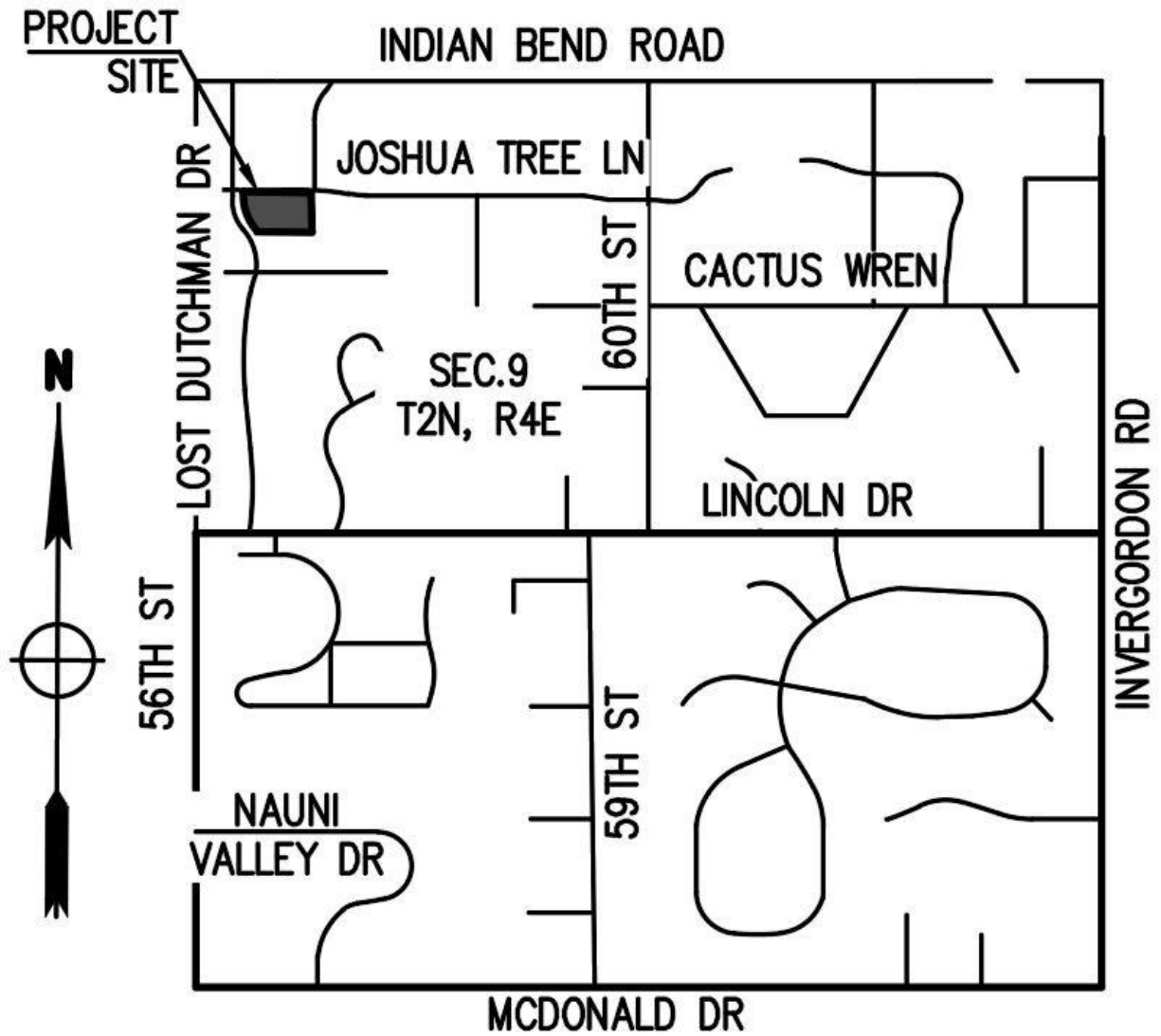


## 6. REFERENCES

- 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
- Town of Paradise Valley Storm Drainage Design Manual
- Town of Paradise Valley Stormwater Management Plan

# APPENDIX A-1

## Vicinity Map



# APPENDIX A-2

## Drainage Map



# 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.

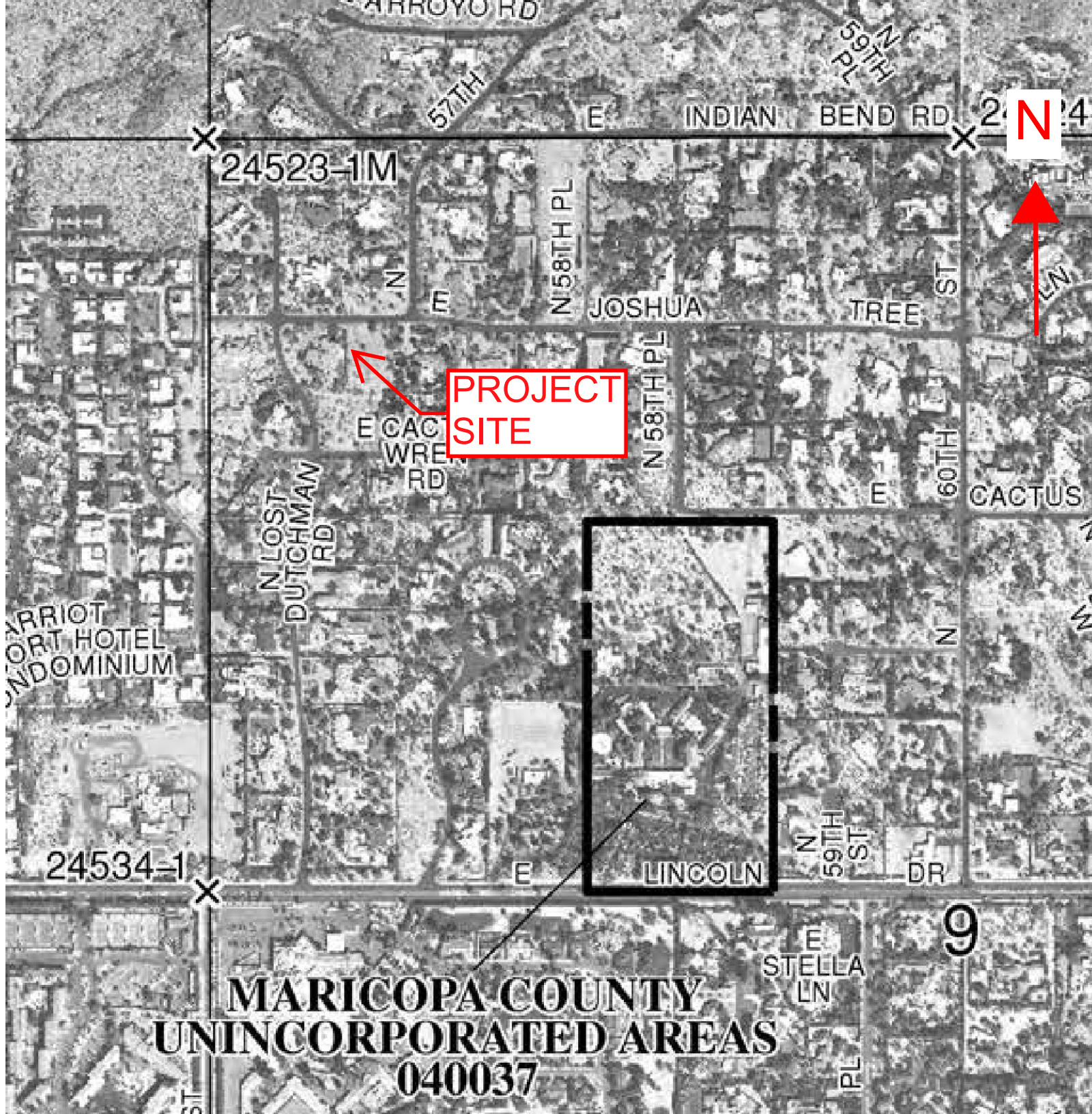
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER  
04013C1765L**

**MAP REVISED  
OCTOBER 16, 2013**

**Federal Emergency Management Agency**



24523-1M

N

PROJECT SITE

24534-1

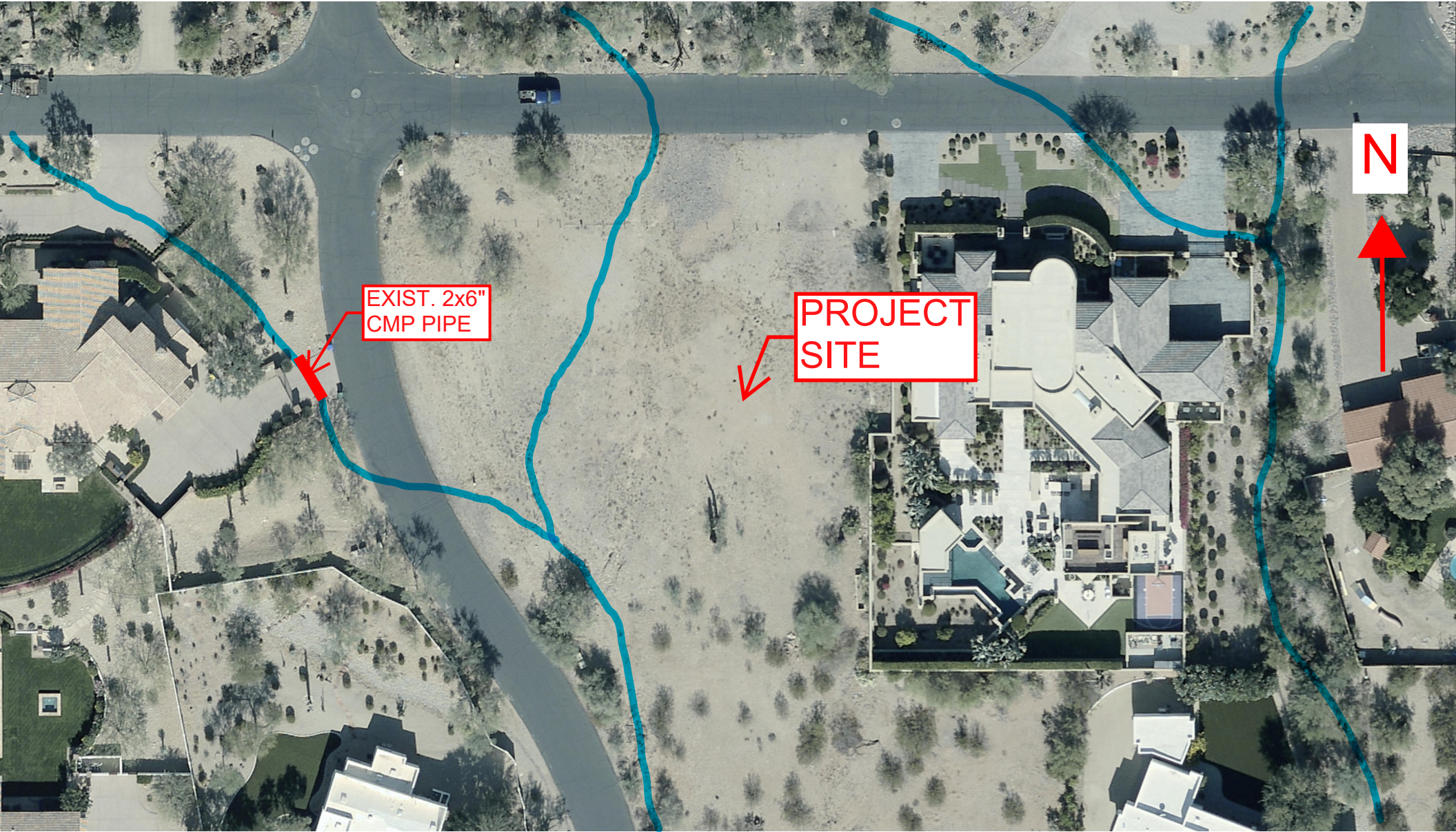
9

MARICOPA COUNTY  
UNINCORPORATED AREAS  
040037

# **APPENDIX A-4**

## **Aerial Map Exhibits**





EXIST. 2x6"  
CMP PIPE

PROJECT  
SITE

N





PROJECT  
SITE

# APPENDIX A-5

## FCDMC Floodplain Viewer

# Floodplain and Elevation Certificate Map



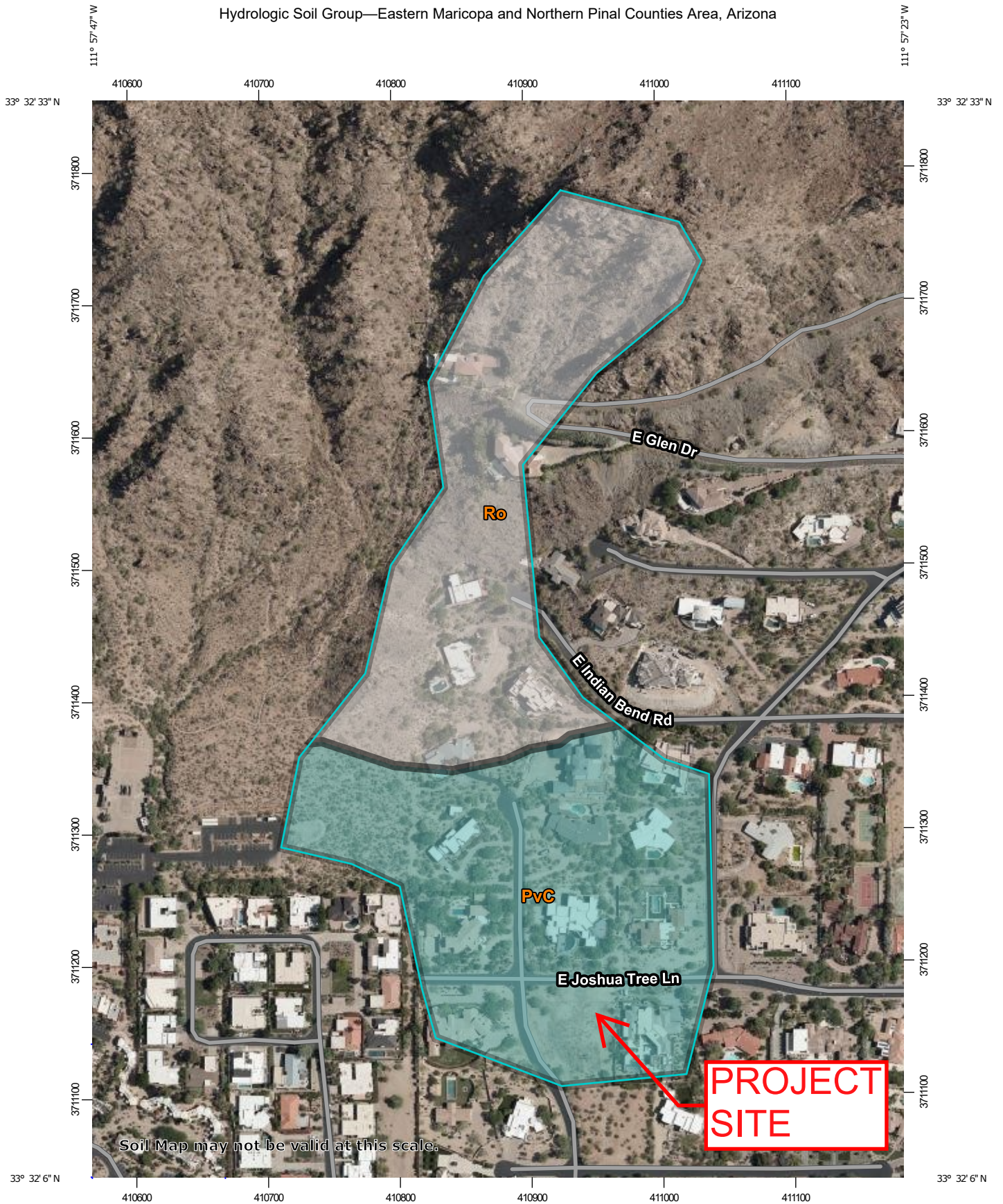
- Elevation Certificate
- Highway**
  - Interstate Highway
  - State\US\Other Highway
  - Interchange\Ramp
  - Arterial
  - Local
- Parcel
- Floodplain (Pending FEMA Approval)**
  - Floodway
  - 100-Year Flood Zone
- Floodplain (FEMA Effective)**
  - Floodway
  - 100-Year Flood Zone

11/2/2021, 9:24:07 AM

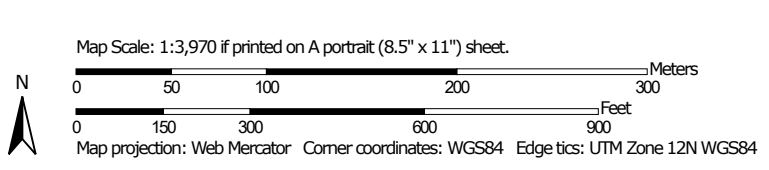
# APPENDIX A-6

## Soils Map and Data

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




Soil Map may not be valid at this scale.




## 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	15.1	53.6%
Ro	Rock land		13.1	46.4%
<b>Totals for Area of Interest</b>			<b>28.2</b>	<b>100.0%</b>

### 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	<a href="#">2104186</a>
Title	5639 E Joshua Tree Ln.
Location	5639 E Joshua Tree Ln., 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: 2104186

ID	Method	Duration	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
<b>DEFAULT</b>	NOAA14	5 MIN	0.248	0.335	0.403	0.494	0.564	0.635
	NOAA14	10 MIN	0.377	0.511	0.613	0.752	0.859	0.967
	NOAA14	15 MIN	0.467	0.633	0.761	0.932	1.064	1.198
	NOAA14	30 MIN	0.629	0.852	1.024	1.255	1.433	1.614
	NOAA14	1 HOUR	0.778	1.055	1.268	1.553	1.774	1.997
	NOAA14	2 HOUR	0.892	1.192	1.422	1.735	1.972	2.219
	NOAA14	3 HOUR	0.970	1.271	1.511	1.845	2.112	2.389
	NOAA14	6 HOUR	1.153	1.476	1.734	2.084	2.358	2.644
	NOAA14	12 HOUR	1.292	1.635	1.904	2.268	2.547	2.835
	NOAA14	24 HOUR	1.547	2.006	2.368	2.874	3.271	3.686

Town of Paradise Valley  
Drainage Design Management System  
MAJOR BASINS  
Project Reference: 2104186

---

Major Basin	Area (acres)	Description
01	28.04	Major Basin 01

---

Town of Paradise Valley  
 Drainage Design Management System  
 LAND USE  
 Project Reference: 2104186

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	
<b>Major Basin ID: 01</b>											
10	130	11.60	67.8	0.032	0.48	0.48	0.48	0.53	0.58	0.70*	Large Lot Residential - Single Family (1 du per acre to 2 du
	130	5.52	32.2	0.032	0.48	0.48	0.48	0.53	0.58	0.60*	Large Lot Residential - Single Family (1 du per acre to 2 du
		<b>17.120</b>	<b>100.0</b>								
11	130	1.26	29.8	0.036	0.48	0.48	0.48	0.53	0.58	0.70*	Large Lot Residential - Single Family (1 du per acre to 2 du
	130	2.97	70.2	0.036	0.48	0.48	0.48	0.53	0.58	0.60*	Large Lot Residential - Single Family (1 du per acre to 2 du
		<b>4.230</b>	<b>100.0</b>								
12	130	1.73	100.0	0.039	0.48	0.48	0.48	0.53	0.58	0.60*	Large Lot Residential - Single Family (1 du per acre to 2 du
		<b>1.730</b>	<b>100.0</b>								
13	130	3.23	100.0	0.037	0.48	0.48	0.48	0.53	0.58	0.60*	Large Lot Residential - Single Family (1 du per acre to 2 du
		<b>3.230</b>	<b>100.0</b>								
14	130	1.73	100.0	0.039	0.48	0.48	0.48	0.53	0.58	0.60*	Large Lot Residential - Single Family (1 du per acre to 2 du
		<b>1.730</b>	<b>100.0</b>								

\* Non default value

Town of Paradise Valley  
 Drainage Design Management System  
**SUB BASINS**  
 Project Reference: 2104186

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	
<b>Major Basin ID: 01</b>													
10	17.1	2,759	2,030.00	1,392.70	1,219.6	0.032	Q (cfs)	23.0	32.6	39.8	53.8	67.2	87.4
							C	0.48	0.48	0.48	0.53	0.58	0.67
							CA (ac)	8.22	8.22	8.22	9.07	9.93	11.47
							Volume (ac-ft)	0.2580	0.3177	0.3659	0.4946	0.6179	0.8036
							Tc (min)	6	5	5	5	5	5
							i (in/hr)	2.80	3.96	4.84	5.93	6.77	7.62
11	4.2	580	1,488.00	1,430.00	528.0	0.036	Q (cfs)	6.0	8.2	9.8	13.3	16.6	20.3
							C	0.48	0.48	0.48	0.53	0.58	0.63
							CA (ac)	2.03	2.03	2.03	2.24	2.45	2.66
							Volume (ac-ft)	0.0552	0.0754	0.0901	0.1223	0.1526	0.1866
							Tc (min)	5	5	5	5	5	5
							i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
12	1.7	516	1,439.00	1,401.40	384.7	0.039	Q (cfs)	2.5	3.3	4.0	5.5	6.8	7.9
							C	0.48	0.48	0.48	0.53	0.58	0.60
							CA (ac)	0.83	0.83	0.83	0.92	1.00	1.04
							Volume (ac-ft)	0.0230	0.0303	0.0368	0.0506	0.0625	0.0726
							Tc (min)	5	5	5	5	5	5
							i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
13	3.2	523	1,419.00	1,395.00	242.3	0.037	Q (cfs)	4.6	6.2	7.5	10.1	12.7	14.8
							C	0.48	0.48	0.48	0.53	0.58	0.60
							CA (ac)	1.55	1.55	1.55	1.71	1.87	1.94
							Volume (ac-ft)	0.0423	0.0570	0.0690	0.0929	0.1168	0.1361
							Tc (min)	5	5	5	5	5	5
							i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
14	1.7	547	1,434.00	1,399.30	334.9	0.039	Q (cfs)	2.5	3.3	4.0	5.5	6.8	7.9
							C	0.48	0.48	0.48	0.53	0.58	0.60

\* Non default value

Town of Paradise Valley  
 Drainage Design Management System  
**SUB BASINS**  
 Project Reference: 2104186

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**

CA (ac)	0.83	0.83	0.83	0.92	1.00	1.04
Volume (ac-ft)	0.0230	0.0303	0.0368	0.0506	0.0625	0.0726
Tc (min)	5	5	5	5	5	5
i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62



Town of Paradise Valley  
 Drainage Design Management System  
**RATIONAL METHOD FLOW SUMMARY - ALL**  
 Project Reference: 2104186

Page 1

5/9/2022

Type ID	Length (ft)	Conveyance		Combine		Return Period (Years)					
		Velocity (ft/sec)	Tpipe (min)			2	5	10	25	50	100
<b>Maior Basin ID: 01</b>											
Sub Basin	-	-	-	-	Q (cfs)	23.0	32.6	39.8	53.8	67.2	87.4
<b>10</b>					CA (ac)	8.22	8.22	8.22	9.07	9.93	11.47
					Tc (min)	6.1	5.3	5.0	5.0	5.0	5.0
					i (in/hr)	2.80	3.96	4.84	5.93	6.77	7.62
					Volume (ac-ft)	0.2580	0.3177	0.3659	0.4946	0.6179	0.8036
Sub Basin	-	-	-	-	Q (cfs)	6.0	8.2	9.8	13.3	16.6	20.3
<b>11</b>					CA (ac)	2.03	2.03	2.03	2.24	2.45	2.66
					Tc (min)	5.0	5.0	5.0	5.0	5.0	5.0
					i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
					Volume (ac-ft)	0.0552	0.0754	0.0901	0.1223	0.1526	0.1866
Combine	-	-	-	2	Q (cfs)	-	-	-	-	-	107.7
<b>1</b>					CA (ac)	-	-	-	-	-	14.13
					Tc (min)	-	-	-	-	-	-
					i (in/hr)	-	-	-	-	-	-
					Volume (ac-ft)	-	-	-	-	-	0.9902
Sub Basin	-	-	-	-	Q (cfs)	2.5	3.3	4.0	5.5	6.8	7.9
<b>14</b>					CA (ac)	0.83	0.83	0.83	0.92	1.00	1.04
					Tc (min)	5.0	5.0	5.0	5.0	5.0	5.0
					i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
					Volume (ac-ft)	0.0230	0.0303	0.0368	0.0506	0.0625	0.0726
Combine	-	-	-	2	Q (cfs)	-	-	-	-	-	115.6
<b>2</b>					CA (ac)	-	-	-	-	-	15.17
					Tc (min)	-	-	-	-	-	-
					i (in/hr)	-	-	-	-	-	-
					Volume (ac-ft)	-	-	-	-	-	1.0628
Sub Basin	-	-	-	-	Q (cfs)	2.5	3.3	4.0	5.5	6.8	7.9
<b>12</b>					CA (ac)	0.83	0.83	0.83	0.92	1.00	1.04
					Tc (min)	5.0	5.0	5.0	5.0	5.0	5.0
					i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
					Volume (ac-ft)	0.0230	0.0303	0.0368	0.0506	0.0625	0.0726
Sub Basin	-	-	-	-	Q (cfs)	4.6	6.2	7.5	10.1	12.7	14.8
<b>13</b>					CA (ac)	1.55	1.55	1.55	1.71	1.87	1.94
					Tc (min)	5.0	5.0	5.0	5.0	5.0	5.0
					i (in/hr)	2.98	4.02	4.84	5.93	6.77	7.62
					Volume (ac-ft)	0.0423	0.0570	0.0690	0.0929	0.1168	0.1361
Combine	-	-	-	2	Q (cfs)	-	-	-	-	-	22.7
<b>3</b>					CA (ac)	-	-	-	-	-	2.98
					Tc (min)	-	-	-	-	-	-
					i (in/hr)	-	-	-	-	-	-
					Volume (ac-ft)	-	-	-	-	-	0.2087

\* First Pipe

# Hydraulic Analysis Report

## Project Data

Project Title: 2104186 5639 E Joshua Tree Ln

Designer:

Project Date: Tuesday, December 7, 2021

Project Units: U.S. Customary Units

Notes:

## Channel Analysis: XSEC 1

Notes:

## Input Parameters

Channel Type: Custom Cross Section

**Cross Section Data**

Elevation (ft)	Elevation (ft)	Manning's n
0.00	1401.36	0.0350
3.00	1401.37	0.0150
4.05	1400.75	0.0150
11.00	1400.78	0.0350
17.90	1400.00	0.0350
20.20	1399.85	0.0150
68.60	1399.69	0.0150
74.40	1399.40	0.0350
84.95	1399.30	0.0350
92.45	1400.00	0.0350
105.10	1401.00	-----

Longitudinal Slope: 0.0330 ft/ft

Flow: 115.6000 cfs

### Result Parameters

Depth: 0.6577 ft

Area of Flow: 20.2939 ft<sup>2</sup>

Wetted Perimeter: 73.4896 ft

Hydraulic Radius: 0.2761 ft

Average Velocity: 5.6963 ft/s

Top Width: 73.4475 ft

Froude Number: 1.9097

Critical Depth: 0.8095 ft

Critical Velocity: 3.6444 ft/s

Critical Slope: 0.0074 ft/ft

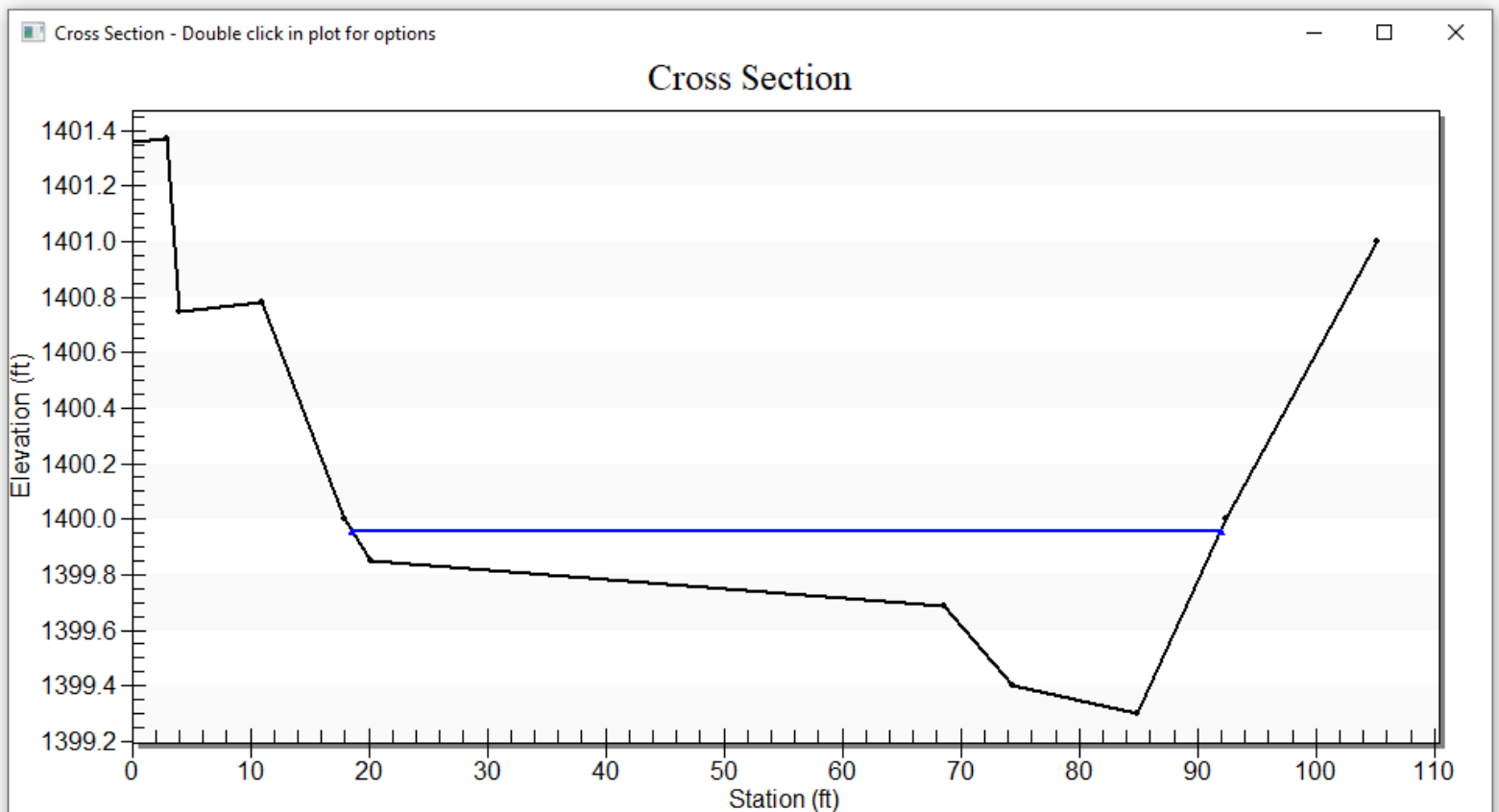
Critical Top Width: 76.90 ft

Calculated Max Shear Stress: 1.3543 lb/ft<sup>2</sup>

Calculated Avg Shear Stress: 0.5686 lb/ft<sup>2</sup>

Composite Manning's n Equation: Lotter method

Manning's n: 0.0201



## Channel Analysis: XSEC 2

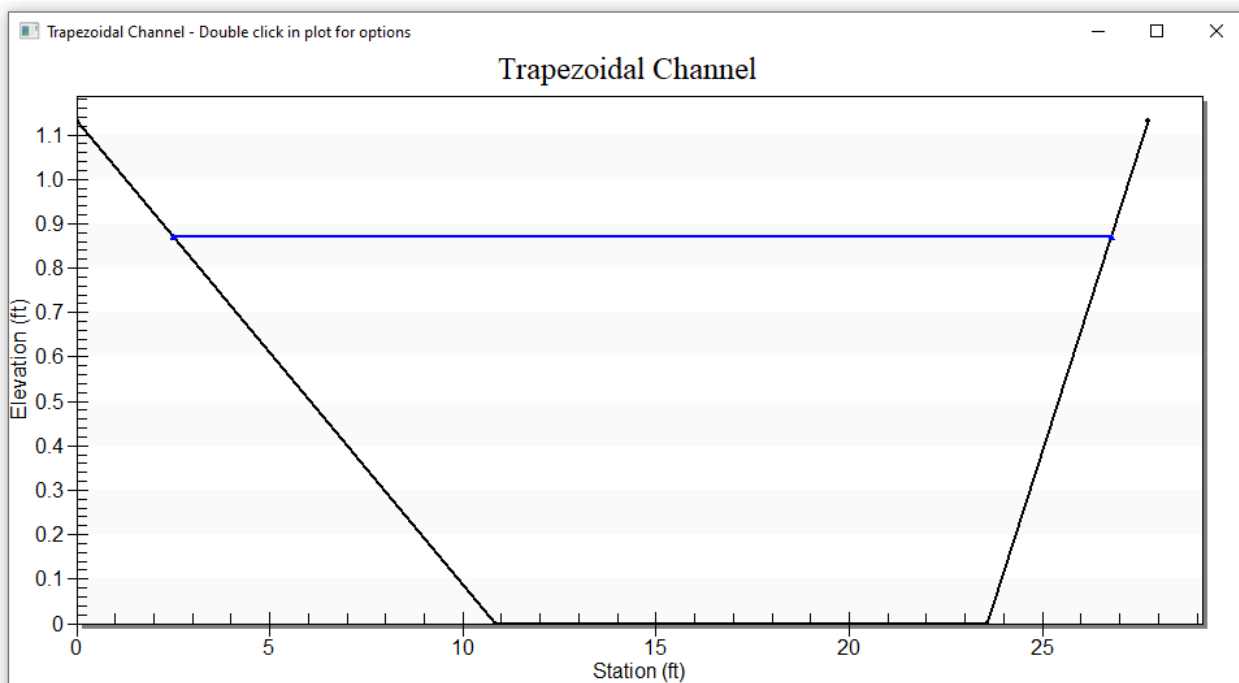
Notes:

### Input Parameters

Channel Type: Trapezoidal  
Side Slope 1 (Z1): 9.6000 ft/ft  
Side Slope 2 (Z2): 3.7000 ft/ft  
Channel Width: 12.7000 ft  
Longitudinal Slope: 0.0500 ft/ft  
Manning's n: 0.0350  
Flow: 115.6000 cfs

### Result Parameters

Depth: 0.8703 ft  
Area of Flow: 16.0891 ft<sup>2</sup>  
Wetted Perimeter: 24.4354 ft  
Hydraulic Radius: 0.6584 ft  
Average Velocity: 7.1850 ft/s  
Top Width: 24.2747 ft  
Froude Number: 1.5553  
Critical Depth: 1.1190 ft  
Critical Velocity: 5.1292 ft/s  
Critical Slope: 0.0193 ft/ft  
Critical Top Width: 27.58 ft  
Calculated Max Shear Stress: 2.7153 lb/ft<sup>2</sup>  
Calculated Avg Shear Stress: 2.0543 lb/ft<sup>2</sup>



### Channel Analysis: XSEC 3

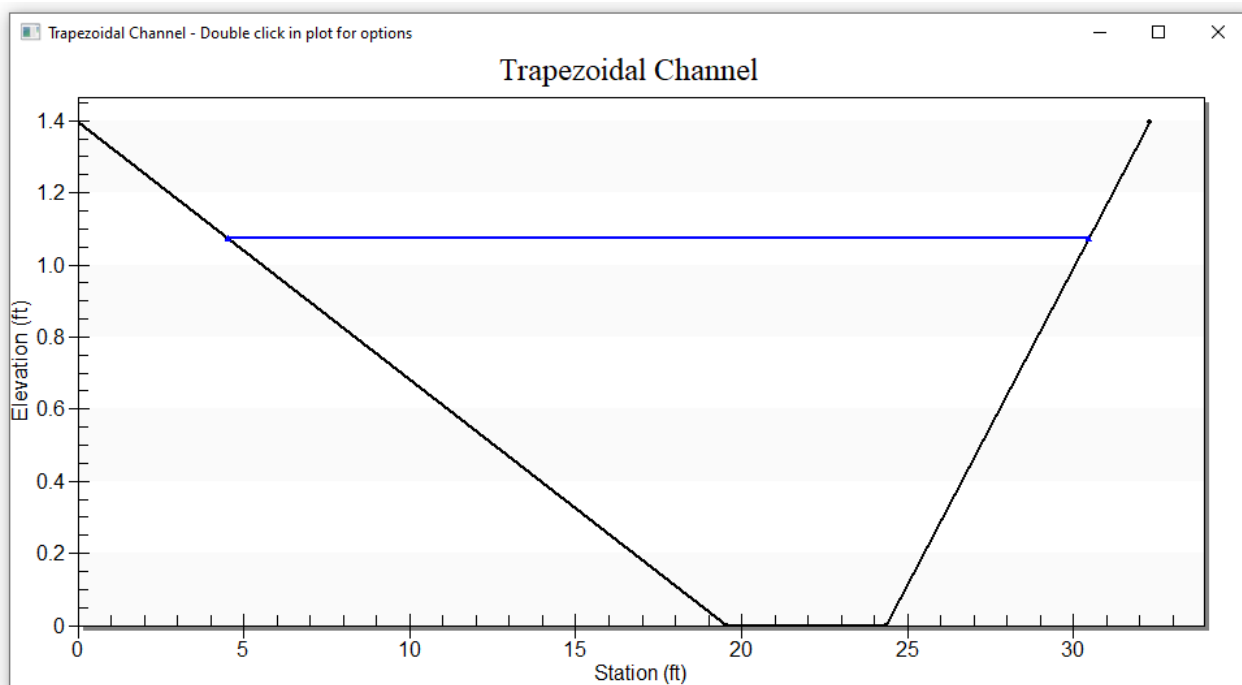
Notes:

#### Input Parameters

Channel Type: Trapezoidal  
Side Slope 1 (Z1): 14.0000 ft/ft  
Side Slope 2 (Z2): 5.7000 ft/ft  
Channel Width: 4.8000 ft  
Longitudinal Slope: 0.0500 ft/ft  
Manning's n: 0.0350  
Flow: 115.6000 cfs

#### Result Parameters

Depth: 1.0740 ft  
Area of Flow: 16.5173 ft<sup>2</sup>  
Wetted Perimeter: 26.0899 ft  
Hydraulic Radius: 0.6331 ft  
Average Velocity: 6.9987 ft/s  
Top Width: 25.9581 ft  
Froude Number: 1.5462  
Critical Depth: 1.3155 ft  
Critical Velocity: 4.9488 ft/s  
Critical Slope: 0.0197 ft/ft  
Critical Top Width: 30.71 ft  
Calculated Max Shear Stress: 3.3509 lb/ft<sup>2</sup>  
Calculated Avg Shear Stress: 1.9752 lb/ft<sup>2</sup>



## Channel Analysis: XSEC 4

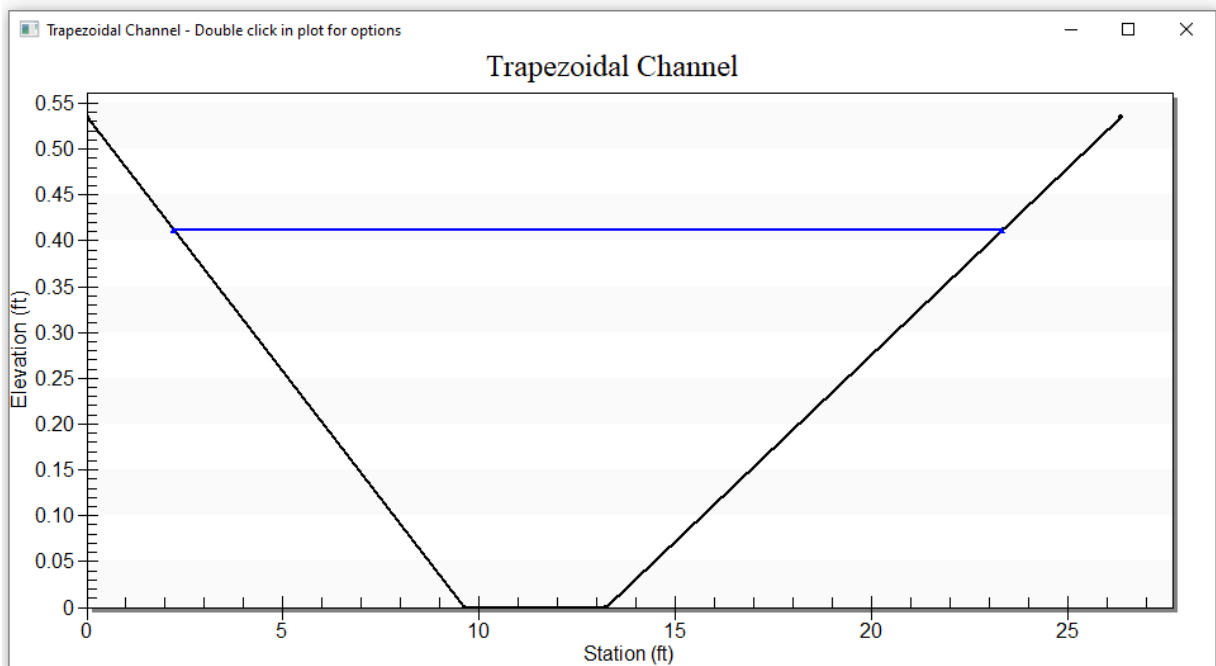
Notes:

### Input Parameters

Channel Type: Trapezoidal  
Side Slope 1 (Z1): 18.0000 ft/ft  
Side Slope 2 (Z2): 24.5000 ft/ft  
Channel Width: 3.6000 ft  
Longitudinal Slope: 0.0740 ft/ft  
Manning's n: 0.0350  
Flow: 22.7000 cfs

### Result Parameters

Depth: 0.4115 ft  
Area of Flow: 5.0797 ft<sup>2</sup>  
Wetted Perimeter: 21.1085 ft  
Hydraulic Radius: 0.2406 ft  
Average Velocity: 4.4688 ft/s  
Top Width: 21.0887 ft  
Froude Number: 1.6046  
Critical Depth: 0.5115 ft  
Critical Velocity: 3.0666 ft/s  
Critical Slope: 0.0270 ft/ft  
Critical Top Width: 25.34 ft  
Calculated Max Shear Stress: 1.9001 lb/ft<sup>2</sup>  
Calculated Avg Shear Stress: 1.1112 lb/ft<sup>2</sup>



## Channel Analysis: XSEC 5

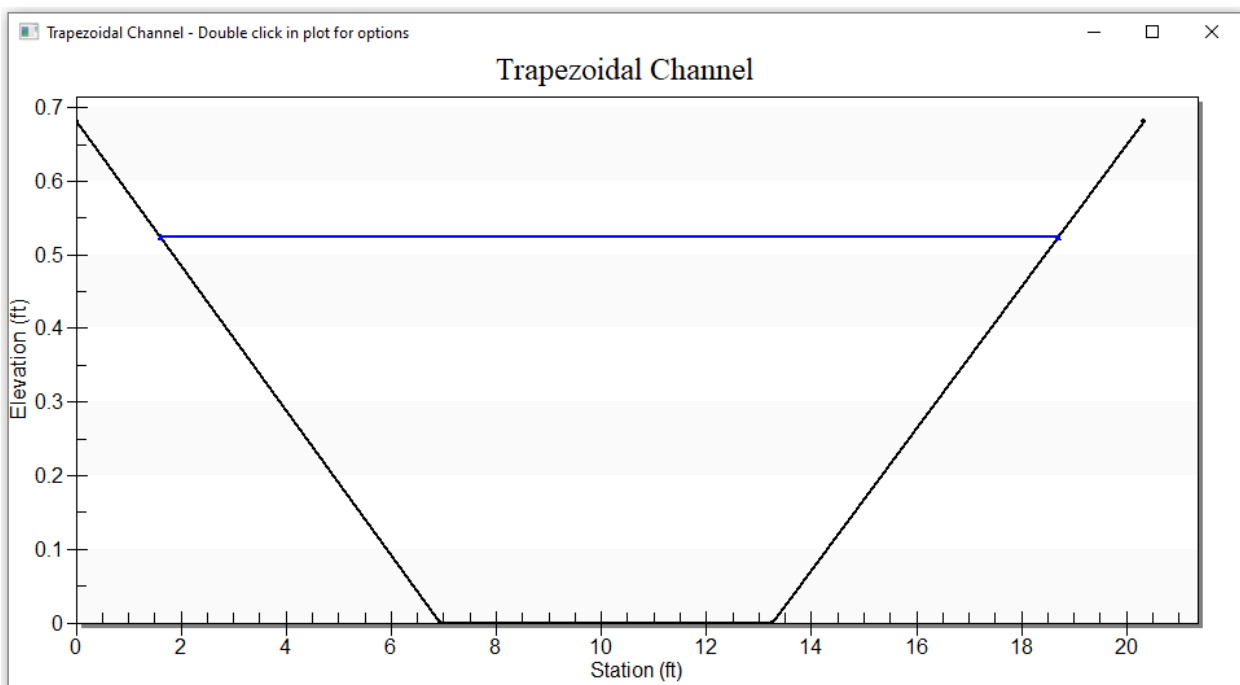
Notes:

### Input Parameters

Channel Type: Trapezoidal  
Side Slope 1 (Z1): 10.2000 ft/ft  
Side Slope 2 (Z2): 10.4000 ft/ft  
Channel Width: 6.3000 ft  
Longitudinal Slope: 0.0300 ft/ft  
Manning's n: 0.0350  
Flow: 22.7000 cfs

### Result Parameters

Depth: 0.5240 ft  
Area of Flow: 6.1291 ft<sup>2</sup>  
Wetted Perimeter: 17.1449 ft  
Hydraulic Radius: 0.3575 ft  
Average Velocity: 3.7036 ft/s  
Top Width: 17.0941 ft  
Froude Number: 1.0900  
Critical Depth: 0.5485 ft  
Critical Velocity: 3.4629 ft/s  
Critical Slope: 0.0249 ft/ft  
Critical Top Width: 17.60 ft  
Calculated Max Shear Stress: 0.9809 lb/ft<sup>2</sup>  
Calculated Avg Shear Stress: 0.6692 lb/ft<sup>2</sup>







**NOAA Atlas 14, Volume 1, Version 5**  
**Location name: Paradise Valley, Arizona, USA\***  
**Latitude: 33.5362°, Longitude: -111.9586°**  
**Elevation: 1398.73 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**

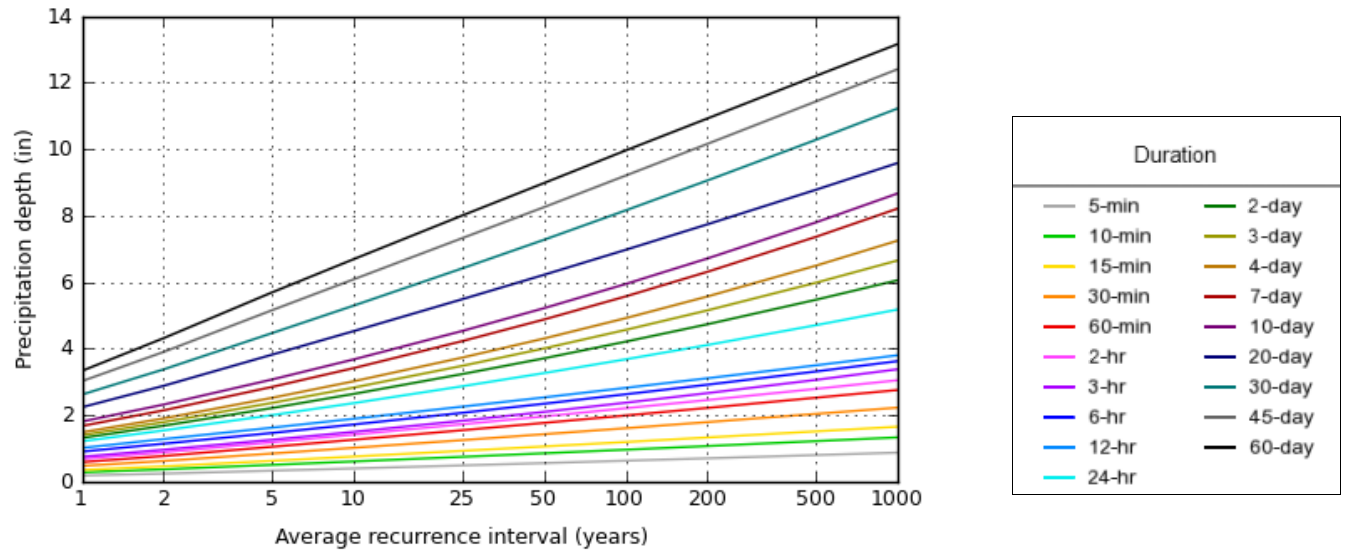
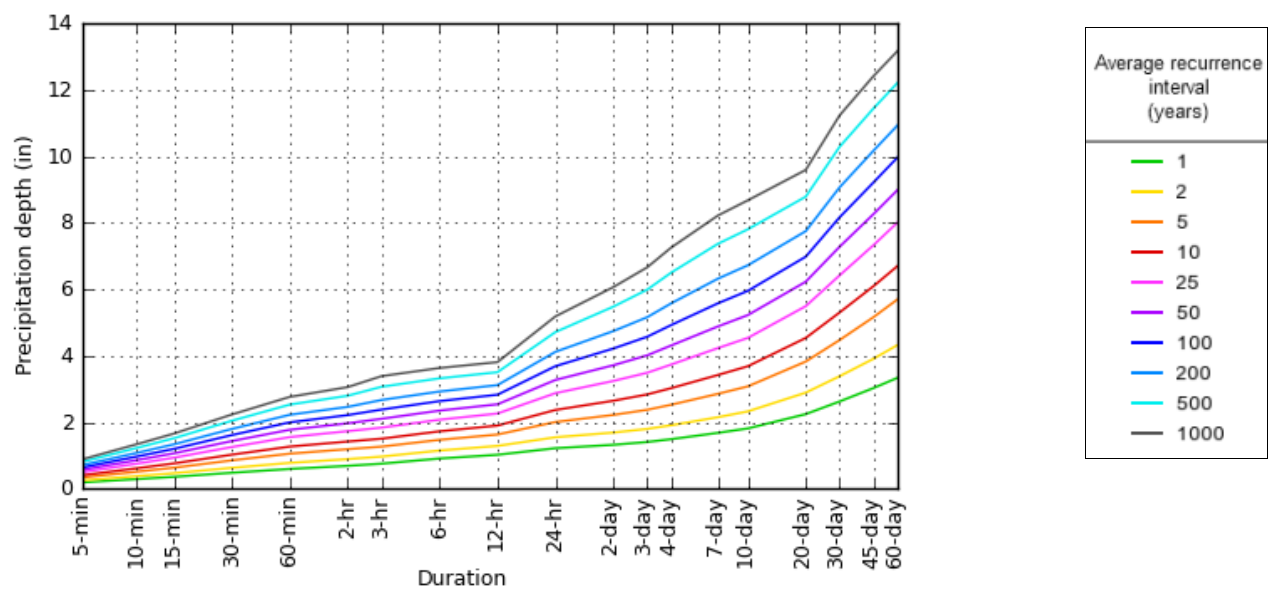
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.189 (0.158-0.231)	0.247 (0.208-0.301)	0.335 (0.279-0.407)	0.402 (0.333-0.487)	0.493 (0.402-0.595)	0.563 (0.453-0.675)	0.635 (0.501-0.759)	0.707 (0.549-0.844)	0.804 (0.609-0.961)	0.878 (0.651-1.05)
10-min	0.287 (0.240-0.350)	0.376 (0.316-0.458)	0.510 (0.425-0.620)	0.613 (0.507-0.741)	0.751 (0.612-0.905)	0.858 (0.690-1.03)	0.966 (0.763-1.15)	1.08 (0.836-1.28)	1.22 (0.926-1.46)	1.34 (0.992-1.60)
15-min	0.356 (0.298-0.435)	0.466 (0.392-0.568)	0.631 (0.526-0.769)	0.760 (0.629-0.919)	0.931 (0.759-1.12)	1.06 (0.855-1.27)	1.20 (0.946-1.43)	1.33 (1.04-1.59)	1.52 (1.15-1.81)	1.66 (1.23-1.99)
30-min	0.479 (0.401-0.585)	0.627 (0.527-0.765)	0.851 (0.709-1.03)	1.02 (0.847-1.24)	1.25 (1.02-1.51)	1.43 (1.15-1.72)	1.61 (1.27-1.93)	1.80 (1.40-2.15)	2.04 (1.55-2.44)	2.23 (1.66-2.67)
60-min	0.593 (0.496-0.725)	0.776 (0.653-0.947)	1.05 (0.877-1.28)	1.27 (1.05-1.53)	1.55 (1.26-1.87)	1.77 (1.43-2.12)	2.00 (1.58-2.38)	2.22 (1.73-2.65)	2.53 (1.91-3.02)	2.76 (2.05-3.31)
2-hr	0.687 (0.583-0.821)	0.889 (0.755-1.07)	1.19 (1.01-1.42)	1.42 (1.19-1.69)	1.73 (1.43-2.05)	1.97 (1.61-2.32)	2.21 (1.78-2.61)	2.46 (1.94-2.90)	2.80 (2.16-3.30)	3.06 (2.31-3.62)
3-hr	0.752 (0.636-0.910)	0.965 (0.819-1.17)	1.26 (1.07-1.53)	1.50 (1.26-1.81)	1.84 (1.52-2.19)	2.10 (1.71-2.50)	2.38 (1.90-2.83)	2.67 (2.10-3.16)	3.07 (2.33-3.64)	3.39 (2.52-4.03)
6-hr	0.907 (0.782-1.07)	1.15 (0.993-1.36)	1.47 (1.26-1.73)	1.73 (1.47-2.02)	2.07 (1.75-2.42)	2.35 (1.95-2.73)	2.63 (2.15-3.06)	2.92 (2.34-3.40)	3.32 (2.59-3.86)	3.63 (2.77-4.24)
12-hr	1.02 (0.887-1.19)	1.29 (1.12-1.50)	1.63 (1.41-1.89)	1.90 (1.63-2.20)	2.26 (1.92-2.61)	2.54 (2.13-2.93)	2.83 (2.34-3.26)	3.12 (2.55-3.60)	3.50 (2.80-4.06)	3.81 (2.98-4.44)
24-hr	1.22 (1.07-1.41)	1.55 (1.35-1.80)	2.01 (1.75-2.33)	2.37 (2.06-2.75)	2.87 (2.48-3.33)	3.27 (2.81-3.78)	3.68 (3.14-4.27)	4.12 (3.48-4.77)	4.71 (3.94-5.45)	5.18 (4.29-6.02)
2-day	1.32 (1.16-1.52)	1.69 (1.48-1.95)	2.22 (1.94-2.56)	2.64 (2.31-3.04)	3.24 (2.81-3.72)	3.71 (3.19-4.27)	4.22 (3.60-4.85)	4.74 (4.02-5.45)	5.47 (4.59-6.31)	6.06 (5.03-7.01)
3-day	1.40 (1.23-1.62)	1.80 (1.57-2.07)	2.37 (2.07-2.73)	2.83 (2.47-3.26)	3.49 (3.02-4.01)	4.01 (3.45-4.61)	4.57 (3.90-5.25)	5.16 (4.37-5.93)	5.99 (5.01-6.88)	6.66 (5.51-7.68)
4-day	1.49 (1.30-1.72)	1.91 (1.67-2.20)	2.53 (2.20-2.90)	3.02 (2.63-3.47)	3.73 (3.23-4.29)	4.31 (3.70-4.95)	4.92 (4.20-5.65)	5.58 (4.71-6.41)	6.50 (5.43-7.46)	7.25 (5.99-8.35)
7-day	1.68 (1.46-1.94)	2.15 (1.87-2.48)	2.85 (2.48-3.29)	3.42 (2.96-3.94)	4.23 (3.64-4.87)	4.88 (4.17-5.61)	5.58 (4.73-6.41)	6.32 (5.32-7.28)	7.37 (6.12-8.49)	8.22 (6.76-9.49)
10-day	1.81 (1.58-2.09)	2.32 (2.03-2.68)	3.08 (2.68-3.53)	3.68 (3.19-4.22)	4.53 (3.91-5.19)	5.22 (4.48-5.96)	5.95 (5.07-6.81)	6.72 (5.68-7.69)	7.80 (6.51-8.93)	8.67 (7.17-9.94)
20-day	2.24 (1.97-2.56)	2.89 (2.53-3.30)	3.82 (3.35-4.36)	4.53 (3.96-5.16)	5.49 (4.77-6.25)	6.22 (5.39-7.09)	6.98 (6.01-7.95)	7.75 (6.64-8.84)	8.78 (7.46-10.0)	9.59 (8.08-11.0)
30-day	2.62 (2.29-3.00)	3.38 (2.96-3.86)	4.47 (3.91-5.10)	5.30 (4.62-6.03)	6.42 (5.56-7.31)	7.28 (6.28-8.27)	8.16 (7.02-9.27)	9.06 (7.75-10.3)	10.3 (8.73-11.7)	11.2 (9.46-12.8)
45-day	3.03 (2.66-3.45)	3.91 (3.44-4.45)	5.16 (4.54-5.87)	6.09 (5.34-6.93)	7.33 (6.40-8.32)	8.26 (7.18-9.38)	9.21 (7.97-10.5)	10.2 (8.76-11.6)	11.4 (9.78-13.1)	12.4 (10.5-14.2)
60-day	3.34 (2.95-3.78)	4.32 (3.82-4.89)	5.70 (5.03-6.44)	6.70 (5.89-7.58)	8.01 (7.02-9.05)	8.98 (7.85-10.2)	9.97 (8.67-11.3)	10.9 (9.47-12.4)	12.2 (10.5-13.9)	13.2 (11.3-15.0)

<sup>1</sup> 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.

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**PF graphical**

PDS-based depth-duration-frequency (DDF) curves  
 Latitude: 33.5362°, Longitude: -111.9586°



NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Mon May 9 11:31:53 2022

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**Maps & aerials**

**Small scale terrain**



**NOAA Atlas 14, Volume 1, Version 5**  
**Location name: Paradise Valley, Arizona, USA\***  
**Latitude: 33.5362°, Longitude: -111.9586°**  
**Elevation: 1398.73 ft\*\***  
 \* source: ESRI Maps  
 \*\* source: USGS



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NOAA, National Weather Service, Silver Spring, Maryland

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**PF tabular**

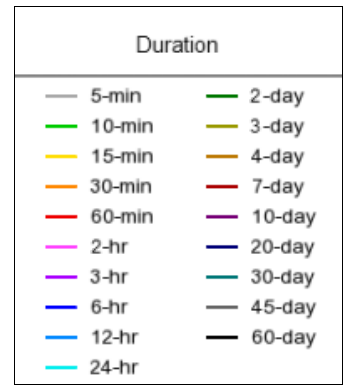
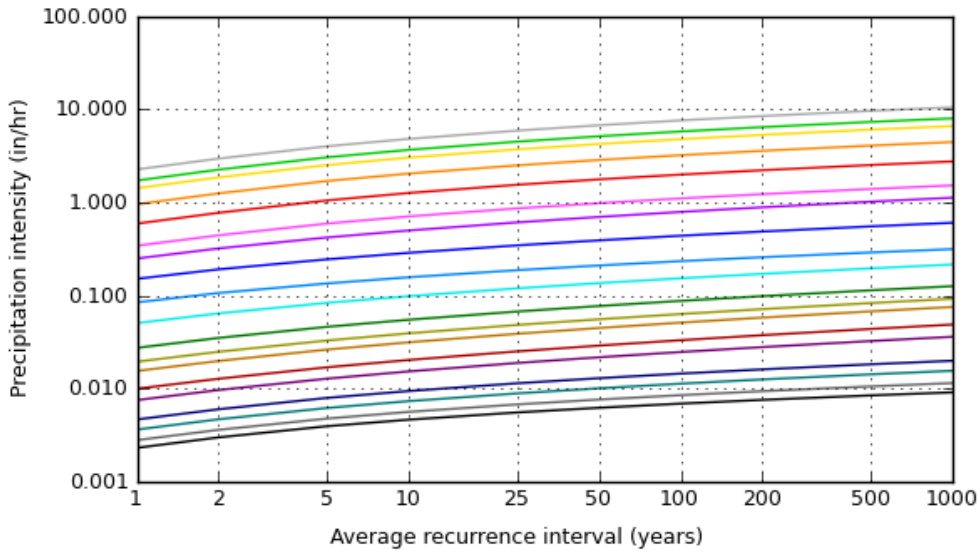
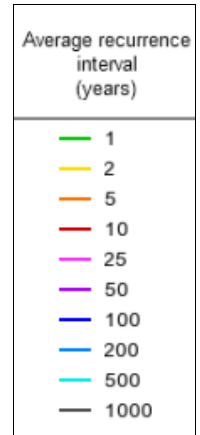
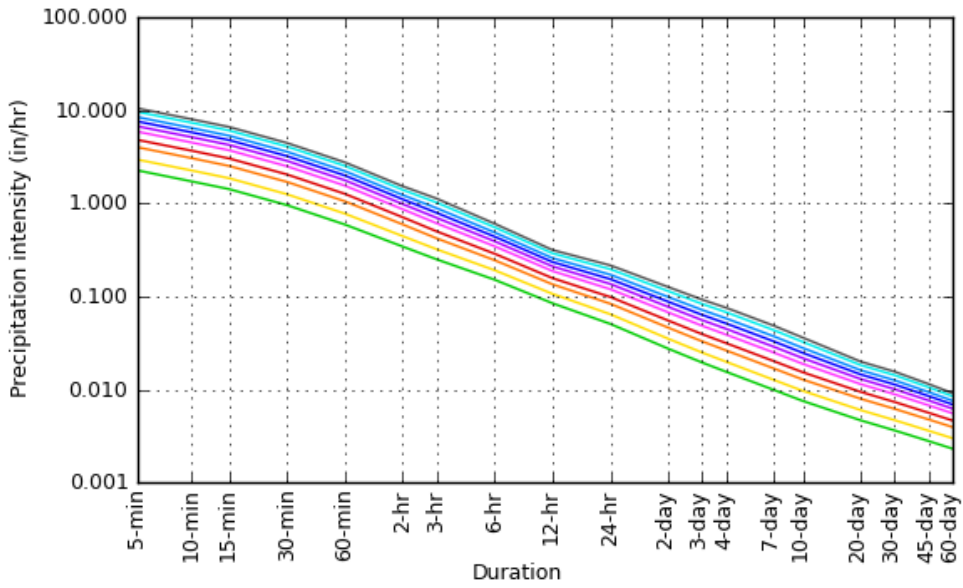
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
<b>5-min</b>	<b>2.27</b> (1.90-2.77)	<b>2.96</b> (2.50-3.61)	<b>4.02</b> (3.35-4.88)	<b>4.82</b> (4.00-5.84)	<b>5.92</b> (4.82-7.14)	<b>6.76</b> (5.44-8.10)	<b>7.62</b> (6.01-9.11)	<b>8.48</b> (6.59-10.1)	<b>9.65</b> (7.31-11.5)	<b>10.5</b> (7.81-12.6)
<b>10-min</b>	<b>1.72</b> (1.44-2.10)	<b>2.26</b> (1.90-2.75)	<b>3.06</b> (2.55-3.72)	<b>3.68</b> (3.04-4.45)	<b>4.51</b> (3.67-5.43)	<b>5.15</b> (4.14-6.17)	<b>5.80</b> (4.58-6.92)	<b>6.46</b> (5.02-7.70)	<b>7.34</b> (5.56-8.78)	<b>8.02</b> (5.95-9.61)
<b>15-min</b>	<b>1.42</b> (1.19-1.74)	<b>1.86</b> (1.57-2.27)	<b>2.52</b> (2.10-3.08)	<b>3.04</b> (2.52-3.68)	<b>3.72</b> (3.04-4.49)	<b>4.25</b> (3.42-5.10)	<b>4.79</b> (3.78-5.72)	<b>5.34</b> (4.15-6.37)	<b>6.07</b> (4.60-7.26)	<b>6.63</b> (4.92-7.94)
<b>30-min</b>	<b>0.958</b> (0.802-1.17)	<b>1.25</b> (1.05-1.53)	<b>1.70</b> (1.42-2.07)	<b>2.05</b> (1.69-2.48)	<b>2.51</b> (2.04-3.02)	<b>2.86</b> (2.30-3.43)	<b>3.22</b> (2.55-3.85)	<b>3.59</b> (2.79-4.29)	<b>4.09</b> (3.09-4.89)	<b>4.46</b> (3.31-5.35)
<b>60-min</b>	<b>0.593</b> (0.496-0.725)	<b>0.776</b> (0.653-0.947)	<b>1.05</b> (0.877-1.28)	<b>1.27</b> (1.05-1.53)	<b>1.55</b> (1.26-1.87)	<b>1.77</b> (1.43-2.12)	<b>2.00</b> (1.58-2.38)	<b>2.22</b> (1.73-2.65)	<b>2.53</b> (1.91-3.02)	<b>2.76</b> (2.05-3.31)
<b>2-hr</b>	<b>0.344</b> (0.292-0.410)	<b>0.444</b> (0.378-0.533)	<b>0.594</b> (0.503-0.708)	<b>0.709</b> (0.594-0.843)	<b>0.864</b> (0.716-1.02)	<b>0.983</b> (0.804-1.16)	<b>1.11</b> (0.890-1.30)	<b>1.23</b> (0.972-1.45)	<b>1.40</b> (1.08-1.65)	<b>1.53</b> (1.15-1.81)
<b>3-hr</b>	<b>0.250</b> (0.212-0.303)	<b>0.321</b> (0.273-0.390)	<b>0.421</b> (0.356-0.509)	<b>0.500</b> (0.419-0.601)	<b>0.611</b> (0.504-0.730)	<b>0.700</b> (0.569-0.832)	<b>0.792</b> (0.633-0.941)	<b>0.888</b> (0.698-1.05)	<b>1.02</b> (0.777-1.21)	<b>1.13</b> (0.838-1.34)
<b>6-hr</b>	<b>0.151</b> (0.131-0.179)	<b>0.192</b> (0.166-0.227)	<b>0.245</b> (0.211-0.289)	<b>0.288</b> (0.246-0.338)	<b>0.346</b> (0.292-0.404)	<b>0.392</b> (0.325-0.456)	<b>0.440</b> (0.359-0.511)	<b>0.488</b> (0.391-0.568)	<b>0.554</b> (0.433-0.645)	<b>0.606</b> (0.463-0.707)
<b>12-hr</b>	<b>0.085</b> (0.074-0.099)	<b>0.107</b> (0.093-0.125)	<b>0.135</b> (0.117-0.157)	<b>0.157</b> (0.135-0.183)	<b>0.188</b> (0.160-0.217)	<b>0.211</b> (0.177-0.243)	<b>0.235</b> (0.194-0.270)	<b>0.259</b> (0.211-0.298)	<b>0.291</b> (0.232-0.337)	<b>0.316</b> (0.247-0.369)
<b>24-hr</b>	<b>0.051</b> (0.044-0.059)	<b>0.064</b> (0.056-0.075)	<b>0.084</b> (0.073-0.097)	<b>0.099</b> (0.086-0.115)	<b>0.120</b> (0.103-0.139)	<b>0.136</b> (0.117-0.158)	<b>0.154</b> (0.131-0.178)	<b>0.171</b> (0.145-0.199)	<b>0.196</b> (0.164-0.227)	<b>0.216</b> (0.179-0.251)
<b>2-day</b>	<b>0.027</b> (0.024-0.032)	<b>0.035</b> (0.031-0.041)	<b>0.046</b> (0.040-0.053)	<b>0.055</b> (0.048-0.063)	<b>0.067</b> (0.058-0.078)	<b>0.077</b> (0.067-0.089)	<b>0.088</b> (0.075-0.101)	<b>0.099</b> (0.084-0.114)	<b>0.114</b> (0.096-0.131)	<b>0.126</b> (0.105-0.146)
<b>3-day</b>	<b>0.020</b> (0.017-0.022)	<b>0.025</b> (0.022-0.029)	<b>0.033</b> (0.029-0.038)	<b>0.039</b> (0.034-0.045)	<b>0.048</b> (0.042-0.056)	<b>0.056</b> (0.048-0.064)	<b>0.063</b> (0.054-0.073)	<b>0.072</b> (0.061-0.082)	<b>0.083</b> (0.070-0.096)	<b>0.092</b> (0.077-0.107)
<b>4-day</b>	<b>0.016</b> (0.014-0.018)	<b>0.020</b> (0.017-0.023)	<b>0.026</b> (0.023-0.030)	<b>0.032</b> (0.027-0.036)	<b>0.039</b> (0.034-0.045)	<b>0.045</b> (0.039-0.052)	<b>0.051</b> (0.044-0.059)	<b>0.058</b> (0.049-0.067)	<b>0.068</b> (0.057-0.078)	<b>0.076</b> (0.062-0.087)
<b>7-day</b>	<b>0.010</b> (0.009-0.012)	<b>0.013</b> (0.011-0.015)	<b>0.017</b> (0.015-0.020)	<b>0.020</b> (0.018-0.023)	<b>0.025</b> (0.022-0.029)	<b>0.029</b> (0.025-0.033)	<b>0.033</b> (0.028-0.038)	<b>0.038</b> (0.032-0.043)	<b>0.044</b> (0.036-0.051)	<b>0.049</b> (0.040-0.056)
<b>10-day</b>	<b>0.008</b> (0.007-0.009)	<b>0.010</b> (0.008-0.011)	<b>0.013</b> (0.011-0.015)	<b>0.015</b> (0.013-0.018)	<b>0.019</b> (0.016-0.022)	<b>0.022</b> (0.019-0.025)	<b>0.025</b> (0.021-0.028)	<b>0.028</b> (0.024-0.032)	<b>0.033</b> (0.027-0.037)	<b>0.036</b> (0.030-0.041)
<b>20-day</b>	<b>0.005</b> (0.004-0.005)	<b>0.006</b> (0.005-0.007)	<b>0.008</b> (0.007-0.009)	<b>0.009</b> (0.008-0.011)	<b>0.011</b> (0.010-0.013)	<b>0.013</b> (0.011-0.015)	<b>0.015</b> (0.013-0.017)	<b>0.016</b> (0.014-0.018)	<b>0.018</b> (0.016-0.021)	<b>0.020</b> (0.017-0.023)
<b>30-day</b>	<b>0.004</b> (0.003-0.004)	<b>0.005</b> (0.004-0.005)	<b>0.006</b> (0.005-0.007)	<b>0.007</b> (0.006-0.008)	<b>0.009</b> (0.008-0.010)	<b>0.010</b> (0.009-0.011)	<b>0.011</b> (0.010-0.013)	<b>0.013</b> (0.011-0.014)	<b>0.014</b> (0.012-0.016)	<b>0.016</b> (0.013-0.018)
<b>45-day</b>	<b>0.003</b> (0.002-0.003)	<b>0.004</b> (0.003-0.004)	<b>0.005</b> (0.004-0.005)	<b>0.006</b> (0.005-0.006)	<b>0.007</b> (0.006-0.008)	<b>0.008</b> (0.007-0.009)	<b>0.009</b> (0.007-0.010)	<b>0.009</b> (0.008-0.011)	<b>0.011</b> (0.009-0.012)	<b>0.011</b> (0.010-0.013)
<b>60-day</b>	<b>0.002</b> (0.002-0.003)	<b>0.003</b> (0.003-0.003)	<b>0.004</b> (0.003-0.004)	<b>0.005</b> (0.004-0.005)	<b>0.006</b> (0.005-0.006)	<b>0.006</b> (0.005-0.007)	<b>0.007</b> (0.006-0.008)	<b>0.008</b> (0.007-0.009)	<b>0.008</b> (0.007-0.010)	<b>0.009</b> (0.008-0.010)

<sup>1</sup> 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.

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**PF graphical**

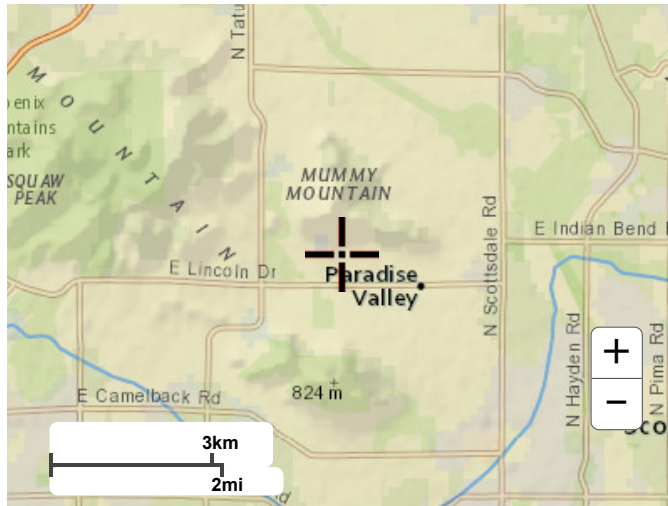
PDS-based intensity-duration-frequency (IDF) curves  
Latitude: 33.5362°, Longitude: -111.9586°



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### Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



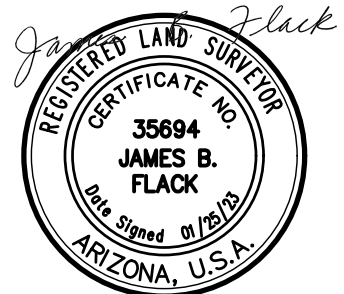
Large scale aerial

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

LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD  
IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA  
COUNTY, ARIZONA, RECORDED IN BOOK 1217 OF MAPS, PAGE 14.



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

THAT PART OF LOT 1, CLUB ESTATES 3, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, IN BOOK 1217 OF MAPS, PAGE 14. MORE PARTICULARLY DESCRIBED AS FOLLOWS:

**COMMENCING** AT THE SOUTHWESTERLY PROPERTY CORNER OF SAID LOT 1;

THENCE ALONG THE SOUTHERLY PROPERTY LINE OF SAID LOT, NORTH 89°59'48" EAST, A DISTANCE OF 3.01 FEET;

THENCE LEAVING SAID PROPERTY LINE, NORTH 07°38'12" EAST, A DISTANCE OF 7.21 FEET;

THENCE NORTH 08°54'02" WEST, A DISTANCE OF 9.27 FEET;

THENCE NORTH 28°03'12" WEST, A DISTANCE OF 16.85 FEET;

THENCE NORTH 29°53'19" WEST, A DISTANCE OF 12.49 FEET;

THENCE NORTH 36°26'31" WEST, A DISTANCE OF 32.81 FEET;

THENCE NORTH 16°19'11" WEST, A DISTANCE OF 13.56 FEET;

THENCE NORTH 37°38'14" WEST, A DISTANCE OF 10.80 FEET;

THENCE NORTH 40°23'28" WEST, A DISTANCE OF 12.19 FEET;

THENCE NORTH 68°58'44" WEST, A DISTANCE OF 14.59 FEET;

THENCE NORTH 57°38'11" WEST, A DISTANCE OF 4.29 FEET, TO A POINT ON THE WESTERLY PROPERTY LINE OF SAID LOT 1, ALSO BEING THE EASTERLY RIGHT OF WAY LINE OF LOST DUTCHMAN DRIVE;

THENCE ALONG SAID LINE, BEING A NON TANGENT CURVE, TO THE RIGHT, HAVING A RADIUS OF 283.42 FEET, A CENTRAL ANGLE OF 06°24'10", A TANGENT LENGTH OF 15.85 FEET, THE CHORD OF WHICH BEARS NORTH 18°27'08" WEST, A DISTANCE OF 31.65 FEET, FOR AN ARC LENGTH OF 31.67 FEET;

THENCE LEAVING SAID PROPERTY LINE, SOUTH 57°38'11" EAST, A DISTANCE OF 26.84 FEET;

THENCE SOUTH 68°58'44" EAST, A DISTANCE OF 17.70 FEET;

THENCE SOUTH 40°23'28" EAST, A DISTANCE OF 17.77 FEET;

THENCE SOUTH 37°38'14" EAST, A DISTANCE OF 15.05 FEET;

THENCE SOUTH 16°19'11" EAST, A DISTANCE OF 13.77 FEET;

THENCE SOUTH 36°26'31" EAST, A DISTANCE OF 30.40 FEET;

THENCE SOUTH 29°53'19" EAST, A DISTANCE OF 5.55 FEET;

THENCE NORTH 14°20'15" EAST, A DISTANCE OF 32.04 FEET;

THENCE NORTH 39°55'23" EAST, A DISTANCE OF 24.91 FEET;

THENCE NORTH 33°46'51" EAST, A DISTANCE OF 21.31 FEET;

THENCE NORTH 07°04'15" EAST, A DISTANCE OF 29.97 FEET;

THENCE NORTH 19°26'13" WEST, A DISTANCE OF 31.25 FEET;

THENCE NORTH 24°18'20" WEST, A DISTANCE OF 60.51 FEET, TO A POINT ON THE NORTHERLY PROPERTY LINE OF SAID LOT 1, ALSO BEING THE SOUTHERLY RIGHT OF WAY LINE OF JOSHUA TREE LANE;

THENCE ALONG SAID LINE, SOUTH 89°56'46" EAST, A DISTANCE OF 10.98 FEET;

THENCE LEAVING SAID PROPERTY LINE, SOUTH 24°18'20" EAST, A DISTANCE OF 56.41 FEET;

THENCE SOUTH 19°26'13" EAST, A DISTANCE OF 34.01 FEET;

THENCE SOUTH 07°04'15" WEST, A DISTANCE OF 34.70 FEET;

THENCE SOUTH 33°46'51" WEST, A DISTANCE OF 24.22 FEET;

THENCE SOUTH 39°55'23" WEST, A DISTANCE OF 23.18 FEET;

THENCE SOUTH 14°20'15" WEST, A DISTANCE OF 40.33 FEET;

THENCE SOUTH 28°03'12" EAST, A DISTANCE OF 14.41 FEET;

THENCE SOUTH 08°54'02" EAST, A DISTANCE OF 15.55 FEET;

THENCE SOUTH 07°38'12" WEST, A DISTANCE OF 7.43 FEET, TO A POINT ON THE SOUTHERLY PROPERTY LINE OF SAID LOT 1;

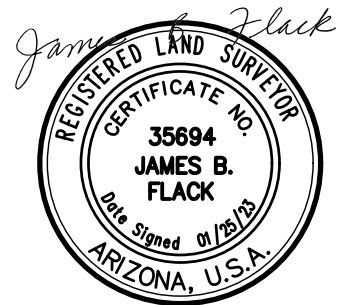
THENCE ALONG SAID LINE, SOUTH 89°59'48" WEST, A DISTANCE OF 20.18 FEET, TO THE **POINT OF BEGINNING**.

CONTAINING 5,203 S.F. (0.119 AC.); MORE OR LESS.



**DEVELOPMENT GROUP**

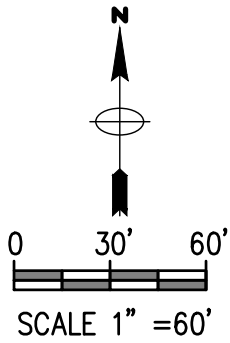
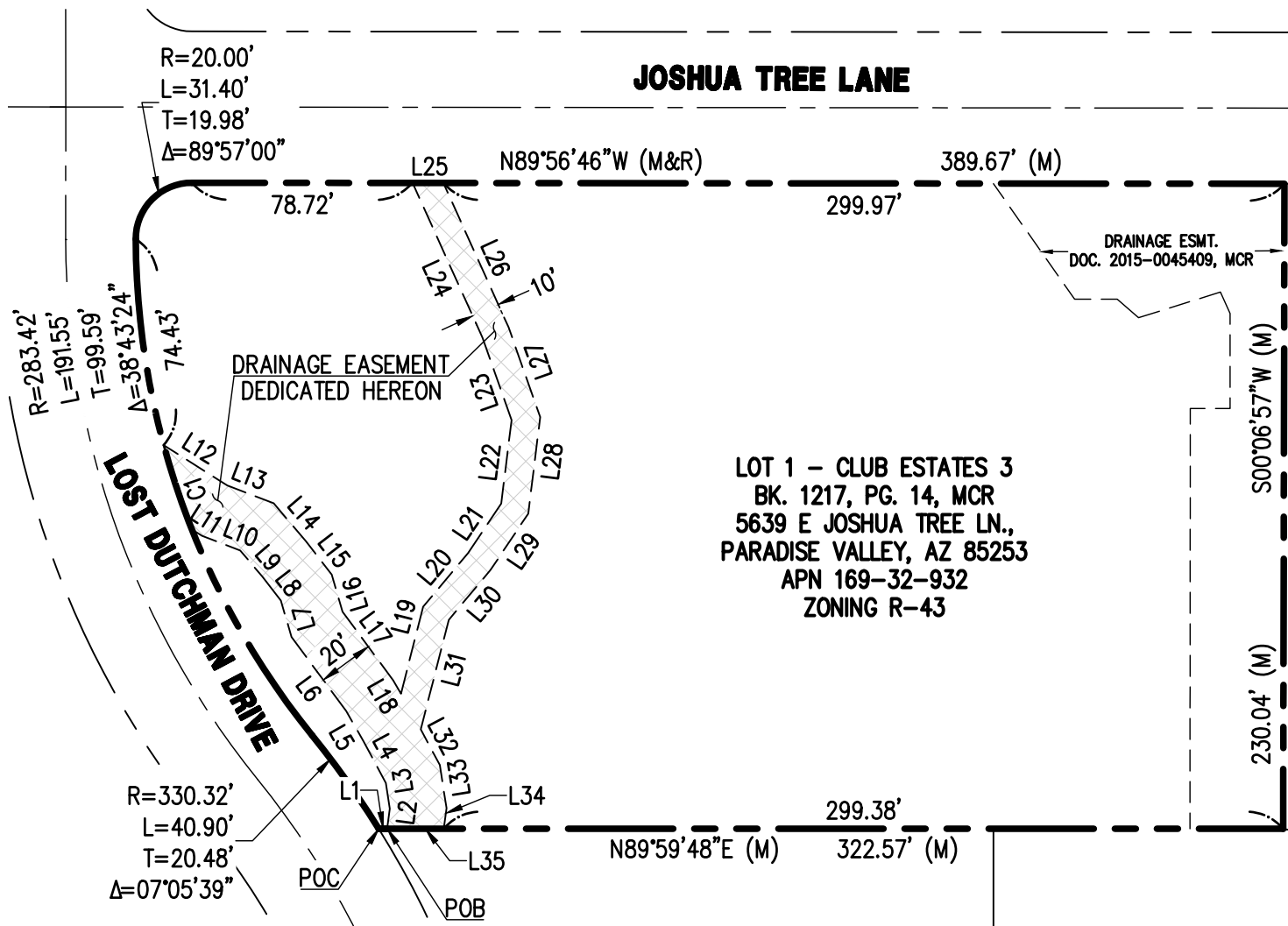
P 602 889 1984 | F 602 889 0501  
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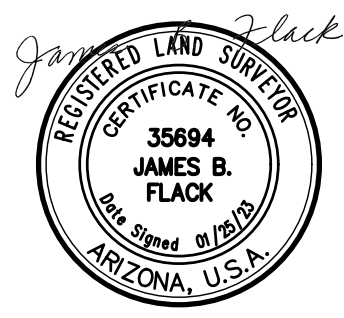
# EXHIBIT 'B'

## GRAPHIC DEPICTION

### DEDICATION OF DRAINAGE & FLOOD CONTROL EASEMENT



ALL EASEMENT VALUES ARE CALCULATED,  
 ALL OTHER VALUES ARE MEASURED AND  
 RECORDED, UNLESS OTHERWISE NOTED.



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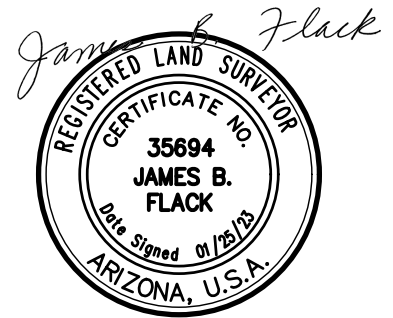
**EXHIBIT 'B'**  
**LINE & CURVE DATA TABLES**  
**DEDICATION OF DRAINAGE & FLOOD CONTROL EASEMENT**

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	3.01'	N89°59'48"E
L2	7.21'	N7°38'12"E
L3	9.27'	N8°54'02"W
L4	16.85'	N28°03'12"W
L5	12.49'	N29°53'19"W
L6	32.81'	N36°26'31"W
L7	13.56'	N16°19'11"W
L8	10.80'	N37°38'14"W
L9	12.19'	N40°23'28"W
L10	14.59'	N68°58'44"W
L11	4.29'	N57°38'11"W
L12	26.84'	S57°38'11"E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L13	17.70'	S68°58'44"E
L14	17.77'	S40°23'28"E
L15	15.05'	S37°38'14"E
L16	13.77'	S16°19'11"E
L17	30.40'	S36°26'31"E
L18	5.55'	S29°53'19"E
L19	32.04'	N14°20'15"E
L20	24.91'	N39°55'23"E
L21	21.31'	N33°46'51"E
L22	29.97'	N7°04'15"E
L23	31.23'	N19°26'13"W
L24	60.51'	N24°18'20"W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L25	10.98'	S89°56'46"E
L26	56.41'	S24°18'20"E
L27	34.01'	S19°26'13"E
L28	34.70'	S7°04'15"W
L29	24.22'	S33°46'51"W
L30	23.18'	S39°55'23"W
L31	40.33'	S14°20'15"W
L32	14.41'	S28°03'12"E
L33	15.55'	S8°54'02"E
L34	7.43'	S7°38'12"W
L35	20.18'	S89°59'48"W

CURVE TABLE						
CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	283.42'	31.67'	6°24'10"	15.85'	N18°27'08"W	31.65'



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 PHOENIX, AZ 85020 PHOENIX@LDGENG.COM



## WATER SERVICE IMPACT STUDY

# 5639 E Joshua Tree Lane, Paradise Valley, Arizona

LDG PROJECT #2104186

**Prepared for:**

Jose Meraz Jr. & Nuvia M. Gardea Frias  
5639 E Joshua Tree Ln.,  
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*

May 4<sup>th</sup>, 2022

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2. Domestic Water and Fire Suppression System .....	2
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Appendix A-2 Water Flow Test .....	5
Appendix A-3 Will Serve Letter .....	6



May 4<sup>th</sup>, 2022

## **1. INTRODUCTION**

This Water Service Impact Study and related design have been developed in accordance with the current Town of Paradise Valley Design Standards, Codes and adopted Ordinances. It provides engineering analysis and assessment of the required water services and fire flow demand for the proposed subdivision development - parcel 169-32-932, located at 5639 E Joshua Tree Lane, Paradise Valley, AZ 85253, and also being Lot 1 of Club Estates 3, a subdivision recorded in Book 1217 of Maps, Page 14, MCR, which is a portion of the NW ¼ of Section 9, 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, at the southwesterly foothills of Mummy Mountain and it is zoned R-43. The property is currently fully developed with a single-family residence built in 2011, sparsely vegetated and it is approximately 2.023 acres. The lot is facing the public right of way of Joshua Tree Lane (from the north property line) and Lost Dutchman Drive along the west property line. The site is surrounded by large residential lots from the south and east sides. The project will consist of the split of Lot 1 into two lots (Lot 1 & Lot 2, Club Estates No.7) and the future construction of a new single-family residence on Lot 2.

As a part of the project development process, a plat map subject to the Town of Paradise Valley review and approval is prepared and enclosed herein. The owner is proposing to split the property into two lots as it was originally platter. The proposed plat map defines the new property divider lines, new tract for private roadway, location and distances of new building setback lines, public utility easements and a new drainage easement at the second lot. All lots will meet the minimum required area of 1 acre per Chapter 6 of Town of Paradise Valley Code.

## **2. DOMESTIC WATER AND FIRE SUPPRESSION SYSTEM**

EPCOR Water supplies domestic water in the vicinity. There is a 6” main in Joshua Tree Lane. There is an existing water meter located in the property near the middle of the north property line, which could be utilized for future service.

New water service tap and meter will be required for the empty lot. There is an existing fire hydrant in Joshua Tree Lane, which is approximately 194’ east of the northeast property corner. A second fire hydrant is located along Lost Dutchman Drive being approximately 247’ south of the southwest property corner.

Fire flow test was conducted on March 13<sup>th</sup>, 2022 by Arizona Flow Testing, LLC and witnessed by EPCOR representative. Based on the results of the fire flow test, the existing water infrastructure is capable of supplying the required fire flow protection per the Town Code 13.1.6 (1,500 gpm at 20 psi). Fire sprinklers for the new residence will be fed off the domestic water service. Per the performed Hydrant Fire Flow Test, the fire hydrant could supply 751 gpm at 39 psi, and 1,790 gpm at 20 psi, which meets and exceeds the Town of Paradise Valley Code 13.1.6 (1,500 gpm at 20 psi) and Building Code requirements.

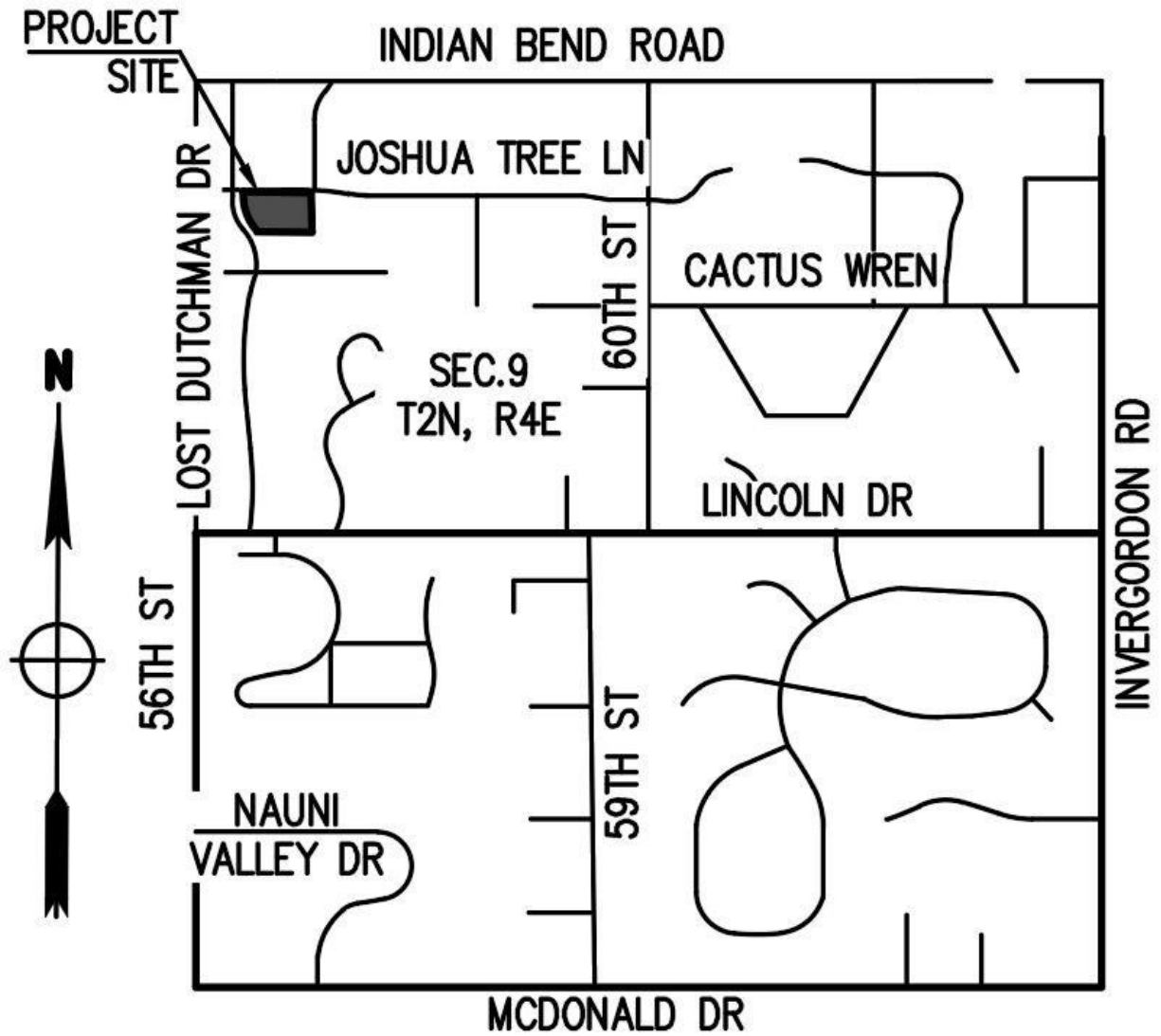
The Town of Paradise Valley is the sanitary sewer provider for this project. There are XX" sewer mains in Joshua Tree Lane. New sanitary sewer taps will be constructed to service Lots 1 & 2. The lots will be serviced by the new sewer main extension of the existing sewer main in Joshua Tree Lane.

### **3. REFERENCES**

- Town of Paradise Valley Design Standards & Policies.
- 2015 International Fire Code, Appendix B, Fire Flow Requirements for Buildings.

# APPENDIX A-1

## Vicinity Map



# **APPENDIX A-2**

## **Water Flow Test**

# Arizona Flow Testing LLC

## HYDRANT FLOW TEST REPORT

Project Name: Not Provided  
Project Address: 5639 East Joshua Tree Lane, Paradise Valley, Arizona 85253  
Client Project No.: Not Provided  
Arizona Flow Testing Project No.: 21370  
Date and Time flow test conducted: October 13, 2021 at 7:30 AM  
Data is current and reliable until: March 13, 2022  
Conducted by: Floyd Vaughan – Arizona Flow Testing, LLC (480-250-8154)  
Witnessed by: Garren Willey – EPCOR Water (480-450-4670)

### Raw Test Data

Static Pressure: **50.0 PSI**  
(Measured in pounds per square inch)

Residual Pressure: **44.0 PSI**  
(Measured in pounds per square inch)

Pitot Pressure: **20.0 PSI**  
(Measured in pounds per square inch)

Diffuser Orifice Diameter: One 2.5-inch Pollard Diffuser  
(Measured in inches)

Coefficient of Diffuser: 0.9

Flowing GPM: **751 GPM**  
(Measured in gallons per minute)

GPM @ 20 PSI: **1,790 GPM**

### Data with 10 % Safety Factor

Static Pressure: **45.0 PSI**  
(Measured in pounds per square inch)

Residual Pressure: **39.0 PSI**  
(Measured in pounds per square inch)

Distance between hydrants: Approx. 1,170 Feet

Main size: Not Provided

Flowing GPM: **751 GPM**

GPM @ 20 PSI: **1,622 GPM**

### Flow Test Location

North ↑





# **APPENDIX A-3**

## **Will Serve Letter**



2355 West Pinnacle Peak Road, Suite 300  
Phoenix, AZ 85027 USA  
[epcor.com](http://epcor.com)

January 6, 2023

Nick Prodanov  
LDG  
Civil Engineering / Land Surveying  
8808 N. Central Ave. Ste. 288  
Phoenix, AZ 85020  
Sent via e-mail to: [nick@ldgeng.com](mailto:nick@ldgeng.com)

Re: Will Serve Letter for Water Service  
5639 E. Joshua Tree Lane (the "Property")

Dear Mr. Prodanov,

This letter is in response to your request for a Will-Serve Letter from EPCOR Water Arizona Inc. ("EPCOR") for the Property shown in Exhibit A. EPCOR confirms that the Property is located within the area encompassed by EPCOR's Certificate of Convenience and Necessity ("CC&N"), and is specifically located within EPCOR's Paradise Valley District. EPCOR will provide water service to the Property in accordance with EPCOR's tariffs, the Arizona Corporation Commission's rules and regulations, and, if applicable, the terms and conditions of a Main Extension Agreement. It is the applicant's responsibility to design and construct, at its sole cost, the necessary water facilities (the "Facilities") to serve the Property subject to EPCOR's approval.

The design of the Facilities must comply with EPCOR's standard specifications and the Arizona Department of Environmental Quality's rules and regulations. The applicant shall not begin construction of any part of the Facilities for the Property without the prior written approval of such construction by EPCOR.

This letter does not independently create any rights or obligations in either the applicant or EPCOR and is provided to the applicant for information only. Any agreement between the applicant and EPCOR for service to the Property must be memorialized in a written agreement, signed and delivered by their respective authorized representatives prior to construction.

Please contact me if you have any questions at (623) 445-2438 or at [jwhelan@epcor.com](mailto:jwhelan@epcor.com)

Sincerely,

A handwritten signature in black ink that reads "Joe Whelan". The signature is written in a cursive, flowing style.

Joe Whelan  
Project Manager



**CONSTRUCTION COST ESTIMATE**

**OFF-SITE HALF STREET IMPROVEMENTS - CURB CONSTRUCTION**

PROJECT: **CLUB ESTATES NO. 7 - LOT 1**  
 PROJECT #: **2104186**  
 LOCATION: **5639 E Joshua Tree Ln, PARADISE VALLEY, ARIZONA**  
 CLIENT: **JOSE MERAZ JR.**  
 DATE: **12/19/2022**

ITEM NO.	DESCRIPTION	UNIT	UNIT COST	QUANTITY	TOTAL
1	ENGINEERING DESIGN. CONSTRUCTION STAKING. CONSTRUCTION ADMINISTRATION.	LS	\$18,000	1	\$18,000
2	CONSTRUCTION PHASING, MAINTANANCE, TEMPORARY TRAFFIC CONTROL	LS	\$5,000	1	\$5,000
3	MOBILIZATION/DEMOBILIZATION	EA	\$4,000	1	\$4,000
4	PERMITS & FEES	EA	\$3,500	1	\$3,500
5	SAWCUT & REMOVE 2' MIN. A.C. PAVEMENT IN KIND TO PROVIDE A CLEAN STRAIGHT EDGE.	SY	\$10	43	\$430
6	CONSTRUCT 2' WIDE RIBBON CURB PER MAG STD DET 220-1, TYPE B.	LF	\$10	192	\$1,920
<b>COST CIVIL IMPROVEMENTS</b>					<b>\$32,850</b>
<b>CONTINGENCY @ 10%</b>					<b>\$1,643</b>
<b>TOTAL COST CIVIL IMPROVEMENTS</b>					<b>\$34,493</b>



**CONSTRUCTION COST ESTIMATE**

**OFF-SITE HALF STREET IMPROVEMENTS - CURB CONSTRUCTION**

PROJECT: **CLUB ESTATES NO. 7 - LOT 2**  
 PROJECT #: **2104186**  
 LOCATION: **5629 E Joshua Tree Ln, PARADISE VALLEY, ARIZONA**  
 CLIENT: **JOSE MERAZ JR.**  
 DATE: **12/19/2022**

ITEM NO.	DESCRIPTION	UNIT	UNIT COST	QUANTITY	TOTAL
1	ENGINEERING DESIGN. CONSTRUCTION STAKING. CONSTRUCTION ADMINISTRATION.	LS	\$18,000	1	\$18,000
2	CONSTRUCTION PHASING, MAINTANANCE, TEMPORARY TRAFFIC CONTROL	LS	\$5,000	1	\$5,000
3	MOBILIZATION/DEMOBILIZATION	EA	\$4,000	1	\$4,000
4	PERMITS & FEES	EA	\$3,500	1	\$3,500
5	SAWCUT & REMOVE 2' MIN. A.C. PAVEMENT IN KIND TO PROVIDE A CLEAN STRAIGHT EDGE.	SY	\$10	110	\$1,100
6	CONSTRUCT 2' WIDE RIBBON CURB PER MAG STD DET 220-1, TYPE B.	LF	\$10	489	\$4,890
<b>COST CIVIL IMPROVEMENTS</b>					<b>\$36,490</b>
<b>CONTINGENCY @ 10%</b>					<b>\$1,825</b>
<b>TOTAL COST CIVIL IMPROVEMENTS</b>					<b>\$38,315</b>





# Demolition Proposal

**Original**

2425 N. Center St.  
 Mesa, AZ 85201  
 Office: 480-892-8025  
 Fax: 480-892-8097  
 ROC 285712

To: Cal Christiansen & Company  
 Contact: Cal Christiansen  
 Address:  
 City State:  
 Phone: 602-376-0359  
 Email: [calchristiansen@yahoo.com](mailto:calchristiansen@yahoo.com)

Date: 4/15/2022  
 Proposal #: RC-5639-D  
 Job Name: Joshua Tree  
 Address: 5639 E Joshua Tree Lane  
 City Zip: Paradise Valley AZ  
 Estimator: Rafe Cox

**ALL CONTRACTS NEED TO BE WRITTEN UNDER MARKS DEMOLITION & EXCAVATING**

	Demolition Scope of Work	Quantities
1	Remove existing roof complete at ramada leave pillars in place	1 LS
<b>Current proposal valid for 30 days from date received</b>		
<b>Revisions will reflect current fuel prices</b>		
.		
	<b>Subtotal Demolition Scope of Work</b>	<b>\$ 12,850.00</b>
	<b>Applicable Taxes -</b>	<b>\$ -</b>
	<b>Total Demolition Scope of Work</b>	<b>\$ 12,850.00</b>

**Project Inclusions / Exclusions**

Price based on non weekend work consecutive work days, excluding holidays  
 Price based on (1) mobilization  
 Price excludes dust barrier and floor protection for improvements to remain  
 Price excludes removal of items to be reused, salvaged, relocated or reinstalled by others  
 Price excludes asbestos survey and asbestos removal  
 Price excludes lay-out  
 Price excludes utility disconnections  
 Price excludes shoring and bracing  
 Price excludes taxes & permits

\* By signing below you agree to the above scope of work, inclusions, exclusions and contract price.  
 \* You also agree that the area in the above project scope have been inspected by an AHERA-certified building inspector to the fullest extent possible and is free of all asbestos containing materials.

Date \_\_\_\_\_ Signature: \_\_\_\_\_  
 Signature: \_\_\_\_\_



*A subsidiary of Pinnacle West Capital Corporation*

Station 4031  
P.O. Box 53933  
Phoenix, AZ 85072-3933  
[www.aps.com](http://www.aps.com)

4/10/2023

Civil Engineering-Land Surveying  
Nick Prodanov  
8808 n Central Ave Suite 288  
Phoenix AZ 85020

Re: **5639 E Joshua Tree Ln**

Dear: Nick Prodanov

The above referenced project is located in Arizona Public Service Company's electric service area. The Company extends its lines in accordance with the "Conditions Governing Extensions of Electric Distribution Lines and Services," Schedule 3, and the "Terms and Conditions for the Sale of Electric Service," Schedule 1, on file with the Arizona Corporation Commission at the time we begin installation of the electric facilities.

Application for the Company's electric service often involves construction of new facilities for various distances and costs depending upon customer's location, load size and load characteristics. With such variations, it is necessary to establish conditions under which Arizona Public Service will extend its facilities.

The enclosed Schedule 3 policy governs the extension of overhead and underground electric facilities to customers whose requirements are deemed by Arizona Public Service to be usual and reasonable in nature.

Sincerely,

*Adrienne Brennan*

**Adrienne Brennan | Administrative Coordinator – T&D Customer Construction East**

Physical: 4612 E Bell Rd.

Mailing: PO Box 53999, M.S. 4031 Phoenix, AZ 85004

[CCEControlDesk@apsc.com](mailto:CCEControlDesk@apsc.com)

[Adrienne.Brennan@aps.com](mailto:Adrienne.Brennan@aps.com)

(602) 493-4401 Cell







*A subsidiary of Pinnacle West Capital Corporation*

Station 4031  
P.O. Box 53933  
Phoenix, AZ 85072-3933

4/10/2023

Civil Engineering-Land Surveying  
Nick Prodanov  
8808 n Central Ave Suite 288  
Phoenix AZ 85020

Re: **5639 E Joshua Tree Ln**

Dear: Nick Prodanov

Thank you for your recent request for a utility conflict review.

The APS maps show facility locations adjacent to or within the property shown on the proposed plans we received from your company. **The utility locations are approximate only and are not reliable for construction purposes.** It is important to note that there may be additional conflicts in existence due to recent construction that are not shown on the current maps you receive. We have requested the maps from our Mapping Department, you should receive the map(s) by email within 5-7 business days.

Please be advised that it is the responsibility of the customer to maintain proper clearances and Blue Stake prior to digging. For actual conditions, please contact Arizona Blue Stake Center at (602) 263-1100, 811, or [www.arizona811.com](http://www.arizona811.com) for Blue Stake to be performed.

Further information is also available on the APS Construction Services at:

[www.aps.com/construction](http://www.aps.com/construction)

Sincerely,

*Adrienne Brennan*

**Adrienne Brennan | Administrative Coordinator – T&D Customer Construction East**

Physical: 4612 E Bell Rd.

Mailing: PO Box 53933, M.S. 4031 Phoenix, AZ 85004

[CCEControlDesk@apsc.com](mailto:CCEControlDesk@apsc.com)

Adrienne.Brennan@aps.com

(602) 493-4401 Cell



## TERMS AND CONDITIONS

I am a representative for the above-named Requesting Party, and I am authorized by the Requesting Party to agree to this request form on behalf of the Requesting Party.

The Requesting Party represents and warrants that the Business Purpose for requesting the GIS Map that is checked on this request form is accurate, and Requesting Party will only use the GIS Map for this Business Purpose.

The data and information on the GIS Map resulted from the compilation efforts of APS, or otherwise represents or contains a work of authorship, security sensitive information, or APS trade secrets. As such, the requested GIS Map is the proprietary and/or confidential information of APS. APS retains ownership of the map which is provided for the sole use of the Requesting Party.

**Unless the Requesting Party has received APS's prior written consent, which APS may withhold at its discretion, the Requesting Party shall maintain the confidentiality of the GIS Map and not assign, license, distribute, disclose or transfer the GIS Map to any other person, company, corporation or other entity, or use or copy the GIS Map other than for the Business Purpose.**

The Requesting Party represents and agrees that the GIS Map is not being requested for litigation purposes and Requesting Party shall inform APS, as soon as possible and in writing, if others request the GIS Map or any portion thereof in any court proceeding or other tribunal.

APS PROVIDES THE GIS MAP AS IS AND MAKES NO EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION REGARDING THE GIS MAP, INCLUDING BUT NOT LIMITED TO ANY WARRANTY AS TO MERCHANTABILITY OR ACCURACY OF THE INFORMATION, FITNESS FOR ANY PARTICULAR PURPOSE, OR INFRINGEMENT.

To the full extent allowed by law, in no event shall APS be liable to Requesting Party for any damages whatsoever resulting from or related to the GIS Map or its use, including but not limited to direct, indirect, special, incidental, consequential or exemplary damages.

The Requesting Party acknowledges that the unauthorized disclosure of the GIS Map, or portion thereof, may cause irreparable harm and significant injury to APS that may be difficult to ascertain. Requesting Party therefore agrees that specific performance or injunctive relief, in addition to other legal and equitable relief, are appropriate remedies for any actual or threatened violation or breach of this agreement.

I agree to the Terms and Conditions



**General Design Guidelines  
For  
Proposed Improvements  
In APS Transmission ROW**

**1/15/14**

Any improvements within Arizona Public Service Company's (APS) Transmission easement/ right of way (collectively, ROW) must have written approval which is given by APS in the form of an Encroachment Agreement. A SIGNED *ENCROACHMENT AGREEMENT* / APPROVAL LETTER IS REQUIRED PRIOR TO BEGINNING CONSTRUCTION.

To obtain *An Encroachment Agreement*, plans must be submitted to the APS Land Services Department where they will undergo a process of review, revision (if necessary), and approval. The review process should begin early in the design process to obtain approval of plans prior to construction. Upon approval of the final plans, an Encroachment Agreement will be drafted by the APS Land Services Department and sent to the Landowner for signature. The *Encroachment Agreement*, including an exhibit will be recorded at the County Recorder's Office. The approved plans are retained by APS.

General guidelines for the *Encroachment Agreement* process are as follows:

1. All plans submitted to APS must be drawn "to scale",  
Plans should be submitted to:  
  
APS  
Attention: Land Services Department  
Mail Station 3286  
P.O. Box 53933  
Phoenix, AZ 85072-3933
2. All plans must show APS ROW boundaries.
3. All plans must show existing APS facilities, including poles/towers, equipment enclosures, overhead/underground wire locations and identifying equipment numbers when available.
4. Plans must show all proposed improvements within APS ROW, including utilities, paving, grading, drainage, lighting, landscaping, etc.
5. Lighting structures must meet APS electrical clearances with respect to our overhead conductors and towers/poles. The lighting design and construction must also meet OSHA requirements. In general, lighting

- structures 12 ft high or less should not violate APS electrical clearances. Proposed lighting plans need to be reviewed and approved by APS. APS may require the land owner to provide a Survey of APS facilities as part of calculating clearances and approving lighting within the ROW.
6. In general, trees are prohibited within APS ROW. In special cases some landscaping, including low growing type trees, may be allowed provided they do not interfere with the maintenance of existing or future transmission lines. All proposed landscaping in APS ROW plans need to be reviewed and approved.
  7. APS does not allow temporary or permanent structures within our ROW. Structures, by way of example shall include, but are not limited to buildings, mobile homes, recreational vehicle parking or storage, storage tanks, septic systems, swimming pools, tennis courts, dumpsters, dry wells, or similar facilities.
  8. Retention basins will need to be designed by the customer to adhere to the Storm Water Retention Basin Design Guidelines and site-specific comments from APS. (Please contact APS to obtain a copy of the Storm Water Retention Basin Design Guidelines.) Any deviation from this guideline will require APS approval.
  9. Any fencing that is constructed across APS ROW must have a 16-foot dual-lock gate installed at each end of the right-of-way area. Metal fencing must be properly grounded. APS must maintain access along its line.
  10. Maintenance equipment / crane setup areas are required at poles/towers and at intervals parallel to the wires. The setup area at a pole / tower differs depending upon the voltage of the line. The EHV (115KV, 230KV and 500KV) pole/tower setup area is generally defined as, a length of approximately 50 ft in each direction from the pole or tower foundations or by the width of the ROW. The 69KV pole setup area is generally defined as, a length of approximately 30 ft in each direction from the pole, by the width of the ROW. Depending upon the transmission line voltage, the distance between setup areas along the wires and the size of the setup

areas will vary. Due to the complexity of issues involved, pole setup areas and wire setup areas will need to be designed by the landowner's consultants based upon input from APS. (The APS Storm Water Retention Basin Design Guidelines drawing also contains general design information for pole/tower and wire setup areas.)

11. Parking lots are an acceptable use of APS ROW. There are specific requirements for orientation with respect to traffic flow. Maintenance paths and crane setup areas will need to be incorporated into the parking lot design based upon input from APS.
12. All pipes, manholes, or other proposed facilities to be located at or below grade in APS ROW must be designed to withstand a minimum of 320 psi on a 27 inch diameter outrigger pad. Load calculations sealed by an Arizona licensed Civil Engineer must be provided to APS for review.
13. NO GRADE CHANGES/ CUT OR FILL IS PERMITTED WITHIN APS ROW WITHOUT PRIOR WRITTEN APPROVAL. APS has specific requirements for excavations near APS poles, towers, and facilities.
14. For Transmission pole bracing, pole relocations, or transmission line conflict checks, please contact APS Transmission Line Maintenance Department at 602 371-7242
15. APS does not allow recreational pool encroachments into its ROW, whether the ROW is created by private easement or by Public Utility Easement (PUE). If the permitting agency requires concurrence from APS in order to issue a permit, please contact the Land Services Department at 602-371-5966 for instructions.
16. MINIMUM OSHA SAFE WORKING DISTANCES SHALL BE MAINTAINED AT ALL TIMES ONCE AN APPROVED ENCROACHMENT AGREEMENT HAS BEEN AUTHORIZED BY APS. APS WILL PROVIDE UPON REQUEST. SPECIFIC SAFE WORKING DISTANCES DEPENDING ON THE VOLTAGES OF THE LINES WITHIN THE ROW'S.



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

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**General Description**

This schedule establishes the terms and conditions under which Company will extend, relocate, and upgrade its facilities in order to provide service. Provision of electric service from Arizona Public Service Company (Company) may require construction of new facilities or the relocation or upgrade of existing facilities. Costs for construction depend on the applicant's location, scope of project, load size, and load characteristics. Costs include, but are not limited to, project management, coordination, engineering, design, surveys, permits, construction inspection, and support services.

All facility installations and upgrades will be made in accordance with good utility construction practices, as determined by Company, and are subject to the availability of adequate capacity, voltage and Company facilities at the beginning point of an extension as determined by Company.

The following provisions govern the installation of overhead and underground electric distribution facilities to applicants whose requirements are deemed by Company to be usual and reasonable in nature.

**1. Definitions**

- 1.1. **APS Approved Electrical Distribution Contractor** means an electrical contractor who is licensed in the State of Arizona and properly qualified to install electric distribution facilities in accordance with Company standards and good utility construction practices as determined by Company.
- 1.2. **Backbone Infrastructure** means the electrical distribution facilities typically consisting of main three-phase feeder lines and/or cables, conduit, duct banks, manholes, switching cabinets and capacitor banks.
- 1.3. **Conduit Only Design** means the conduit layout design for the installation of underground Extension Facilities that will be required when the Extension Facilities are to be installed at a later date.
- 1.4. **Conversion** means converting overhead distribution facilities to underground facilities.
- 1.5. **Corporate Business and Industrial Park Development** means a tract of land which has been divided into contiguous lots in which a developer offers improved lots for sale and the purchaser of the lot is responsible for construction of buildings for commercial or industrial use.
- 1.6. **Doubtful Permanency** means a customer who in the opinion of the Company is neither Permanent nor Temporary. Service which, in the opinion of the Company, is for operations of a speculative character is considered Doubtfully Permanent.
- 1.7. **Economic Feasibility** means a determination by Company that the estimated annual revenue based on Company's then currently effective rate for delivery service (excluding taxes, regulatory assessment and other adjustments) less the cost of service provides an adequate rate of return on the investment made by Company to serve the applicant.
- 1.8. **Execution Date** means the date Company signs the agreement after the applicant has signed the agreement and money has been collected by company.
- 1.9. **Extension Facilities** means the electrical facilities, including conductors, cables,





**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

- transformers, and related equipment, installed solely to serve an individual applicant or groups of applicants. For example, the Extension Facilities to serve a Residential Subdivision would consist of the line extension required to connect the subdivision to Company's existing system as well as Company's electrical facilities constructed within the subdivision which would include primary and service lines, and transformers.
- 1.10. **High Rise Development** means a building built with four or more floors (usually using elevators for accessing floors) that may consist of residential or non-residential use, or a combination of both residential and non-residential uses.
  - 1.11. **Irrigation** means water pumping service.
  - 1.12. **Line Extension Agreement** means the contractual agreement between Company and applicant that defines applicant payment requirements, terms of refund, scope of project, estimated costs, and construction responsibilities for Company and the applicant. Line Extension Agreements may be assigned to applicants successors in interest with Company approval, which approval will not be unreasonably withheld.
  - 1.13. **Master Planned Community Development** means a development that consists of a number of separately subdivided parcels for different Residential Subdivisions. The development may also incorporate a variety of uses including multi-family, non-residential, and public use facilities.
  - 1.14. **Master Meter** means a meter for measuring or recording the flow of electricity that has passed through it at a single location where said electricity is distributed to tenants or occupants for their individual usage.
  - 1.15. **Metro Area** means a city with a population of 750,000 or more and its contiguous and surrounding communities.
  - 1.16. **Mixed-Use Development** means a development that consists of both residential and non-residential uses, such as a building with three stories or less, where the first level is for commercial purposes and the upper floors are for residential units, or a development that includes an apartment complex and a commercial center, or a development that includes a subdivision and a water treatment plant.
  - 1.17. **Permanent** means a customer who is a tenant or owner of a service location who applies for and receives electric service, which, in the opinion of the Company, is of a permanent and established character. The use of electricity may be continuous, intermittent, or seasonal in nature. Permanency at the service location may be established by such things as city/county/state permits, a permanent water system, an approved sewer/septic system, or other permanent structures.
  - 1.18. **Project-Specific Cost Estimate** means cost estimates that are developed recognizing the unique characteristics of large or special projects to which the Schedule of Charges is not applicable. A Project-Specific Cost Estimate provided to an applicant is valid for a period of up to six months from the date the estimate is provided to the applicant.
  - 1.19. **Relocation** means moving a distribution line or facilities from its current location to a new location.
  - 1.20. **Residential "Lot Sale" Development** means a tract of land that has been divided into four or more contiguous lots in which a developer offers improved lots for sale and the purchaser of the lot is responsible for construction of a residential home and the costs to provide service, which may include backbone, transformer and service.
  - 1.21. **Residential Multi-Family Development** means a development consisting of apartments, condominiums, or townhouses with less than four floors.



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

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- 1.22. **Residential Single Family** means a house, or a manufactured or mobile home Permanently affixed to a lot or site.
  - 1.23. **Residential Subdivision** means a tract of land, which has been divided into four or more contiguous lots with an average size of one acre or less, in which the developer is responsible for the costs to provide service, including backbone, transformers and services for the residential homes or permanent manufactured or mobile home sites.
  - 1.24. **Residual Value** means the remaining un-depreciated original cost of the existing facilities to be removed
  - 1.25. **Arizona Rural Municipality** means Arizona incorporated cities and towns with populations of less than 150,000 (based on U.S. Census Bureau 2010 population data) not contiguous with or situated within a Metro Area.
  - 1.26. **Rural Municipal Business Development** means a tract of land which has been divided into contiguous lots, is owned and developed by an Arizona Rural Municipality, and where the Arizona Rural Municipality will be the lease-holder for future permanent applicants.
  - 1.27. **Schedule of Charges** means the list of charges that is used to determine the applicant's cost responsibility for the Extension Facilities.
  - 1.28. **Service Entrance Upgrade** means the replacement of the customer's electric panel to one with larger load capacity. This includes panels that are upgraded to a larger amperage rating, greater voltage or additional phases (1 phase to 3 phase).
  - 1.29. **Temporary** means premises or enterprises which are temporary in character, or where it is known in advance that the Extension Facilities will be of limited duration.

## **2. General Provisions for Service**

- 2.1. **Applicant Classification** - For the purposes of this Service Schedule 3, applications for Extension Facilities will be classified as "Residential" or "General Service" as listed below, and further described in the referenced sections.
  - (A) Residential classifications are: "Residential Single Family Home" (Section 3), "Residential Subdivision Developments" (Section 4), "Residential "Lot Sale" Developments (Section 5), "Master Planned Community Developments" (Section 6) or "Residential Multi-Family Developments" (Section 7).
  - (B) General Service classifications are: "Basic General Service" (Section 9), "High Rise Developments" (Section 10), Mixed-Use Developments (Section 11), "Corporate Business & Industrial Park Developments" (Section 12), Temporary Applicants (Section 13), and Doubtful Permanency Customers (Section 14).
- 2.2. **Schedule of Charges** - An applicant requesting an extension will be provided a sketch showing the Extension Facilities and an itemized cost quote based on the Schedule of Charges or other applicable details. The Schedule of Charges is attached to this Service Schedule as Attachment 1. When the Schedule of Charges is not applicable, charges for Extension Facilities will be determined by the Company based on Project-Specific Cost Estimates. The Schedule of Charges is not applicable for the following:
  - (A) Extension Facilities requiring modifications, removal, relocations or conversions of existing facilities in conjunction with a new extension or existing customer requested upgrade. The removal, replacement, conversion, and new Extension



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

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Facilities charges will be determined by a combination of Schedule of Charges and a Project-Specific Cost Estimate depending on the scope of the project and may include residual value costs as computed in accordance with the method described in A.R.S 40-347.

- (B) Extension Facilities required for modifications, relocations or conversions of existing facilities not in conjunction with a new extension or existing customer upgrade.
- (C) Extension Facilities for General Service applicants with estimated demand loads of three megawatts or greater, or that require in aggregate 3,000 kVA of transformer capacity or greater.
- (D) Extension Facilities that require three-phase transformer installations greater than the sizes noted in the Schedule of Charges.
- (E) Extension Facilities required for High Rise Developments, Mixed-Use Developments, Master Planned Developments or Temporary service.
- (F) Extension Facilities involving spot networks, vault installations, primary metering, or specialized or additional equipment for enhanced reliability.
- (G) Special studies, leases or permits required by the city, county, state or federal governmental agency for installing electric facilities on private, government or public lands.

**2.3. General Underground Construction Policy** - With respect to all underground installations under a Line Extension Agreement, Company will install underground facilities only if all of the following conditions are met:

- (A) The Extension Facilities meet all requirements as specified in "Residential" or "General Service" Sections 2.1 (A) & (B) of this Service Schedule 3.
- (B) The applicant signs a trench agreement and provides all earth-work including, but not limited to, trenching, boring or punching, backfill, compaction, and surface restoration in accordance with Company specifications.
- (C) The applicant provides installation of equipment pads, pull-boxes, manholes, conduits, and appurtenances as required and in accordance with Company specifications.
- (D) In lieu of applicant providing these services and equipment, the applicant may pay Company to provide these services and equipment as a non-refundable contribution in aid of construction. The payment will equal the cost of such work plus any administrative or inspection fees incurred by Company. Applicants electing this option will be required to sign an agreement indemnifying and holding Company harmless against claims, liabilities, losses or damage (Claims) asserted by a person or entity other than Company's contractors, which Claims arise out of the trenching and conduit placement, provided the Claims are not attributable to the Company's gross negligence or intentional misconduct.

**2.4. Refunds** – The following general refund conditions will apply:

- (A) No refund will be made to any applicant for an amount more than the unrefunded balance of the applicant's refundable advance.
- (B) Company reserves the right to withhold refunds to any applicant who is delinquent on any account, agreement, or invoice, including the payment of



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

- 
- electric service, and may apply these refund amounts to past due bills.
- (C) The refund eligibility period for Basic General Service and High Rise Development will be five years from the date Company executes the Line Extension Agreement with the applicant. Any unrefunded advance balance will become a non-refundable contribution in aid of construction five years from the Execution Date of the agreement.
  - (D) The refund eligibility period for Residential Subdivisions and Multi-Family Developments will be five years and will start three months from the date Company executes the Line Extension Agreement with the applicant. Any unrefunded advance balance will become a non-refundable contribution in aid of construction five years from the Execution Date of the agreement.
  - (E) Refunds will be mailed to the applicant of record noted on the executed agreement no later than 60-days from the annual review date.

2.5. **Interest** - All refundable advances made by the applicant to the Company will be non-interest bearing.

2.6. **Ownership** - Except for applicant owned facilities, all Extension Facilities installed in accordance with this Service Schedule 3 will be owned, operated, and maintained by Company.

## **RESIDENTIAL**

### **3. Residential Single Family Homes**

3.1. Extension Facilities will be installed to new Permanent residential applicants or groups of new Permanent residential applicants on a free footage basis under the following conditions:

- (A) A Line Extension Agreement signed by the applicant and construction costs in excess of the allowances, as described in 3.1(C) and 3.2 will be paid by the applicant before the Company begins installing facilities. Payment is due at the time the Line Extension Agreement is signed by the applicant.
- (B) The site plan has been approved and recorded in the county having jurisdiction.
- (C) The total footage of the Extension Facilities (primary, secondary, service) does not exceed 750 feet per applicant or \$10,000; or
- (D) The total cost of the Extension Facilities, as determined by Company, is less than \$10,000 per applicant.

3.2. All additional construction costs over \$10,000 per applicant will be paid by applicant as a non-refundable contribution in aid of construction.

3.3. Applicants who combine to form a group may also combine their allowance as specified in Sections 3.1(C) and 3.2.

3.4. The cost of extending service to applicant will be determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

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Estimate depending on the scope of the project which will exclude the cost of one single-phase transformer.

- 3.5. The footage allowance of 750 feet and the cap of \$10,000 will be reviewed from time to time with the Arizona Corporation Commission.
- 3.6. Examples of the application of Section 3.1 can be found in Attachment 2 – Free Footage Illustrative Example.

#### **4. Residential Subdivision Developments**

- 4.1. Extension Facilities will be installed to Residential Subdivision developments of four or more homes in advance of application for service by Permanent customers under the following conditions:
  - (A) A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of construction by the Company. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The subdivision development plat has been approved and recorded in the county having jurisdiction. Applicant is responsible for providing Company an approved subdivision plat prior to project design. If final approved plat is different from what was originally submitted to Company it may cause delays and additional cost for redesign.
- 4.2. The cost of extending service to applicant will be determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost Estimate depending on the scope of the project.
- 4.3. A portion of the project cost will be designated as a refundable advance and will be eligible for refund based on the “per lot” allowance provisions of Section 4.6 and in accordance with Section 2.4.
- 4.4. In lieu of a cash payment for the refundable advance amount, the Company will reserve the right to accept an alternative financial instrument, such as a Letter of Credit or Surety Bond, based on the financial condition or organizational structure of developer.
- 4.5. That portion of the project cost in excess of the refundable advance will be non-refundable in addition to any other non-standard construction charges such as street lights.
- 4.6. The refundable advance will be eligible for refund based on a “per lot” allowance of \$3,500 for each Permanently connected residential customer over a five year period. Refunds of refundable advances will be governed by Section 2.4. The refund eligibility period will be five years which will start three months from the date Company executes the Line Extension Agreement with the applicant. A review of the project will be conducted annually to determine subdivision buildout, and if the qualifications have been met for any refunds.
- 4.7. Examples of the application of Section 4 can be found in Attachment 3 – Residential



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Subdivision Illustrative Example.

## 5. Residential “Lot Sale” Developments

- 5.1. Extension Facilities will be installed to residential “Lot Sale” developments in advance of application for service by Permanent applicants under the following conditions:
  - (A) A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The development plat has been approved and recorded in the county having jurisdiction.
- 5.2. The cost of extending service to applicant will be determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost Estimate depending on the scope of the project.
- 5.3. The applicant will pay the total project estimated cost as a non-refundable contribution in aid of construction in addition to costs for street lights and other non-standard construction charges.
- 5.4. Company will provide a “Conduit Only Design” provided applicant makes a payment in the amount equal to the estimated cost of the preparation of the design, in addition to the costs for any materials, field survey and inspections that may be required. Future extensions in the development will be required to follow the original design plan
- 5.5. Extension Facilities will be installed to individual applicants in accordance with provisions listed in Section 3.

## 6. Master Planned Community Developments

- 6.1. Extension Facilities will be installed to Master Planned Community Developments in advance of application for service by Permanent applicants under the following conditions:
  - (A) A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The site development plan has been approved and recorded in the county having jurisdiction.
- 6.2. The cost of extending service to applicant will be determined by a Project-Specific Cost Estimate based on the scope of the project.
- 6.3. The applicant will pay the total project estimated cost as a non-refundable contribution in aid of construction in addition to costs for street lights and other non-standard construction charges.



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
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6.4. Extension Facilities will be installed to each subdivided tract within the planned development in accordance with the applicable sections of this Service Schedule 3.

**7. Residential Multi-Family Developments**

7.1. Extension Facilities will be installed to Residential Multi-Family Developments in advance of application for service by Permanent customers under the following conditions:

- (A) A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
- (B) The site development plan has been approved and recorded in the county having jurisdiction.

7.2. The cost of extending service to applicant will be determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost estimate depending on the scope of the project.

7.3. A portion of the project cost will be designated as a refundable advance and will be eligible for refund based on the "per unit" refundable allowance provisions of Section 7.6 and in accordance with Section 2.4.

7.4. In lieu of a cash payment for the refundable advance amount, the Company will reserve the right to accept an alternative financial instrument, such as a Letter of Credit or Surety Bond, based on the financial condition, or organizational structure of applicant.

7.5. That portion of the project cost in excess of the refundable advance will be non-refundable in addition to any other non-standard construction charges such as street lights etc.

7.6. The refundable advance will be eligible for refund based on a "per unit" allowance of \$1,000 for each new meter, installed for a permanent residential structure, over a five year period. Refunds of refundable advances will be governed by Section 2.4. The refund eligibility period will be five years which will start three months from the date Company executes the Line Extension Agreement. A review of the project will be conducted annually to determine buildout and if the qualifications have been met for any refunds.

**GENERAL SERVICE**

**8. General Service Provisions**

8.1. Extension Facilities that do not meet the requirements under Residential Sections 3, 4, 5, 6, or 7 will be considered General Service and will be installed to all applicants who meet the qualifications under Sections 9, 10, 11, 12, 13, or 14 of this Service Schedule 3.

**9. Basic General Service**

9.1. Extension Facilities will be installed to Basic General Service in advance of application for service by Permanent applicants under the following conditions:



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- (A) A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The site development plan for the project for which the Line Extension has been requested has been approved and recorded in the county having jurisdiction.
- 9.2. The project costs for Basic General Service installations will be determined in accordance with the Schedule of Charges, a Project-Specific Cost Estimate, or a combination of Schedule of Charges and Project-Specific Cost Estimate depending on the scope of the project.
- 9.3. The cost for Extension Facilities installed for applicants with estimated demand loads of less than three megawatts or less than 3,000 kVA of transformer capacity, will be determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost Estimate depending on the scope of the project.
- 9.4. The cost for Extension Facilities installed for applicants with projected loads of three megawatts or greater, requiring transformer capacity of 3,000 kVA and greater, special requests involving primary metering, or specialized/additional equipment for enhanced reliability will be determined by the Company based on Project-Specific Cost Estimates.
- 9.5. Economic Feasibility Analysis for Basic General Service Applicants - Applicants whose Extension Facilities are installed on the basis of an Economic Feasibility analysis which determines that the estimated installation cost of the Extension Facilities is not supported by the applicant's estimated delivery service revenue may be required to advance sufficient funds to make installation of the Extension Facilities economically feasible. Company reserves the right to collect a full advance from the applicant based on the project scope, location, applicant's financial condition or organizational structure of the applicant. The following conditions will apply to Economic Feasibility projects:
- (A) Project Cost \$25,000 or less - Economic Feasibility for projects where the applicant's Extension Facilities cost (excluding non-refundable applicant contributions such as street lights and other non-standard construction charges) is \$25,000 or less will be established where the estimated annual revenue based on Company's then currently effective rate for delivery service (excluding taxes, regulatory assessment and other adjustments) multiplied by six is equal to or greater than the cost of the applicant's Extension Facilities.
  - (B) Project Cost greater than \$25,000 - Economic Feasibility for projects where the applicant's Extension Facilities cost (excluding non-refundable applicant contributions such as street lights and other non-standard construction charges) is greater than \$25,000 will be established where the estimated annual revenue based on Company's then currently effective rate for delivery service (excluding taxes, regulatory assessment and other adjustments), less the cost of service, provides an adequate rate of return on the investment made by Company to serve the applicant.
  - (C) Applicants whose Economic Feasibility analysis results in the requirement for a payment in advance of construction may be eligible for a refund of such advance





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- over the term of the Line Extension Agreement's five-year period if the actual annual delivery service revenue for the applicant's project exceeds the estimated delivery service revenue used in the Economic Feasibility analysis.
- (D) The Economic Feasibility analysis for the Extension Facilities will be reviewed at the end of the third and fifth year of the Line Extension Agreement based on actual delivery service revenue for the preceding year, and to the degree that actual revenue supports the Extension Facilities cost, all or a portion of the applicant's construction advance may be refunded. In no case will refunds exceed the unrefunded balance of the applicant's advance.
  - (E) Any unrefunded balance remaining five years from the date of the Company's executed Line Extension Agreement will become a non-refundable contribution in aid of construction.
  - (F) Company may include a capacity factor component, as determined by Company, to the Economic Feasibility Analysis for applicants that request excess or redundant system capacity.

**10. High Rise Developments**

- 10.1. Extension Facilities will be installed to High Rise Developments in advance of application for service by Permanent applicants under the following conditions:
  - (A) A Line Extension Agreement is signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The site development plan has been approved and recorded in the county or city having jurisdiction.
  - (C) The residential units are individually metered or master metered in accordance with Section 21.
  - (D) Extension Facilities will be installed to designated points of delivery in accordance with APS' Electric Service Requirements Manual (ESRM). It is the applicant's responsibility to provide and maintain the electrical facilities within the building.
  
- 10.2. The charges for Extension Facilities will be determined based on a Project-Specific Cost Estimate and will be paid by the applicant before Company installing facilities.
  
- 10.3. Economic Feasibility Analysis for High Rise Developments - Applicants whose Extension Facilities are installed on the basis of an Economic Feasibility analysis which determines that the estimated installation cost of the Extension Facilities is not supported by the applicant's estimated delivery service revenue may be required to advance sufficient funds to make installation of the Extension Facilities economically feasible. Company reserves the right to collect a full advance from the applicant based on the project scope, location, applicant's financial condition or organizational structure of the applicant. The following conditions will apply to Economic Feasibility projects:
  - (A) Economic Feasibility for projects where the applicant's Extension Facilities cost (excluding non-refundable applicant contributions such as street lights and other non-standard construction charges) is greater than \$25,000 will be established where the estimated annual revenue based on Company's then currently effective



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- rate for delivery service (excluding taxes, regulatory assessment and other adjustments), less the cost of service, provides an adequate rate of return on the investment made by Company to serve the applicant.
- (B) Applicants whose Economic Feasibility analysis results in the requirement for a payment in advance of construction may be eligible for a refund of such advance over the term of the Line Extension Agreement's five-year period if the actual annual delivery service revenue for the applicant's project exceeds the estimated delivery service revenue used in the Economic Feasibility analysis.
  - (C) The Economic Feasibility analysis for the Extension Facilities will be reviewed at the end of the third and fifth year of the Line Extension Agreement based on actual delivery service revenue for the preceding year, and to the degree that actual revenue supports the Extension Facilities cost, all or a portion of the applicant's construction advance may be refunded. In no case will refunds exceed the unrefunded balance of the applicant's advance. Any unrefunded balance remaining five years from the date of the Company's executed Line Extension Agreement will become a non-refundable contribution in aid of construction.
  - (D) Company may include a capacity factor component, as determined by Company, to the Economic Feasibility Analysis for applicants that request excess or redundant system capacity.

- 10.4. Before Company orders specialized materials or equipment required to provide service, applicant will be required to make an advance payment to the Company for the estimated cost of the material or equipment in accordance with Section 27.2.

## **11. Mixed-Use Developments**

- 11.1. Extension Facilities will be installed to Mixed-Use Developments in advance of application for service by Permanent applicants under the following conditions:
- (A) A Line Extension Agreement is signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The site development plan has been approved and recorded in the county or city having jurisdiction.
  - (C) The residential units are individually metered or master metered in accordance with Section 21.
- 11.2. The charges for Extension Facilities will be determined based on a Project-Specific Cost Estimate and will be paid by the applicant before Company installing facilities.
- 11.3. Economic Feasibility Analysis for Mixed Use Developments - Applicants whose Extension Facilities are installed on the basis of an Economic Feasibility analysis which determines that the estimated installation cost of the Extension Facilities is not supported by the applicant's estimated delivery service revenue may be required to advance sufficient funds to make installation of the Extension Facilities economically feasible. Company reserves the right to collect a full advance from the applicant based on the project scope, location, applicant's financial condition or organizational structure



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of the applicant. The following conditions will apply to Economic Feasibility projects:

- (A) Economic Feasibility for projects where the applicant's Extension Facilities cost (excluding non-refundable applicant contributions such as street lights and other non-standard construction charges) is greater than \$25,000 will be established where the estimated annual revenue based on Company's then currently effective rate for delivery service (excluding taxes, regulatory assessment and other adjustments), less the cost of service, provides an adequate rate of return on the investment made by Company to serve the applicant.
- (B) Applicants whose Economic Feasibility analysis results in the requirement for a payment in advance of construction may be eligible for a refund of such advance over the term of the Line Extension Agreement's five-year period if the actual annual delivery service revenue for the applicant's project exceeds the estimated delivery service revenue used in the Economic Feasibility analysis.
- (C) The Economic Feasibility analysis for the Extension Facilities will be reviewed at the end of the third and fifth year of the Line Extension Agreement based on actual delivery service revenue for the preceding year and to the degree that actual revenue supports the Extension Facilities cost, all or a portion of the applicant's construction advance may be refunded. In no case will refunds exceed the unrefunded balance of the applicant's advance. Any unrefunded balance remaining five years from the date of the Company's executed Line Extension Agreement will become a non-refundable contribution in aid of construction.
- (D) Company may include a capacity factor component, as determined by Company, to the Economic Feasibility Analysis for applicants that request excess or redundant system capacity.

11.4. Before Company orders specialized materials or equipment required to provide service applicant will be required to make an advance payment to the Company for the estimated cost of the material or equipment in accordance with Section 27.2.

## **12. Corporate Business & Industrial Park Developments**

- 12.1. Extension Facilities will be made to Corporate Business and Industrial Park Developments in advance of application for service by Permanent customer under the following conditions:
  - (A) A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
  - (B) The site development plan has been approved and recorded in the county or city having jurisdiction.
- 12.2. The cost of installing Extension Facilities will be determined in accordance with the Schedule of Charges, a Project-Specific Cost Estimate, or combination of Schedule of Charges and a project-specific cost estimate depending on the scope of the project.
- 12.3. The cost for Extension Facilities installed for applicants with estimated demand loads of less than three megawatts or less than 3,000 kVA of transformer capacity will be



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determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost Estimate depending on the scope of the project.

- 12.4. The cost for Extension Facilities installed for applicants with projected loads of three megawatts or greater, requiring transformer capacity of 3,000 kVA and greater, special requests involving primary metering, or specialized/additional equipment for enhanced reliability will be determined by the Company based on Project-Specific Cost Estimates.
- 12.5. The applicant will pay the total project estimated cost as a non-refundable contribution in aid of construction in addition to costs for street lights and other non-standard construction charges.
- 12.6. Company will provide a "Conduit Only Design" provided applicant makes a payment in the amount equal to the estimated cost of the preparation of the design, in addition to the costs for any materials, field survey and inspections that may be required. Future extensions in the development will be required to follow the original design plan.
- 12.7. Extension Facilities will be installed to individual lots (at the request of an applicant) within the Corporate Business and Industrial Park Development in accordance with the applicable sections of this Service Schedule 3.

### 13. Temporary Applicants

- 13.1. Where Temporary Extension Facilities are required to provide service to the applicant, the applicant will make a non-refundable payment in advance of installation or construction equal to the cost of installing and removing of the facilities required in providing Temporary service, less the salvage value of such facilities. Charges will be determined by Company based on a Project-Specific Cost Estimate.
- 13.2. A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.
- 13.3. When use of the Temporary service is discontinued or service is terminated, Company may dismantle and remove its facilities and the materials and equipment provided by Company will remain Company property.

### 14. Doubtful Permanency Customers

- 14.1. When, in the opinion of Company, permanency of the applicant's residence or operation is doubtful, the applicant will be required to pay the total cost of the Extension Facilities. The cost of extending service to applicant will be determined in accordance with the Schedule of Charges or combination of Schedule of Charges and a Project-Specific Cost Estimate. The applicant will pay the total project estimated cost as a non-refundable contribution in aid of construction in addition to costs for street lights and other non-standard construction charges.



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- 14.2. A Line Extension Agreement signed by the applicant and advance payment of all project costs is required before the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.

**OTHER CONDITIONS**

**15. Municipalities and Other Governmental Agencies**

- 15.1. Extension Facility installations, relocations, or conversions of existing facilities required to serve loads of municipalities or other governmental agencies may be constructed before the receipt of a signed Line Extension Agreement. However, this does not relieve the municipality or governmental agency of the responsibility for payment of the Extension Facilities costs in accordance with the applicable sections of this Service Schedule 3.
- 15.2. The effective date for projects enacted under this provision for purposes of Section 2.4 will be the date the municipality or agency provided written approval to the Company to proceed with construction.

**16. Change in Applicant's Service Requirements**

- 16.1. Company will rebuild, modify, or upgrade its existing facilities to meet the applicant's added load, service entrance upgrade, or change in service requirements on the basis specified in Sections 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 14. Charges for such changes will be in accordance with the Schedule of Charges, a Project-Specific Cost Estimate, or combination of Schedule of Charges and a Project-Specific Cost Estimate determined by the Company based on project-specific requirements.

**17. Relocations, Conversions and Upgrades of Company Facilities**

- 17.1. **Relocations** - Company will relocate its facilities at the applicant's request. The cost of relocations not in conjunction with a new extension or existing customer upgrade will be determined by a Project-Specific Cost Estimate.
- (A) When the relocation of Company facilities involves "prior rights" conditions, the applicant will be required to make payment equal to the estimated cost of relocation as a non-refundable contribution in aid of construction. In addition, applicant will be required to provide similar "rights" for the relocated facilities.
- (B) Payment of all project costs is required prior to the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by applicant.
- 17.2. **Conversions** - Company will convert from overhead to underground its facilities at applicant request. The cost of conversions not in conjunction with a new extension or existing customer upgrade will be determined by a Project-Specific Cost Estimate and may include residual value costs as computed in accordance with the method described in A.R.S. Section 40-347.
- (A) The applicant will be required to make a payment equal to the estimated cost of



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conversion as a non-refundable contribution in aid of construction.

- (B) Payment of all project costs is required prior to the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.

17.3. **Upgrades** - Company will upgrade its facilities at applicant request. The cost of Company facility upgrades not in conjunction with a new extension or existing customer upgrade will be determined by a Project-Specific Cost Estimate.

- (A) The applicant will be required to make a payment equal to the estimated cost of the upgrade as a non-refundable contribution in aid of construction.  
(B) Payment of all project costs is required prior to the start of Company construction. Payment is due at the time the Line Extension Agreement is signed by the applicant.

### **18. Additional Primary Feed or Specialized Equipment**

18.1. When specifically requested by an applicant to provide an alternate primary feed or specialized equipment (excluding transformation), Company will perform a special study to determine the feasibility of the request. The applicant will be required to pay for the cost of the additional feed requested as a non-refundable contribution in aid of construction. Installation cost will be based on a Project-Specific Cost Estimate. Payment for the installation of Extension Facilities is due at the time the Line Extension Agreement is signed by the applicant.

### **19. Unusual Circumstances**

19.1. In unusual circumstances as determined by Company, when the application and provisions of this Service Schedule 3 appear impractical, or in case of extension of lines to be operated on voltages other than specified in the applicable rate schedule, or when applicant's estimated demand load will exceed 3,000 kW, Company may make a special study of the conditions to determine the basis on which service may be provided. Additionally, Company may require special contract arrangements as provided for in the Company's Service Schedule 1, Terms and Conditions for Standard Offer and Direct Access Service.

### **20. Abnormal Loads**

20.1. Company, at its option, may install Extension Facilities to serve certain abnormal loads (such as transformer type welders, x-ray machines, wind machines, excess capacity for test purposes and loads of unusual characteristics) and the costs of any distribution system modifications or enhancements required to serve the applicant will be included in the payment described in previous sections of this Service Schedule 3.



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## 21. Master Metering

- 21.1. **Mobile Home Parks** - Company will refuse service to all new construction or expansion of existing Permanent residential mobile home parks unless the construction or expansion is individually metered by Company.
- 21.2. **Residential Apartment Complexes, Condominiums** - Company will refuse service to all new construction of apartment complexes and condominiums which are master metered unless the builder or developer can demonstrate that the installation meets the provisions of R14-2-205 of the Arizona Administrative Code and the requirements discussed in 21.3 below. This section is not applicable to Senior Care/Nursing Centers registered with the State of Arizona with independent living units which provide packaged services such as housing, food, and nursing care.
- 21.3. **Multi-Unit High Rise Residential Developments** - Company will allow master metering for high rise residential units under the following conditions:
- (A) The building will be served by a centralized heating, ventilation or air conditioning system
  - (B) Each residential unit will be individually sub-metered and responsible for energy consumption of that unit.
  - (C) Sub-metering will be provided and maintained by the builder or homeowners association.
  - (D) Responsibility and methodology for determining each unit's energy billing will be clearly specified in the original bylaws of the homeowners association, a copy of which must be provided to Company before Company installing Extension Facilities.
- 21.4. **Conversion from master meter to individually metered system** - Company will convert its facilities from a master metered system to a Permanent individually metered system at the applicant's request provided the applicant makes a non-refundable contribution in aid of construction equal to the residual value plus the removal costs less salvage of the master meter facilities to be removed. The new facilities to serve the individual meters will be extended in accordance with the applicable sections of this Service Schedule 3. Applicant is responsible for all costs related to the installation of new service entrance equipment.

## 22. Voltage

- 22.1. All Extension Facility installations will be designed and constructed for operation at standard voltages used by Company in the area in which the Extension Facilities are located. At the request of applicant, Company may, at its option, deliver service for special applications of non-standard or higher voltages with prior approval from Company's Engineering Department. Applicant will be required to pay the costs of any required studies as a non-refundable payment.
- 22.2. Extension Facilities installed at higher voltages will be limited to serving an applicant



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operating as one integral unit under the same name and as part of the same business on adjacent and contiguous sites not separated by private property owned by another party or separated by public property or public right-of-way.

### 23. Point of Delivery

- 23.1. For overhead service, the point of delivery will be where Company's service conductors terminate at the applicant's weatherhead or bus riser.
- 23.2. For underground service, the point of delivery will be where Company's service conductors terminate in the applicant's or development's service equipment. The applicant will furnish, install and maintain any risers, raceways and termination cabinets necessary for the installation of Company's underground service conductors.
- 23.3. For special applications where service is provided at voltages higher than the standard voltages specified in the APS Electric Service Requirements Manual, Company and applicant will mutually agree upon the designated point of delivery.

### 24. Easements

- 24.1. Before Company begins construction of Extension Facilities, all suitable easements and rights-of-way required for any portion of the extension will be obtained by applicant and provided to Company in Company's name without cost to or condemnation by Company. All easements and rights-of-way obtained on behalf of Company will be on Company's standard easement form which contains the terms and conditions that are acceptable to Company.

### 25. Grade Modifications

- 25.1. If after construction of Extension Facilities, the final grade of the property established by the applicant is changed in such a way as to require relocation of Company facilities, or the applicant's actions or those of his contractor results in damage to such facilities, the cost of replacement, relocation, or any resulting repairs will be borne by applicant as a non-refundable contribution in aid of construction.

### 26. Measurement and Location

- 26.1. Measurement must be along the proposed route of construction.
- 26.2. Construction will be on public streets, roadways, highways, or easements acceptable to Company.
- 26.3. The Extension Facilities must be a branch from, the continuation of, or an addition to, Company's existing distribution facilities.





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**27. Agreements**

- 27.1. **Study and Design Agreements** - Any applicant requesting Company to prepare special studies or detailed plans, specifications, or cost estimates will be required to make a payment to Company in an amount equal to the estimated cost of preparation. When the applicant authorizes Company to proceed with construction of the Extension Facilities, the payment will be credited to the cost of the Extension Facilities otherwise the payment will be non-refundable. Company will prepare, without charge, a preliminary sketch and rough estimate of the cost to be paid by the applicant upon request.
- 27.2. **Material Order Agreements** - Any applicant requesting Company to enter into a Line Extension Agreement or relocation agreement which requires either large quantities of material or material and equipment which the Company does not keep in stock will be required to make a payment to Company before the material being ordered in an amount equal to the material/equipment's estimated cost. When the applicant authorizes Company to proceed with construction of the extension, the payment will be credited to the cost of the extension; otherwise the payment will be non-refundable.
- 27.3. **Line Extension Agreements** - All facility installations or equipment upgrades requiring payment by an applicant will be in writing and signed by both the applicant and Company.

**28. Applicant Construction of Company Distribution Facilities**

- 28.1. Applicant may provide construction related labor only services associated with the installation of new distribution line facilities (21 kV and below) to serve the applicant's new or added load provided the applicant receives written approval from Company before performing any such services and uses electrical contractors who are qualified and licensed in the State of Arizona to construct such facilities and designated as an APS Approved Electrical Distribution Contractor.
- 28.2. This option is not available for the following:
- (A) Replacement, modifications, upgrades, relocation, or conversions of existing systems.
  - (B) Where all or a portion of the distribution line facilities are to be constructed on or installed on existing distribution line or transmission lines.
- 28.3. All construction services provided by the applicant will be subject to inspection by a duly authorized Company representative and will comply with Company designs, construction standards, and other requirements which may be in effect at the time of construction. Any work found to be substandard in the sole opinion of the Company must be corrected by applicant before energization by Company.
- 28.4. Applicant will reimburse Company for all inspection and project coordination costs as a non-refundable contribution in aid of construction. Estimated costs for inspection and project coordination will be identified in the construction agreement executed by



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Company and applicant.

- 28.5. Costs for Extension Facilities for applicants who provide construction of Company distribution facilities will be based on a Project-Specific Cost Estimate.
- 28.6. A signed agreement and payment of all project costs minus labor are required before the start of applicant construction. Payment is due at the time the agreement is signed by the applicant.
- 28.7. For applicants that are not served by the terms in General Service Sections of this document, Company will provide a Project-Specific Cost Estimate. Applicants may submit an invoice detailing costs of Extension Facilities and apply any allowance provided in Residential Sections 3, 4, or 7 to these costs. At no point will these costs exceed the Company's Project-Specific Cost Estimate.
- 28.8. Applicants served by the terms in General Service Sections 9, 10, 11, 12, 13, or 14 of this document will be subject to the rules set forth in the respective section and Refund Section 2.4.

**29. Settlement of Disputes**

- 29.1. Any dispute between the applicant or prospective applicant and Company regarding the interpretation of these "Conditions Governing Extensions of Electric Distribution Lines and Services" may be referred to the Arizona Corporation Commission or a designated representative or employee for determination by either party.

**30. Policy Exceptions**

- 30.1. This Schedule 3 is applicable to all applicants unless specific exceptions are approved by the Arizona Corporation Commission. The following exceptions have been approved for Rural Municipality applicants:
  - (A) Extension Facilities will be installed to Rural Municipal Business Developments on the basis of an Economic Feasibility analysis in advance of application for service by permanent applicants.
  - (B) The cost of installing Extension Facilities to Rural Municipal Business Developments will be determined in accordance with the Schedule of Charges, a Project-Specific Cost Estimate, or combination of Schedule of Charges and a project-specific cost estimate depending on the scope of the project.
  - (C) The refund eligibility period for Rural Municipal Business Developments will be 7 years from the date the Company executes the Line Extension Agreement with the Rural Municipality applicant.
  - (D) Rural Municipal Business Development applicants will be required to advance payment of one-half of the project costs at the time the Line Extension Agreement is signed and before the start of Company construction. The balance of the project cost will be required 7 years from the Execution Date of the agreement if the project has not become economically feasible by the end of the 7 year refundable



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period. Any unrefunded advance balance paid at the start of the project, plus the balance of project costs due at the end of refund period, will become a non-refundable contribution in aid of construction 7 years from the Execution Date of the agreement.

- (E) Company may require a Surety Bond, Irrevocable Letter of Credit or Assignment of Monies in amount equal to any Advance not collected at the start of construction.
- (F) The Economic Feasibility analysis for the Rural Municipal Business Development's Extension Facilities will be reviewed at the end of the third, fifth and seventh year of the Line Extension Agreement based on the average monthly demand within the Rural Municipal Business Development for the preceding year and to the degree that the average monthly demand supports the Extension Facilities cost, all or a portion of the applicant's construction advance may be refunded. In no case will refunds exceed the unrefunded balance of the applicant's advance.
- (G) Company may include a capacity factor component, as determined by Company, to the Economic Feasibility Analysis for applicants that request excess or redundant system capacity.



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**Attachment 1  
Schedule of Charges – Single Phase**

**APS Schedule 3 Rev 13, Line Extension Schedule of Charges**

Single Phase	OH Primary		UG Primary			OH Secondary		UG Secondary	
	Cost per Circuit Foot	Each Installation	Cost per Circuit Foot	Pull Box	Pad Mount Junction Cabinet	OH/UG Transition	Secondary Pole	OH/UG Secondary Transition	J Box
	\$16.67	\$5,146.88	\$5.64	\$898	\$3,889	\$1,346	\$2,259	\$892.22	\$105.55
<b>Pole Intersect</b>									
<b>OVERHEAD Single Phase</b>	<b>SES Size</b>		<b>Transformer Size, 120/240V</b>		<b>Service wire/L/linear Ft</b>				
	200 Amp		25kVA	\$3,853	\$6.15				
	200 Amp		50kVA	\$4,178	\$7.90				
	400 Amp		50kVA	\$4,178	\$7.90				
	600 Amp		75kVA	\$5,249	\$13.06				
	800 Amp		100kVA	\$6,057	\$18.23				
<b>UNDERGROUND Single Phase</b>	<b>SES Size</b>		<b>Transformer Size, 120/240V</b>		<b>Service wire/L/linear Ft</b>				
	200 Amp		25kVA	\$4,266	\$5.22				
	200 Amp		50kVA	\$4,657	\$6.66				
	400 Amp		50kVA	\$4,657	\$6.66				
	600 Amp		75kVA	\$5,229	\$13.46				
	800 Amp		100kVA	\$5,984	\$14.91				

- 1) Extension Facilities that do not qualify for the Schedule of Charges will be determined by a project specific cost estimate.
- 2) Cost per foot charges will be determined from termination at the source to the next device in the circuit. Linear footage for each circuit will be summed to determine charges.
- 3) Pad Mount Junction Cabinet is a single phase termination cabinet.
- 4) Primary OH cost per foot is for one phase and a neutral or two phases and no neutral; includes poles, framing, 2R conductor.
- 5) Charges for services are based on linear footage from Transformer to SES regardless of the number of sets. J Boxes not included in footage cost.
- 6) All footages to be calculated by linear footages.
- 7) Transition is from the OH line to the UG line; includes wire down pole and accessories. Pole NOT included.



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

**Attachment 1  
Schedule of Charges – Three Phase**

**APS Schedule 3 Rev 13, Line Extension Schedule of Charges**

	Overhead				Underground				Transition
	Cost per Circuit Foot	Cost per Circuit Foot (3-750)	Manhole (3-750)	Cost per Circuit Foot (6-750)	Cost per Circuit Foot (3-750)	Manhole (3-750)	Cost per Circuit Foot (6-750)	Cost per Circuit Foot (3-1100)	
<b>FEEDER Three Phase</b>	\$29.31	\$4,694	\$13,345	\$48.08	\$17,981	\$19,144	\$17,981	\$54.63	
<b>OH/UG Transition</b>	Each Installation \$6,566			Each Installation \$7,947			Each Installation \$6,603	Each Installation \$8,021	
<b>Pole Intersect</b>	Each Installation \$8,386.36								
<b>PRIMARY Three Phase</b>	Underground								
<b>OH/UG Transition</b>	Cost per Circuit Foot (3-10T) \$16.80	Cost per Circuit Foot (3-40T) \$19.91	Pull Box \$1,647	Pad Mount Switch Gear \$17,981					
<b>Pole Intersect</b>	Each Installation \$8,261.03	Each Installation \$3,100							
<b>OVERHEAD Three Phase</b>	Overhead								
	SES Size	Transformer Size 120/208 Volts	Service wire/Linear Ft	SES Size	Transformer Size 277/480 Volts	Service wire/Linear Ft	SES Size	Transformer Size 277/480 Volts	
	200 Amp	3-25kVA \$9,047	\$6.29	200 Amp	3-50kVA \$12,069	\$6.29	200 Amp	3-50kVA \$12,069	
	400 Amp	3-50kVA \$10,422	\$6.29	400 Amp	3-75kVA \$14,064	\$8.19	400 Amp	3-75kVA \$14,064	
	600 Amp	3-50kVA \$10,422	\$9.19	600 Amp	3-100kVA \$15,939	\$10.42	600 Amp	3-100kVA \$15,939	
	800/1000 Amp	3-75kVA \$13,619	\$13.69	800 Amp	3-167kVA \$18,181	\$10.42	800 Amp	3-167kVA \$18,181	
<b>UNDERGROUND Three Phase</b>	Underground Pad mount								
	SES Size	Transformer Size 120/208 Volts	Service wire/Linear Ft	SES Size	Transformer Size 277/480 Volts	Service wire/Linear Ft	SES Size	Transformer Size 277/480 Volts	
	200 Amp	112.5kVA \$8,337	\$7.12	200 Amp	112.5kVA \$11,080	\$7.12	200 Amp	112.5kVA \$11,080	
	400 Amp	112.5kVA \$8,337	\$12.73	400 Amp	150kVA \$12,434	\$12.71	400 Amp	150kVA \$12,434	
	600 Amp	150kVA \$12,495	\$16.08	600 Amp	225kVA \$13,445	\$12.71	600 Amp	225kVA \$13,445	
	800 Amp	225kVA \$13,907	\$36.16	800 Amp	300kVA \$15,042	\$22.86	800 Amp	300kVA \$15,042	
	1000 Amp	300kVA \$13,907	\$36.16	1000 Amp	500kVA \$17,145	\$36.09	1000 Amp	500kVA \$17,145	
	1200 Amp	300kVA \$15,181	\$36.16	1200 Amp	750kVA \$21,376	\$54.01	1200 Amp	750kVA \$21,376	
	1600 Amp	500kVA \$19,433	\$72.04	1600 Amp	1000kVA \$24,378	\$72.04	1600 Amp	1000kVA \$24,378	
	2000 Amp	500kVA \$19,438	\$72.04	2000 Amp	1000kVA \$24,383	\$72.04	2000 Amp	1000kVA \$24,383	
	2500 Amp	750kVA \$25,603	\$126.10	2500 Amp	1500kVA \$34,903	\$108.09	2500 Amp	1500kVA \$34,903	
	3000 Amp	750kVA \$25,613	\$126.10	3000 Amp	1500kVA \$34,913	\$108.09	3000 Amp	1500kVA \$34,913	
	3000 Amp	1000kVA \$30,638	\$162.05	3000 Amp	2000kVA \$42,539	\$162.05	3000 Amp	2000kVA \$42,539	

1) Extension Facilities that do not qualify for the Schedule of Charges will be determined by a project specific cost estimate.  
 2) Cost per foot charges will be determined from termination at the source to the next device in the circuit. Linear footage for each circuit will be summed to determine charges.  
 3) For Multiple services out of one three phase transformer; the service cost will be determined by each SES and the transformer cost will be determined from the combined total of each SES size in amps, rounded up to the nearest SES size, limited to a combined maximum of 3,000 amps.  
 4) Overhead feeder cost per foot is for 3/0 and above, including 477 & 795 conductors.  
 5) UG Primary circuit footage is 3 cables making up 3 phase; 2 circuits is parallel conductors.  
 6) Charges for services are based on linear footage from transformer to SES regardless for the number of sets.  
 7) Transition is from the OH line to the UG line; includes wire down pole and accessories. Pole NOT included.



**SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES**

**Attachment 2**

**Examples to Section 3\* - Free Footage Illustrative Example**

	Primary		Service		Total		Customer Payment
	Footage	Cost	Footage	Cost	Footage	Cost	
<b>Scenario 1</b>	500	\$15.00	50	\$ 4.89	550	\$ 7,744.50	\$ -

APS \$7,744.50\*\*

Total 550'

Customer Payment \$0

	Primary		Service		Total		Customer Payment
	Footage	Cost	Footage	Cost	Footage	Cost	
<b>Scenario 2</b>	620	\$ 15.00	135	\$ 4.89	755	\$ 9,960.15	\$ -

APS \$9,960.15\*\*

Total 755'

Customer Payment \$0

	Primary		Service		Total		Customer Payment
	Footage	Cost	Footage	Cost	Footage	Cost	
<b>Scenario 3</b>	675	\$ 15.00	50	\$ 4.89	725	\$ 10,369.50	\$ 369.50

APS \$10,000.00\*\*

Total 725'

Customer Payment \$369.50

	Primary		Service		Total		Customer Payment
	Footage	Cost	Footage	Cost	Footage	Cost	
<b>Scenario 4</b>	660	\$ 15.00	90	\$ 4.89	750	\$ 10,340.10	\$ 340.10

APS \$10,000.00\*\*

Total 750'

Customer Payment \$340.10

	Primary		Service		Total		Customer Payment
	Footage	Cost	Footage	Cost	Footage	Cost	
<b>Scenario 5</b>	700	\$ 15.00	100	\$ 4.89	800	\$ 10,989.00	\$ 989.00

APS \$10,000.00\*\*

Total 800'

Customer Payment \$989.00

\*Scenarios do not reflect all components required for a complete project.

\*\*APS portion does not include cost of transformer.



SERVICE SCHEDULE 3  
CONDITIONS GOVERNING EXTENSIONS OF  
ELECTRIC DISTRIBUTION LINES AND SERVICES

Attachment 3

Residential Subdivision Illustrative Example

Scenario 1	
Number of Planned Homes	100
Estimated Construction Cost	\$ 350,000
Total Potential Refundable Allowance	\$ 350,000
Non-Refundable Contribution	\$ -
Number of Homes Completed	100
Credited Allowance	\$ 350,000
Potential Remaining Allowance	\$ -

Scenario 2	
Number of Planned Homes	100
Estimated Construction Cost	\$ 400,000
Total Potential Refundable Allowance	\$ 350,000
Non-Refundable Contribution	\$ 50,000
Number of Homes Completed	100
Credited Allowance	\$ 350,000
Potential Remaining Allowance	\$ -

Scenario 3	
Number of Planned Homes	100
Estimated Construction Cost	\$ 350,000
Total Potential Refundable Allowance	\$ 350,000
Non-Refundable Contribution	\$ -
Number of Homes Completed	45
Credited Allowance	\$ 157,500
Potential Remaining Allowance	\$ 192,500

Scenario 4	
Number of Planned Homes	100
Estimated Construction Cost	\$ 400,000
Total Potential Refundable Allowance	\$ 350,000
Non-Refundable Contribution	\$ 50,000
Number of Homes Completed	45
Credited Allowance	\$ 157,500
Potential Remaining Allowance	\$ 192,500



3010 W. Agua Fria Freeway  
Phoenix, AZ 85027

**04/12/2023**

Nick Prodanov, PE, PMP | Principal  
LDG  
Civil Engineering | Land Surveying  
8808 N Central Ave., Suite 288 | Phoenix, AZ 85020

Project:  
5639 E Joshua Tree Ln  
Paradise Valley, Az

Dear Nick Prodanov,

This letter is to confirm that Cox Business is a licensed telecommunications operator for the city of **Paradise Valley** in which this project resides. Cox Business may provide voice, video, data, monitored security and automation services, and any other service now or hereafter offered by Cox for this project.

**Before** services can be scheduled or installed to the building owner *or* a commercial tenant, a final requirement of a service agreement and or capital contribution to provide facilities to your project may be required.

To help facilitate your construction and business needs, please reference the contacts below:

Cox Business Commercial Development – New projects: [ARZ-cbbaa@cox.com](mailto:ARZ-cbbaa@cox.com)

Requests for Conduit Layout designs:

Mixed Use / MDU- [Eastmdusupport@cox.com](mailto:Eastmdusupport@cox.com)

Residential (single family): [Constructionssupport@cox.com](mailto:Constructionssupport@cox.com)

Commercial: [Arz-cbbaa@cox.com](mailto:Arz-cbbaa@cox.com)

Conflict Review or Relocations:

[Constructionssupport@cox.com](mailto:Constructionssupport@cox.com)

If you have any questions or need immediate assistance, please contact:

[Arz-cbbaa@cox.com](mailto:Arz-cbbaa@cox.com).

If you have any questions, please feel free to contact me.

Sincerely,

**April Roark | Cox Business**