



## WATER SERVICE IMPACT STUDY

# Sanctuary II Lot Split 4474 E Valley Vista Ln

**LDG PROJECT #1602013**

**Prepared for:**

Mr. Rich Brock  
Valley Vista PV  
4474 e Valley Vista Ln  
Paradise Valley, Arizona 85253

**Submitted to:**

Town of Paradise Valley  
6401 E. Lincoln Drive  
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



EXPIRES 06/30/2019

November 27th, 2017

## TABLE OF CONTENTS

	<u>PAGE</u>
1. Introduction.....	1
2. Domestic Water and Fire Suppression System .....	1
3. References .....	2

## APPENDICES

Appendix A-1 Vicinity Map .....	3
Appendix A-2 Water Flow Test .....	4
Appendix A-3 Will Serve Letter .....	5

## 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 lot split development.

The subject property is located at 4474 E Valley Vista Ln. The 2.338-acre parcel is a subdivided land, being a Lot Split of Lot 1 of Sanctuary I, recorded in Book 601, Page 32, MCR and also being a portion of the NE  $\frac{1}{4}$  of the SW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 7, T2N, R4E. The property is bounded by Valley Vista Lane (southwesterly) and large residential lots on all other sides. It is zoned R-43 (Hillside), which in accordance with the Town of Paradise Valley Zoning Ordinance allows for one dwelling unit per acre density. The property is currently undeveloped. Refer to Appendix A-1 – Vicinity Map.

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. The developer is proposing to split the parcel into two lots. The prepared lot split map defines the new property divider line, new tract for access roadway, location and distances of new building setback lines and public utility easements. Both lots will exceed the minimum required area of 1 acre.

The site is located within the EPCOR water and City of Phoenix sewer service areas. There is an existing 8" water line that runs in Valley Vista. There is an 8" sewer line that runs in Cactus Wren.

The site's existing terrain slopes northeasterly with slopes exceeding 10% and is sparsely vegetated with native trees. There is a major wash running through the property from northwest to southeast.

## 2. DOMESTIC WATER AND FIRE SUPPRESSION SYSTEM

Water service will be provided by new water meters and service lines tapped off the EPCOR main in Valley Vista Lane. The new water service lines and a water meters will be sized in accordance with the currently adopted Plumbing Code and will be installed near the property common driveway.

There is a City of Phoenix public sanitary sewer line in a 20' wide sewer easement that runs through the property. New sanitary sewer connections will service the new parcels off the sewer main. Considering the existing grades and invert elevations of the sewer, no lift stations are anticipated for the two new homes to be built.

The fire hydrant coverage for this site is provided by an existing fire hydrant located 200 feet westerly from the common driveway entrance, northerly side of Valley Vista Lane.

Fire flow test was conducted on October 25<sup>th</sup>, 2017 by Grantham Design, LLC and witnessed by EPCOR representative. Based on the results of the fire flow test, the existing water infrastructure is

capable of suppling 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.

### 3. REFERENCES

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



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

November 13<sup>th</sup>, 2017

Valley Vista PV  
4474 E Valley Vista Lane  
Paradise Valley, AZ 85253

Sent via e-mail to: [nick@ldgeng.com](mailto:nick@ldgeng.com)

Re: Will-Serve Letter for Water Service  
Sanctuary I Lot 1 (Lot Split)

Dear Valley Vista PV,

This letter is in response to LDG Engineering's request to EPCOR Water Arizona Inc. ("EPCOR") regarding EPCOR's willingness to provide water service to Sanctuary I Lot 1 (Lot Split) (the "Development"), which is located in EPCOR's Paradise Valley Water District at 4474 E Valley Vista Lane, as shown in Exhibit A. EPCOR provides the following information for your consideration:

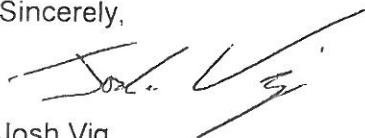
1. EPCOR has confirmed that the Development is located within the area encompassed by EPCOR's Certificate of Convenience & Necessity ("CC&N") as issued by the Arizona Corporation Commission.
2. Water service to the Development by EPCOR may be conditioned upon developer entering into a Main Extension Agreement (an "MXA") with EPCOR in a form acceptable to EPCOR, and upon developer fully performing its obligations under the MXA. The MXA, if needed, will provide, among other things, that developer will be responsible for constructing at its cost all water main extensions necessary to distribute water from EPCOR's existing system to the individual service line connections in the Development. The design and construction of all such main extensions will be subject to EPCOR's approval, and ownership of the main extensions, together with related real property easement rights, must be transferred to EPCOR prior to the initiation of water service in the Development.
3. Based on the water service currently provided by EPCOR in the CC&N, EPCOR will have adequate water capacity for normal use in the Development upon developer's fulfillment of its obligations under the MXA. Please note that EPCOR does not guarantee the adequacy of its water capacity for fire protection.
4. Developer will be required, as a condition to EPCOR providing water service to the Development, to pay all required fees pursuant to EPCOR's then-current tariffs and as may be provided in the MXA.

This letter assumes that construction of the main extensions within the Development will begin within one (1) year after the date of this letter. If developer begins construction of any water mains in the Development or any other water service infrastructure intended to serve the Development without, in each instance, the prior written approval of such construction by EPCOR, developer will be proceeding with such construction at its own risk.

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

For additional information, please contact me at (623) 445-2495 or at [jvig@epcor.com](mailto:jvig@epcor.com).

Sincerely,

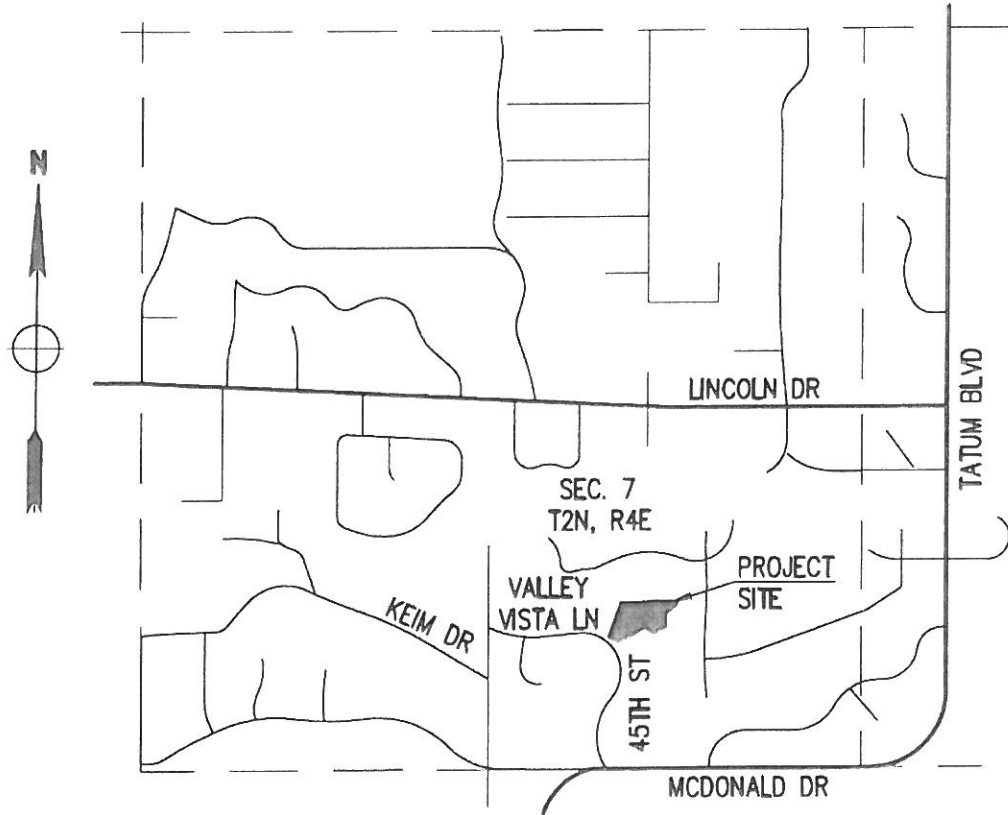
A handwritten signature in black ink, appearing to read 'Josh Vig', is written over a horizontal line.

Josh Vig  
Project Manager



# APPENDIX A-1

## Vicinity Map





# APPENDIX A-2

## Water Flow Test

# Hydrant Flow Test Report

Test Date 10/25/2017

Test Time 10:11 A.M.

## Location

4474 E. VALLEY VISTA LANE,  
PARADISE VALLEY, AZ,

## Tested by

GRANTHAM DESIGN, LLC.

## Notes

## Read Hydrant

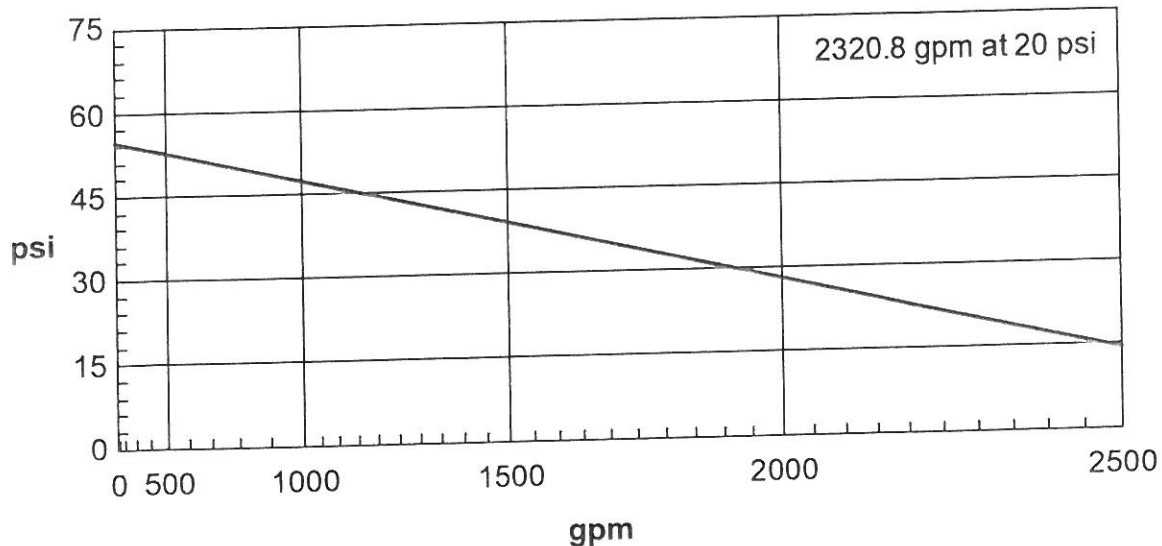
55 psi static pressure

45 psi residual pressure

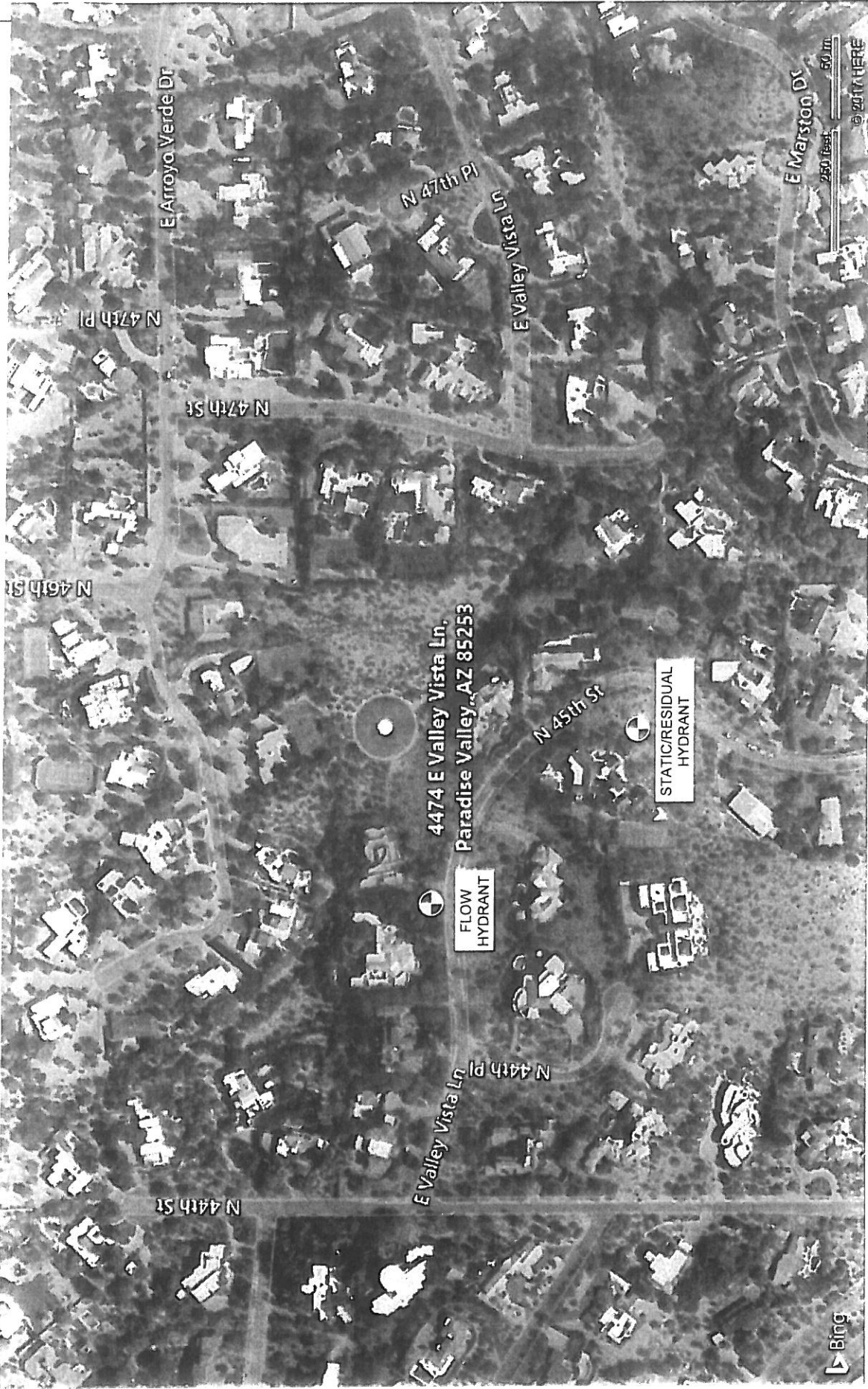
2 ft hydrant elevation

<u>Flow Hydrant(s)</u>					
Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	2	2.5	.9	40	1179.1 gpm

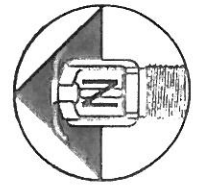
## Flow Graph



Disclaimer: The fire hydrant flow test results can vary based on time, date, seasonal fluctuation and other circumstances. Verify water pressures prior/during any project. Grantham Design, LLC. will not be held responsible for any changes in the results.



Data from: Redfin · GreatSchools · Zillow



# HYDRANT MAP

NOT TO SCALE

# APPENDIX A-3

## Will Serve Letter



## SOUTHWEST GAS CORPORATION

December 11, 2018

Dustin Wagoner  
LDG  
8808 N Central Ave, Ste 288  
Phoenix, AZ 85020

SUBJECT: Public Utility Easement Abandonment  
REQ 9695 – 4474 E Valley Vista Lane & 4490 E Valley Vista Lane

Dear Mr. Wagoner,

After reviewing the plans for the above-referenced project, it has been determined that there are **no apparent conflicts** between the Southwest Gas system and your proposed abandonment of the public utility easement. Southwest Gas would like to recommend abandonment of the public utility easement located at the above-referenced location.

Thank you for your cooperation on this project. Please contact me if you have any questions or require additional information.

Sincerely,

Nancy J. Almanzan  
Supervisor, Right-of-Way/Engineering Services  
702-876-7137



P.O. Box 53933  
Phoenix, Arizona 85072

November 17, 2017

LDG  
8808 N Central Ave., Suite 288  
Phoenix, AZ 85020

Re: Sanctuary II - 4474 E Valley Vista Ln

Dear LDG,

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 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.

Please give Scott Timar a call at (602) 493-4421 so that we may set up an appointment to discuss the details necessary for your project.

Sincerely,

*Dawn Roberts*

Dawn Roberts  
Administrative Coordinator  
Customer Construction East

Enclosures



CenturyLink Engineering  
135 W. Orion St. 1<sup>st</sup> Floor  
Tempe, AZ 85283  
BICS@Centurylink.com

November 13, 2017

Mr. Rich Brock  
Valley Vista PV, LLC  
Land Development Group, LLC  
8808 N Central Ave. Ste. 288  
Phoenix, Arizona 85020

RE: Sanctuary II

Mr. Brock,

The above mentioned project is located in a parcel of land located in Section 7, Township 2N and Range 4E in Maricopa County.

In response to your "Service Availability" request for the above mentioned development located at 45<sup>th</sup> Street and Valley Vista Lane, Paradise Valley, AZ, this letter is to acknowledge that this subject property is within CenturyLink serving territory.

The tariff Rates and Regulations prescribed for service for this area are on file with your State Utilities Commission, and may be examined at your local CenturyLink Business Office.

Sincerely,

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

Stacey Alfier  
CenturyLink Engineer II/Supervisor of Engineering Support  
135 W Orion Street, 1st Floor  
Tempe, AZ 85283  
480/768-4294 (Office)  
[Stacey.Alfier@centurylink.com](mailto:Stacey.Alfier@centurylink.com)