



WATER SERVICE IMPACT STUDY

7030 E Horseshoe Rd Paradise Valley, Arizona

LDG PROJECT #2311355

Prepared for:

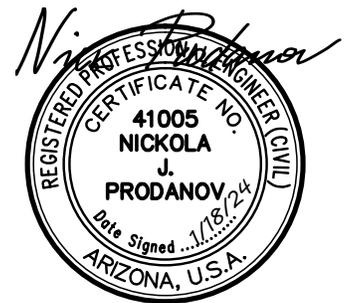
Eugene A. & Nureen K. Parsons Trust
7030 E Horseshoe Rd.,
Paradise Valley, Arizona 85253

Submitted to:

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

Prepared by:

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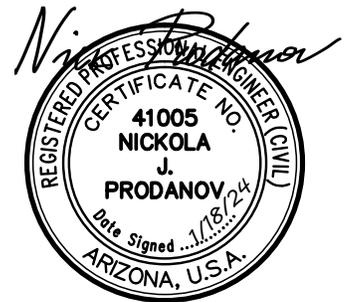
January 18th, 2024

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January 18th, 2024

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 174-30-023A, located at 7030 E Horseshoe Road, Paradise Valley, AZ 85253, being a portion of the NW ¼, of the NE ¼, of the NE ¼ of Section 34, Township 3 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 zoned R-43. The property is currently developed with a single-family residence, and it is approximately 2.318 acres. The site is surrounded by large residential lots from the north, west and east. The south side fronts the right-of-way of Horseshoe Road.

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.

2. DOMESTIC WATER AND FIRE SUPPRESSION SYSTEM

Berneil Water Company supplies domestic water in the vicinity. There is a water main in Horseshoe Road. There are three water meters found near the southwest property corner. Two most likely serve the property to the west and one the subject unsubdivided property. There is an existing fire hydrant at Horseshoe Road right of way, 5' from the southwest property corner.

New water service tap and meter will be required for the new lot (east) created. The representative of the Berneil Water Company has issued a Will Serve Letter stating that they will be serving the two newly created lots.

Fire flow test was conducted on January 18th, 2024 by Arizona Flow Testing, LLC and witnessed by Berneil Water Company 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 1,564 gpm at 20 psi, which meets and exceeds the Town of Paradise Valley Code 13.1.6 and the Building Code requirements.

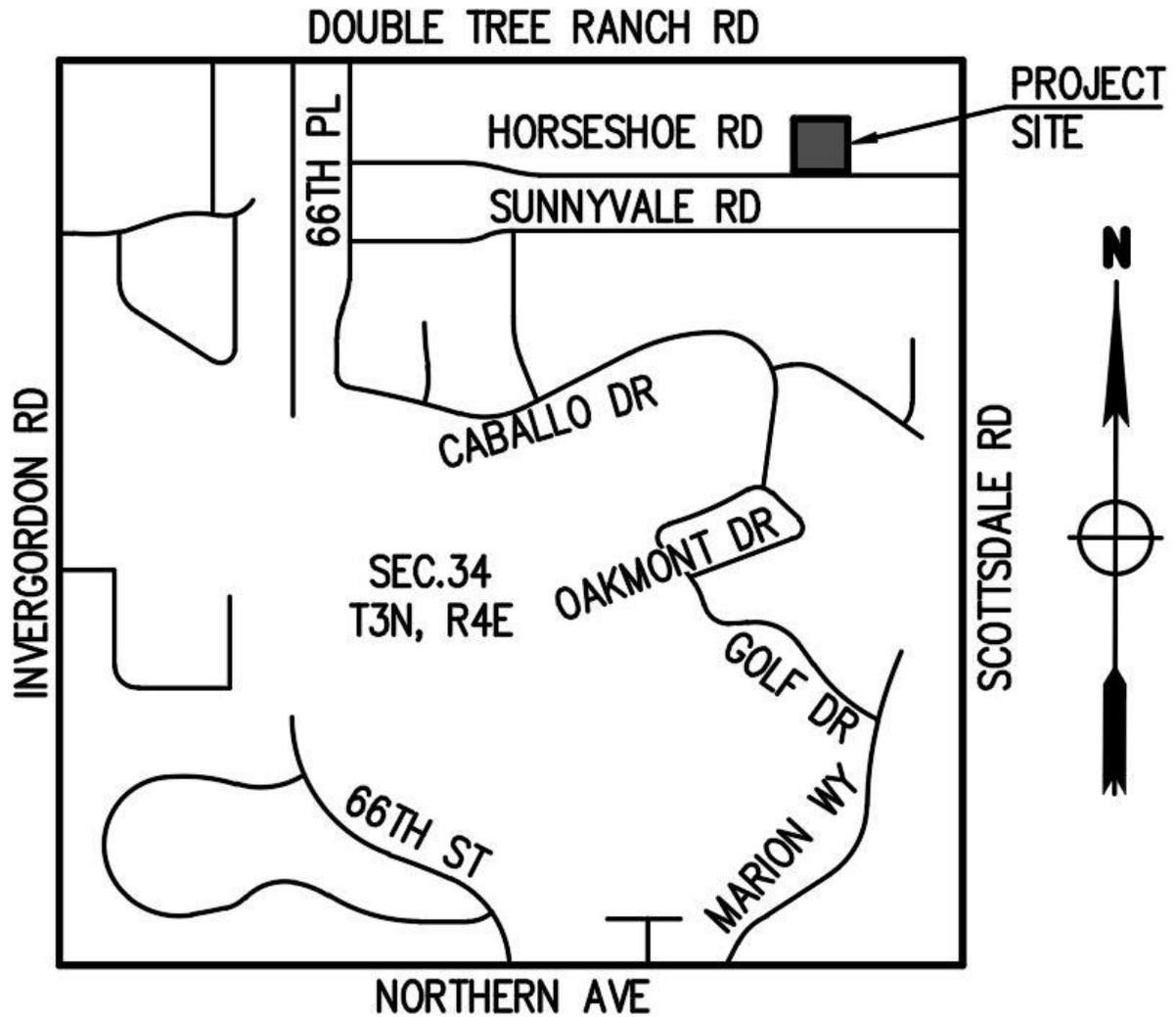
The Town of Paradise Valley is the sanitary sewer provider in the vicinity of this project. There are currently no sanitary sewer mains in Horseshoe Road. The lot is served by a private septic system. There is an existing sanitary sewer main located in 66th Place. The developer's intent is to maintain septic systems for the new homes.

3. REFERENCES

- Town of Paradise Valley Design Standards & Policies.
- 2018 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: 7030 East Horseshoe Road, Paradise Valley, Arizona, 85253
Client Project No.: Not Provided
Arizona Flow Testing Project No.: 24033
Date and time flow test conducted: January 18, 2024 at 8:45 AM
Data is current and reliable until: July 18, 2024
Conducted by: Floyd Vaughan – Arizona Flow Testing, LLC (480-250-8154)
Coordinated by: Jeff Rhodes – Berneil Water Company (480-966-0015)

Raw Test Data

Static Pressure: **70.0 PSI**
(Measured in pounds per square inch)

Residual Pressure: **36.0 PSI**
(Measured in pounds per square inch)

Pitot Pressure: **11.0 PSI**
(Measured in pounds per square inch)

Diffuser Orifice Diameter: One 4-inch Hose Monster
(Measured in inches)

Coefficient of Diffuser: 0.802

Flowing GPM: **1,270 GPM**
(Measured in gallons per minute)

GPM @ 20 PSI: 1,564 GPM

Data with 10 % Safety Factor

Static Pressure: **63.0 PSI**
(Measured in pounds per square inch)

Residual Pressure: **29.0 PSI**
(Measured in pounds per square inch)

Approx. distance between hydrants: 660 feet

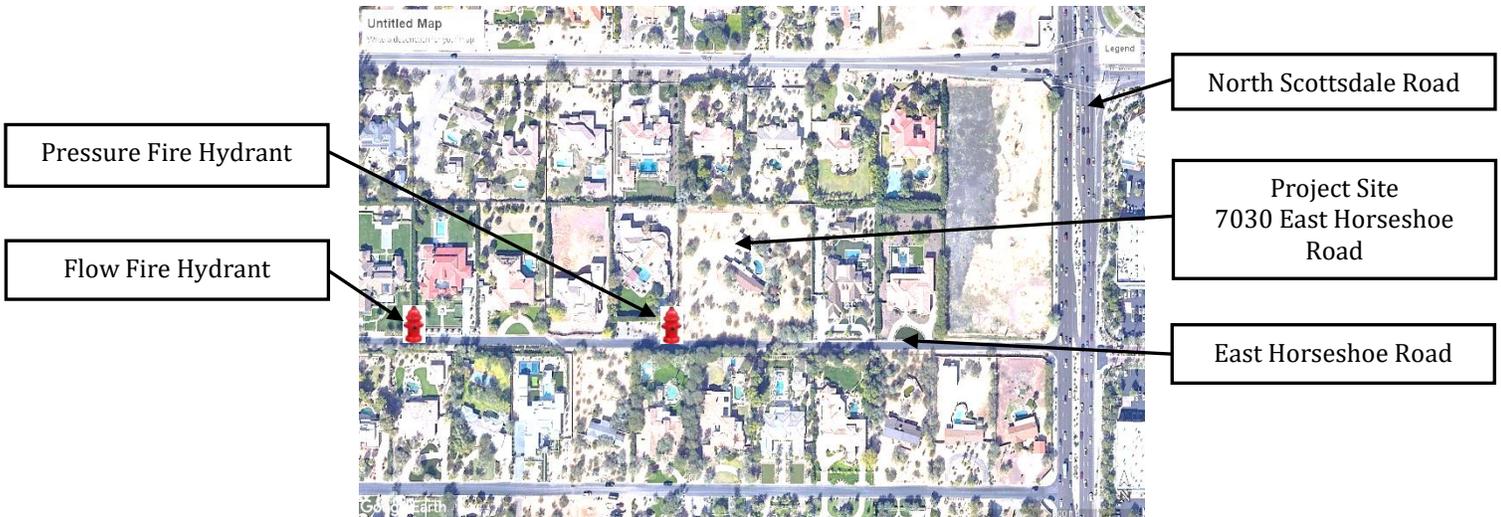
Main size: Not Provided

Flowing GPM: **1,270 GPM**

GPM @ 20 PSI: 1,442 GPM

Flow Test Location

North ↑



APPENDIX A-3

Will Serve Letter

**BERNEIL WATER
P. O. BOX 219
TEMPE, ARIZONA 85280**

PHONE 480-966-5804

January 9, 2024

This letter is in response to your request for a Will-Serve Letter from Berneil Water Company for the Property located at 7030 E Horseshoe Road, Paradise Valley, AZ 85253

Being a proposed Lot Split of existing property into 2 lots.

Berneil Water confirms that the Property is located within the area encompassed by Berneil Water's Berneil Water's Paradise Valley District.

Berneil Water currently does and will provide water service to the properties proposed.

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

Brad Folkman
President