



WATER & SEWER SERVICE IMPACT STUDY

5102 N Wilkinson Road, Paradise Valley, Arizona

LDG PROJECT #2412385

Prepared for:

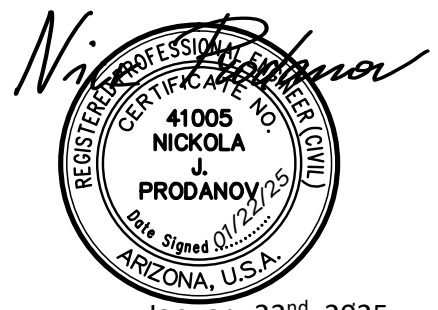
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Submitted to:

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Prepared by:

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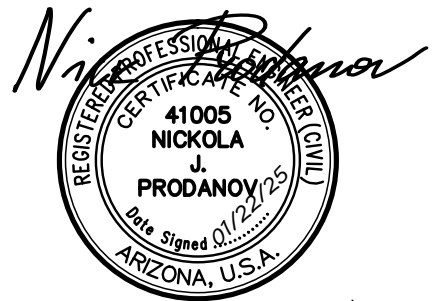
January 22nd, 2025

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January 22nd, 2025

1. INTRODUCTION

This Water & Sewer 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 & sewer services and fire flow demand for the proposed subdivision development - parcel 173-20-007, located at 5102 N Wilkinson Road, Paradise Valley, AZ 85253 and also being Lot 63, Camelback Lands, a subdivision recorded in Book 31 of Maps, Page 26 MCR being a portion of the SW ¼ of the SW ¼ of the SW ¼ of Section 15, 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 currently zoned R-43 and is a part of a residential subdivision. The property is fully developed residential lot with a main residence in the middle of the property, a guest house at the southwest corner and a sport court along the west building envelope. The lot is approximately 2.256 acres. Access to the property is from Wilkinson Road at the east property line, through the existing concrete driveway. The site is surrounded by large residential lots to the West, North and South. The project will consist of splitting the existing lot into two separate residential lots for two new single-family residences.

As a part of the project development process, a plat map subject to the Town of Paradise Valley review and approval is prepared. The owner is proposing to split the property into two lots. The proposed plat map defines the new property divider lines, new tract for public roadway, location and distances of new building setback lines. The zoning for the newly created lots is R-43 as previously.

2. DOMESTIC WATER AND FIRE SUPPRESSION SYSTEM

EPCOR Water is the supplier for domestic water in the vicinity. A 4" main runs in right-of-way of Wilkinson Road, which currently serves the main residence. Two existing 1" water meters were observed in the right-of-way of Wilkinson Road near the middle of the east property line, that currently serve the main residence.

No new water service lines will be required for the future two lots. There is an existing fire hydrant in the right-of-way of Wilkinson Road, which is approximately 365' north of the northeast property corner of the property. A second fire hydrant is located at the intersection of Wilkinson Road and Chaparral Road approximately 313' from the southeast property corner.

Fire flow test was conducted and witnessed on January 21st, 2025 by Floyd Vaughan – Arizona Flow Testing LLC. The fire hydrant being tested is connected to the 4" main in Wilkinson Road. 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). Per the performed Hydrant Fire Flow Test, the fire hydrant could supply 4,099 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. Fire

sprinklers for the new residences will be fed off the domestic water service. EPCPR water has the capability to supply water to the development per the enclosed Will Serve letter.

3. WASTEWATER SYSTEM

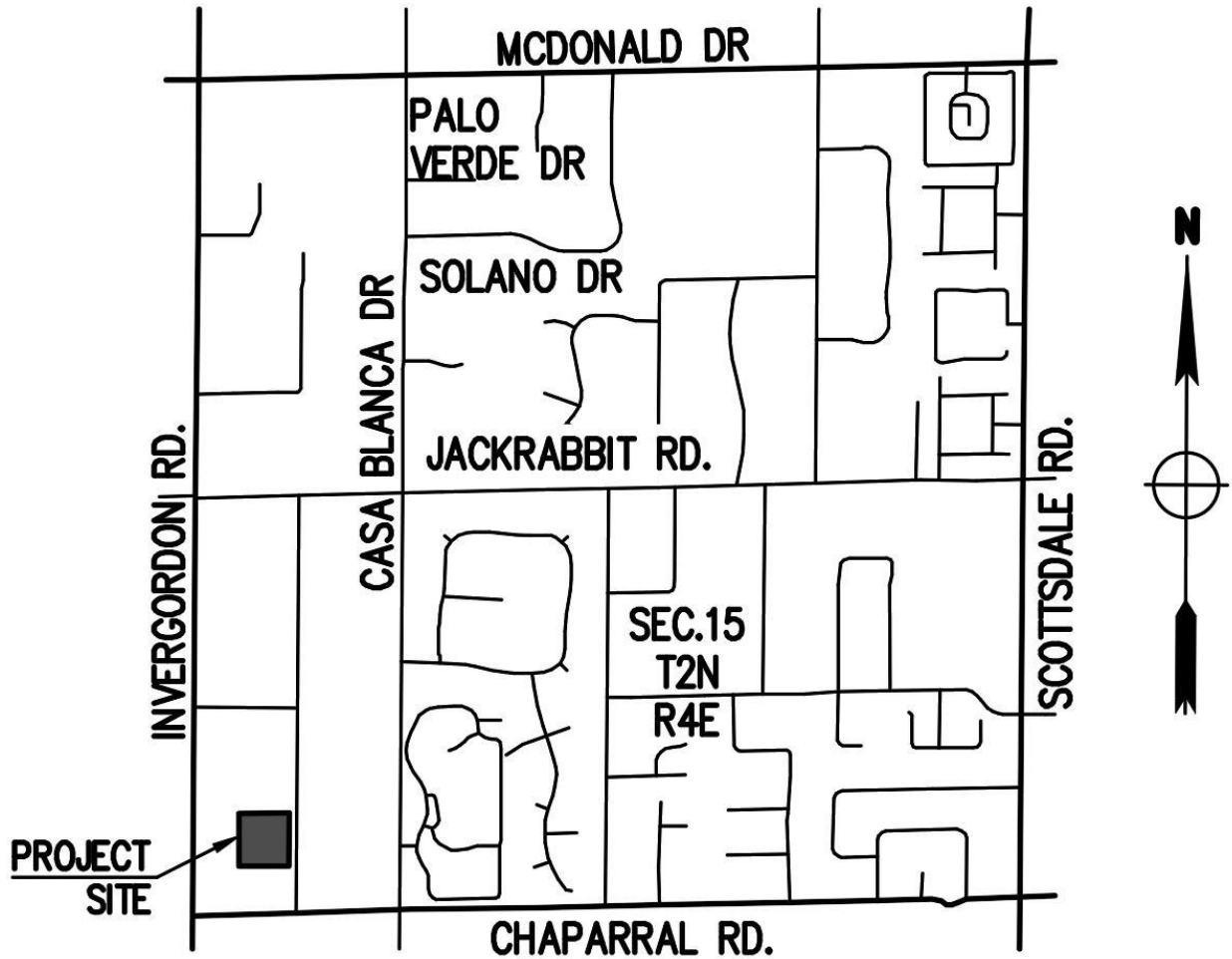
The Town of Paradise Valley is the sanitary sewer provider for this project. There are 8" sewer main that runs in the right-of-way of Wilkinson Road. Currently, the property is served by the public sanitary sewer system. A new sewer system will be required for the north lot under a right of way sewer tap permit.

4. REFERENCES

- Town of Paradise Valley Design Standards & Policies.
- 2018 International Fire Code, Appendix B, Fire Flow Requirements for Buildings.
- EPCOR Water Maps.

APPENDIX A-1

Vicinity Map



APPENDIX A-2

EPCOR Water Map

QUARTER SECTION MAPS



Eastern Division

WATER SYSTEM

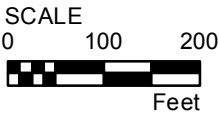
JULY 2012
UPDATED: MAY 2014



WATER SYSTEM



N



AREA
BOUNDARIES



Service Area

LAND
FEATURES

Street Centerline

Lotlines

TYPICAL LOT

ADDRESS
NUMBER

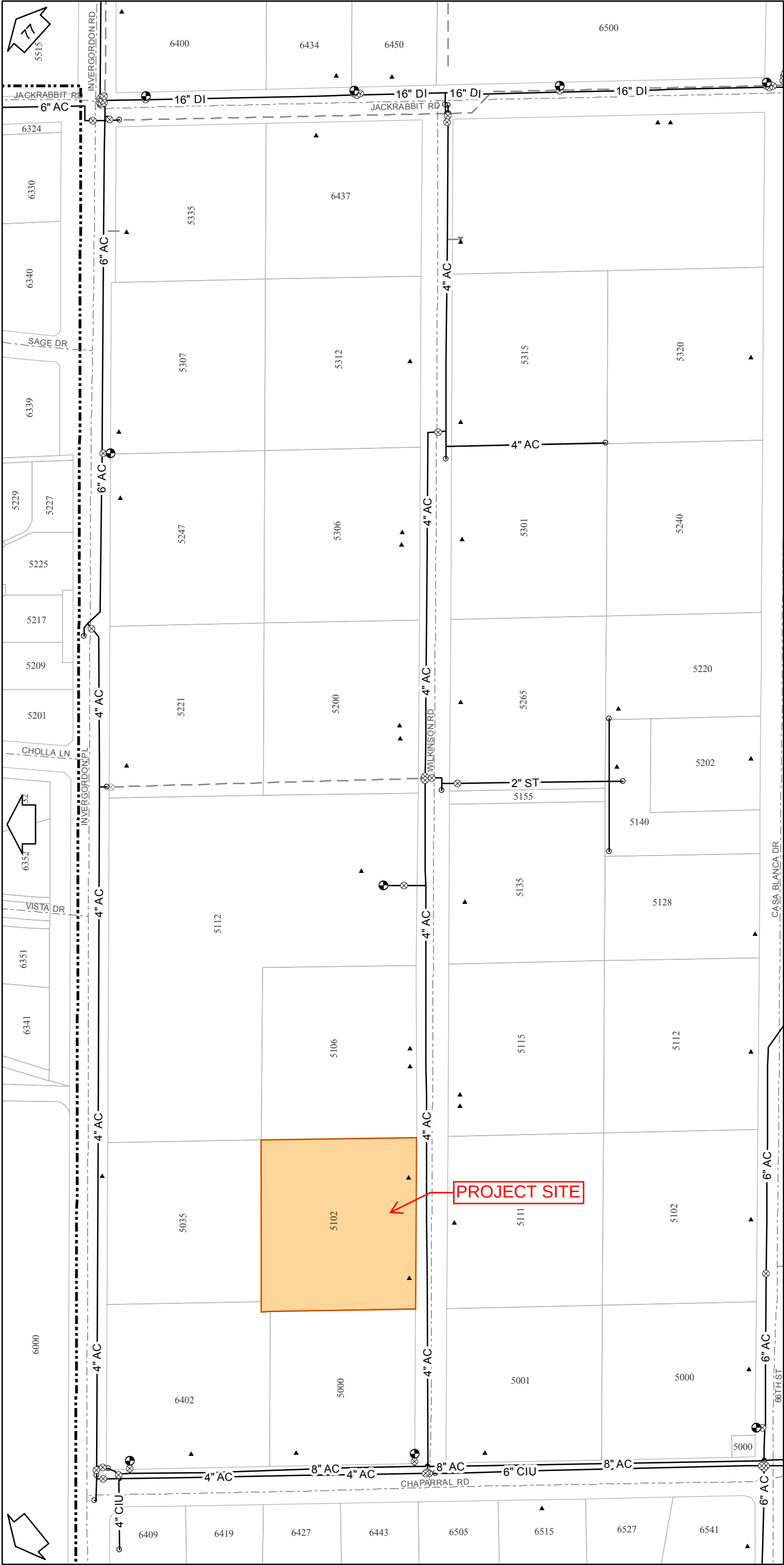
123

MAP PAGES

77	78	79
	82	83
	85	86

2N4E SW15
SW 1/4 SECTION 15
Mapgrid: 19-43

EPCOR WATER



82 PARADISE VALLEY WATER
LEFT

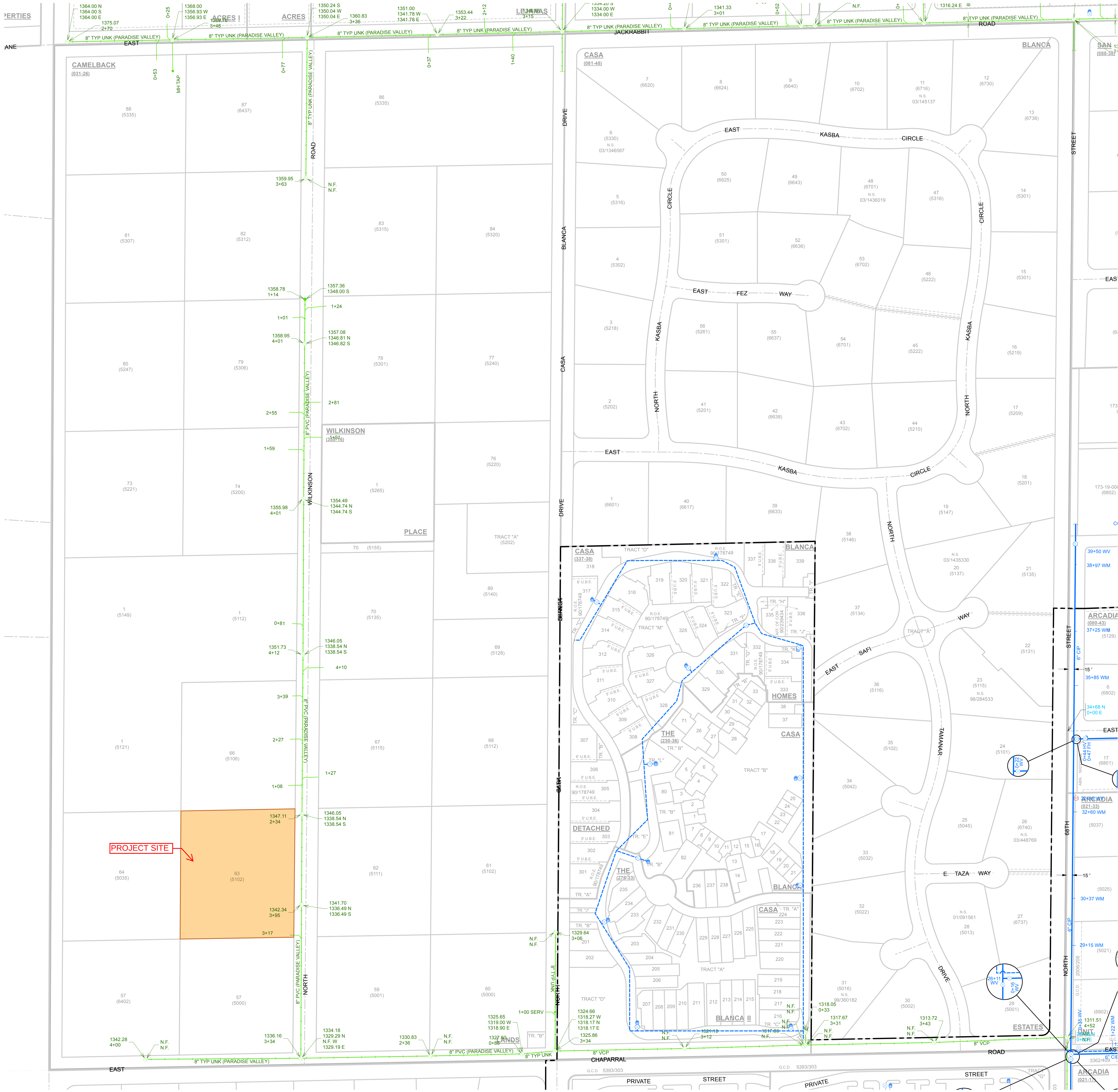
REVISED: MAY 2014

COPYRIGHT © 2012 EPCOR WATER COMPANY
EPCOR MAKES NO CLAIMS CONCERNING THE ACCURACY
OF THIS MAP NOR ASSUMES ANY LIABILITY RESULTING
FROM THE USE OF THE INFORMATION HERON.

APPENDIX A-3

Town of Paradise Valley Sewer Map





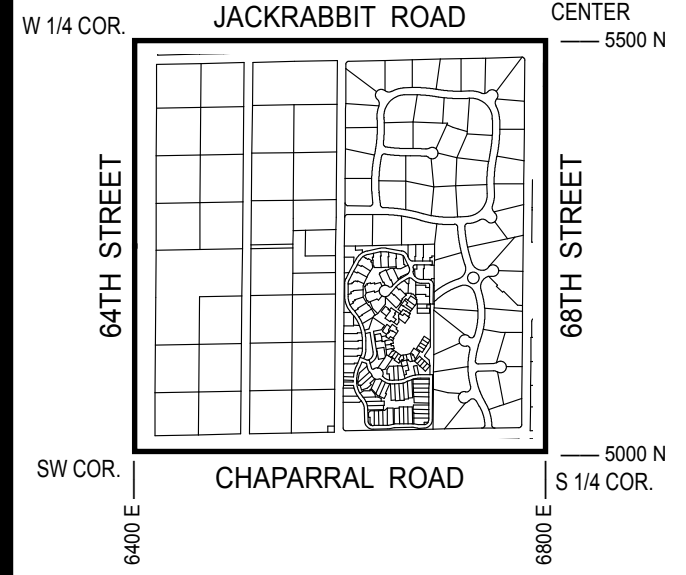
GENERAL NOTES:

- THIS IS A COMPUTER GENERATED DRAWING. FOR ANY REVISIONS PLEASE CONTACT THE CITY OF SCOTTSDALE GIS DEPARTMENT AT (480) 312-7792.
- THE SECTION LINE BEARING AND DISTANCES ARE BASED ON THE CITY OF SCOTTSDALE GPS SURVEY OF SEPTEMBER, 1991. BEARINGS ARE NAD 83 GRID AND DISTANCES ARE FLATTENED TO GROUND. WHERE NO CORNER WAS FOUND THE DIMENSIONS ARE GIVEN TO CALCULATED SECTION CORNERS AND ARE NOTED AS "CALCULATED" ON THE MAP.

LEGEND:

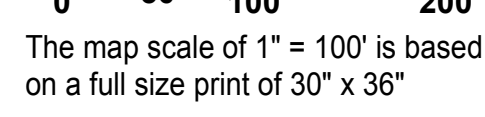
- Water Valve
- Non-potable Water Valve
- Fire Hydrant
- Water Blowoff
- Water Main Reducer
- Water Sample Station
- Water Air Release Valve
- Non-potable Water Air Release Valve
- Water Pressure Reducing Valve
- Water Vault
- Water Manhole
- Non-Potable Water Manhole
- Water Pump
- Water Main
- Non-Potable Water Main
- Fire Line
- Water Service
- Non-Scottsdale Water Main
- Sewer Manhole
- Sewer Cleanout
- Sewer Lift Station
- Sewer Treatment Plant
- Sewer Main - Gravity
- Sewer Main - Force
- Non-Scottsdale Sewer Main
- Sewer Service

VICINITY MAP



NORTH

SCALE: 1" = 100'



The map scale of 1" = 100' is based on a full size print of 30" x 36"

WATER & SEWER
QUARTER SECTION MAP

19-43

SW 1/4 SEC. 15 T2N R4E

APPENDIX A-4

Water Flow Test

Arizona Flow Testing LLC

HYDRANT FLOW TEST REPORT

Project Name: 5102 North Wilkinson Road
Project Address: 5102 North Wilkinson Road, Paradise Valley, Arizona 85351
Client Project No.: 2412385
Arizona Flow Testing Project No.: 25030
Date and Time flow test conducted: January 21, 2025 at 10:00 AM
Data is current and reliable until: July 21, 2025
Conducted by: Floyd Vaughan – Arizona Flow Testing, LLC (480-250-8154)
Coordinated by: Garren Willey – EPCOR Water (480-450-4670)

Raw Test Data

Static Pressure: **72.0 PSI**
(Measured in pounds per square inch)

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

Pitot Pressure: **21.0 PSI**
(Measured in pounds per square inch)

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

Coefficient of Diffuser: 0.7875

Flowing GPM: **1,723 GPM**
(Measured in gallons per minute)

GPM @ 20 PSI: **4,443 GPM**

Data with 10 % Safety Factor

Static Pressure: **64.8 PSI**
(Measured in pounds per square inch)

Residual Pressure: **55.8 PSI**
(Measured in pounds per square inch)

Approx. distance between hydrants: 1,080 Feet

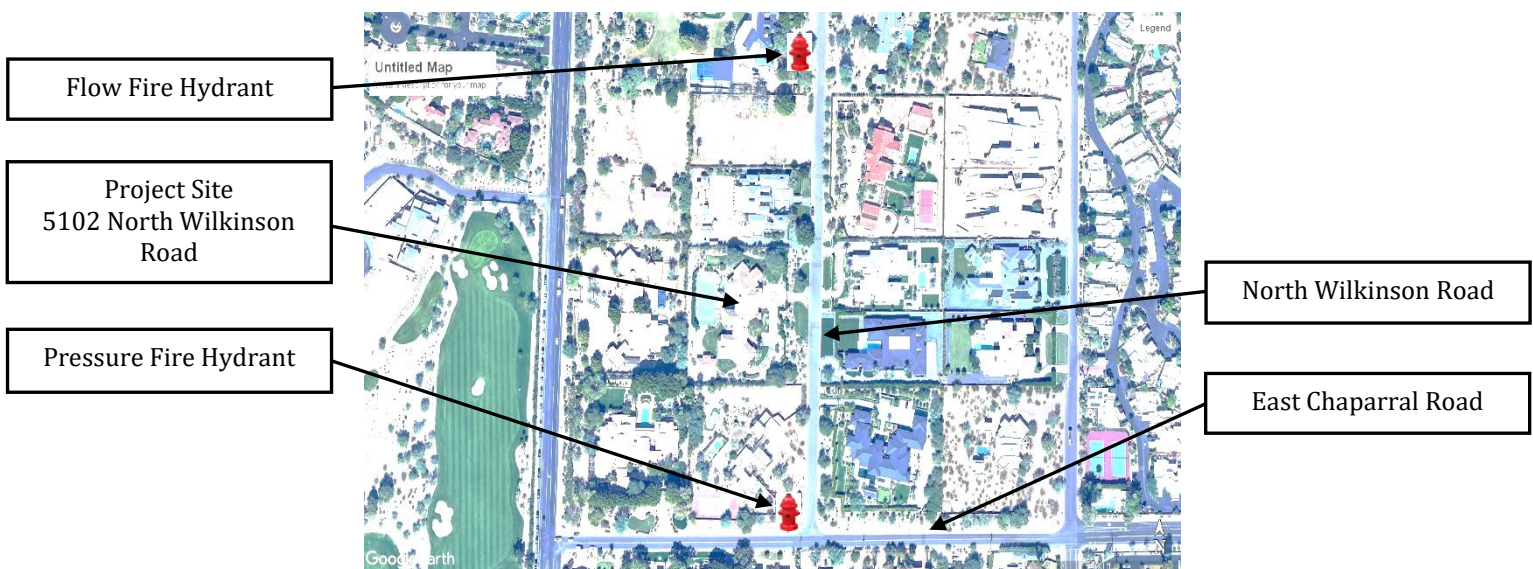
Main size: Not Provided

Flowing GPM: **1,723 GPM**

GPM @ 20 PSI: **4,099 GPM**

Flow Test Location

North ↑



APPENDIX A-5

Will Serve Letter