

Drainage Reports
Abbreviated Water & Sewer Need Reports
Water Study
Wastewater Study
Stormwater Waiver Application

RONAN'S DESERT JEWEL

PT OF SW1/4NE1/4, SECTION 26

TOWNSHIP 3 NORTH, RANGE 5 EAST

GILA & SALT RIVER BASE AND MERIDIAN

MARICOPA COUNTY, ARIZONA

WATER DESIGN REPORT

CLIENT:

BRIDGET HAHN

PREPARED BY:

**ROSENDAHL ENGINEERING, PLLC
857 N. BARKLEY
MESA, ARIZONA 85203
480-599-1263**

**2-MD-2019
02/20/2019**

ROSENDAHL ENGINEERING, PLLC

URBAN DESIGN & INFRASTRUCTURE

RESIDENTIAL & COMMERCIAL

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APPENDIX

Hydrant Flow Tests

POCKET

Site Plan

A. INTRODUCTION:

Ronan's Desert Jewel is a 2 lot minor land division located in the NE1/4 of Section 26, Township 3 North, Range 5 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, South of Shea Boulevard on 126th Street. The parcel is 2.31 acres and is zoned R1-43. The site is surrounded with single family residences of the same zoning classification. The water will be provided by the City of Scottsdale.

B. DESIGN DOCUMENTATION:

The water distribution system for this project will be designed in compliance with the City Design Standards & Policies Manual and in accordance with the requirements of Maricopa County Environmental Services Department.

This project being relatively simple will require flow testing of fire hydrants in the vicinity of the project. There exists a water line in Gold Dust Avenue and another 300 feet to the South along Turquoise Avenue, both water lines were flow tested and the results of the hydrant flow testing are included herein.

C. EXISTING CONDITIONS:

As previously mentioned, this area is zoned R1-43 for single family residences, which is compatible with the neighborhood development. The site is moderately covered with Sonoran Desert vegetation. It is gently sloping from Northeast to Southwest. There is an 8" water main in Gold Dust Avenue with a stub out extending South on 126th Street to the North boundary of this site. In Turquoise Avenue, which tee's into 126th Street near the South boundary of the subject parcel, there exists another 8" water main. Flow testing has been performed on both of these water mains, using 2 hydrants in Gold Dust Avenue located 1000 feet apart, one at the SW quadrant of Gold Dust and 125th Street and the other approximately 400 feet East of 126th Street on the North side of Gold Dust Avenue. The second test was performed with a hydrant near the southeast corner of the site on the East-West alignment of Turquoise Avenue being the static hydrant and the flowing hydrant being located 2000 feet East. The static pressure difference between these two systems is 10 psi. The Gold Dust system having a static pressure of 120 psi and the Turquoise system being 130 psi.

D. PROPOSED CONDITIONS:

We propose to tie these two pressure zones together with an 8" water main with a water service extending to each of the two new lots of the land division. The static pressure between the two zones will equalize between 120 and 130 psi.

E. COMPUTATIONS:

No further computations were performed beyond the flow testing of the two pressure zones.

F. DESIGN DOCUMENTATION:

Nothing further.

G. SUMMARY:

By connecting the two pressure zones that were flow tested with an 8" diameter water main the pressure of the two zones will equalize between 120 and 130 psi and adding the water services will not have a significant impact on the system.



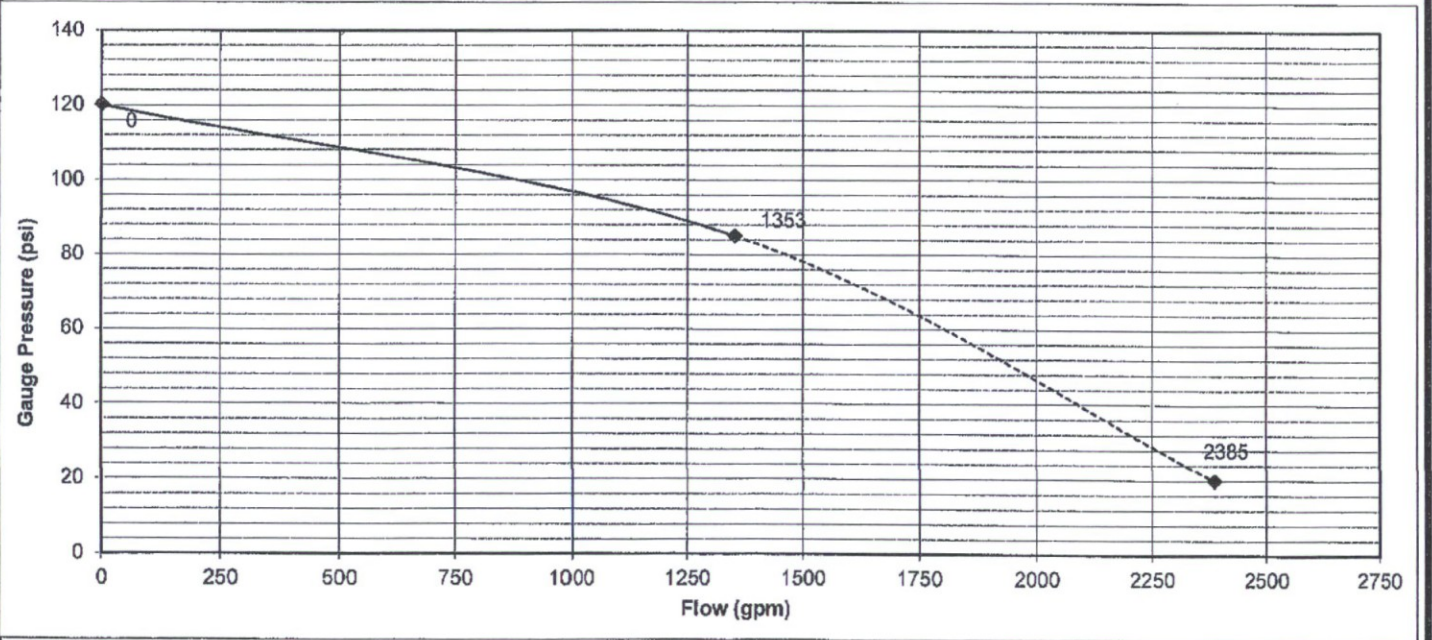
21630 N 9th Ave Suite 101
 Phoenix, AZ 85027
 Phone: 623-582-3369
 Fax: 623-582-4078

**FIRE HYDRANT FLOW TEST
 SUMMARY REPORT**

Licensed - Bonded - Insured
 AZ ROC # 216491, 219214

LOCATION 12840 E Gold Dust	DATE: 01/23/19
Loaction of Flowing Hydrant	TIME: 12:00PM
12500 E Gold Dust	Report# 1
Loaction of Static Hydrant	Tech: RJ/Kerry
Static Hydrant Number: 1	Flowing Hydrant Number: 2
Elevation:	Elevation:
Dist. Between Hydrants: 1000	Type of Supply: public
Diameter of Main: 8	Number flowing: 1
Outlet Diameter: 2.5	Coeff. of Discharge: 0.90
Static Pressure: 120.00	Residual Pressure: 85
Pitot Reading: 65.00	Flow: 1352.8 gpm
Pump Present: no	
Tank Present: no	
Flow at 20 psi: 2384.7 gpm	

Static pressure of 120 psi @	0	gpm
Residual pressure of 85 psi @	1352.8	gpm
Available flow @ 20 psi --	2384.7	gpm



Comments:

- NOTES:**
1. Flowing hydrant is assumed to be on a circulating main or downstream of the pressure test hydrant on a dead-end system.
 2. Flow analysis assumes a gravity flow system with no distribution pumps and having no demand, other than the test
 3. The distance between hydrants, elevations & main diameters are for information only.



SERVICE 1st
Fire Protection, LLC

21630 N 9th Ave Suite 101
Phoenix, AZ 85027
Phone: 623-582-3369
Fax: 623-582-4078

**FIRE HYDRANT FLOW TEST
SUMMARY REPORT**

Licensed - Bonded - Insured
AZ ROC # 216491, 219214

LOCATION 12884 E Turquoise
Loaction of Flowing Hydrant
9970 N 126th St
Loaction of Static Hydrant

DATE: 01/23/19
TIME: 12:00PM
Report#: 2
Tech: RJ/Kerry

Static Hydrant Number: 1
Elevation: _____

Flowing Hydrant Number: 2
Elevation: _____

Dist. Between Hydrants: 2000

Diameter of Main: 8

Type of Supply: public

Outlet Diameter: 2.5

Number flowing: 1
Coeff. of Discharge: 0.90

Static Pressure: 130.00

Residual Pressure: 125

Pitot Reading: 50.00

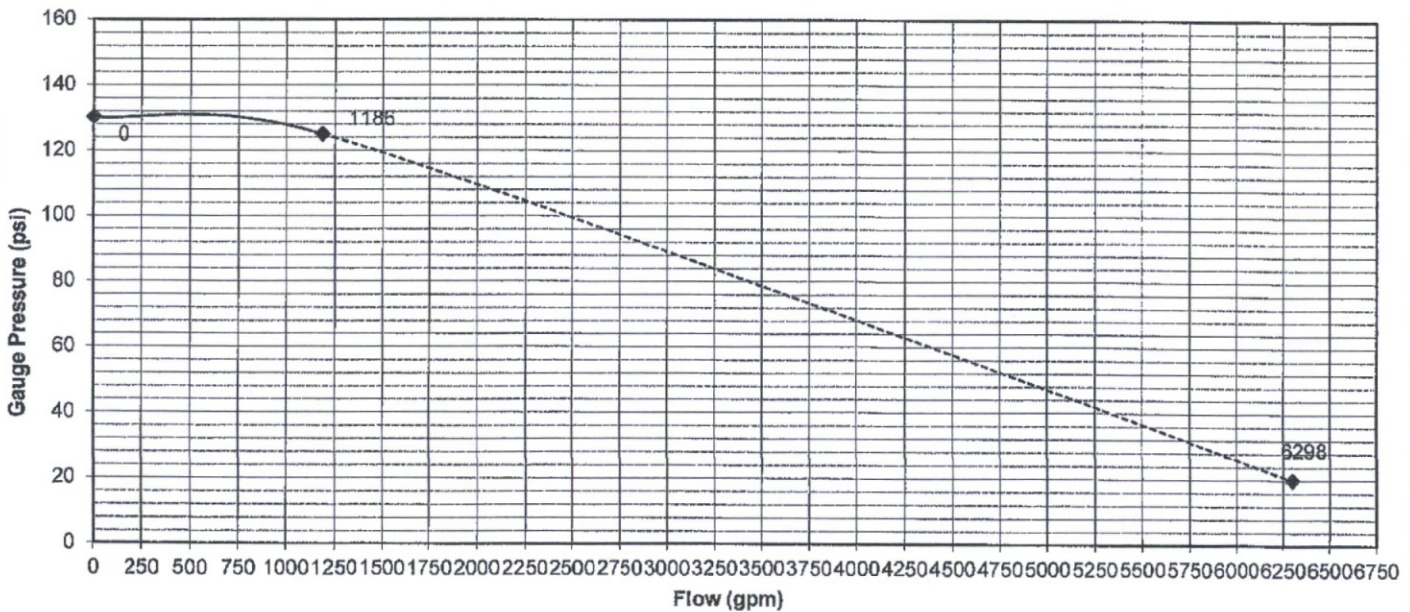
Flow: 1186.5 gpm

Pump Present: no

Static pressure of 130 psi @	0	gpm
Residual pressure of 125 psi @	1186.5	gpm
Available flow @ 20 psi --	6297.5	gpm

Tank Present: no

Flow at 20 psi: 6297.5 gpm



Comments:

NOTES:

1. Flowing hydrant is assumed to be on a circulating main or downstream of the pressure test hydrant on a dead-end system.
2. Flow analysis assumes a gravity flow system with no distribution pumps and having no demand, other than the test
3. The distance between hydrants, elevations & main diameters are for information only.

IMPORTANT - THIS IS YOUR COPY - DO NOT DESTROY

PRELIMINARY PLAT

PT OF THE NE 1/4 SEC. 26, TWP 3 N., RNG 5 E. OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

PARCEL LEGAL DESCRIPTION:

BEING THE SOUTH HALF OF LOT 37, SECTION 26, TOWNSHIP 3 NORTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

SITE DATA:

NET AREA OF PARCEL: 100,562 SF OR 2.31 ACRES
 ZONING: R1-43
 ASSESSOR'S PARCEL NUMBER: 217-32-046A

ADDRESS:

UNASSIGNED TO DATE: NORTH 126TH STREET

BASIS OF BEARINGS:

BEING THE MONUMENT LINE OF E. MOUNTAIN VIEW ROAD AND THE E-W CENTER OF SECTION LINE OF SECTION 26, TOWNSHIP 3 NORTH, RANGE 5 EAST BETWEEN THE EAST QUARTER CORNER AND THE CENTER OF SECTION. BEARING BEING S89°59'15"E PER NAD83 GPS OBSERVATION.

BENCH MARK:

BEING A BRASS CAP IN HANDHOLE AT THE INTERSECTION OF SHEA BOULEVARD AND 124TH ST. ALSO BEING THE NORTH QUARTER CORNER OF SECTION 26. ELEVATION 1543.12 PER NAVD88 GPS OBSERVATION

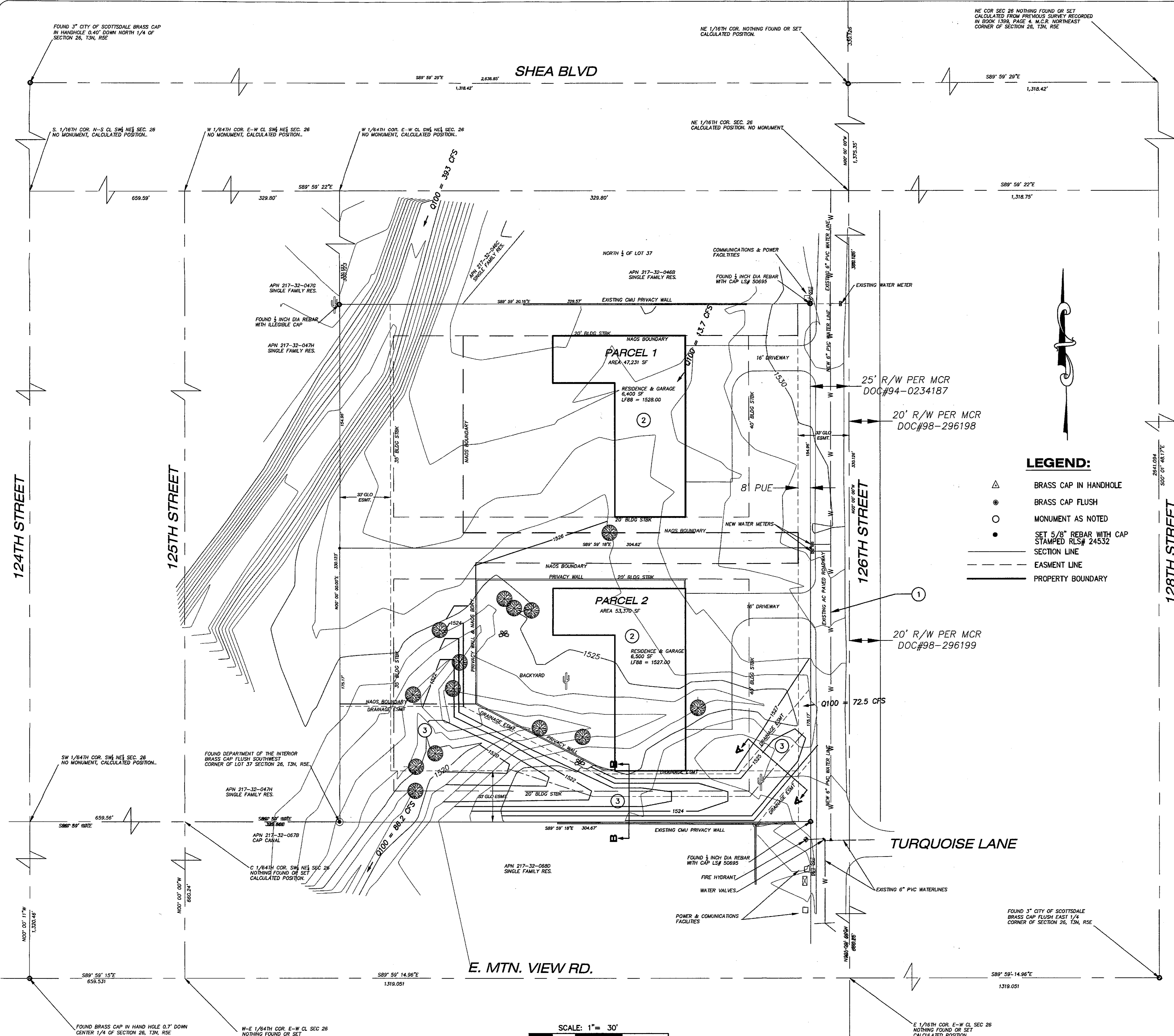
FLOOD INSURANCE RATE MAP INFORMATION

COMMUNITY NUMBER	PANEL/DATE	SUFFIX	PANEL DATE	FIRM ZONE
045012	1785	L	10/16/13	X
	10/16/13			

PRELIMINARY PLAT NOTES:

- EXTENSION OF EXISTING 6" DIA. PVC WATER LINES IN 126TH STREET FROM E. GOLDDUST ROAD AND AT THE INTERSECTION OF 126TH STREET AND TURQUOISE LANE.
- HYPOTHETICAL HOUSE, BACKYARD AND DRIVEWAY FOR THE PURPOSE OF SHOWING AN ACCEPTABLE BUILDING ENVELOPE ON THE NEW PARCELS INCLUDING THE WASH MODIFICATION AND OTHER BUILDING CONSTRAINTS.
- WASH MODIFICATION TO BE CONSTRUCTED UPON APPROVAL OF THE FINAL MINOR LAND DIVISION PLAT AND TO BE CONTAINED IN A DRAINAGE EASEMENT TO BE SHOWN AND DEDICATED ON THE FINAL PLAT.

THE SLOPES ON THIS SITE ARE PREDOMINATELY 0-2% AND 2-5%, THE SLOPE INTO THE WASHES EXCEED 5% BUT THE SITE IS IN THE 25% CLASSIFICATION FOR DETERMINING THE NAOS REQUIREMENT.



LEGEND:

- ▲ BRASS CAP IN HANDHOLE
- BRASS CAP FLUSH
- MONUMENT AS NOTED
- SET 5/8" REBAR WITH CAP STAMPED RLS# 24532
- SECTION LINE
- - - - - EASEMENT LINE
- PROPERTY BOUNDARY

C:\ROSENDAHL\ENGINEERING\2018\181084_Bridget_Hahn_MLD.Hyd., etc\Pre-Plat Wash Mod.dwg - Feb 19, 2019 8:28am

PRELIMINARY PLAT		DESIGN: PWR
RONAN'S DESERT JEWEL		DRAWN: TB
ROSENDAHL ENGINEERING		
• ENGINEERING • SURVEYING		PROJECT NO. 181084 DATE: 12/7/19 SHEET PP 1 OF 1
• URBAN DESIGN • COMMERCIAL / RESIDENTIAL		857 N. BARKLEY ST. MESA, ARIZONA 85203 (480) 599-1263 TEL. (480) 834-2163 FAX

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

 Call 811 or visit arizona811.com