Clouse Engineering, Inc.

ENGINEERS ▪ SURVEYORS

5010 E. Shea Blvd. Ste. 110 ▪ Scottsdale, Arizona 85254 ▪ TEL (602) 395-9300 ▪ FAX (602) 395-9310

January 12, 2017

Town of Paradise Valley
6401 E. Lincoln Drive
Paradise Valley, AZ 85253

Attention: Paul Michaud, Senior Planner

RE: **Lot Split – 6912 E. Horseshoe Road (174-31-023)**

Dear Mr. Michaud:

Brad Folkman, of the Berneil Water Company, forwarded recent flow testing which was conducted on October 10, 2016. The test results indicate that their system does provide the required flow rate of 1,500 gpm at the residual zone pressure of 20 psi. The test results are attached.

Please contact this office should there be any questions regarding this matter.

Very truly yours,
CLOUSE ENGINEERING, INC.

Registered Professional Engineer (Civil) CERTIFICATE 18675 JEFF A. GILES DATE SIGNED 1-12-17 ARIZONA U.S.A. Expires 12/31/17

Jeff A. Giles, P.E.
President

Clouse Engineering, Inc.

ENGINEERS ▪ SURVEYORS

5010 E. Shea Blvd. Ste. 110 ▪ Scottsdale, Arizona 85254 ▪ TEL (602) 395-9300 ▪ FAX (602) 395-9310

September 8, 2016

Town of Paradise Valley
6401 E. Lincoln Drive
Paradise Valley, AZ 85253

Attention: Paul Michaud, Senior Planner

RE: **Lot Split – 6912 E. Horseshoe Road (174-31-023)**

Dear Mr. Michaud:

The property, as it currently exists, contains a single residential structure; driveway; walls; and accessory structures. Upon recording of the formal Lot Split, all of the improvements will be demolished and removed from the premises.

Currently, there is a non-conforming wall along the front of the property, which runs parallel along the frontage of Horseshoe Road. This wall will also be demolished and removed.

Ultimately, the Lots produced by the Split, will be developed as individual residential property. At such time as permits for the construction of homes is submitted, the proposed new construction, as well as the treatment of the existing perimeter walls will be addressed and approvals will be sought from the Town. It is understood that minimum requirements regarding the perimeter walls shall be met.

Since the present owner may or may not be constructing new homes on the proposed lots, it is simply assumed that each future home will be constructed with septic systems, as no public sewer is presently existing in the near vicinity. Again, the owner/builder of the new homes will be processing their proposed improvements through the Town for approvals.

Please contact this office should there be any questions regarding this matter.

Very truly yours,
CLOUSE ENGINEERING, INC.

Jeff A. Giles, P.E.
President

Registered Professional Engineer (Civil)
CERTIFICATE NO.
18675
JEFF A.
GILES
DATE SIGNED 9-8-16
ARIZONA U.S.A.
Expires 12/31/17

Clouse Engineering, Inc.

ENGINEERS ▪ SURVEYORS

5010 E. Shea Blvd. Ste. 110 ▪ Scottsdale, Arizona 85254 ▪ TEL (602) 395-9300 ▪ FAX (602) 395-9310

December 14, 2016

Town of Paradise Valley
6401 E. Lincoln Drive
Paradise Valley, AZ 85253

Attention: Paul Michaud, Senior Planner

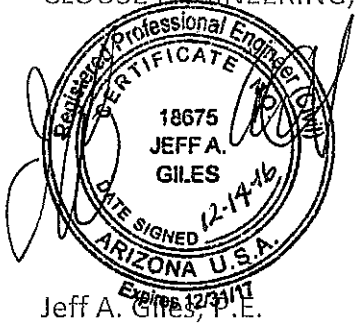
RE: **Lot Split – 6912 E. Horseshoe Road (174-31-023)**

Dear Mr. Michaud:

The existing drainage of the property is essentially onsite retention. There are no off-site flows which impact the site. Subsequent to splitting the lot in half, each proposed lot shall retain its own runoff.

Please contact this office should there be any questions regarding this matter.

Very truly yours,
CLOUSE ENGINEERING, INC.



Jeff A. Giles, P.E.
President

E·J | Flow Test Summary

Project Name:	EJFT 16167-2
Project Address:	8001-8045 N Golf Dr, Paradise Valley, AZ 85253
Date of Flow Test:	2016-10-10
Time of Flow Test:	1:40 PM MST
Data Reliable Until:	2017-04-10
Conducted By:	Austin Gourley & Eder Cueva (EJ Flow Tests) 602.999.7637
Witnessed By:	Don Ross (Berneil Water Company) 928.713.1959
City Forces Contacted:	Berneil Water Company (480.966.0115)

Raw Flow Test Data

Static Pressure:	76.0	PSI
Residual Pressure:	45.0	PSI
Flowing GPM:	1,128	
GPM @ 20 PSI:	1,552	

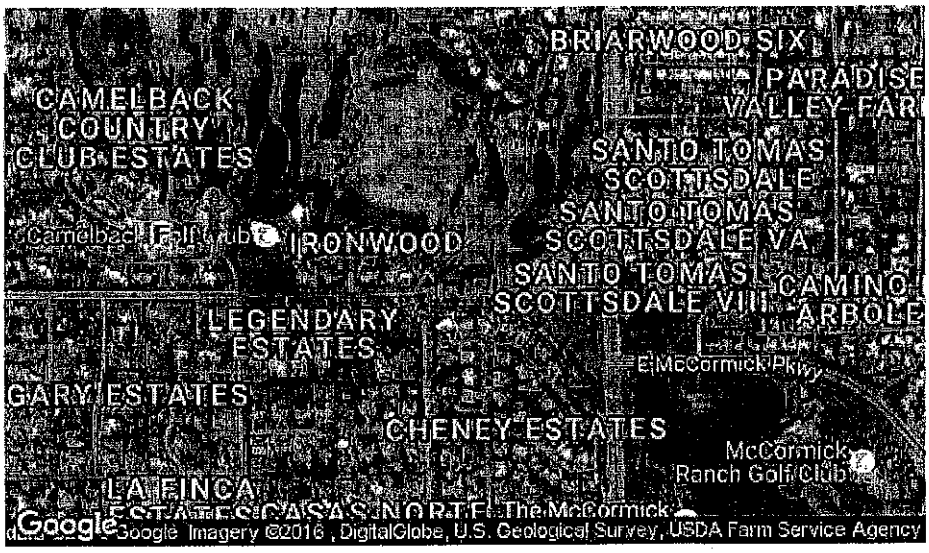
Data With A 10 PSI Safety Factor

Static Pressure:	66.0	PSI
Residual Pressure:	35.0	PSI
Flowing GPM:	1,128	
GPM @ 20 PSI:	1,396	

Hydrant F_1

Pitot Pressure (1): 10 PSI
Coefficient of Discharge (1): 0.9
Hydrant Orifice Diameter (1): 4.0 inches

Additional coefficient: 0.83 on orifice #1



Static-Residual Hydrant

Flow Hydrant

Distance Between F_1 and R
469 ft (measured linearly)

Static-Residual Elevation
1314 ft (above sea level)

Flow Hydrant (F_1) Elevation
1319 ft (above sea level)

Elevation & distance values are approximate

EJ Flow Tests, LLC
21505 North 78th Ave. | Suite 125 | Peoria, Arizona 85382 | (602) 999-7637 | www.ejengineering.com
John L. Echeverri | NICET Level IV 078493 SME | C-16 FP Contractor ROC 271705 AZ | NFPA CFPS 1915

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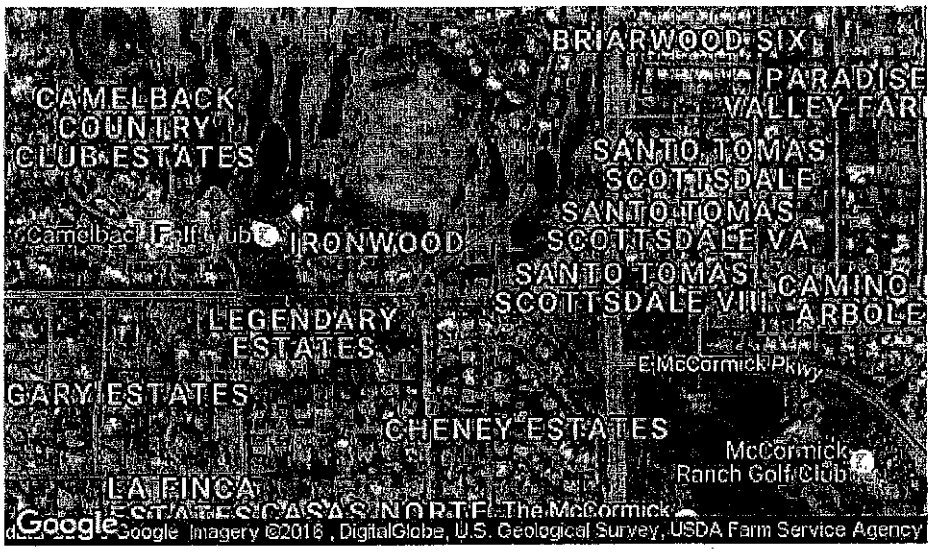

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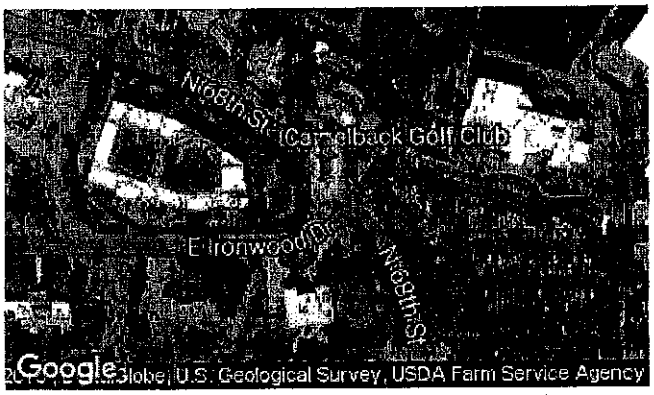
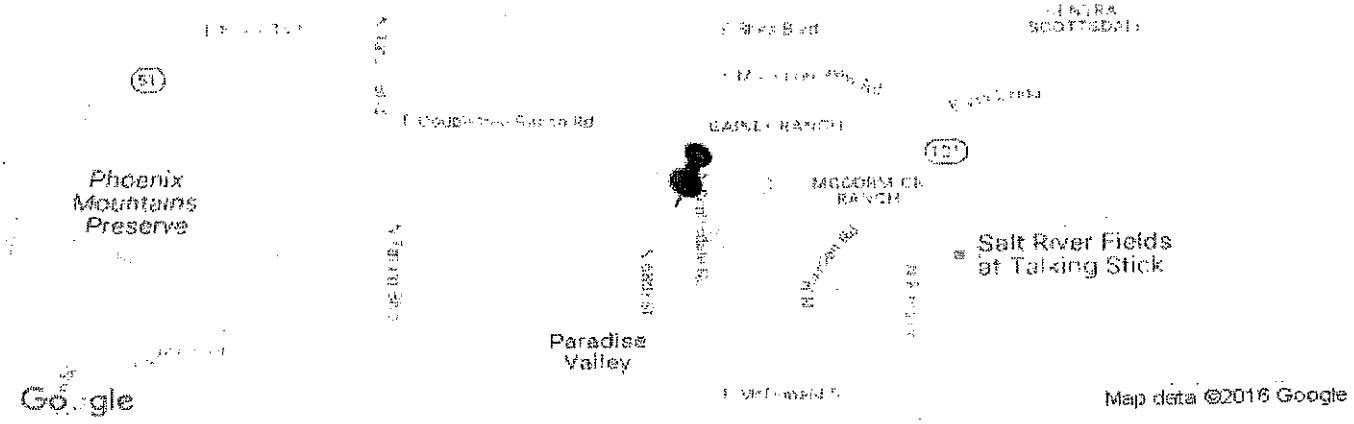
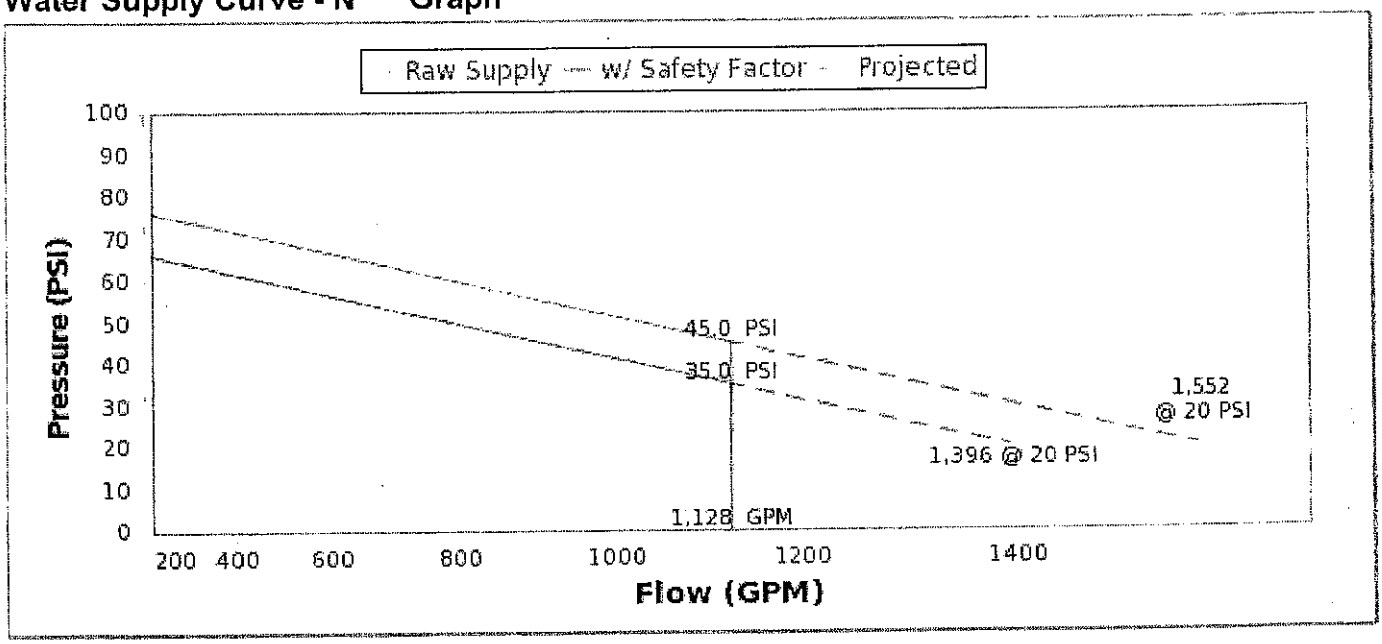


Flow Hydrant (only hydrant F1 shown for clarity)

Approximate Project Site

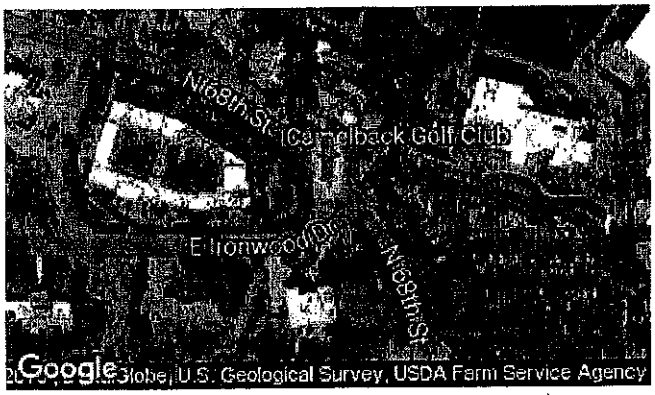


Water Supply Curve - $N^{1.85}$ Graph



E·J | Flow Test Summary

Static-Residual Hydrant



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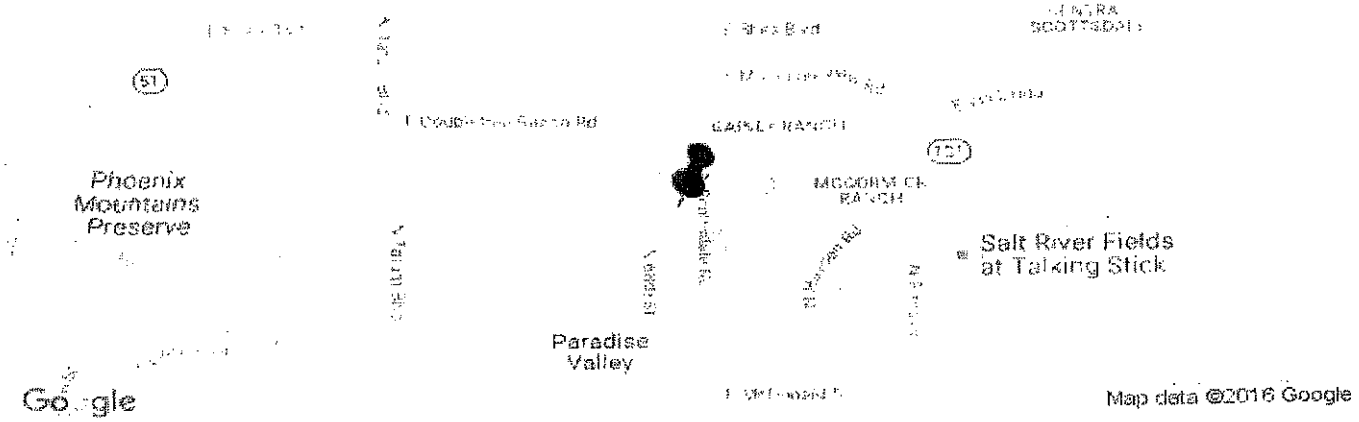

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