

# 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

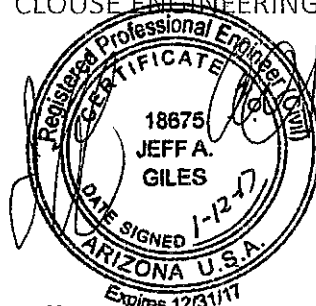
RE: **Lot Split – 6912 E. Horseshoe Road (174-31-023)**

Dear Mr. Michaud:

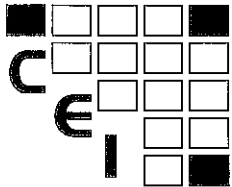
Brad Folkman, of the Berneil Water Company, forwarded recent flow testing which was conducted on October 10, 2016. The test results indicate that their system does provide the required flow rate of 1,500 gpm at the residual zone pressure of 20 psi. The test results are attached.

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

Very truly yours,  
CLOUSE ENGINEERING, INC.



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.

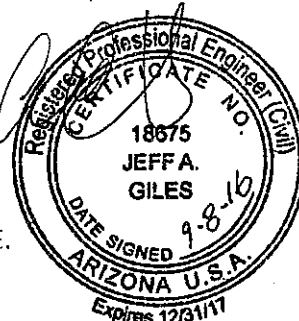
Ultimately, the Lots produced by the Split, will be developed as individual residential property. At such time as permits for the construction of homes is submitted, the proposed new construction, as well as the treatment of the existing perimeter walls will be addressed and approvals will be sought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

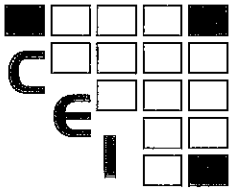
Since the present owner may or may not be constructing new homes on the proposed lots, it is simply assumed that each future home will be constructed with septic systems, as no public sewer is presently existing in the near vicinity. Again, the owner/builder of the new homes will be processing their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

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Jeff A. Giles, P.E.  
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# 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

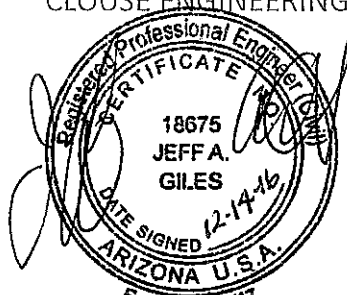
RE: Lot Split – 6912 E. Horseshoe Road (174-31-023)

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



# 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

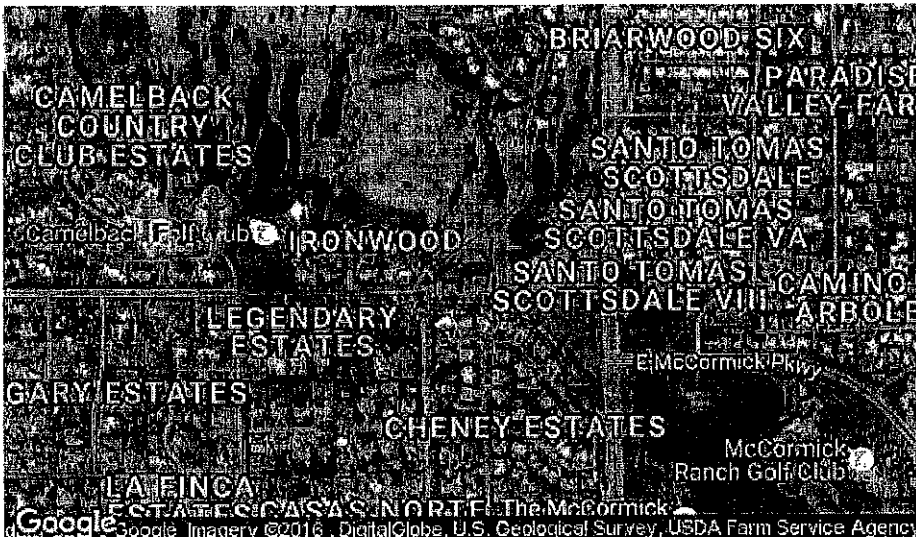
## Data With A 10 PSI Safety Factor

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

## Hydrant F<sub>1</sub>

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<sub>1</sub> and R  
469 ft (measured linearly)

Static-Residual Elevation  
1314 ft (above sea level)

Flow Hydrant (F<sub>1</sub>) Elevation  
1319 ft (above sea level)

Elevation & distance values are approximate



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# E·J | Flow Test Summary

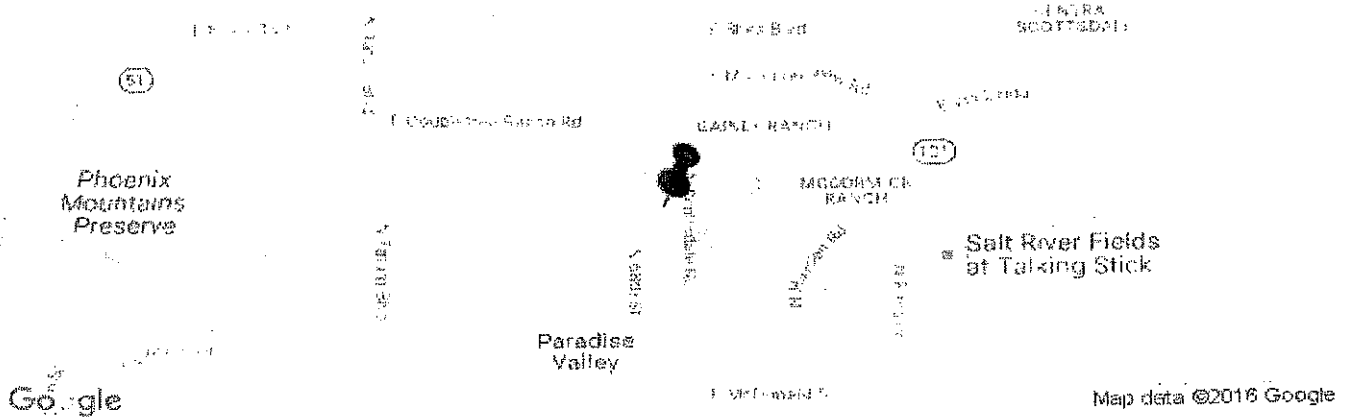
## Static-Residual Hydrant



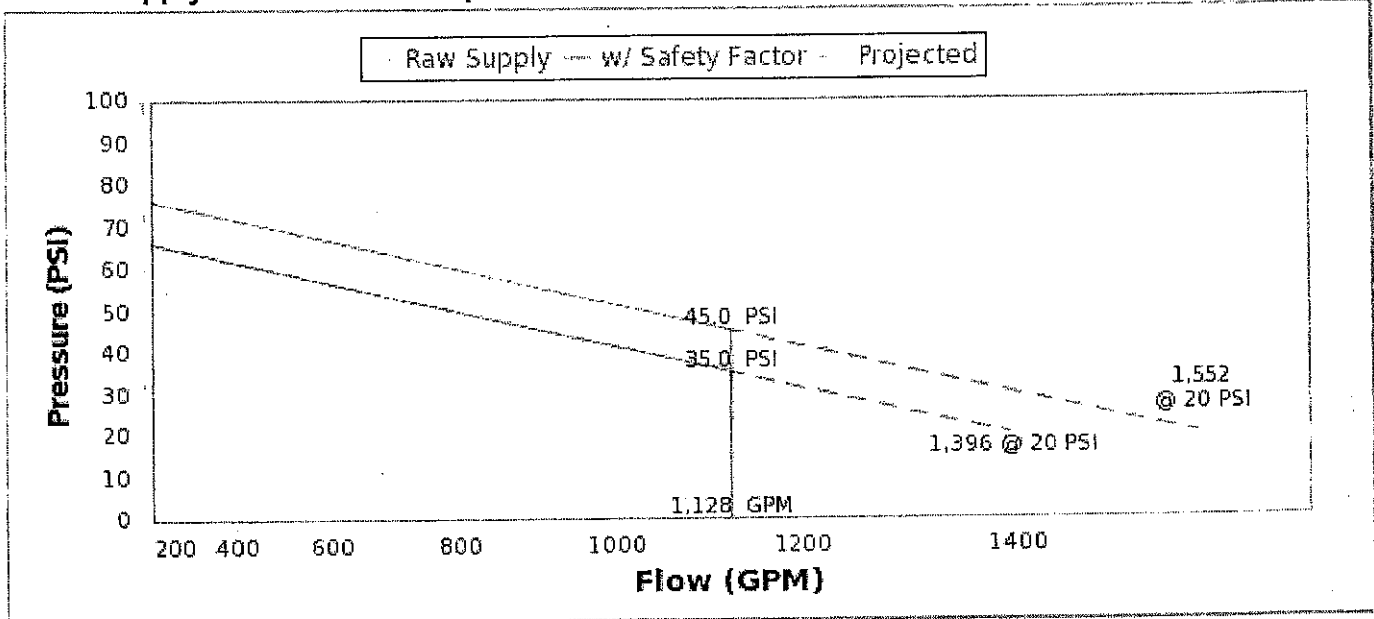
## Flow Hydrant (only hydrant F1 shown for clarity)



## Approximate Project Site

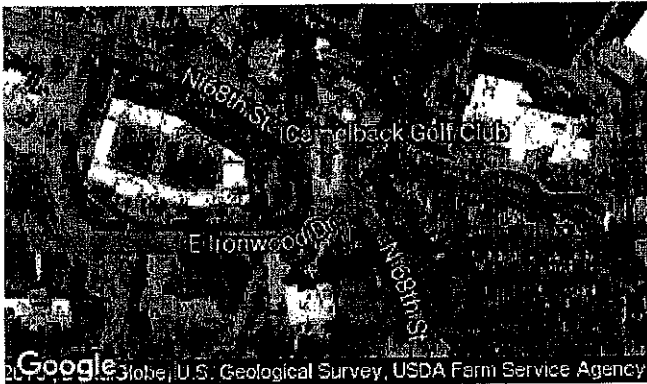


## Water Supply Curve - $N^{1.85}$ Graph

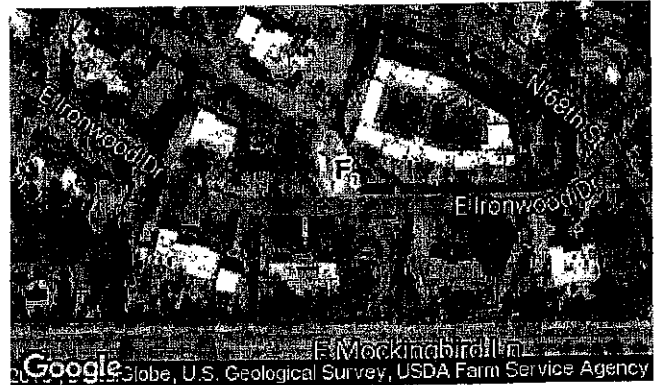


# EJ | Flow Test Summary

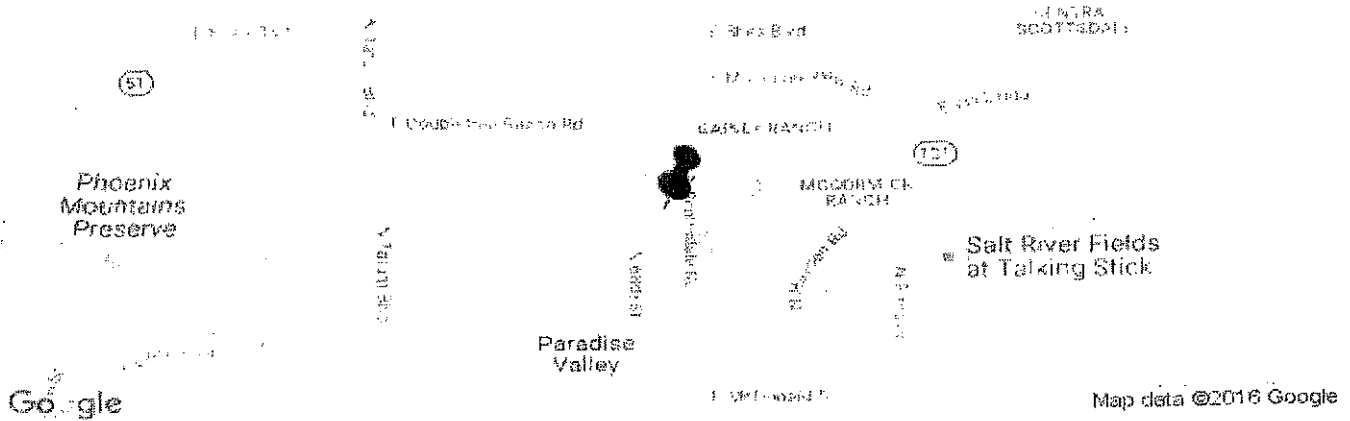
## Static-Residual Hydrant



## Flow Hydrant (only hydrant F1 shown for clarity)



## Approximate Project Site



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

