



VILLAGOMEZ ENGINEERING COMPANY

Civil Engineering

24165 IH-10 W, Suite 217-708 · San Antonio, Texas 78257

(210) 724-0816 · Fax (210) 853-0232

TBPE Firm No. F-13698

September 22, 2014

Mr. Michael Mann, P.E.

Public Works Director

400 E. Blanco Rd.

Boerne, Texas 78006

Reference: 306 S. Plant Ave.
Waiver of Stormwater Management Request

Mr. Mann:

Pursuant to Section 6.01.003(B) of the City of Boerne Subdivision Ordinance, we hereby request your support for a waiver of the stormwater management requirements of the Ordinance for the proposed plat at 306 S. Plant Ave. The proposed plat consists of only four (4) lots, zoned R3, and as detailed below the proposed development will not have an adverse impact to surrounding properties or drainage infrastructure.

According to the FEMA Firm Map Number 48259C0415F, effective date of December 17, 2010, the property is not located within the 100-year floodplain.

The property drains from northwest to southeast across the site. Runoff enters S. Plant Ave. and flows south, approximately 500 feet, to a low at the intersection of S. Plant Ave. and E Theissan St. The total drainage area to this low point is 1.71 square miles, with a time of concentration of 105.3 minutes. Using the HEC-HMS modeling program, we estimated the runoff values flowing to this point:

Storm	Runoff (CFS)
2-yr	925
5-yr	1277
10-yr	1511
25-yr	1801
50-yr	2092
100-yr	2265

Proposed Conditions

The proposed conditions consist of 4 townhomes, with nine (9') foot access driveways, totaling 0.0952 acres of added impervious cover. Using a time of concentration of five (5) minutes and corresponding rainfall intensities the flow originating from the subject property is:

Storm	Runoff (CFS)
2-yr	0.72
5-yr	0.92
10-yr	1.07
25-yr	1.36
50-yr	1.67
100-yr	1.90

Conclusion

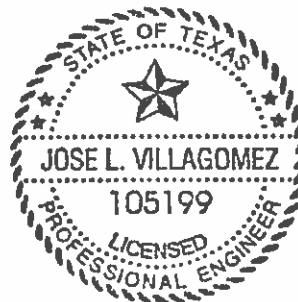
The major area of concern would be the confluence point where the overall drainage area meets the flow directly from the subject site. In our case, the peak runoff from the subject site has entered the overall low well before the peak storm flow from the overall drainage area has; therefore the impact of the development is reduced dramatically. The added flow to the overall drainage area and impact to the downstream infrastructure due to the proposed development is negligible.

Please contact our office with any comments or questions.

Sincerely,

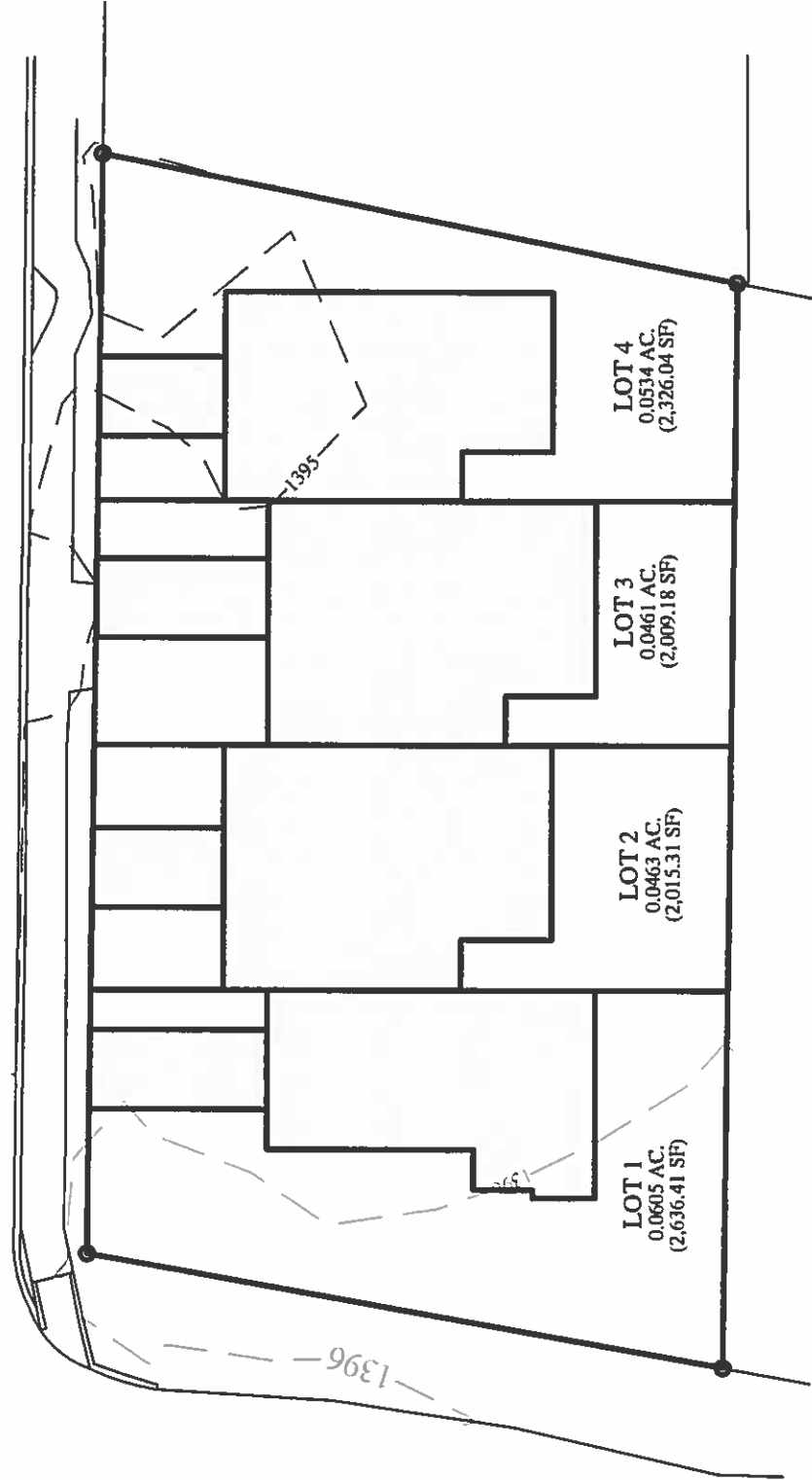
Jose Villagomez, P.E.

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Villagomez Engineering Company
TBPE Firm No. F13698



S. PLANT AVE.

ROSEWOOD AVE



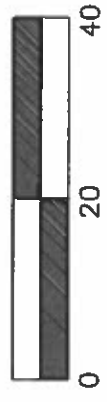
DATE: 01/29/14

JOB NO.: 13-026



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PROPOSED IMPERVIOUS COVER
A=0.0952 AC.



SCALE: 1" = 20'

306 S. PLANT AVE.

306 S. Plant Ave. - Boerne Texas
4 - R3 (Townhomes) Lots

Drainage Calculations

Proposed Conditions

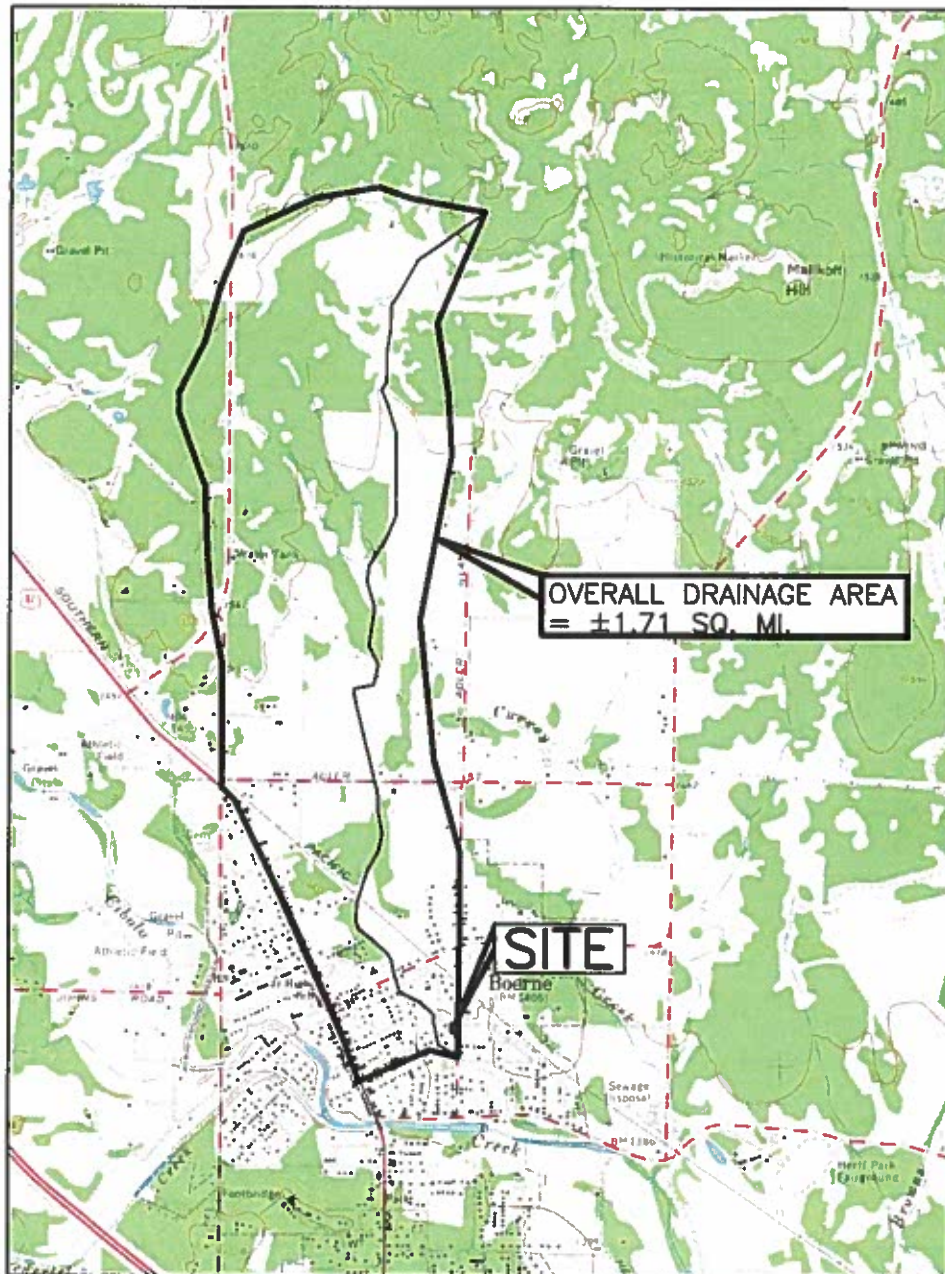
Area = 0.2063 Ac.

Total Area	0.21 Acres		
Impervious Area	0.10 Acres		
% Impervious Area	46.15 %	c =	0.83
% Pervious Area	53.85 %	c =	0.25
		weighted c =	0.52

Time of concentration = 5 min.

Rainfall Intensity

I ₂ Year(in/hr)	6.7		<u>Calculated Flow</u>	
I ₅ Year(in/hr)	8.65		Q ₂ Year = c I ₂ A	0.72 cfs
I ₁₀ Year(in/hr)	10		Q ₅ Year = c I ₅ A	0.92 cfs
I ₂₅ Year(in/hr)	11.6	C _t = 1.1	Q ₁₀ Year = c I ₁₀ A	1.07 cfs
I ₅₀ Year(in/hr)	13.05	C _t = 1.2	Q ₂₅ Year = c * C _t I ₂₅ A	1.36 cfs
I ₁₀₀ Year(in/hr)	14.2	C _t = 1.25	Q ₅₀ Year = c * C _t I ₅₀ A	1.67 cfs
			Q ₁₀₀ Year = c * C _t I ₁₀₀ A	1.90 cfs



SCALE: 1" = 3000'



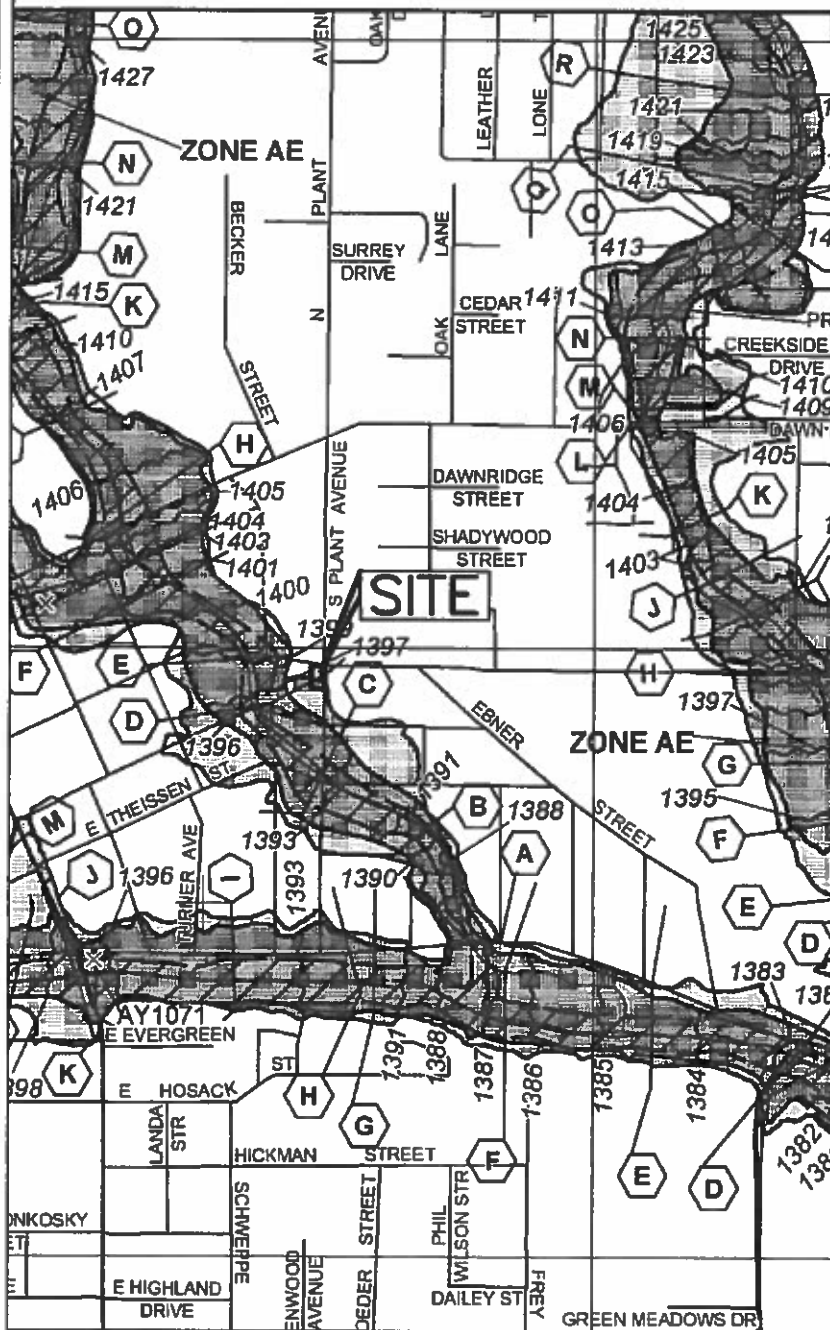
BOERNE, TEX USGS QUAD MAP - 306 S. PLANT AVE.

DATE: 09-22-2014

JOB NO.: 14-020



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MAP SCALE 1" = 1000'



PANEL 0415F

FIRM
FLOOD INSURANCE RATE MAP
KENDALL COUNTY,
TEXAS
AND INCORPORATED AREAS

PANEL 415 OF 525

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KENDALL COUNTY	480417	0415	F
BOERNE, CITY OF	480418	0415	F

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
48259C0415F

EFFECTIVE DATE
DECEMBER 17, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It



SCALE: 1" = 1000'



DATE: 09-22-2014

JOB NO.: 14-020



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FEMA MAP NO. 48259C0415F - 306 S. PLANT AVE.