# CITY OF ALBUQUERQUE



March 20, 2015

Levi J. Valdez, PE George T Rodriguez-Development Consultant 12800 San Juan Rd. SE Albuquerque, NM 87123

Re: Duplex Dwelling Units 172 Monte Largo NE Request Permanent C.O. - Accepted Engineer's Stamp dated: 11-25-13 (L23D008) Certification dated: 3-13-15

Dear Mr. Valdez,

Based on the Certification received 3/17/2015, the site is acceptable for release of Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

PO Box 1293

Albuquerque

New Mexico 87103

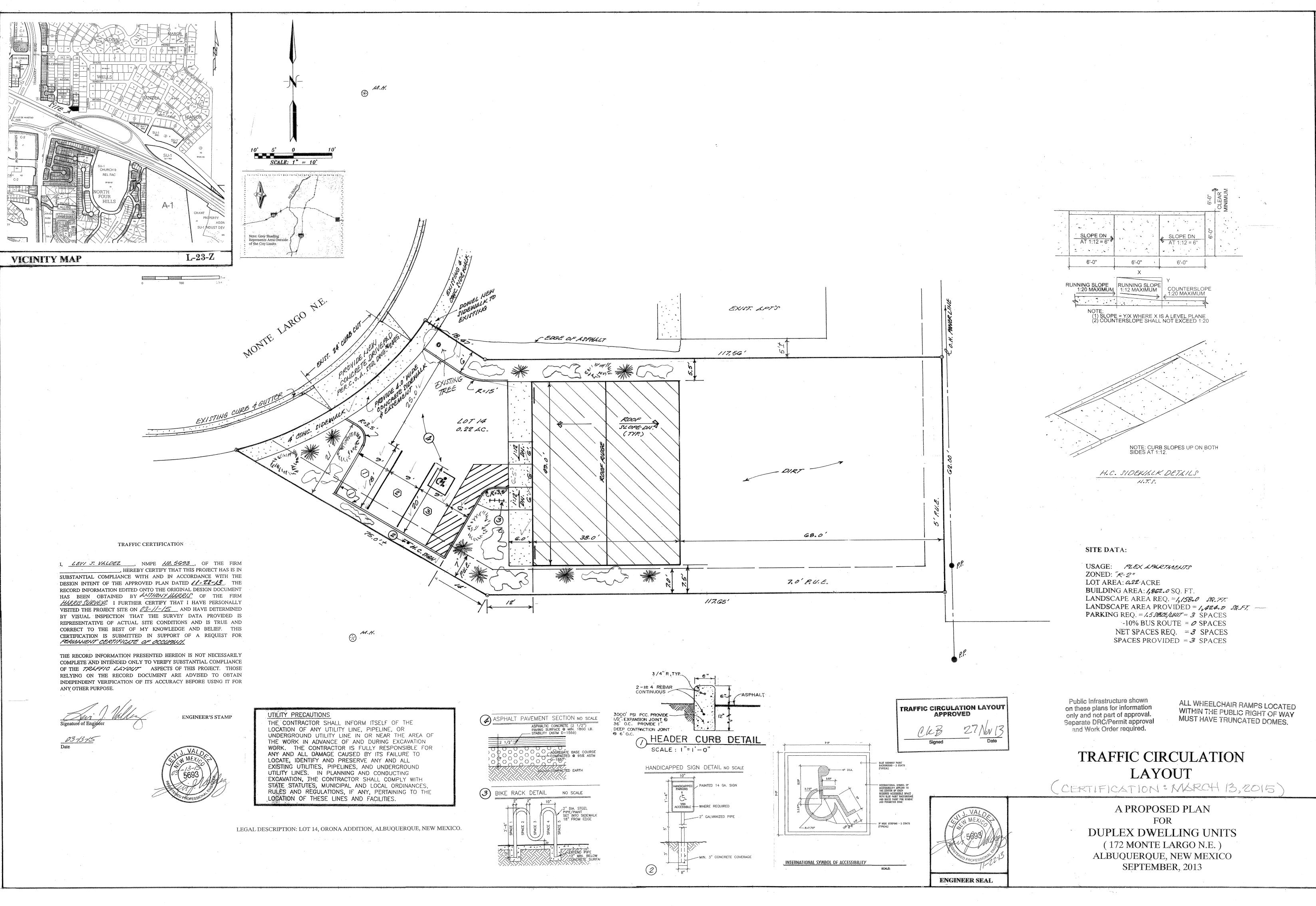
www.cabq.gov

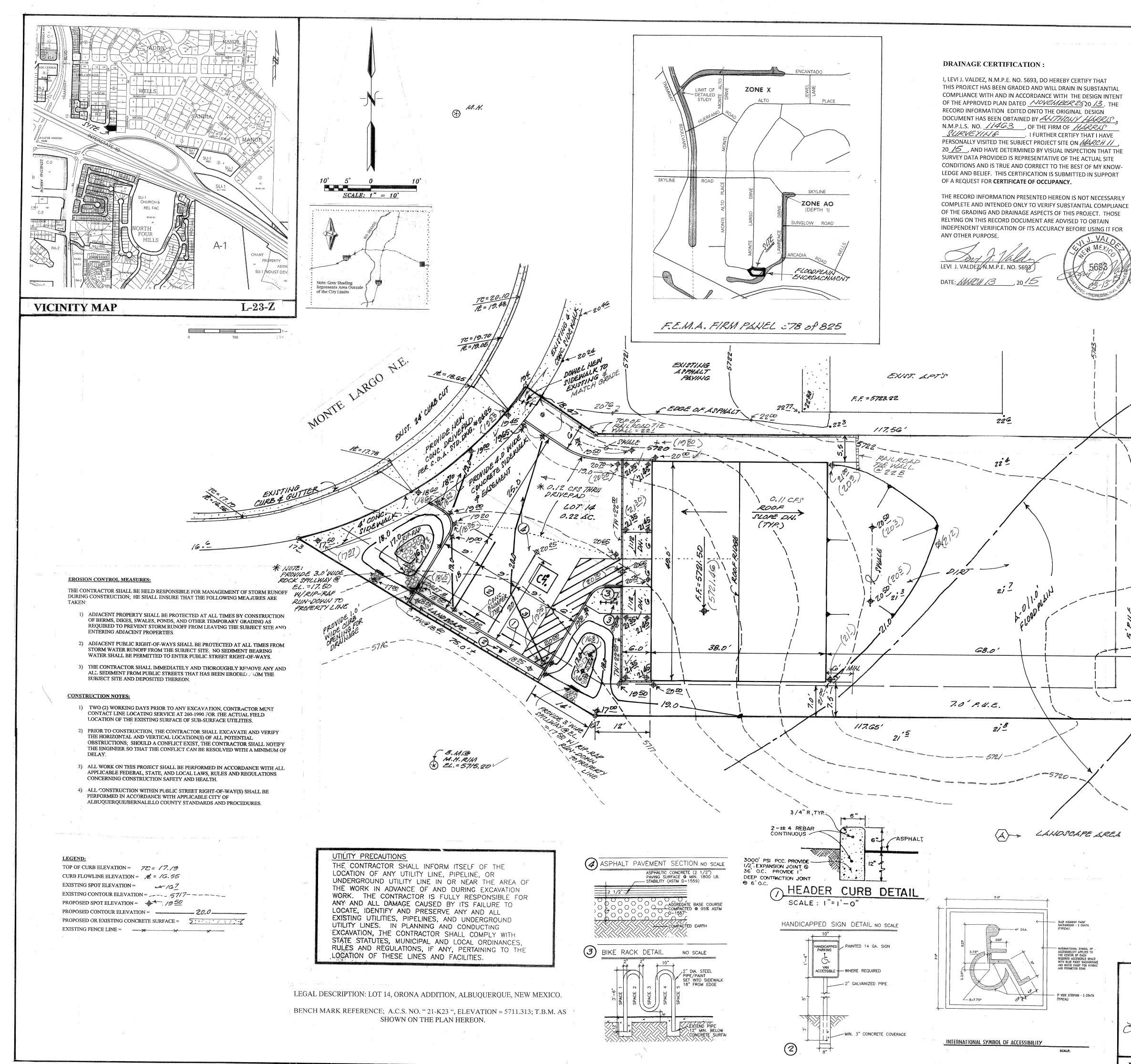
RR/CC email

C:

Sincerely, into CK

Curtis Cherne, P.E. Principal Engineer Planning Department





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Berna A-1 ar	lillo County's four precipitation zones are indicated in TABL nd on FIGURE A-1.
	LE A-1. PRECIPITATION ZONES
ZONE	LOCATION
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40; and between San Mateo and the East boundary of Range 4 East; South of Interstate 40
4	East of Eubank, North of Interstate 40; and East of the East boundary of Range 4 East, South of Interstate 40

A.1 PRECIPITATION ZONES

Zone	Intensity	100-YR (2-YR, 10-YR)
1	4.70 (1.84, 3.14)	
2	5.05 (2.04, 3.41)	
3	5.38 (2.21, 3.65)	
4	5.61 (2.34, 3.83)	

Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Unlined Arroyos.
В	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
С	Soil uncompacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds, and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

TABI	E A-9. PE	AK DISCI	HARGE (c	fs/acre)	
Zone				100-YR R, 10-TR)	
	A	B	C	D	
1	1.29 (0.00, 0.24)	2.03 (0.33, 0.76)	2.87 (0.47, 1.49)	4.37 (1.69, 2.89)	
2	1.56 (0.00, 0.38)	2.28 (0.08, 0.95)	3.14 (0.60, 1.71)	4.70 1.86, 3.14)	
3	(0.00, 0.58)	2.60 (0.21, 1.19)	3.45 (0.78, 2.009)	5.02 (2.04, 3.39)	
(4)	2.20 (0.05, 0.87)	2.92 · (0.38, 1.45)	3.73 (1.00, 2.26)	5.25 (2.17, 3.57)	

## **Drainage Comments:**

As shown on the vicinity map hereon, the subject site is a vacant property located east of Tramway Blvd. N.E. and North of Interstate Highway 40, at 172 Monte Largo N.E., in the City of Albuquerque, Bernalillo County, New Mexico, (Zone Atlas Map L-23-Z).

The subject site, 1.) does accept minimal offsite flows from the north of and adjacent property, these flows will continue to be accepted and passed through, 2.) does not contribute to the offsite flows of adjacent properties, 3.) is a vacant property that is to have an duplex apartment development and associated improvements constructed thereon, 4.) is located adjacent to a man made water course, 5.) is to free discharge the proposed developed flows into the adjacent street right-of-way.

Site Area: 0.22 acres

Precipitation Zone: Four (4)

SITE AREA = 0.22 ACRE ZONE: FOUR (4) PRECIPITATION: 360 = 2.90 in. 1440 = 3.65 in. 10day = 5.95 in.

EACESS PRECIPIATION:	EXCESS	PRECIPTATION:	
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TREATMENT A	0.80 in
TREATMENT B	1.08 in.
TREATMENT C	1.46 in.
TREATMENT D	2.64 in.

### EXISTING CONDITIONS:

TREATMENT A	
TREATMENT B	
TREATMENT C	
TREATMENT D	

AREA 0.22 ac. 0.00 ac. 0.00 ac. 0.00 ac.

AREA 0.11 ac. 0.00 ac. 0.0**3** ac. 0.**08** ac.

PEAK DISCHARGE:

2.20 cfs/ac.

2.92 cfs/ac.

3.73 cfs/ac.

5.25 cfs/ac.

PROPOSED CONDITIONS:

**EXISTING EXCESS PRECIPITATION:** 

Weighted E= (0.80)x(0.22)+(1.08)x(0.00)+(1.46)x(0.00)+(2.64)x(0.00)/0.22= 0.80 in V100-360= (0.08)x(0.22)/12 = 0.014667 ac-ft = 638.9 cf

EXISTING PEAK DISCHARGE:

Q100= (2.20)x(0.22)+(2.92)x(0.00)+(3.73)x(0.00)+(5.25)x(0.00) = 0.48 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E= (0.80)x(0.11)+(1.08)x(0.00)+(1.46)x(0.03)+(2.64)x(0.08)/0.22=1.55 in

V100-360= (1.55)x(0.22)/12.0 = 0.02842 ac-ft = 1,237.8 cf

V100-1440= (0.03)+(0.08)x(3.65-2.90)/12 = 0.03500 ac-ft = 1,524.6 cf

V100-10day= (0.03)+(0.08)x(5.95 - 2.90)/12 = 0.05033 ac-ft = 2,192.5 cf

PROPOSED PEAK DISCHARGE:

Q100= (2.20)x(0.1) + (2.92)x(0.00) + (3.73)x(0.03) + (5.25)x(0.08) = 0.77 cfs

GRADING AND DRAINAGE PLAN

(CERTIFICATION : MARCH 13, 2015)

A PROPOSED PLAN

INCREASE : V100-360 = 598.9 cf

Q100 = 0.29 cfs

**ENGINEER SEAL** 

FOR **DUPLEX DWELLING UNITS** (172 MONTE LARGO N.E.) ALBUQUERQUE, NEW MEXICO SEPTEMBER, 2013