

Lot 2A is approximately 2.66 acres and Lot 1A is approximately 4.07 acres in Block 11, Tract A, Unit A, of North Albuquerque Acres in Bernalillo County, New Mexico. This property is located at the southeast corner of the intersection of Paseo Del Norte and San Pedro Drive. The site is mostly undeveloped with an existing one-story brick building located at the SE corner of the property. Lot 1A receives offsite flows from the properties to the east. The historic flow rate from these properties is accounted for in the hydrologic and hydraulic calculations for the site. There is no floodplain on the site. This property has an approved drainage report completed by Floyd Development Services (FDS) in December, 2015 (D180056) and another completed by RESPEC in June 2017 (D180056). Both reports should be referenced for general background information. Per these reports, the site is allowed free discharge into the existing 84" storm drain crossing the northwest portion of the property.

Hydrology calculations for the site are performed in accordance with the Albuquerque Development Process Manual (DPM) Section 22.2 using the Rational Method to calculate peak flow rates in order to ensure all flow paths are sufficient to carry flows to the water quality ponds located on-site. The water quality ponding volume required was calculated by multiplying the impervious area by the first flush runoff value of 0.34". All hydrologic and hydraulic calculations can be found on this sheet.

The existing property slopes from east to west at approximately 3%. Therefore, the site has historically drained west into San Pedro Drive with a smaller portion draining to Palomas Avenue. Runoff entering San Pedro Drive either enters a 24" storm drain through an inlet located on the eastern curb near the intersection with Palomas Avenue or through a slot drain located in the median, which discharges directly into the 84" storm drain. Water entering Palomas Avenue flows west along the northern curb and eventually arrives at two inlets near the intersection with San Pedro Drive. This 24" storm drain converges with a 30" storm drain that discharges to an 8'x10' concrete box channel near the southwest corner of the intersection of Palomas Avenue and San Pedro Drive. This channel is also where the 84" storm drain discharges.

Subbasin Lot 2A is 2.66 acres and generates 11.2 cfs. It is proposed that the developed 100-yr peak flow from Subbasin Lot 2A will discharge to the existing 84" storm drain crossing at the north west corner of the property. The water quality surface ponds are proposed at the west portion of the property, to capture and retain the required MS4 volume, 1,970 cubic feet.

Subbasin Lot 1A is 4.07 acres and generates 19.6 cfs. It is proposed that Subbasin Lot 1A discharges to a storm drain that will run along the north property line of Lot 1A, and connect to the existing underground junction box. Subbasin Lot 1A receives offsite flow from the east that will be routed through the property to the storm drain located along the north portion of Lot 2A. The offsite flow is 8.3 cfs per the approved RESPEC report dated June 2017. Water quality ponds for Lot 1A will be located underground and provide 4,521 cubic feet.

The following calculations are based on Albuquerque's Development Process Manual, Section 22.2

Treatment Type Areas

Subbasin	Area _A (ac)	Area _B (ac)	Area _C (ac)	Area _D (ac)	Total (ac)
Subbasin 1A	0.00	0.20	0.20	3.66	4.07
Subbasin 2A	0.00	0.53	0.53	1.60	2.66
Offsite	1.98	0.00	1.32	0.00	3.30

Peak Discharge values based on Zone 3 from Table A-9

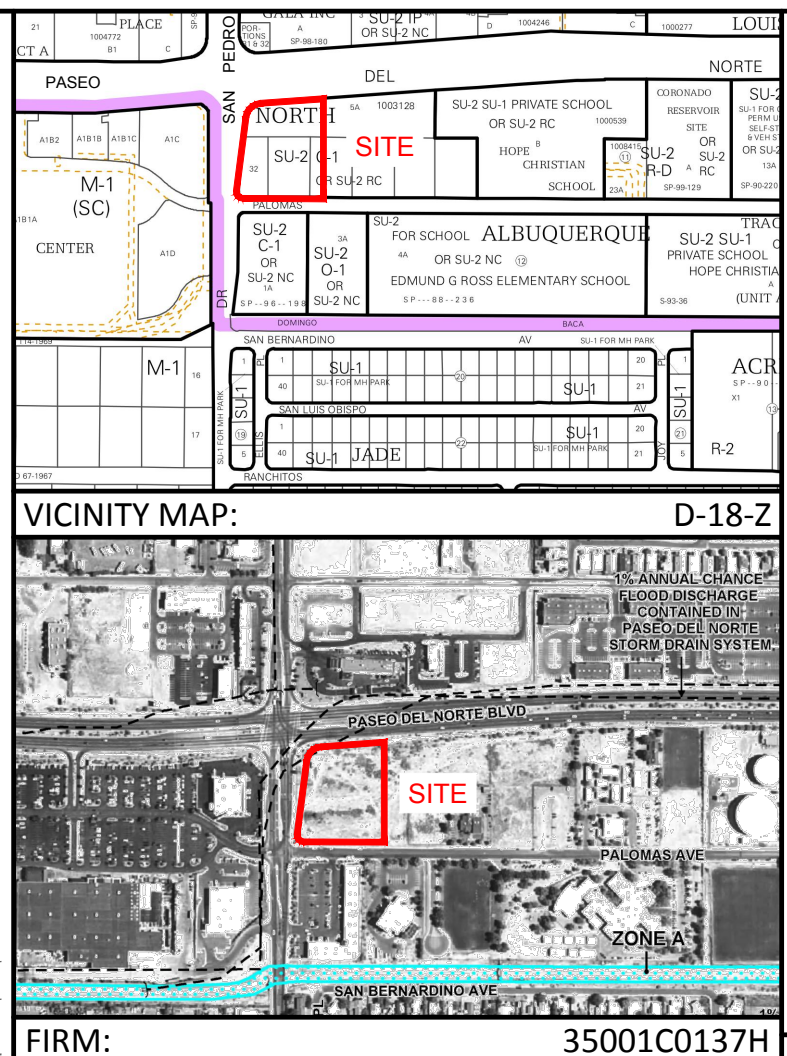
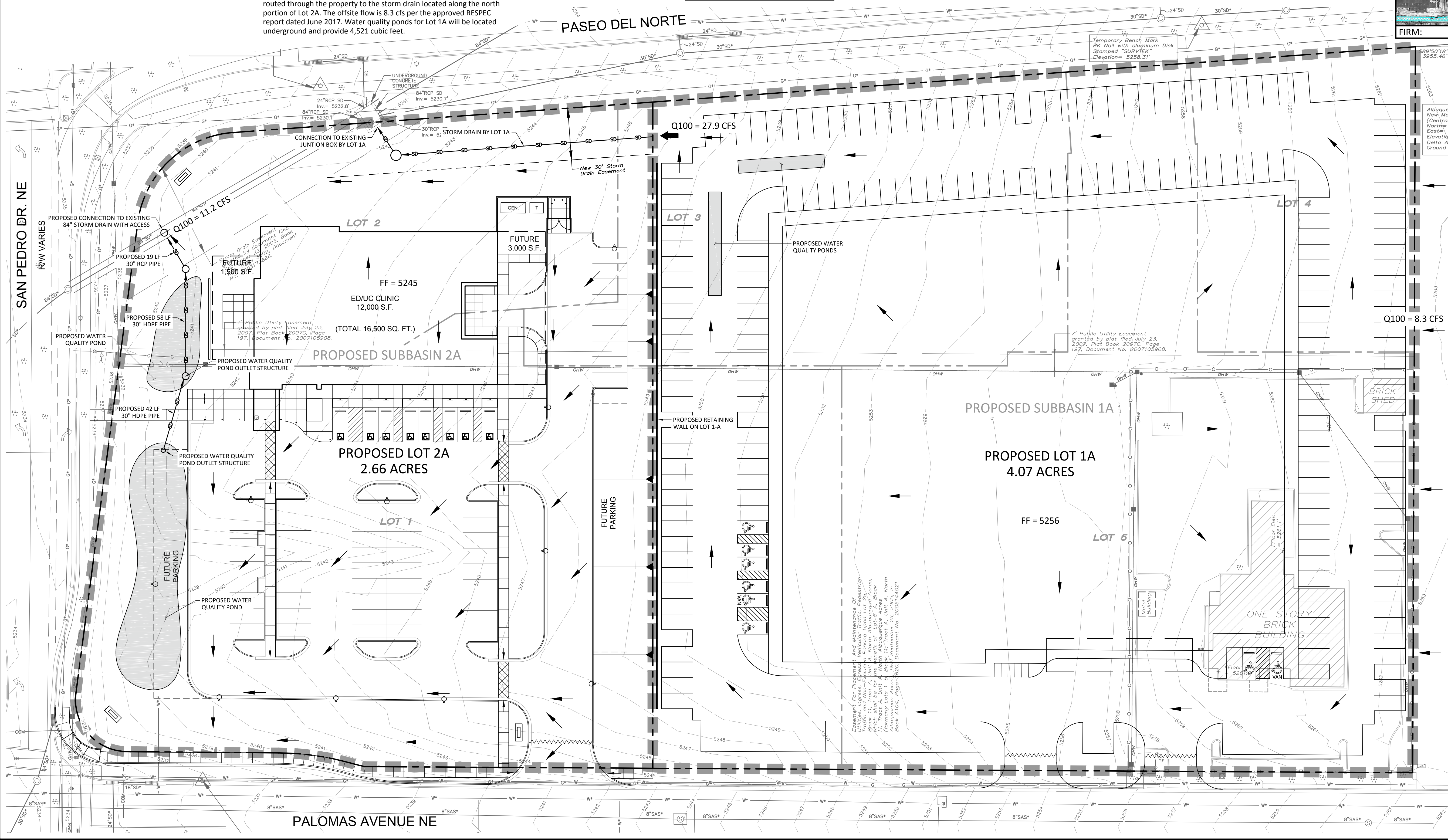
$$Q_A = 1.87 \text{ cfs/ac}$$
$$Q_B = 2.60 \text{ cfs/ac}$$
$$Q_c = 3.45 \text{ cfs/ac}$$
$$Q_D = 5.02 \text{ cfs/ac}$$

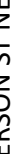
Peak Discharge calculation for a 100-yr, 24-hr storm event from equation A-10

Subbasin	Discharge (cfs)
Subbasin 1A	19.6
Subbasin 2A	11.2
Offsite	8.3

Required Water Quality volume for first flush of 0.34"

Subbasin	Required Volume (cu. ft.)
Subbasin 1A	4,521
Subbasin 2A	1,970





RESPEC
WATER & NATURAL RESOURCES

5971 JEFFERSON ST NE
SUITE 101
ALBUQUERQUE, NM 87109
PHONE: 505.366.4187

DESIGNED		RB		REVISION	
DRAWN	JS				
CHECKED	HF				
DATE	3/22/2018				

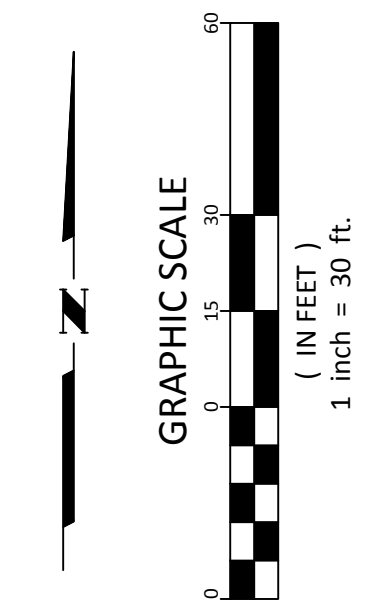
STAMP

HUGH W. FLOYD
NEW MEXICO
16633
3-59-18
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

LEGAL DESCRIPTION:
LOTS 1 THRU 5
PASEO MARKETPLACE

LOTS 1A AND 2A
PASEO MARKETPLACE
CONCEPTUAL GRADING & DRAINAGE PLAN



SHEET NUMBER:

C-1