

CONCEPTUAL DRAINAGE PLAN

LOCATION AND EXISTING CONDITION:

The site is located approximately 500 feet north of the intersection of Indian School Road and University Boulevard NE containing approximately 5.4377 acres. The site is currently undeveloped and slopes from the northeast to the southwest with an average slope of 3.4 percent. Existing runoff is currently collected between I-25 and the site via an existing swale section. This swale section routes storm runoff to an existing 30" RCP storm sewer crossing under I-25. The 30" RCP storm sewer directs storm runoff to the existing Odellia Pond.

PROPOSED CONDITION:

Proposed development of the site includes subdividing Parcel "B" into 7 lots with a new road bordering all of the lots and required drainage easement locations. Runoff due to development will be allowed to free discharge as a result of reviewing the drainage report for the apartments located south of the site by Bohannon-Huston and additional analysis using their flow rate calculations. Listed below are conclusions found:

1. Due to the site's proximity to the 30" RCP outfall, an increase of only 9 percent is anticipated over the rate currently reaching the pipe during the 100-year storm.
2. Due to the significant grade differential between the existing swale section and the site, storm detention is extremely difficult and would require an extensive retaining wall system along the west property line.
3. The approach is consistent with other adjacent projects which have been allowed to free discharge to the highway right-of-way since an out fall exists for the drainage system.
4. From the hydrograph below, there is existing storage capacity within the highway right-of-way to detain storm water without allowing the water surface to encroach onto private property.

CALCULATIONS:

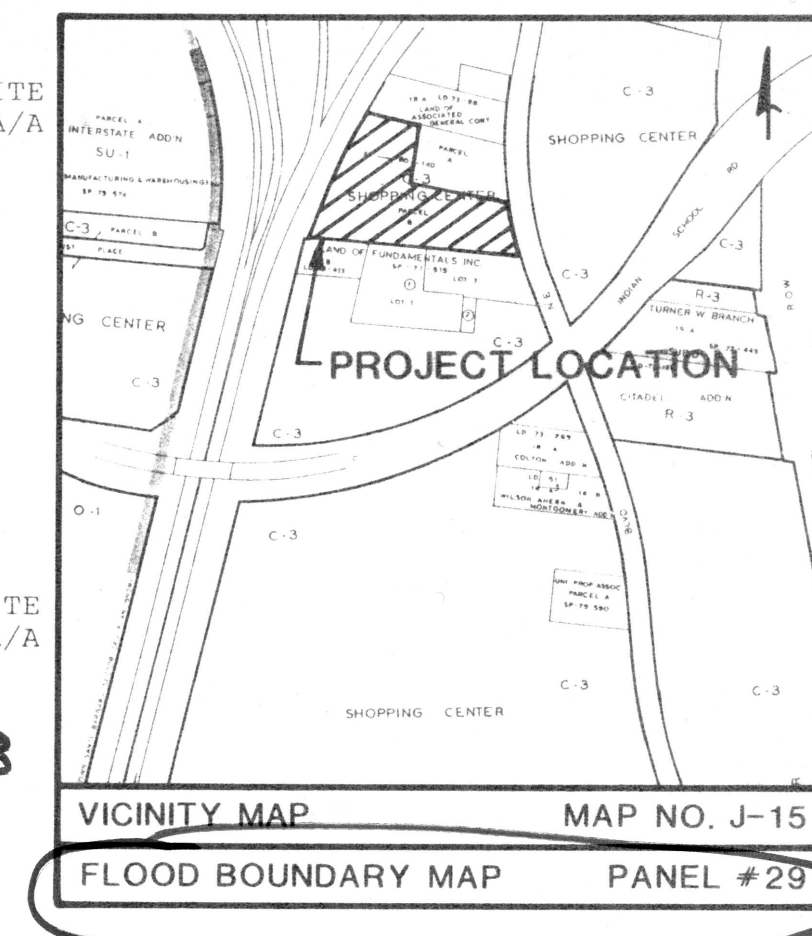
Area = 5.44 acres
 $i = 2.2$ in./hr. Plate 22.2 D-2
 6-hour, 100-year rainfall = 22 in. Plate 22.2 D-1
 $i = (2.2)(2.2) = 4.84$ in./hr.

EXISTING ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0	0	
Roofs	0.90	0	0	
Lawns & Landscaping	0.25	0	0	
Undeveloped	0.40	5.44	2.18	0.40
TOTAL		5.44	2.18	
$Q(100) = (0.40)(4.84)(5.44) = 10.53$ cfs				
$Q(10) = (0.657)(10.53) = 6.92$ cfs				
CN = 80 Plate 22.2 C-2				
Direct Runoff = 0.70 in. Plate 22.2 C-4				
$V(100) = (0.70)(5.44)(43560)/12 = 13823$ cu. ft.				
$V(10) = (0.657)(13823) = 9082$ cu. ft.				

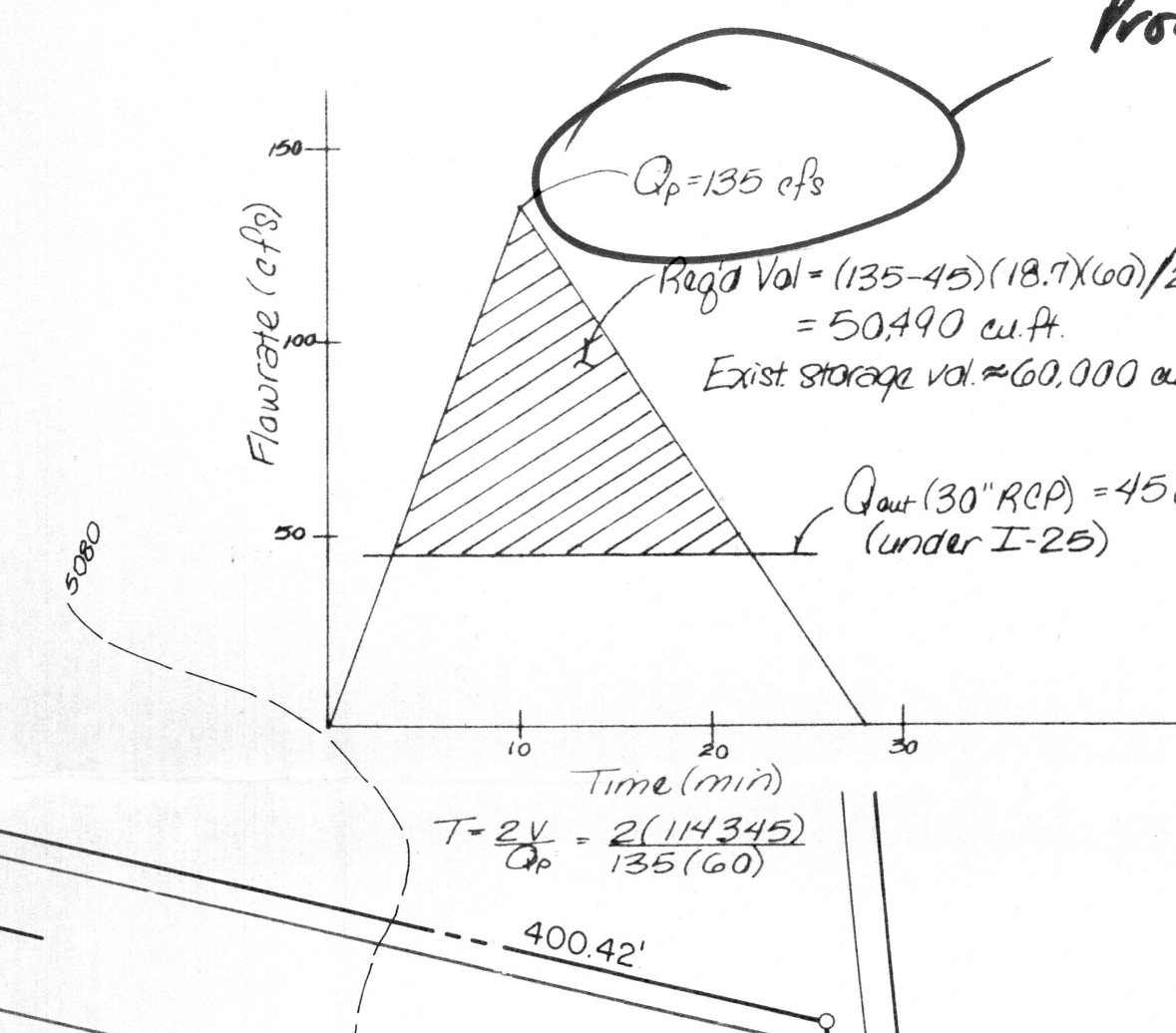
PROPOSED ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	2.56	2.43	
Roofs	0.90	2.56	2.30	
Lawns & Landscaping	0.25	0.32	0.08	
Undeveloped	0.40	0	0	0.88
TOTAL				
$Q(100) = (0.88)(4.84)(5.44) = 23.17$ cfs				
$Q(10) = (0.657)(23.17) = 15.22$ cfs				
CN = 92 Plate 22.2 C-3				
Direct Runoff = 1.4 in. Plate 22.2 C-4				
$V(100) = (1.4)(5.44)(43560)/12 = 27645$ cu. ft.				
$V(10) = (0.657)(27645) = 18163$ cu. ft.				



Copy of Map?

Provide up stream watershed map w/ calculations



UNIVERSITY/1-25 SUBDIVISION:

LEGAL DESCRIPTION:

PARCEL "B", SURGICAL ASSOCIATES, P.A. PROFIT-SHARING PLAN AND TRUST.

ACS BENCH MARK:

2-J15, A SQUARE, CHISELED ON TOP OF CONCRETE CURB AT THE ENE CURB RETURN, LOCATED AT THE INTERSECTION OF UNIVERSITY BLVD. NE AND INDIAN SCHOOL ROAD NE, IN THE NE QUADRANT OF THE INTERSECTION. ELEVATION = 5076.244 FEET.

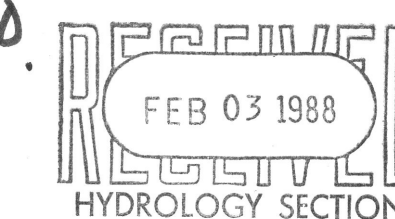
SURVEY INFORMATION:

SURVEY INFORMATION WAS TAKEN FROM AERIAL CONTOUR MAPS PUBLISHED BY FEMA.

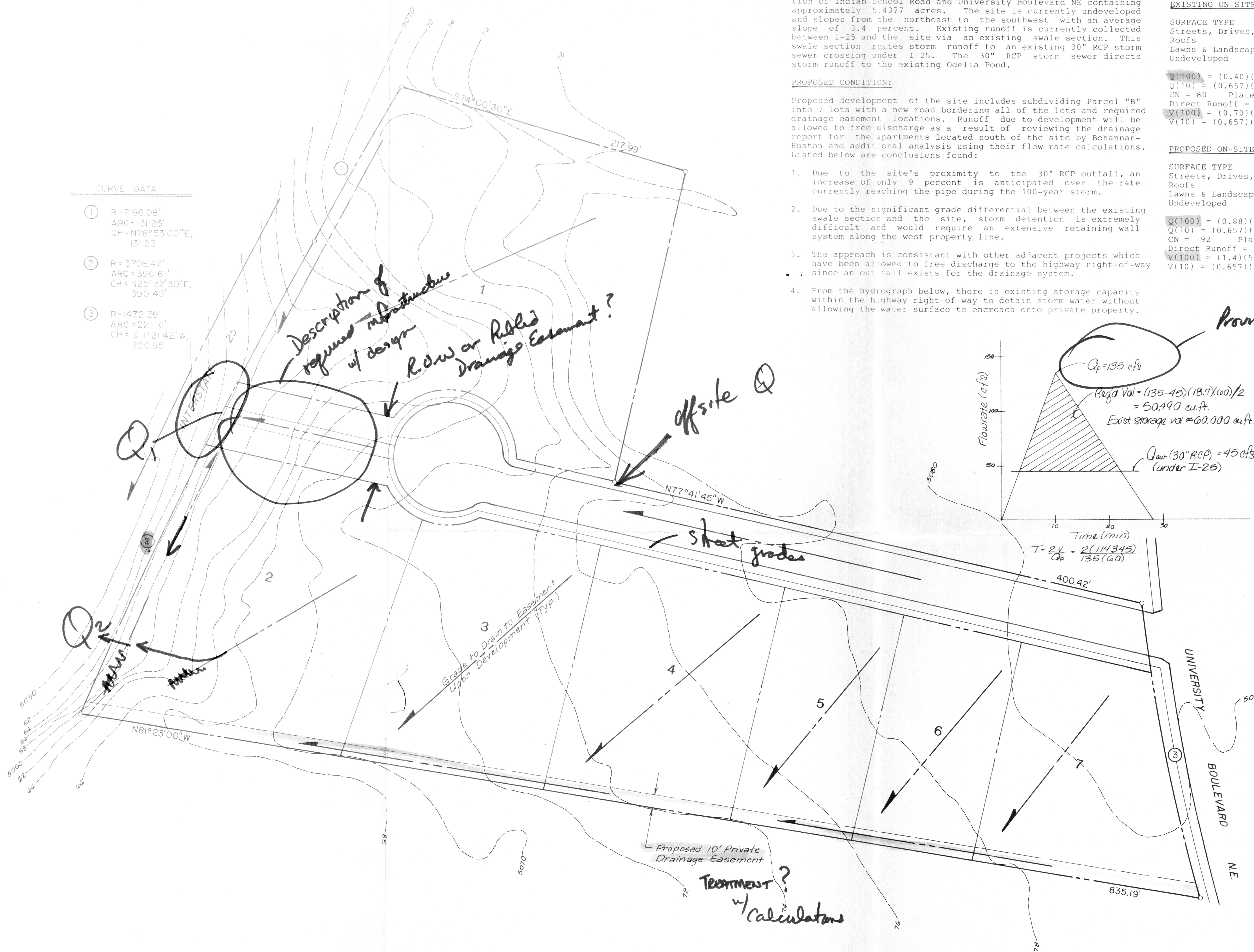
GENERAL NOTES:

1. DESIGN AND CONSTRUCTION OF THE 10' WIDE DRAINAGE EASEMENT LING SECTIONS ARE TO BE DONE SIMULTANEOUSLY WITH THE DESIGN AND CONSTRUCTION OF THE ROAD.
2. INDIVIDUAL GRADING AND DRAINAGE PLANS ARE TO BE PREPARED AND SUBMITTED TO THE CITY OF ALBUQUERQUE HYDROLOGY SECTION UPON DEVELOPMENT OF EACH LOT.

Need concurrence from N.M.S.H.D. to use their outfall.



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CONCEPTUAL DRAINAGE PLAN

PARCEL "B" OF SURGICAL ASSOCIATES, P.A. PROFIT-SHARING PLAN AND TRUST

SCALE IN FEET