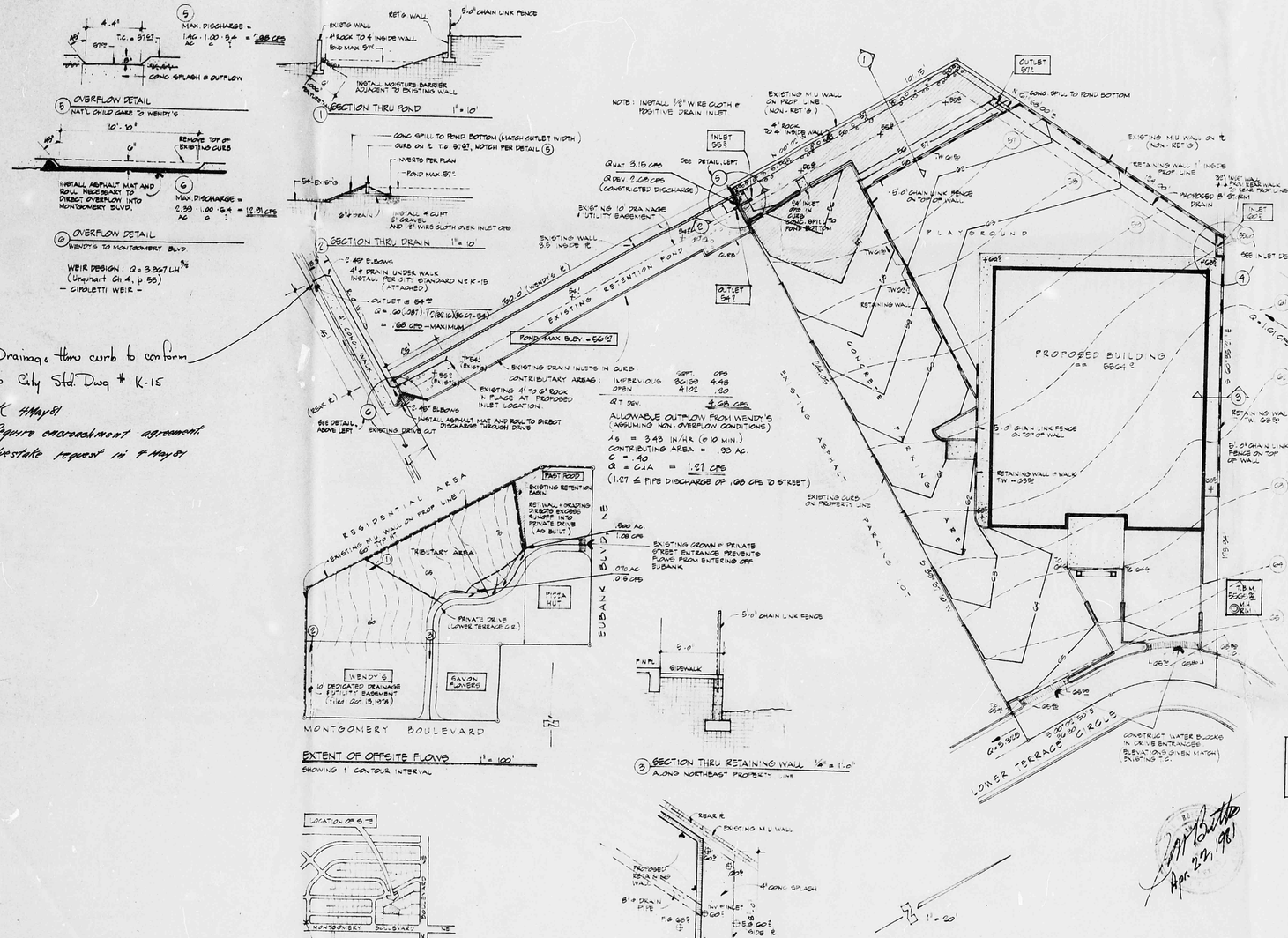
HYDROLOGY K15/D13 1 PLAN

K15/D13

1 Plan

CITY OF ALBUQUERQUE



CALCULATIONS

EXISTING (.07 ONLY)

	AREA	C	i	Q
OPEN	33318	.40	2.93	1.43
IMPERV. OVG	345	.0	.91	.117
			6930 CUFT	1.6 CFS

PROPOSED (.07 ONLY)

OPEN	3500	.40	7.93	4.76
IMPERV. OVG	2.1273	1.0	66.82	2.813
			6531 CUFT	2.13 CFS

UPLAND FLOWS

(1) INPUT @ N.E. CORNER

TRIBUTARY AREA

	3.5500	.40	2.18 CUFT	1.61 CFS

(2) OUTPUT @ S.W. CORNER

TRIBUTARY AREA (EXISTING CONDITIONS)

	6842.5	.40	3.285 CUFT	3.13 CFS

(PROPOSED CONDITIONS - UNCONTROLLED)

	1.61
-	3.11
	4.72 CFS

(3) STREET FLOWS (AT SW CORNER)

FLOW DISCHARGED BY PROPOSED BLDG	1.08 CFS
FROM NON-DEVELOPED PORTION	.015
CALCULATED BY STREET:	
A = .0225 SQ FT	
i = 5.4 IN/HR	
C = 1.0	
	1.09 CFS
	3.805 CFS

POND DATA

REQUIRED ON-SITE RETENTION
6531 - 3500 = 3041 CUFT

AVAILABLE RETENTION:

SURFACE AREA	3024 SQ FT
BOTTOM AREA	750 SQ FT
AVG DEPTH	1.4 FT

$V = \frac{1.4}{3}(3024 + 750 + \sqrt{3024 \times 750}) = 1980$ CUFT

DISCHARGE FROM POND

TO BE CONTROLLED BY A 6" POSITIVE DRAIN

h = POND MAX (5.91) - OUTLET (5.34) = 0.57 FT
a = .196 SQ FT = .196 SQ FT

Q = .6 (.196) $\sqrt{2gh}$ = 1.48 CFS

1.48 (DISCHARGE FROM S.W. COR.) = 3.43 IN/HR
CONTRIBUTING AREA = 1.46 AC
C = .40
Q = CiA = 2.00 CFS
(1.48 ≤ 1.69)

BENCH MARK

11-F20 ☐ CUT ON NW CURB RETURNS INTERSECT ON SR MONTGOMERY BLVD & PEDRA BLANCA ST
ELEV 5561.911

APPROVED FOR DRAINAGE
5-13-81
SIGNATURE DATE
TITLE
ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED
① Encroachment Agreement
② Pond Easement

DRAINAGE PLAN

TRACT 5-A
OF MANO J. GUTIERREZ LOWER TERRACE SUBDIVISION
ALBUQUERQUE, NEW MEXICO

FOR
NATIONAL CHILD CARE CENTERS

PREPARED BY
ENCHANTMENT ENGINEERING
3010 INDIAN SCHOOL ROAD, NE
294-8863

APRIL 22, 1981

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

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