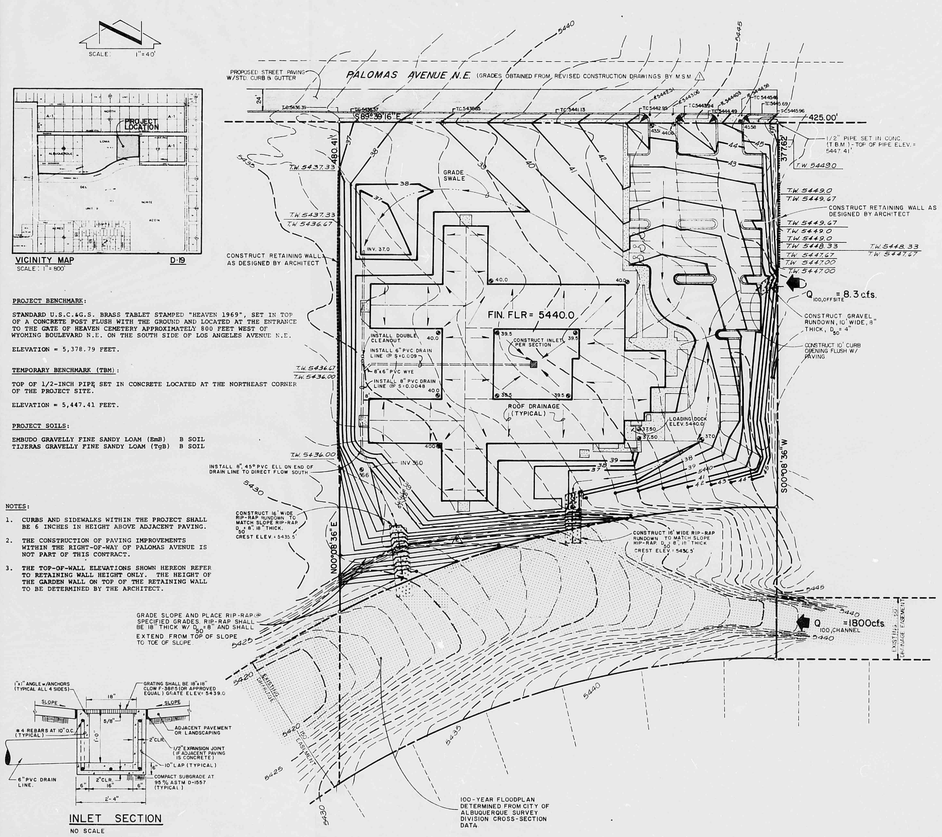

DRAINAGE PLAN

The following items concerning the Palomas Health Care Center Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed development, shown on the Vicinity Map, is located in Tract X-3 of Loma del Norte Unit 9. At present, the site and adjacent sites are undeveloped. The land to the south, however, is developed as a residential subdivision.

As shown by the adjacent plan, a 150-feet wide drainage easement exists along the south boundary of the site. As demonstrated by the accompanying calculations and analysis submitted concurrently with this plan, the 100-year water level in the existing arroyo ranges from 2.5 to 3 feet in depth. For the most part, flood waters appear to stay within the 150-feet wide drainage easement. There is, however, a 3 to 4 feet encroachment onto private property at the southwest corner of the site; this encroachment does not affect the proposed development of the site. The limits of the 100-year flood plain are shown on the adjacent plan.

The Grading Plan shows (1) existing contours at 1'-0" intervals, (2) proposed grades shown by spot elevations and contours at 1'-0" intervals, (3) proposed street grades and paving improvements for Palomas Avenue N.E., (4) three positive discharge detention ponds, (5) the limits of the 100-year flood plain along the south boundary of the site, (6) proposed swales and drain lines intended to convey runoff through the site, (7) proposed retrining walls and (8) the extent of the proposed building and paving improvements.

Offsite flows enter the site as shown on the adjacent plan. The 8.3 cfs value was obtained by the analysis of the site to the east. The offsite flow in the arroyo, 1,800 cfs, was obtained from the City of Albuquerque Hydrology Section. Both offsite flows will be accepted and conveyed through the site.

CALCULATIONS

1. RUNOFF

The following calculations have been performed using the Soil Conservation Curve Number Method:

STORM CHARACTERISTICS:
Rainfall = 2.5-in. (100-yr., 6-hr.)
= 1.4-in. (5-yr., 6-hr.)
Distribution Curve = 75

CURVE NUMBERS:
Native Grass = 79
Landscaping = 70
Impervious Area = 95

DRAINAGE BASIN RUNOFF SUMMARY

CONDITION: EXISTING

DESCRIPTION	AREA (ac)	Q_{100} (cfs)	V_{100} (cf)	Q_5 (cfs)	V_5 (cf)
Offsite	6.40	8.3	19,400	2.1	4,900
Site	4.01	5.2	12,100	1.3	3,100

CONDITION: DEVELOPED

DESCRIPTION	AREA (ac)	Q_{100} (cfs)	V_{100} (cf)
Courtyard	0.25	0.7	1,700
Frontyard	1.26	1.2	3,000
Parking Lot & Rearyard	2.50	3.8	9,000

2. POND VOLUMES AND OUTLETS

a. Frontyard pond
By average end area method, $V = 1/2(4,500 + 1,700)(38-37) = 3,100$ cf
$V_{100} = 3,000$ cf ∴ OK
By Hazen-Williams equation, $Q_{discharge} = 1.3$ cfs (max.)
for C = 150, d = 8" (PVC pipe) and s = 0.0048
Q_5, undeveloped = 1.3 cfs and $Q_{100} = 1.2$ cfs ∴ OK

b. Courtyard
By Hazen-Williams equation, $Q_{discharge} = 0.88$ cfs (max.)
for C = 150, d = 6" (PVC pipe) and s = 0.009
$Q_{100} = 0.7$ cfs ∴ OK

c. Rearyard
∴ NO PONDING PROVIDED IN REAR YARD, DIRECT DISCHARGE PERMITTED

APPROVED FOR DRAINAGE
May 14 82
SIGNATURE
CONTINGENCIES

NO	DATE	BY	REVISIONS
1	4-82	JM	DELETE REAR PONDS, REVISE GRADES ALONG PALOMAS
2	4-27-82	JM	REVISE SLOPE GRADES, DELETE RIP-RAP STORM MITIGATION

811 DALLAS N.E. - ALBUQUERQUE - NEW MEXICO - 87108
ENGINEERS

DESIGNED BY JM
DRAWN BY JMC
APPROVED TM
JOB NO. 2001-1
DATE 1/82

PALOMAS HEALTH CARE CENTER
PREPARED FOR: URBAN CALABRETTA
4500 MOBILE DRIVE
COLUMBUS, OHIO

FILE NO.
SHEET 1 OF 1

D-19/D012

REF 21 DATE 6-28-82 CD ETP
CITY OF ALBUQUERQUE
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PLANS/PLATS ON FILE

FILE DESC: D-19/D012

PLANS/PLATS 1

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

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