HYDROLOGY K16/D2 1 PLAN

K16/D2

1 Plan

CALCULATIONS

Area of Project 142 x 200 = 28,400 square feet

Required Storage Volume 28,400 x 0.1 = 2,840 cubic feet

Pond Volume

Front

$$2 \left[\frac{40 \times 15 + 34 \times 9}{2} + \frac{34 \times 9 + 28 \times 3}{2} + \frac{28 \times 3}{4}\right] 1 = 1,338$$

Rear

$$\left[\frac{10 \times 110 + 4 \times 104}{2} \quad \frac{104 \times 4}{3}\right] 1 = 897$$

Side

$$2 \left[\frac{6 \times 100}{2}\right] 1 = \underline{600}$$

TOTAL VOLUME = 2,835 c.f.

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3/11 CORNELL St

DRAINAGE REPORT

for the

APARTMENTS

of

JUDITH FORMES

Goldberg · Mann & Associates
Engineers · Planners
2329 Wisconsin N.E., Albuquerque, New Mexico 87110

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2329 Wisconsin N.E., Suite E Albuquerque, New Mexico 87110 (505) 292-1092

February 3, 1978

Burns & Peters
8100 Mountain Rd. Pl.
Albuquerque, NM 87110

Re: Apartment Drainage Study

We are herewith submitting three (3) copies of the drainage plan for your project.

This plan is in accordance with the requirements of the City of Albuquerque and Resolution 1972-2, Albuquerque Metropolitan Arroyo Flood Control Authority.

We have enjoyed working with you on this project and look forward to future opportunities to assist you.

Yours sincerely,

Thomas T. Mann, Jr. P.E.
President

djv

Enclosure

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PURPOSE AND SCOPE

The purpose of this drainage plan is to establish the criteria for controlling surface runoff from a particular development in a manner that is acceptable to the City of Albuquerque and to the Albuquerque Metropolitan Arroyo Flood Control Authority.

This plan will determine the runoff resulting from a 100-year frequency storm falling on the site under existing and developed conditions.

The scope of this plan is to insure that the proposed project will be protected from storm runoff and that the construction of this project will not increase the flooding potential of the adjacent properties.

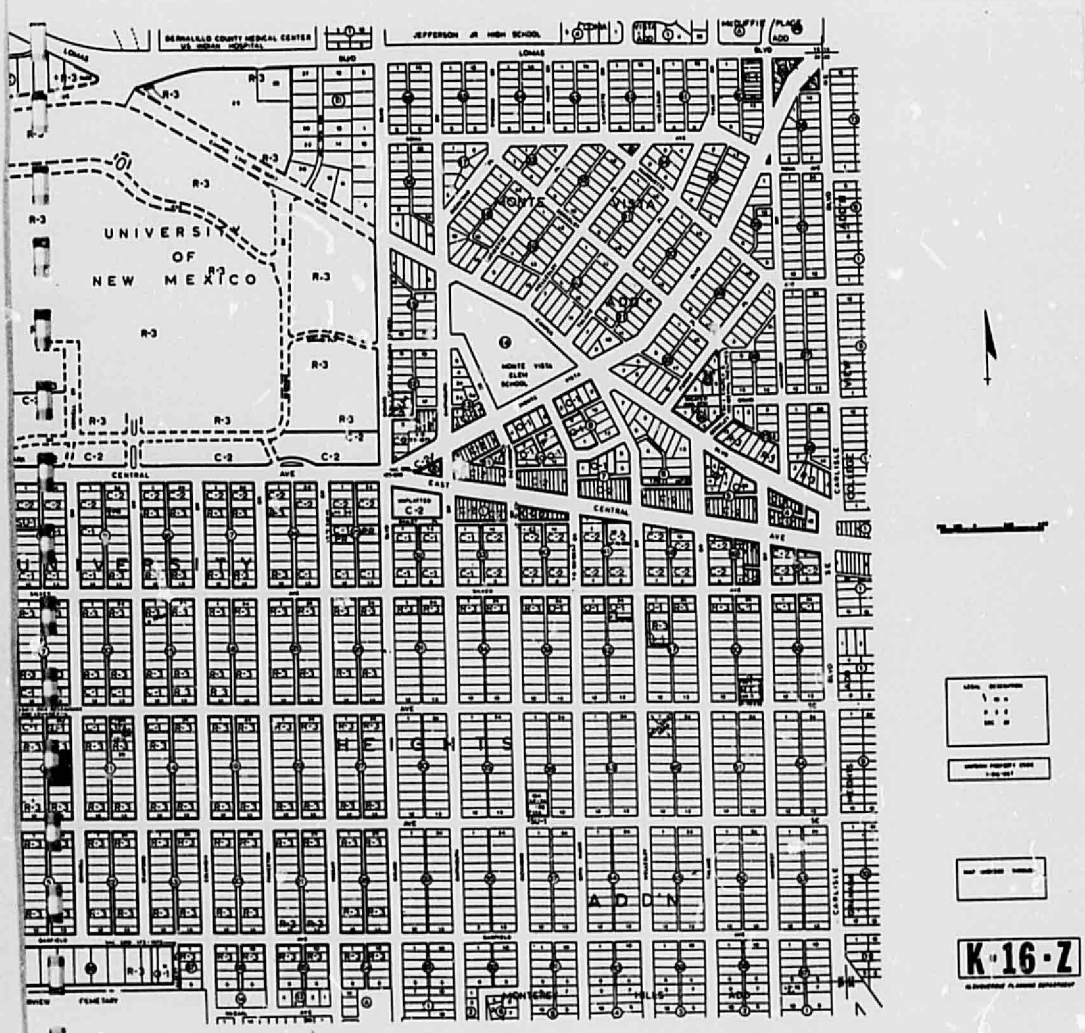
LOCATION AND DESCRIPTION OF PROJECT

The project is located within the corporate limits of the City of Albuquerque in the Southeast quadrant. The project borders Cornell Drive and is in the block south of Lead Avenue. The legal description of Township 10 North, Range 3 East, Section 22.

This parcel is 0.65 acres in size and will be developed as a twenty-four unit apartment complex. The natural topography of the area slopes from the east to west at approximately 0.5 percent.

FIGURE 1.
LOCATION MAP

DATE
RECEIVED_____



APPLICANT

NAME: Burns & Peters, Architects
ADDRESS: 8100 Mountain Road N.E.
Albuquerque, New Mexico
PHONE: 265-3646
SIGNATURE:_____

LOCATION OF PARCEL

LOT NO: 17, 18, 19 & 20 BLOCK NO: 6
SUBDIVISION: University Heights Add.
STREET ADDRESS: Cornell Drive N.E.
Albuquerque, N.M.
CURRENT ZONING: R-3

EXISTING DRAINAGE CONDITIONS

The existing countours are shown in Figure 2. Cornell Drive east at the site and the alley to the west are lower than the site. The lands to the north and south are currently single family residences and do not contribute flow to the site. The site has less than one foot of fall across the site.

PROPOSED DRAINAGE CONDITIONS

The proposed grading plan is shown in Figure 2. All flows from the site will be directed into ponding areas. The ponds are designed to store at least 50% of the runoff from the 100 year frequency storm.

The required pond volume is 2840 cubic feet. The available pond volume is 3180 cubic feet.

CONCLUSIONS

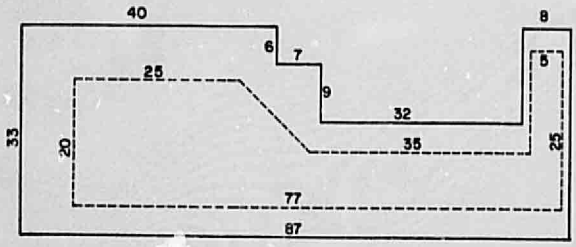
1. Provide storage for 50% of the stormwater runoff.
2. Direct all flows into the ponding areas.

CALCULATIONS

Area of Project 142 x 200 = 28,400 square feet.

Required Storage Volume 28,400 x 0.1 = 2840 cubic feet.

POND VOLUME



Area 1

15 x 47 - 42 = 663
18 x 87 = 1566

2229 square feet

Area 2

(25 x 20) + (6 x 15) + (5 x 20) + (5 x 52) = 950 square feet.

Volume

$\frac{2229 + 950}{2}$ x 1 = 1590 cubic feet x 2 = 3180 cubic feet

2840 cubic feet.