K22/D11

3 Plans

DALE BELLAMAH CORPORATION

Income Properties Division

October 30, 1978

Bruno Canigliano
Hydrologist
City of Albuquerque
P. O. Box 1293
Albuquerque, NM 87103

Re: Authorization for Offsite
Earthwork - Rio Vista Apts.

Dear Mr. Canigliano:

Attached please find a copy of the drainage plan for the above mentioned project. We are the owners of the property directly north of the subject property.

Permission is hereby granted for the owners of the property south of Manzano Shopping Center (Rio Vista Apartments) to perform the necessary earthwork on our property as proposed by the attached grading plan. Your expeditious approval of the Rio Vista Apartment project would be greatly appreciated. Thank you.

Very truly yours,

BELLAMAH COMMERCIAL PROPERTIES, INC.

Lloyd N. Strosnider
Executive Vice President

LNS/kb
cc: Bill Stukas,
General Contracting Division

Amended May 1, 1978

DRAINAGE REPORT

for

RIO VISTA APARTMENTS

Goldberg · Mann & Associates
Engineers-Planners
911 Pennsylvania N.E. Albuquerque, New Mexico 87110

March 13, 1978

Mr. Remo O. Giannini
Holmes/Giannini Architects
6400 Uptown Blvd. N.E.
Albuquerque, NM 87110

Re: Rio Vista Apartments on Juan Tabo Blvd. N.E.

We are herewith transmitting two (2) copies of the drainage report for the Rio Vista Apartments on Juan Tabo Blvd. N.E.

This plan is in accordance with the requirements of the City of Albuquerque, the Albuquerque Metropolitan Arroyo Flood Control Authority and F.H.A.

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

Sincerely,

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

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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, the Albuquerque Metropolitan Arroyo Flood Control Authority and F.H.A.

This plan will determine the runoff resulting from a 100-year frequency storm falling on the site of the Rio Vista Apartments 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.

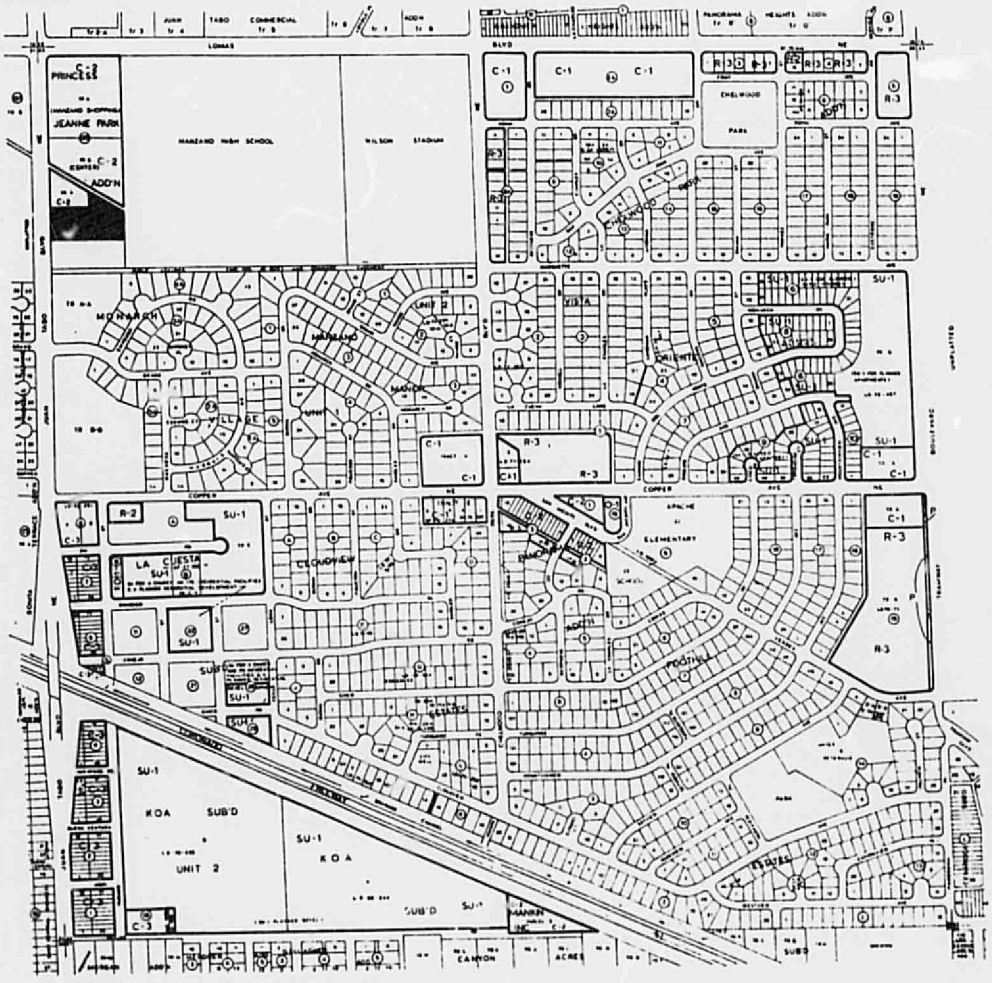
Location and Description of Project

The Rio Vista Apartments are located within the corporate limits of the City of Albuquerque in the northeast quandrant. The project is bounded on the west by Juan Tabo Blvd., Manzano Center on the north, Manzano High School on the east and on the south by a vacant lot.

The parcel is approximately 2.5 acres in size and will be developed as a 150 unit apartment complex. The natural topography in the area slopes from east to west at approximately three (3) percent.

FIGURE 1.
LOCATION MAP

DATE
RECEIVED_____



APPLICANT

NAME: Holmes/Gianinni Architects
ADDRESS: 6400 Uptown Blvd. N.E.
Albuquerque, NM 87110
PHONE: 883-5815
SIGNATURE:_____

LOCATION OF PARCEL

LOT NO: TR. B BLOCK NO: 128
SUBDIVISION: Princess Jeanne Park
STREET ADDRESS: Juan Tabo Blvd.

CURRENT ZONING: R-1

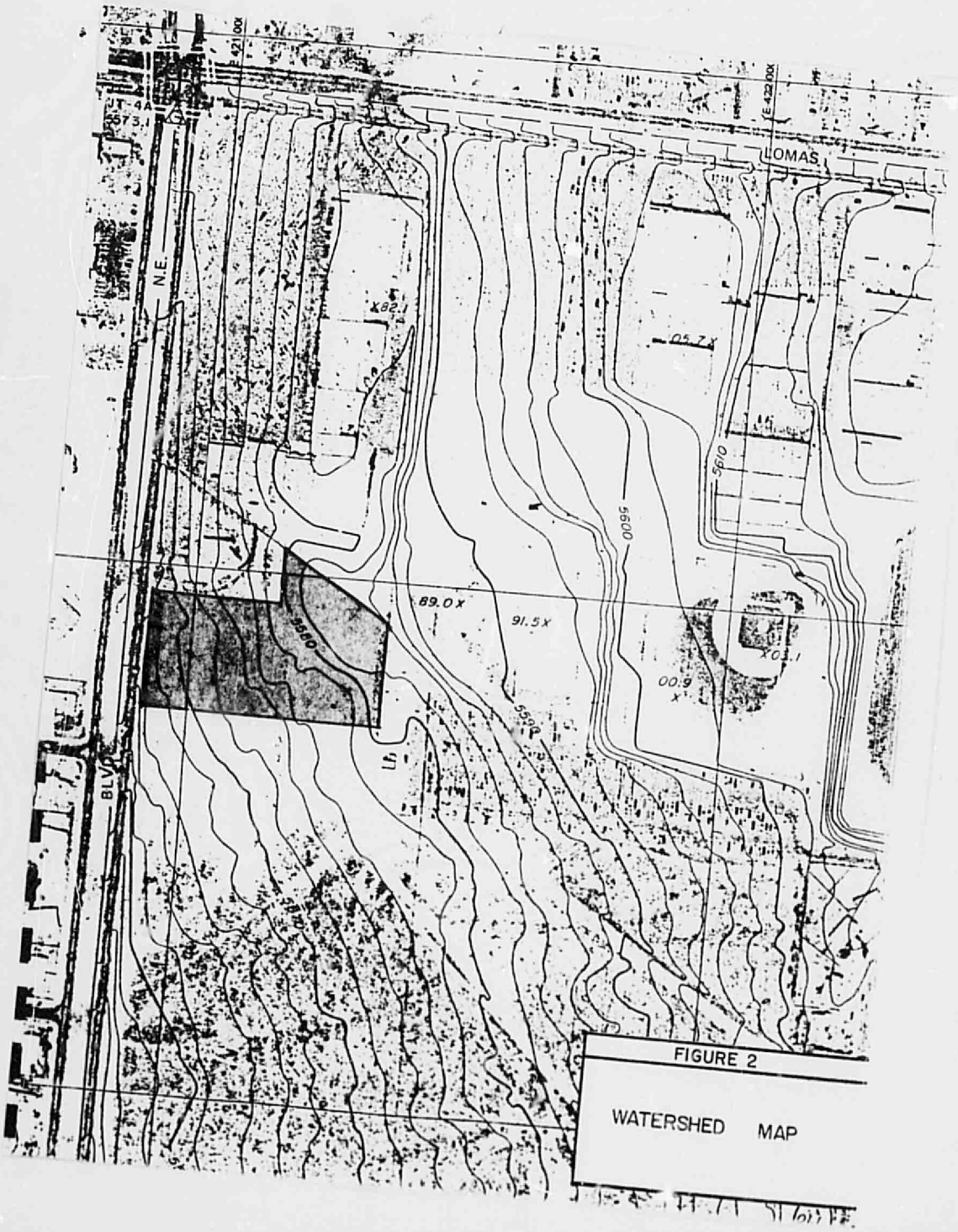


FIGURE 2

WATERSHED MAP

Design Criteria

In analyzing the storm runoff, the Rational Formula, $Q = CIA$ is used.

Where:

Q = Runoff quantity in cubic feet/second.

A = Contributing area in acres.

I = Intenstiy in inches/hour for a duration equal in minutes and obtained from Figure 3, Intensity Duration Frequency Curves, Albuquerque Area 1961. (Note: Where a Time of Concentration Tc is less than ten minutes, the intensity value derived from a Tc of ten minutes is employed.)

C = Runoff Coefficient (No Units). This coefficient represents the integrated effects of infiltration, detention storage, evaporation, retention, flow routing, and interception which all affect the time distribution and peak rate of runoff.

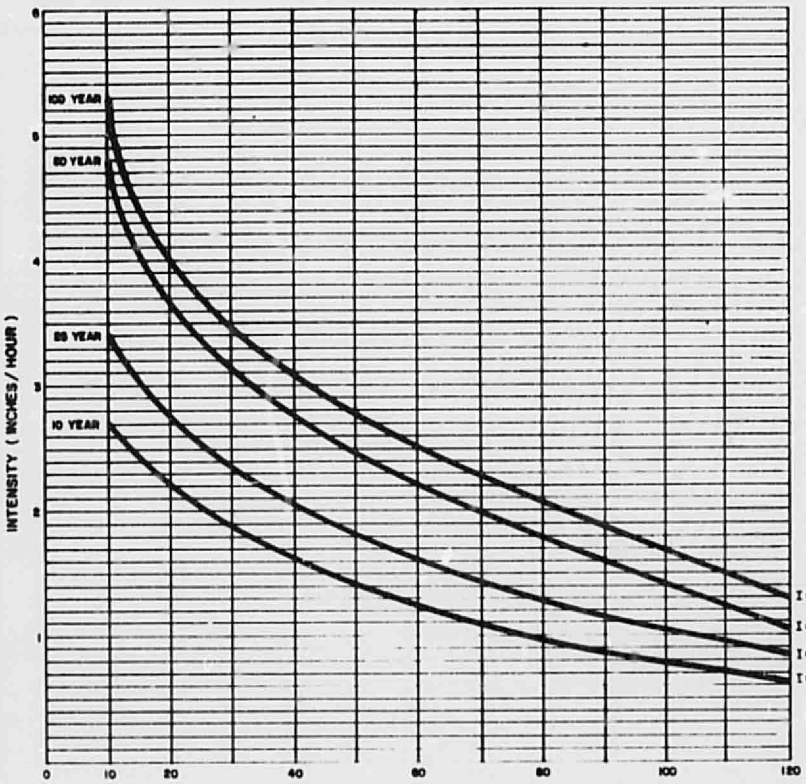


FIGURE 3

INTENSITY DURATION FREQUENCY CURVES

Existing Drainage Conditions

An aerial photograph of the drainage area with superimposed contours is shown in Figure 2. As demonstrated by Figure 2. there are essentially no off site flows entering the site. Flows from Manzano Center to the north are diverted west by a ditch along the north property line and flows from the high school are diverted south into the parking lot. There are two drop inlets at the west end of the parking lot. Flows are converged westerly to Juan Tabo in a 15 inch R.C.P.

Proposed Drainage Conditions

The existing contours, site plan and grading plan are shown in Figure 4. The drainage plan provides for the retention on site of fifty (50) percent of the rainfall from the 100-year frequency storm. Lawn and garden areas will be utilized for ponding. All roof drains and where possible, parking areas, will drain into the ponding areas.

The required pond area is 7,026 cubic feet. The proposed ponding areas contain approximately 7,117 cubic feet of storage.

Conclusions

1. Provide ponding for 50% of the 100-year frequency storm.
2. Direct all possible flows from roofs and parking lots into ponding areas.
3. Provide ponding volume in excess of 7,026 cubic feet.

Calculations

Area of Parcel = 108,900 s.f.

Impervious Area = 70,260 s.f.

Required Pond Volume = 70,260 x 0.1 = 7,026 c.f.

Drainage Area 1 = 16,670 s.f.

Drainage Area 2 = 57,990 s.f.

Drainage Area 3 = 34,240 s.f.

Volume Pond 1

4.5 x 900 x 1/2 x 1/2 = 1,012 c.f.

Volume Subsurface

60 x 65 x 3 x 1/3 = 3,900 c.f.

Volune Pond 3

4.9 x 900 x 1/2 = 2,205 c.f.

Total Pond Volume = 7,117 c.f.