HYDROLOGY

F13/D6

PALACIO DEL RIO

GRANDE

SUBDIVISION

F13—D6

1 PLAN

Scott Price & Associates Inc.

RECEIVED
MAR 30 1978
CITY ENGINEER

March 28, 1978

Mr. Varne Kimmick
City of Albuquerque
City Engineer's Office
Albuqueruqe, New Mexico

F13-06

RE: Palacio Del Rio Grande Subdivision

Dear Mr. Kimmick,

As developer for the above referenced subdivision, I request permission to employ John Bettis of Enchantment Engineering as design engineer for the sewers, water distribution and paving.

Very truly yours,

SCOTT PRICE & ASSOCIATES, P.A.

Scott Price

Scott Price

SP/psk

DEVELOPMENT · INVESTMENTS · MANAGEMENT
3939 SAN PEDRO N.E., SUITE B-3 PO BOX 13163 ALBUQUERQUE, NEW MEXICO 87112 505/883-3633

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 10, 1978

Tom Mann
Goldberg-Mann & Associates
911 Pennsylvania N.E.
Albuquerque, New Mexico 87110

RE: Palacio Del Rio Grande

Dear Mr. Mann:

I have reviewed the drainage report for the aboved referenced subdivision, and I am in agreement with the scheme of the development. The drainage report is therefore hereby approved.

Very truly yours,

Bruno Conegliano
Asst. City Engineer-Hydrology

BC/gm

cc; Dwayne Sheppard
Richard Leonard
Drainage File

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 1, 1978

F13-06

Goldberg Mann & Assoc.
911 Pennsylvania N.E.
Albuquerque, New Mexico 87110

SUBJECT: TEST TURNKEY PROJECT WORK AUTHORIZATION #T-29
Palacio del Rio Grande Subdivision

Gentlemen:

Under the provisions of the Test Turnkey Project procedures, this letter is the Work Authorization to begin field work on the project.

Sincerely,

C. D. Sheppard, P.E.

C. D. Sheppard
Acting City Engineer

CDS/fs

cc - H. R. Orr
Co-Con Inc.
Ray Dawson
Water Resources
Dwayne Sheppard
Bob Kielich
LaMonte Urban
Bruno Conegliano
Bill Mueller
Traffic Engineering - Jim Milton

Goldberg - Mann & Associates, Inc.
Engineers - Planners
811 Dallas St., N.E. Albuquerque, New Mexico 87110 (505) 265-5611

December 6, 1979 9-102

Mr. Bruno Conegliano
Asst. City Engineer/Hydrology
Engineering Division
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: Palacio del Rio Grande - Phase II

Dear Bruno:

We are herewith transmitting two (2) copies of the drainage plan for the Palacio del Rio Grande Subdivision, Phase II. This drainage plan is identical to the plan submitted on July 12, 1978 and approved on September 8, 1978. Phase II is an addition of four (4) lots to the south end of Phase I.

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 truly,

GOLDBERG-MANN & ASSOCIATES, INC.

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

TTM:pe
Enc. (2)

RECEIVED
DEC 11 1979
CITY ENGINEER

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 12, 1980

Mr. Tom Mann
Goldberg-Mann & Associates
811 Dallas NE
Albuquerque, New Mexico 87110

F13-D16

Reference: Palacio Del Rio Grande, Phase II

Dear Mr. Mann:

The drainage report for the above subdivision has been reviewed, and found acceptable.

Very truly yours,

Bruno Conegliano
Assistant City Engineer-Hydrology

BC/lc
xc: Richard Heller, City Engineer

MUNICIPAL DEVELOPMENT DEPARTMENT
Richard S. Heller, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

Goldberg - Mann & Associates, Inc.
Engineers - Planners
811 Dallas St., N.E. Albuquerque, New Mexico 87110 (505) 265-5611

November 19, 1979 8-69

Mr. Scott Price
Scott Price & Associates, Inc.
3939 San Pedro N.E., Suite B-3
P.O. Box 13163
Albuquerque, New Mexico 87112

Re: Palacio del Rio Grande

Dear Mr. Price:

We are herewith transmitting three (3) copies of the drainage plan for the Palacio del Rio Grande Subdivision, Phase II. This drainage plan is identical to the plan submitted on July 12, 1978 and approved on September 8, 1978. Phase II is an addition of four (4) lots to the south end of Phase I.

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 truly,

GOLDBERG-MANN & ASSOCIATES, INC.

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

TTM:pe
Enc.

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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

The Palacio del Rio Grande subdivision, being a por- of Tract 140-B as shown on M.R.G.C.D. Map 31, is located within the municipal limits of the city of Albuquerque. The parcel is located east of Rio Grande Boulevard between Griegos Road and San Lorenzo Avenue. The Griegos Drain abuts the property to the southeast. The location of the project is shown in Figure 1, Location Map.

The parcel is approximately 4.45 acres in size and is being developed as a single-family residential subdivision. Phase I is under construction and Phase II is being designed. The natural vegetation is sparse native ground cover, and

the topography indicates the site slopes down to the south and east, with average slopes less than 1%.

FIGURE 1.
LOCATION MAP

DATE
RECEIVED_____

F-13-Z

APPLICANT

NAME: Scott Price
ADDRESS: 39[illegible] San Pedro N.E.
Albuquerque, NM 87112
PHONE: 883-3633
SIGNATURE: _____

LOCATION OF PARCEL

LOT NO: 140-B BLOCK NO: _____
SUBDIVISION: MRGCD Map 31
STREET ADDRESS: _____

CURRENT ZONING: RA-2

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 = Intensity in inches/hour for a duration equal in minutes and obtained from Figure 2, 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 (10) 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.

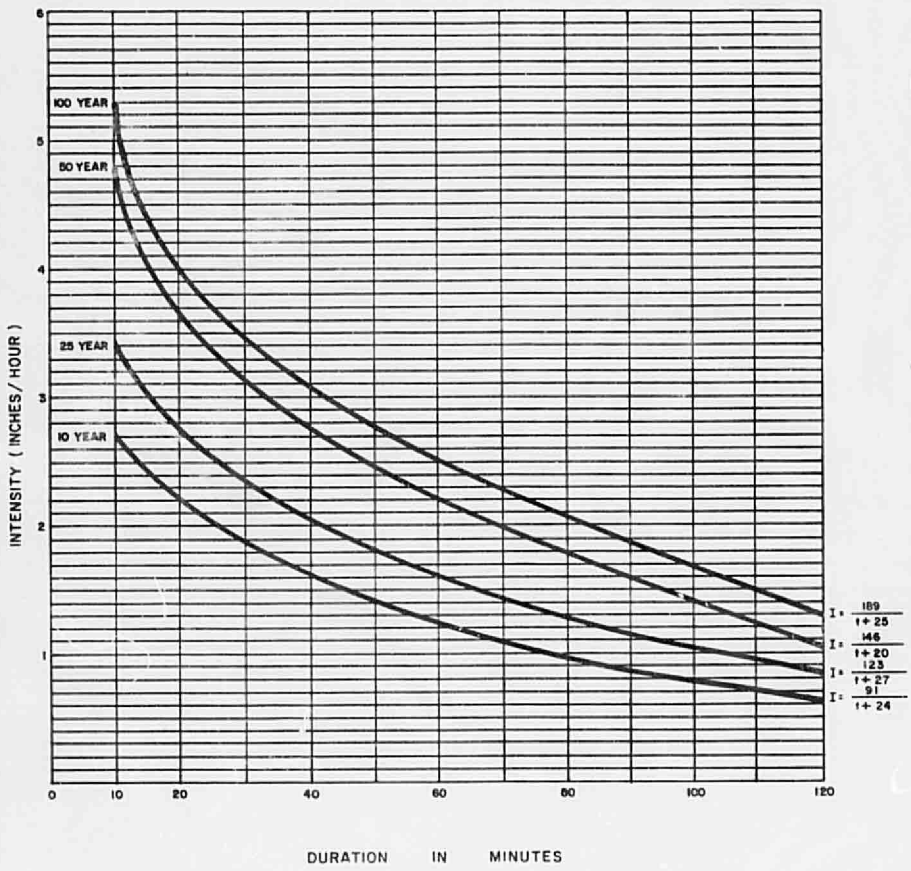


FIGURE 2

INTENSITY DURATION FREQUENCY CURVES

EXISTING DRAINAGE CONDITIONS

The location of the project is shown in Figure 3, Flood Hazard Map. The existing contours are shown in Figure 5. The property to the North appears to contribute insignificant flows onto the proposed site. A block wall along the right-of-way of Palacio del Rio Grande essentially cuts off storm flow from the abutting property. However, two weepholes in the southern portion of the wall may enable some storm runoff to spill onto the site. The remaining property to the northwest appears to be at the same elevation or lower than the proposed site. An earthen dike, a foot or less high, runs along the northeastern boundary of the site, blocking storm flows from the abutting property.

All flows from the site drain across a dirt road and into Griegos Drain, or into San Lorenzo Avenue, which carries the flows southeast.

PROPOSED DRAINAGE CONDITIONS

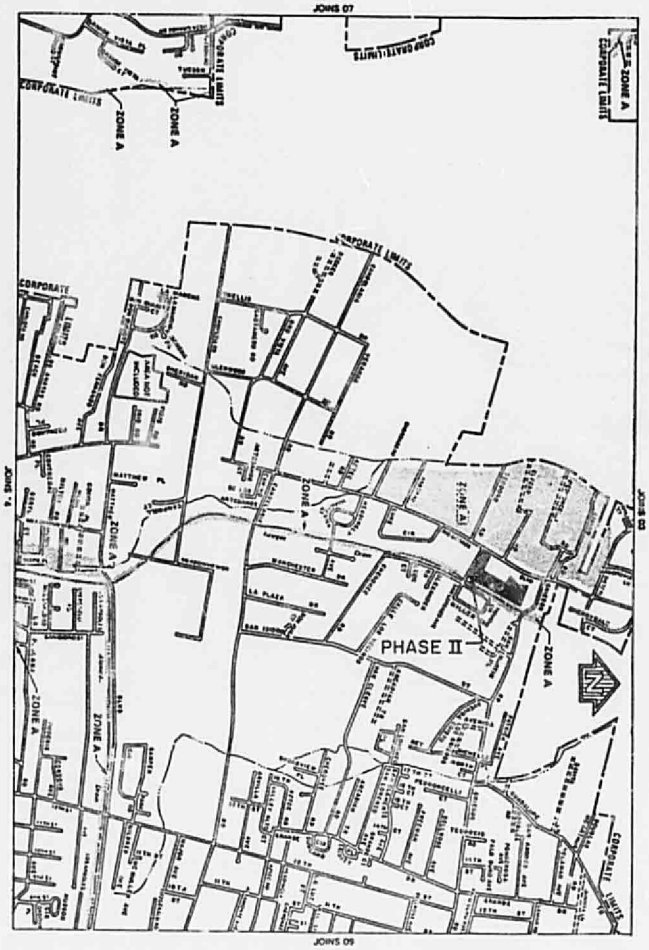
A typical lot drainage plan is shown in Figure 4 and the drainage plan for the proposed development is shown in Figure 5. The drainage plan provides for the retention on site of one hundred (100) percent of the rainfall from the 100 year storm. Both front and rear yards will be utilized for ponding. The street will be constructed with estate-type curbs and crowned as to drain to front yard ponds. All roof drains and grading will direct the flow into ponding areas.

The project site 1) does not lie in a flood plain, 2) does not have any drainage easements on the property and 3) lies adjacent to the Griegos Drain.

The drainage plan shows 1) existing contours at 1'-0" intervals, 2) proposed grades indicated by spot elevations, 3) swales, 4) continuity between proposed and existing contours, 5) that sidewalks are adjacent to the curb, 6) that all runoff will enter ponds before leaving the site, 7) that retaining walls are not required and 8) erosion will not result from offsite runoff or from the construction of this project.

Runoff flowing onto the site through the weep holes in the existing block wall will be directed into a ponding area. Overflow from the ponding area will spill into San Lorenzo Avenue.

The elevations atop the existing dike adjacent to the northern property line should be maintained to prevent flows from entering the site from the northeast.



08	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration CITY OF ALBUQUERQUE, NM (BERNALILLO CO.)	APPROXIMATE SCALE 1000 0 2000 3000 FEET FLOOD HAZARD BOUNDARY MAP MAP REVISED 2/14/78	FIGURE 3

CONCLUSIONS

1. Provide front and rear yard ponding.
2. Direct all flows from roofs and landscaped areas into ponds.
3. Construct an estate type street, directing the flows into ponding areas.
4. Provide a retention volume in excess of 760 cubic feet for each unit.
5. Maintain elevations at the top of the dike along the northerly boundary of the site.

CALCULATIONS

Total Area = 193,842 square feet

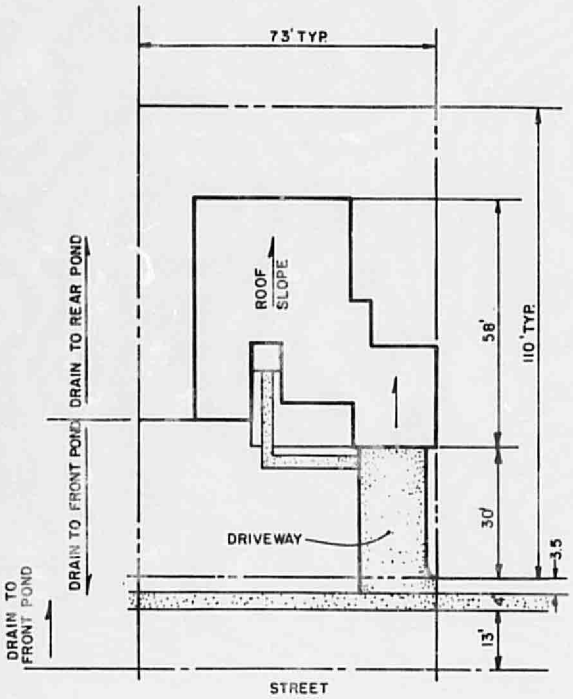
Required Retention Volume = 193,842 x 0.18 = 34,892 c.f.

Required Pond Per Lot = 34,892 ÷ 18 = 1,938 c.f.

Typical Pond Volumes:

Front Ponds: 80 x 73 x 0.18 = 1,051 c.f.

Rear Ponds: 68 x 73 x 0.18 = 894 c.f.



LEGEND

PROPERTY LINE

STREET CENTER LINE

FIGURE 4

TYPICAL LOT DRAINAGE

1908