HYDROLOGY E18/D11 NO PLANS

E18/D11

No Plans

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

June 28, 1978

Tom Mann
Goldberg - Mann & Assoc.
911 Pennsylvania NE
Albquerque, New Mexico 87110

RE: Academy Ridge

Dear Mr. Mann:

The drainage report for Academy Ridge has been reviewed and is in agreement with our discussion on the best drainage solution. The drainage report is therfore hereby approved.

Very truly yours,

Bruno Conegliano
Asst. City Engineer-Hydrology

BC/gm

cc; V.M. Kimmick
Richard Leonard
Drainage file

BURNSIDE ENTERPRISES, INC.
P. O. Box 14807, Station "G" • Albuquerque, New Mexico 87111 • 883-3773

June 6, 1978

Mossman-Gladden, Inc.
P.O. Box 3010
Albuquerque, New Mexico 87110

Dear Sir:

In return for permission to build two sedimentation ponds and the necessary connecting ditch in Tract B, Academy Acres Unit 10, which Tract is the property of Mossman-Gladden, Inc., we agree to the following conditions.:

1. The above structures are temporary and will be removed when Tract B is developed.

2. Upon removal, the area of the structures will be restored to the original state, including compaction for residential construction of fill material.

3. It is agreed that we will share with Mossman-Gladden, Inc., one-half the cost of a minimum six foot high masonry party-line wall between Tracts A and B. The first four courses of said wall will be a poured, reinforced concrete block retaining wall. Either Burnside Enterprises or Mossman-Gladden, Inc. may, at their option and expense, extend the height of the wall to 7ft. 4 in., or by mutual consent, both parties may share equally in the expense.

Very truly yours,

Anne Nist

Anne Nist
Vice-President

AN/de

Mossman-Gladden, Inc. Builders • Realtors
P.O. BOX 3010 • ALBUQUERQUE, NEW MEXICO 87110 • 2700 SAN MATEO BLVD., N.E. • PHONE 505-881-7111

May 26, 1978

Albuquerque City Engineer
City Hall
P.O. Box 1293
Albuquerque, New Mexico 87103
ATTN: Mr. Bruno Conigliano

Dear Bruno:

We are happy to cooperate with Burnside Enterprises in fulfilling your recommendation for certain ponding areas, therefor, permission is hereby granted Burnside Enterprises to enter our property to construct two sedimentation ponds, in Tract B of Unit 10 of Academy Acres, and the ditch necessary to the function of these ponds.

One pond, 30 ft. X 150 ft. X 2 ft. deep, will be located at the north end of the line between Tracts A and B; the second pond, 20 ft. X 50 ft. X 1 ft. deep will be built at the south end of this line. The ditch, approximately 1 ft. deep and of 3 ft. bottom width, is to be built at the east side of the above line to direct runoff into the ponds.

These structures are temporary and will be removed when Tract B is improved.

Very truly yours,

John E. McNerney

John E. McNerney

JEM:dz
Encl.

BURNSIDE ENTERPRISES, INC.
P. O. Box 14807, Station "G" • Albuquerque, New Mexico 87111 • 883-3773

April 25, 1978

City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Attn: Mr. Bruno Conegliano

Re: Drainage Report for Academy Ridge

Dear Bruno:

Please find enclosed the final drainage report for Academy Ridge prepared by Goldberg, Mann & Associates.

This report is being submitted for your review and approval if there are any questions please contact Mr. Thomas T. Mann Jr. P.E. at 265-3521.

Thank you,

Burnside Enterprises, Inc.

Thomas N. Burlison

Thomas N. Burlison

TNB/dm

Goldberg · Mann & Associates
Engineers·Planners
911 Pennsylvania St. Albuquerque, New Mexico 87110 (505) 265-3521

April 20, 1978

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RECEIVED
APR 24 1978
CITY ENGINEERS

Mr. Bruno Conegliano
P.O. Box 1293
Albuquerque, NM 87103

Re: Drainage Report for Academy Ridge

Dear Bruno:

The Drainage Report for Academy Ridge has been submitted for your review and approval. Figure 5 of that report shows an off-site flow of 3.4 cfs entering and passing through the project site. The flow eventually runs onto Academy Blvd.

It is requested that, rather than route the 3.4 cfs onto our site, we be allowed to divert the flow along our east boundary to Academy Blvd. The final disposition of the flow is the same in both cases, but the latter will be easier to execute.

If you concur, please so state in your approval letter for the report.

Thank you.

Sincerely,

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

djv

C.C. Tom Burlison

Goldberg · Mann & Associates
Engineers·Planners
911 Pennsylvania St. Albuquerque, New Mexico 87110 (505) 265-3521

April 13, 1978

Mr. Tom Burlison
c/o Hom-Co, Inc.
Station "G"
Albuquerque, NM 87111

Re: Academy Ridge

We are herewith transmitting three (3) copies of the drainage plan for the Academy Ridge Subdivision.

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 Academy Ridge Subdivision, being Tract A of Academy Acres Unit 10, is located within the corporate limits of the City of Albuquerque in the northeast heights. The parcel is located on the northeast corner of Academy Road and Burlison Drive.

The parcel is 10.22 acres in size and will be developed as an 84 unit Townhouse Complex. The natural topography of the area slopes from east to west at approximately a 3.0 percent.

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 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.

EXISTING DRAINAGE CONDITIONS

The existing drainage basins contributing runoff to the site are shown in Figure 4. The property to the east is undeveloped to Truchas Drive and contributes runoff to the site through two (2) drainage basins. There are approximately eighteen (18) acres in Drainage Basin 'X'. This contribution is in the form of sheet flow and accumulates in two small arroyos. This offsite flow passes through the subdivision and is discharged onto Burlison Drive.

The flows from Drainage Basin 'Y' start just east of the proposed subdivision and in comparison generate smaller flows onto the site. This offsite flow also passes through the subdivision and is discharged onto Burlison Drive. Flows from Drainage Basin 'Z' discharge onto Academy Road which is adjacent to the south boundary of the proposed subdivision. Drainage Basin 'Z' essentially contributes no offsite flows to the project site.

PROPOSED DRAINAGE CONDITIONS

The proposed Site Plan is shown in Figure 5. The offsite flows from Drainage Area X will be conveyed northward by an earthen drainage channel running parallel to the east property line. The runoff will pass between structures via a drainage easement which will then discharge to the street. The offsite flow plus runoff from the northern portion of the development will cross Burlison Drive and enter a drainage

channel. A twenty (20) foot wide concrete valley gutter will be constructed across Burlison Drive to convey the flows and reduce street maintenance.

Offsite flows from Drainage Area Y will be managed similar to Drainage Area X. The flows from Area Y plus the southern portion of the development will discharge onto Burlison Drive and flow southward.

All lots within the subdivision will have rear yard ponding areas, as shown in Figure 3. All roofs will drain to the rear yard. The runoff from the front of the lots will be carried in the streets.

All drainage facilities will be designed in accordance with City of Albuquerque Standards.

The rate of runoff from the undeveloped state to the developed state increases slightly (16.9 cfs to 17.7 cfs). However, ponding has been provided to retain fifty (50) percent of the rainfall and more than fifty (50) percent of the lot drains into the pond.

CONCLUSIONS

The following conclusions and recommendations are made for the development of Academy Ridge:

1. Construct backyard ponds for all lots.
2. Drain all roofs to the rear yard.
3. The minimum pond volume shall be 262 cubic feet.
4. Construct earth channels along the east property line to convey offsite flows to drainage easements.
5. Construct drainage channels in easements to convey offsite flows into streets.
6. Construct a twenty (20) foot wide concrete valley gutter across Burlison Drive to convey flows in Burlison Drive into the drainage channel.

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