HYDROLOGY M23/D1 2 PLANS

M23/D1

2 Plans

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

June 25, 1981

Bo Johnson
Trinity Enterprises
3107 Eubank Blvd. N.E.
Albuquerque, N.M. 87111

RE: RE-ALIGNMENT FOR STORM DRAIN EASEMENT FOR LOT 11, BLOCK 10, FOUR HILLS VILLAGE, FIRST INSTALLMENT

Dear Mr. Johnson:

Field inspection of the existing drainage conditions to the East of the Golf Course, have confirmed your assessment of the configuration of the watershed draining through the referenced easement.

The Hydrology Section of the City Engineers Office will interpose no objection to your client's request for consent to an encroachment agreement. Your client should, nevertheless be advised that the configuration given to the western portion of the front yard which is covered by the drainage easement, appears to be directing the runoff to the adjacent property. If damages to their property were to follow the occurrence of a major storm, your client may be found liable.

Very truly yours,

Charles M. Easterling
Princ. Asst. City Eng./Hydrology

CE/BC/tsl

TRINITY ENTERPRISES, INC.

Civil Engineers
Land Planners
Developers

3107 Eubank, N.E.
Suite 3
Albuquerque, New Mexico 87111
(505) 292-7666

RECEIVED
APR 10 1981
CITY ENGINEER

April 6, 1981

Mr. Chuck Easterling
Drainage Engineer
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Re-alignment of storm drain easement
for lot 11, block 10, Four Hills Village,
First Installment

Dear Mr. Easterling,

As I mentioned to you earlier, I have inspected the potential drainage area for the above mentioned report. The key question was if the drainage area upstream and the resulting flow is diverted down the access road to the parking lot or does it jump the curb, continue down the fairway and increase the flow behind the subject property. My visual inspection indicates that the water indeed runs down the access road which has curb and gutter. In addition, the parking lot also has an 8" verticle curb at its periphery. Therefore, I respectfully request the approval of the Storm Drainage Report at your earliest convenience.

Please note the date of submittal and the fact that I have received no written response at all.

Thank you,

Bo K. Johnson,
President

BKJ/dd
enclosure

TRINITY ENTERPRISES, INC.

Civil Engineers
Land Planners
Developers

3107 Eubank, N.E.
Suite 3
Albuquerque, New Mexico 87111
(505) 292-7666

February 23, 1981

RECEIVED
FEB 24 1981
CITY ENGINEER

Mr. Richard Heller
City Engineer
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Re-alignment of storm drain easement
for lot 11, block 10, Four Hills Village,
First Installment

Dear Mr. Heller,

Please find enclosed a copy of the letter of transmittal for the above referenced project dated October 9, 1980 and a copy of the summary plat. As of February 23, 1981 we have received no correspondence from you on this matter. We would very much like to have this finalized as soon as possible.

We await your comments or approval.

Sincerely,

Bo K. Johnson
P.E. #5922

BKJ/dd
enclosure

RSH ena
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RETURN

Has this been resolved?

TRINITY ENTERPRISES, INC.

Civil Engineers
Land Planners
Developers

8107 Eubank, N.E.
Suite 3
Albuquerque, New Mexico 87111
(505) 292-7666

October 15, 1980

Public Service Co. of NM
P.O. Box 2267
Albuquerque, NM 87103

Attn: Ralph Maxon

Dear Ralph,

This letter formally requests a vacation of easements on two distinct parcels; one, that portion of Lot 11, Block 10, except the easterly twenty feet, Four Hills Village, First Installment as indicated on a plat I delivered to you this morning. The portion being vacated affects only drainage, as all power and phone facilities are adjacent to or on the property lines. The owners of Lot 11 are Rodger and Jeannette Oetzel.

The second requests the vacation of all easements in lots numbered 30 thru 45, inclusive, and Tracts lettered C, J, K, L, M, N, O, Q, R, S, T, U and V of Phase I of Hidden Valley, an addition to the City of Albuquerque, filed for record in the Office of County Clerk of Bernalillo County, New Mexico of February 11, 1975 in Volume D6, Folio 120 (3). Said lots and tracts have since been replatted as Lots 30A - 41A inclusive, and tracts C-1, J-1, K-1, L-1, M-1, N-1, O-1, P-1 and Q-1 and recorded on September 16, 1980, Vol. C 17, Folio 81, which replat granted all easements necessary. The owners of the Hidden Valley parcel are Western Development Co. Inc., The Hidden Valley Homeowners Association, and the Western Development Company Pension Trust and Profit Sharing Trust.

Thank you for your time and attention.

Your very truly,

Gordon Douglas, PLS

GD/dd

TRINITY ENTERPRISES, INC.

Civil Engineers
Land Planners
Developers

3107 Eubank, N.E.
Suite 3
Albuquerque, New Mexico 87111
(505) 292-7666

RECEIVED
OCT 13 1980
CITY ENGINEER

October 9, 1980

Mr. Richard Heller
City Engineer
P.O. Box 1293
ABQ, NM 87103

Reference: Re-alignment of storm drain easement for lot 11, block 10, Four Hills Village, First Installment

Dear Mr. Heller,

The enclosed drainage report is to justify the re-alignment and reduction of an easement in the rear of lot 11, block 10, Four Hills Village, First Installment. This request is made due to the discovery of the encroachment of the existing homes, as well as the proposed addition, into the easement.

I have personally inspected the site and find that there will be no damage to life, limb or property in reducing the easement, as shown.

I have enclosed a copy of the summary plat of the lot for your reference. On approval, I would appreciate your signiture on the original plat.

Your earliest attention to this matter would be greatly appreciated.

Very truly yours,

Bo K. Johnson, President
TRINITY ENTERPRISES, Inc.

BKJ/dd

STORM DRAIN

REPORT

FOR

THE REALIGNMENT OF

A

REAR STORM DRAIN EASEMENT

ON

LOT 11 BLOCK 10

1ST INSTALLMENT

FOUR HILLS VILLAGE

prepared by:

TRINITY ENTERPRISES, INC.

Purpose:

An existing home was found to be encroaching into a platted storm drain easement at 910 Lampost Circle in the Four Hills area of Albuquerque (lot 11 block 10, 1st installment Four Hills Village).

This report will show that the unusually wide platted easement is not necessary. The necessary adequate protection to the subject property was constructed at the time the adjacent lot was created. In addition, the existing easement is not being vacated but re-aligned and reduced to conform to a more practical shape fitting the purpose of the easement.

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Existing Conditions:

At the low end of the basis, the drainage is channeled into a small trapezoidal swale that diverts the water in front of the existing fences and carries it westward. At a point on the rear lot line between lot 11 and 12 the swale turns north in a side yard drainage easement that is 20' wide on lot 12 and 10' wide on lot 11. The swale is well defined and empties into a concrete spillway that discharges on the street. The concrete spillway extends from the back of the curb to the right of way line.

The upstream drainage characteristics that contribute to the flows passing between lots 11 (block 10, 1st installment) and lot 12, (block 10 4th installment) Four Hills are easily defined. The drainage basin extend along a fairway upstream to the clubhouse. All water that enters the parking lot for the clubhouse is diverted by the curb and runs down the adjacent street. There is no evidence of overflow from the lot and spilling into the "fairway".

As the orthotopographic map shows the drainage basin is grassed as would be expected of a well kept golf course fairway.

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Conclusion and Recommendation:

Since the volume of runoff is shown to the low and the easements are adequate, it is the recommendation that the easement be reduced as shown on the enclosed drawings.

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Hydrology Analysis:

Offsite Flowrate Quantity for Lot 11a Block 10, Four Hills Village, 1st Installment

1) Offsite Contributing Area = 11.1 acres

2) Time of Concentration:
   Velocity over Golf Course w/scope of 6.5% = 2 f.p.s.
   Length in feet = 1500

   $$Tc = \frac{1}{tv} = \frac{1500}{2(60)} = 12.50 \text{ minutes}$$

3) Intensity from the 100 yr - 24 hour Herkenhoff Storm @ 12.5 minutes = 5.4 inches/hour

4) Maximum Flow-rate using rational formula

   Q=CIA w/C= 0.35

   Q=(0.35)(5.4)(11.1) = 21 c.f.s.

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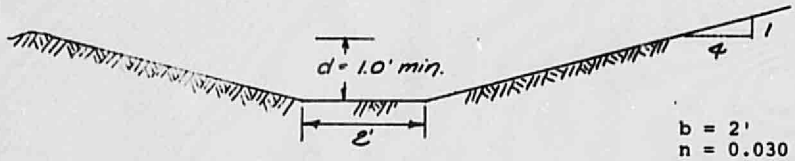
Hydrology design:

The swale can best be analyzed as a small trapezoidal channel with the following characteristics:



b = 2'
n = 0.030
d = 1' (min.)
ss = 4:1
slope = 3%

$$Q = \frac{1.489}{n} A R^{2/3} s^{1/2}$$

Q = 36.1 c.f.s.

V = 6.0 f/s

The channel is more than adequate to handle the anticipated flows.

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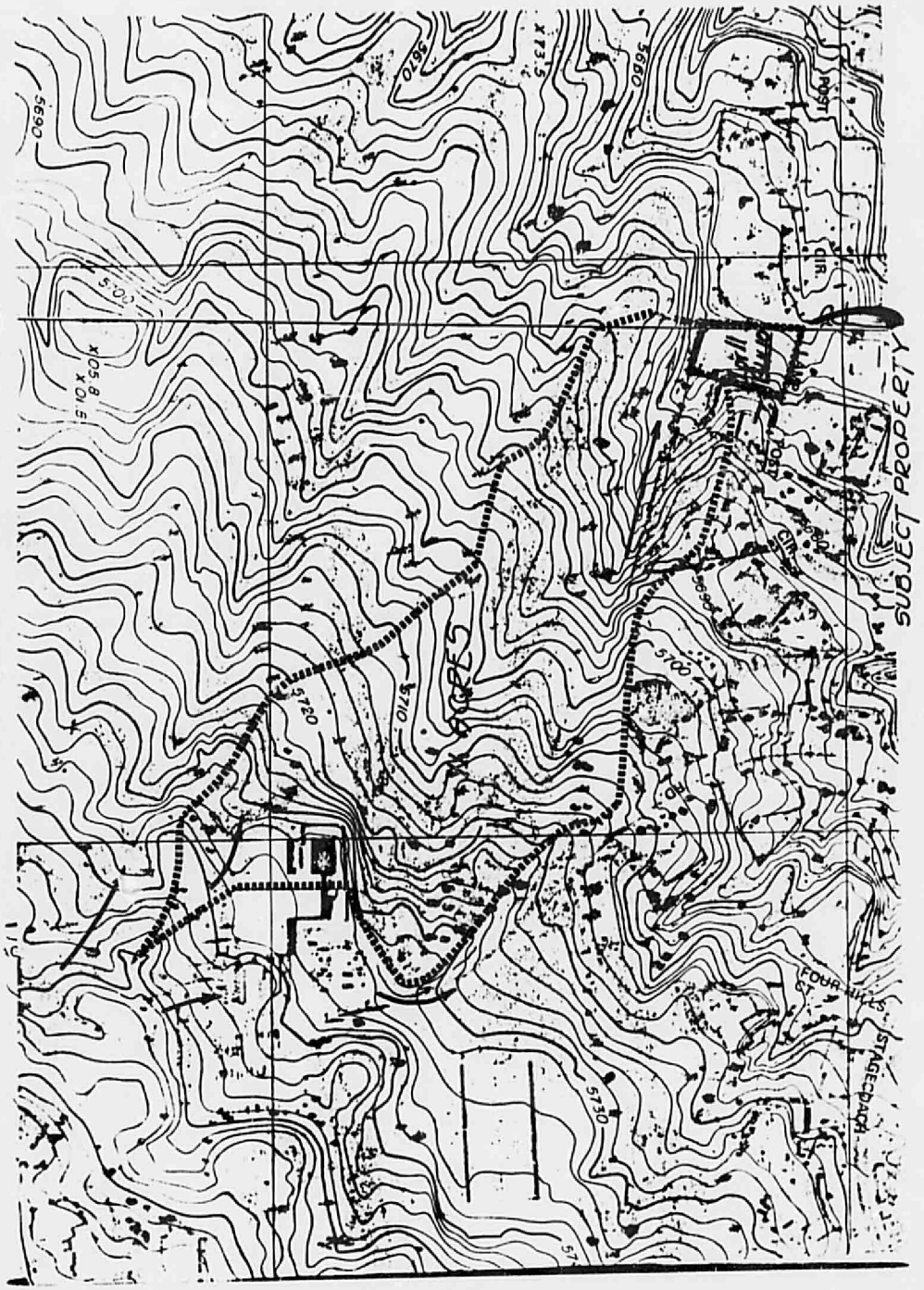
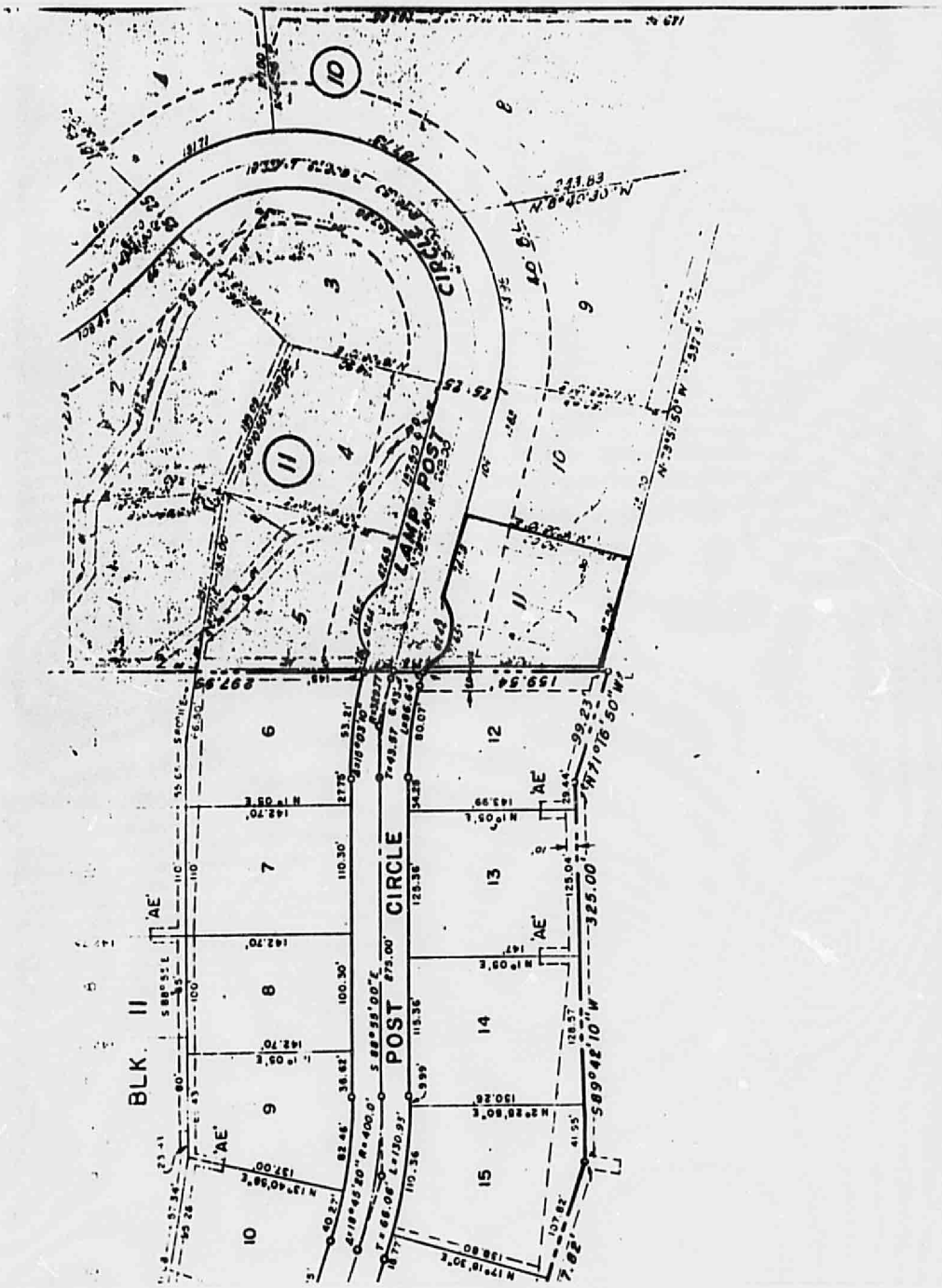
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