



P.O. Box 1293 Albuquerque, NM 87103

June 10, 1997

Martin J. Chávez, Mayor

Fred Arfman, PE
Isaacson & Arfman, PA
128 Monroe Street NE
Albuquerque, NM 87108

RE: GRADING & DRAINAGE PLAN FOR DISNEY PLACE NE (C-19/D6B)
A.K.A. TRACT A, BLOCK D, NORESTE MANOR
RECEIVED MAY 22, 1997 FOR GRADING PERMIT & WORK ORDER
ENGINEER'S STAMP DATED 05-21-97

Dear Mr. Arfman:

It is City Hydrology's understanding that the Plan submitted is the same plan that Lisa approved on March 10, 1997. Include a copy of the Grading & Drainage Plan, dated 03-04-97, in the set of construction drawings that will be submitted to DRC for the Work Order. In the approval boxes indicate when the DRB approved the Plan. As far as the Work Order is concerned the Grading & Drainage Plan will be included for information only. The grading is not part of the Work Order.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer, Hydrology

c: Andrew Garcia

Good for You, Albuquerque!





CITY OF
Albuquerque

Public Works Department
March 10, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Fred Arfman, P.E.
Isaacson & Arfman
128 Monroe Street NE
Albuquerque, NM 87108

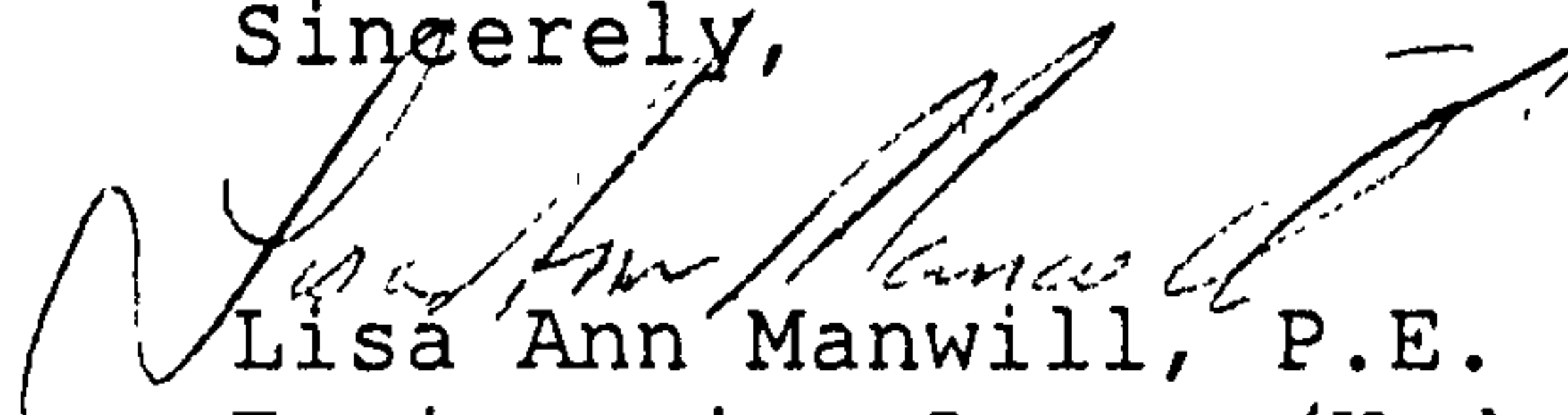
**RE: TRACT A, BLOCK D, NOR ESTE MANOR (C19-D6B). DRAINAGE PLAN FOR
PRELIMINARY AND FINAL PLAT. ENGINEER'S STAMP DATED 3-4-97.**

Dear Mr. Arfman:

Based on the information provided on your March 3, 1997 submittal, the above referenced project is approved for Preliminary and Final Plats.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,



Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
[File]

Good for You. Albuquerque!

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3. *According to the Master Plan, what is the allowable flow to Helen Hardin Street and Anaheim Avenue?*

- The Nor Este Drainage Report indicates that this 2.5 Ac. tract is contained in Basin C and has a total area of 4.7 acres and generates 16.5 cfs (3.5 cfs/Ac). The subject west basin contains 0.83 Ac. and generates 1.5 cfs (1.8 cfs/Ac.), which is substantially lower than the original report. Therefore, the storm water runoff impact on Helen Hardin and Corona Avenue is lessen.
- Disney Place is projected to discharge 3.0 cfs (Q_{100}) onto Anaheim Avenue (Nor Este Drainage Basin D). The original report indicates only 3.7 cfs, but considering the relatively short distance to the point of storm water acceptance (500 feet), it appears that this minor increase in basin flows will "beat the peak" of the overall drainage basin. The net runoff of the entire tract should be less than projected due to the change in land use from a church site to residential.

4. *Show the floodplain map.*

- The new FIRM Flood Insurance Rate Map (Map No. 35001C0141D) with the effective date of September 20, 1996 is found attached to this submittal.
- The graphic representation of the old floodway and the limits of Anaheim Ave. indicate that the floodplain abuts the site along approximately one-third of the Anaheim Ave. frontage. Based on the Grading Plan for Nor Este Manor, C.O.A. Drawing No. 3355, Sheet 6 of 52, Anaheim Ave. was constructed with a flowline approximately five (5) feet higher than the natural ground, therefore it further acts as a barrier against any floodway storm waters wanting to encroach upon the subject property.

5. *A 1-foot water block is required at Disney Place and Anaheim Avenue. The east side of this drive needs to be raised.*

- Disney Place has an increasing grade as it climbs to the north from Anaheim. Therefore, the 1-foot water block should not be required.

CALCULATIONS

I. CRITERIA

Criteria for hydrologic calculations is per the Rational and SCS methods of estimating storm runoff as outlined in the City of Albuquerque "Development Process Manual", Volume II, Chapter 22.

Rainfall: P100/6 hour = 2.60 in. P100/24 hour = 3.10 in.
P10/6 hour = 1.71 in. P10/24 hour = 2.04 in.

Rainfall Intensity: $I = 6.84P(T_c^{-.51})$ (in/hr)

where P = rainfall (in)
T_c = time of conc. (min)

Time of Concentration: $T_c = 0.0078(L^{0.77})/S^{0.385}$ (min.)

where L = length (ft.)
S = slope (ft./ft.)

Soil: Embudo (EmB, EtC, TgB), Group "B"

SCS curve number: CN per DPM, Vol. II, plates 22.2 C2 & C3

Rational "C" factor: "C" factor by Notice of Emergency Rule

Runoff: $Q = CIA$ (c.f.s.) - Rational Method

where A = basin area (ac.)
I = intensity (in/hr)
C = "C" factor

Volume: $3630AR$ (c.f.) - SCS Method

where A = basin area (ac.)
R = direct runoff (in.)