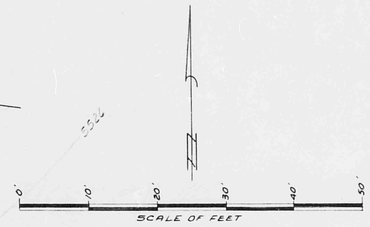
HYDROLOGY

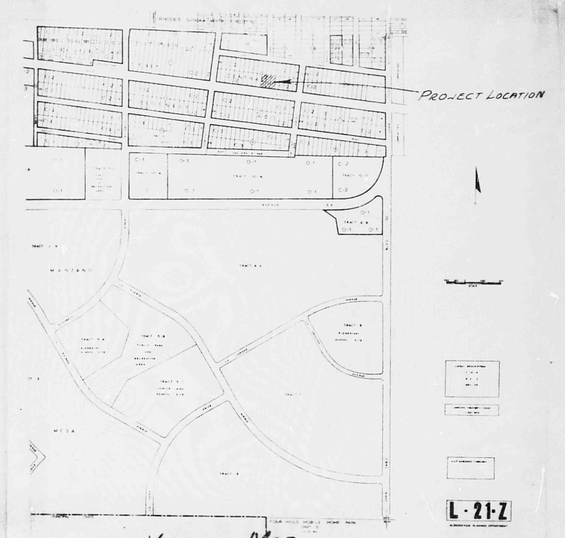
L21/D16
ONE PLAN

L21/D16

1 PLAN



APR 23 1984
HYDROLOGY SECTION



Vicinity Map

L-21-Z

Bench Mark Data

B.M. Station No. F-L21 (R) Elev. 5534.543 (S.L.D. 1929)
The Station is on the median strip of Central Ave. 5 ft. north of the center line of the street, and is 8 ft. west of the center line of Juan Tabo Blvd.
The Station is a standard A.C.S. Brass tablet

Legend

- Finish Contours
- Existing Contours
- Direction Of Flow
- Existing Spot Elevations
- Finish Spot Elevations
- Boundary Lines
- Outline Of Future Building

Drainage Plan

The Following Items Concerning The Drainage Plan For Mike Batz, 11,421 Central Ave NE Albuquerque, N. Mex.

1. Drainage Plan
2. Vicinity Map
3. Drainage Calculations

Calculations

1. Ground Cover Information (From The U.S.S.C.S. Bernalillo County Soil Survey Plate 32, Tab. Tijeras Gravelly Fine Sandy Loam.

2. Existing Conditions
   - (a) Total Area = 150'x150' = 22,500 Sq. Ft.
   - (b) Area Imp. = 14.1x36 = 508 Sq. Ft.
   - (c) Area Pervious = 21,992 Sq. Ft.

3. Developed Conditions
   - (a) Area Imp. 22,320 Sq. Ft.
   - (b) Area Perv. 180 Sq. Ft.

Rational Method

1. Discharge, $Q_{100} = CLA$, Where C Varies
   L = 5.18 in/hr. from D.P.M. Chart
   A = Area in Acres
2. Volumes, $V_{100} = CP_6A(1/2)$, Where C Varies
   P_6 = 2.45 in (D.P.M. Plate 222 D-1)
   A = Area in Sq. Ft.

3. Existing Conditions
   - $Q_{100} = CLA = 0.34 \times 5.18 \times 0.52 = 0.92$ C.f.s.
   - $V_{100} = CP_6A(1/2) = 0.34 \times 2.45/12 \times 22{,}500 \times 1/2 = 781$ Cu. Ft.

   Discharge Into Adjacent Lots:
   - (a) Into Lot 24 — 43 Cu. Ft.
   - (b) Into Lot 25 — 129 Cu. Ft.
   - (c) Into Lot 26 — 219 Cu. Ft.
   - (d) Into Lot 10 — 391 Cu. Ft.

4. Developed Conditions
   - (a) Drainage into Storm Drain
     - $Q_{100} = 1.00(5.18) \times 0.51 = 2.66$ ~~Cu. Ft.~~
     - $V_{100} = 1.00 \times 2.45/12 \times 22{,}320 \times 1/2 = 2{,}279$ Cu. Ft.
   - (b) Discharge into adjacent Lots
     - (1) Into 24 & 25 0.00
     - (2) Into 10 & 26 3 Cu. Ft.

5. Overflow, Westerly Drive Way
   $Q = 3.33 L H^{3/2} = 3.33 \times 18 \times 0.2^{3/2} = 5.36$ C.f.s.

6. Storage Capacity Of Basin At Elev. 5524.50 Computed By The Average End Area = 4,200 Cu. Ft.

7. Capacity Of Flow Through 6" Dia. Pipe Using A Head of 2 Feet is 225 g.p.m. = 1/2 C.F.S.

Legal Description

Lots Numbered Eleven (11), Twelve (12), and Thirteen (13) In Block Numbered Four (4) On The Plat of the East Central Business Addition, within the City Limits of Albuquerque, N. Mex as the same is shown and designated on the Plat of said Addition which was filed in the Bernalillo County Clerks Office on March 20, 1939 in Book D-12.

Drainage Plan
For
Mike Batz, 11,421 Central Ave N.E.
Albuquerque, 87123

April 3, 1984

By Thomas Martinez
N.M.P.E. & L.S. No 3345

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