VICINITY MAP
SCALE: 1" = 800'
J-13

PROJECT BENCHMARK:

AN 'X' CHISELED ON THE SOUTH BONNET BOLT OF A FIRE HYDRANT LOCATED IN THE NORTHWEST QUADRANT OF THE INTERSECTION OF MOUNTAIN RD. N.W. & 15th ST. N.W.
CITY OF ALBUQUERQUE B.M. 4-J-13 ELEV. = 4999.93 FEET (M.S.L.D.)

TBM

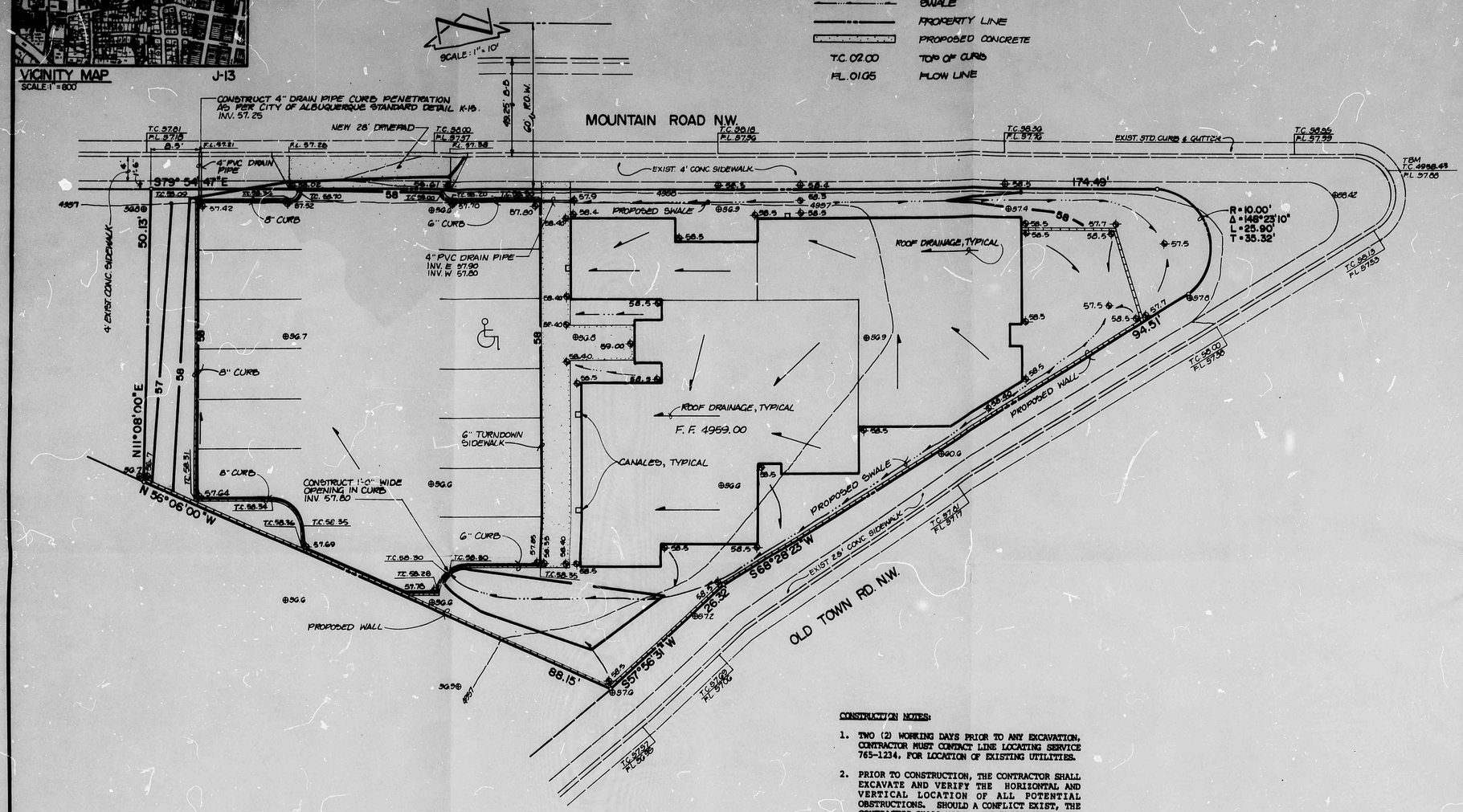
TOP OF CURB @ THE PROJECTION OF THE NORTHEAST CORNER. ELEVATION = 4956.43 FEET (M.S.L.D.)

LEGAL DESCRIPTION

TRACT A, LANDS OF ROMERO, PADILLA, RILEY & VIGIL

LEGEND

- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- 5960 PROPOSED CONTOUR
- 5960 EXISTING CONTOUR
- SWALE
- PROPERTY LINE
- PROPOSED CONCRETE
- T.C. 02.00 TOP OF CURB
- FL. 01.65 FLOW LINE



CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.

RECEIVED
OCT 24 1984
HYDROLOGY SECTION

DRAINAGE PLAN

The following items concerning the Padilla, Riley & Vigil Office Building Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located at the southwest corner of the intersection of Mountain Road N.W. and Old Town Road N.W. Presently, the site is undeveloped. The adjacent site to the southwest is presently developed as a private residence. The adjacent site to the west is presently undeveloped. No offsite flows are expected to enter the site from any adjacent site.

As shown by Plate J-13 of the Albuquerque Master Drainage Study, the site does not lie within a designated Flood Hazard Zone, however, the potential for downstream flooding does exist. The study does not adequately reflect the new storm drainage improvements in the area. The storm drainage system (125-01) has been constructed and allievates the potential for downstream flooding, therefore, controlled discharge is not required. At present, runoff generated by this site flows from northeast to southwest.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) continuity between existing and proposed grades, and 3) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of an office building, paving and landscaping. Runoff generated by this site will drain from east to west and discharge through a 4-inch diameter drain pipe into Mountain Road N.W. Controlled discharge is being utilized in this development. A volume of ponding adequately sized to detain that portion of the runoff not directly discharged into Mountain Road N.W. is provided. There is a small area in the northeast corner of the site which will be fully landscaped and be expected to retain 100% of the runoff which falls within that area. No roof runoff will be expected to contribute to this pervious area.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. Pond volume calculations are based on the Average End-Area Method. As shown by these calculations, the proposed improvements on Tract A will decrease the peak discharge by approximately 0.1 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 30:
Ge (Gila) and VbA (Vinton), Clay Sandy Loam
Hydrologic Soil Group B

Rational Method

Discharge: $Q = CiA$
where C varies
$i = P_6 (6.84) T_c^{-0.51} = 4.65$ in/hr
$P_6 = 2.2$ in (DPM Plate 22.2D-1)
$T_c = 10$ min (minimum)
A = area, acres

Volume: $V = CP_6A(1/12)$
where C varies
$P_6 = 2.2$ in (DPM Plate 22.2D-1)
A = area, sf

Existing Condition

$A_{total} = 10,535$ sf $= 0.24$ Ac
$A_{imp} = 0$ sf; % impervious = 0%
'C' = 0.34 (DPM Plate 22.2C-1)
$Q_{100} = CiA = 0.34 (4.65)(0.24) = 0.4$ cfs
$V_{100} = CP_6A = 0.34 (2.2/12)(10,535) = 655$ cf

Developed Condition

A. Runoff Calculations
$A_{total} = 10,535$ sf $= 0.24$ Ac
$A_{imp} = 7,675$ sf; % impervious = 73%
'C' = 0.71 (DPM Plate 22.2C-1)
$Q_{100} = CiA = 0.71 (4.65)(0.24) = 0.8$ cfs
$V_{100} = CP_6 = 0.71 (2.2/12)(10,535) = 1370$ cf

B. $Q_{release} = CA\sqrt{2gh}$
where C = 0.7
A = 0.0855 sf
g = 32.2 ft/sec^2
h = 0.5'
$Q_{release} = 0.3$ cfs

C. Pond Volume
1. Pond Volume Required
$V_{P.R.} = 1370 (0.8 - 0.3/0.8)$
$V_{P.R.} = 855$ cf
2. Pond Volume (Average End-Area Method)
$V_P = 1/2 A_{58.03} + A_{57.42}) 58.03 - 57.42$
$V_P = 1/2 (3612 - 0) 0.61$
$V_P = 1100$ cf
$V_P > V_{P.R.}$

Comparison

$\Delta Q_{100} = 0.4 - 0.3 = 0.1$ cfs (decrease)
$\Delta V_{100} = 1370 - 655 = 715$ cf (increase)

JEFFREY G. MONTOYA
NEW MEXICO
9540
REGISTERED PROFESSIONAL ENGINEER
10/23/84

NO.	DATE	BY	REVISIONS

811 DALLAS N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

DESIGNED BY: J.T.O.
DRAWN BY: C.C.C.
APPROVED: J.G.M.

JOB NO. 4-1341
DATE 10/84

GRADING & DRAINAGE PLAN
PADILLA, RILEY & VIGIL OFFICE BUILDING

J13/D23

FILE NO.
SHEET 1 OF 1