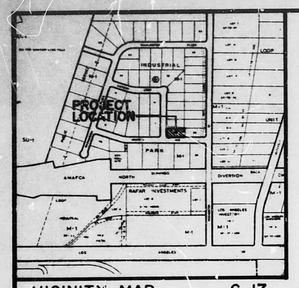
HYDROLOGY

C17/D1G
1 PLAN

C17/DIG

1 Plan



VICINITY MAP C-17
SCALE: 1" = 800'

·LEGEND·

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 5080 EXISTING CONTOUR
- 90 PROPOSED CONTOUR
- PROPOSED CONCRETE

PROJECT BENCHMARK:

A STANDARD A.C.S. BRASS CAP STAMPED (6-C17), LOCATED 7.5 MILES NORTHEAST OF DOWNTOWN ALBUQUERQUE AND 0.5 MILES NORTH OF THE INTERSECTION OF LOS ANGELES BLVD. N.E. AND WASHINGTON ST. N.E.
ELEVATION: 5111.03 FEET (M.S.L.D.)

TEMPORARY BENCHMARK:

TOP OF CURB @ THE NORTHEAST CORNER OF LOT 40, CLIFFORD INDUSTRIAL PARK.
ELEVATION: 5098.42 FEET (M.S.L.D.)

LEGAL DESCRIPTION:

LOT 12, CLIFFORD INDUSTRIAL PARK.

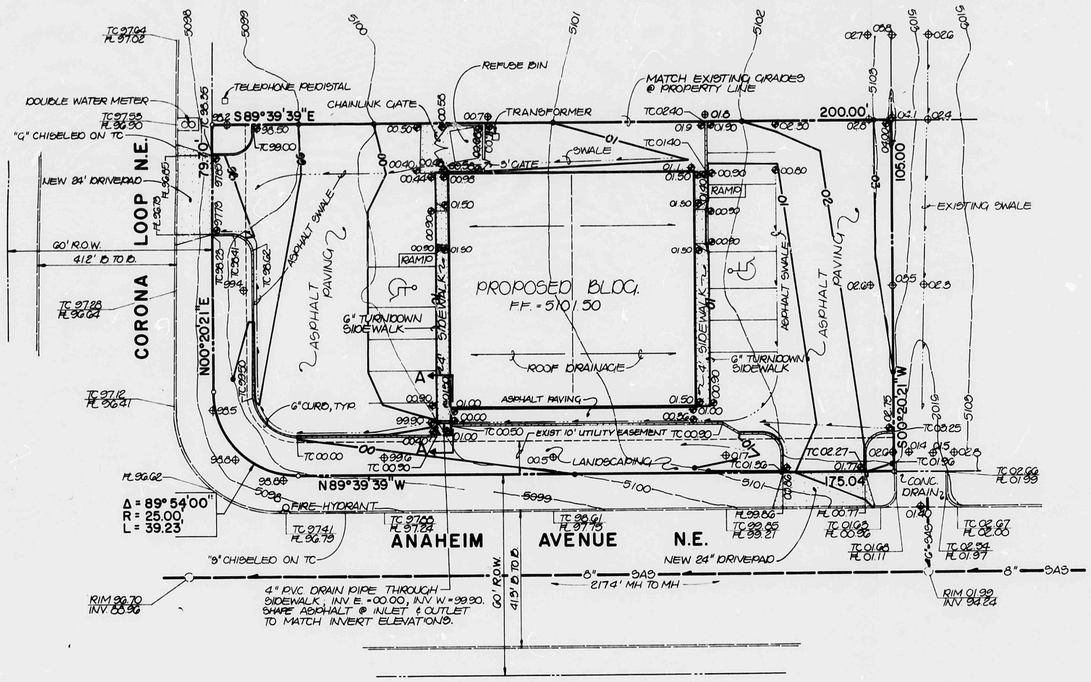
CONSTRUCTION NOTES:

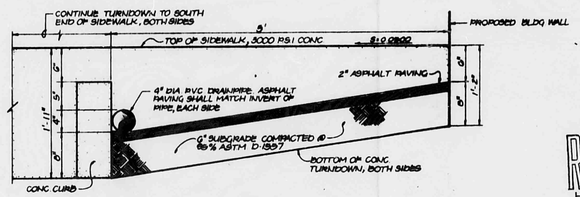
1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, 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.

SCALE: 1"=20'





SECTION A-A
SCALE 1" = 1'-0"

DRAINAGE PLAN

The following items concerning the J. Aldighieri Warehouse 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 northeast corner of the intersection of Anaheim Avenue N.E. and Corona Loop N.E. Presently, the site is undeveloped. The adjacent sites to the north and the east of the subject site presently are undeveloped. No offsite flows are expected to enter the subject site from any adjacent site.

As shown by Panel 9 of the National Flood Insurance Program Flood Boundary and Floodway Maps for the City of Albuquerque, Bernalillo County, the site does not lie within a designated Flood Hazard Zone. At present, runoff generated by the subject site flows from east to west toward the street. No offsite flows will enter the project site from the adjacent site to the north due to the existing topography. Offsite flows generated by the adjacent site to the east are intercepted by an existing swale prior to entering the project site. The offsite flows are then conveyed by the existing swale to Anaheim Avenue N.E., therefore, no offsite flows are expected to enter the subject site from any adjacent sites.

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 the construction of a warehouse building, paving and landscaping. Runoff generated by this site will drain from northeast to southwest and discharge into Corona Loop N.E. and Anaheim Avenue N.E. From this point, the runoff will flow west in Anaheim Avenue N.E. to Washington Place N.E. and ultimately discharge to a downstream facility which is currently being designed by Leverton-Easterling. According to Mr. Charles M. Easterling, the downstream facility which is currently in the design stage will permit the free discharge of runoff from the Clifford Industrial Park of which Lot 12 is a part. Also, Mr. Dan Hogan of the City of Albuquerque Hydrology Section, has indicated that funds have been identified for the aformentioned project and therefore it can be assumed that the downstream facilities are in place for the design of this project.

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. As shown by these calculations, the proposed improvements constructed on Lot 12 will increase the peak discharge from Lot 12 by approximately 0.9 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 11:
EmB; Embudo, Gravelly Fine 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

$A_{total} = 20{,}910$ sf $= 0.48$ Ac
$A_{IMP} = 0$ sf; % impervious = 0%
$C = 0.34$ (DPM Plate 22.2C-1)
$Q_{100} = CiA = 0.34\ (4.6)(0.48) = 0.8$ cfs
$V_{100} = CP_6A = 0.34\ (2.2/12)(20{,}910) = 1305$ cf

Developed Condition

$A_{total} = 20{,}910$ sf $= 0.48$ Ac
$A_{IMP} = 16{,}960$ sf; % impervious = 81%
$C = 0.77$ (DPM Plate 22.2C-1)
$Q_{100} = CiA = 0.77\ (4.6)(0.48) = 1.7$ cfs
$V_{100} = CP_6A = 0.77\ (2.2/12)(20{,}910) = 2950$ cf

Comparison

$\Delta Q_{100} = 1.7 - 0.8 = 0.9$ cfs (increase)
$\Delta V_{100} = 2950 - 1305 = 1645$ cf (increase)

RECEIVED
OCT 24 1984
HYDROLOGY SECTION

JEFFREY S. MORTENSEN
NEW MEXICO
8847
10/23/84
REGISTERED PROFESSIONAL ENGINEER

TONN, MARTY & ASSOCIATES, P.C.
811 DALLAS N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

NO.	DATE	BY	REVISIONS

DESIGNED BY: J.T.O.
DRAWN BY: L.B.D.
APPROVED: J.G.M.
JOB NO. 41391
DATE 9·84

GRADING & DRAINAGE PLAN
J. ALDIGHIERI WAREHOUSE

FILE NO.
SHEET 1 OF 1