YDROLOGY C17/D1r OFFICE BLDG.

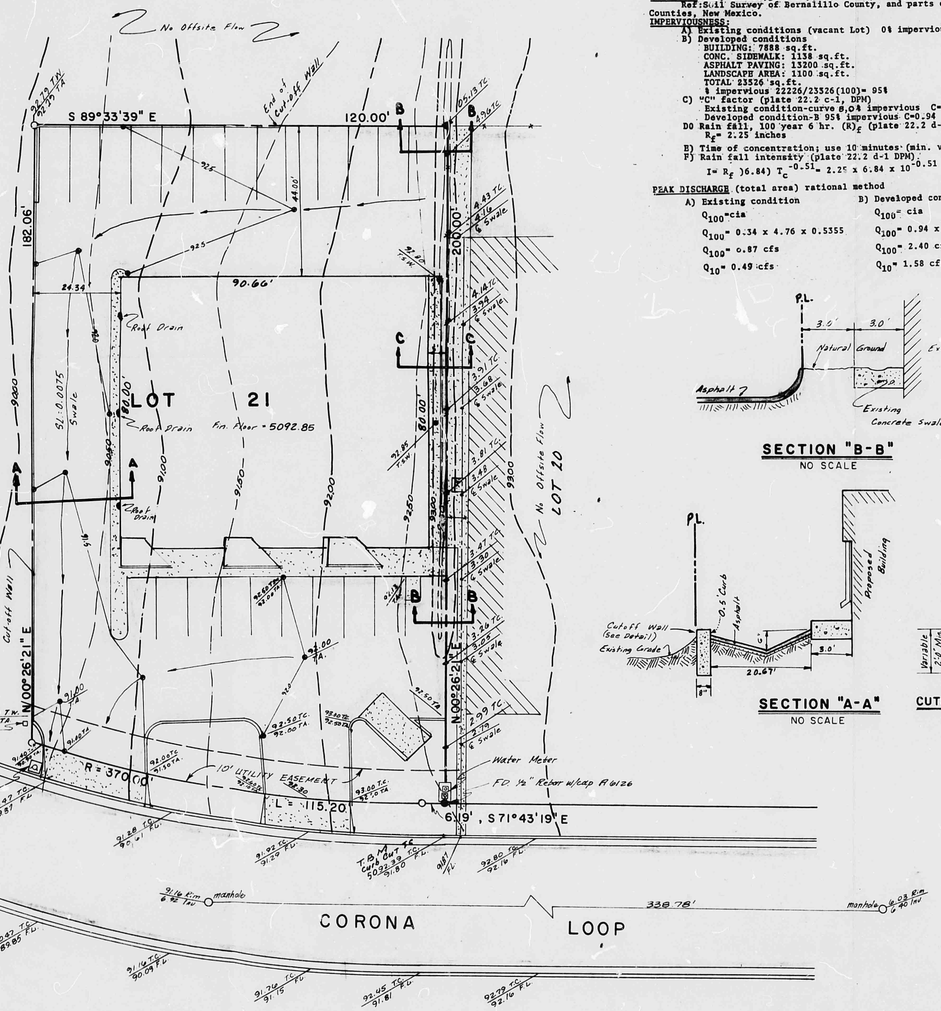
C17 / DIR

OFFICE BUILDING

1 PLAN

GRADING AND DRAINAGE PLAN
OF
CLIFFORD INDUSTRIAL PARK
LOT 21
ALBUQUERQUE, NEW MEXICO

SCALE: 1"=20'



SITE DRAINAGE CRITERIA

This is a Grading and Drainage Plan for Lot 21- Clifford Industrial Park. This drainage report consists of a hydrolic study of the probable 100 year storm, effecting this existing site. The purpose of this plan is to route the generated runoff developed by this project and design a positive discharge into Corona Loop

The following items are required by the City of Albuquerque Drainage Section concerning this updated drainage plan:

A) VICINITY MAP
B) GRADING AND DRAINAGE PLAN
C) SITE DRAINAGE CRITERIA

The Plan shows:

A) EXISTING CONTOURS AT 1 FOOT INTERVALS
B) PROPOSED GRADES INDICATED BY FINISH CONTOURS AND SPOT ELEVATIONS.
C) SWALES AS INDICATED BY THE LEGEND SHOWN.
D) GRADING AND DRAINAGE PLAN.

This site does not lie within a designated flood hazard zone as is shown on the flood hazard map 350002 0009C.

DRAINAGE NOTES AND CALCULATIONS

LEGAL DESCRIPTION: A certain Tract of land being Lot 21, Clifford Industrial Park, an addition to the City Of Albuquerque, Bernalillo County, New Mexico, containing 0.5355 Acres more or less.
ZONING: M-1, zone atlas C-17-Z.
SOIL TYPE: EmB, Embudo, gravelly, fine sandy loam, hydrolic soil type "B"
Ref: Soil Survey of Bernalillo County, and parts of Sandoval and Valencia Counties, New Mexico.
IMPERVIOUSNESS:
A) Existing conditions (vacant Lot) 0% impervious.
B) Developed conditions
BUILDING: 7888 sq.ft.
CONC. SIDEWALK: 1138 sq.ft.
ASPHALT PAVING: 13200 sq.ft.
LANDSCAPE AREA: 1100 sq.ft.
TOTAL 23326 sq.ft.
% impervious 22226/23326(100)= 95%
C) "C" factor (plate 22.2 d-1, DPM)
Existing condition-curve B, 0% impervious C=0.34
Developed condition-B 95% impervious C=0.94
D) 0 Rain fall, 100 year 6 hr. $(R)_f$ (plate 22.2 d-1 DPM)
R_f= 2.25 inches
E) Time of concentration; use 10 minutes (min. value)
F) Rain fall intensity (plate 22.2 d-1 DPM)
$I = R_f (6.84) T_c^{-0.51} = 2.25 \times 6.84 \times 10^{-0.51} = 4.76$ inches per hr.

PEAK DISCHARGE (total area) rational method

A) Existing condition
$Q_{100} = cia$
$Q_{100} = 0.34 \times 4.76 \times 0.5355$
$Q_{100} = 0.87$ cfs
$Q_{10} = 0.49$ cfs

B) Developed condition
$Q_{100} = cia$
$Q_{100} = 0.94 \times 4.76 \times 0.5355$
$Q_{100} = 2.40$ cfs
$Q_{10} = 1.58$ cfs

PAVED SWALE CALCULATIONS

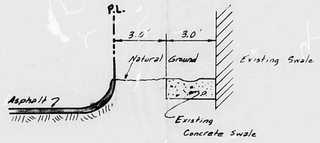
SECTION "A-A"

$Q = \frac{1.486}{N}(AR)2/3\ (S)1/2$

$R = \frac{A}{PW} = \frac{10.33}{20.67} = 0.50$

$Q = \frac{1.486}{0.17}\ (10.33)\ [(0.50)\ 2/3]\ [(0.09)\ 1/2] = 5.13$ cfs.

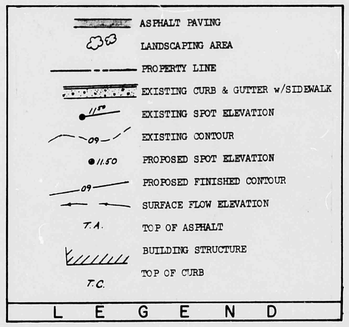
The paved swale can carry 5.13 cfs, while the site is contributing a "Q" of 2.40 cfs, therefore the swale will drain the site.

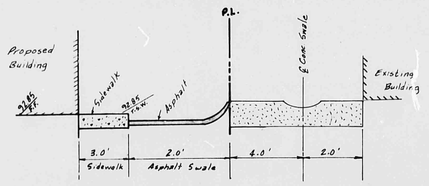


SECTION "B-B"
NO SCALE

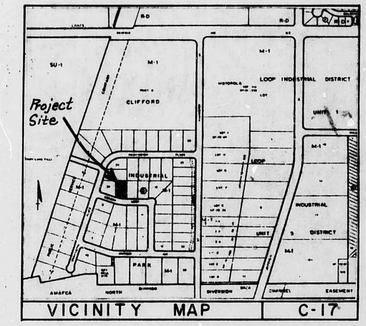
SECTION "A-A"
NO SCALE

CUTOFF WALL DET.
NO SCALE





SECTION "C-C"
NO SCALE



LEGAL DESCRIPTION: Lot 21, Clifford Industrial Park.

EROSION CONTROL

The Contractor shall be responsible for any sediment that runs out into any public street. He shall be responsible for maintaing all of the sediment deposits within the limits of the property through out the duration of the construction.

4/6/85
Revised 8-27-85

BENCH MARK DATA:

THE STATION IS LOCATED 1.65 MILE EAST ON LOS ANGELES BLVD. TO WASHINGTON ST. FROM THE INTERSECTION OF LOS ANGELES BLVD. AND SECOND ST., THEN NORTH ON WASHINGTON ST. 0.3 MILE TO THE STATION ON THE LEFT. THE BENCH MARK IS A STANDARD ACS BRASS TABLET, STAMPED "8-C17, 1975", CEMENTED IN A DRILL HOLE IN TOP OF CONCRETE CURB. ELEVATION 5111.029 FT.

I, JOHN F. ESQUIBEL, UNDER THE LAWS OF NEW MEXICO, CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND THAT THIS PLAT WAS PREPARED BY ME OR UNDER MY SUPERVISION, SHOWS ALL EASEMENTS OF RECORD, MEETS MINIMUM REQUIREMENTS FOR MONUMENTATION AND SURVEYS OF THE ALBUQUERQUE SUBDIVISION ORDINANCE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JOHN F. ESQUIBEL, N.M.L.S. NO. 5949

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AUG 30 1985
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