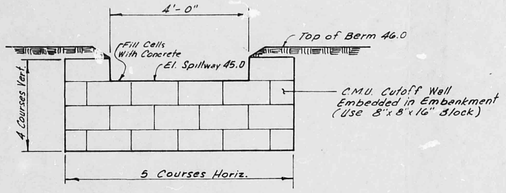
HYDROLOGY

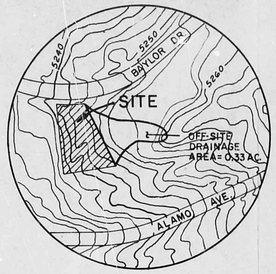
M16/D22
THREE PLANS

M16/D22 (3)



SECTION "A" - SPILLWAY CUT-OFF

1" = 2'-0"

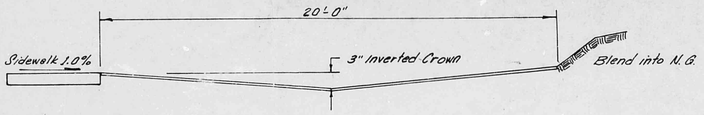


OFF-SITE DRAINAGE

1" = 200'

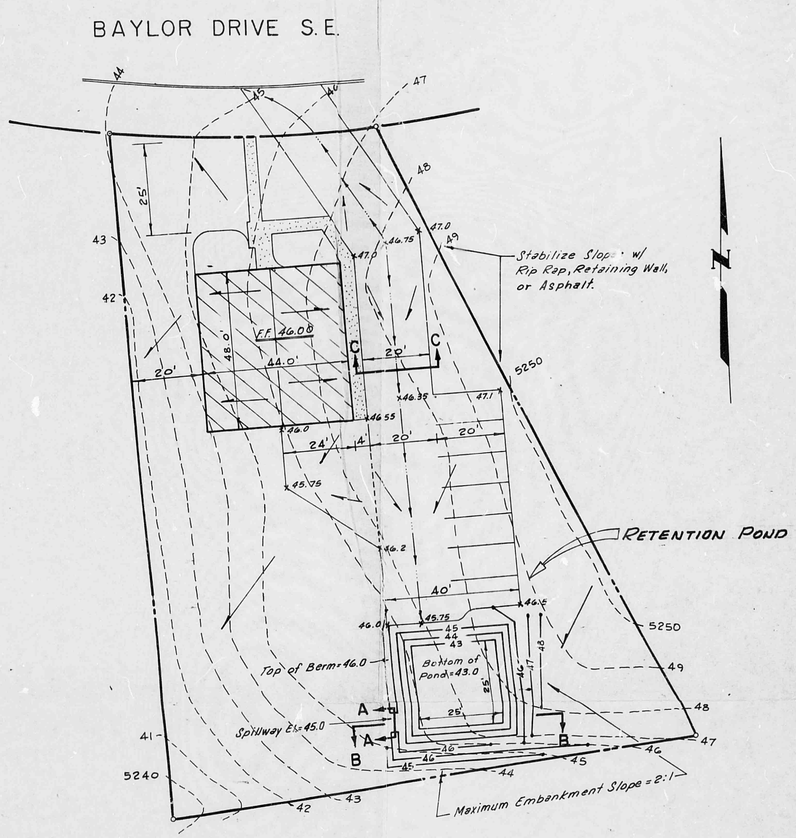
SECTION "B" - THRU POND

1" = 2'-0"



SECTION "C" - TYPICAL DRIVE

N.T.S.



SITE PLAN

CALCULATIONS

1) Composite Runoff Coefficient:

Total Area = 0.51 Acres
Area Hardsurfaced @ C = 0.95 = 0.17 Acres
Area SW Landscaping @ C = 0.60 = 0.17 Acres
Area Earth @ C = 0.4 = 0.17 Acres

$C_{COMP.} = .95\ (.17/.51) + .60\ (.17/.51) + .4\ (.17/.51)$
$= 0.65$

2) Required Ponding Volume

$C_{DEV} = 0.65$
$C_{NAT.} = 0.35$
R = 2.4" = 0.2'
A = 0.51 Acres = 22,216 S.F.

Required Volume = $RA\ (C_{DEV} - C_{NAT.})$
= 1333 C.F.

3) Flow in Driveway

Area @ C = 0.95 = 0.11 Acres
Area @ C = 0.4 = 0.33 Acres (max offsite)
I = 5.4 in/hr

$\therefore\ Q = \Sigma CIA$
$= (.95 \times .11 \times 5.4) + (.4 \times .33 \times 5.4)$
$= 1.3$ cfs

4) Driveway Flow Capacity

s = 0.9%
n = 0.015
A = 20 x 0.25 x 0.5 = 2.5 ft²
WP = 20'

$Q = \frac{A\ (1.49)(A/WP)^{2/3}\ s^{1/2}}{n}$

= 5.9 cfs > 1.3 O.K.

5) Pond Capacity

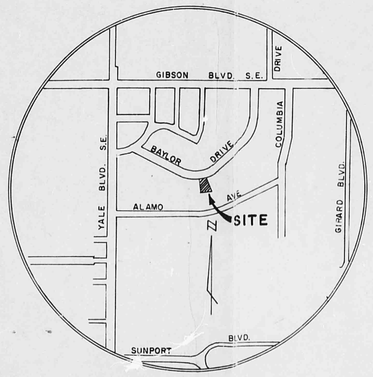
Depth = 2'

Volume = $\left(\frac{25^2 + 33^2}{2}\right) \times 2 = 1714\ ft^3 > 1333\ ft^3$ O.K.

6) Volume Delivery to Pond

Area @ C = 0.95 = 4,728 ft²
Area @ C = 0.4 = 17,880 ft²

Vol to pond = 0.2 [(0.95 x 4,728) + (0.4 x 17,880)]
= 2,329 ft³ > 1333 ft³ O.K.



VICINITY MAP

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

NEAL M. WHITMAN
STATE OF NEW MEXICO
NO. 6170
REGISTERED PROFESSIONAL ENGINEER

DRAINAGE PLAN

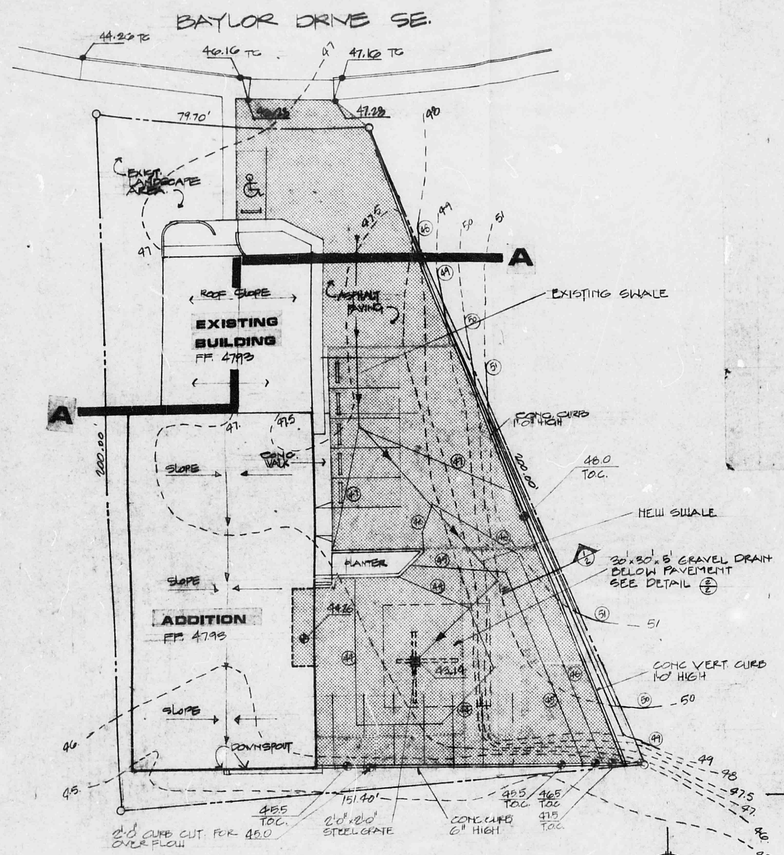
FOR
HAWLEY OFFICE BUILDING
LOCATED ON
TRACT 3-A, BLOCK 2
AIRPORT INDUSTRIAL PARK

DATE	JUNE, 1977
SCALE	1" = 20'
DESIGNED	K. W.
DRAWN	R.D.Q.
JOB NO.	99-9-0075

community science corporation
LAND PLANNING · ENGINEERING · SURVEYING
P.O. Box 81 · Corrales, New Mexico 87048

M16/D22

DATE	NAME	TIME



DRAINAGE/GRADING PLAN

SCALE 1"=20'-0"

DRAINAGE PLAN

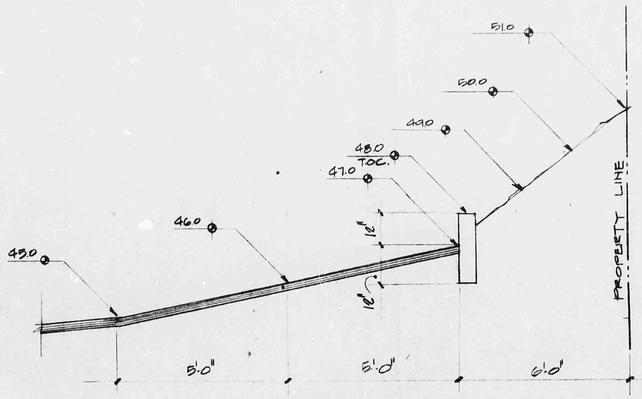
THE FOLLOWING ITEMS CONCERNING THE HAWLEY WAREHOUSE ADDITION DRAINAGE PLAN ARE CONTAINED HEREON:

1. VICINITY MAP
2. FLOOD HAZARD MAP
3. GRADING PLAN

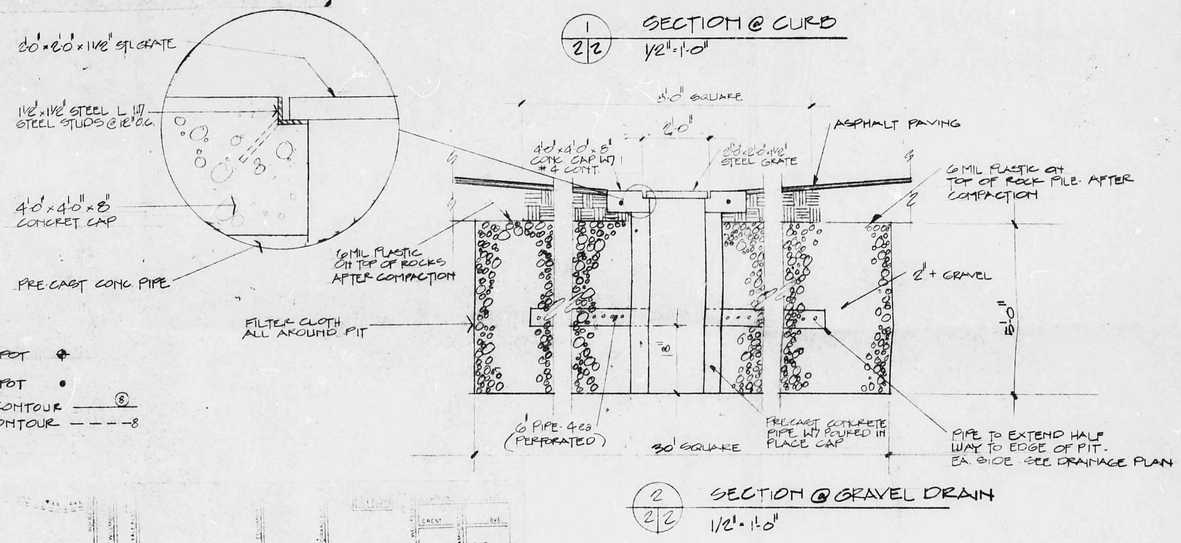
THE PROPOSED BUILDING IS LOCATED ON THE SOUTH SIDE OF BAYLOR DRIVE S.E. AND EAST OF YALE BLVD. S.E. THE BUILDING WILL BE USED AS ADDITIONAL WAREHOUSE TO THE ATTACHED EXISTING STRUCTURE WITH THE ASSOCIATED ADJACENT PARKING FOR EMPLOYEES AND CUSTOMERS.

BAYLOR DRIVE LIES TO THE NORTH AND IS LOWER THAN THE PROJECT SITE. ALL ON SITE RUN OFF NORTH OF DIVISION LINE "A" DRAINS INTO BAYLOR DRIVE AND FLOWS DOWN BAYLOR TO YALE BLVD. - THE LAND TO THE EAST OF THE PROJECT SITE IS UNDEVELOPED. THIS AREA IS DIRT AND SLOPES TO THE WEST CREATING OFF SITE FLOWS ONTO OUR SITE. THESE OFFSITE FLOWS ARE ADDRESSED IN THE DRAINAGE REPORT PREPARED BY ENGINEERING ASSOCIATES THE LAND TO THE WEST IS DEVELOPED INTO OFFICES AND IS LOWER THAN THE PROPOSED SITE - THE LAND TO THE SOUTH IS DEVELOPED INTO OFFICES WITH PAVED EMPLOYEE DRIVES AND PARKING. THIS LAND IS LOWER THAN THE PROPOSED SITE. THEREFORE, RUN OFF FROM ADJACENT SITES IS NEGLIGIBLE.

THIS PROJECT (1) DOES NOT LIE IN A FLOOD PLAIN, (2) DOES NOT LIE ADJACENT TO A NATURAL OR ARTIFICIAL WATER COURSE, AND (3) HAS NO DRAINAGE EASEMENTS ON THE PROPERTY.



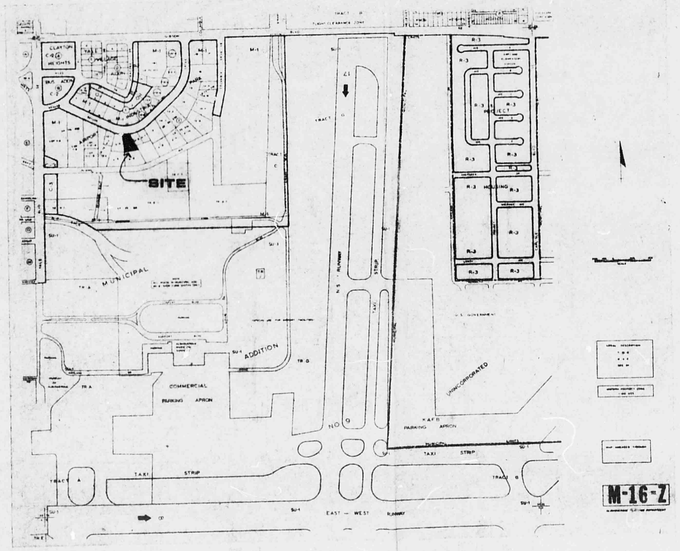
1/2 SECTION @ CURB
1/2"=1'-0"



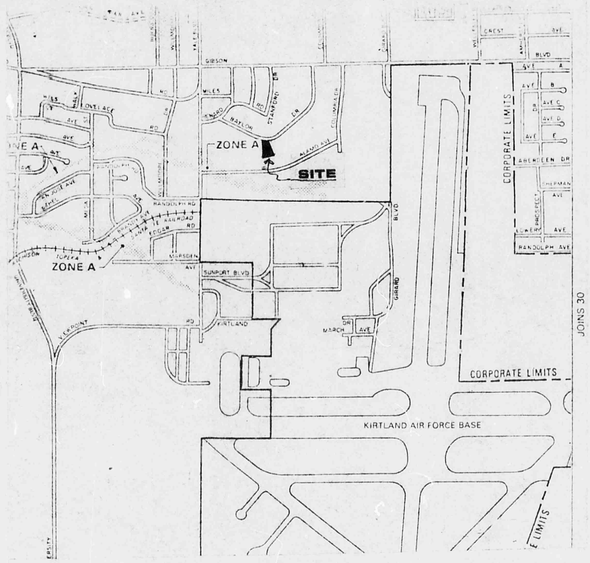
2/2 SECTION @ GRAVEL DRAIN
1/2"=1'-0"

LEGEND

PROPOSED SPOT
EXISTING SPOT
PROPOSED CONTOUR
EXISTING CONTOUR



VICINITY MAP



FLOOD HAZARD BOUNDARY MAP

APPROVED FOR DRAINAGE
2-9-80
SIGNATURE
TITLE
ROMER
DRAINAGE INSPECTOR
WHEN CHECKING EXECUTED

approved 12-12-80

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

Architect

Engineer

WAREHOUSE ADDITION FOR: ROBERT D. HAWLEY

PROJECT 80-40

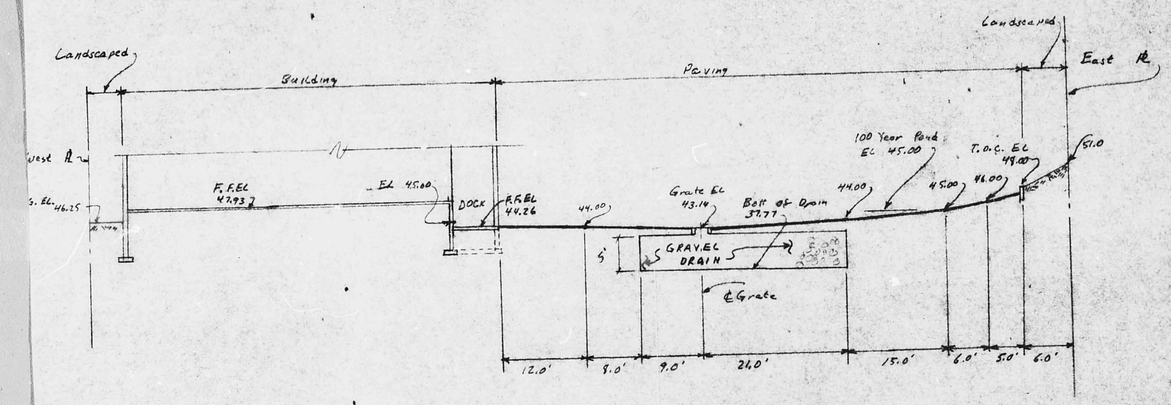
THE BURNS/PETERS GROUP
Architects & Planners
8000 Pennsylvania Circle NE
Albuquerque, New Mexico
87110 505 265 3645

Date 30 SEPT. 1980

DRAINAGE/GRADING PLAN, VICINITY MAP, FLOOD HAZARD BOUNDARY MAP

2
Sheet No.

Warehouse Add'n For Robert D Hawley
2434 Baylor S.E.
Albuq.



SCALE: 1" = 10.0'

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT