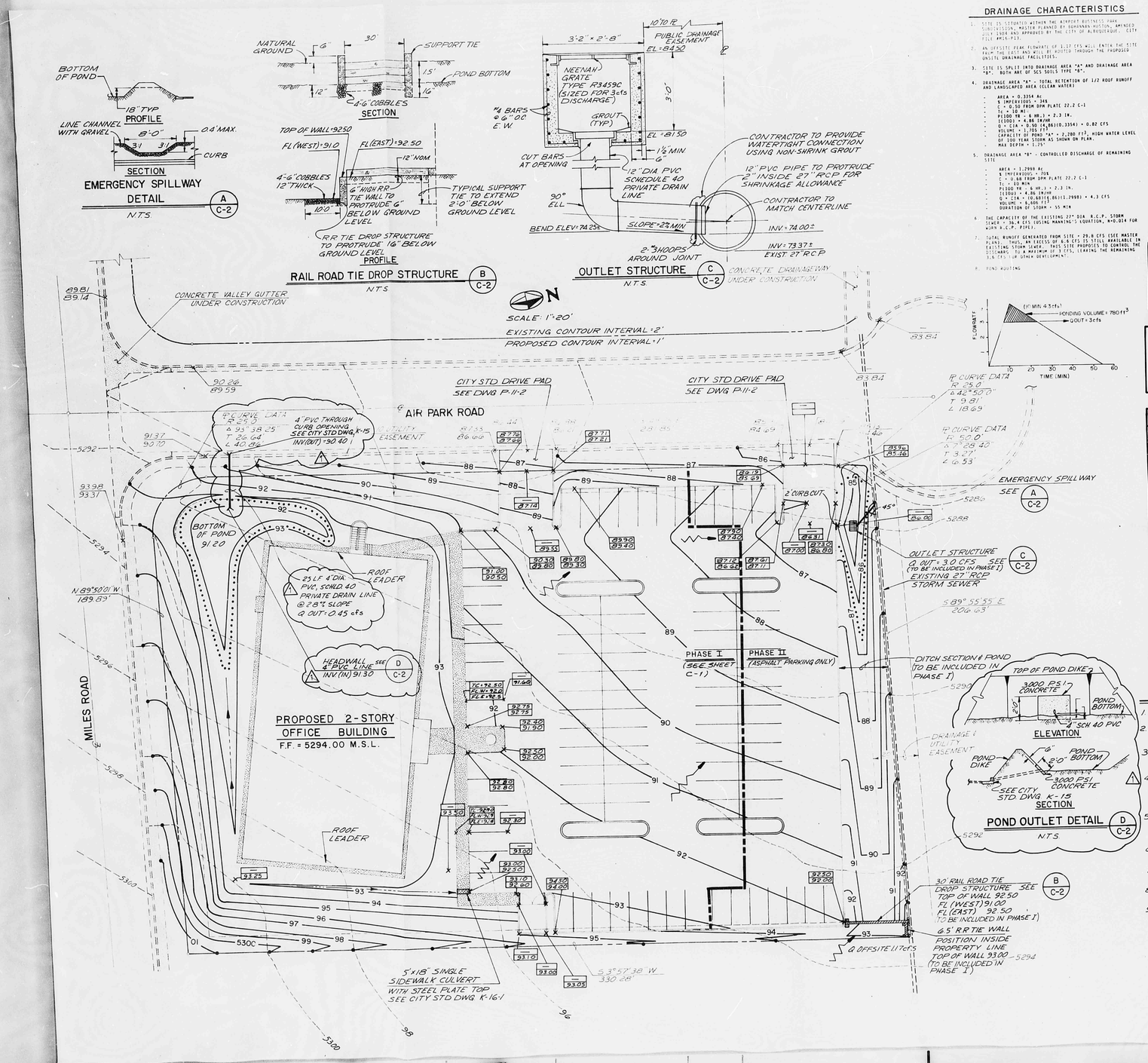
HYDROLOGY M16/D13b 1 PLAN

M16/D13B

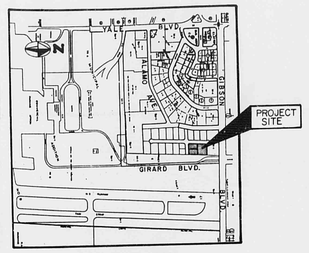
1 Plan

D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D



DRAINAGE CHARACTERISTICS

1. SITE IS SITUATED WITHIN THE AIRPORT BUSINESS PARK SUBDIVISION, MASTER PLANNED BY BOHANNAN-HUSTON, AMENDED JULY 1984 AND APPROVED BY THE CITY OF ALBUQUERQUE. CITY FILE AM16-P33.
2. AN OFFSITE FLOW FLOWRATE OF 1.17 CFS WILL ENTER THE SITE FROM THE EAST AND WILL BE ROUTED THROUGH THE PROPOSED ONSITE DRAINAGE FACILITIES.
3. SITE IS SPLIT INTO DRAINAGE AREA "A" AND DRAINAGE AREA "B". BOTH ARE OF SCS SOILS TYPE "B".
4. DRAINAGE AREA "A" - TOTAL RETENTION OF 1/2 ROOF RUNOFF AND LANDSCAPED AREA (CLEAN WATER)
   - AREA = 0.3354 AC.
   - % IMPERVIOUS = 70%
   - C = 0.50 FROM DPM PLATE 22.2 C-1
   - Tc = 10 MIN
   - P100 YR = 2.3 IN.
   - I(100) = 4.86 IN/HR
   - Q = C(A) = 0.50 (4.86)(0.3354) = 0.82 CFS
   - VOLUME = 1,705 FT³
   - CAPACITY OF POND "A" = 2,280 FT³, HIGH WATER LEVEL OF 100 YEAR STORM AS SHOWN ON PLAN.
   - MAX DEPTH = 1.25'
5. DRAINAGE AREA "B" - CONTROLLED DISCHARGE OF REMAINING SITE
   - AREA = 1.2998 AC.
   - % IMPERVIOUS = 70%
   - C = 0.68 FROM DPM PLATE 22.2 C-1
   - Tc = 10 MIN
   - P100 YR = 2.3 IN.
   - I(100) = 4.86 IN/HR
   - Q = C(A) = (0.68)(4.86)(1.2998) = 4.3 CFS
   - VOLUME = 8,000 FT³
   - DURATION OF STORM = 55 MIN
6. THE CAPACITY OF THE EXISTING 27" DIA. R.C.P. STORM SEWER = 34.4 CFS (USING MANNING'S EQUATION, N=0.014 FOR NEW R.C.P. PIPE).
7. TOTAL RUNOFF GENERATED FROM SITE = 29.8 CFS (SEE MASTER PLAN). THUS, AN EXCESS OF 6.8 CFS IS STILL AVAILABLE IN EXISTING STORM SEWER. THIS SITE PROPOSES TO CONTROL THE DISCHARGE TO A MAXIMUM OF 3 CFS, LEAVING THE REMAINING 3.8 CFS (OR 51%) DEVELOPABLE.
8. POND ROUTING



VICINITY MAP

ACS BENCH MARK:
11-L16, LOCATED AT THE INTERSECTION OF VAIL AVE. S.E. AND GIRARD BLVD. S.E. A SQUARE □ CHISELE IN THE TOP OF CONCRETE CURB AT THE SSW RETURN.
ELEVATION = 5270.78

LEGAL DESCRIPTION: TRACT "A", A REPLAT OF LOTS 1, 2 & 3, AIRPORT BUSINESS PARK. AREA = 1.6352 AC.

ZONE ATLAS: M-16

CURRENT ZONE STANDING: M-1

LEGEND

----10----	EXISTING CONTOUR
Tc 11.23 / FL 10.04	EXISTING SPOT ELEVATION
——87——	PROPOSED CONTOUR
Tc 15.01 / FL 14.51	PROPOSED SPOT ELEVATION
	CONCRETE PAVING
	ASPHALT PAVING
	CONCRETE CURB
	FLOW ARROW
	EXISTING CURB
	PONDING LIMIT (100 YEAR)
	PHASE LINE

NOTES

1. ADD 5200 TO ALL SPOT ELEVATIONS.
2. ALL ELEVATIONS ARE FROM MEAN SEA LEVEL (MSL).
3. TOPOGRAPHIC SURVEY PROVIDED BY BOHANNAN HUSTON INC.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL SEDIMENT AND DISTURBED SOIL OFF PUBLIC RIGHT-OF-WAY DURING ROUGH GRADING AND CONSTRUCTION PHASES.
5. ALL SUBGRADE UNDER PAVEMENT, CURBS AND GUTTERS SHALL BE COMPACTED TO 95% MODIFIED PROCTOR, ASTM D1557, TO A MINIMUM 6" DEPTH.
6. SITE DOES NOT LIE WITHIN, NOR CONTRIBUTE TO ANY FLOOD HAZARD AREA.
7. INVERT OF 4" PVC TO BE 0.1' ABOVE BOTTOM OF POND TO CONTAIN NUISANCE FLOWS.
8. ALLOWABLE DISCHARGE FROM SOUTHWEST POND IS 0.483 cfs. ACTUAL DISCHARGE IS 0.45 cfs.
9. PHASE I IS TO INCLUDE ALL WORK SHOWN ON SHEET C-1 TO GRADES SHOWN ON THIS SHEET. GRADE ALL AREAS TO SUBGRADE. PHASE II IS TO INCLUDE ALL REMAINING WORK AS SHOWN ON THIS SHEET.

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ENGINEERS/PLANNERS/CONSULTANTS Albuquerque • New Mexico • Carlsbad

revisions

MOLZEN-CORBIN OFFICE BUILDING
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ALBUQUERQUE, NEW MEXICO

GRADING AND DRAINAGE PLAN

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C-2

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D