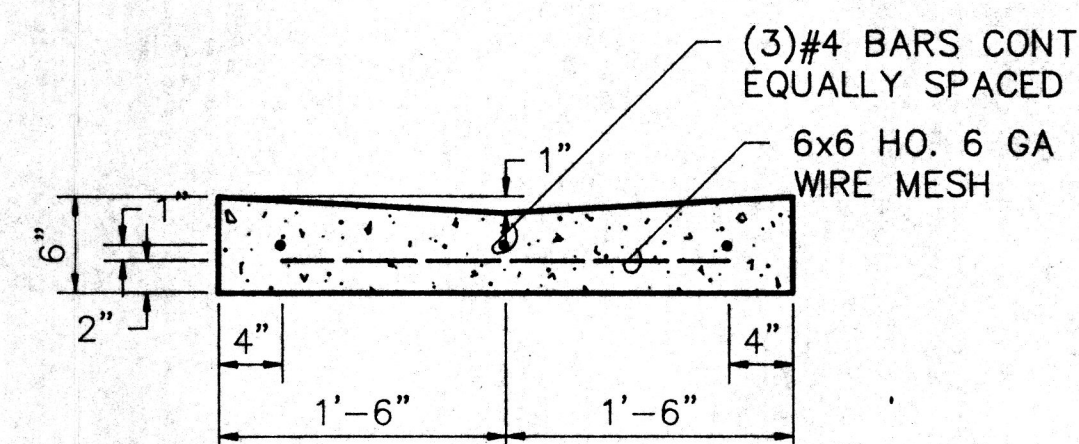
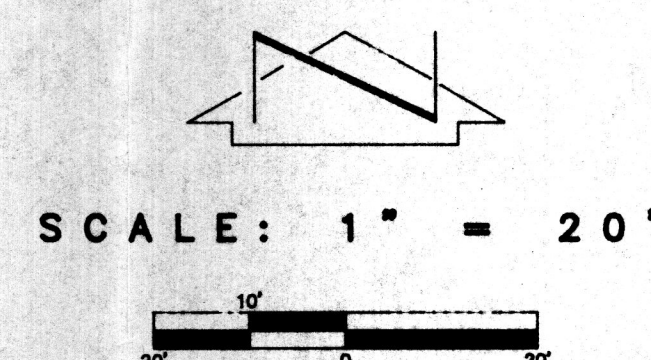








VALLEY GUTTER
 SCALE: 1" = 1'-0"



1) BACKGROUND & MASTER DRAINAGE PLAN:

THE PROJECT SITE IS LOCATED ON SUNPORT DRIVE AT THE NORTH EDGE OF THE ALBUQUERQUE INTERNATIONAL AIRPORT. THE APPROVED JULY 1987 "DRAINAGE REPORT FOR MASTER PLAN IMPROVEMENT PROGRAM - ALBUQUERQUE INTERNATIONAL AIRPORT" IDENTIFIES THE 0.57 ACRE PROJECT SITE TOGETHER WITH A 2.01 ACRE AREA TO THE EAST AS BASIN 9. THE MASTER DRAINAGE REPORT ASSIGNED A SCS CURVE NUMBER OF 95 TO ALL OF BASIN 9, THEREBY IMPLYING THAT THE MASTER PLAN ASSUMED THE ENTIRE BASIN WOULD BE PAVED IN THE FUTURE.

2) EXISTING CONDITIONS:

BASIN 9B IS APPROXIMATELY 80% PAVED AT THIS TIME AND IT CURRENTLY SHEET FLOWS INTO BASIN 9A. NO OTHER OFFSITE FLOWS ENTER BASIN 9A. BASIN 9A (THE PROJECT SITE) AND 9B FLOWS ENTER THE AIRPORT STORM DRAIN SYSTEM THROUGH A CATCH BASIN LOCATED AT THE SOUTH EDGE OF BASIN 9A. BASIN 9A IS CURRENTLY UNDEVELOPED WITH LITTLE OR NO SURFACE VEGETATION. USING THE NEW AMAFCA HYMO BASED PROCEDURES IN CHAPTER 22.2 OF THE DPM YIELDS THE FOLLOWING EXISTING FLOWS AND VOLUMES DURING THE 100 YEAR STORM IN RAINFALL ZONE 2.

BASIN 9A (100% C):
 $Q_{100} = 3.02 \times 0.57 = 1.72 \text{ CFS}$
 $E_{100} = (1.00 \times 1.07) = 1.07 \text{ INCHES}$
 $V_{100} = 2,214 \text{ CF}$

BASIN 9B (80% D, 20% C):
 $Q100 = (0.80 \times 4.70 + 0.20 \times 3.02) \times 2.01 = 8.77 \text{ CFS}$
 $E100 = (0.80 \times 2.08 + 0.20 \times 1.07) = 1.88 \text{ INCHES}$
 $V100 = 13,717 \text{ CF}$

TOTAL EXISTING TRIBUTARY TO CATCH BASIN:
Q100' = 10.49 CFS
V100 = 15,931 CF

3) DEVELOPED CONDITIONS:

BAXIN 9B REMAINS UNCHANGED AND BASIN 9A HAS 94% OF ITS AREA PAVED LEAVING 6% OF ITS AREA UNCHANGED.

BASIN 9A (94% D, 6% C):

Q100 = $(0.94 \times 4.70 + 0.06 \times 3.02) \times 0.57 = 2.62$ CFS

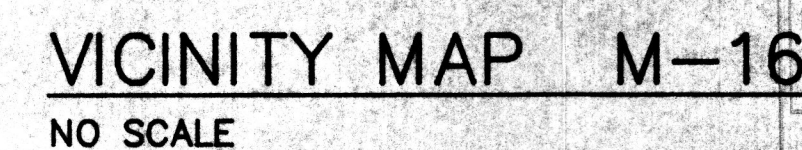
E100 = $(0.94 \times 2.08 + 0.06 \times 1.07) = 2.02$ INCHES

V100 = 4,180 CF

TOTAL TRIBUTARY TO CATCH BASIN AFTER DEVELOPMENT:
Q100 = 11.39 CFS
V100 = 17,897 CF

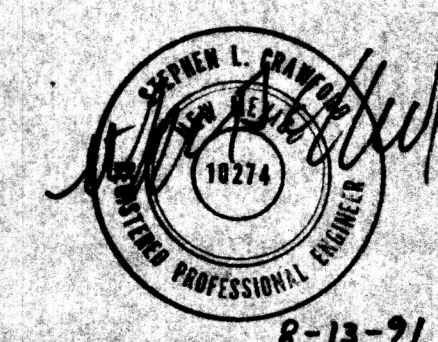
4) CONCLUSIONS:

AFTER BASIN 9A IS DEVELOPED, THE FLOWS TRIBUTORY TO THE CATCH BASIN WILL BE INCREASED BY ABOUT 9% AND THE VOLUME WILL INCREASE BY ABOUT 12%. THE AIRPORT MASTER DRAINAGE PLAN ANTICIPATED THAT THIS AREA WOULD BE PAVED, THEREFORE THESE MINOR FLOW INCREASES WILL CAUSE NO DOWNSTREAM PROBLEMS. THE CATCH BASIN WILL HAVE AN INLET DEPTH OF ABOUT 0.86 FEET ($Q=0.60A(2gh)^{0.5}$) 0.5 WITH 50% OF THE OPENING PLUGGED) AFTER DEVELOPMENT, WHICH IS ACCEPTABLE.



AUG 14 1991

HYDROLOGY DIVISION



8-13-91

PLANS PRODUCED BY:
CRAWFORD DEVELOPMENT SERVICES
&
MICHELE CRAWFORD DRAFTING

BENCHMARK:

RIM OF EXISTING STORM DRAIN MANHOLE IN STREET
SOUTH OF PNM JUNCTION BOX
ELEVATION = 5287.21

LEGAL DESCRIPTION:

PORTION OF TRACT A-1, AIRPORT MUNICIPAL ADDITION

ADDRESS:

2501 SUNPORT DRIVE, SE
ALBUQUERQUE, NM 87119

NOTES:

1. ALL CONCRETE SHALL BE 3000 PSI AIR ENTRAINED.
2. AC PAVING SHALL BE 1/2" TO 3/4" MAX AGGREGATE WITH MARSHALL STABILITY OF 1800 LBS MIN.
3. SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.

LEGEND:

- | | | | |
|-----------------|----------|---|------------------------|
| X | TA=88.50 | = | EXIST ELEVATION |
|(88)..... | | = | EXIST CONTOUR |
| <u>TA=88.50</u> | | = | NEW ELEVATION |
| — — — — — | | = | EXIST CHAIN LINK FENCE |
| MH | | = | MANHOLE |
| SD | | = | STORM DRAIN |
| PP | | = | POWER POLE |
| TA | | = | TOP OF ASPHALT |
| TC | | = | TOP OF CURB |
| EG | | = | EXIST GRADE |
| FG | | = | FINISH GRADE |
| TOW | | = | TOP OF WALL |
| TG | | = | TOP OF GRATE |
| FL | | = | FLOW LINE |

REVISIONS

REV.	DESCRIPTION	DATE



CRAWFORD DEVELOPMENT SERVICES

P.O. Drawer M, Corrales, NM 87048

STEPHEN L. CRAWFORD, P.E.

Office: 897-0167 Home: 865-6442

BUDGET RENT A CAR SYSTEMS, INC.

BUDGET CAR RENTAL PARKING LOT EXPANSION

2501 SUNPORT, SE / P.O. BOX 9207
ALBUQUERQUE, NEW MEXICO 87119

JOB NO: 018-001 DATE: 08-12-91

GRADING & DRAINAGE PLAN

C2.1

SHEET 1 OF 1