DRAINAGE INFORMATION SHEET

PROJECT TITLE: Pitney Bowes ZONE ATLAS/DRAINAGE FILE # D17/D3M

LEGAL DESCRIPTION: 4A-1B Journal Center

CITY ADDRESS: 5141 Masthead Street NE

ENGINEERING FIRM: Bordenave Designs CONTACT: J. Bordenave

ADDRESS: P.O. Box 91194, 87199-1194 PHONE: 823-1344

OWNER: Ken Tekin, Inc. CONTACT: K. Tekin

ADDRESS: 6729 Academy Rd NE 87109 PHONE: 828-2811

ARCHITECT: SLN&B CONTACT: J. Lewis

ADDRESS: 1620 Central Ave, SE, 87106 PHONE: 247-1529

SURVEYOR: Bordenave Designs (As Built Only) CONTACT: J. Bordenave

ADDRESS: P.O. Box 91194, 87199-1194 PHONE: 823-1344

CONTRACTOR: Cambro Constr. CONTACT: J. Camilli

ADDRESS: 7424 2nd NW PHONE: 345-1133

PRE-DESIGN MEETING:

___ YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED
DEC 18 1989
HYDROLOGY SECTION

DRB NO. 89-221

EPC NO. _____

PROJECT NO. _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAIN PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

X ENGINEER'S CERTIFICATION

RECEIVED
DEC 18 1989
HYDROLOGY SECTION

CHECK TYPE OF APPROVAL SOUGHT:

___ SECTOR PLAN APPROVAL

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

X CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY).

DATE SUBMITTED: 12/18/89

BY: Jean P Bordenave

REV 10/25

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority

2600 PROSPECT N.E. - ALBUQUERQUE, N.M. 87107
TELEPHONE (505) 884-2215

November 14, 1989

Mr. Bernie Montoya
Public Works - Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87113

RE: Pitney Bowes/North Pino Arroyo; D17-D3M

Dear Bernie:

AMAFCA has inspected and accepts the storm sewer connection to the North Pino Arroyo from the Pitney Bowes site.

Sincerely,
AMAFCA

John Kelly
Field Engineer

cc: Sam Camilli, Cambro Construction

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR


December 21, 1989

Jake Bordenave, P.E.
Bordenave Designs
7100 Louisiana Boulevard, NE Suite A-106
Albuquerque, New Mexico 87109

RE: ENGINEER'S CERTIFICATION FOR PITNEY-BOWES (D-17/D3M)
CERTIFICATION STATEMENT DATED DECEMBER 18, 1989

Dear Mr. Bordenave,

Based on the information provided on your submittal of December 18, 1989, the referenced drainage plan is approved for Certification.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+1131)

**EXISTING CONDITIONS**

Offsite flows are intercepted by Interstate 25, Masthead Street and the concrete drainage channel. Flow rates and volumes are:

6 hr.- 100 yr. rainfall = 2.3 in.
time of concentration = use 10 min.
rainfall intensity = 6.84(2.3)(10*-0.51) = 4.86 in./hr.
total area = 1.35 ac.
rational C factor = 0.40
SCS curve number = 70
$Q_{100}$ = CiA = 2.6 cfs
$Q_{10}$ = 1.7 cfs
$V_{100}$ = RA = 1960 cf
$V_{10}$ = 1313 cf

The flows generated onsite sheet flow northwesterly across a sod greenbelt to the concrete channel.

**PROPOSED CONDITIONS**

As in the existing condition all offsite flows are intercepted by existing streets and drainage facilities. The site is to be developed as an office building with approximately 70 percent of the area composed of impervious surfaces.

All roof and parking lot drainage in Basin A is directed to a catch basin which will discharge via a pipe to the concrete channel. All nuisance flows and up to the 10 year storm will be transported by the catch basin and pipe system. Flows in excess of the 10 year storm will exit the parking lot via a curb opening and sheet flow across the sod greenbelt to the concrete channel. Flows generated in Basin B to the east of the building will sheet flow to the concrete channel for all storms. Flows for each of the basins are:

6 hr. - 100 yr. rainfall = 2.3 in.
time of concentration = use 10 min.
rainfall intensity = 4.86 in./hr.

| | Basin A | Basin B |
|---|---|---|
| impervious area, acres | 0.78 | 0.00 |
| pervious area, acres | 0.12 | 0.45 |
| total area, acres | 0.90 | 0.45 |
| rational C factor | 0.86 | 0.25 |
| SCS curve number | 93 | 61 |
| $Q_{100}$, cfs | 3.8 | 0.5 |
| $Q_{10}$, cfs | 2.5 | 0.4 |
| $V_{100}$, cf | 62726 | 2940 |
| $V_{10}$, cf | 41650 | 1952 |

**HYDRAULICS**

CATCH BASIN

$Q_{10}$ = 2.5 cfs
weir length = 2.5/(3.2)(0.1667*3/2) = 11.5 ft
Orifice area = 2.5/(0.6)(0.5)((2g)(.1667)*1/2) = 2.5 s.f.

Use basin with 6 inch sidewalls and inside dimensions of 2 feet. Walls and floor of basin shall have 1/2 inch rebar at 6 inches on center each way.

OUTLET PIPE

$Q_{10}$ = 2.5 cfs

pipe radius = 2.5/(0.6)((2g)(2.5)*1/2) = 0.32 ft.

Use 8 inch pvc pipe from catch basin to concrete channel.

CURB OPENING

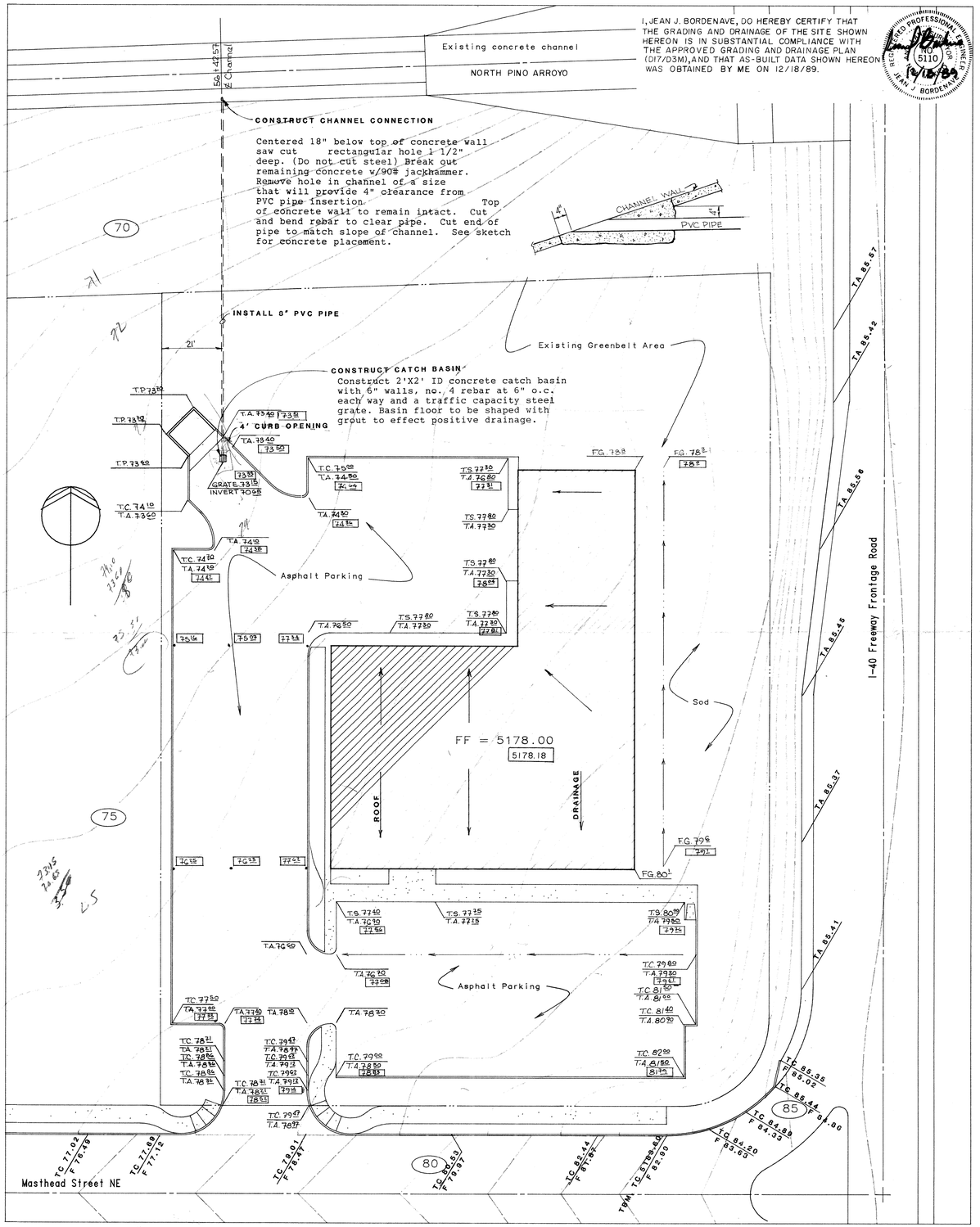
$Q_{100}$-$Q_{10}$ = 3.8 - 2.5 = 1.3 cfs
Weir length = 1.3/(2.6)(0.25*3/2) = 4.0 ft.

Use 4 feet wide curb opening in vicinity of catch basin.

## A DRAINAGE CALCULATIONS

1. Two (2) working days prior to any excavation the Contractor shall 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 worker health.
4. All construction within the public right-of-way shall be performed in accordance with City of Albuquerque Standard Specifications for Public Works Construction, 1986.
5. The Contractor shall ensure that no soil erodes from the site onto private property AMAFCA or City right-of-way. This can be achieved by constructing temporary earth berms or installing sediment control devices and by wetting the soil to keep it from blowing.
6. 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.
7. The Contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.
8. Construction within the grassed greenbelt area shall be coordinated with the Journal Center to avoid conflicts with irrigation lines and subsurface erosion control fabrics. Work on the concrete channel and inspection of this work shall be coordinated with AMAFCA (884-2215).

## B CONSTRUCTION NOTES

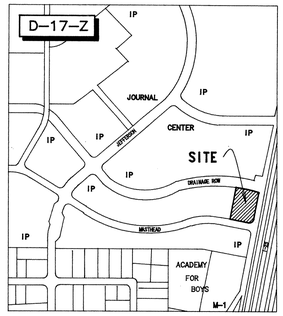



I, JEAN J. BORDENAVE, DO HEREBY CERTIFY THAT THE GRADING AND DRAINAGE OF THE SITE SHOWN HEREON IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN (D17/D3M), AND THAT AS-BUILT DATA SHOWN HEREON WAS OBTAINED BY ME ON 12/18/89.

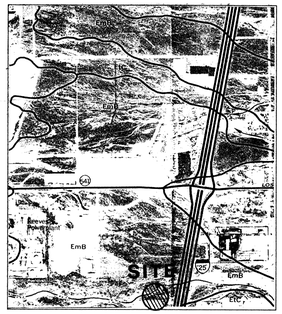
REGISTERED PROFESSIONAL ENGINEER — JEAN J. BORDENAVE — NO. 5110 — 12/18/89

## V SITE PLAN

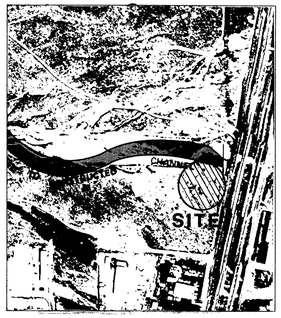
1" = 20'-0"




## F VICINITY MAP




## M SCS SOILS MAP #11




## S FIRM 350002 0009 C

| | |
|---|---|
| 11" | AS-BUILT ELEVATION |
| FF | FINISHED FLOOR |
| TC | TOP OF CURB |
| FL | FLOWLINE |
| TA | TOP OF ASPHALT |
| TS | TOP OF SIDEWALK |
| TP | TOP OF CONCRETE PAD |
| FG | FINISHED GRADE |
| — — — | EXISTING CONTOUR |
| ——— | FINISHED CONTOUR |
| →···→ | SWALE |

## U LEGEND

BENCH MARK
ACS Monument #1-25-14
Elevation: 5196.73

TEMPORARY BENCH MARK
Chiseled SQUARE on top of Curb @ NW Curb Return of I-25 WFR & Masthead St NE
Elevation: 5183.60

LEGAL DESCRIPTION: TRACT 4AA-3B A REPLAT OF TRACT 4AA-3, JOURNAL CENTER.

## Z NOTES

STATE OF NEW MEXICO — James C. Lewis — No. 979 — REGISTERED ARCHITECT

Project 8926

REGISTERED PROFESSIONAL ENGINEER — JEAN J. BORDENAVE — NO. 5110 — NEW MEXICO — 05/88/89


SCHLEGEL LEWIS NELSON BRAWLEY ARCHITECTS INC.
1620 Central SE Albuquerque NM 87106
<505> 247-1529


# GRADING PLAN
# PITNEY-BOWES BLDG
# Ken Tekin INC., Developer

REVISIONS
⚠ 6/7/89

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HYDROLOGY SECTION

31 MAY 89

SHEET 2 OF 10