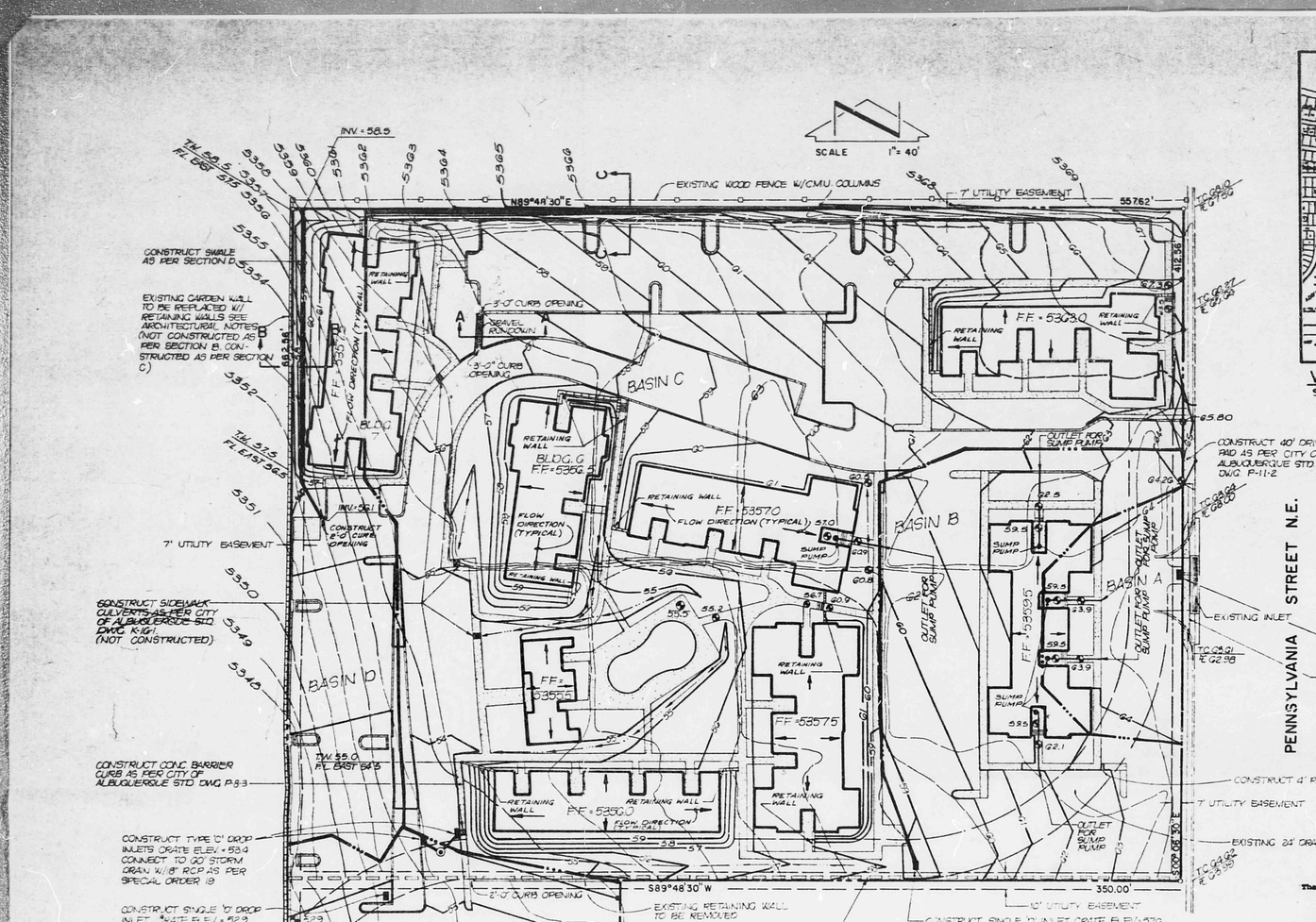
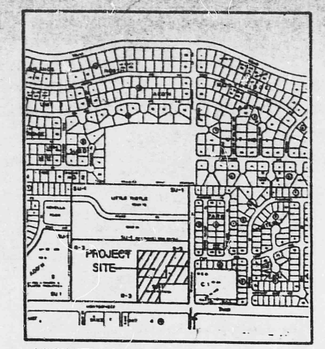
HYDROLOGY

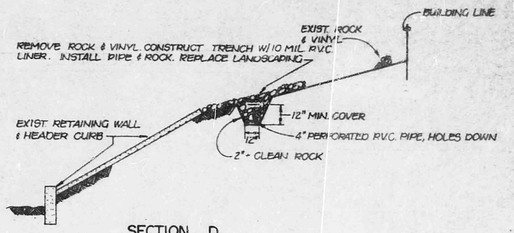
F19/D16B

ONE PLAN

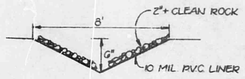




VICINITY MAP F-19
SCALE: 1" = 800'



SECTION D
NO SCALE



SECTION E
NO SCALE

LEGEND

53G7	EXISTING CONTOUR
53G7	PROPOSED CONTOUR
⊕ G3.8	EXISTING SPOT ELEVATION
⊕ G3.8	PROPOSED SPOT ELEVATION
	CONCRETE

LEGAL DESCRIPTION

LOT M PENN SQUARE

ADDRESS

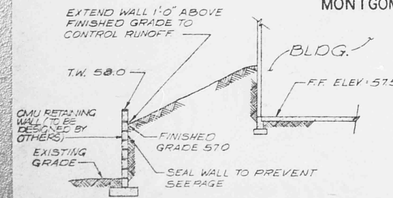
7501 MONTGOMERY BLVD. N.E.

SOILS

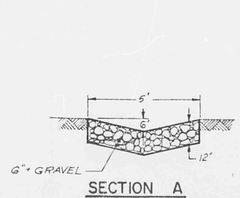
EMBUDO-TIJERAS
SOIL GROUP B

PROJECT BENCHMARK: A.C.S. "STA. 5-G19A 1978", SET FLUSH WITH THE CURB AT THE S.W. CURB RETURN OF THE INTERSECTION OF MONTGOMERY BLVD. N.E. & PENNSYLVANIA ST. N.E. ELEV. = 5364.265 (M.S.L.D.)
TEMPORARY BENCHMARK = PROJECT BENCHMARK

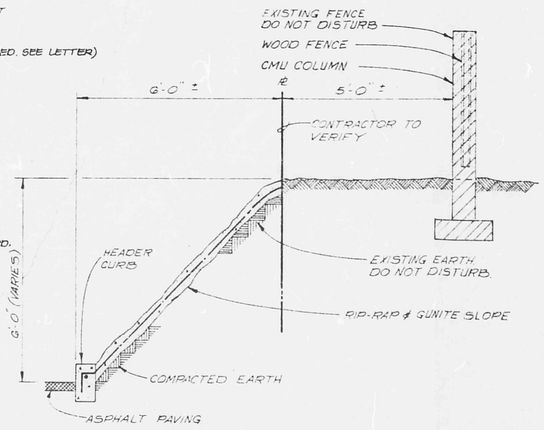
NOTE: ALL SUMP PUMPS ARE PRIVATELY OWNED AND MAINTAINED.



SECTION B
SCALE HORIZ. 1" = 10'



SECTION A
SCALE 1" = 3'



SECTION C
GUNITE EMBANKMENT AT NORTH PROPERTY LINE
SCALE 1/2" = 1'-0"

DRAINAGE PLAN

The following items concerning the Penn Square Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed buildings are located at the northwest corner of the intersection of Pennsylvania and Montgomery Boulevard N.E. The buildings will be utilized as apartments with associated parking and access.

A Master Drainage Plan was prepared in May, 1977 by Bohannan-Huston for the entire Penn Square Project. Tract M is a portion of this overall drainage plan. The Master Drainage Plan called for the construction of a storm sewer through Tract M. That storm sewer has been constructed and is in place. The Master Drainage Plan also allowed a free discharge with no ponding into the storm sewer system.

The project site is bounded on the east by Pennsylvania Street N.E. An offsite flow from the east enters Pennsylvania and is introduced into the storm sewer by an oversized drop inlet about the middle of the project site. These flows normally will enter the storm sewer system without entering the project site; however, should any flows enter the project site, they will be routed through storm drains and parking lots back into the storm system.

The project site is separated from the land to the south by a retaining wall or is higher than the land to the south. The portion of the project site that borders Montgomery is parallel with and higher than Montgomery. The project site is higher than the land to the west and is separated from that by a retaining wall. The land to the north of the project site is higher than the project site, but a retaining wall separates the site, and the drainage from the north does not enter the site. Offsite flows, therefore, are controlled and do not affect the project site.

The project site has been broken up into five drainage basins. Flows from Basin A will be introduced into the storm drain system in the vicinity of the drop inlet existing along Pennsylvania Avenue. Flows from Basin B will enter the system through a drop inlet at the south end of the basin. Two drop inlets will be constructed in the access road going through Basin C to introduce flows into the system. An inlet at the southwest corner of Basin D will introduce flows from Basin D into the system. Basin E will be allowed to flow into Montgomery Boulevard. Those flows will in turn be transported to the drainage system where it intersects Montgomery Boulevard. The Master Drainage Plan allowed a flow of 16 cfs to enter the system. Calculations indicate that the flow entering the drainage system from this project site will be 14.7 cfs.

The project (1) does not lie in a flood plain, (2) it lies adjacent to an artificial water course and (3) has drainage easements on the property. Erosion will not result from upland runoff or the proposed construction activities.

The Grading Plan shows (1) existing contours at 1'-0" intervals, (2) proposed grades indicated by spot elevations and contours, (3) swales, (4) continuity between proposed and existing elevations, (5) that sidewalks are adjacent to the curb, (6) that runoff will be conveyed into an existing storm drainage system before leaving the site and (7) that retaining walls will be required along the north and west property lines.

DRAINAGE BASIN RUNOFF SUMMARY
DEVELOPED STATE

BASIN DESCRIPTION	AREA (ac)	Cn	Tc (hr)	EVENT (yr)	Q (cfs)	VOLUME (cf)	VOLUME (ac-ft)
BASIN A	0.25	93	0.23	100	0.9	2,200	0.05
				5	0.4	900	0.02
BASIN B	0.80	93	0.07	100	2.2	5,100	0.12
				5	0.9	2,200	0.05
BASIN C	3.75	92	0.10	100	9.4	22,100	0.51
				5	4.0	9,400	0.22
BASIN D	0.50	92	0.07	100	1.2	3,000	0.07
				5	0.5	1,200	0.03
BASIN E	1.30	92	0.05	100	3.3	7,900	0.18
				5	1.4	3,300	0.08

DRAINAGE BASIN RUNOFF SUMMARY
EXISTING STATE

BASIN DESCRIPTION	AREA (ac)	Cn	Tc (hr)	EVENT (yr)	Q (cfs)	VOLUME (cf)	VOLUME (ac-ft)
BASIN A,B,C & D	5.20	79	0.08	100	6.7	15,800	0.36
				5	1.7	4,000	0.09
BASIN E	1.30	79	0.05	100	1.6	3,900	0.09
				5	0.4	1,000	0.02

REGISTERED PROFESSIONAL ENGINEER — STATE OF NEW MEXICO — THOMAS T. MANN — 3972 — PROFESSIONAL ENGINEER & LAND SURVEYOR

10/20/83

CERTIFICATION

I, Thomas T. Mann, Jr., a registered Professional Engineer and Land Surveyor in the State of New Mexico have inspected the premises and believe that the project is in substantial compliance with this grading plan. Those items that deviate from the construction drawing have been so noted, i.e., a wall along the southeast property line and the sidewalk culvert in the vicinity of Building No. 6.

STATE OF NEW MEXICO — THOMAS T. MANN — 3972 — PROFESSIONAL ENGINEER & LAND SURVEYOR

, NMPE & LS NO. 3972 — 12-5-83 DATE

RECEIVED
DEC 30 1983
HYDROLOGY SECTION

F19/D16B

PENN SQUARE

DRAINAGE PLAN

F19-D16B

1 PLAN