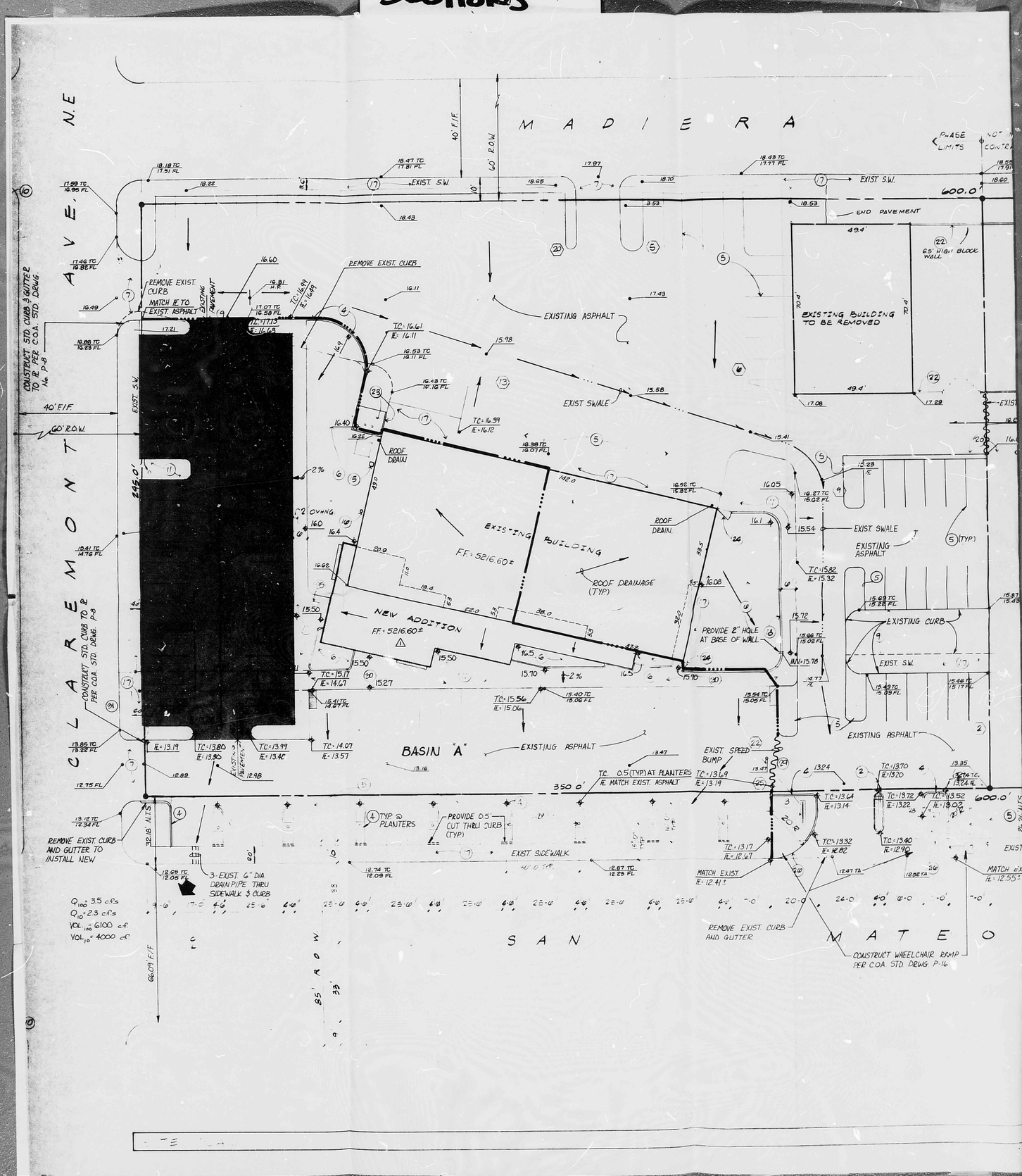
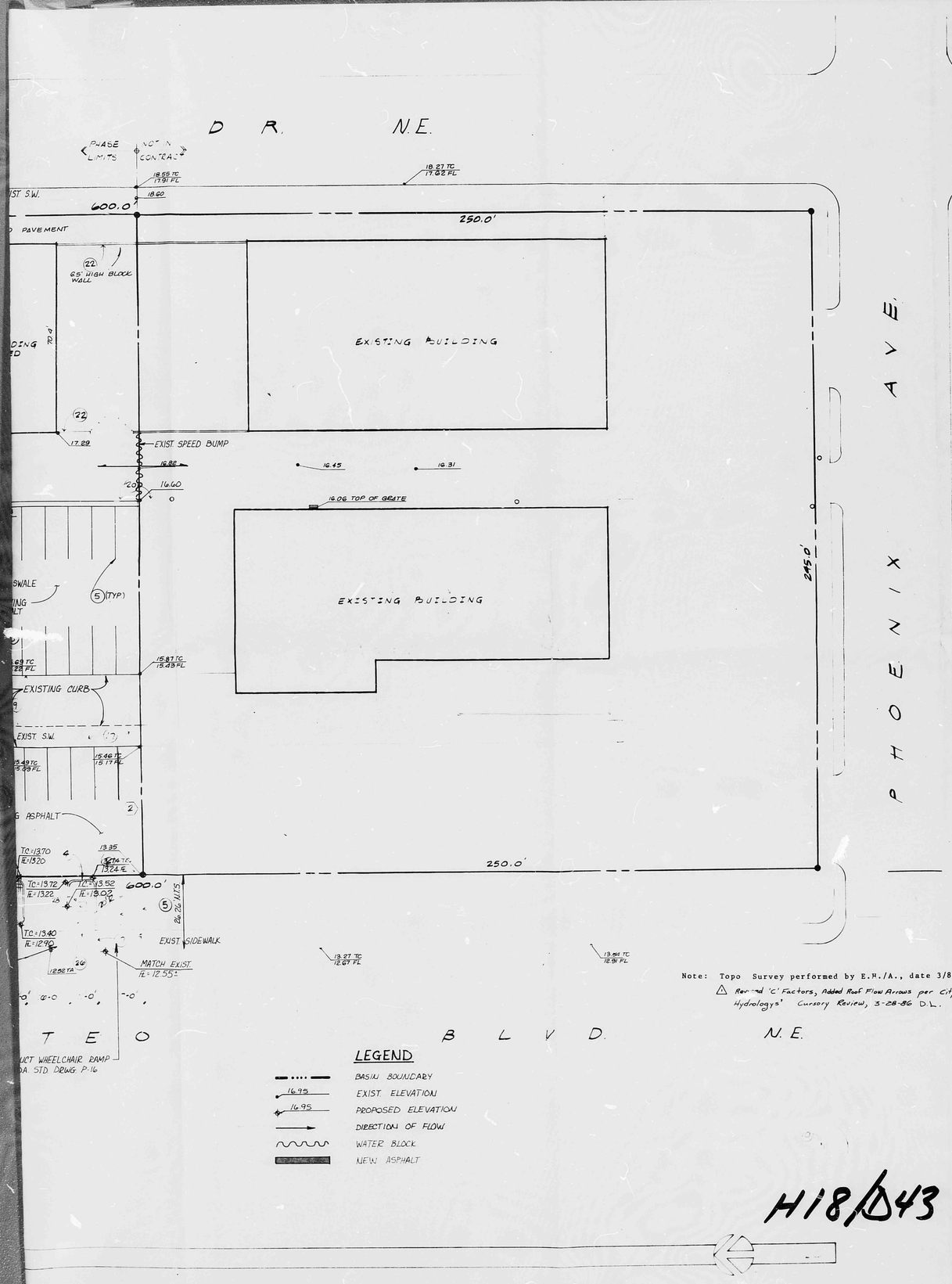
Plan Shot
IN two
Sections





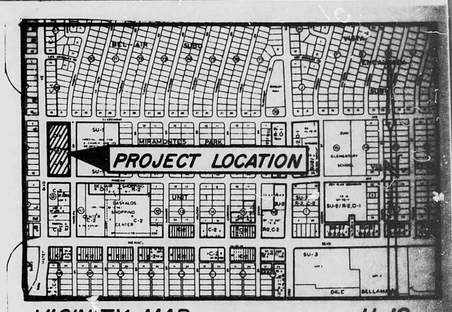
Note: Topo Survey performed by E.H./A., date 3/86.

△ Revised 'C' Factors, Added Roof Flow Arrows per City Hydrology's Cursory Review, 3-28-86 D.L.

LEGEND

- BASIN BOUNDARY
- 16.95 EXIST. ELEVATION
- 16.95 PROPOSED ELEVATION
- DIRECTION OF FLOW
- WATER BLOCK
- NEW ASPHALT

H18/D43



VICINITY MAP

SCALE: 1" = 800'

H-18

GRADING AND DRAINAGE PLAN

The grading and drainage plan shows: 1) proposed improvements to an existing developed site (expansion of existing parking lot and a building addition), 2) proposed finish grade elevations, 3) existing spot elevation, and 4) continuity between existing and proposed grades.

The proposed improvements are located in the northeast sector of Albuquerque, New Mexico. The 3.4 acre site is bounded on the north by Claremont Avenue, the south by Phoenix Avenue, the east by Madeira Drive and the west by San Mateo Boulevard. All streets are improved. As a result, no flows enter site.

As indicted by the FEMA floodplain map, Panel 24, the site is not situated within a 100 year floodplain. The site is generally an infill site, where 100% of the surrounding area is developed. Free discharge is appropriate as the site is at the bottom of the overall basin. Slow release of runoff would merely add to any problems that may exist further downstream.

Legal Description: Miramontes Park, Block 8, Unit
Property Address: 2720 San Mateo Blvd. NE
Benchmark:
The station is located 4 miles northeast of downtown Albuquerque, about 250' south of the intersection of San Matdo Blvd. and Menaul Blvd.

To reach the station from the intersection of Central Ave. and San Mateo Blvd., go north on San Mateo 2.1 miles to the station in the median on San Mateo.

The station mark is a standard NMSHC brass tablet, stamped "STA. NM367-7", set in top of a concrte post flush with the ground. EL. = 5209.57 (MSLD)

CALCULATIONS

I. **Design Criteria**

$Q = CiA$ Vol. = PCA
Soil - Type "B" - RtC: Embudo
$i = P6.84\ TC^{-0.84}$ $P_6 = 2.3$ in. $P_{10} = 1.5$ in.
$TC = 0.0078\ L^{*0.77}/S^{*0.385}$

All the above as outlined in the City of Albuquerque's Development Process Manual, Volume II, Chapter 22.

II. **Existing Conditions**

Site = 3.4 acres
Study Area = Basin "A" = 1.0 acre
0.75 acres impervious
C = 0.40 (undeveloped) C = 0.90 (Roof) C = 0.95 (Street)
"CC" = 0.76
TC = 10 min. $i_{100} = 4.86$ in/hr $i_{10} = 3.19$ in/hr
$Q_{100} = 3.7$ cfs $Q_{10} = 2.4$ cfs
$Vol_{100} = 6300$ cf $Vol_{10} = 4100$ cf

III. **Developed Conditions**

Basin "A" = 1.0 acre
"CC" = 0.90 $i_{100} = 4.86$ in/hr $C_{LS} = 0.25$ △
$Q_{100} = 4.4$ cfs $Q_{10} = 2.9$ cfs $C_{STREET} = 0.95$, $C_{ROOF} = 0.90$
$Vol_{100} = 7500$ cf $Vol_{10} = 4900$ cf

IV. **Check Capacity of (3) existing 6" ϕ Pipes**

$Q = CA\ (2gh)^{*0.5}$ C = 0.8
Q = 3.5 cfs A(total) = 0.59 sf
g = 32.2 ft/S
h = 0.67 ft.

△ 0 creates minimal detention of run-off in the 100-yr. event.

NOTE:

1. Proposed residential asphalt pavement section - 2" AC-SC, 15000 stability with 4" compacted subbase at 95%, over compacted subgrade, 90% compaction.
2. Keyed note (5) denotes proposed 3" wide painted marking.
3. KEYED NOTE (4) DENOTES PROPOSED HEADER CURB

Job No. 7934-02 Office Draft M.E.C. F.B. Date 3/17/86	ESPEY, HUSTON & ASSOC., INC. Engineering & Environmental Consultants 4600 INDIAN SCHOOL ROAD N.E. SUITE 320A ALBUQUERQUE, NEW MEXICO 87110 PHONE (505) 256-1555

job title GARDENSWARTS SPORTS 2720 SAN MATEO		
PROJECT MANAGER CHARLES RICK GREEN	job no 8540	date 3/21/86
sheet title GRADING & DRAINAGE PLAN		by M.E.C.

DENNIS A. LOBATO NEW MEXICO REGISTERED PROFESSIONAL ENGINEER 3-21-86

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albuquerque nm 8[illegible] 505 881-[illegible]

sheet C2 of