

DRAINAGE CALCULATIONS:

EXISTING CONDITIONS:

The site is located on Lot 10, Block 5, Tract A, Unit A, North Albuquerque Acres. The site is on the South side of Pino Avenue, NE which is paved with standard curb and gutter. The lot directly to the West, Lot 9, is developed and has a drainage plan on file, Project D18 / D45. Lot 9 is developed with drainage channels on the East and West boundaries. The channel on the East boundary is for the purpose of intercepting off-site flow, the majority of which is generated on Lot 10.

PROPOSED CONDITIONS:

It is proposed to construct a metal building, asphalt paving and landscaping on the site as shown. It is proposed to discharge all site drainage into the drainage channel along the east side of Lot 9. The two lots have the same owner. The previous drainage plan shows that the channel was designed to carry a flow from Lots 10 & 11 of 8.1 cfs, assuming both lots are fully developed at 10% Treatment B and 90% Treatment D. (See OFF-SITE CHANNEL, Worksheet for Rectangular Channel)

DRAINAGE CRITERIA:

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Metropolitan Arroyo Flood Control Authority, January, 1993.

PRECIPITATION ZONE:

The site is between the Rio Grande River and San Mateo Blvd. and is, therefore, in Precipitation Zone 2.

LAND TREATMENT AREAS, ETC.:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 2 in the table below, and the values shown are from the City of Albuquerque D.P.M. Also shown are the existing and proposed land treatment areas.

LAND TREAT.	100-yr.	10-yr.	100-yr.	10-yr.	E (in)	Existing Site Areas	Developed Site Areas
	100-yr.	10-yr.	100-yr.	10-yr.		%	%
A	1.56	0.38	0.53	0.13	0.0	0.0000	0.0
B	2.28	0.95	0.78	0.28	0.0	0.0000	8.7
C	3.14	1.71	1.13	0.52	100.0	38.377	0.8810
D	4.70	3.14	2.12	1.34	0.0	0.0000	43.4
Totals						100.0	38.377

PEAK DISCHARGE:

EXISTING CONDITIONS:

Q100 = 0.8810 * 3.14 = 2.77 cfs
Q10 = 0.8810 * 1.71 = 1.51 cfs

DEVELOPED CONDITIONS:

Q100 = 0.0765 * 2.28 + 0.4224 * 3.14 + 0.3821 * 4.70 = 3.30 cfs
Q10 = 0.0765 * 0.95 + 0.4224 * 1.71 + 0.3821 * 3.14 = 1.99 cfs

VOLUME, 100-YEAR AND 10-YEAR, 6-HOUR:

EXISTING CONDITIONS:

V100 = (38.377 * 1.13) / 12 = 3.614 cf
V10 = (38.377 * 0.52) / 12 = 1.663 cf

DEVELOPED CONDITIONS:

V100 = (3.334 * 0.78 + 18.398 * 1.13 + 16.645 * 2.12) / 12 = 4.890 cf
V10 = (3.334 * 0.28 + 18.398 * 0.52 + 16.645 * 1.34) / 12 = 2.734 cf

SUMMARY OF ON-SITE VOLUMES AND DISCH. RATES:

	V100(CF)	V10(CF)	Q100(CFS)	Q10(CFS)
DEVELOPED	4.890	2.740	3.30	1.99
EXISTING	3.614	1.663	2.77	1.51
INCREASE	1.276	1.077	0.53	0.48

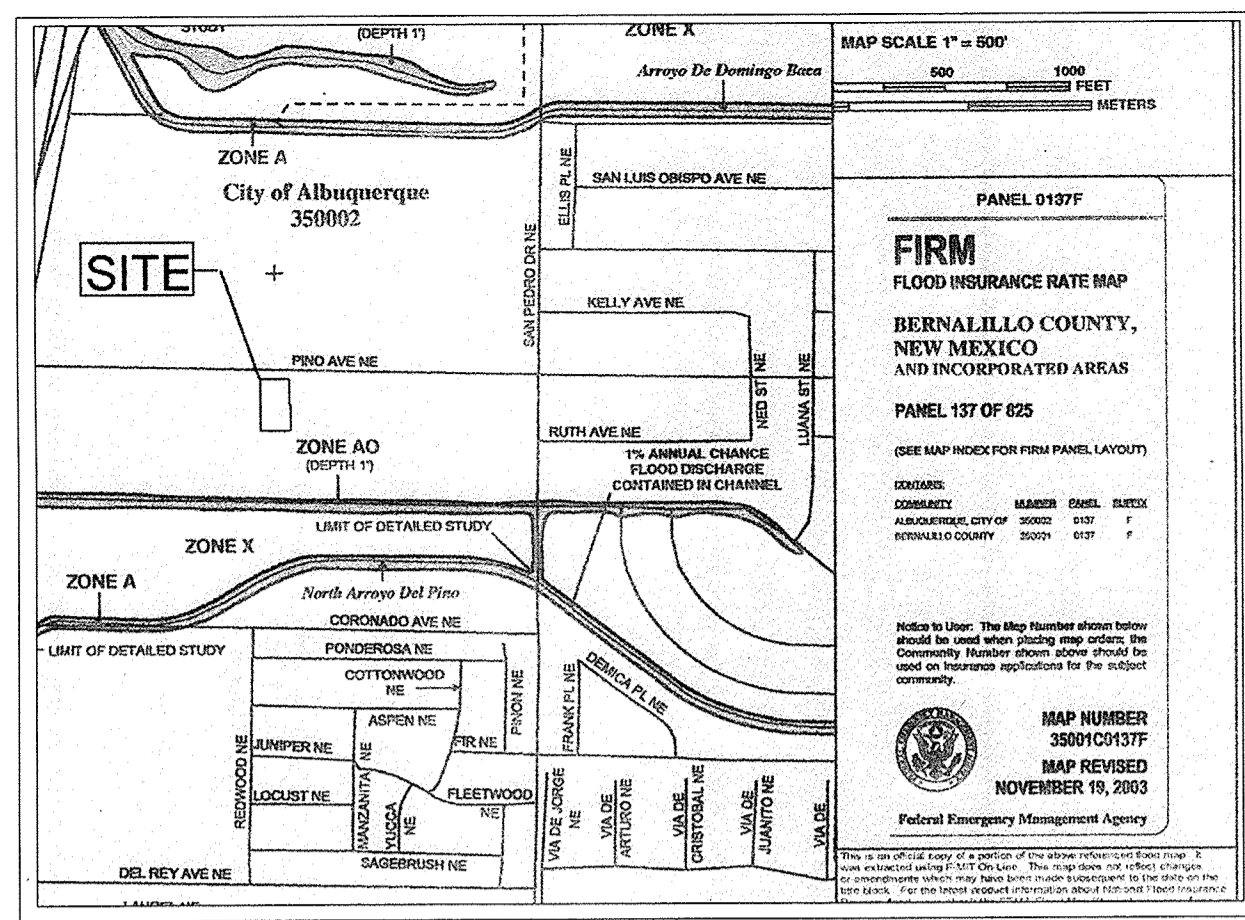
OFF-SITE FLOW:

There is no possibility of off-site flow from the South because there is a berm in that area. The lot to the East will generate off-site flow as discussed above. The lot is undeveloped and is the same size as the site. Therefore, the runoff generated would be the same as the undeveloped runoff for this site. Q = 2.77 cfs

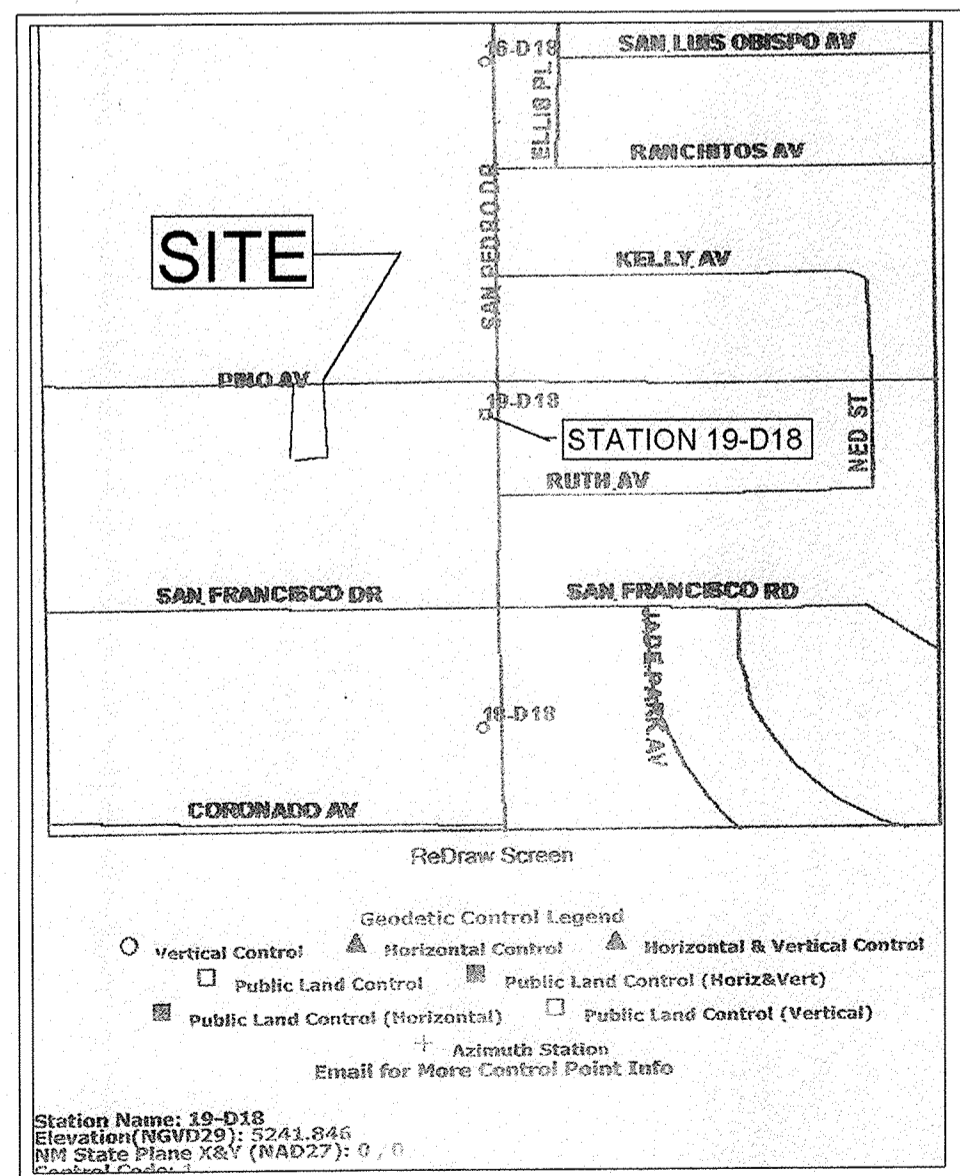
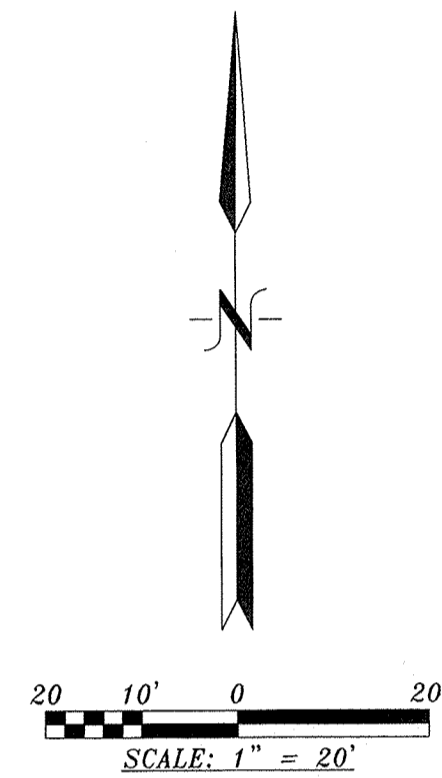
EROSION CONTROL NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FOLLOWING:

- NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
- DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY, RIGHTS-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY RUNOFF FROM THE SITE.
- SHOULD THE CONTRACTOR FAIL TO PREVENT SEDIMENT-BEARING WATER FROM ENTERING PUBLIC RIGHT-OF-WAY, HE SHALL PROMPTLY REMOVE FROM THE PUBLIC RIGHT-OF-WAY ANY AND ALL SEDIMENT ORIGINATING FROM THE SITE.
- CONTROL OF SEDIMENT-LADEN WATERS WILL BE ACCOMPLISHED BY USE OF A COMPACTED EARTH BERM OF ADEQUATE HEIGHT. THE BERM SHALL BE LOCATED ALONG THE DOWNSTREAM PERIMETER OF THE PROPERTY.



FIRMETTE

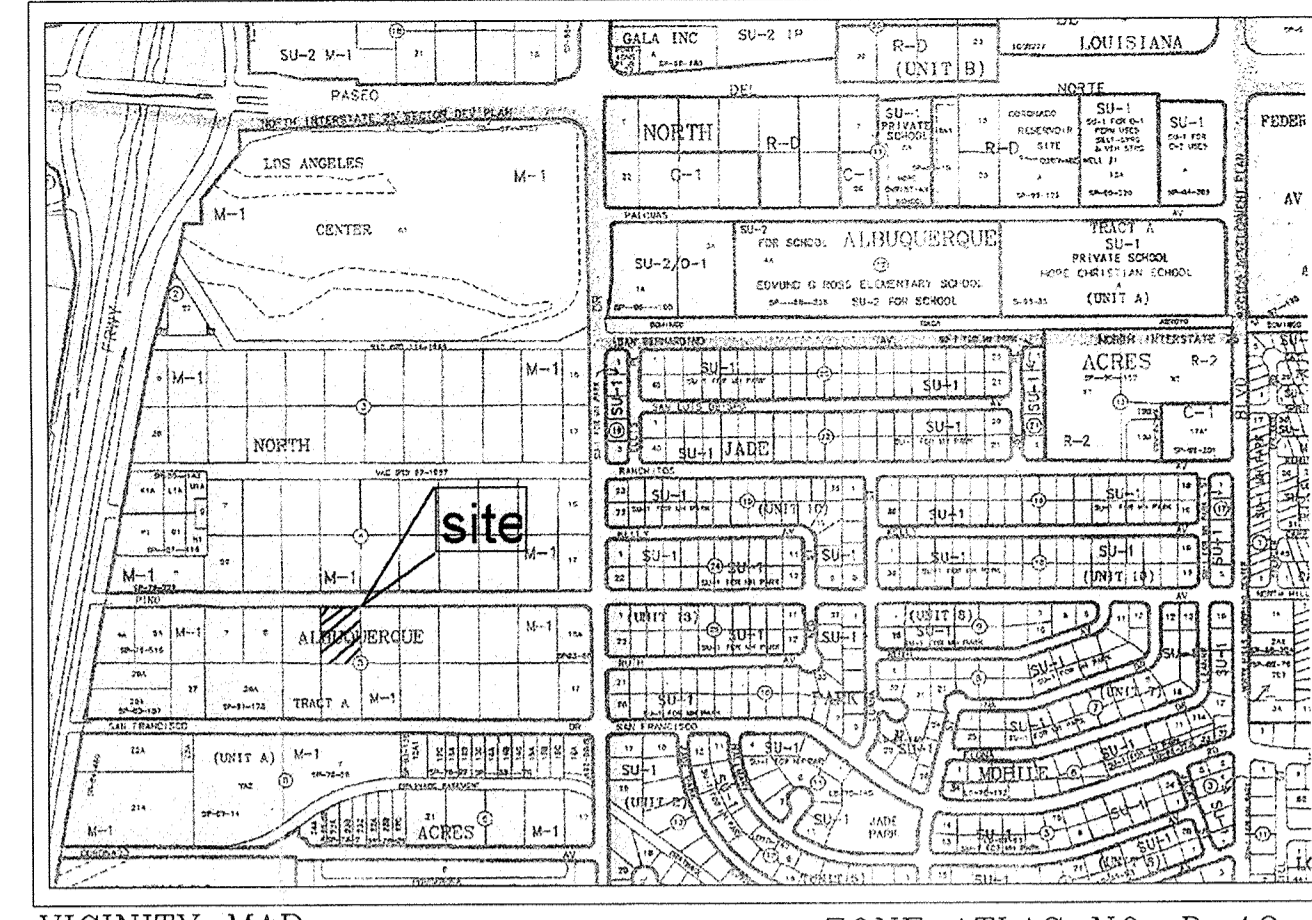


Station Name: 19-D18
Elevation (NGVD29): 5243.846
NW State Plane NAD83 (RAD27): 0.0
Datum: North American Datum of 1983

DRAINAGE CERTIFICATION WITH VERIFICATION BY ENGINEER OF RECORD

I, FRANK D. LOVELADY, NMPE 6512 OF THE FIRM FRANK D. LOVELADY P.C. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND PAVED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 10-25-2004. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Frank D. Lovelady
NMPE 6512
11-17-05
DATE



VICINITY MAP

ZONE ATLAS NO. D-18-Z

LEGEND:

EXISTING	NEW	DESCRIPTION
15.00	15.00	CONTOUR
15.00	15.00	SPOT ELEVATION
15.00	15.00	PROPERTY LINE
15.00	15.00	SWALE
15.00	15.00	SHEET FLOW
15.00	15.00	ROOF FLOW
15.00	15.00	LEGEND
15.00	15.00	TC = TOP OF CONCRETE
15.00	15.00	FL = FLOW LINE
15.00	15.00	TG = TOP OF GRADE
15.00	15.00	EOW = END OF WALL
15.00	15.00	INDICATES AS-CONSTRUCTED SPOT ELEVATION

LEGAL DESCRIPTION

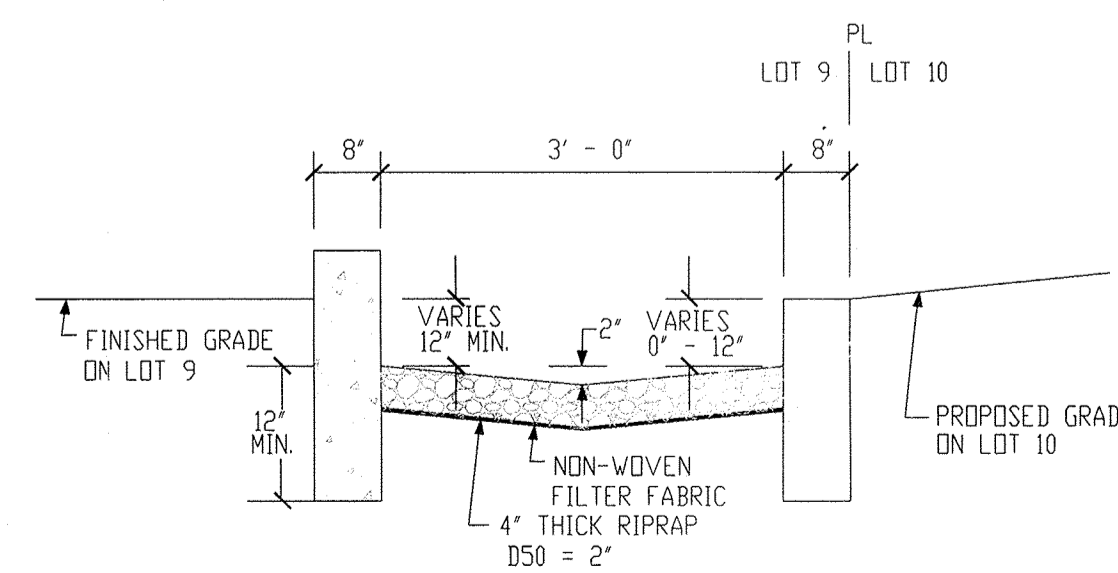
LOT 10, BLOCK 5, TRACT A, UNIT A, NORTH ALBUQUERQUE ACRES.
5660 PINO AVENUE NE.
ALBUQUERQUE, NEW MEXICO

GENERAL NOTES:

- CONTOUR INTERVAL IS ONE (1) FOOT.
- ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. '19-D18', HAVING AN ELEVATION OF 5238.009.
- UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
- THIS IS NOT A BOUNDARY SURVEY. BEARINGS AND DISTANCES SHOWN HEREON ARE FOR REFERENCE ONLY.

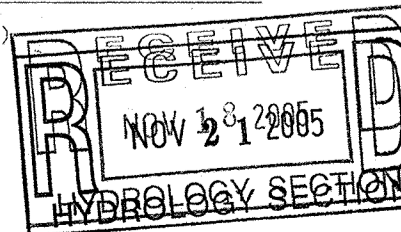
KEYED NOTES

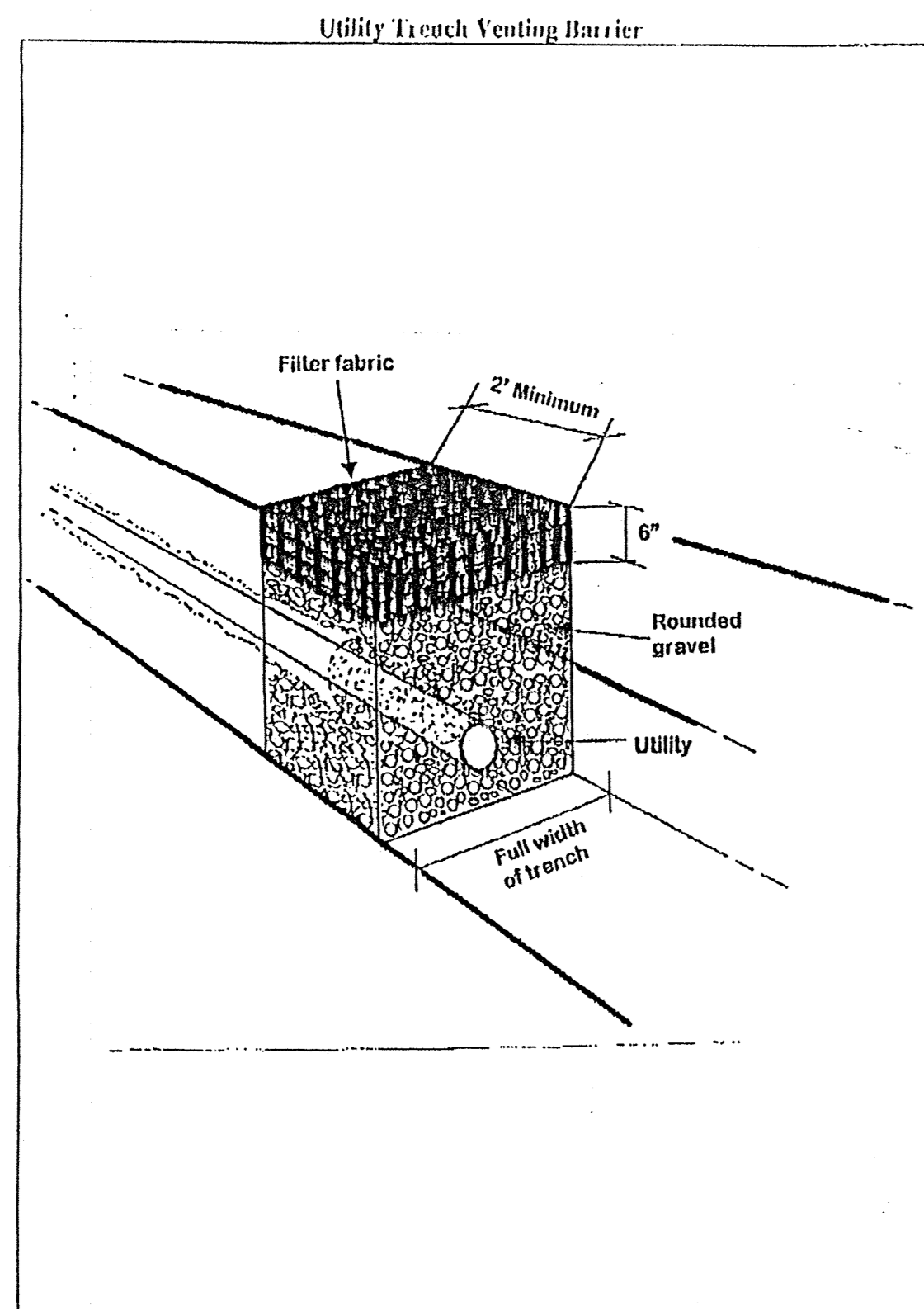
- 3" ASPHALT PAVING OVER 4" BASE COURSE.
- DUMPSTER ON CONC. PAD, SEE DET. 1/C2.
- 6" CONCRETE SIDEWALK, SEE DET. 3/C2.
- PAINTED PARKING STRIPES PER CITY OF ALBO.
- H.C. ACCESSIBLE RAMP W/ PAINTED STRIPES, SEE DET. 8/C2.
- PAINTED H.C. ACCESSIBLE SYMBOL.
- H.C. PARKING SIGNAGE, SEE DET. 5/C2.
- 2" RADIUS TYPICAL.
- 6" CONC. CURB, SEE DET. 2/C2.
- EXISTING 6" HIGH CHAINLINK FENCE.
- NEW 6" HIGH CHAINLINK FENCE W/ 24" GATE.
- PAINTED STRIPES PER CITY OF ALBO.
- 4" SEWER LINE.
- 1 1/2" WATER LINE.
- 1 1/4" GAS LINE.
- EXISTING POWER POLE (F.V.)
- EDGE OF ASPHALT PAVING.
- GRAVEL GROUND COVER.
- EXIST. 3" RIP RAP.
- MECHANICAL UNIT W/ 4" PIPE BOLLARDS.
- PROPERTY LINE.



EXISTING TYPE "B" CHANNEL DETAIL:

(AS SHOWN ON D18/D45)





Landfill Gas Survey
Site: Proposed Office/Warehouse Building
5660 Pino Avenue, Albuquerque, NM

A
Client: Newt & Butch's Roofing
V&A Project No. 05-1-012
No Scale
Figure 4



IBC 2003 CODE ANALYSIS

OCCUPANCY AND USE CLASSIFICATION: = B, OFFICE (TABLE 503)
= S-1, WAREHOUSE (TABLE 503)

TYPE OF CONSTRUCTION: = V-B (TABLE 503)

ALLOWABLE HEIGHT AND BUILDING AREA: = 1 STORY, 9,000 S.F. (TABLE 503)

OFFICE AREA: = 1,273 S.F.
WAREHOUSE AREA: = 4,977 S.F.
TOTAL BUILDING AREA: = 6,250 S.F.

OCCUPANT LOAD (TABLE 1004.1.2): = 1,273 S.F./100 = 12 OCC. (OFFICE)
= 4,977 S.F./500 = 10 OCC. (WAREHOUSE)

FIRE-RESISTANCE RATING REQUIREMENTS: NOT REQUIRED PER SECTION 302.3.1
OCCUPANCY B AND OCCUPANCY S-1: NON-SEPARATED USES

PARKING AND LANDSCAPING CALCULATIONS

ZONE = M-1
GROSS LOT AREA = 38,378 S.F. (.88 ACRES)
NET LOT AREA = 38,378 S.F. - 6,250 S.F. = 32,128 S.F.

LANDSCAPING REQUIRED = 32,128 x 15% = 4,819 S.F.
LANDSCAPE PROVIDED = 4,948 SF

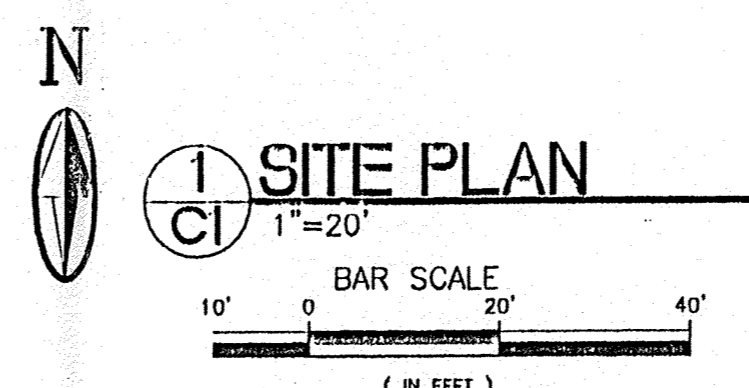
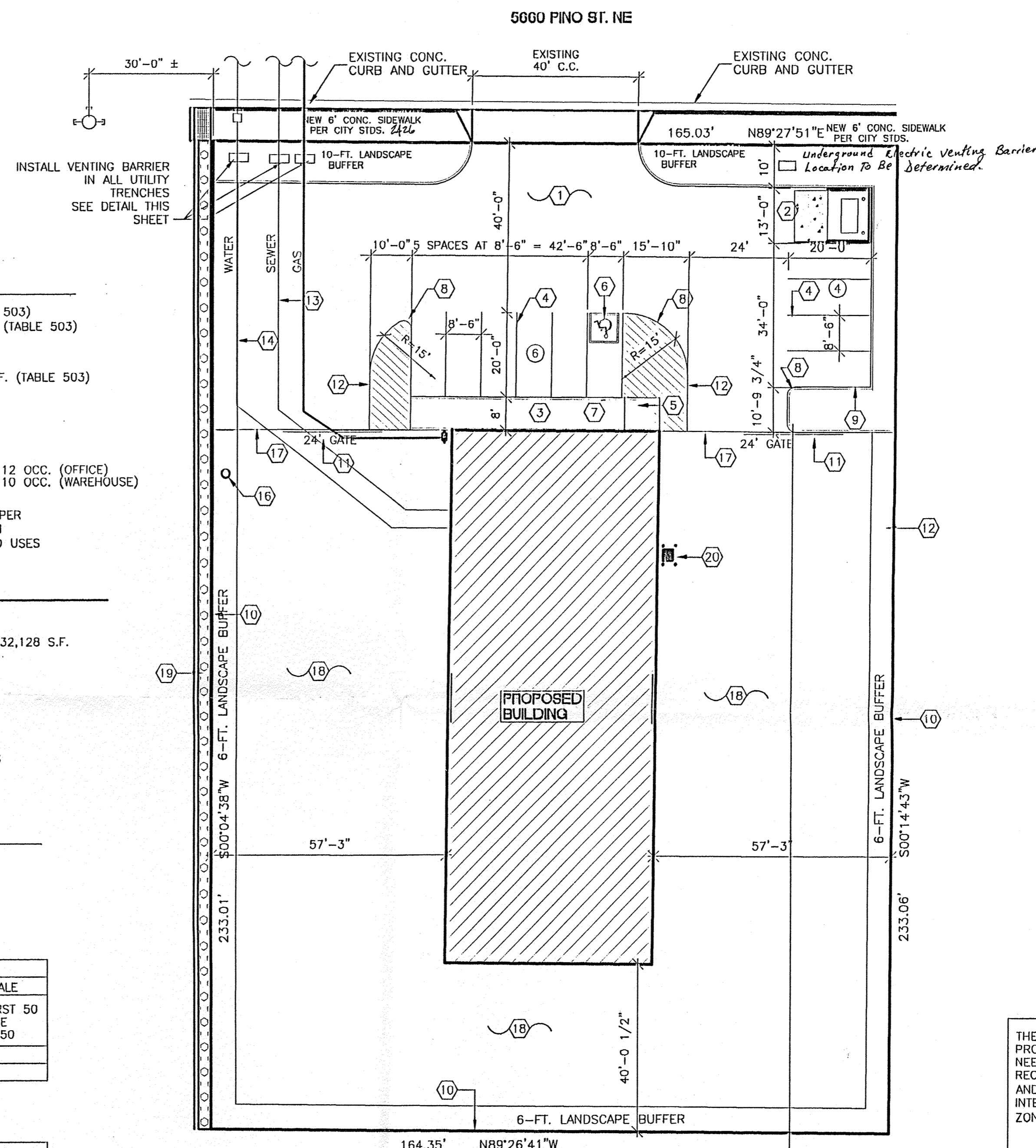
PARKING REQUIRED = 1,273/200 S.F. = 6 SPACES
OFFICE AREA = 4,977/200 S.F. = 2 SPACES
WAREHOUSE AREA = 8 SPACES
TOTAL PARKING REQUIRED = 10 SPACES (1 H.C.)
TOTAL PARKING PROVIDED = 10 SPACES (1 H.C.)

MINIMUM NUMBER OF REQUIRED PLUMBING FACILITIES

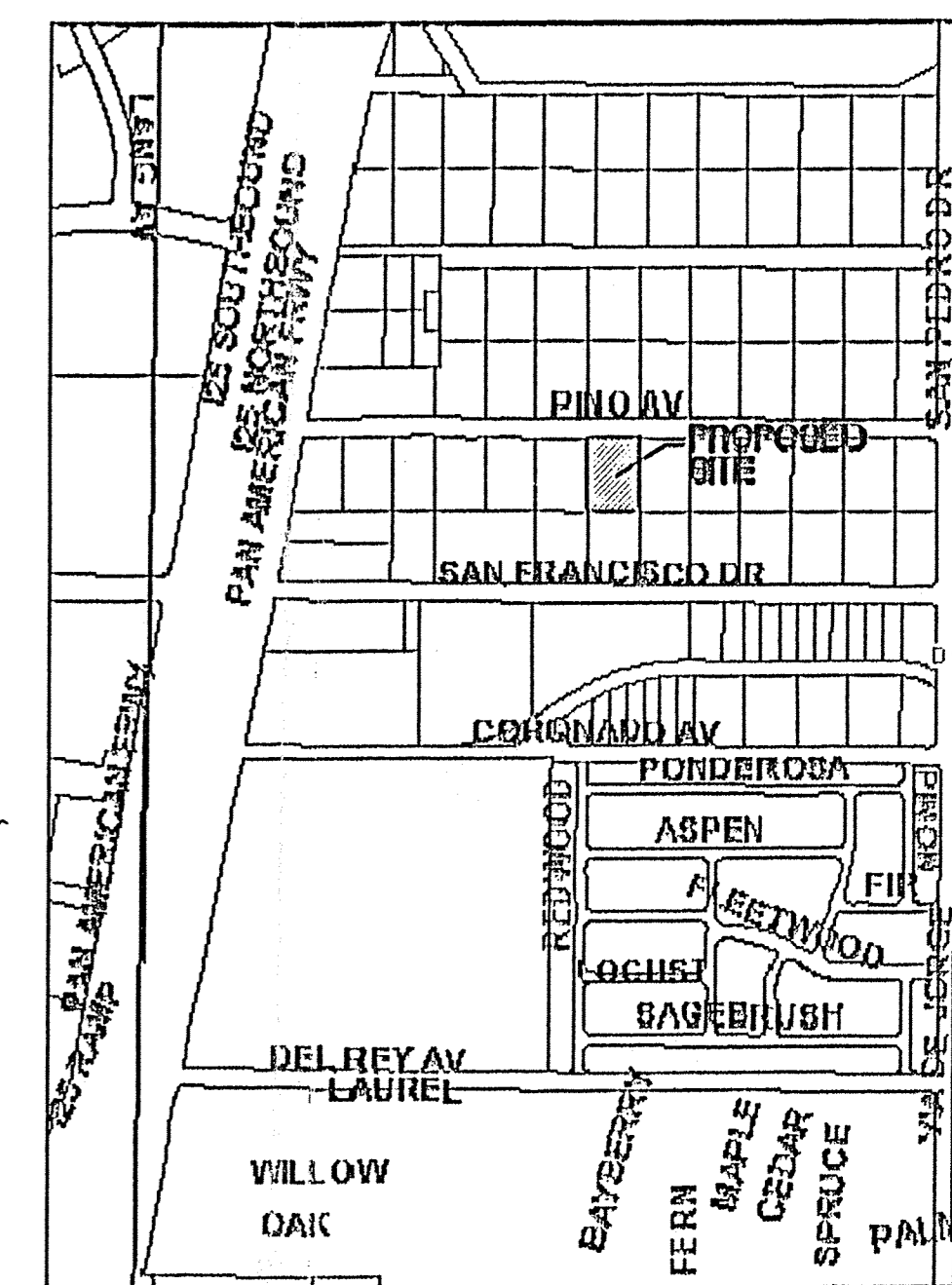
PER IBC 2003, TABLE 2902.1
GROUP B: 12 OCC.
GROUP S-1: 10 OCC.
TOTAL OCCUPANTS: 22 OCC.

PLUMBING FIXTURES REQUIRED			
GROUP B: 1,273 S.F./100 = 12 OCC.			
WATER CLOSET		LAVATORIES	
MALE	FEMALE	MALE	FEMALE
1 PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50		1 PER 40 FOR THE FIRST 50 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 50	
DRINKING FOUNTAINS		1 PER 100	
OTHER		1 SERVICE SINK	

PLUMBING FIXTURES PROVIDED			
GROUP B/S-1: 22 OCC.			
WATER CLOSET		LAVATORIES	
MALE	FEMALE	MALE	FEMALE
1 W.C.	1 W.C.	1 LAV.	1 LAV.
DRINKING FOUNTAINS		1 D.F.	
SERVICE SINK		1 SERVICE SINK	



ALVA L. WILSON AND MARTHA K. WILSON
LOT 10, BLOCK 6
TRACT A - UNIT A
NORTH ALBUQUERQUE ACRES
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
JULY 2005



LOCATION MAP
ZONE ATLAS MAP NO. D-18-Z

KEYED NOTES

- 3" ASPHALT PAVING OVER 4" BASE COURSE.
- DUMPSTER ON CONC. PAD, SEE DET. 1/C2.
- 6" CONCRETE SIDEWALK, SEE DET. 3/C2.
- PAINTED PARKING STRIPES PER CITY OF ALBQ.
- H.C. ACCESSIBLE RAMP W/ PAINTED STRIPES, SEE DET. 8/C2.
- PAINTED H.C. ACCESSIBLE SYMBOL.
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- MECHANICAL UNIT W/ 4" PIPE BOLLARDS.

TRAFFIC CIRCULATION

Signed

THE SUBJECT PROPERTY IS LOCATED NEAR A FORMER LANDFILL. DUE TO THE PROPERTY BEING NEAR A FORMER LANDFILL, CERTAIN PRECAUTIONARY MEASURES NEED TO BE TAKEN TO ENSURE THE HEALTH AND SAFETY OF THE PUBLIC. RECOMMENDATIONS MADE BY A PROFESSIONAL ENGINEER WITH EXPERTISE IN LANDFILL GAS ISSUES (AS REQUIRED BY THE MOST CURRENT VERSION OF INTERIM GUIDELINES FOR DEVELOPMENT WITHIN CITY DESIGNATED LANDFILL ZONES) SHALL BE CONSULTED PRIOR TO DEVELOPMENT OF THE SITE.

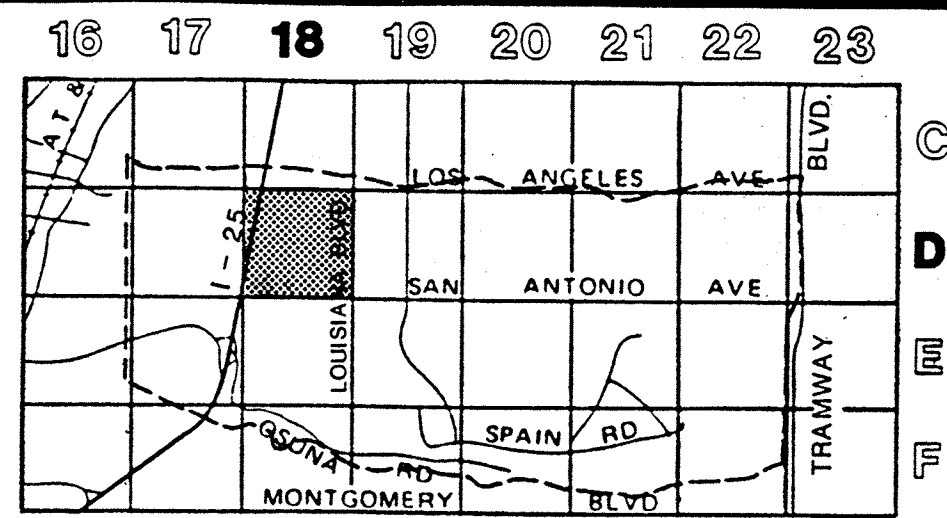
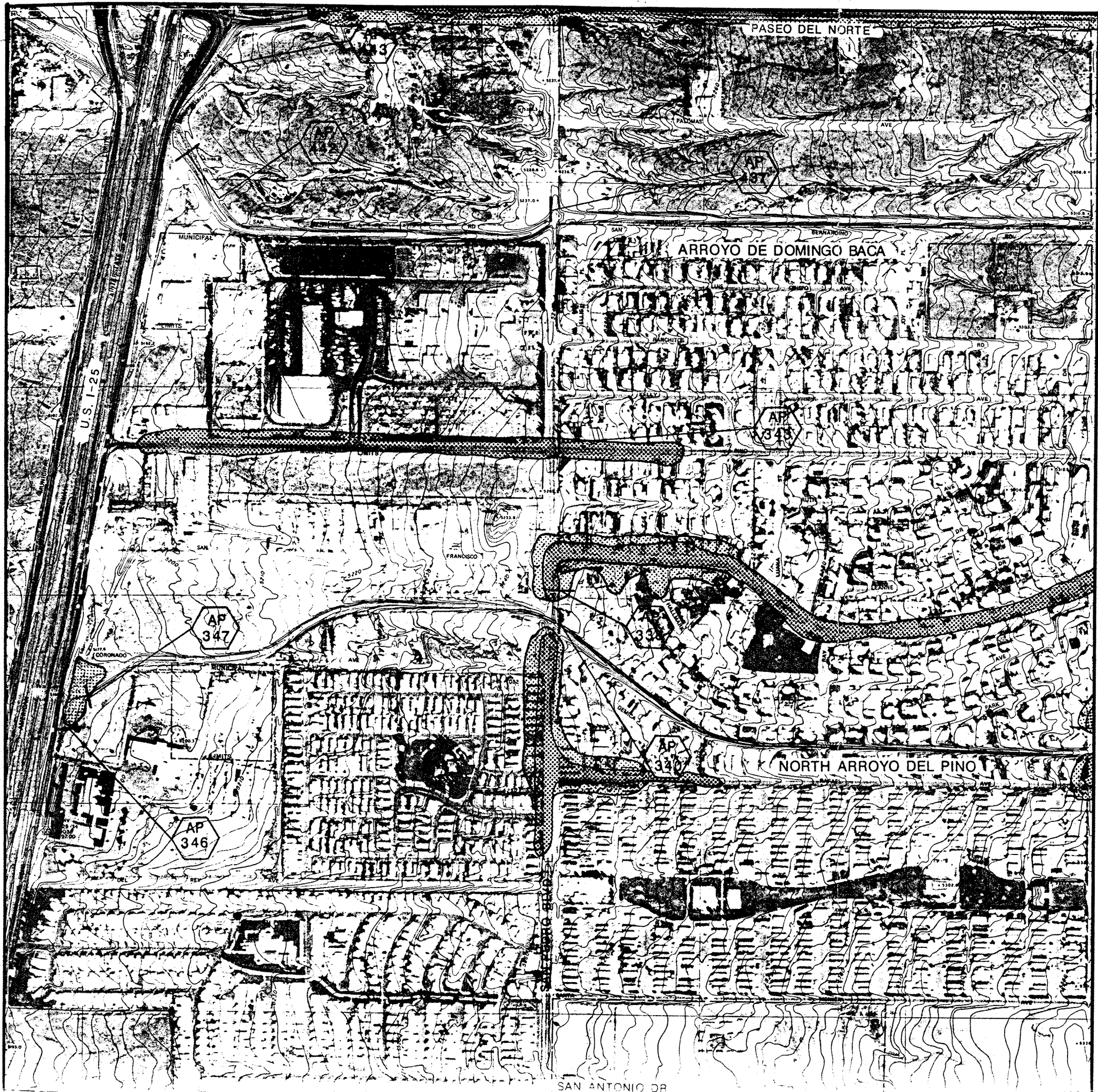
LANDFILL GAS ASSESSMENT PERFORMED BY VINYARD & ASSOCIATES, ALBUQUERQUE, NM

JOB NUMBER DATE

SIGNATURE DATE

CITY OF ALBUQUERQUE
ENVIRONMENTAL HEALTH DEPARTMENT

SIGNATURE DATE



MAP KEY

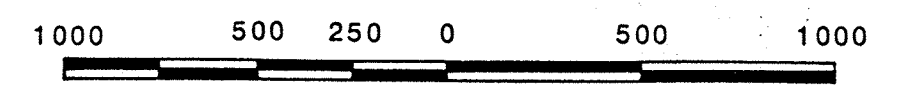


WESTON
MANAGER DESIGNER CONSULTANTS

5301 CENTRAL AVENUE, N.E.
ALBUQUERQUE, NEW MEXICO 87108
PHONE: (505) 255-1445



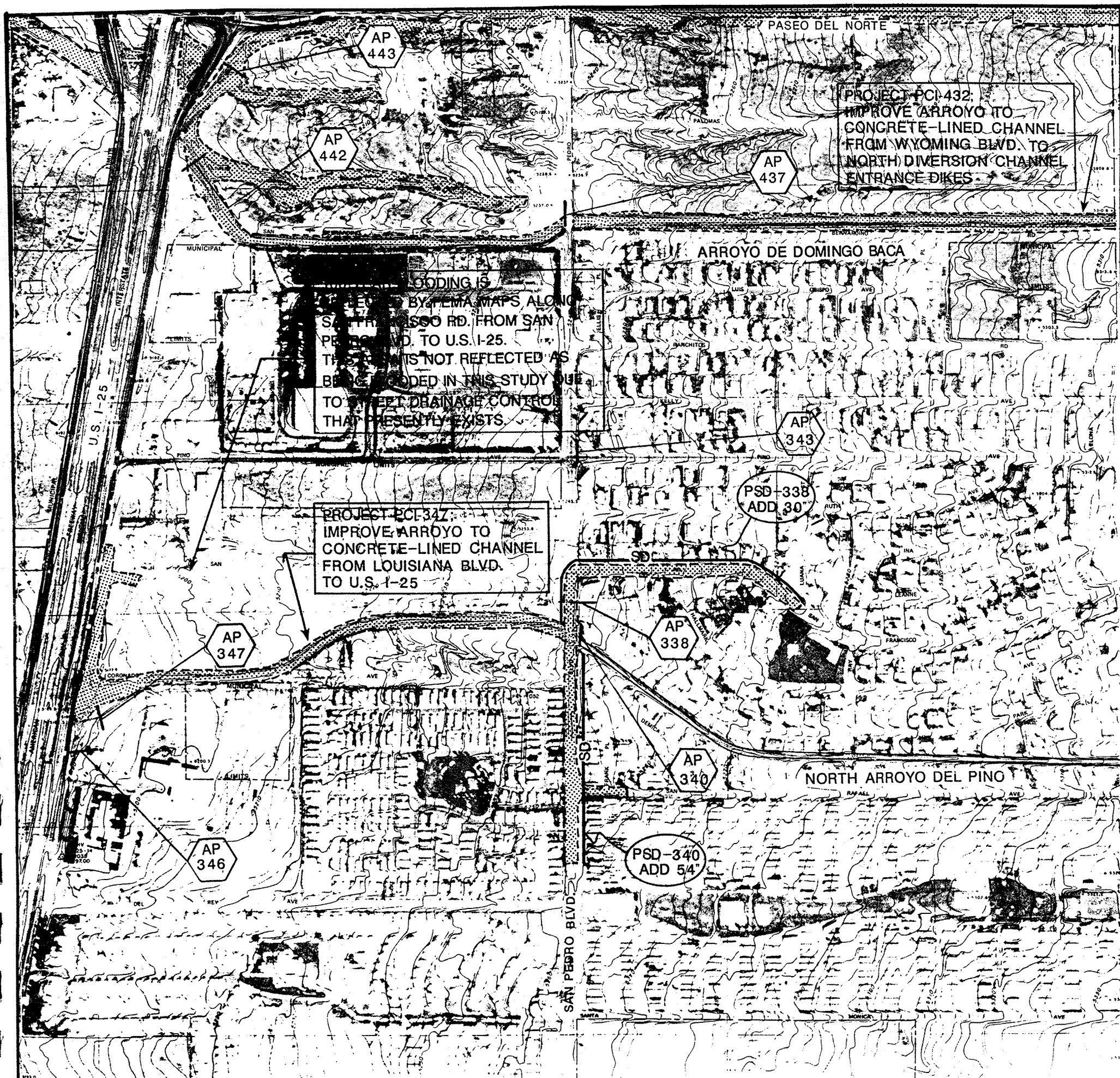
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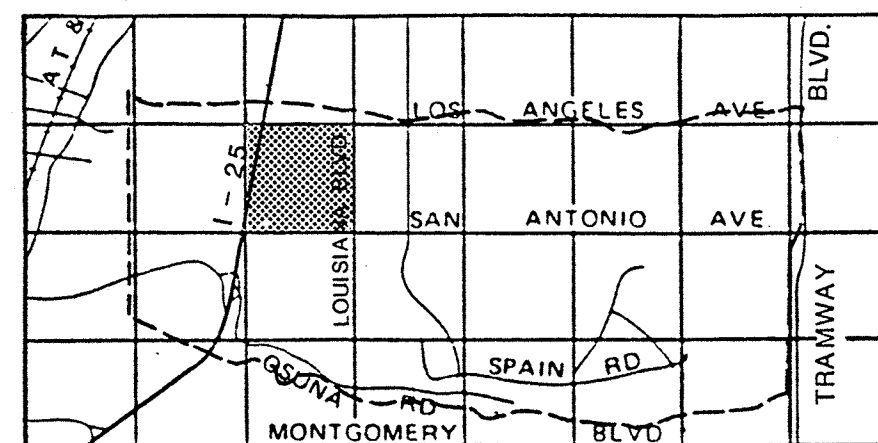
SCALE IN FEET

LEGEND

- STUDY AREA BOUNDARY
- [Hatched Box] 10 YEAR FLOOD HAZARD AREA
- [Dotted Box] 100 YEAR FLOOD HAZARD AREA
- [AP 102 Symbol] ANALYSIS POINTS



16 17 18 19 20 21 22 23



MAP KEY



WESTON
MANAGERS DESIGNERS/CONSULTANTS

5301 CENTRAL AVENUE, N.E.
ALBUQUERQUE, NEW MEXICO 87106
PHONE: (505) 255-1445

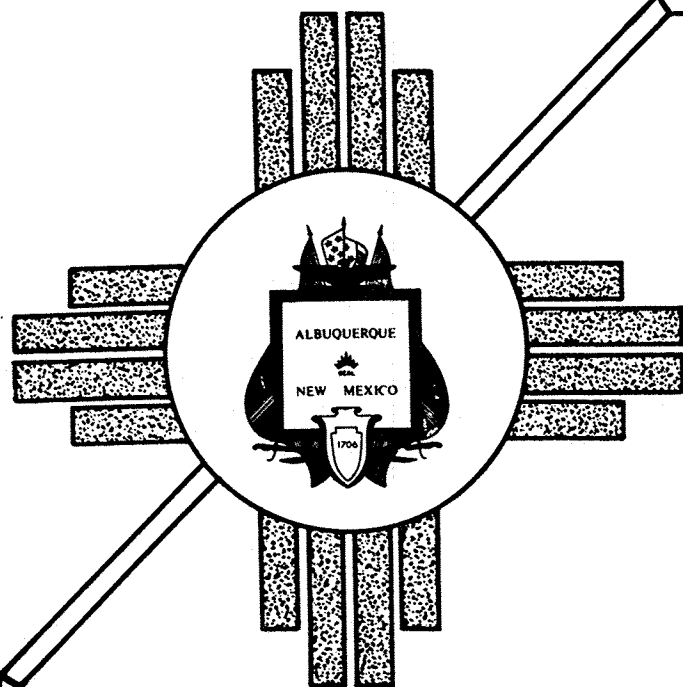
SCALE: 1" = 500'

1000 500 250 0 500 1000

SCALE IN FEET

LEGEND

- STUDY AREA BOUNDARY
- 10 YEAR FLOOD HAZARD AREA
- 100 YEAR FLOOD HAZARD AREA
- ANALYSIS POINTS
-



FAR NORTHEAST HEIGHTS MASTER DRAINAGE PLAN

FOR THE CITY OF ALBUQUERQUE

PUBLIC WORKS DEPARTMENT

OCTOBER 1989

**FINAL PHASE III
FUTURE CONDITIONS
AND PROPOSED IMPROVEMENTS REPORT**

A/E NO. 86-16

NO. 2772-02-03

