

## City of Albuquerque

January 13, 2000

Shahab Biazar, PE Advanced Engineering and Consulting, LLC 10205 Snowflake Ct. NW Albuquerque, NM 87114

Sears Warehouse Loading Dock Addition Grading and Drainage Plan Re: **Engineer's Stamp dated 11-18-99 (G15/D54)** 

Dear Mr. Biazar,

Based upon the information provided in your submittal dated 11-18-99, the above referenced site is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3986

Sincerely,

Bradley L. Bingham, PE

Hydrology Review Engineer

file

#### DRAINAGE INFORMATION SHEET

PROJECT TITLE:	Sears Warehouse Loading Dack Addition	ZONE ATLAS/DRNC	G-15/D054	
DRB #:	EPC #:	WORK ORDER #:	<u> </u>	
LEGAL DESCRIPT	ION: Lot 3A, Block 1, Comanche Industrial	District		· · · · · · · · · · · · · · · · · · ·
CITY ADDRESS:	800 C'omanche		······································	<del></del>
ENGINEERING FIR	M: Advanced Engineering and Consulting, LLC	CONTACT:	Shahab Biazar	<u> </u>
ADDRESS:	10205 Snowflake Ct. NW Alb., NM 87114	PHONE:	(505) 899-5570	
OWNER: Crown F	amily Holdings Industrial, LP	CONTACT:	Philip-B. Hamilton	
ADDRESS:	P.O. Box 25346	PHONE:		. <b> </b>
ARCHITECT:	John Briscoe	CONTACT:		· <del></del>
ADDRESS:	718 Adams NE, Alb., NM 87110	PHONE:	(505) 262-0193	
SURVEYOR:		CONTACT:		
ADDRESS:		PHONE:		
CONTRACTOR:		CONTACT:		
ADDRESS:		PHONE:		
DRAINAGE PLAN  CONCEPTUAL GRADING & DRAINAGE PLAN  X GRADING PLAN  EROSION CONTROL PLAN  ENGINEER'S CERTIFICATION		PRELIMI S. DEV. P S. DEV. P SECTOR FINAL PI		
OTHER		FOUNDA	OVAL	
PRE-DESIGN MEET YES NO COPY F	FING: PROVIDED	X GRADING PAVING S. A. D. D. DRAINAG	G PERMIT APPROVA  CATE OF OCCUPANCE G PERMIT APPROVAL  PERMIT APPROVAL  RAINAGE REPORT  GE REQUIREMENTS  NOV 1 8 1999	Y APPROVAL L
DAT	E SUBMITTED: 11 / 18 / 99	HYI	DROLOGY SEC	ION

BY:

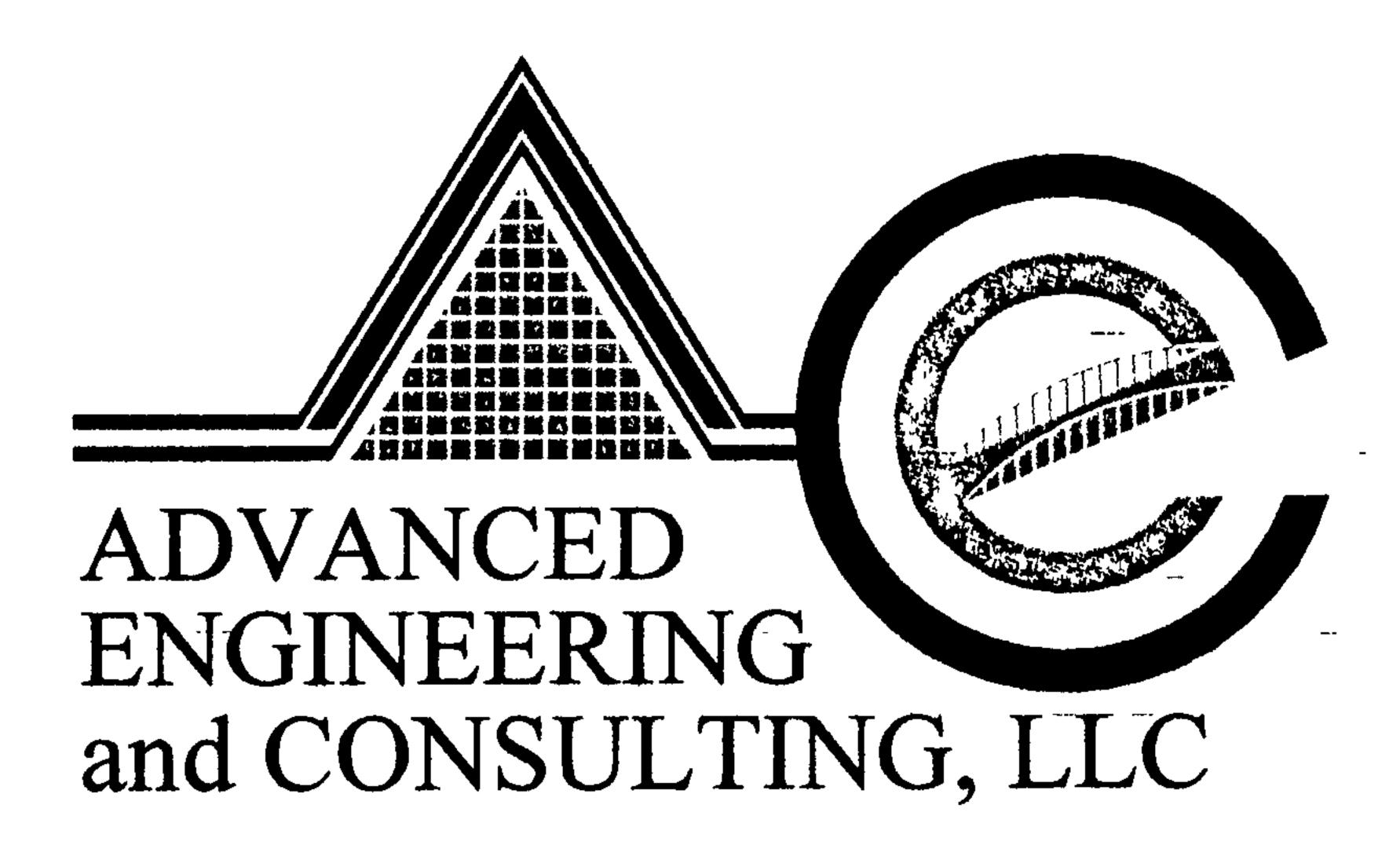
SHAHAB BIAZAR

## DRAINAGE REPORT FOR

# SEARS WAREHOUSE LOADING DUCK ADDITION

(800 COMANCHE)

Prepared by:

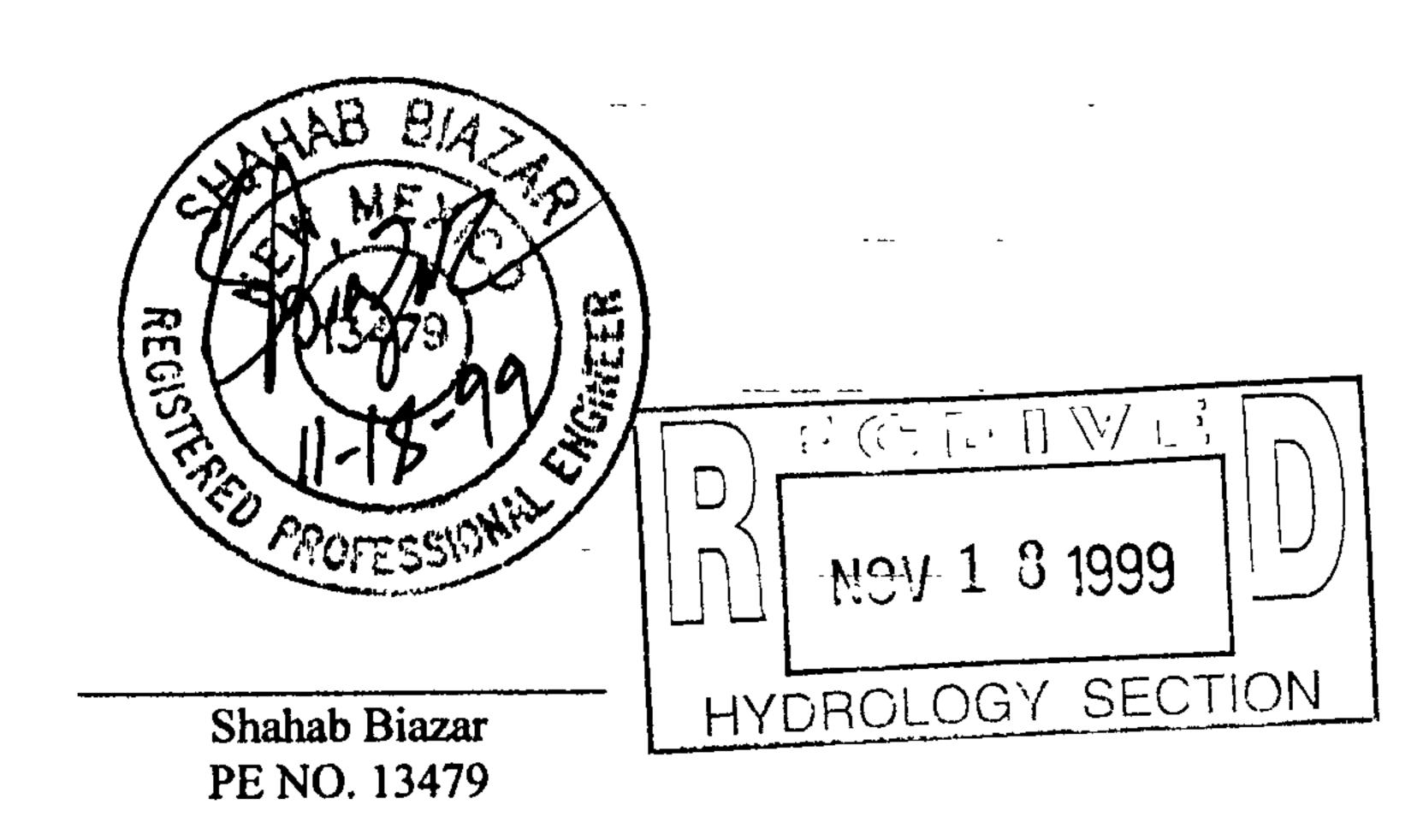


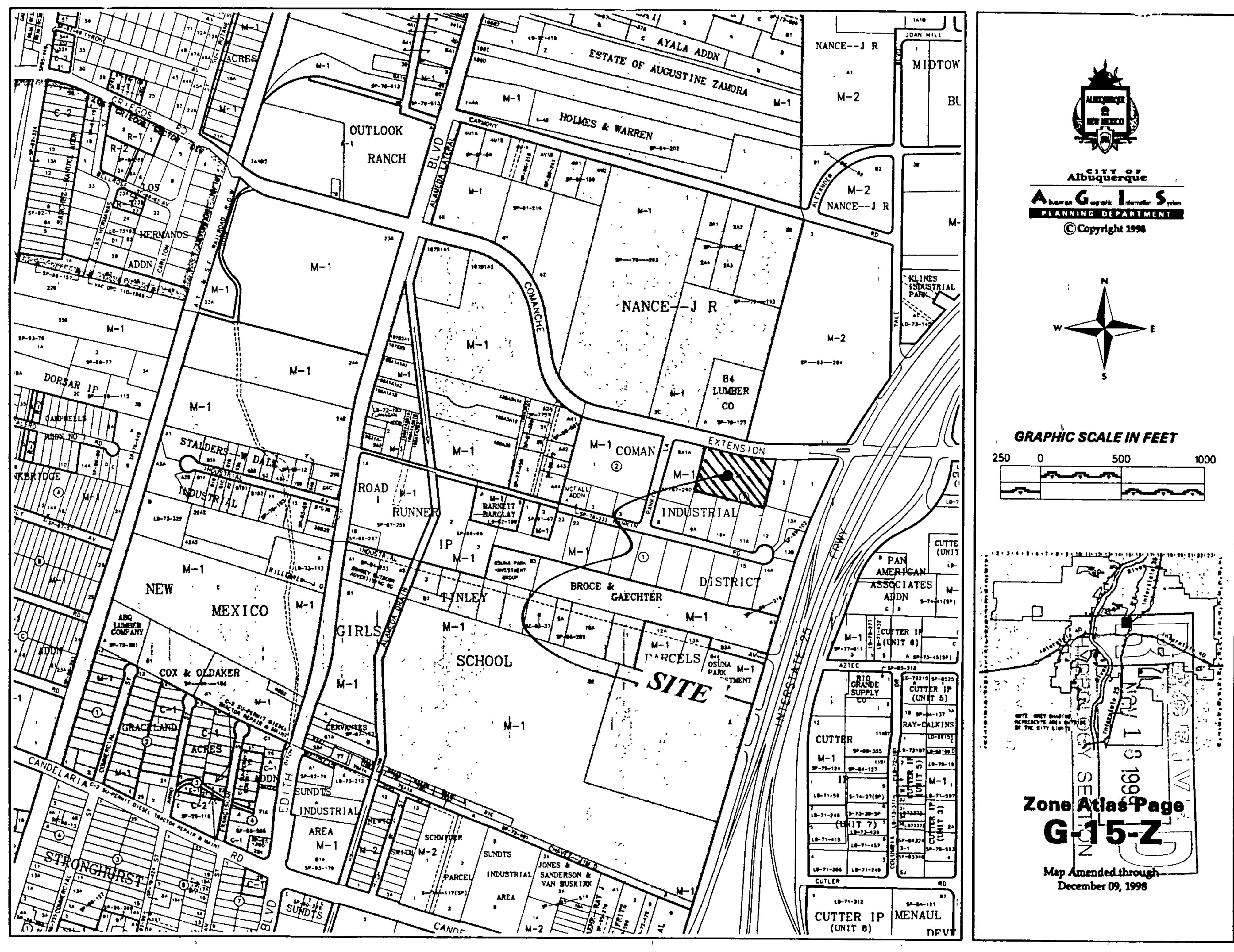
10205 Snowflake Ct. NW Albuquerque, New Mexico 87114

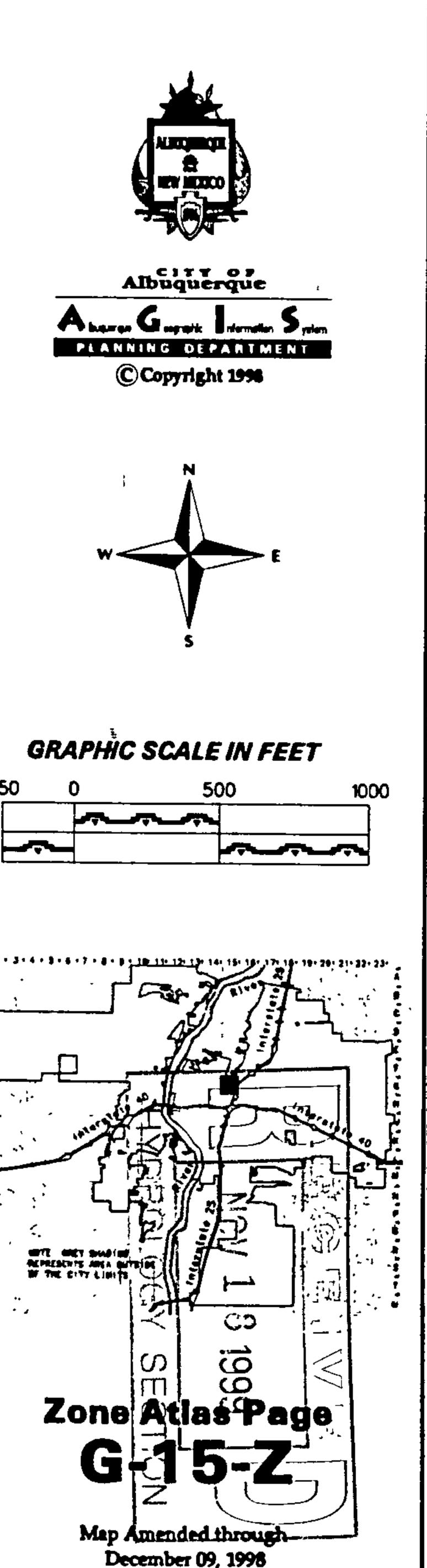
Prepared For:

Crown Family Holdings Industrial, LP P.O. Box 25346
Albuquerque, New Mexico 87125

November, 1999







#### Location

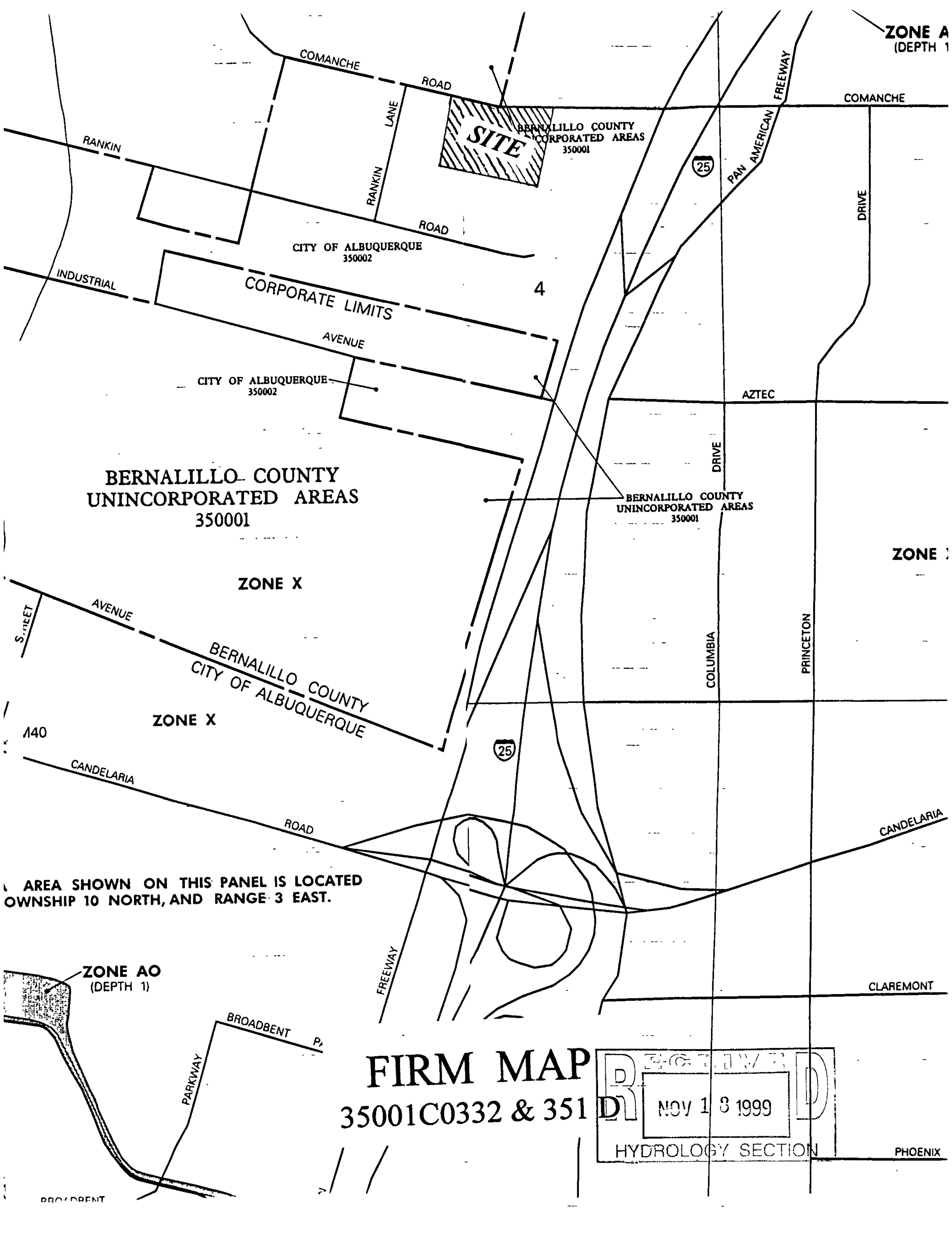
Lot 3A, Block 1, Comanche Industrial District is approximately 450' west of I-25 Frontage Road, located on the south of Comanche Road. The site contains approximately 2.94 acres. See attached Vicinity Map G-15-Z for the location of the site.

#### Purpose

The owners are proposing to build addition to the loading area. The owners are also proposing to build additional curbs and landscaping.

#### Existing/Proposed Drainage Conditions

The site under existing conditions drains west and then north to Comanche Road at a flow rate of 13.66 cfs. Due to near future modifications to Comanche Road and the accessibility of the trucks to the Sears site, the owners are proposing to modify one of the existing loading ducks. By modifying this loading duck the trucks will be able to park east to west instead of north to south (which will no longer be possible once the Comanche Road modifications start). Based on the new modification to the site additional curbs and landscaping will be placed on site. The new modification will increase the landscaping area by approximately 2%. Therefore, the existing runoff will be reduced from 13.66 cfs to 13.54 cfs. No changes will be done to the existing flow direction of site.

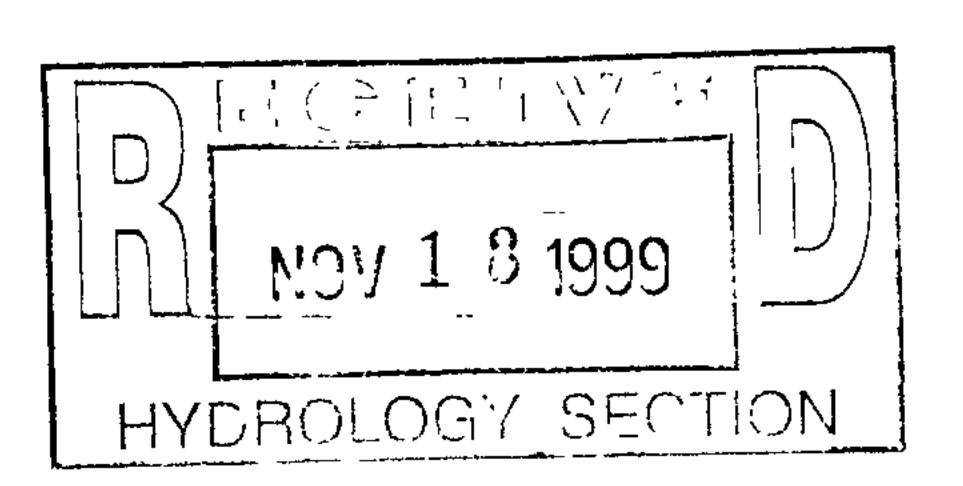


#### Flood Plain

The site falls within FIRM Map No. 35001C0332 D & 35001C0351 D, as shown n the attached excerpt. The map shows that the site does not fall within a 100-year flood plain.

#### Calculations

City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, revised January 1993, was used for runoff calculations. See this report for Summary Table for runoff results. See also this report for AHYMO input and output files for runoff and ponding calculations.



#### RUNOFF CALCULATIONS

The site is @ Zone 2

#### DEPTH (INCHES) @ 100-YEAR STORM

 $P_{60} = 2.01$  inches

 $P_{360} = 2.35 \text{ inches}$ 

 $P_{1440} = 2.75 \text{ inches}$ 

#### DEPTH (INCHES) @ 10-YEAR STORM

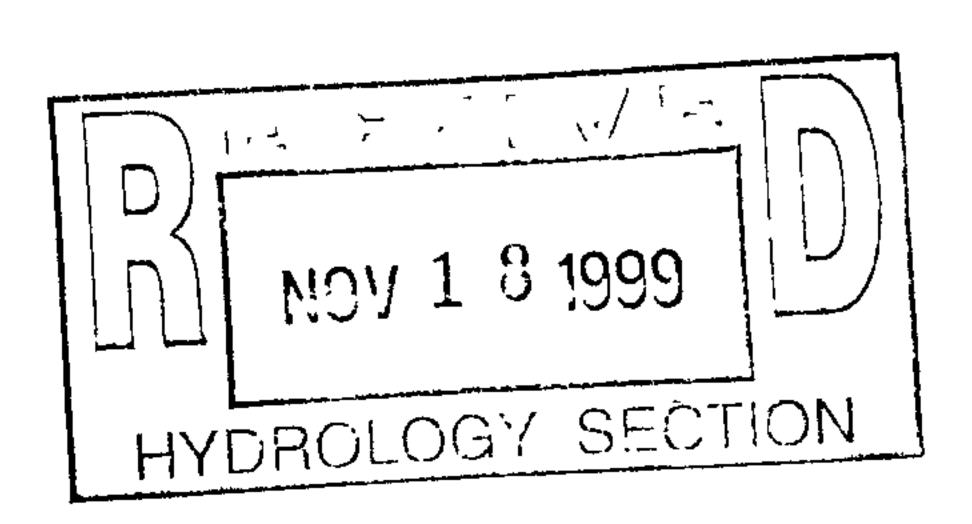
 $P_{60} = 2.01 \times 0.667$ = 1.34 inches

 $P_{360} = 1.57$ 

 $P_{1440} = 1.83$ 

See the summary output from AHYMO calculations.

Also see the following summary tables.



### RUNOFF CALCULATION RESULTS

BASIN	AREA (SF)	AREA (AC)	AREA (MI <sup>2</sup> )
ON-SITE	128,061.64	2.9399	0.004594

#### **PROPOSED**

BASIN	Q-100	Q-10		
	CFS	CFS		
ON-SITE	13.54	8.87		

#### **EXISTING**

BASIN	Q-100	Q-10		
	CFS	CFS		
ON-SITE	13.66	8.99		

FINISH

100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) TIME=0.0 START RAINFALL TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN RAIN DAY=2.75 IN DT=0.03333 HR COMPUTE NM HYD ID=1 HYD NO=100.0 AREA=0.004594 SQ MI PER A=0.00 PER B=4.18 PER C=0.00 PER D=95.82 TP=0.1333 HR MASS RAINFALL=-1 10-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS) TIME=0.0 START TYPE=1 RAIN QUARTER=0.0 IN RAINFALL RAIN ONE=1.34 IN RAIN SIX=1.57 IN RAIN DAY=1.83 IN DT=0.03333 HR ID=1 HYD NO=110.0 AREA=0.004594 SQ MI COMPUTE NM HYD PER A=0.00 PER B=4.18 PER C=0.00 PER D=95.82 TP=0.1333 HR MASS RAINFALL=-1 100-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) START TIME=0.0 RAINFALL TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN RAIN DAY=2.75 IN DT=0.03333 HR ID=1 HYD NO=100.1 AREA=0.004594 SQ MI COMPUTE NM HYD PER A=0.00 PER B=2.39 PER C=0.00 PER D=97.60 TP=0.1333 HR MASS RAINFALL=-1 10-YEAR, 6-HR STORM (UNDER EXISTING CONDITIONS) TIME=0.0 START TYPE=1 RAIN QUARTER=0.0 IN RAINFALL RAIN ONE=1.34 IN RAIN SIX=1.57 IN RAIN DAY=1.83 IN DT=0.03333 HR ID=1 HYD NO=110.1 AREA=0.004594 SQ MI COMPUTE NM HYD PER A=0.00 PER B=2.39 PER C=0.00 PER D=97.60 TP=0.1333 HR MASS RAINFALL=-1

NOV 1 3 1999

HYDROLOGY SECTION

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COMMAND	HYDROGRAPH IDENTIFICATION		TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO - PEAK (HOURS)	CFS PER ACRE	PAGE =	
COMPUTE NM START	YPE= 1 HYD 100.00 YPE= 1	-	1	.00459	13.54	.505	 2.05947	1.500	4.604	TIME= RAIN6= PER IMP= TIME= RAIN6=	.00 2.350 95.82 .00 1.570
COMPUTE NM START		-	1	.00459	8.87	.317	1.29337	1.500	3.017	PER IMP= TIME= RAIN6=	95.82 .00 2.350
COMPUTE NM START RAINFALL T	HYD 100.10 YPE= 1	-	1	.00459	13.66	.510	2.08340	1.500	4.647	PER IMP= TIME= RAIN6=	97.61 .00 1.570
COMPUTE NM   FINISH	HYD 110.10	-	1	.00459	8.99	.322	1.31233	1.500	3.057	PER IMP=	97.61