



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 14, 1994

Mr. Ronald Bohannon
Tierra West Dev. Magt. Serv..
4600 Montgomery NE, Suite #3
Albuquerque, NM 87109

RE: CUBBY HOLE (K-21/D161) ENGINEER'S STAMP DATED 6/8/94

Dear Mr. Bohannon:

Based on the information provided on your 6/8/94 submittal, Engineer's Certification for the referenced project is acceptable.

If I can be of further assistance, feel free to contact me at 768-3622.

Cordially,

Scott Davis
PWD, Hydrology Division

c: File

(WP+8309)

DRAINAGE INFORMATION SHEET

PROJECT TITLE: CUBBY HOLE ZONE ATLAS/DRNG. FILE #: K-21 / D16 I

DRB #: 93-212 EPC #: Z-93-32 WORK ORDER #: _____

LEGAL DESCRIPTION: TRACT 4-C2-B, Filed on July 6, 1992 in Volume 92C, Folio 144

CITY ADDRESS: 49 HOTEL CIRCLE, ALBUQUERQUE, NM 87112

ENGINEERING FIRM: TIERRA WEST DEV. MAGT. SER CONTACT: RONALD R. BOHANNAN

ADDRESS: 4600 MONTGOMERY NE SUITE #3, 87109 PHONE: (505) 883-7592

OWNER: K & S PARTNERSHIP CONTACT: KEN SCHUMANN

ADDRESS: 3108 ALAMOGORDO NW, 87120 PHONE: (505) 839-0091

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: ANTHONY L. HARRIS CONTACT: ANTHONY L. HARRIS

ADDRESS: 2412 - D MONROE NE, 87110 PHONE: (505) 889-8056

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

_____ DRAINAGE REPORT

_____ DRAINAGE PLAN

_____ CONCEPTUAL GRADING & DRAINAGE PLAN

_____ GRADING PLAN

_____ EROSION CONTROL PLAN

X _____ ENGINEER'S CERTIFICATION

_____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

_____ SKETCH PLAN APPROVAL

_____ PRELIMINARY PLAT APPROVAL

_____ S. DEV. PLAN FOR SUB'D. APPROVAL

_____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL

_____ SECTOR PLAN APPROVAL

_____ FINAL PLAT APPROVAL

_____ FOUNDATION PERMIT APPROVAL

_____ BUILDING PERMIT APPROVAL

X _____ CERTIFICATE OF OCCUPANCY APPROVAL

_____ GRADING PERMIT APPROVAL

_____ PAVING PERMIT APPROVAL

_____ S. A. D. DRAINAGE REPORT

_____ DRAINAGE REQUIREMENTS

_____ OTHER _____ (SPECIFY)

PRE-DESIGN MEETING:

_____ YES

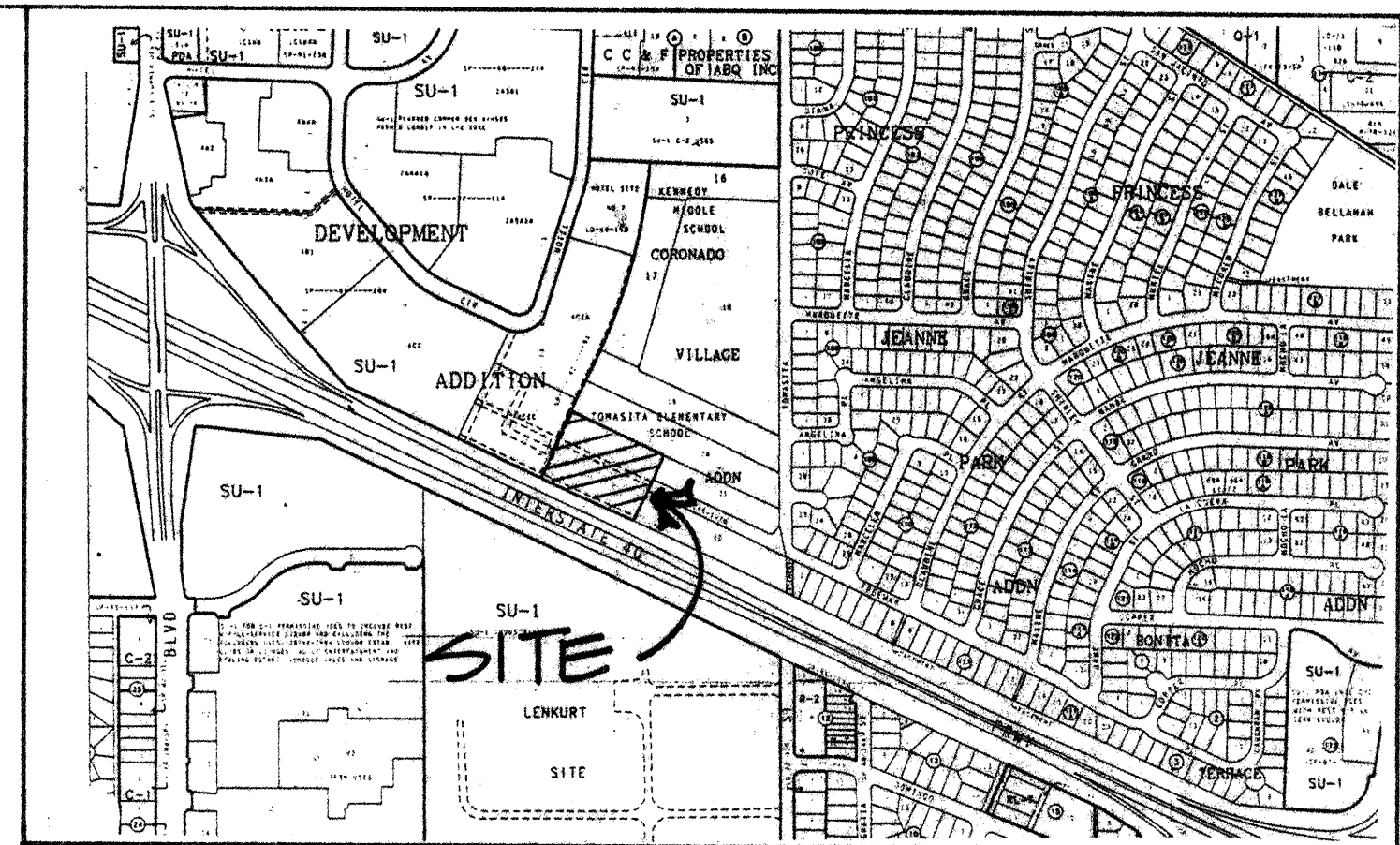
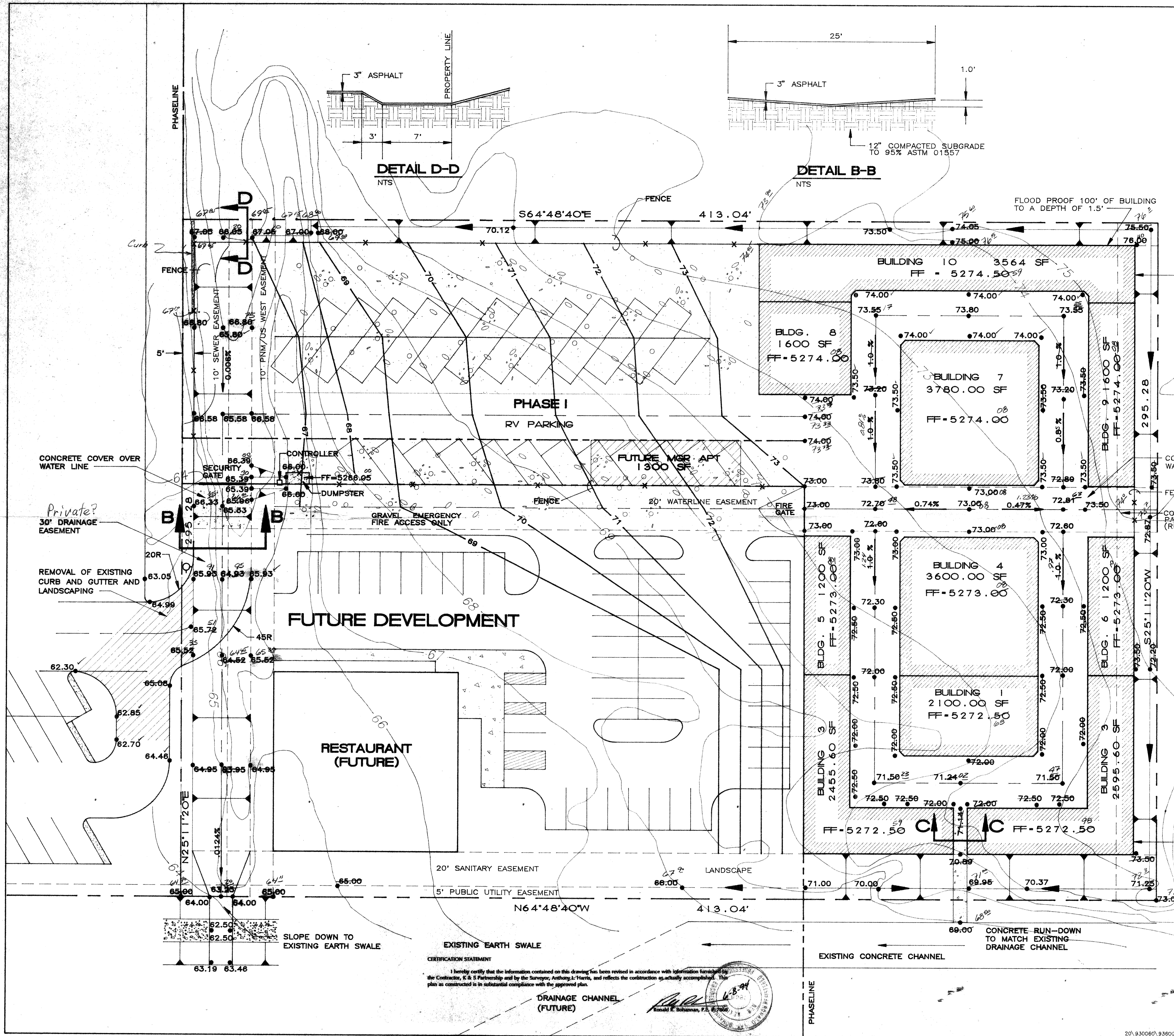
X _____ NO

_____ COPY PROVIDED

DATE SUBMITTED: 6/8/94

BY: RONALD R. BOHANNAN

JUN - 8 1994

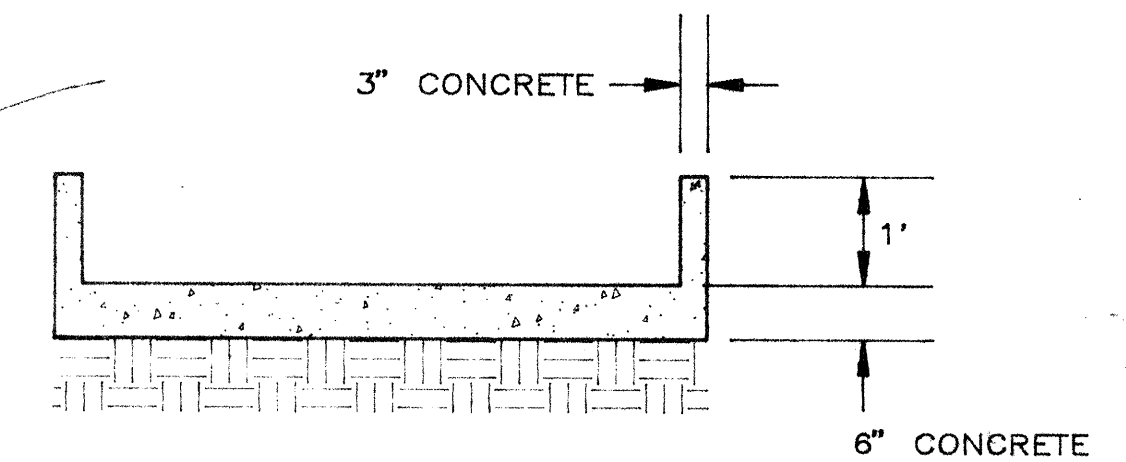


VICINITY MAP

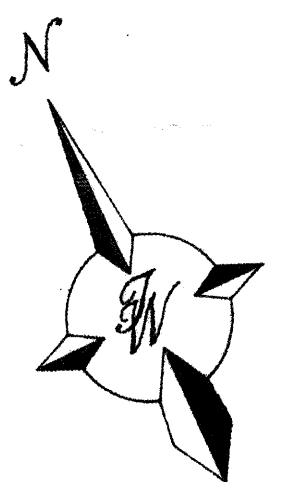
ZONE ATLAS NO. K-21-Z

LEGAL DESCRIPTION: TRACT 4-C2-B

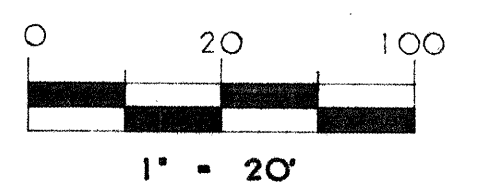
FLOOD PROOF 70' OF BUILDING TO A DEPTH OF 1.5'



DETAIL C-C NTS



GRAPHIC SCALE



LEGEND

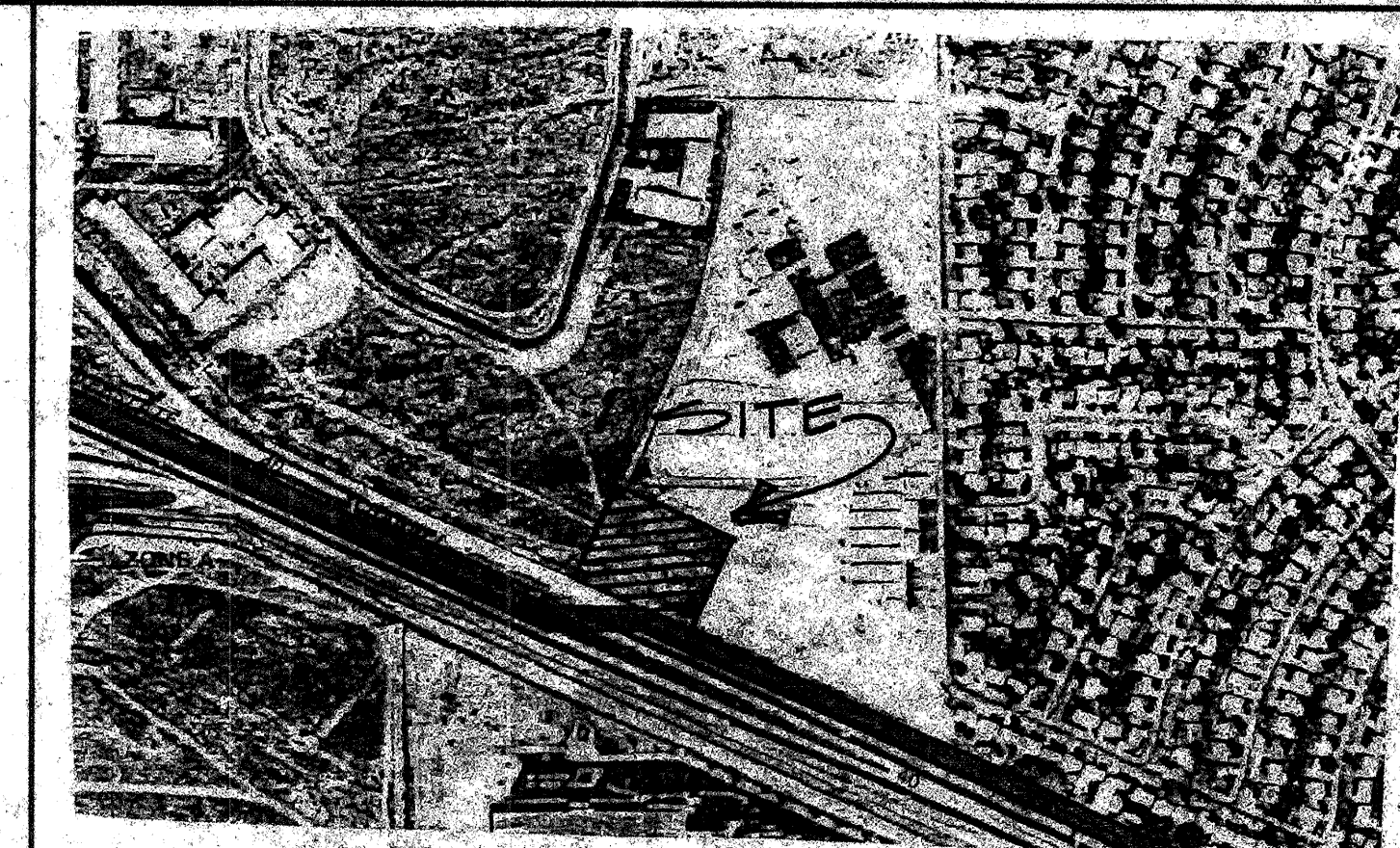
- PROPERTY LINE
- EASEMENT LINE (EXISTING)
- PHASELINE
- FENCE
- BUILDING
- FIRE HYDRANT
- GRAVEL

ENGINEER'S SEAL RONALD R. BOHANNAN P.E. #7868	CUBBY HOLE	DRAWN BY P. CHAVEZ
	GRADING PLAN	DATE 12-27-93
	TERRA WEST DEVELOPMENT MANAGEMENT SERVICES 4800 MONTGOMERY BLVD. N.E., SUITE 3 ALBUQUERQUE, NEW MEXICO 87109 (505) 883-7592	9360GR.DWG
		SHEET # 1 OF 2
		JOB # 930060

Q 100-YR = 53.44 CFS
V = 2.5134 AC-FT
OFFSITE FLOW

BASIN EXISTING	A		B		C	
10-YR	100-YR	100-YR	10-YR	100-YR	10-YR	100-YR
LAND TREATMENT	100% B	100% B	100% B	100% B	100% B	100% B
Q (CFS)	0.85	1.88	0.50	1.10	0.84	1.86
V (AC-FT)	0.0405	0.0976	0.0237	0.0570	0.0400	0.0964

BASIN PROPOSED	A		B		C	
10-YR	100-YR	100-YR	10-YR	100-YR	10-YR	100-YR
LAND TREATMENT	10% B, 90% D	10% B, 90% D	27.67% D, 72.33% B	27.67% D, 72.33% B	10% B, 90% D	10% B, 90% D
Q (CFS)	2.98	4.56	0.85	1.56	2.94	4.50
V (AC-FT)	0.1411	0.2253	0.0417	0.0799	0.1395	0.2226



LEGAL MAP MAP # 350002-0031

LEGAL DESCRIPTION: TRACT 4-C2-B

The parcel is Tract 4-C2-B of the plat of Tracts 4-C2-A, 4-C2-B and 4-C2-C of the HORNE DEVELOPMENT ADDITION, Albuquerque, Bernalillo County, New Mexico, as the same is shown and designated on the Plat thereof, filed in the office of the County Clerk of Bernalillo County, New Mexico on July 6, 1992 in Volume 92c, folio 144.

PURPOSE AND SCOPE
Tract 4-C2-B is proposed Cubby Hole Storage and a future restaurant and will include mostly paved driveways and some gravel parking and driveway.

DESIGN CRITERIA
The hydrological aspects of the site were evaluated using AMARCA's HYMO program according to guidelines presented in the City of Albuquerque DPM, Section 22.2 (January 1993).

OFFSITE DRAINAGE
This site is part of drainage study K-21/016G. An offsite flow of 53.44 cfs will be passing through the site on the northwest side of the lot down to the existing earth swale. All of the other offsite flows will drain to the existing concrete channel southeast side of the Tract or the earth swale.

ON-SITE DRAINAGE
All the runoff (Basin A) 4.56 cfs, from storage site will drain surface flow on a 1% slope V channel paving to a small concrete drainage channel on the south end of the lot and then to the existing concrete channel. The rest of the on-site flow from Basin B and C, 1.56 cfs and 4.50 cfs, will surface flow to the west side of the lot to the paved trapezoidal and which transitions to a V shaped paving at 1% slope.

SAMPLE CALCULATIONS FOR BASIN A
The site is B Zone 4, Area 4.56 acres.

LAND TREATMENT: 90% D, 10% B
DEPTH (INCHES) @ 100-YEAR STORM:
 $P_{20} = 2.23$ inches, $P_{360} = 2.90$ inches, $P_{1440} = 3.65$ inches

DEPTH (INCHES) @ 10-YEAR STORM:
 $P_{20} = 2.23 \times 0.667 = 1.49$ inches
 $P_{360} = 1.93$, $P_{1440} = 2.43$

Time of concentration: $T_c = 12$ min

$T_p = 0.7T_c + 8 - 5A_p/A_c$
 $= .7 \times 12 + 8 - 5 \times 0.90$
 $= 11.90 \text{ min} = 0.1983 \text{ hr}$

$Q_{p-100yr} = 4.56 \text{ cfs}$, Vol. = 0.2253 AC-FT

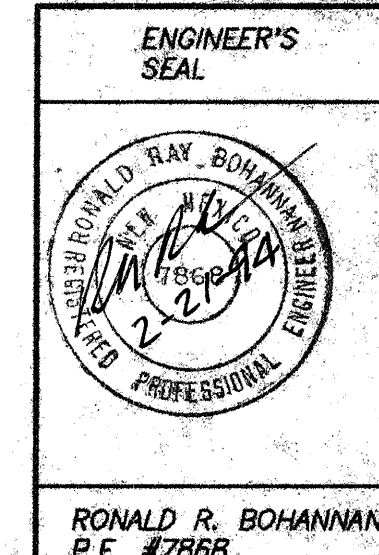
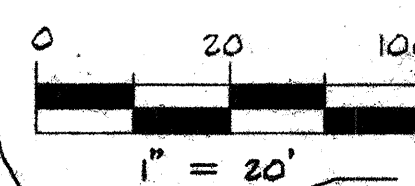
$Q_{p-10yr} = 2.98 \text{ cfs}$, Vol. = 0.1411 AC-FT

See attached Table for Q and Vol. numbers.

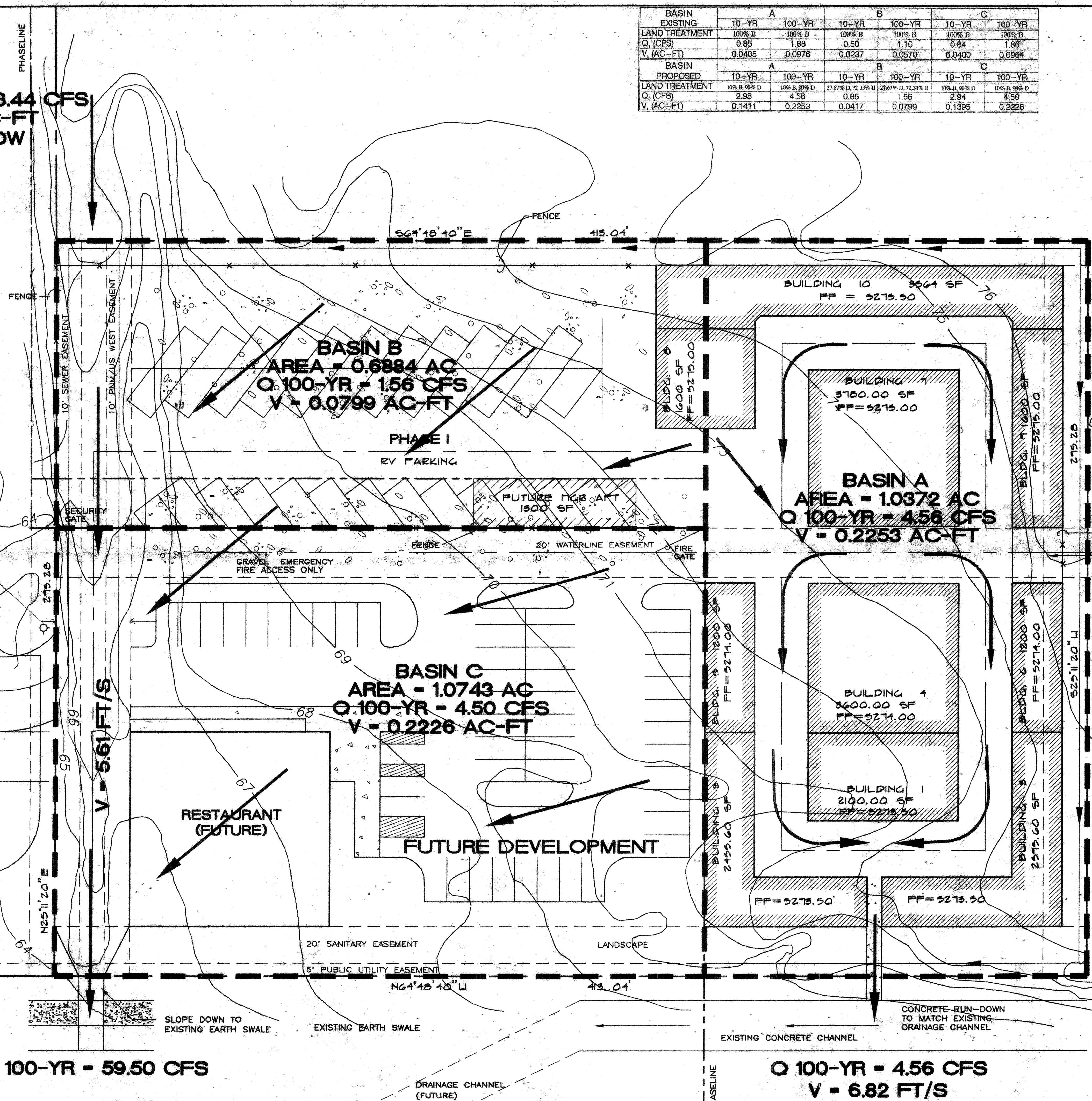
LEGEND

- PROPERTY LINE
- EASEMENT LINE (EXISTING)
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GRAPHIC SCALE



CUBBY HOLE	DRAWN BY P. CHAVEZ
	DATE 12-27-93
DRAINAGE PLAN	9360DR.DWG
	SHEET # 1 OF 1
TERRA WEST DEVELOPMENT MANAGEMENT SERVICES	
4600 MONTGOMERY BLVD. N.E., SUITE 3 ALBUQUERQUE, NEW MEXICO 87109 (505) 883-7592	
RONALD R. BOHANNAN P.E. #7868	
JOB # 930060	



Q 100-YR = 59.50 CFS

Q 100-YR = 4.56 CFS
V = 6.82 FT/S