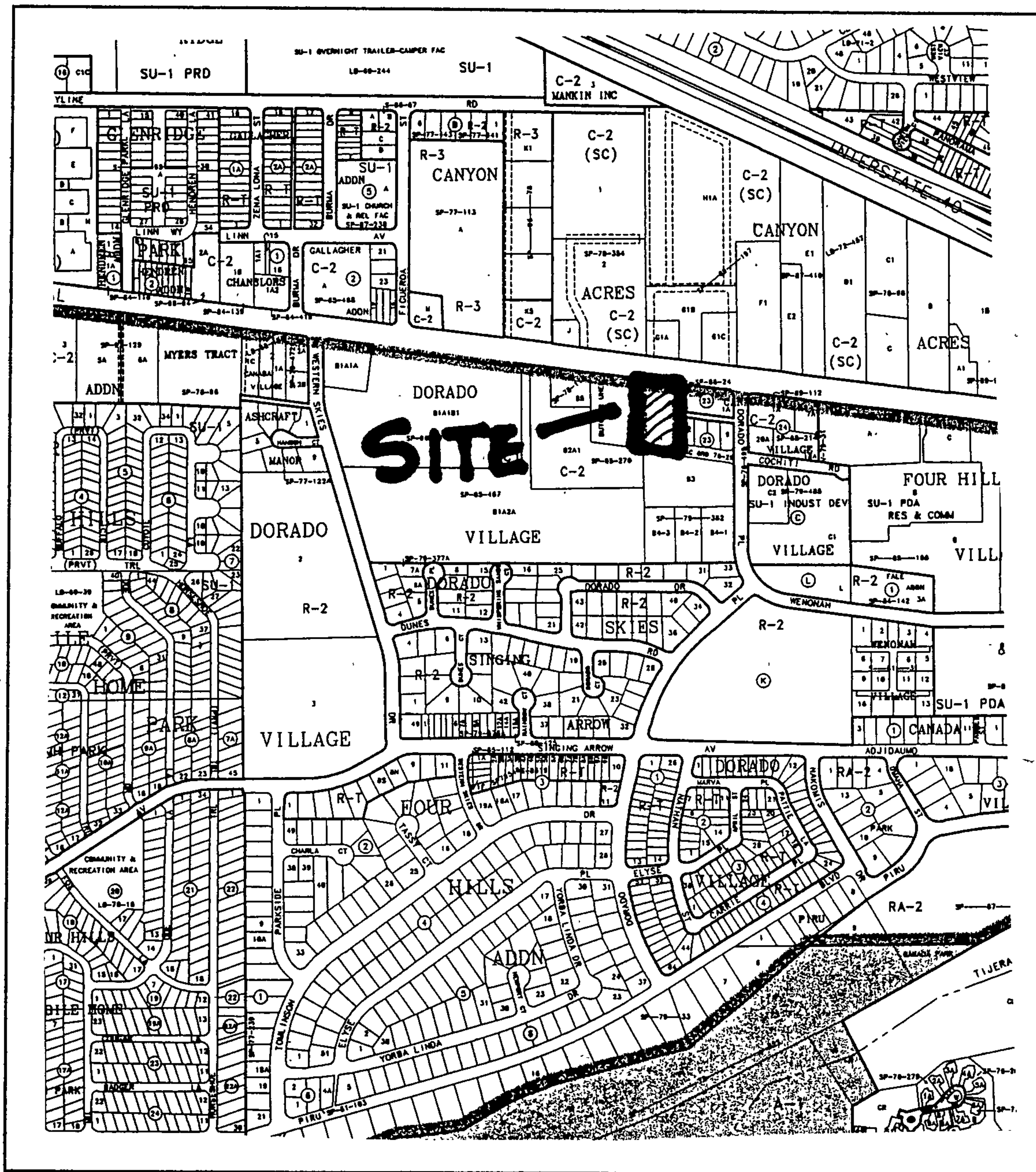


FLOOD INSURANCE RATE MAP
Figure 2



LOCATION MAP
Figure 1



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 1, 2000

Dennis Lorenz, P.E.
Brasher & Lorenz, Inc.
2201 San Pedro, NE, Bldg.1, Suite 210
Albuquerque, NM 87110

RE: GRADING & DRAINAGE PLAN FOR ARBY'S, 12910 CENTRAL (L-22/
D017A) ENGINEER'S STAMP DATED JUNE 29, 2000 SUBMITTED FOR
BUILDING PERMIT AND SO 19 APPROVALS

Dear Mr. Lorenz,

Based upon the information provided in your July 20, 2000, submittal, the project, referred to above, is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

In addition, the submittal is approved for an SO 19 permit, which is required for construction within the city right-of-way.

Prior to release of the Certificate of Occupancy, an Engineer Certification of the grading and drainage plan, per the DPM checklist, and a copy of the grading and drainage plan, with approval sign-off by the City's field inspector, will be required.

If you have any questions, please call me at 924-3988.

Sincerely,

Stuart Reeder, P.E.

Stuart Reeder, P.E.
Hydrology Division

xc: Pam Lujan, Permits w/attachment
Whitney Reiersen
✓ file

DRAINAGE INFORMATION SHEET

PROJECT TITLE: ARBY'S ZONE ATLAS/DRNG. FILE #: L.22/D017A
DRB #: — EPC #: — WORK ORDER #: —
LEGAL DESCRIPTION: TRS A.1 & A.2 LANDS OF RICHARD F. RUST
CITY ADDRESS: 12910 CENTRAL AVE SE

ENGINEERING FIRM: Brasher & Lorenz, Inc. CONTACT: Dennis A. Lorenz
2201 San Pedro NE Bldg.1 Suite 210
ADDRESS: Albuquerque, New Mexico 87110 PHONE: 888-6088

OWNER: CHI- CO CONSTRUCTION CONTACT: T. TUTTILL
ADDRESS: 1742 S. 4TH ST PMB 195 PHONE: 405.224.7631
CHICKASHA, OK 73018

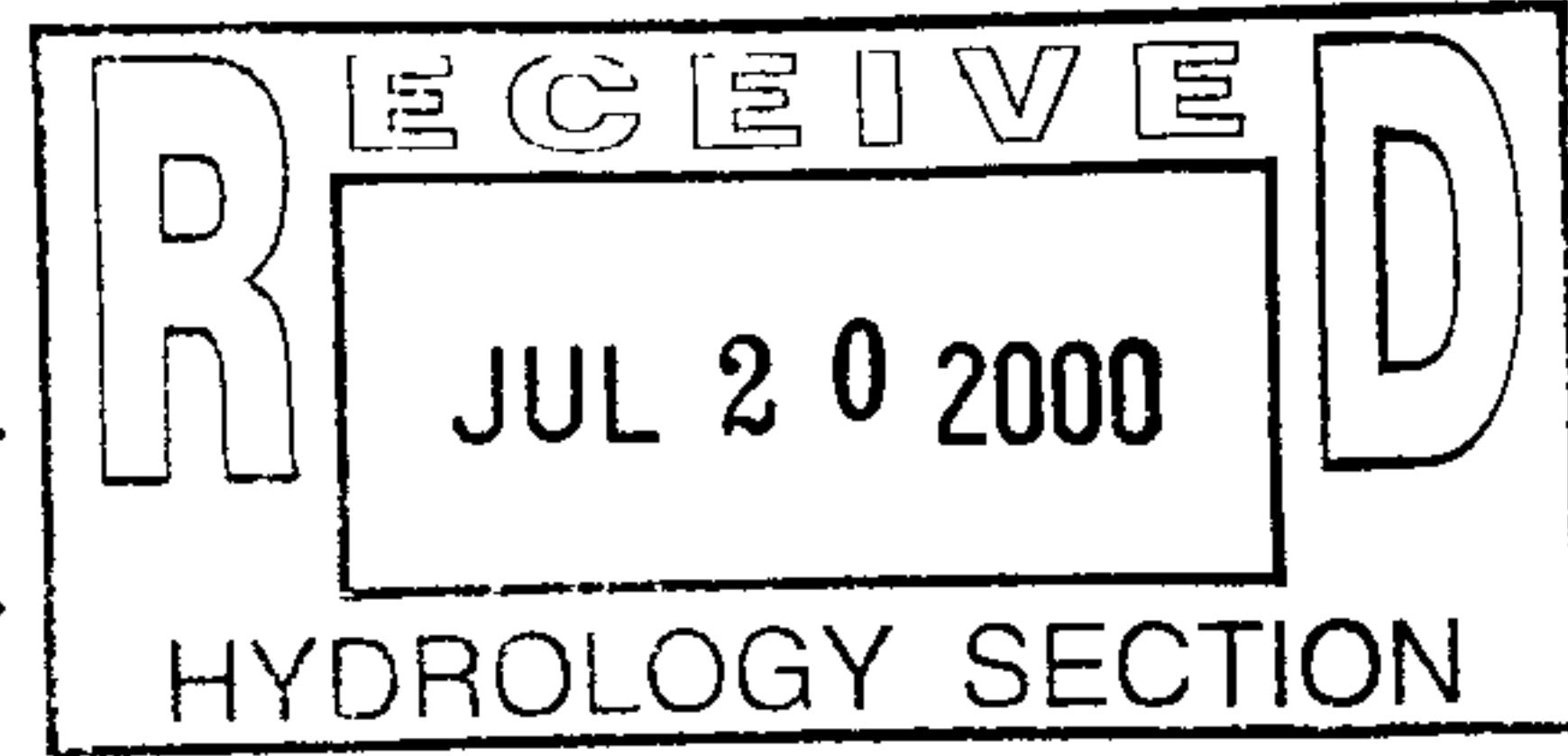
ARCHITECT: TUCKER + BOOKER CONTACT: R. BOOKER
ADDRESS: 10172 LINN STATION RD PHONE: 502.426.7452
LOUISVILLE KY 40223

SURVEYOR: ENGINEER CONTACT: —
ADDRESS: — PHONE: —

CONTRACTOR: OWNER CONTACT: —
ADDRESS: — PHONE: —

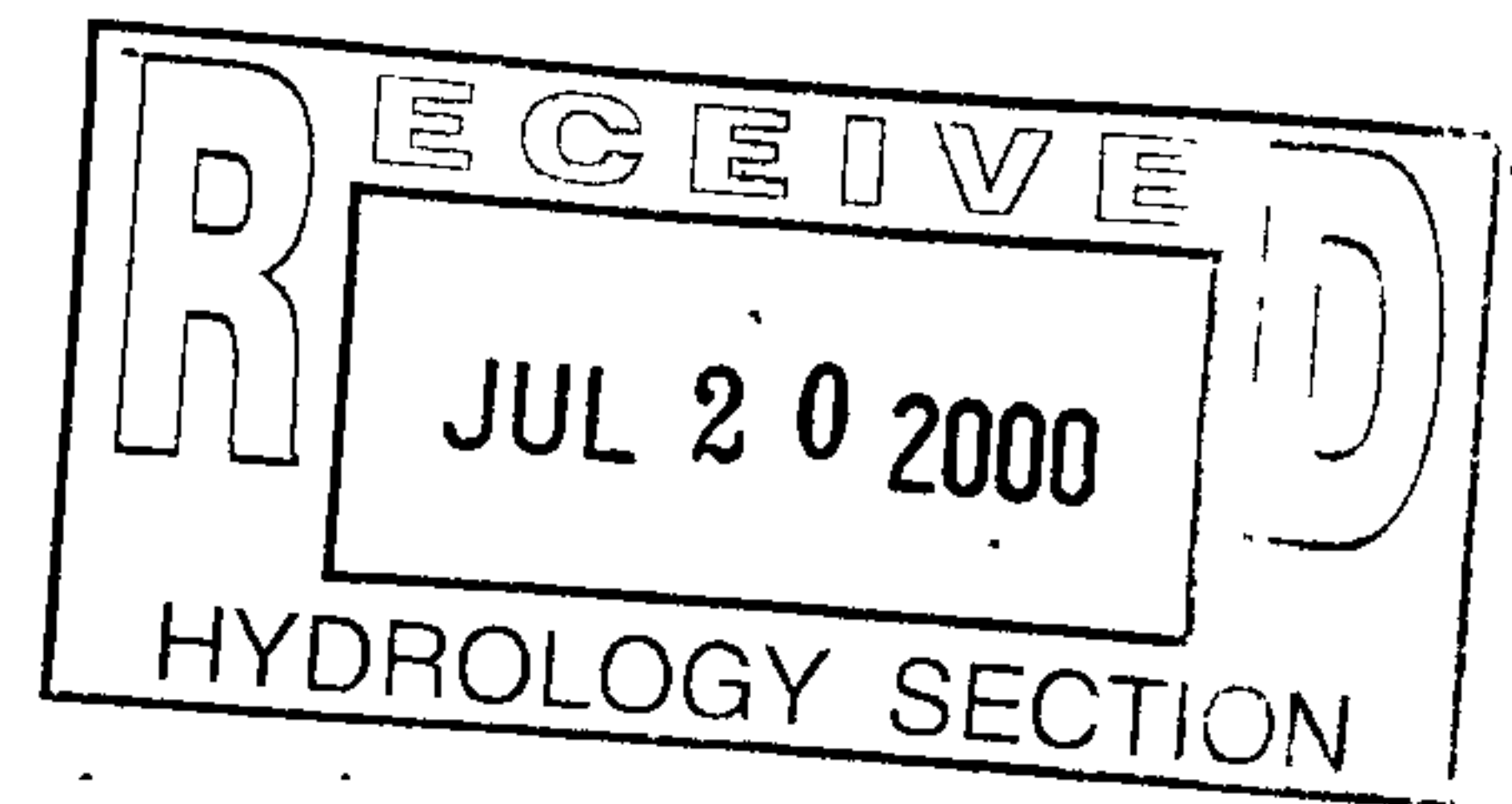
- TYPE OF SUBMITTAL:
- DRAINAGE REPORT
 - DRAINAGE PLAN
 - CONCEPTUAL GRADING & DRAINAGE PLAN
 - GRADING PLAN
 - EROSION CONTROL PLAN
 - ENGINEER'S CERTIFICATION
 - OTHER —
- CHECK TYPE OF APPROVAL SOUGHT:
- SKETCH PLAT APPROVAL
 - PRELIMINARY PLAT APPROVAL
 - S. DEV. PLAN FOR SUB'D. APPROVAL
 - S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
 - SECTOR PLAN APPROVAL
 - FINAL PLAT APPROVAL
 - FOUNDATION PERMIT APPROVAL
 - BUILDING PERMIT APPROVAL
 - CERTIFICATE OF OCCUPANCY APPROVAL
 - GRADING PERMIT APPROVAL
 - PAVING PERMIT APPROVAL
 - S.A.D. DRAINAGE REPORT
 - DRAINAGE REQUIREMENTS
 - OTHER — (SPECIFY)

DATE SUBMITTED: 7.13.00
BY: Dennis A. Lorenz



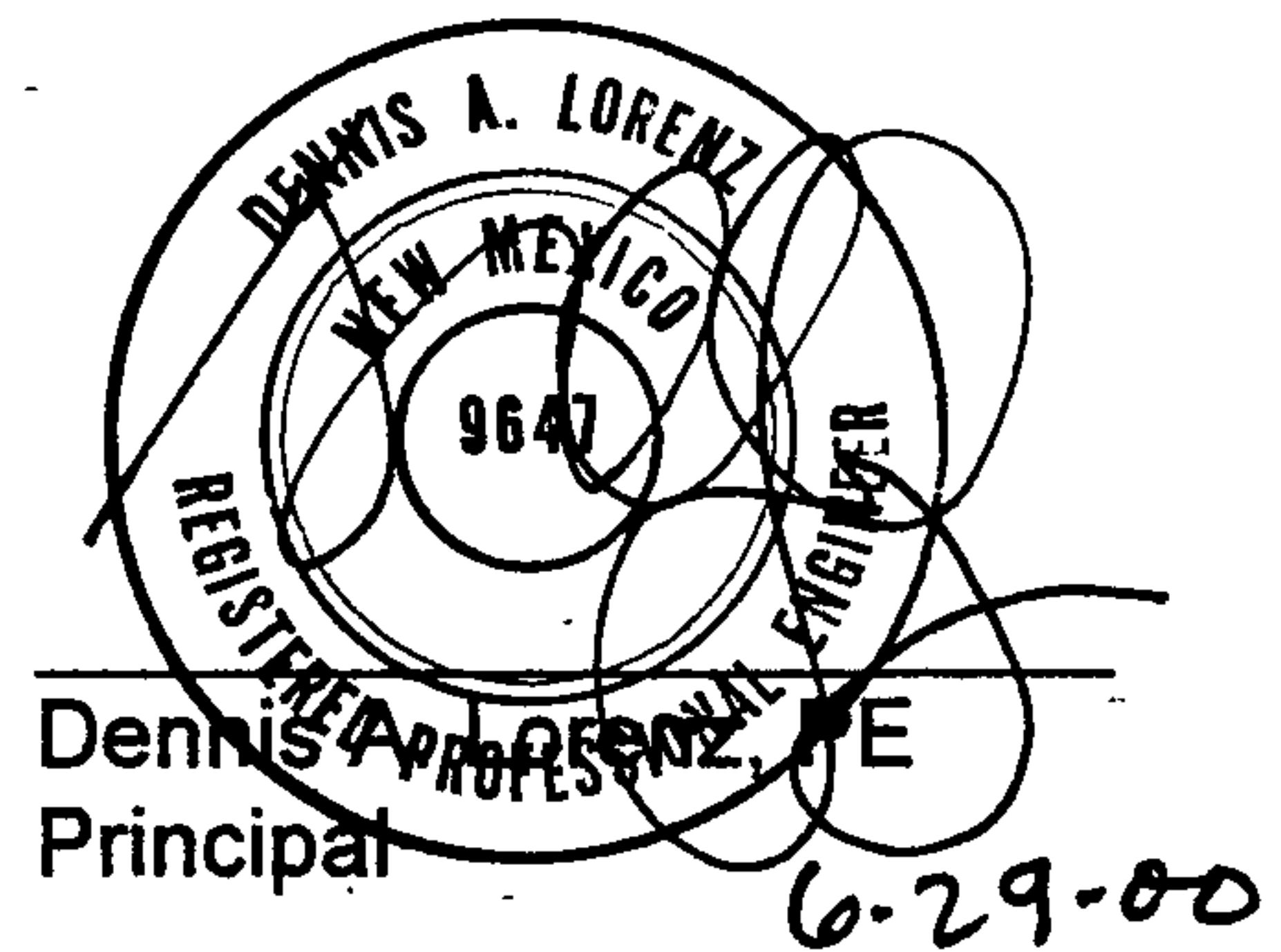
DRAINAGE REPORT
FOR
ARBY'S RESTAURANT

12910 Central Avenue SE
Albuquerque, New Mexico



Prepared By:

BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE, Building No. 1, Suite 220
Albuquerque, New Mexico 87110



June 2000

TABLE OF CONTENTS

TITLE	PAGE NO.
PURPOSE AND SCOPE	1
EXISTING CONDITIONS	1
PROPOSED CONDITIONS	1
EROSION CONTROL	1
MAPS	
LOCATION MAP – FIGURE 1	
FLOOD INSURANCE RATE MAP – FIGURE 2	
CALCULATIONS	
PROJECT HYDROLOGY	
STORM DRAIN CAPACITY	
EXHIBITS	
DRAINAGE PLAN	POCKET

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of the construction of an Arby's restaurant and renovation of an existing metal building located at 12910 Central Avenue SE. Proposed site improvements include paving, landscaping, utility, grading, and drainage improvements.

EXISTING CONDITIONS

The project site is approximately 1.35 acres in size and is located at 12910 Central Avenue SE, between Tramway Blvd and Juan Tabo Blvd. The project site is particularly described as Tracts A-1 and A-2, Lands of Richard F. Rust. The site is bounded by Central Avenue on the north, developed commercial properties on the east, west and south. Site topography slopes from northeast to southwest at approximately 3%. Existing site improvements include curbs, gutters, paving, landscaping, utility and drainage for an existing building. All on-site runoff drains southwest through the self-storage complex located south of the site.

PROPOSED CONDITIONS

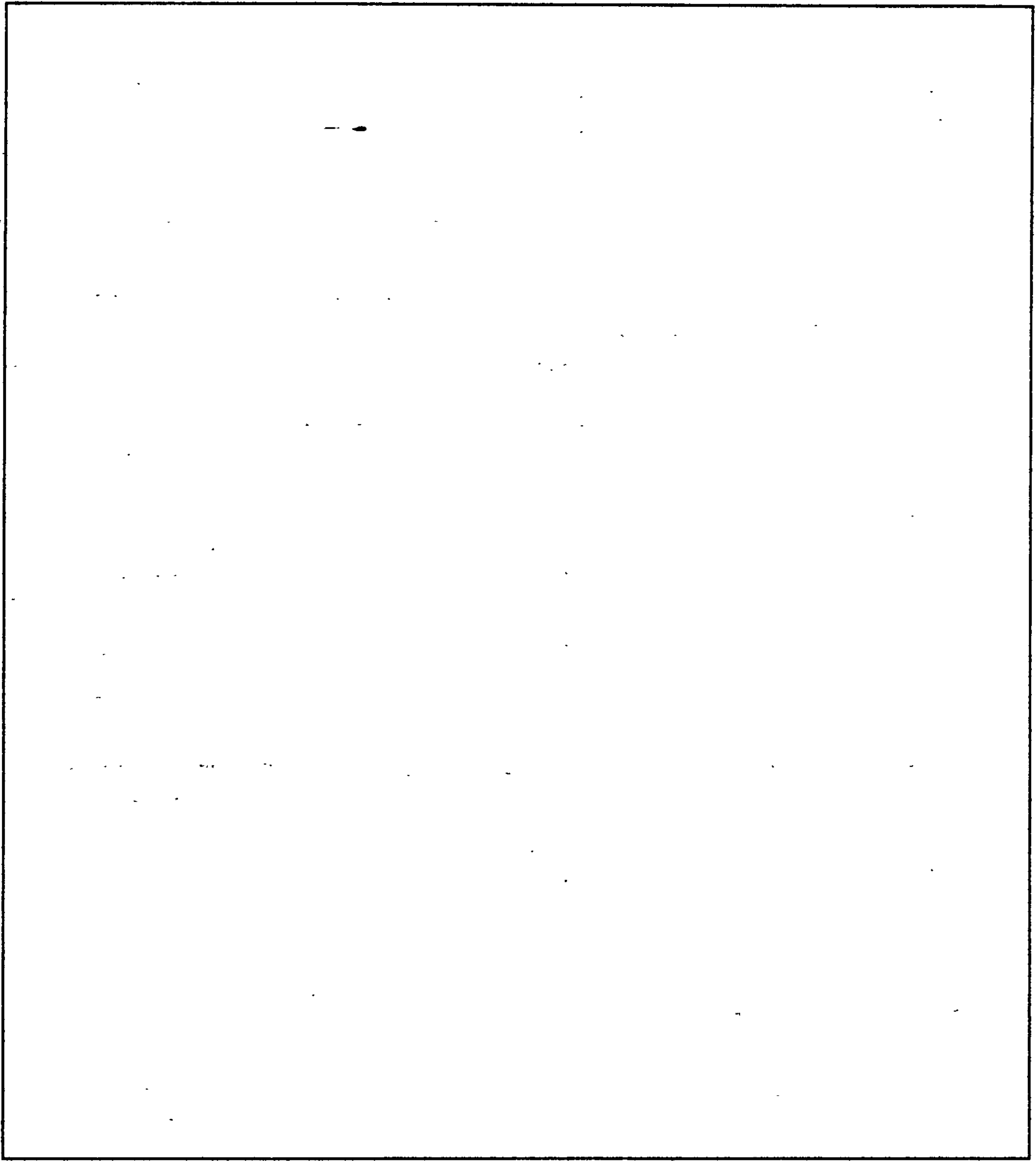
As shown by the Plan, the project consists of an Arby's restaurant and modification to the existing metal building. The existing building will be reduced in size from 5,000 sf to 2,500 sf. The properties will be replatted to create separate parcels for each building. The Plan shows the contours and elevations required to properly grade and construct the required paving and drainage improvements. The directions of drainage flows are given by flow arrows and the project hydrology is tabulated for both existing and proposed conditions.

All drainage flows will be managed on-site and discharge to Central Avenue. Basin "1" will drain north to a new drop inlet which will connect to an existing drop inlet at Central Avenue. Basin "2" will remain undeveloped at this time. A temporary pond with erosion control berms will be constructed to retain all Basin "2" flows on-site. When Basin "2" develops all runoff must drain north through the Arby's site to the drop inlet at Central. This can be accomplished by elevating the site to allow for surface drainage, or by utilizing a sump pump in a permanent detention pond. All scenarios recommend discharging runoff to Central Avenue, thereby correcting the present condition of discharging excess runoff onto the private properties to the south.

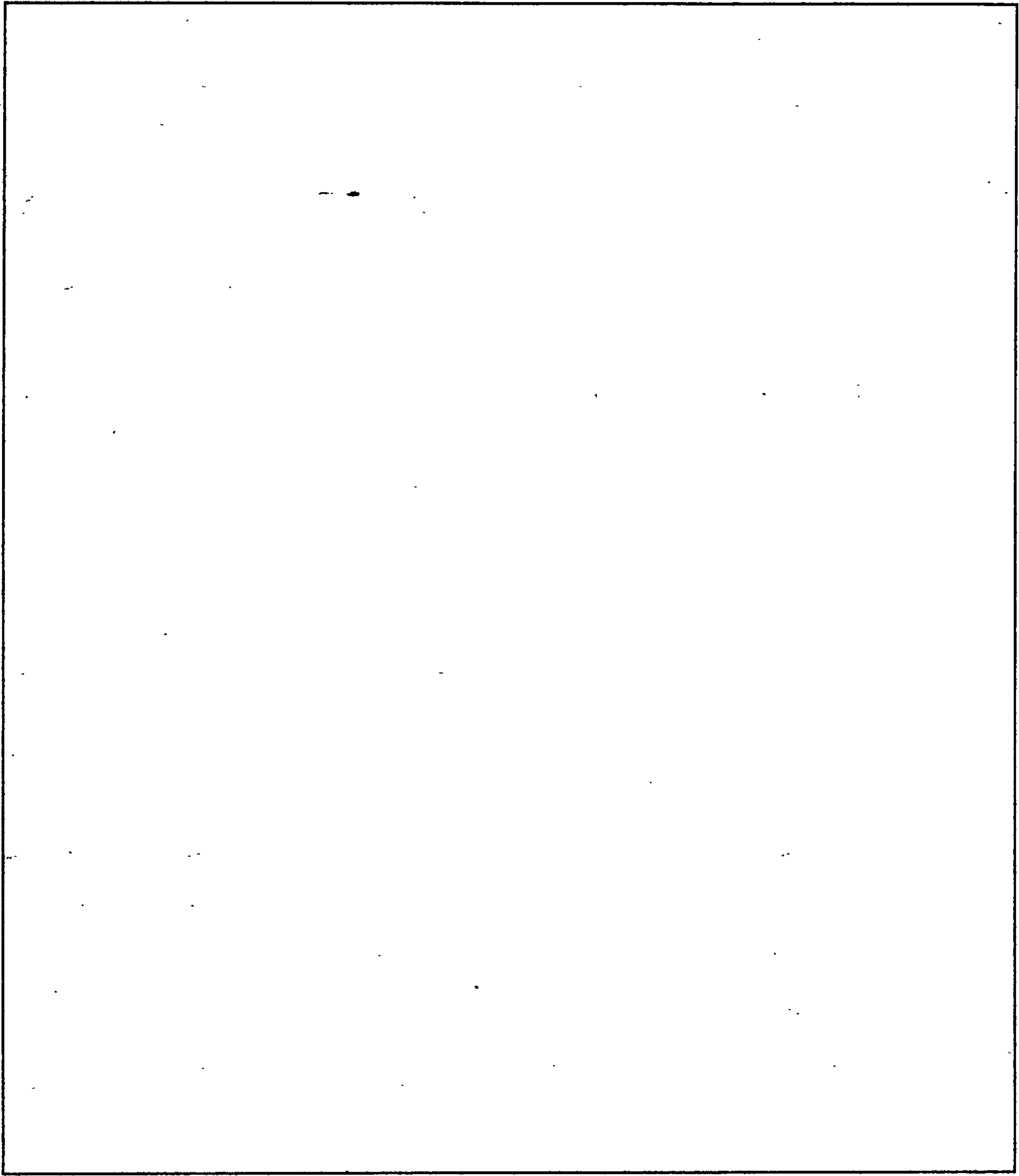
EROSION CONTROL

Temporary erosion control will be required during the construction phase to protect downstream property and improvements from sediment and uncontrolled runoff. This Plan recommends the placement of silt fencing along the south and west construction boundary to mitigate sediment deposition into the adjoining parking lots and public streets. It is the Contractor's responsibility to properly maintain these facilities during the construction phase of the project.

MAPS



LOCATION MAP
Figure 1



FLOOD INSURANCE RATE MAP

Figure 2

CALCULATIONS

PROJECT HYDROLOGY									
ZONE 4		P360 = 2.90 in			P1440 = 3.65 in				
Basin	Area (ac)	Aa (ac)	Ab (ac)	Ac (ac)	Ad (ac)	E	Q100 (cfs)	Vol (af)	
Undeveloped									
Site	1.35	0.00	0.00	0.20	1.15	2.20	6.5	0.2480	
Developed									
Site	1.35	0.00	0.10	0.10	1.15	2.19	6.4	0.2463	
1	0.92	0.00	0.06	0.06	0.80	2.19	4.4	0.1679	
2	0.43	0.00	0.04	0.04	0.35	2.19	2.0	0.0784	
2 interim	0.43	0.00	0.00	0.43	0.00	1.29	1.5	0.0470	
BASIN 2 TEMPORARY PONDING REQUIREMENT									
VOLUME REQUIRED = .0470 AF = 2047 CF									
VOLUME PROVIDED = 2810 CF									
TEMPORARY POND DATA									
ELEV	AREA	VOL							
	SF	CF							
92	0	0							
93	938	469							
94	3744	2810							

ARBY'S

99558

1

① STORM DRAIN

CONNECT TO EXISTING INLET @
CENTRAL

$Q_{100} \text{ SITE} = 6.4 \text{ CFS}$

SEWER PIPES

Enter up to 10 pipes.
Enter <Return> only for flowrate and diameter to end.

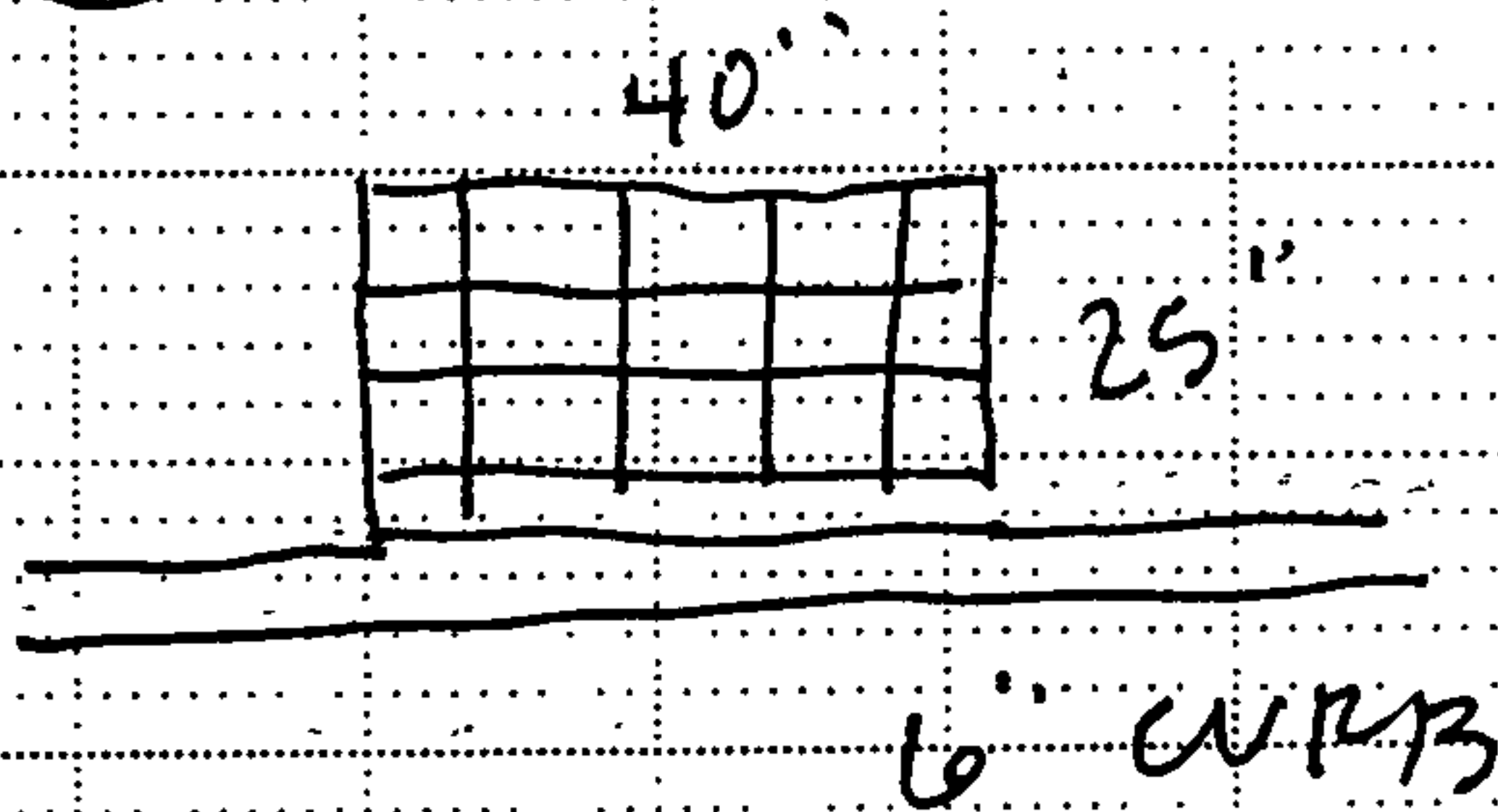
FLOWRATE (CFS)	DIAMETER (IN)	FRICITION ($\text{FT}^{1/6}$)	SLOPE (%)	VELOCITY (FPS)
6.40	17.02	0.0130	0.50	4.05

USE 18" SD

② INLET

CHECK TYPE 'B' CAPACITY

(A) WEIR FLOW FOR SHALLOW DEPTHS



$P = L = 90''$

(A) WEIR FLOW CONT

WEIRS

Enter up to 10 weirs.
Enter <Return> only for flowrate and length to end.

FLOWRATE (CFS)	LENGTH (FT)	COEFF (-)	HEAD (FT)
6.40	7.5	2.500	0.49

OK

(B) ORIFACE CONDITION

OPEN AREA OF GRATE = 4.31 SF

ORIFICES

Enter up to 10 orifices.
Enter <Return> only for flowrate and area to end.

FLOWRATE (CFS)	AREA (SF)	COEFF (-)	ELEVATIONS		
			HEADWATER (FT)	CENTER (FT)	TAILWATER (FT)
6.40	4.32	0.600	0.09	0.00	0.00

OK

→ 1 - TYPE 'D' - OK