HYDROLOGY

L21/D10

ONE PLAN

L21/D10

1 PLAN

Keyed Notes

1. Property line.
2. Existing building.
3. Existing 4' conc. sidewalk at curb.
4. Existing city curb and gutter.
5. End of existing curb and gutter.
6. New 4' wide conc. sidewalk in accordance w/ City of Albuq. Regulations.
7. 4" thick concrete sidewalk with 6" turndown curb.
8. 2" asphalt paving.
9. Existin 8" x 6' high CMU fence.
10. New concrete curb cut and drive pad for entry and refuse collection in accordance w/ City of Albuquerque Regulations.
11. New concrete curb and gutter in accordance with City of Albuquerque Regulations.
12. Existing asphalt pavement - no curbs.
13. End of City of Albuquerque standard street with paving, curb and gutter.
14. 3'-0" x 20'-0" x 6" thick conc. edge.
15. 6" x 24" conc. curb.
16. Future curb line by others.
17. End of sidewalk this contract.
18. Landscaped area.
19. 20' wide cut in conc. curb for drainage.
20. 6" thick concrete apron with 6 x 6 10/10 WWM.
21. 8" x 8" x 16" CMU refuse enclosure with #4 vert. @ 32" o.c.
22. Concrete entry stoop.
23. Scupper downspout and drain pipe, see Detail.
24. 6" x 18" concrete curb.
25. Sloped planting area.
26. 7" thick x 12" wide concrete drain 4" x 4" concrete sides w/ 6 x 6 - 10/10 WWF.
27. 1/4" x 6" steel plate cover in conc. slab w/ 3'-1/2" o.c. A.B. each side.

Site Drainage Criteria & Drainage Report

I. Purpose: The purpose of this report is to formulate a comprehensive study of drainage affecting the site development and to show that the development does not increase drainage in a manner to contribute to existing downstream problems or to adjacent landowners.

II. Scope: This report is limited to runoff originating within the site and includes review of adjacent lands which affect runoff of this site. General Engineering procedures are presented for the calculation of storm runoff, storage and dispersement.

III. Location: The site is located on the south side of Acoma Road S.E., between Britt St. S.E. and Elizabeth St. S.E. The address is 11700 Acoma Rd. S.E. See vicinity map and legal description this sheet.

IV. Existing Drainage: The general slope of this site is from east to west at approximately 45 with no significant geological or topographical features. No existing development is on the site. The existing runoff sheet flows west. The runoff collects in a swale located in the center of Britt St. S.E., which flows south and off the site. A small amount of runoff at the north end of the lot flows north into the south gutter of Acoma Rd. If then flows west to the swale in Britt St. where it flows south and off site across private land.

V. Adjacent Land Drainage: The site is bordered on the north by Acoma Rd. S.E. It is bordered on the south and west by undeveloped land, which contributes no off site discharge. The east is bordered by a developed lot with a building which extends almost the entire length of the east boundry. It lies almost on the property line and therefore prevents any off site discharge from flowing onto the site. Off site discharge, which flows in the Acoma S.E. gutter, flows to the Britt Ave. swale and onto private property.

VI. Downstream Flood Hazard: This site lies partially within a designated flood hazard zone as indicated on "FIRM Flood Insurance Rate Map of Albuquerque, New Mexico" Panel No. 35002 00370.

The west being approximately one-fifth of the site (30' vacated Britt Ave.) lies fully within ZONE "AO" designated with the average 100 year flood depth of one (1) foot.

The eastern four-fifths lie in ZONE "C" (minimal flooding).

The proposed development will elevate the building to an elevation of 5488.0'. To provide a finish floor 3' above the average 100 yr. flood elevation.

The proposed drainage design of this site will provide facilities to obtain and therefore assist in lessening the impact on the indicated zone.

VII. Proposed Development: The proposed development will consist of a warehouse of 6944 sf with 8874 sf of pavement and sidewalks.

The site will require approximately a maximum of 2' of fill in the west one-quarter of the lot to accomodate the slope of the site.

VIII. Proposed Drainage Plan: The proposed drainage plan is to provide free discharge flow for the peak discharge. Discharge will be directly to the south as historically discharged.

IX. SITE CRITERIA & CALCULATIONS

Existing:

Land Size = 0.4153 acres = 18,090 SF
Existing Slope = 4%

Proposed Development:

Roof Area = 6,944 SF
Sidewalk & Paving = 8,302 SF
Landscaping = 1,200 SF
Natural Ground = 1,644 SF

Proposed Slopes = Maximum 1.2%

Design Criteria:

"C" Existing =	.35	Dev. Paving & Bldg. =	.9
"C" Dev. =	.80	"C" Dev. Landscape =	.20
6 HR =	2.3	"C" Natural Ground =	.35
I =	5.29	"C" Dev.Composit Area =	.80
Tc =	10 min.		

"C" Dev.Composite Area = $\frac{[.9 \times (6944 + 8302)]}{18090} + \frac{(.2 \times 1200)}{18090} + \frac{(.35 \times 1644)}{18090} = 0.80$

Off Site Contributing Areas: See City Criteria.

Existing Runoff:

Vol. = $\frac{(18,090 \text{ SF} \times 2.31)}{12} \times .35 = 1,214$ SF

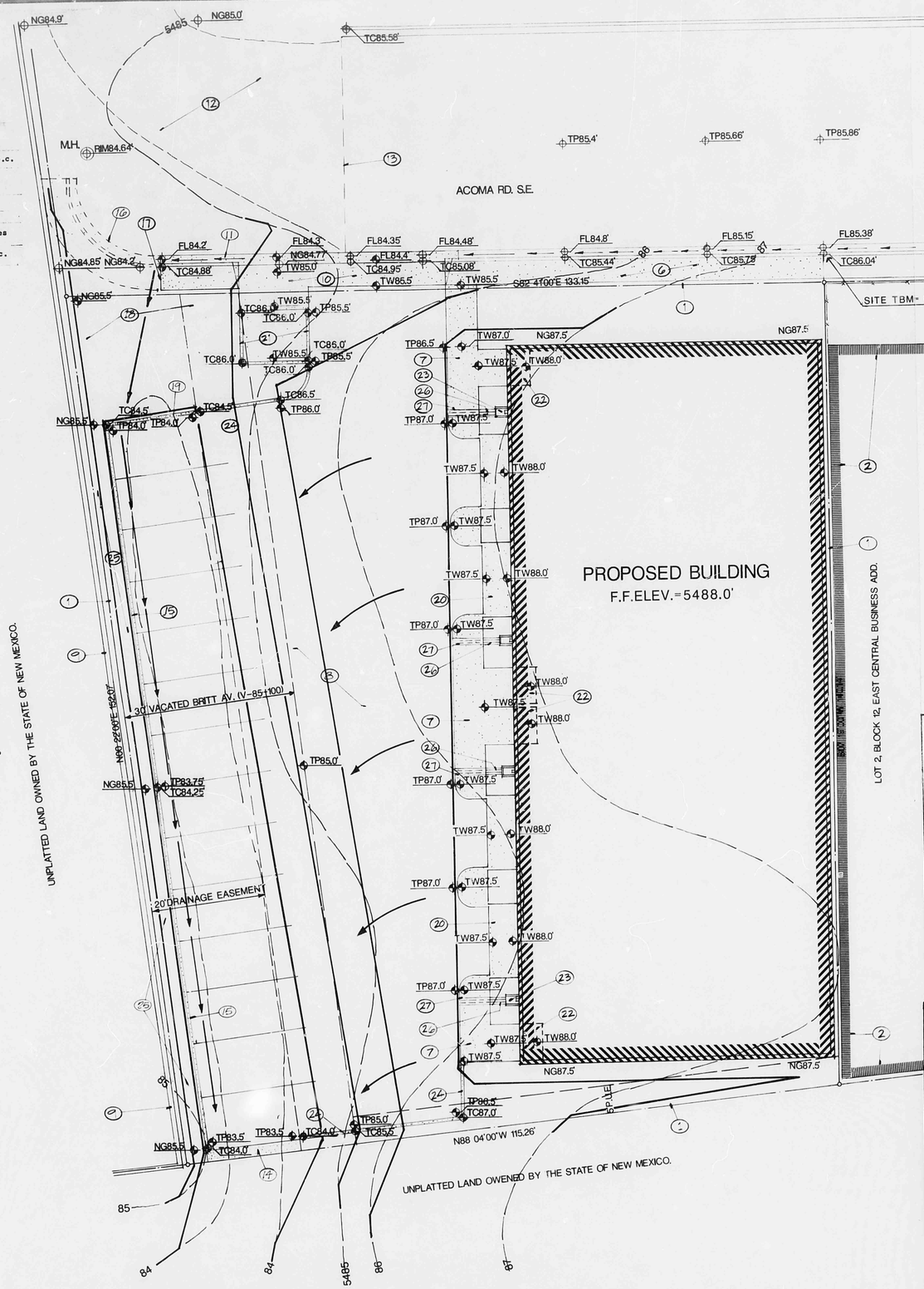
Q = CIA = .35(5.29)(0.4153) = 0.77 cfs

X. Solution:

The increased runoff from development will be free discharged into the existing water course.

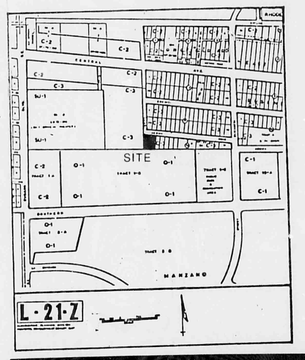
XI. Conclusion:

On the basis of this report, the property can be developed as proposed without any major impact to the offsite drainage facility. The increase of the discharge is 0.99 cfs of peak runoff from existing land.



DRAINAGE PLAN

Scale: 1"=10'-0"



LEGEND	
SYMBOL	DESCRIPTION
	DRAINAGE CUT IN CURB
	DIRECTION OF RUNOFF
	EXISTING SPOT ELEV.
	PROPOSED SPOT ELEV.
	EXISTING CONTOUR
	NEW CONTOUR
TW	TOP OF WALK
TP	TOP OF PAVEMENT
TC	TOP OF CURB
TR	TOP OF REBAR
NG	NATURAL GRADE
FL	FLOW LINE

LEGAL DESCRIPTION

lot 1, block 12, East Central Business Addition

BENCH MARK

Elevations shown are based on A.C.S. Brass Cap "5-L21(R)"

Elev.=5466.54' MSL

Revised 4-7-86

DATE: Jan 28, 1986 AS-

RECEIVED APR 22 1986 HYDROLOGY SECTION

DRAINAGE MANAGEMENT FOR

10,701 ACOMA RD. S.E.

ALBUQUERQUE N.M.

BURTON ENGINEERING
P.O.BOX 75310
ALBUQUERQUE, NEW MEXICO 87194
836-8540

DRAINAGE PLAN & REPORT

DRAWN	DATE: Jan 28, 1986	Sheet
CHECKED		2 of 7

L21/D10

HYDROLOGY

L21/D10
ONE PLAN

L21/D10

1 PLAN

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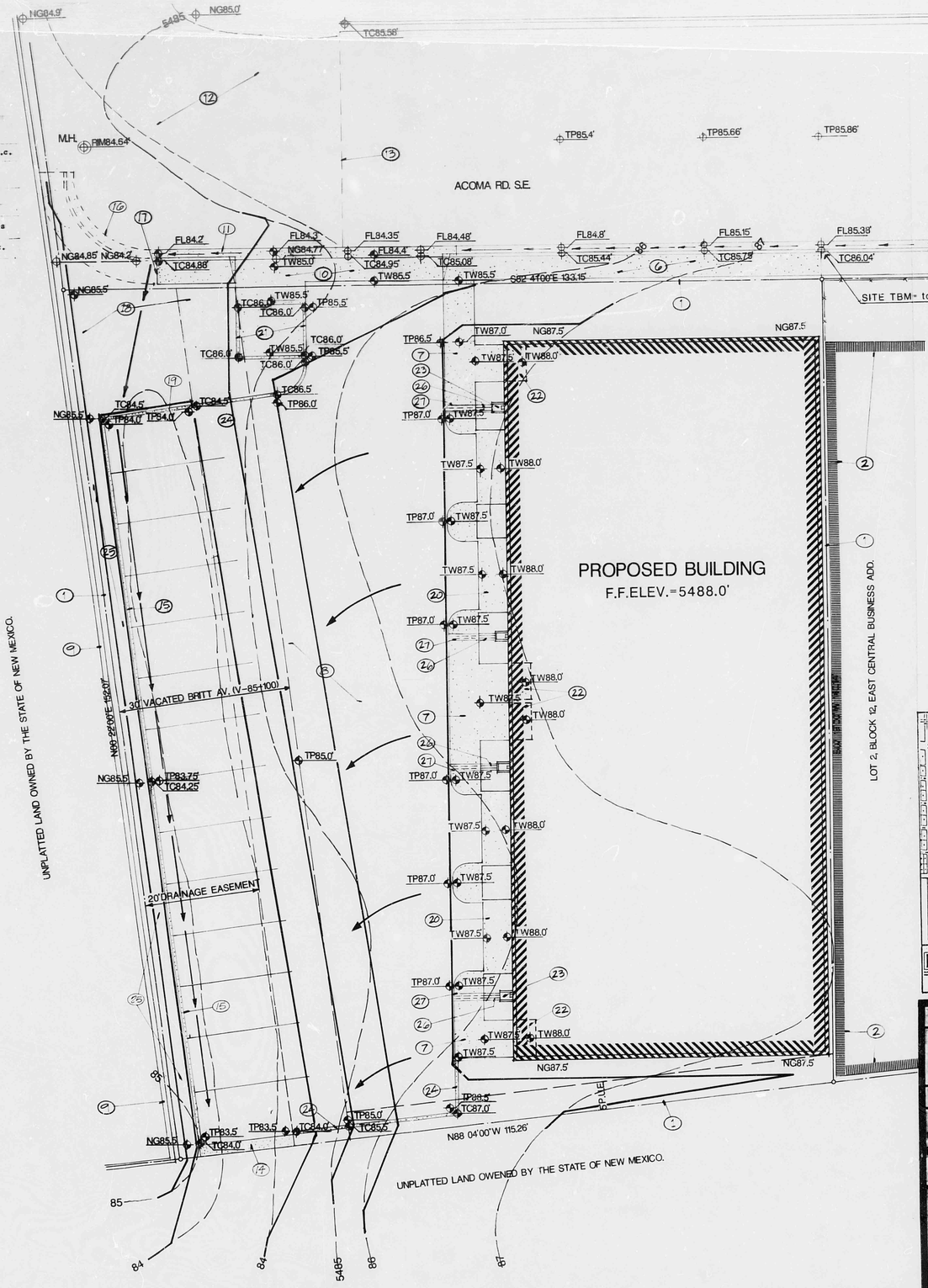

DRAINAGE PLAN

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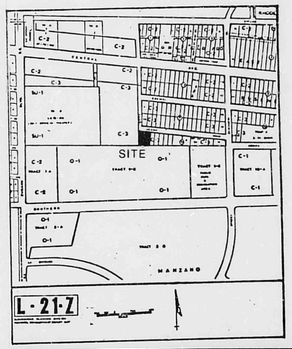

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ALBUQUERQUE N.M.

BURTON ENGINEERING
P.O.BOX 75319
ALBUQUERQUE, NEW MEXICO 87194
836-8540

DRAINAGE PLAN & REPORT

DRAWN	DATE Jan 26, 1986	Sheet 2 of 7
CHECKED		

L21/D10