HYDROLOGY

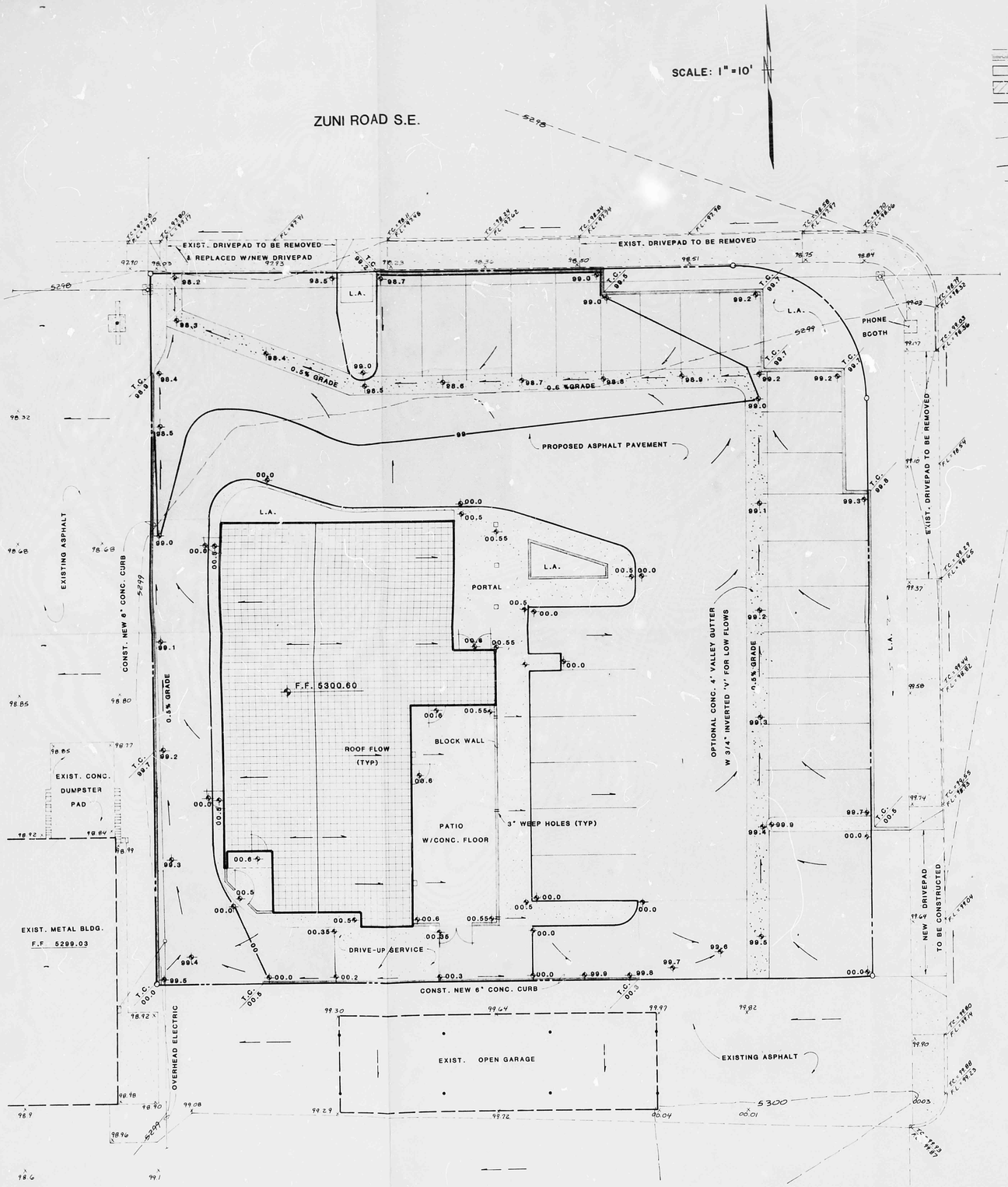
L18/D23

ONE PLAN

I PLAN FOR

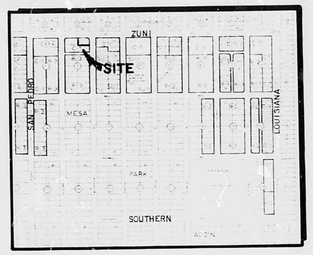
EL PATIO
RESTAURANT

L18-D23

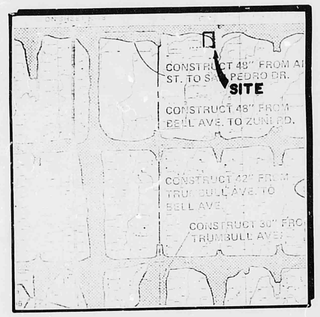


LEGEND

- SIDEWALK, CURB & GUTTER (EXISTING, PROPOSED)
- PROPOSED ASPHALT
- BUILDING (EXISTING, PROPOSED)
- PROPERTY LINE
- X12.7 — EXISTING SPOT ELEVATION
- 12 — EXISTING CONTOUR
- 12.8 — PROPOSED SPOT ELEVATION
- 12 — PROPOSED CONTOUR
- SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
- L.A. — LANDSCAPED AREA



VICINITY MAP L-18



FLOOD HAZARD MAP

SCOPE

The proposed improvements, comprised of a restaurant building, landscaping and paved parking area, is being built on a site that was previously paved and used as a car wash. The flow patterns for the existing site generally drain toward Zuni Road, with a small amount draining toward the side street of California Street S.E.. The proposed grading will follow these existing patterns.

The intent of this plan is to show:

a) Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.

b) The extent of proposed site improvements, including buildings, walks and pavement.

c) The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City requirements for drainage management.

d) The relationship of onsite improvements with existing neighboring property to insure an orderly transition between proposed and surrounding grades.

CONSTRUCTION NOTES:

1. Before beginning construction, the Contractor shall check and verify pertinent figures shown hereon and all applicable field measurements. Should any conflict, error or discrepancy be discovered, the Contractor shall notify the Engineer at once to resolve the problem. It is recommended that the contractor meet with the Engineer for a pre-design conference to determine the scope of work and critical areas involved.

2. The Contractor shall be responsible for following the plans using his best skill and attention. Any departure from the plans must be approved by the Engineer and the City Hydrology Department prior to construction.

3. The Contractor shall check the site plan for locations of existing utilities within or adjacent to streets and shall take all necessary precautions and efforts to locate and protect these utilities. He shall give 48 hours notice to Line Locating Service, 765-1234, for any work that he contemplates would interfere with said utilities.

GENERAL NOTES:

LEGAL:
The east 1/2 tract "A", less the south 28 feet, Block 2, Mesa Park Addition.

SURVEYOR:
Ron Forstbauer Survey Company, September 24, 1984.

B.M.:
City of Albuquerque, 5-118, a sq. chiseled in curb at the S.W. corner of intersection of Zuni Road and Louisiana Blvd. S.E., Elevation 5315.53

T.B.M.:
NW return of curb at NE corner of site, T.C. Elevation 5298.70.

SOILS:
SCS Soils Map 31, Soil Type EtC, Hydrologic Group "B".

FLOOD HAZARD:
Site lies adjacent to flood zone in Zuni Road. Depth of flow estimated to be 1' deep.

OFF-SITE DRAINAGE:
Site is affected by flooding in Zuni Road S.E.. California Street on the east intercepts offsite drainage. South portion of original tract drains west. Area to west drains west.

EROSION CONTROL:
Site is presently covered by asphalt, which will be stripped from area. Finished grades will be established in one phase, with no anticipated stockpiling on site. If contractor stockpiles fill material, he will need to construct temporary erosion control berms at outfall points.

CALCULATIONS:
Based on a conversation between the design architect and the City of Albuquerque Hydrology, in December, 1984, the following criteria was established.

Drainage plan will be required to show direction of site runoff in relation to existing patterns. Due to proximity of flood area, finished floor will have to be minimum of 2' above highest affected gutter flowline..

Calculations are based on the City of Albuquerque D.P.M. Manual, Vol. II for the 100 year-6 hour storm, using the Rational Formula to compare the existing and proposed runoff rates.

RATIONAL METHOD- Q = CIA

Area of site: 17,685 sq.ft.= 0.406 Ac.

Run-off Coefficient:

Existing site:

A imp. = 0.406 Ac
% imp. = 100 %
"C" = 1.0 (DPM 22.2 C-1)

Developed Site:

A imp. = 0.38 Ac
% imp. = 92 %
"C" = 0.88(DPM 22.2 C-1)

Rainfall Intensity:

$I = P_6 (6.84)\ Tc^{-0.51} = 4.96"$ per hour
where $P_6 = 2.35"$ (DPM 22.2 D-1)
Tc = 10 minutes

Existing Condition:

Q100 = (1.0)(4.96)(0.406)
= 2 cfs

V100 = (Q100)(5 Tc)(60 sec/in)/2
= 3000 cu. ft.

Developed Condition:

Q100 = (0.88)(4.96)(0.406)
= 1.8 cfs

V100 = (1.8)(50)(60)/2
= 2660 cu. ft.

SUMMARY:

Q100 = (2)-(1.8) = 0.2 cfs (decrease)
V100 = (3000)-(2660) = 340 cu. ft. (decrease)

This decrease is due to the landscaping that the proposed site will have vs none for the present condition.

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REVISIONS		DATE
DESIGNED	CLJ	12-84
DRAWN	MLJ	12-84
CHECKED	CLJ	12-84

DRAINAGE / GRADING PLAN
EL PATIO RESTAURANT
6416 ZUNI S.E.

SHEET 1 OF 1