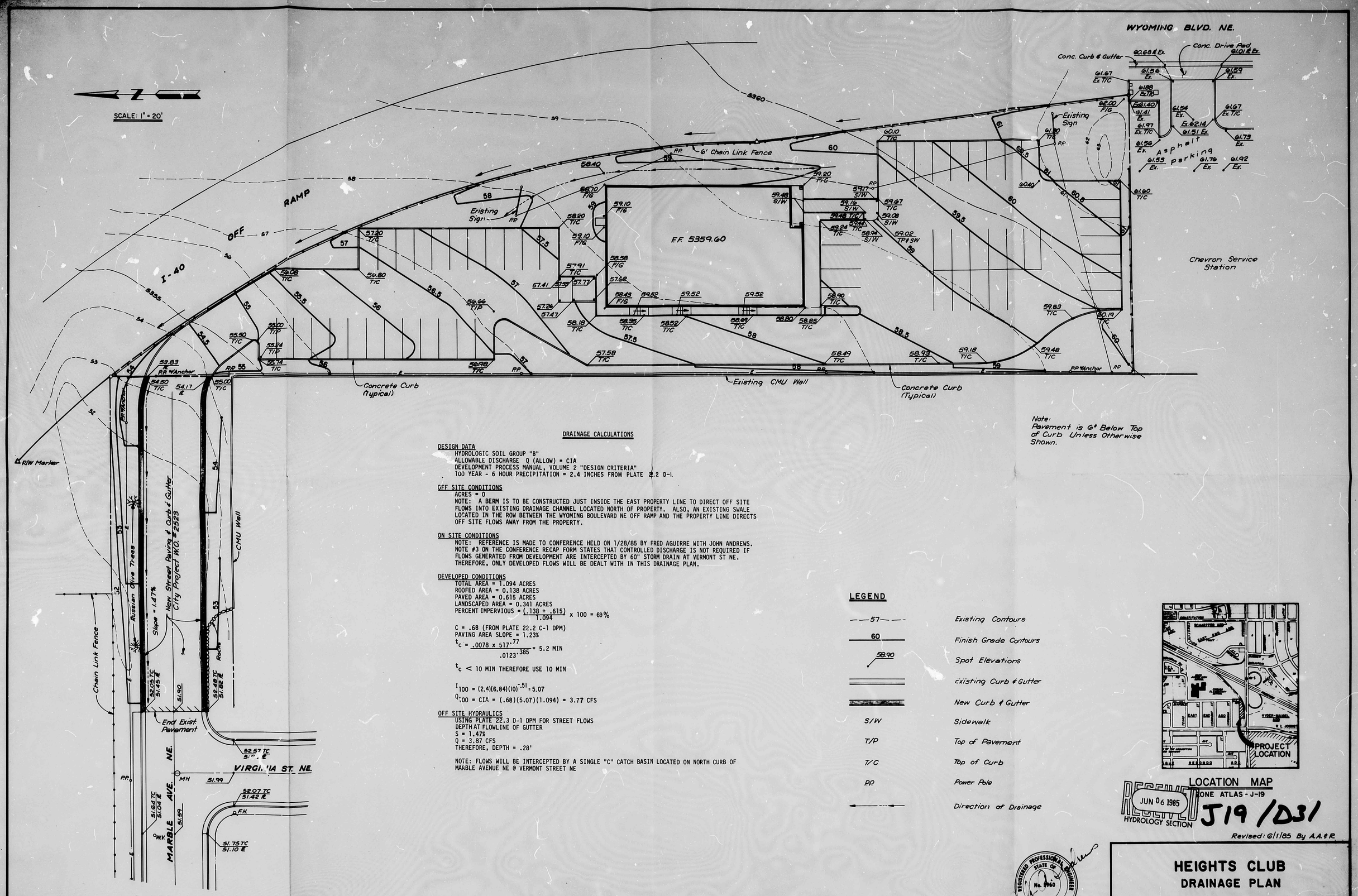

DRAINAGE CALCULATIONS

DESIGN DATA
HYDROLOGIC SOIL GROUP "B"
ALLOWABLE DISCHARGE Q (ALLOW) = CIA
DEVELOPMENT PROCESS MANUAL, VOLUME 2 "DESIGN CRITERIA"
100 YEAR - 6 HOUR PRECIPITATION = 2.4 INCHES FROM PLATE 22.2 D-1.

OFF SITE CONDITIONS
ACRES = 0
NOTE: A BERM IS TO BE CONSTRUCTED JUST INSIDE THE EAST PROPERTY LINE TO DIRECT OFF SITE FLOWS INTO EXISTING DRAINAGE CHANNEL LOCATED NORTH OF PROPERTY. ALSO, AN EXISTING SWALE LOCATED IN THE ROW BETWEEN THE WYOMING BOULEVARD NE OFF RAMP AND THE PROPERTY LINE DIRECTS OFF SITE FLOWS AWAY FROM THE PROPERTY.

ON SITE CONDITIONS
NOTE: REFERENCE IS MADE TO CONFERENCE HELD ON 1/28/85 BY FRED AGUIRRE WITH JOHN ANDREWS. NOTE #3 ON THE CONFERENCE RECAP FORM STATES THAT CONTROLLED DISCHARGE IS NOT REQUIRED IF FLOWS GENERATED FROM DEVELOPMENT ARE INTERCEPTED BY 60" STORM DRAIN AT VERMONT ST NE. THEREFORE, ONLY DEVELOPED FLOWS WILL BE DEALT WITH IN THIS DRAINAGE PLAN.

DEVELOPED CONDITIONS
TOTAL AREA = 1.094 ACRES
ROOFED AREA = 0.138 ACRES
PAVED AREA = 0.615 ACRES
LANDSCAPED AREA = 0.341 ACRES
PERCENT IMPERVIOUS = $\frac{(.138 + .615)}{1.094} \times 100 = 69\%$

C = .68 (FROM PLATE 22.2 C-1 DPM)
PAVING AREA SLOPE = 1.23%

$t_c = \frac{.0078 \times 517^{.77}}{.0123^{.385}} = 5.2$ MIN

t_c < 10 MIN THEREFORE USE 10 MIN

$I_{100} = (2.4)(6.84)(10)^{-.51} = 5.07$

$Q_{100} = CIA = (.68)(5.07)(1.094) = 3.77$ CFS

OFF SITE HYDRAULICS
USING PLATE 22.3 D-1 DPM FOR STREET FLOWS
DEPTH AT FLOWLINE OF GUTTER
S = 1.47%
Q = 3.87 CFS
THEREFORE, DEPTH = .28'

NOTE: FLOWS WILL BE INTERCEPTED BY A SINGLE "C" CATCH BASIN LOCATED ON NORTH CURB OF MAKBLE AVENUE NE @ VERMONT STREET NE

Note:
Pavement is 6" Below Top of Curb Unless Otherwise Shown.

LEGEND

57	Existing Contours
60	Finish Grade Contours
58.90	Spot Elevations
	Existing Curb & Gutter
	New Curb & Gutter
S/W	Sidewalk
T/P	Top of Pavement
T/C	Top of Curb
P.P.	Power Pole
	Direction of Drainage

LOCATION MAP
ZONE ATLAS - J-19

RECEIVED
JUN 06 1985
HYDROLOGY SECTION

J19/D31

Revised: 6/1/85 By A.A.& R.

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 7960
JOHN A. ANDREWS

4-26-85

HEIGHTS CLUB
DRAINAGE PLAN

ANDREWS, ASBURY & ROBERT, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

FILE No.	DRAWN	CHECKED	DATE	SHEET	OF
85-409	TMH	GJ	Mar, 1985	1	1