

FILE COPY



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State of New Mexico

ONE CIVIC PLAZA N.W.
ALBUQUERQUE, NEW MEXICO 87102

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March 31, 1989

Frank Lovelady, P.E.
Lovelady & Associates
7408 Morrow, NE
Albuquerque, New Mexico 87110

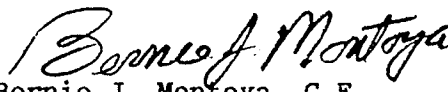
RE: CERTIFICATION FOR VICKERS SERVICE STATION @ 6724 SECOND, NW
(E-15/D6) ENGINEER'S CERTIFICATION DATED MARCH 27, 1989

Dear Mr. Lovelady:

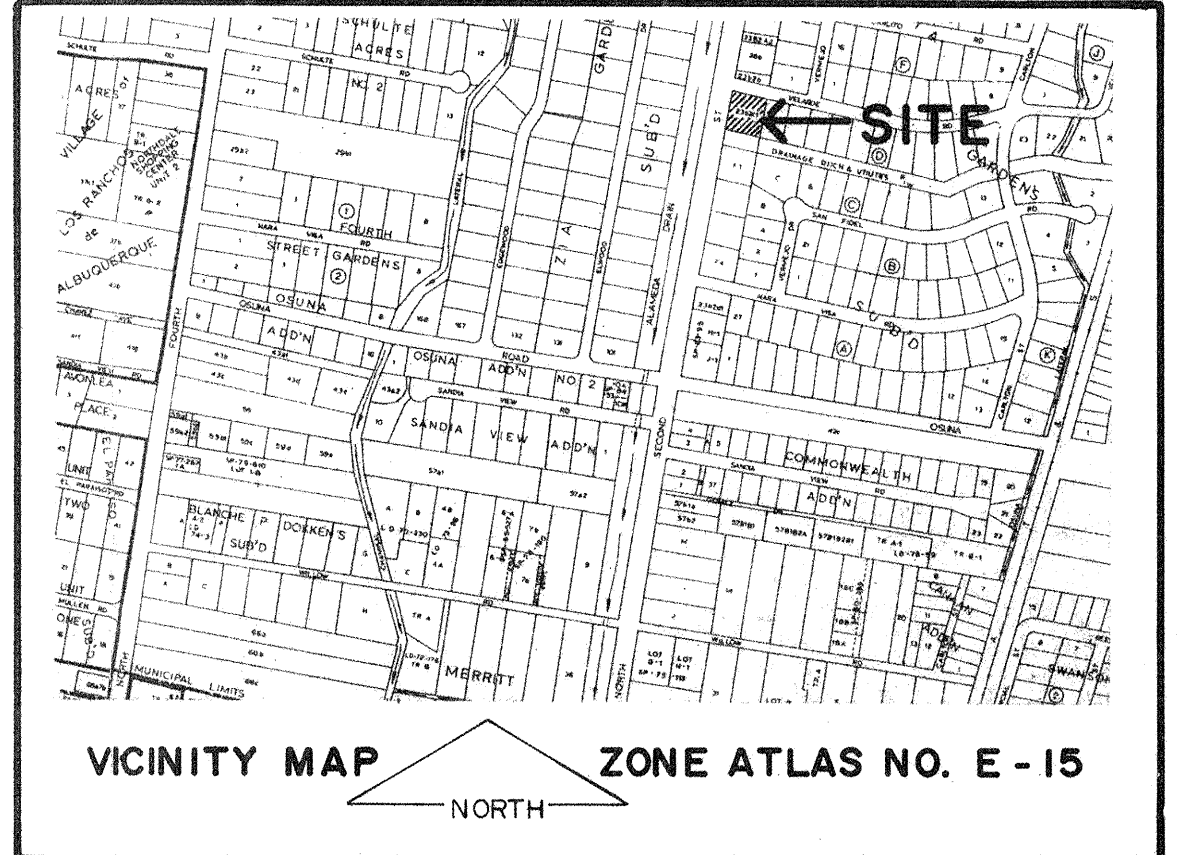
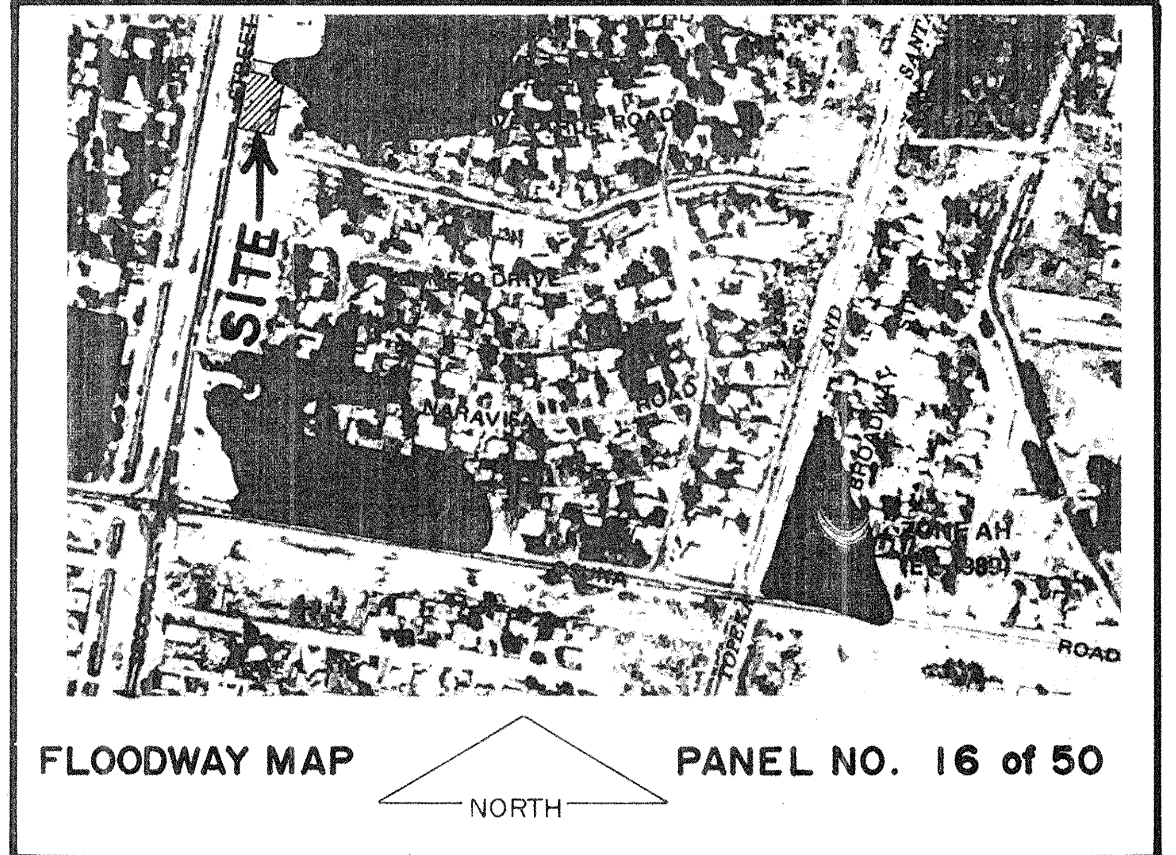
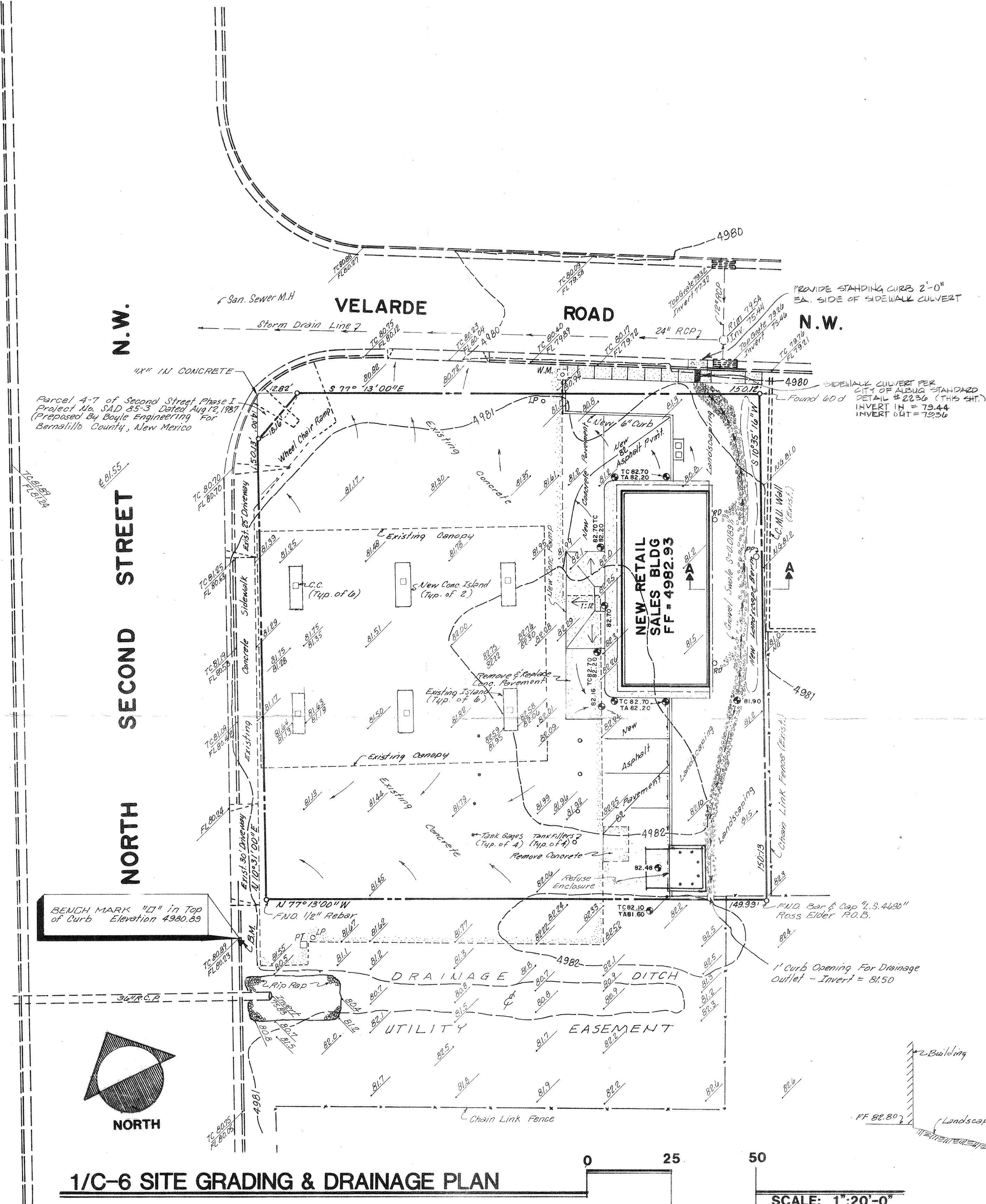
Based on the information provided on your submittal of March 27, 1989,
Certification is acceptable

If I can be of further assistance, please feel free to call me at
768-2650.

Cordially,


Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+903)



- CONSTRUCTION NOTES:**
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 - ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
 - ALL CONSTRUCTION WITHIN BERNALILLO COUNTY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE BERNALILLO COUNTY STANDARDS AND PROCEDURES.
 - BEFORE CONSTRUCTION, THE CONTRACTOR SHALL CHECK AND VERIFY PERTINENT FIGURES SHOWN HEREON AND SHALL MAKE ALL APPLICABLE FIELD MEASUREMENTS. SHOULD ANY CONFLICT, ERROR OR DISCREPANCY BE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT ONCE TO RESOLVE THE PROBLEM.

- PRE-DESIGN CONFERENCE FINDINGS:**
- NEED TO ELEVATE FINISH FLOOR TO OR ABOVE THE FLOOD PLAIN ELEVATION WHICH IS 4981.0 FEET.
 - FREE DISCHARGE ALLOWED:
 - MINIMUM DEVELOPMENT.
 - STORM DRAIN IN VELARDE ROAD.
 - OUTFALL IS ACROSS SECOND STREET TO THE ALAMEDA DRAIN.
 - EXISTING AREA CAN DRAIN IN THE HISTORIC MANNER.
 - CAN DRAIN TO EASEMENT SOUTH OF PROPERTY. NEED TO SUBMIT PLAT.
- (NOTE: THE ABOVE FINDINGS WERE OBTAINED FROM THE CITY/COUNTY FLOOD PLAIN COORDINATOR ON SEPTEMBER 27, 1988.)

LEGEND:

EXISTING	NEW	DESCRIPTION
— 4980	— 80	CONTOUR
• 82.25		SPOT ELEVATION
□ TEL.		TELEPHONE PODIUM
□ WM		WATER METER
□ CC		CONCRETE COLUMN
□		WATER VALVE
□		FIRE HYDRANT
→		FLOW DIRECTION
TC		TOP OF CURB
TA		TOP OF ASPHALT
FL		FLOW LINE

ENGINEERING CERTIFICATION:

I HEREBY CERTIFY THAT THE SITE WAS INSPECTED BY ME ON MARCH 24, 1989 AND THAT THE FINISHED FLOOR ELEVATION IS VERIFIED AS BEING THE ELEVATION SHOWN ON THIS PLAN AND THAT ALL OTHER ELEVATIONS AND FEATURES OF THE PLAN ARE AS SHOWN ON THIS PLAN.

DRAINAGE CALCULATIONS

SOIL INFORMATION: (REFER TO SCS SOIL SURVEY OF BERNALILLO COUNTY)
SOIL IS Gb, GILA LOAM, HYDROLOGIC SOIL GROUP "B".

RAINFALL, 100-YEAR, 6-HOUR: (REFER TO D.P.M. PLATE 22.2 D-1)
 $R_6 = 2.2$ INCHES.

TIME OF CONCENTRATION: (REFER TO D.P.M. SECTION 22.2, PAGE 3)
TEN (10) MINUTES, MINIMUM TIME OF CONCENTRATION.

RAINFALL INTENSITY: (REFER TO PLATE 22.2 D-2)
 $I = 8.6 \times 6.84 \times T_c^{-0.51} = 2.2 \times 6.84 \times (10)^{-0.51} = 4.65$ INCHES PER HOUR.

CURVE NUMBER: (REFER TO D.P.M. PLATE 22.2 C-2)

EXISTING PREVIOUS	EXISTING AREA	NEW AREA
BUILDINGS AND PAVEMENT	70	20332
LANDSCAPING	98	1975
UNPAVED GRAVEL	61	—
UNPAVED DIRT	85	—
TOTAL AREAS	22507 = 0.5167 AC	22507

WEIGHTED CURVE NUMBER (C_N):
EXISTING $C_N = 88$ DEVELOPED $C_N = 95$

DIRECT RUNOFF: (REFER TO D.P.M. PLATE 22.2 C-4)
EXISTING $Q_p = 1.2$ DEVELOPED $Q_p = 1.7$

RUNOFF COEFFICIENTS: (REFER TO "NOTICE OF EMERGENCY RULE", CITY OF ALBUQUERQUE, JANUARY 14, 1986).

"C"	EXISTING AREA	NEW AREA
UNDEVELOPED	0.40	7860
LAWNS AND LANDSCAPING	0.25	1975
ROOFS	0.90	7458
STREETS, DRIVES, WALKS	0.95	13074
TOTAL AREAS	22507	22507

WEIGHTED "C" FACTORS: EXISTING "C" = 0.74 DEVELOPED "C" = 0.87

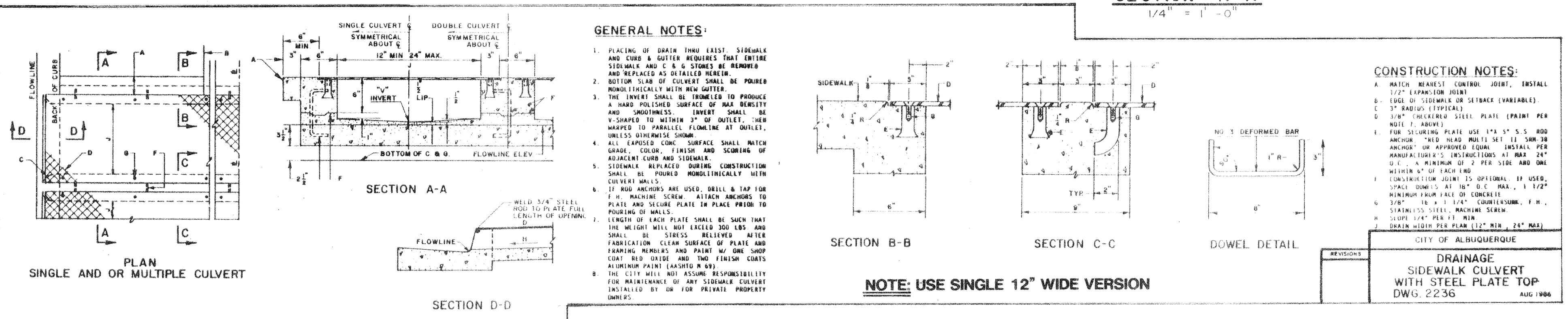
EXISTING CONDITIONS:
RUNOFF BY RATIONAL EQUATION, $Q = CIA$
 $Q = 0.74 \times 4.65 \times 0.5167 = 1.78$ CFS
VOLUME BY SCS METHOD, $V = A(Q_p / 12)$, WHERE A = AREA IN SQUARE FEET.
 $V = 22507 (1.2 / 12) = 2251$ CF

DEVELOPED CONDITIONS:
 $Q = 0.87 \times 4.65 \times 0.5167 = 2.09$ CFS
 $V = 22507 (1.7 / 12) = 3188$ CF

DRAINAGE FROM NEW BUILDING:
THE NEW BUILDING DRAINS TO THE REAR INTO THE LANDSCAPING AREA. ALL OF THE RUNOFF FROM THE BUILDING AND LANDSCAPING AREA IS TO FLOW NORTH INTO THE EXISTING BASIN.
 $C = (1500 \times 0.90 + 1975 \times 0.25) / 3475 = 0.53$
 $Q = CIA = 0.53 \times 4.65 \times 0.08 = 0.20$ CFS
ALL FLOW FROM THE PARKING AROUND THE NEW BUILDING WILL FLOW OUT TO THE STREETS ACROSS THE EXISTING CONCRETE AND THROUGH THE DRIVEPADS.

LEGAL DESCRIPTION:

A CERTAIN PARCEL OF LAND BEING TRACT 23-B-2-C-1, AS SHOWN ON MIDDLE RIO GRANDE CONSERVANCY DISTRICT, MAP NUMBER 29, BERNALILLO COUNTY, ALBUQUERQUE, NEW MEXICO.



Architect

PAUL O. LOVELACE
Professional Engineer
AS-BUILT 3/27/89
Engineer

G.W. Walker & Company
ARCHITECTS*CONTRACTORS*DEVELOPERS
150 Louisiana N.E.
Albuquerque, New Mexico 87108
Phone (505) 268-4551

VICKERS (TOTAL PETROLEUM INC.)
SERVICE STATION/STORE ADDITION
6724 NORTH SECOND STREET NW
ALBUQUERQUE, NEW MEXICO

proj. no. 5-88-A
dwn. by FDL/RWS
app. by RPB
date 10-7-88
revisions

Sheet No.
C-6
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