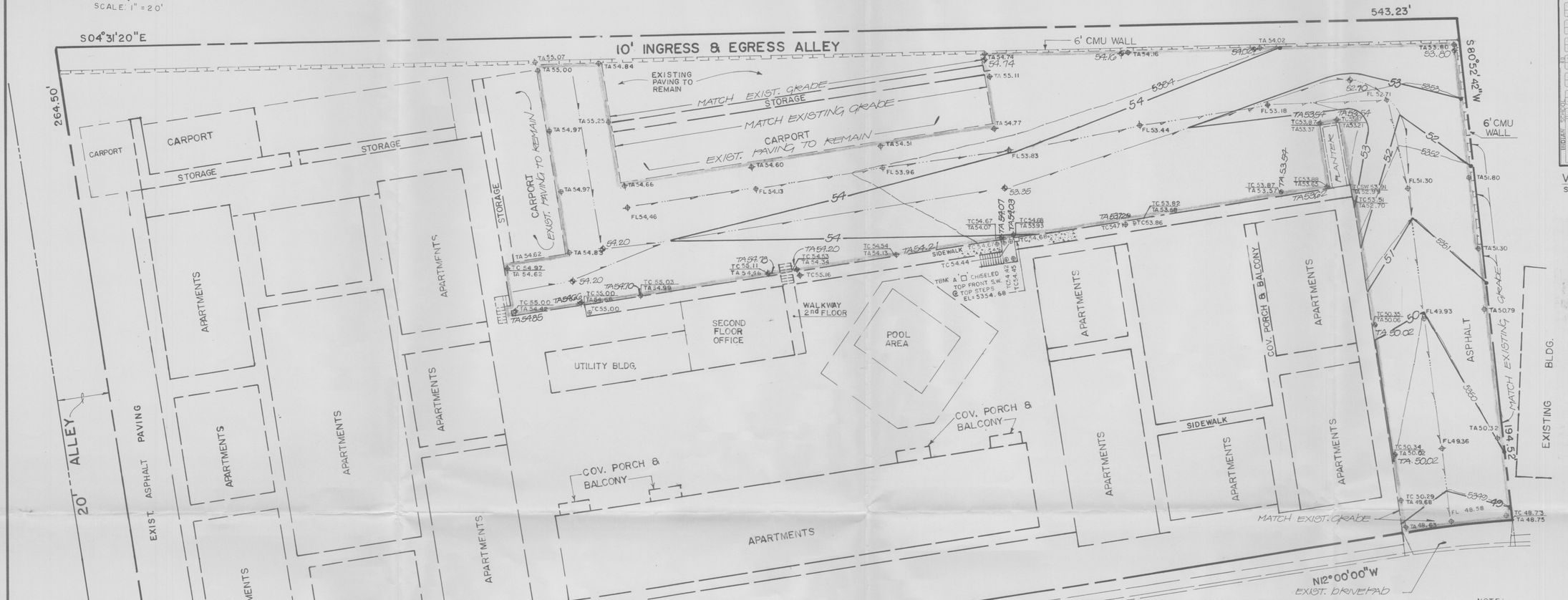
159098

SCALE: 1" = 20'



VICINITY MAP J19
SCALE: 1"= 750' (APPRX.)

PROJECT BENCHMARK:

THE STATION MARK IS A STANDARD A.C.S. BRASS TABLET STAMPED "5-J19, 1979" SET FLUSH WITH THE CURB AT THE INTERSECTION OF I-40 AND WYOMING BLVD. THE STATION IS LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION.

ELEVATION = 5360.37 FT (M.S.L.D.)

T.B.M.

A "□" CHISELED IN THE SIDEWALK APPROXIMATELY 90 FEET SOUTH OF THE OFFICE BUILDING.

LEGAL DESCRIPTION:

LOT 9-A1, BLOCK 18, SNOW HEIGHTS ADDITION

LEGEND

- 50.00 — EXIST. SPOT ELEV.
- EXIST. FLOW LINE
- EXIST. 6' CMU WALL
- TC 50.00 — TOP OF CURB
- TSW 50.00 — TOP OF SIDEWALK
- 5351 — EXIST. CONTOUR
- 52.70 — PROPOSED SPOT ELEV.
- PROPOSED FLOW LINE
- 50 — PROPOSED CONTOUR
- PROPOSED ASPHALT PAVING

CALCULATIONS

Site Characteristics

1. Precipitation Zone = 3
2. $P_{6,100} = P_{360}$ = 260
3. Total Area (A_T) = 2.81 acres
4. Existing Land Treatment

Treatment	Area (sf/ac)	%
B	26,130/0.60	21.3
D	96,380/2.21	78.7

5. Developed Land Treatment

Treatment	Area (sf/ac)	%
B	26,130/0.60	21.3
D	96,380/2.21	78.7

Existing Condition

1. Volume

$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$
$E_w = [(0.92)(0.60) + (2.36)(2.21)]/(2.81) = 2.05$
$V_{100} = (E_w/12) A_T$
$V_{100} = (2.05/12)(2.81) = 0.4806$ ac.ft.; 20,940 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
$Q_p = Q_{100} = (2.60)(0.60) + (5.02)(2.21) = 12.7$ cfs

Developed Condition

1. Volume

$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$
$E_w = [(0.92)(0.60) + (2.36)(2.21)]/(2.81) = 2.05$
$V_{100} = (E_w/12) A_T$
$V_{100} = (2.05/12)(2.81) = 0.4806$ ac.ft.; 20,940 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
$Q_p = Q_{100} = (2.60)(0.60) + (5.02)(2.21) = 12.7$ cfs

Comparison

1. $\Delta V_{100} = 20,940 - 20,940 = 0.0$ cf (no change)
2. $\Delta Q_{100} = 12.7 - 12.7 = 0.0$ cfs (no change)

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER
10-94

DRAINAGE PLAN

The following items concerning the Virginian Apartments Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site lies on Virginia Street N.E., north of the intersection of Constitution Avenue N.E. The site is currently developed as an apartment complex, complete with buildings, parking areas, and related landscaping.

The Grading Plans shows: 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. At present, the parking area drains via an invert into Virginia Street N.E. by free discharge over an existing drivepad.

As shown by Panel 30 of 50 of the Flood Insurance Rate Maps published by F.E.M.A. for the City of Albuquerque, New Mexico dated October 14, 1983, the site does not lie in, nor upstream of, a designated flood hazard zone.

Development of this site consists of the removal and disposal of existing asphalt paving, and construction of new asphalt paving to replace the removed material. Since the paving is being removed and replaced, no additional impervious areas are being created, therefore no additional storm runoff will be generated. The runoff will continue to be freely discharged into Virginia Street N.E., as historically established and shown by the existing contours on the Grading Plan.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, the volume and peak discharge of runoff generated by this site will remain unchanged. The site will continue to discharge the runoff as previously established, by free discharge into Virginia Street N.E. over an existing drivepad.

NOTE:

IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE 'TOPSOIL DISTURBANCE PERMIT' PRIOR TO BEGINNING CONSTRUCTION.

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THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR INFORMATION ONLY FROM PREVIOUS SURVEY PROVIDED BY THE OWNER.

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

GRADING AND DRAINAGE PLAN

VIRGINIAN APARTMENTS

DESIGNED BY	JGM / GRB
DRAWN BY	SS
APPROVED BY	JGM

NO.	DATE	BY	REVISIONS

JOB NO. 940971
DATE 10/94
SHEET 1 OF 1