600181

DRAINAGE INFORMATION SHEET

PROJECT TITLE: CORNELL APTS ZONE ATLAS/DRNG. FILE #: K16/D21

LEGAL DESCRIPTION: LOTS 16 & 17 BLK 7 UNIV. HTS ADDN.

CITY ADDRESS: 217-215 @ CORNELL AVE SE

ENGINEERING FIRM: TOM MANN & ASSOC. CONTACT: J.G. MORTENSEN

ADDRESS: 811 DALLAS NE. PHONE: 265-5611

OWNER: NOT KNOWN CONTACT: ARCHITECT

ADDRESS: PHONE:

ARCHITECT: KELLS & CRAIG CONTACT: JOHNATHAN CRAIG.

ADDRESS: 912 ROMA NW PHONE: 243-2724

SURVEYOR: TOM MANN & ASSOC. CONTACT: J.G. MORTENSEN

ADDRESS: 811 DALLAS NE PHONE: 265-5611

CONTRACTOR: NOT KNOWN CONTACT:

ADDRESS: PHONE:

RECEIVED
MAR 18 1986
HYDROLOGY SECTION

PRE-DESIGN MEETING:

✓ YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

✓ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

✓ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

✓ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 03-18-86

BY: J.G. MORTENSEN

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

March 21, 1986

Jeffrey Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR CORNELL APARTMENTS
(K-16/D21) RECEIVED MARCH 18, 1986

Dear Jeff:

The referenced plan, dated March 17, 1986, is approved for Building Permit sign-off.

Please advise your client that no cross lot line drainage is allowed. Therefore, it is critical that your proposed grades be followed closely along the planter areas.

If you have any questions, call me at 766-7644.

Cordially,

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

BJM:CAM/bsj

Tom Mann Associates, Inc.
Engineers
811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

60181
March 13, 1986

Mr. Bernie Montoya
Design Hydrology Section
123 Central N.W.
Albuquerque, NM 87102

Re: Cornell Apartments (K-16/D21)

Dear Bernie:

I have reviewed your comments on the above referenced project and have addressed the comments as follows:

1) Attached is one copy of the approved alley grades.

2) The grades to the proposed planters have been revised so that they will drain away from the property line.

3) The TBM has been verified on the drawing as shown.

4) The license agreement will be coordinated along with the building permit.

Should you have any questions or comments concerning any aspect of this project, please do not hesitate to call.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Leonard P. Utter
Staff Engineer

LPU:djj

Enclosures

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

March 7, 1986

Jeffrey Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR CORNELL APARTMENTS
RECEIVED MARCH 4, 1986 (K-16/D21)

Dear Jeff:

A preliminary review of your submittal for Building Permit approval has shown that the following information is lacking for this section to begin the review process:

INFORMATION NEEDED

1. Copy of approved alley grades. Identify the work order number on the plan drawings.

2. Covenant - easement for flows into the commonly shared planter areas, or keep flows within each lot by creating a high point at the property line.

3. TBM must be identified as either a curb notch or painted.

4. Copy of license agreement for the paving of the alley.

Please provide this information so that we may process your request as expediently as possible.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

VICINITY MAP K-16
SCALE 1" = 800'

PROJECT BENCHMARK
STATION IS A 2" BRASS TABLET SET IN A DRILLED HOLE ON TOP OF SIDEWALK. STATION IS STAMPED "5-K16A, 1974 ACS". LOCATED 108.9' WEST FROM THE EXT. OF CENTERLINE OF COLUMBIA DR. TO THE NORTH OF CENTRAL AVE., AND 41.3' NORTH FROM THE CENTERLINE OF CENTRAL AVE.
ELEVATION = 5171.38 ft. (M.S.L.D.)

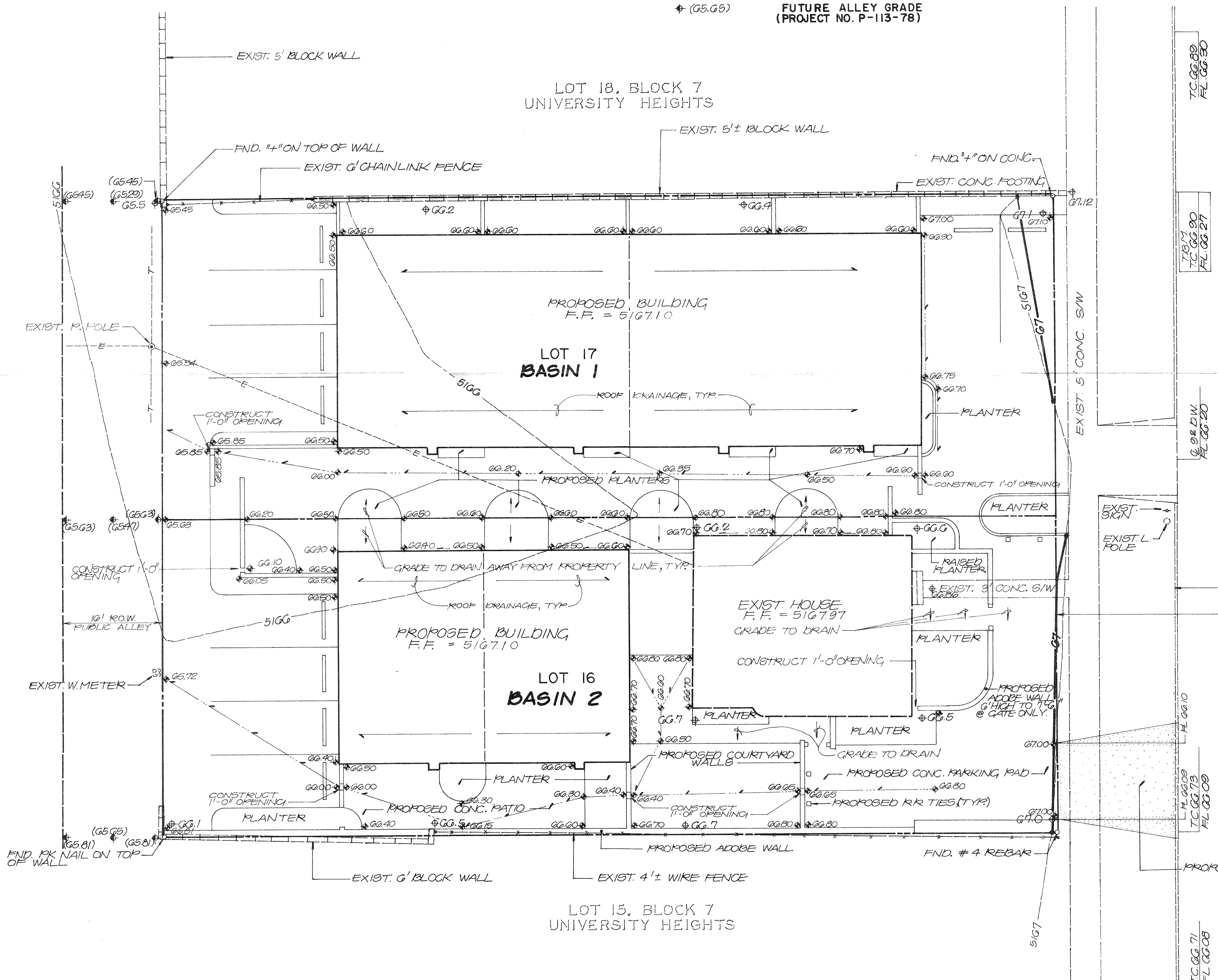
T.B.M.
NOTCH ON TOP OF CURB ELEVATION. EAST OF THE NORTHEAST PROPERTY CORNER AS SHOWN BELOW.
ELEVATION = 5166.90 ft. (M.S.L.D.)

LEGAL DESCRIPTION
LOTS 16 & 17, BLOCK 7, UNIVERSITY HEIGHTS SUBDIVISION

SCALE: 1" = 10'

LEGEND

⌖	PROPOSED SPOT ELEVATION
⌖	EXISTING SPOT ELEVATION
—55—	PROPOSED CONTOUR
— 5156 —	EXISTING CONTOUR
	SWALE
	PROPERTY LINE
	CONCRETE
	PROPOSED ASPHALT
—x—x—x—	PROPOSED FENCE
—x—x—x—	EXISTING FENCE
T.C. 02.00	TOP OF CURB
F.L. 01.65	FLOW LINE
⌖ (65.65)	FUTURE ALLEY GRADE (PROJECT NO. P-113-78)



DRAINAGE PLAN

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

1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed improvements as shown by the Vicinity Map are located on the west side of Cornell Drive S.E. between Solar Avenue S.E. and Lead Avenue S.E. At present the site is partially developed, much of the surrounding area is currently developed thereby, making this an infill site. As shown by Plate K-16 of the Albuquerque Master Drainage Study, this site does not lie within a designated Flood Hazard Zone. Therefore, downstream flooding is not apparent and therefore does not appear to be a problem. Based upon that apparent downstream capacity, the fact that the site is an infill site and a minor increase in runoff generated by the proposed improvements, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) proposed alley grades as designed by the City of Albuquerque, Project No. P-113-78, 3) continuity between existing and proposed grades and 4) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of the construction of two new apartment complexes, along with adjacent paving and landscaping. Flows generated by Basin 1 known as Lot 17 will be routed from east to west and discharged unto the adjacent alley located along the west property line. From that point the runoff will flow north unto Silver Avenue S.E. Silver Avenue S.E. drains west to Harvard Drive S.E. to existing catch basins located at the intersection of Silver Avenue S.E. and Harvard Drive S.E., which is the outfall for the site. Runoff generated by Basin 2 known as Lot 16 will flow from east to west to the aforementioned alley. This pattern is consistent with the existing site drainage.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The SCS Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by the calculations, the proposed improvements will result in a relatively minor increase in runoff generated by the site. The increase in runoff from Basin 1 to the proposed improvements will be approximately 0.7 cfs. The runoff from Basin 2 will be approximately 0.9 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, WeB - Wink-Embudo Complex
Plate: 31 Hydrologic Soil Group: B
Existing Pervious CN = 70 (DPM Plate 22.2 C-2 Pasture or Range Land: fair condition)
Developed Pervious CN = 61 (DPM Plate 22.2 C-2)

Time of Concentration/Time to Peak

$T_c = 0.0078\ L^{0.77}/S^{0.385}$ (Kirpich Equation)

$T_p = T_c =$ 10 min.

Point Rainfall

$P_6 =$ 2.28 in. (DPM Plate 22.2 D-1)

Existing Condition Basin 1
A_{total} = 7,100 sf = 0.16 Ac
A_{imp} = 1,020 sf; % impervious = 14 %
Composite CN = 74 (DPM Plate 22.2 C-3)
DRO = 0.5 in (DPM Plate 22.2 C-4)
$q_p = 45.4\ A/T_p =$ 0.7 cfs/in runoff

$Q_{100} = Q_{peak} = q_p$ (DRO) = 0.4 cfs

V_{100} = 3630 (DRO)A = 290 cf

Developed Condition Basin 1

A_{total} = 7,100 sf = 0.16 Ac

A_{imp} = 5,810 sf; % impervious = 82 %
Composite CN = 93 (DPM Plate 22.2 C-3)
DRO = 1.6 in (DPM Plate 22.2 C-4)
$q_p = 45.4\ A/T_p =$ 0.7 cfs/in runoff

$Q_{100} = Q_{peak} = q_p$ (DRO) = 1.1 cfs

V_{100} = 3630 (DRO) A = 930 cf

Comparison Basin 1

Q_{100} = 1.1 - 0.4 = 0.7 cfs (increase)
V_{100} = 930 - 290 = 640 cf (increase)

Existing Condition Basin 2
A_{total} = 7,100 sf = 0.16 Ac

A_{imp} = 0 sf; % impervious = 0 %
Composite CN = 70 (DPM Plate 22.2 C-3)
DRO = 0.4 in (DPM Plate 22.2 C-4)
$q_p = 45.4\ A/T_p =$ 0.7 cfs/in runoff

$Q_{100} = Q_{peak} = q_p$ (DRO) = 0.3 cfs

V_{100} = 3630 (DRO)A = 232 cf

Developed Condition Basin 2

A_{total} = 7,100 sf = 0.16 Ac

A_{imp} = 6,260 sf; % impervious = 88 %
Composite CN = 94 (DPM Plate 22.2 C-3)
DRO = 1.7 in (DPM Plate 22.2 C-4)
$q_p = 45.4\ A/T_p =$ 0.7 cfs/in runoff

$Q_{100} = Q_{peak} = q_p$ (DRO) = 1.2 cfs

V_{100} = 3630 (DRO) A = 990 cf

Comparison Basin 2

Q_{100} = 1.2 - 0.3 = 0.9 cfs (increase)
V_{100} = 990 - 232 = 758 cf (increase)

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
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.

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. 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.
3. 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.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

JEFFREY G. MORTENSEN
NEW MEXICO
8547
REGISTERED PROFESSIONAL ENGINEER
03-07-86
03-17-86

Tom Mann & Associates, Inc.
811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110
ENGINEERS

NO.	DATE	BY	REVISIONS

DESIGNED BY: L.P.U.
DRAWN BY: J.M.C.
APPROVED: J.G.M.

JOB NO. 60181
DATE 2-86

GRADING & DRAINAGE PLAN
CORNELL APARTMENTS

FILE NO.
SHEET 1 OF 1