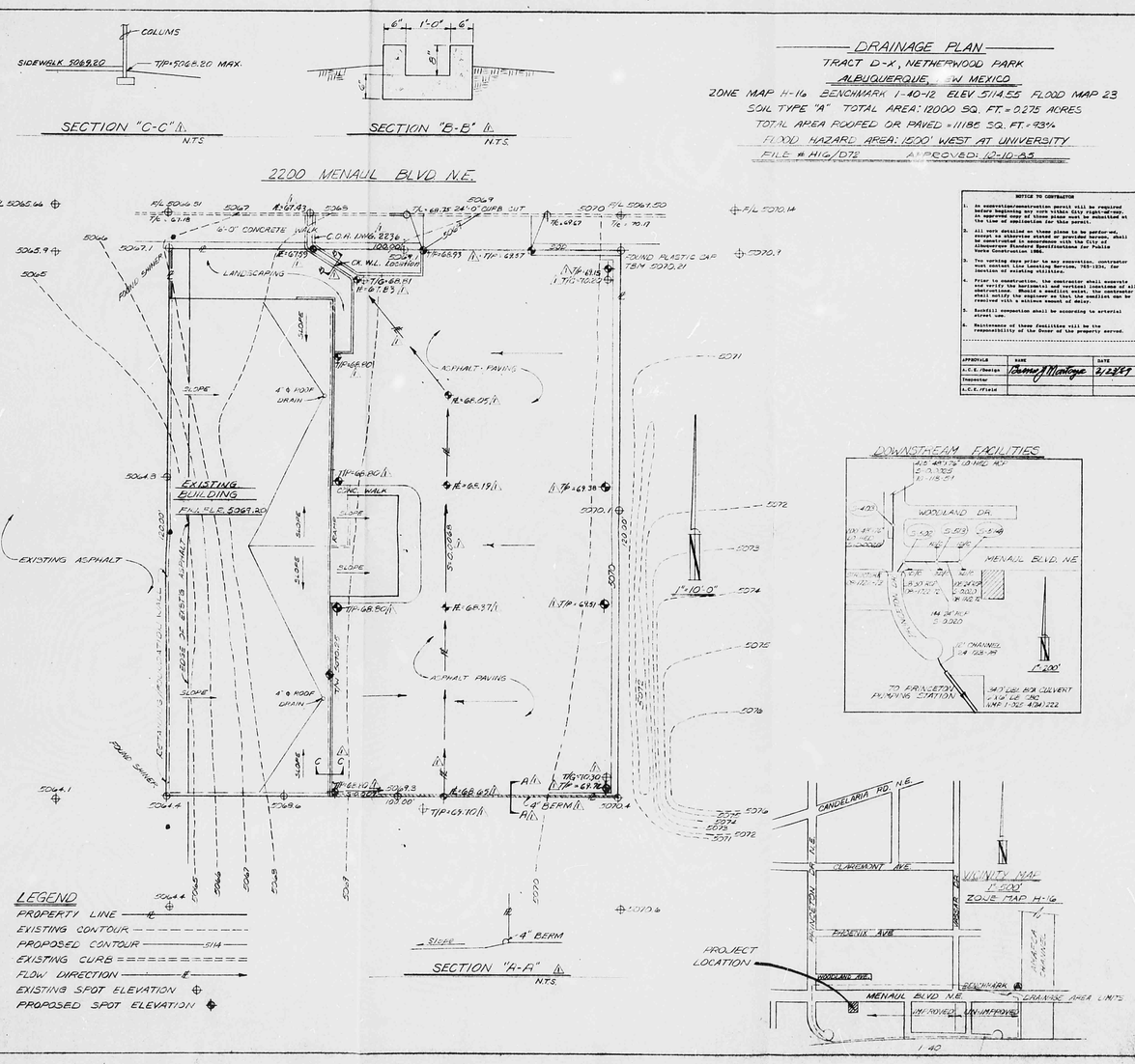

DRAINAGE PLAN

TRACT D-X, NETHERWOOD PARK

ALBUQUERQUE, NEW MEXICO

ZONE MAP H-16 BENCHMARK 1-40-12 ELEV. 5114.55 FLOOD MAP 23

SOIL TYPE "A" TOTAL AREA: 12000 SQ. FT. = 0.275 ACRES

TOTAL AREA ROOFED OR PAVED = 11185 SQ. FT. = 93%

FLOOD HAZARD AREA: 1500' WEST AT UNIVERSITY

FILE # H16/D72 APPROVED: 12-10-83

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be performed in accordance with the City of Albuquerque Standard Specifications for Public Works Construction 1986.
3. Two working days prior to any excavation, contractor shall contact Underground Services, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall accurately and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to arterial street use.
6. Maintenance of these facilities will be the responsibility of the Owner of the property served.

APPROVALS	NAME	DATE
A.C.E./Design	Duane J. Montoya	3/22/89
Inspector		
A.C.E./Field		

HYDROLOGY:

OFF-SITE DRAINAGE: NONE

ON-SITE DRAINAGE: 100 YR.-6 HR STORM = 2.2", I = 2.3 x 2.2 = 5.06

C = 0.80, Q = 0.80 x 5.06 x 0.275 = 1.11 CFS MAXIMUM PROPOSED

AT C = 0.16, Q = 0.16 x 5.06 x 0.275 = 0.22 CFS EXISTING

DOWNSTREAM FACILITIES: AREA DRAINED = 2300' x 500' = 26.4 ACRES WITH 30% UN-IMPROVED = (0.50 x 2 x 0.50 x 5.06 x 26.4 = 66.8 CFS

PROJECT IS WITHIN 80' OF 2-DOUBLE "C" INLETS. EAST END OF DRAINAGE AREA IS 2000 FEET FROM THIS INLET. CAPACITY OF DOUBLE "C" = 16 CFS AT CURB DEPTH WITH S = 0.030.

∴ DOWNSTREAM FACILITIES ARE ADEQUATE FOR 1.11 CFS WHEN T_c = 4.30 SECOND TO INLET.

HYDRAULICS:

14' CURB CUT, WITH AVERAGE DEPTH OF 2", & S = 0.0073, n = 0.017

A = 4.05, R = 0.17 & Q = 9.30 CFS ∴ ADEQUATE

40' SWALE IN PARKING AREA, MINIMUM DEPTH = 3", A = 5.0

R = 0.125, S = 0.0079 & Q = 9.42 CFS ∴ ADEQUATE

CHANNEL CAPACITY:

ENTRANCE

$Q = C L H^{1.5} = 3.00 \times 1.0 \times 0.67^{1.5} = 1.16$ cfs - OK Q Max. = 1.11 cfs

CHANNEL

A = 0.67 ft. P = 2.34 R = 0.29 $R^{0.67} = 0.43$

S = 0.02 $S^{0.5} = 0.14$

$Q = 0.67 \times 1.486 / 0.017 \times 0.43 \times 0.14 = 3.73$ - OK Q Max. = 1.11 cfs

N. M. 2300 — DUANE LEE LOGAN — REGISTERED PROFESSIONAL ENGINEER

MARK L. HEIZER — REGISTERED PROFESSIONAL ENGINEER

7/7/89

Revised 2/14/89

9-23-85

RECEIVED FEB 15 1989 HYDROLOGY SECTION

DUANE LOGAN
CONSULTING CIVIL ENGINEER
501 KINLEY N.E., ALBUQUERQUE, N.M. (505) 243-6353

TITLE: DRAINAGE PLAN

FOR: NICK KAY

AT: 2200 MENAUL BLVD. NE.

DESIGNED BY: D.L. DATE: 9/23/85

DRAWN BY: D.L. DATE: 9/23/85

CHECKED BY: DATE:

CHECKED BY: DATE:

PROJECT NO. H-100 ZONE MAP H-16 UNIT 1 OF 1

L.G. Job #437

REV 21 DATE 2/24/92 OP. 8

CITY OF ALBUQUERQUE

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Karen Aaron
CITY CLERK RECORDER

OFFICIAL SEAL NORBERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires May 8, 1992

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

PLANS/PLATS ON FILE

FILE DESC: H-16/D072

PLANS/PLATS 2

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D F

DRAINAGE PLAN

TRACT L-X, NETHERWOOD PARK

ALBUQUERQUE, NEW MEXICO

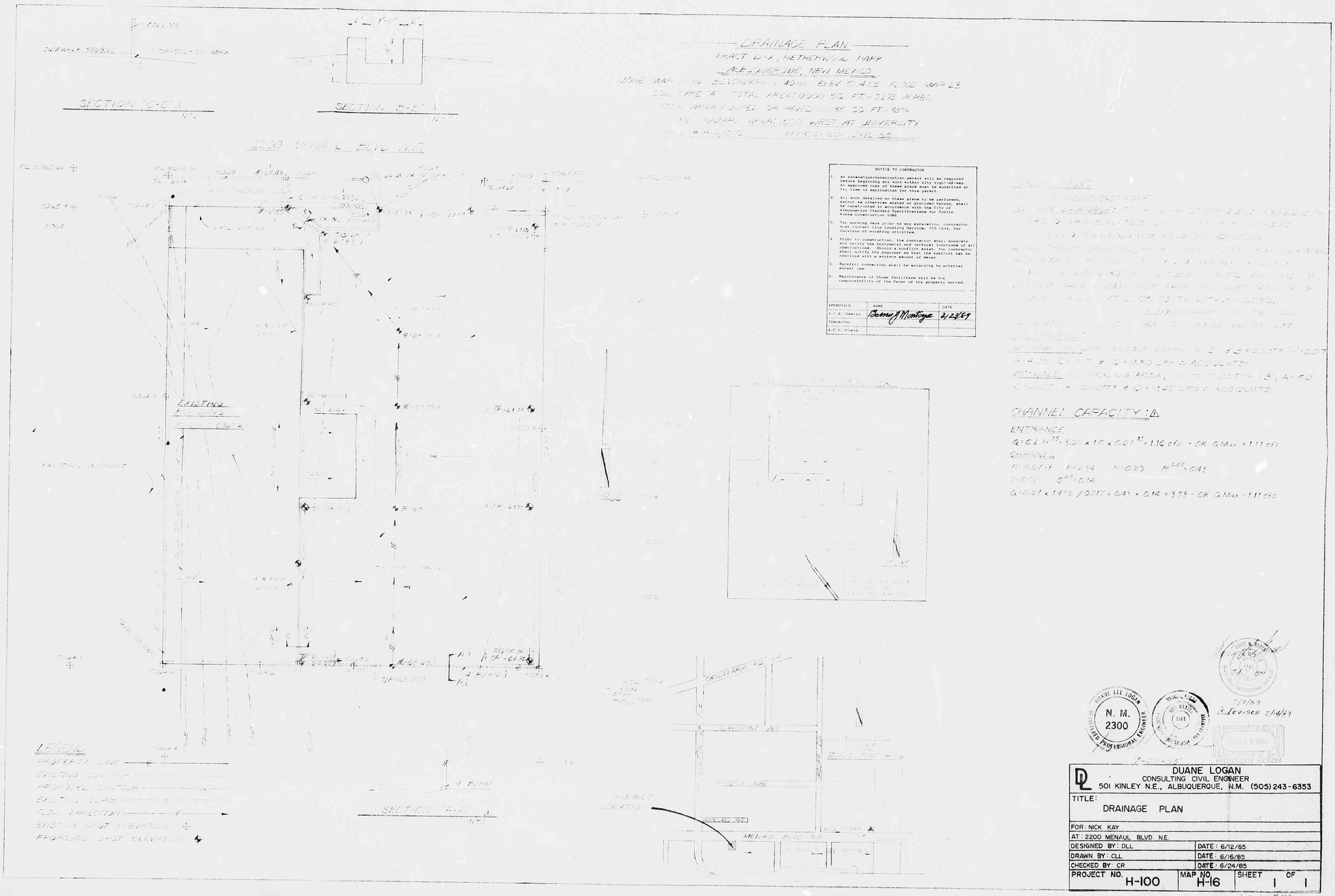
ZONE MAP H-16 BENCHMARK 140-12 ELEV 5455 FLOOD MAP 23

SOIL TYPE "A" TOTAL AREA: 10000 SQ. FT. = 0.275 ACRES

TOTAL AREA PAVED OR ROOFED = 1138 SQ. FT. = 12%

NEW HAZARD AREA: 1500' WEST AT UNIVERSITY

FILE # H-16/D72 APPROVED: 2-10-84



NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided herein, shall be constructed in accordance with the City of Albuquerque Standard Specifications for Public Works Construction 1986.
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to arterial street use.
6. Maintenance of these facilities will be the responsibility of the Owner of the property served.

APPROVALS	NAME	DATE
A.C.E./Design	Barney J. Montoya	2/23/89
Inspector		
A.C.E./Field		

DESIGN:

1. CLEANOUT/DRAIN

DRAINAGE VOLUME

IN-SITE DRAINAGE: 20 YR. 2 HR. STORM 2.2" RAINFALL [illegible]

[illegible] = 1.1 ACRE-FEET

[illegible] = 1.1 ACRE-FEET

WITH 20% IN WORK [illegible] = 1.3 ACRE-FEET

[illegible] = 1.3 ACRE-FEET

[illegible] = 1.3 ACRE-FEET

2. DRAINAGE FACILITIES ARE [illegible] WITH TRAPEZOIDAL SWALE TO INLET

[illegible]

[illegible] WITH AVERAGE DEPTH OF 0.5', S=0.0075, N=0.017, A=20, CHOKE # Q=7.80 CFS & ADEQUATE

[illegible] IN PARKING AREA, MAXIMUM DEPTH 0.5', A=50, CHOKE, S=0.0071 # Q=9.40 CFS & ADEQUATE

CHANNEL CAPACITY: ⚠

ENTRANCE

$Q = C L H^{3/2} = 3.00 \times 10 \times 0.61^{3/2} = 1.12$ cfs - OK $Q_{Max} = 1.11$ cfs

CHANNEL

$A = 0.61 \times 4$ $P = 2.34$ $R = 0.27$ $R^{0.67} = 0.43$

$S = 0.02$ $S^{0.5} = 0.14$

$Q = 0.61 \times 1.49 / 0.017 \times 0.43 \times 0.14 = 3.73$ - OK $Q_{Max} = 1.11$ cfs

DUANE LEE LOGAN REGISTERED PROFESSIONAL ENGINEER N. M. 2300

7/1/89

D. Revised 2/14/89

RECEIVED FEB 15 1989 HYDROLOGY SECTION

DUANE LOGAN
CONSULTING CIVIL ENGINEER
501 KINLEY N.E., ALBUQUERQUE, N.M. (505) 243-6353

TITLE: DRAINAGE PLAN

FOR: NICK KAY

AT: 2200 MENAUL BLVD. N.E.

DESIGNED BY: DLL	DATE: 6/12/85
DRAWN BY: CLL	DATE: 6/16/85
CHECKED BY: CR	DATE: 6/24/85

PROJECT NO.	MAP NO.	SHEET
H-100	H-16	1 OF 1

L.G. JOB #937

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
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REF. 21 DATE 2-24-89 OPR

CITY OF ALBUQUERQUE

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Karen Acuna
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 11/14/ 8 9
Norberta Sanchez

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

DRAINAGE PLAN

TRACT D-X, NETHERWOOD PARK

ALBUQUERQUE, NEW MEXICO

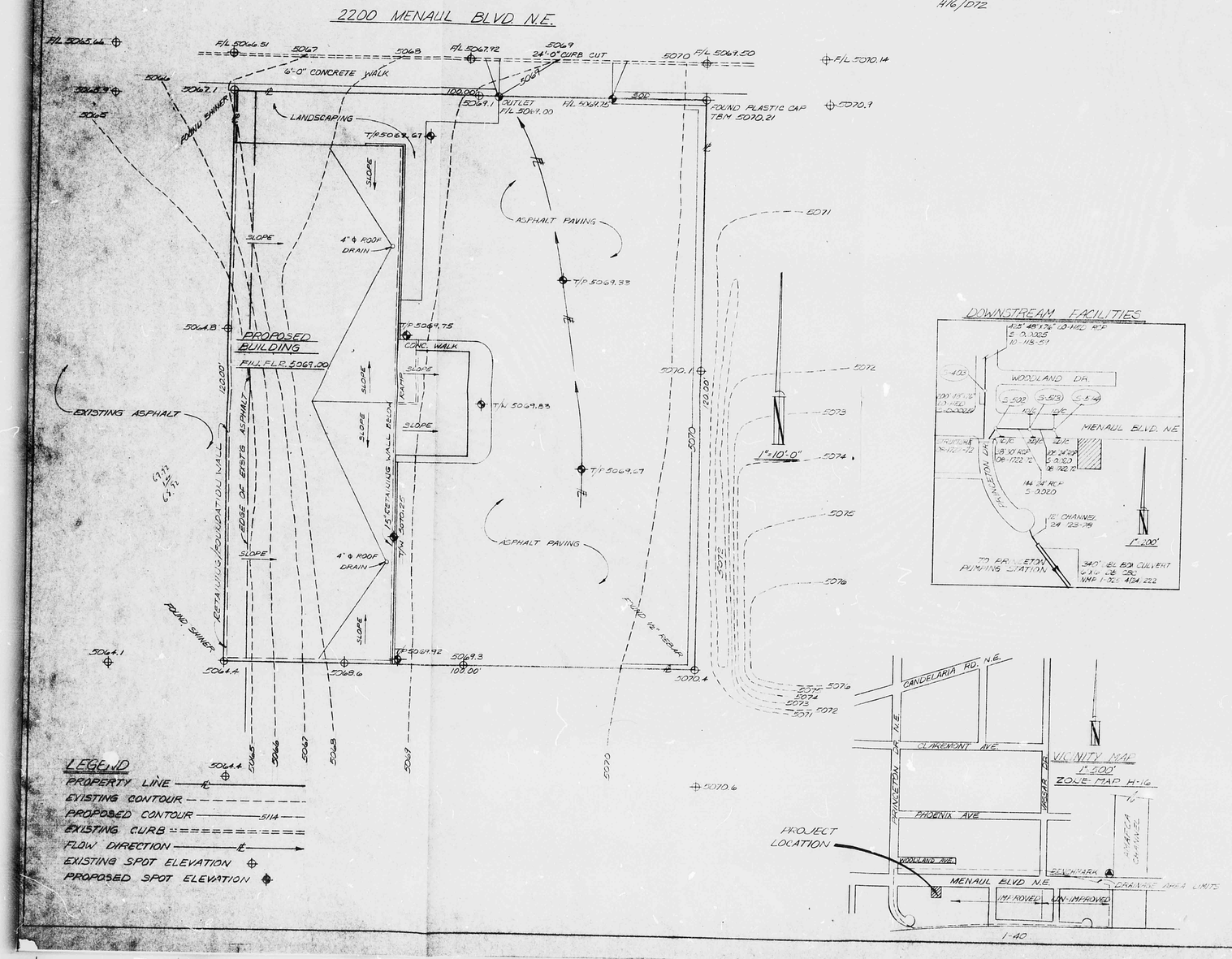
ZONE MAP H-16 BENCHMARK 1-40-12 ELEV. 5114.55 FLOOD MAP 23

SOIL TYPE "A" TOTAL AREA: 12000 SQ. FT. = 0.275 ACRES

TOTAL AREA ROOFED OR PAVED = 11185 SQ. FT. = 93%

FLOOD HAZARD AREA: 1500' WEST AT UNIVERSITY

4/16/D72



HYDROLOGY:

OFF-SITE DRAINAGE: NONE

ON-SITE DRAINAGE: 100 YR.-6 HR. STORM = 2.2", I = 2.3 x 2.2 = 5.06

C = 0.80, Q = 0.80 x 5.06 x 0.275 = 1.11 CFS MAXIMUM PROPOSED

AT C = 0.16, Q = 0.16 x 5.06 x 0.275 = 0.22 CFS EXISTING

DOWNSTREAM FACILITIES: AREA DRAINED = 2300' x 500' = 26.4 ACRES WITH 30% UN-IMPROVED - C = 0.50 & Q = 0.50 x 5.06 x 26.4 = 66.8 CFS

PROJECT IS WITHIN 80' OF 2-DOUBLE "C" INLETS. EAST END OF DRAINAGE AREA IS 2000 FEET FROM THIS INLET. CAPACITY OF DOUBLE "C" = 16 CFS AT CURB DEPTH WITH S = 0.030.

∴ DOWNSTREAM FACILITIES ARE ADEQUATE, FOR 1.11 CFS WHEN T_c = 4.30 SECOND TO INLET.

HYDRAULICS:

14' CURB CUT, WITH AVERAGE DEPTH OF 2", & S = 0.0073, "n" = 0.017

A = 4.05, C = 0.17 & Q = 9.50 CFS ∴ ADEQUATE

40' SWALE IN PARKING AREA, MINIMUM DEPTH = 3", A = 5.0

C = 0.125, S = 0.0079 & Q = 9.42 CFS ∴ ADEQUATE

DUANE LEE LOGAN REGISTERED PROFESSIONAL ENGINEER N. M. 2300

NEIL G. LOGAN REGISTERED LAND SURVEYOR NO. 2308

RECEIVED SEP 27 1985 HYDROLOGY SECTION

9-23-85

DUANE LOGAN
CONSULTING CIVIL ENGINEER
501 KINLEY N.E., ALBUQUERQUE, N.M. (505) 243-6353

TITLE: DRAINAGE PLAN	
FOR: NICK KAY	
AT: 2200 MENAUL BLVD. N.E.	
DESIGNED BY: DLL	DATE: 6/12/85
DRAWN BY: CLL	DATE: 6/19/85
CHECKED BY: CP	DATE: 6/24/85
PROJECT NO. H-100	MAP NO. H-16 / SHEET 1 OF 1

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

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CITY OF ALBUQUERQUE

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CITY CLERK RECORDER

OFFICIAL SEAL NORBERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires 11/14/8 1996

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

DRAINAGE PLAN

TRACT D-X, NETHERWOOD PARK

ALBUQUERQUE, NEW MEXICO

ZONE MAP M-16 BENCHMARK 1 40-12 ELEV 5144.33 FLOOD MAP 35

SOIL TYPE "A" TOTAL AREA: 12000 SQ. FT. = 0.275 ACRE

TOTAL AREA PAVED OR PAVED = 11130 SQ. FT. 92%

PLOT NAZAR AREA: 1000 WEST AT UNIVERSITY

AG/PIO

N. M. 2300 — DUANE LEE LOGAN — REGISTERED PROFESSIONAL ENGINEER

RECEIVED SEP 27 1985 HYDROLOGY SECTION

DUANE LOGAN CONSULTING CIVIL ENGINEER 501 KINLEY N.E., ALBUQUERQUE, N.M. (505) 243-6353		
TITLE: DRAINAGE PLAN		
FOR: NICK KAY		
AT: 2200 MENAUL BLVD. N.E.		
DESIGNED BY: DLL	DATE: 6/12/85	
DRAWN BY: CLL	DATE: 6/16/85	
CHECKED BY: CR	DATE: 6/24/85	
PROJECT NO. H-100	MAP NO. H-16	SHEET 1 OF 1

THIS PLAN SHOT TWICE
ONCE IN LIGHT AND
ONCE ON DARK.

CITY OF ALBUQUERQUE
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REF. 21 DATE 12/18/85 OP. CP

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CITY CLERK RECORDER

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NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 11/21/88

D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D