HYDROLOGY K22/D22f 1 PLAN

K22/D22F

1 Plan

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

DRAINAGE PLAN

TRACT K-1A CUESTA SUBDIVISION

ALBUQUERQUE, NEW MEXICO

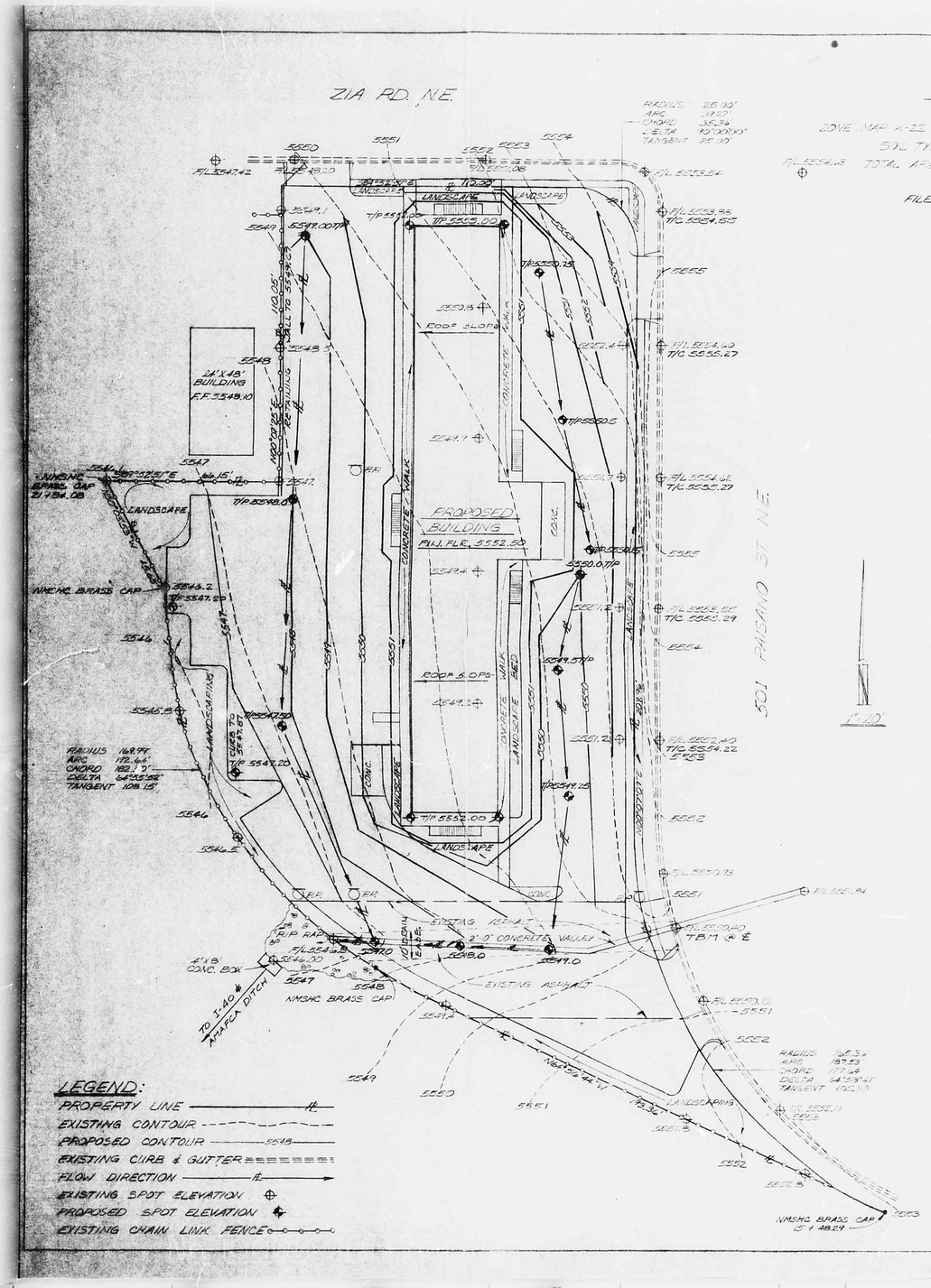
ZONE MAP K-22 BENCHMARK 4-K22 ELEV. 5570.72 FLOOD MAP 31

SOIL TYPE "B" TOTAL AREA: 49452 SQ. FT. = 1.135 AC.

TOTAL AREA ROOFS OR PAVED: 45996 SQ. FT. = 93%

NO FLOOD HAZARD AREAS

FILE NO. K22/D22C APPROVED: _____



HYDROLOGY:

OFF-SITE DRAINAGE: NONE, EXCEPT ACROSS THE 10' DRAINAGE EASEMENT AT THE SOUTH END OF THE PROPERTY.

ON-SITE DRAINAGE: 100 YEAR - 6 HOUR STORM = 2.46", T_c = < 10 MINUTES

$I = 2.3 \times 2.46 \times 5.66$ - $C = 0.86$ & $Q_{100} = 0.86 \times 5.66 \times 1.11 = 5.40$ CFS PROPOSED.

$Q_{10} = 3.56$ CFS AT $C = 0.84$, $Q_{100} = 2.14$ CFS EXISTING = 40% OF PROPOSED.

FOSS DISCHARGE TO EXISTING EASEMENT IS ACCEPTABLE, T_c AT BOX CULVERT = < 45 SECONDS ∴ CONCENTRATION WILL PRECEDE MAJOR UPSTREAM FLOW.

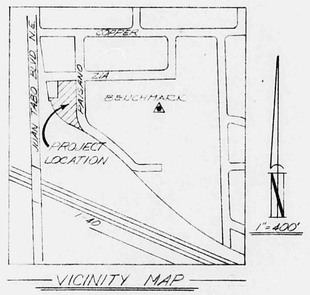
HYDRAULICS:

EAST SWALE: WIDTH = 2.0', DEPTH = 0.20', A = 2.0, P = 2.0, R = 0.10, S = 0.03, n = 0.017

$Q = 2.0 \times 1.486 \times 0.215 \times 0.173/0.017 = 6.5$ CFS ∴ ADEQUATE

SOUTH SWALE: (AS-BUILT) WIDTH = 4.0', DEPTH = 0.33', A = 6.8, P = 4.0, R = 0.17, S = 0.03, n = 0.017

$Q = 6.8 \times 1.486 \times 0.707 \times 0.173/0.017 = 31.5$ CFS



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DUANE LEE LOGAN N. M. 2300 LICENSED PROFESSIONAL ENGINEER

REVISED 11-2-85

DUANE LOGAN CONSULTING CIVIL ENGINEER 501 KINLEY N.E., ALBUQUERQUE, N.M. (505) 243-6353	
TITLE: DRAINAGE PLAN	
FOR: RON McCONNELL	
AT: ZIA & PAISANO, N.E.	
DESIGNED BY: DLL	DATE: 6-20-85
DRAWN BY: CL	DATE: 6-27-85
CHECKED BY: CR	DATE: 6-28-85
PROJECT NO. H-122 / MAP NO. K-22	SHEET 1 OF 1

DUANE LEE LOGAN N. M. 2300 LICENSED PROFESSIONAL ENGINEER — 6-28-85

CITY OF ALBUQUERQUE
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CITY OF ALBUQUERQUE

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