E20/D9A

1 PLAN

VICINITY MAP N.T.S.
ZONE ATLAS PG. E-20

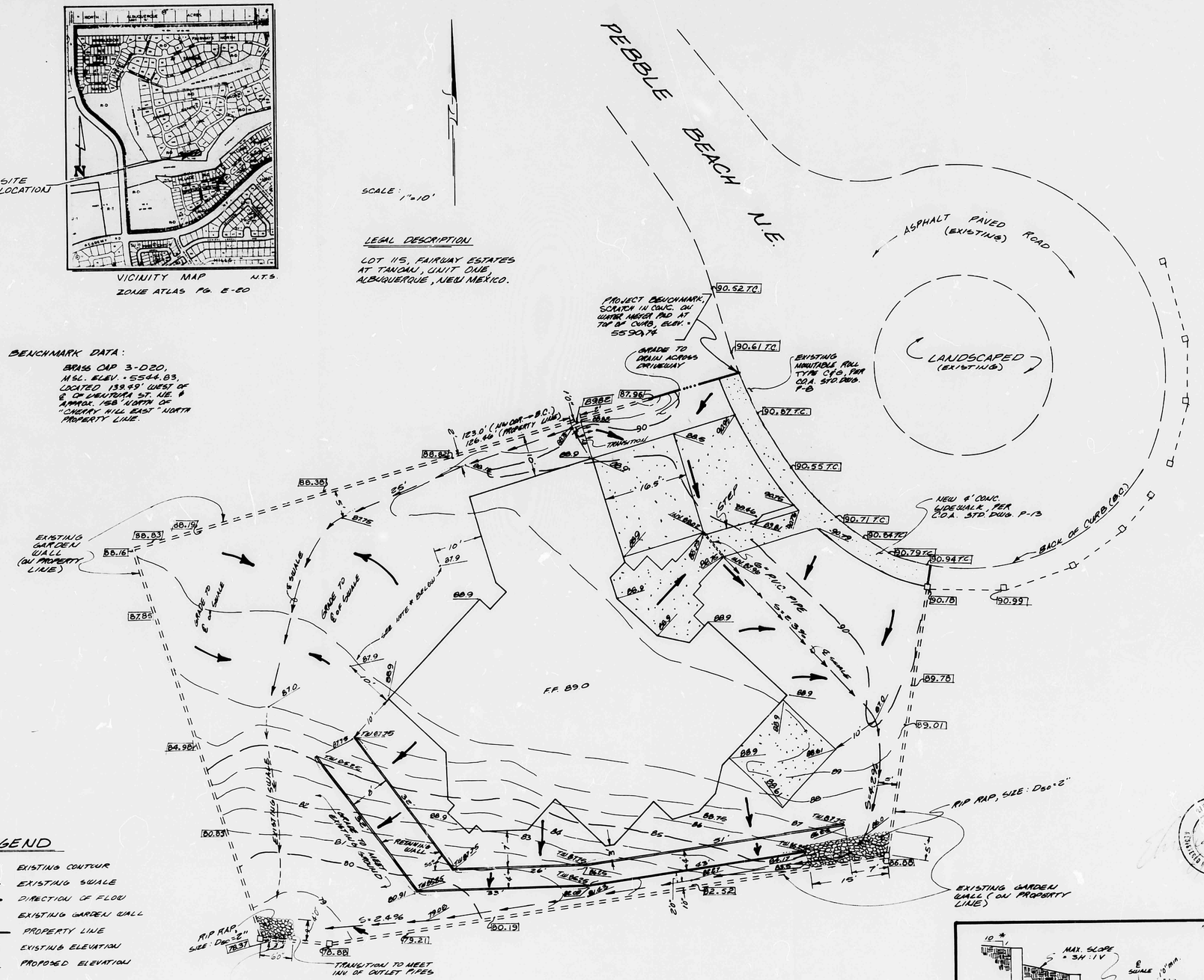
SCALE: 1"=10'

LEGAL DESCRIPTION

LOT 115, FAIRWAY ESTATES AT TANOAN, UNIT ONE, ALBUQUERQUE, NEW MEXICO.

BENCHMARK DATA:

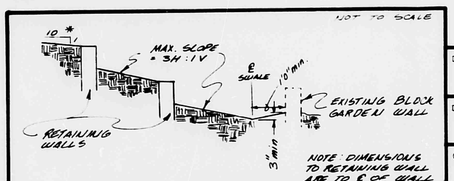
BRASS CAP 3-D20, MSL. ELEV. = 5544.83, LOCATED 139.49' WEST OF & OF VENTURA ST. NE & APPROX. 158' NORTH OF "CHERRY HILL EAST" NORTH PROPERTY LINE.



LEGEND

- EXISTING CONTOUR
- EXISTING SWALE
- DIRECTION OF FLOW
- EXISTING GARDEN WALL
- PROPERTY LINE
- 5000 EXISTING ELEVATION
- 000 PROPOSED ELEVATION

* NOTE: MINIMUM SLOPE AROUND BLDG'S IS 1' VERT. DROP PER FIRST 10' FROM FOUNDATION WALLS, EXCEPT AS NOTED.



TYPICAL RETAINING WALL/ SWALE CROSS SECTION @ S. PL

GENERAL

Zone Atlas Page E-20; Flood Hazard Zone C

SITE DESCRIPTION
present - Vacant lot with frontage onto Pebble Beach Drive NE which is paved and has mountable roll type curbs.

proposed - Single family residence on last remaining lot on Pebble Beach Drive NE.

SOIL TYPE - fill, consisting of coarse to fine-grained sand occasional gravel, silty, medium dense to dense, medium moist, dark brown.

LOT SIZE - irregular shaped lot 12,216.6 sq. ft. or 0.2804 ac.

ON-SITE HYDROLOGY

TIME OF CONCENTRATION
Flow length = 163 ft.
Average slope = 7.4 percent
Time of Concentration = 1.07 min.; velocity = 2.5 fps
Adjusted velocity per DPM Plate 22.2 B-1 = 1.25 fps
Adjusted Time of Concentration = 2.2 min.; use 10 min.

6-HOUR RAINFALL DEPTH
10-yr. = 1.62 in.
100-yr. = 2.46 in.

RAINFALL INTENSITY
10-yr. = 3.52 in./hr.
100-yr. = 5.34 in./hr.

RUNOFF COEFFICIENTS
Undeveloped Condition C = 0.40
Developed Condition
roof area = 3,050 sq. ft. @ C = 0.90
concrete area = 1,150 sq. ft. @ C = 0.95
unpaved area = 8,017 sq. ft. @ C = 0.40
Composite C = 0.58

RUNOFF RATES
Undeveloped Condition
10-yr. = 0.4 cfs
100-yr. = 0.6 cfs
Developed Condition
10-yr. = 0.6 cfs
100-yr. = 0.9 cfs

RUNOFF VOLUMES
Undeveloped Condition
10-yr. = 660 cu. ft.
100-yr. = 1,002 cu. ft.
Developed Condition
10-yr. = 957 cu. ft.
100-yr. = 1,453 cu. ft.

OFF-SITE FLOW

To the north, west and east are single family homes. To the south is Tract 142, an existing drainage easement. The homes have block walls surrounding the lots and contribute no off-site flow. The drainage easement to the south drains west, and does not cause off-site flow. Pebble Beach Drive is north-east of the lot and drains north.

ON-SITE FLOW

The City of Albuquerque has approved free discharge to the drainage easement south of the lot. Adjacent lots which also abut the easement are graded to drain to it. The proposed plan for this lot is also to drain south to the drainage easement. No runoff drains to the street.

HYDRAULICS

South Swale
100-yr. inflow = 0.6 cfs
Size - triangular shaped, 3 inches deep, 1.75 feet wide.
Max. slope = 5.7 percent
Velocity = 2.9 fps
Flowrate = 0.6 cfs

Outlet Pipes
Orifice Equation
4" diameter PVC pipe
H = 10 in.
A = .09 sq. ft.
C = .605
Q = for 1-4 in. pipe = 0.4 cfs
3-4" PVC pipes required

RECEIVED
JUN 20 1986
HYDROLOGY SECTION

DESIGNED BY: ED/SD	# DRAINAGE & GRADING PLAN FOR BEATY RESIDENCE
DRAWN BY: JH/CVM	
CHECKED BY: ED	
JUNE 1986	PREPARED BY: RESOURCE TECHNOLOGY INC.