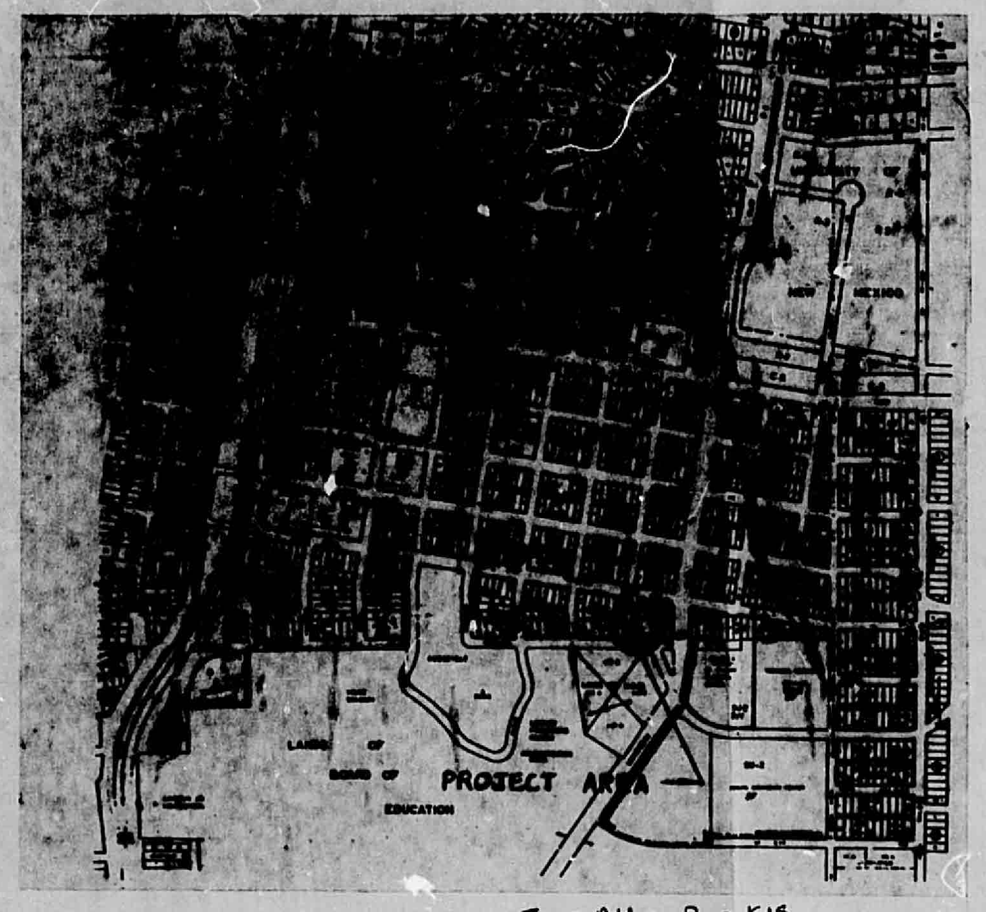
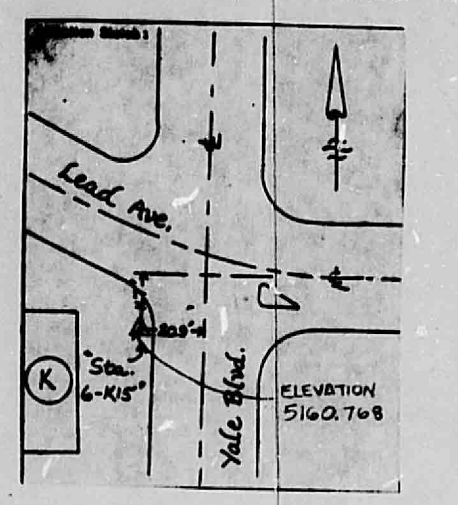
Hydrology File No. K-15/D048 1 of 1


PROJECT AREA
EDUCATION

Zone Atlas Page K15

PROJECT BENCHMARK

Station is located 1.8 miles east of downtown Albuquerque, near the intersection of Yale Blvd and Lead Ave. Station is a 3¼ aluminum tablet set in a drill hole flush with sidewalk. Station is stamped "ACS, 6-K15, 1984"


Lead Ave.
K
"Sta. 6-K15"
Yale Blvd.
ELEVATION
5160.768

TBM

Notch on top of curb at southeast corner of lot
Elevation 5104.14

LEGAL DESCRIPTION

Summary Replat Showing Parcel "A" in Block 59
Terrace Addition Albuquerque, New Mexico

DRAINAGE PLAN

This plan has two features of note. The runoff from the south end of the project area is directed around the new building and thru a paved parking lot and into Pine St. Since the project area is not within a floodplain, the runoff will then be allowed to flow into Coal Ave thru a sidewalk depression on the north side of the site.

Runoff from the north side of the site will be allowed to pond on site. The pond will retain runoff from approximately 0.05 acres. Developed condition will only increase flow into Pine St by 0.04 cfs.

CALCULATIONS

1. Runoff undeveloped condition

$Q = CIA$

SURFACE	AREA	"C" VALUE
DIRT	3634.32	0.40

RAINFALL 100 YR 6-HR (REF I A PLATE 22.2 D-1)

$P_6 = 2.35$ inches

TIME OF CONCENTRATION

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

$L = 190'$

$S = 0.02$

$T_c = \dfrac{0.0078 \times 190^{0.77}}{0.02^{0.385}} = 2$ use 10 min

RAINFALL INTENSITY, I, (REF I A PLATE 22.2 D-2)

$I = P_6 \times 6.84\,T_c^{-0.51} = 2.35 \times 6.84\,(10^{-0.51}) = 4.47$ in/hr

PEAK DISCHARGE, 100 YR FREQ.

$Q = 0.10$ acre $\times 4.47$ in/hr $\times 0.40$

$= 0.[illegible]$ cfs

2. Runoff, developed condition, into Pine St

$Q = CIA$

SURFACE	AREA	C VALUE	A×C
ROOF	1800.00	0.90	1620
GRASS	3000.00	0.25	750
SIDEWALK	340.00	0.95	323
PAVEMENT	1200.00	0.95	1140
TOTAL AREA =	6340		3833

WEIGHTED "C" VALUE $\dfrac{3833}{6340} = 0.60$

$T_c = 10$ min

Rainfall Intensity I

$I = P_6 \times 6.84\,T_c^{-0.51} = 4.47$ in/hr

$Q = 0.15 \times 4.47 \times 0.60$

$= 0.43$ cfs

3. Runoff developed condition into pond

$Q = CIA$

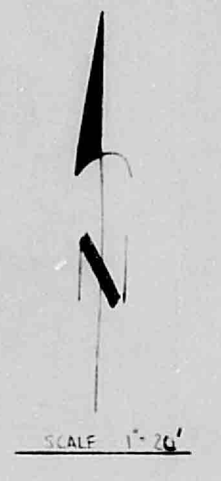
SURFACE	AREA	C VALUE
GRASS	2246.72	0.25

$Q = 0.05 \times 4.47 \times 0.25$

$= 0.07$ cfs

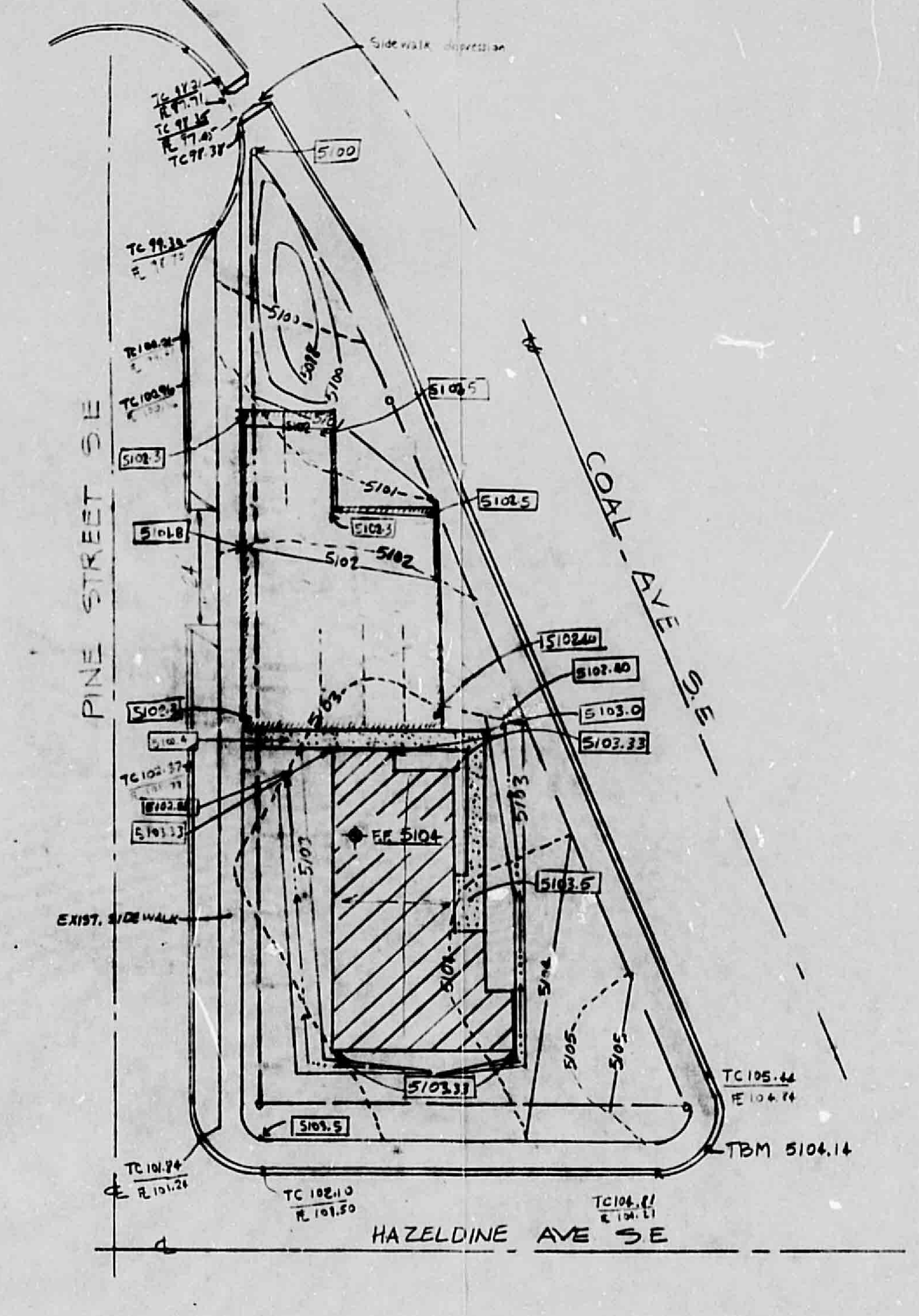
CONSTRUCTION NOTES

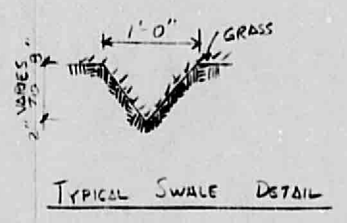
1. Grading Contractor to ensure that no soil erodes from the site into public right-of-way or onto private property.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
4. Prior to grading, contractor must contact city utilities section for location of existing utilities.
5. Roof drainage to flow into new swale. Roof slope 4 on 12. ✓



LEGEND:

-----5105-----	EXISTING CONTOUR
——5105——	NEW CONTOUR
5104.3	NEW SPOT ELEVATION
▲ 101.84	EXISTING SPOT ELEVATION
→···→···→	NEW SWALE
▒	NEW SIDEWALK
═	EXISTING SIDEWALK AND CURB
▤	NEW PAVEMENT ASPHALT
▨	NEW BUILDING
— — — —	PROPERTY LINE
TC	TOP OF CURB
℄	FLOW LINE


Sidewalk depression
TC 97.91
FL 97.71
TC 97.85
FL 97.05
TC 97.38
5100
TC 99.36
TC 100.26
TC 100.96
5100
5098
5102.3
5102.5
5102.5
5102.5
5101
5101.8
5102
5102
5102.80
5102.80
5103.0
5103.33
5102.3
5100.4
TC 102.37
5102.80
5103.33
F.F. 5104
5103.5
5103
5104
5104
5105
5105
5103.33
5103.5
EXIST. SIDEWALK
PINE STREET SE
COAL AVE SE
HAZELDINE AVE SE
TC 105.44
FL 104.84
TBM 5104.14
TC 101.84
FL 101.24
TC 102.10
FL 101.50
TC 104.81
FL 104.21


1'-0"
GRASS
SLOPES

Typical Swale Detail

3/14/88

1st Revision 3/14/88 → Rearrange Parking and
Incorporate Review Cmts From City Engineer

GRADING PLAN

For New Fourplex at Coal &
Hazeldine Streets

Albuquerque, New Mexico

R# 21 DATE 6-24-93 OP EJP

CITY OF ALBUQUERQUE

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Karen Anaya
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: MAY 8 1995
Norberta Sanchez

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

CITY OF ALBUQUERQUE
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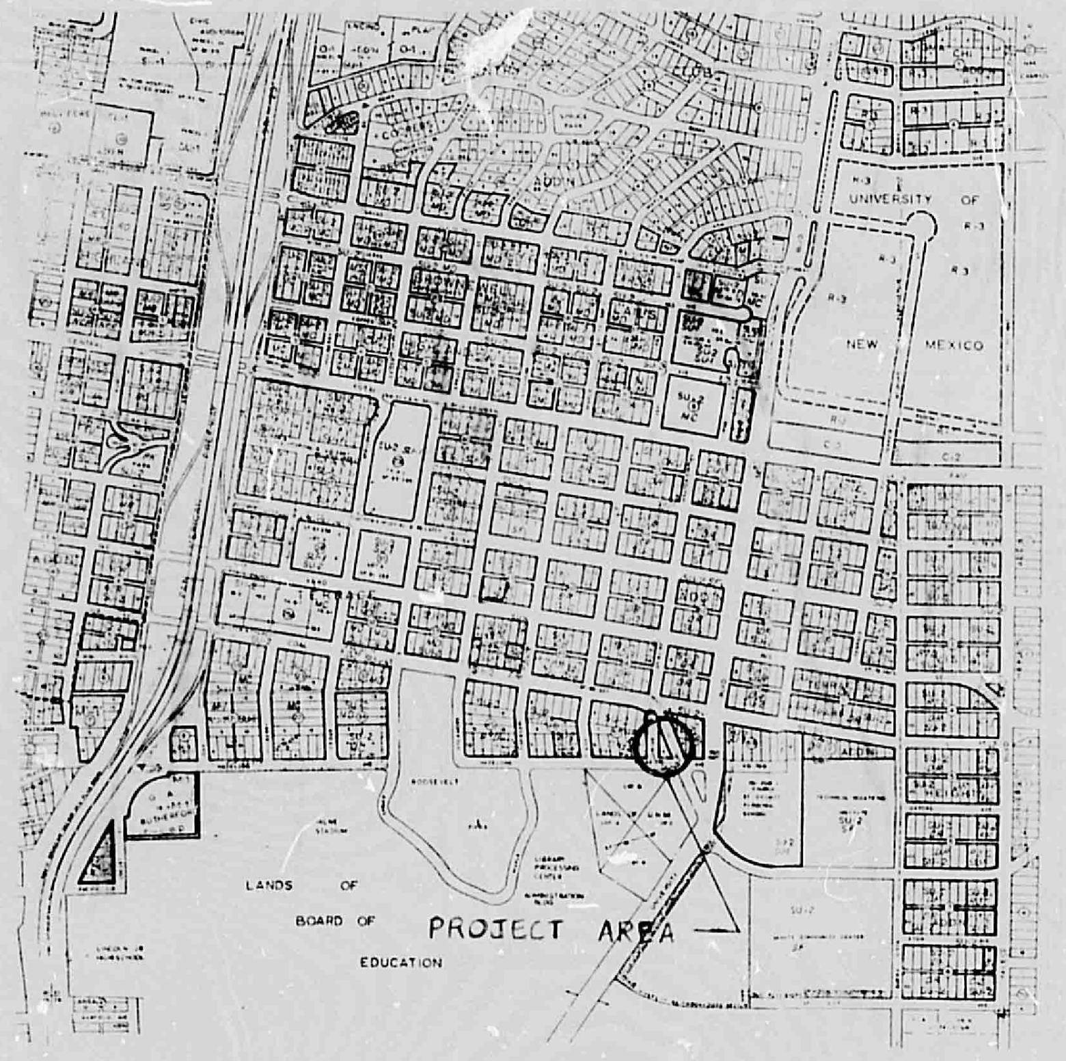
PLANS/PLATS ON FILE

FILE DESC: K-15/D048

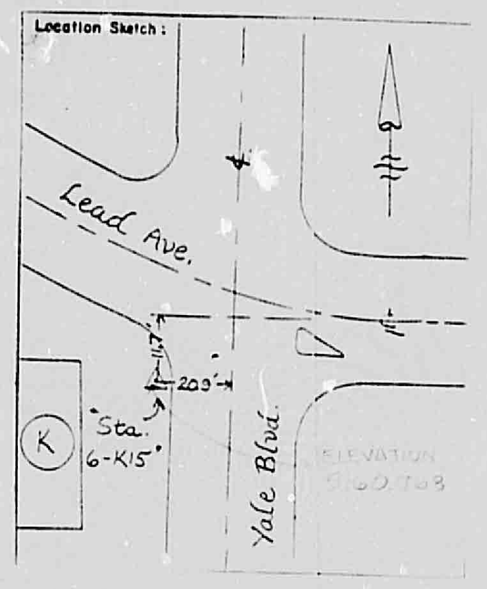
PLANS/PLATS 1

E F D C B A CITY OF ALBUQUERQUE C D F E


UNIVERSITY OF NEW MEXICO
LANDS OF BOARD OF EDUCATION
PROJECT AREA

Zone Atlas Page K-15

PROJECT BENCHMARK


Location Sketch :
Lead Ave.
Yale Blvd.
"Sta. 6-K15"
209'
ELEVATION
5160.708

TBM

LEGAL DESCRIPTION

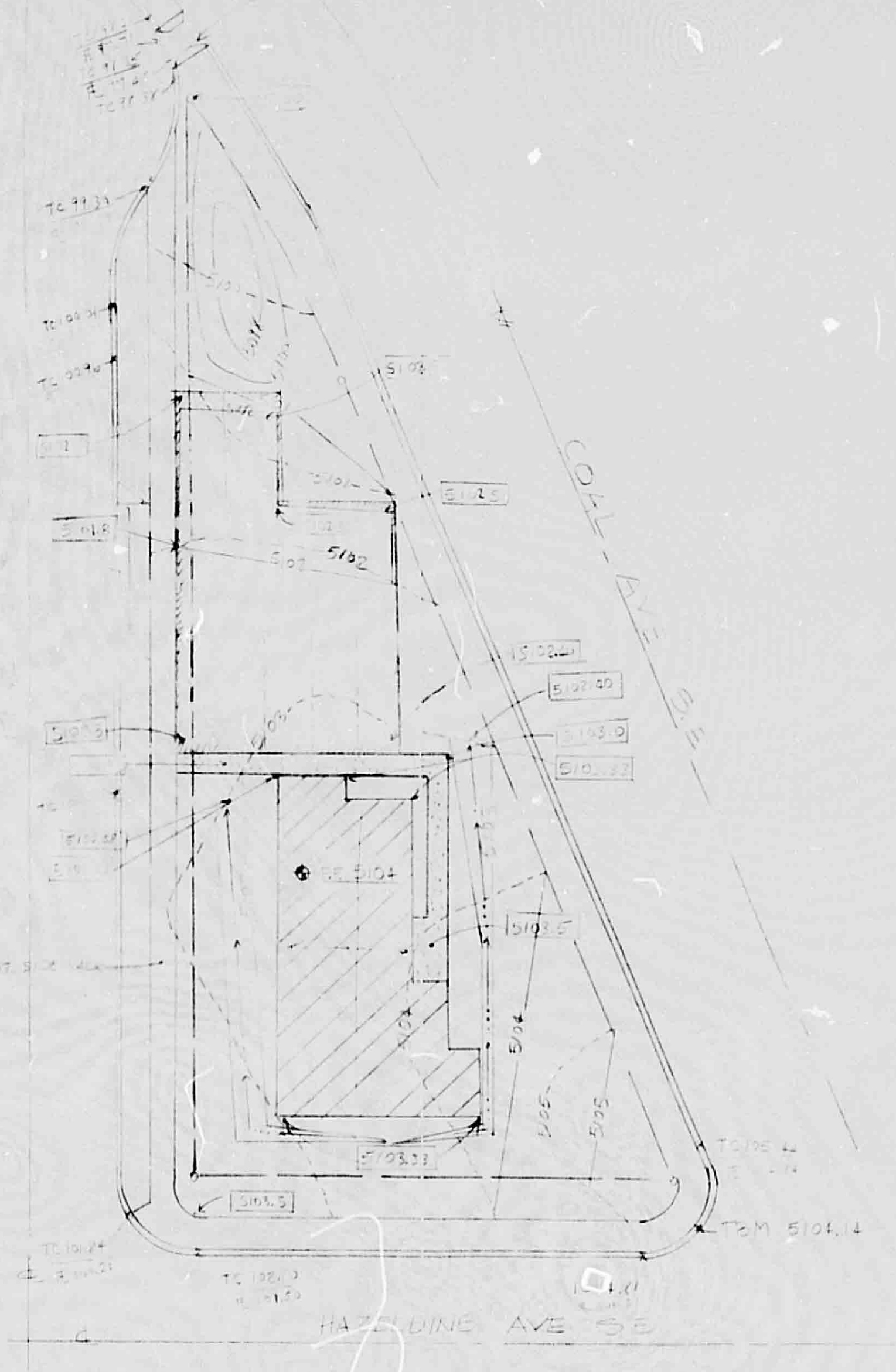
DRAINAGE PLAN

CALCULATIONS

1. Runoff undeveloped conditions

LEGEND

NEW SWALE



GEORGE L. SAWTELLE
NEW MEXICO
8365
REGISTERED PROFESSIONAL ENGINEER

George Sawtelle
3/14/88

GRADING PLAN
For New Fourplex at Coal & Hazeldine Streets
Albuquerque, New Mexico

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