

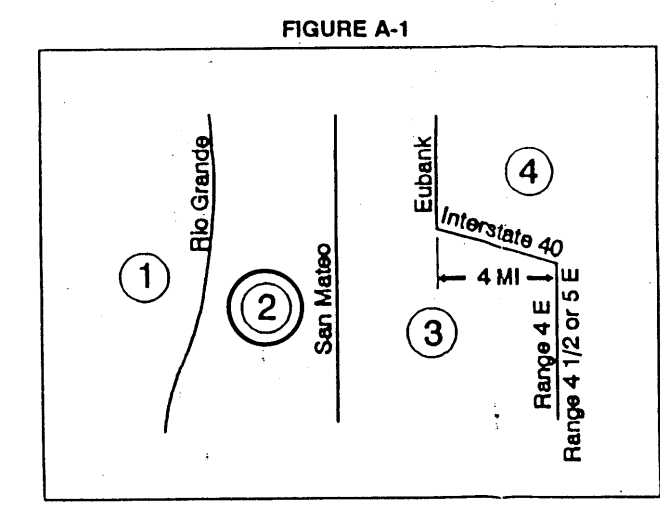
Zone	Intensity [2-YR, 10-YR]	100-YR [2-YR, 10-YR]
1	4.70 [1.84, 3.14]	
2	5.05 [2.04, 3.41]	
3	5.39 [2.21, 3.65]	
4	5.61 [2.34, 3.83]	

Zone	Treatment				100-YR [2-YR, 10-YR]
	A	B	C	D	
1	1.29 [0.00, 0.24]	2.03 [0.03, 0.76]	2.87 [0.47, 1.49]	4.37 [1.89, 2.89]	
2	1.56 [0.00, 0.38]	2.28 [0.08, 0.85]	3.14 [0.80, 1.71]	4.70 [1.80, 3.14]	
3	1.87 [0.00, 0.58]	2.65 [0.21, 1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 3.39]	
4	2.20 [0.05, 0.87]	2.92 [0.38, 1.45]	3.73 [1.00, 2.28]	5.25 [2.17, 3.57]	

A.1 PRECIPITATION ZONES

Bernalillo County's four precipitation zones are indicated in TABLE A-1 and on FIGURE A-1.

Zone	Location
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40; and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40; and East of the East boundary of Range 4 East, South of Interstate 40



Where a watershed extends across a zone boundary, use the zone which contains the largest portion of the watershed.

DPM SECTION 22.2 - HYDROLOGY
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Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Unlined arroyos.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the areal percentages in TABLE A-5 may be employed.

GRADING/PAVING PLAN

THE FOLLOWING ITEMS CONCERNING (3210 MATTHEWS AVE. NE) AN UNPLATTED PORTION OF LOT 7 BLOCK 7 DUKE CITY INDUSTRIAL AREA ADDN., BERNALILLO COUNTY, ALBUQUERQUE, NEW MEXICO ARE CONTAINED HEREON:

EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE CONTAINS 0.39 ACRES AND IS LOCATED EAST OF RICHMOND DR. NE ON MATTHEWS AVENUE NE AND SOUTH OF MATTHEWS AVENUE NE. THE SITE IS COMPLETELY DEVELOPED ACCEPT FOR 3,877 SQ. FT. OF DIRT AREA. THE EXISTING FLOWS ARE FROM SOUTH TO NORTH TOWARDS MATTHEWS AVENUE NE. ACCORDING TO THE FLOOD INSURANCE RATE MAP, PANEL 0351D, DATED SEPTEMBER 20, 1996, THIS SITE IS NOT LOCATED WITHIN A DESIGNATED FLOOD ZONE NOR DOES IT CONTRIBUTE TO ANY DOWN STREAM FLOODING.

PROPOSED CONDITIONS

AS SHOWN BY THE GRADING/PAVING PLAN, THE PROJECT WILL CONSIST OF 3,877 SQ. FT. OF ADDITIONAL PAVING AT THE SOUTHERLY REAR PORTION OF THE SITE. THE CALCULATIONS SHOWN HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. THE PROCEDURES FOR 40-ACRES AND SMALLER BASINS AS SET FORTH IN THE REVISION OF SECTION 22.2 HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL VOLUME II, DESIGN CRITERIA DATED 1997, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME GENERATED.

3210 Matthews Ave. AREA = 0.39 ac.

ZONE 2 PRECIPITATION:		
360	=	2.35 in.
1440	=	2.75 in.
10day	=	3.95 in.

EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A 0.53 in.	1.56 cfs/ac.
TREATMENT B 0.78 in.	2.28 cfs/ac.
TREATMENT C 1.13 in.	3.14 cfs/ac.
TREATMENT D 2.12 in.	4.70 cfs/ac.

EXISTING CONDITIONS:	PROPOSED CONDITIONS:
TREATMENT A AREA 0 ac.	TREATMENT A AREA 0 ac.
TREATMENT B AREA 0 ac.	TREATMENT B AREA 0 ac.
TREATMENT C AREA 0.11 ac.	TREATMENT C AREA 0.02 ac.
TREATMENT D AREA 0.28 ac.	TREATMENT D AREA 0.37 ac.

EXISTING EXCESS PRECIPITATION:

$$\text{Weighted E} = (0.53)(0.00) + (0.78)(0.00) + (1.13)(0.11) + (2.12)(0.28) = 1.84 \text{ in.}$$

$$V_{100-360} = (1.84)(0.39) / 12 = 0.059908 \text{ ac-ft} = 2610 \text{ cf}$$

EXISTING PEAK DISCHARGE:

$$Q_{100} = (1.56)(0.00) + (2.28)(0.00) + (3.14)(0.11) + (4.70)(0.28) = 1.66$$

PROPOSED EXCESS PRECIPITATION:

$$\text{Weighted E} = (0.53)(0.00) + (0.78)(0.00) + (1.13)(0.02) + (2.12)(0.37) = 2.07 \text{ in.}$$

$$V_{100-360} = (2.07)(0.39) / 12.0 = 0.067250 \text{ ac-ft} = 2929 \text{ cf}$$

$$V_{100-1440} = (0.07) + (0.37)(2.75 - 2.35) / 12 = 0.079583 \text{ ac-ft} = 3467 \text{ cf}$$

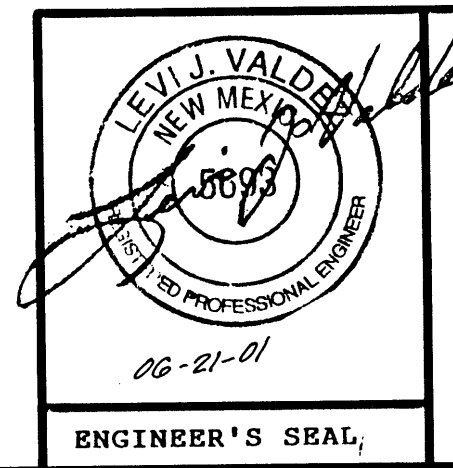
$$V_{100-10day} = (0.07) + (0.37)(3.95 - 2.35) / 12 = 0.116583 \text{ ac-ft} = 5078 \text{ cf}$$

PROPOSED PEAK DISCHARGE:

$$Q_{100} = (1.56)(0.00) + (2.28)(0.00) + (3.14)(0.02) + (4.70)(0.37) = 1.80$$

INCREASE 1.80 CFS - 1.66 CFS = 0.14 CFS

**PROPOSED PAVING PLAN
FOR
3210 MATTHEWS AVE. N.E.
ALBUQUERQUE, NEW MEXICO
JUNE, 2001**



GENERAL NOTES:

- NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD OTHER THAN SHOWN HEREON.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT OF STORM RUNOFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

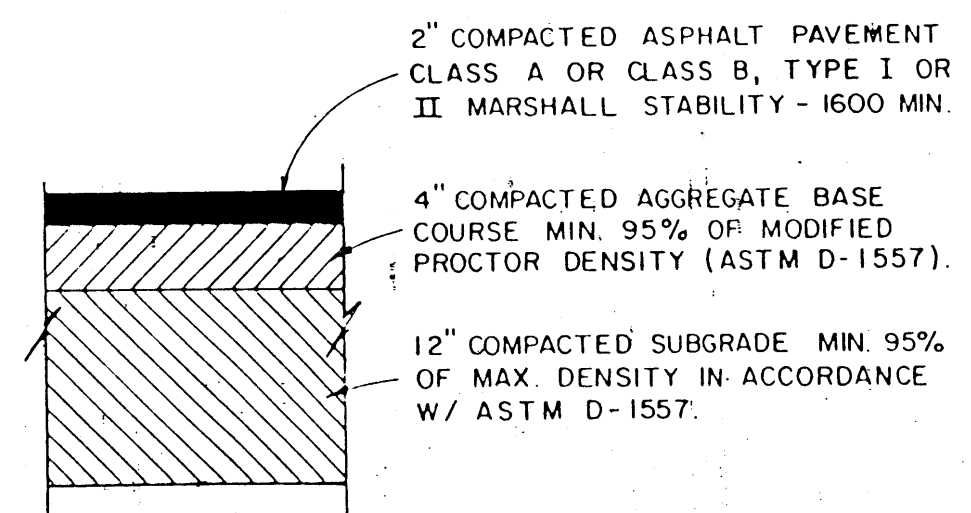
- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SUBJECT SITE AND ENTERING ADJACENT PROPERTIES.
- ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SUBJECT SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREET RIGHT-OF-WAYS.
- THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT FROM PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SUBJECT SITE AND DEPOSITED THEREON.

CONSTRUCTION NOTES:

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 260-1990 FOR THE ACTUAL FIELD LOCATION OF THE EXISTING SURFACE OR SUB-SURFACE UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION(S) OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN PUBLIC STREET RIGHT-OF-WAY(S) SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE/BERNALILLO COUNTY STANDARDS AND PROCEDURES.

LEGEND:

- TOP OF CURB ELEVATION = 70'-16.04
- CURB FLOWLINE ELEVATION = 16'-16.03
- EXISTING SPOT ELEVATION = 17'-17.27
- EXISTING CONTOUR ELEVATION = 19'-19.00
- PROPOSED SPOT ELEVATION = 19'-19.12
- PROPOSED CONTOUR ELEVATION = 19'-19.00
- PROPOSED OR EXISTING CONCRETE SURFACE = [Symbol]
- EXISTING FENCE LINE = [Symbol]



NOTE: INSTALL ASPHALT AND BASE COURSE IN ACCORDANCE WITH "NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", 1979 EDITION, SECTIONS 115 AND 302 RESPECTIVELY.

TYPICAL PAVING SECTION

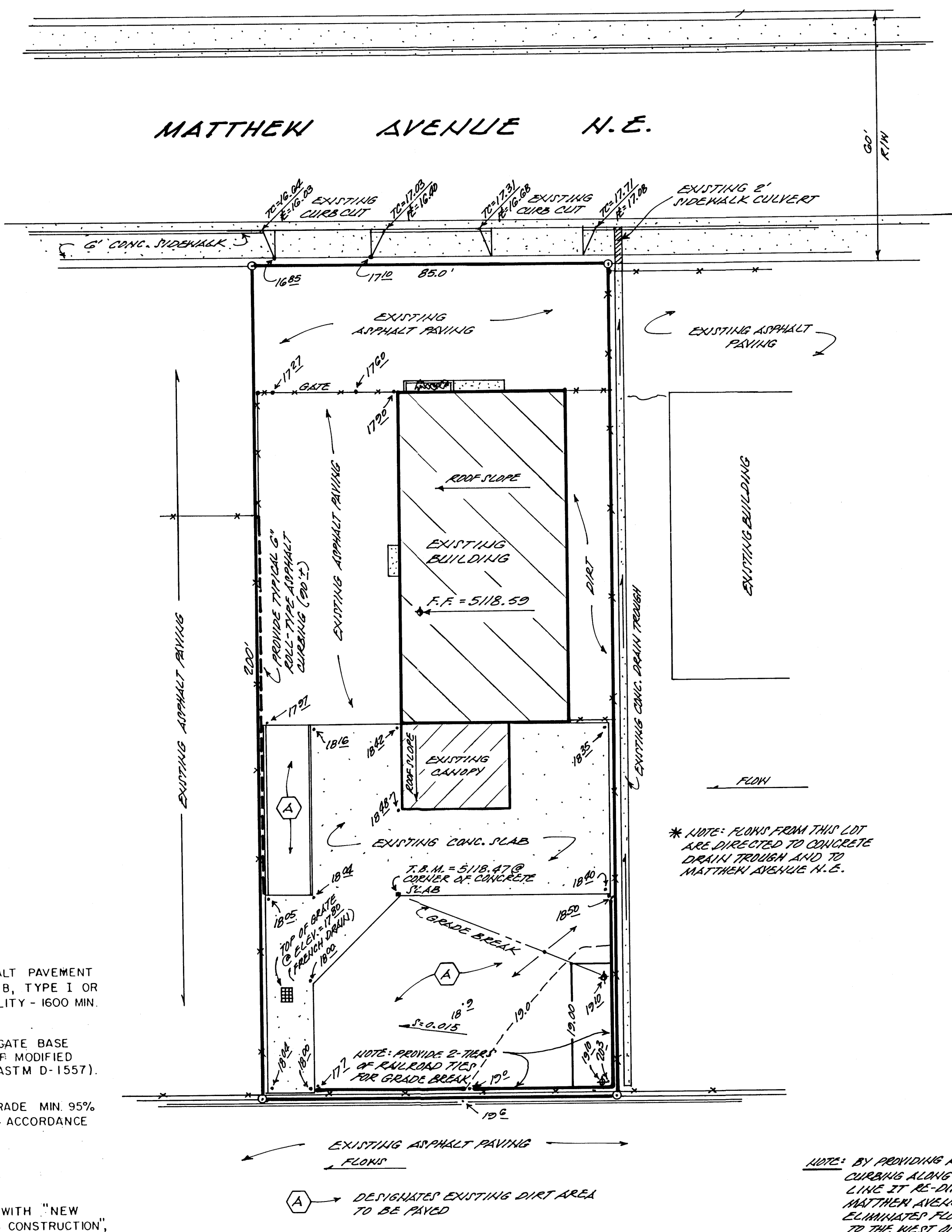
1" = 1'-0"

BENCHMARK REFERENCE:

ACS STATION "11-616", LOCATED APPROXIMATELY 1000' EAST OF THE INTERSECTION OF CANDELARIA ROAD N.E. AND RICHMOND DRIVE N.E.; ELEVATION = 5119.15 (N.S.L.D.); PROJECT T.B.M. AS SHOWN ON THE PLAN HEREON.

LEGAL DESCRIPTION:

WESTERLY PORTION OF LOT 7, BLOCK 7, DUKE CITY INDUSTRIAL AREA ADDITION, TO THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, (ADDRESS: 3210 MATTHEWS AVENUE, N.E.).



NOTE: BY PROVIDING ROLL-TYPE ASPHALT CURBS ALONG WEST PROPERTY LINE IT RE-DIRECTS FLOOD TO MATTHEWS AVENUE N.E. AND ELIMINATES FLOOD TO ADJACENT TO THE WEST OF SUBJECT SITE.