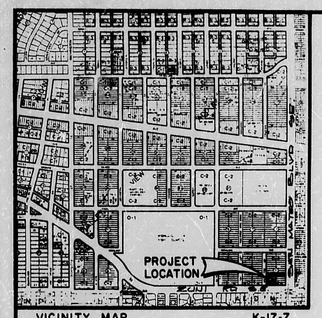
HYDROLOGY

K17/D50
2 PLANS

K17/D50

2 Plans

CITY OF ALBUQUERQUE



VICINITY MAP K-17-Z

SCALE : 1" = 800'

LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- TC TOP OF CURB
- FL FLOW LINE
- PROPOSED SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED METAL FENCE

PROJECT BENCHMARK

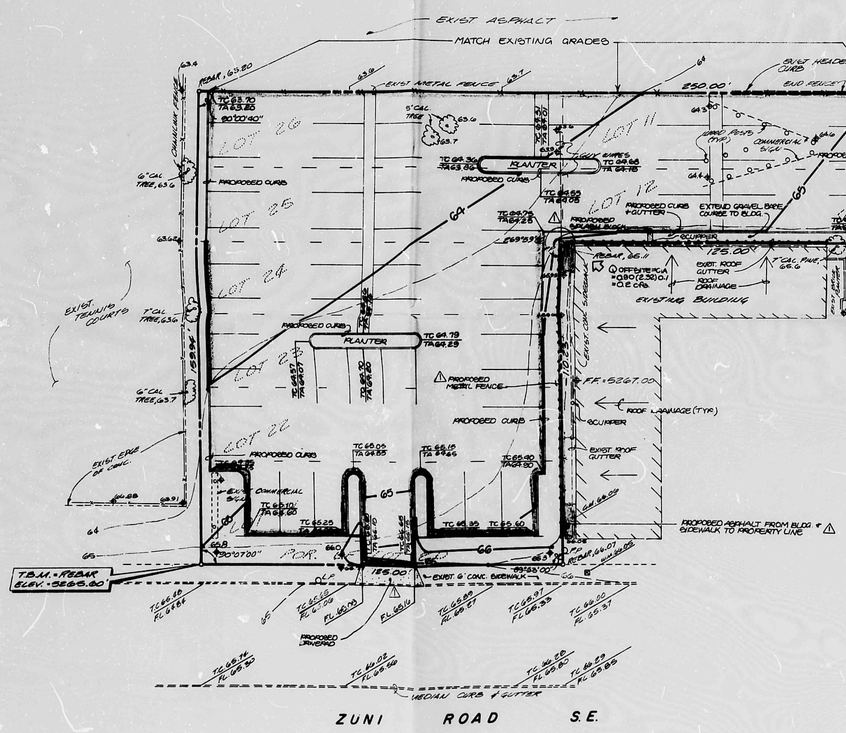
ACS STATION D-K18 BEING A SQUARE "T" CHISELED ON THE TOP OF A CONCRETE CURB AT THE S.E. RETURN OF THE INTERSECTION OF SAN MATEO BLVD. & COAL AVE. S.E. ELEVATION = 5266.10 FEET (N.G.V.D.)

T.B.M.

A REBAR, SET AT THE NORTH EDGE OF THE SIDEWALK AT THE SOUTHWEST CORNER OF THE PROJECT, AS THE CROW IS SHOWN HEREON. ELEVATION = 5265.80 FEET (N.G.V.D.)

LEGAL DESCRIPTION

TRACT A, BLOCK I, VALLEY VIEW ADDITION
ALBUQUERQUE, NEW MEXICO



NOTE:
WATER & SANITARY SEWER DATA TAKEN FROM CITY OF ALBUQUERQUE SECTIONAL MAPS.

DRAINAGE PLAN

The following items concerning the Ed Black's Chevrolet Center Used Car Facility Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located at the northwest corner of the intersection of San Mateo Boulevard S.E. and Zuni Road S.E. At present, the site is undeveloped. Much of the surrounding area is currently developed, thereby making this an infill site. The proposed improvements consist of paving and landscaping.

As shown by Panel 29 of the Federal Emergency Management Agency Flood Boundary and Floodway Map, this site does not lie within a designated Flood Hazard Zone. Furthermore, the site does not contribute runoff to an existing flood hazard area. Flows generally flow from southeast to northwest. Due to the fact that this is an infill site, that this site does not contribute runoff to an existing flooding problem and the negligible increase in runoff demonstrated by the calculations, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing contours at 1'0" intervals, 2) proposed grades indicated by spot elevations and contours at 1'0" intervals, 3) the limit and character of the existing improvements, and 4) the limit and character of all proposed improvements. As shown by this plan, the proposed improvements consist of paving and landscaping. Offsite flows from the north are contained in Zuni Road S.E. and flows from the east are contained in San Mateo Boulevard S.E. No offsite flows are anticipated from the north or west, hence offsite flows are not a concern. As shown by the plan, flows will continue to flow from southeast to northwest and then north across the adjacent existing facility to Highland Avenue. No drainage easement through the adjacent property is required due to the fact that the owner of the adjacent property and the project site is one in the same, and the properties will be used by the same owner for a common purpose.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used to quantify the peak rate of discharge and the SCS Method has been used to quantify the volume of runoff. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, and the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will result in a negligible net increase in peak runoff by 1.3 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 31: MWA - Madurez - Wink Complex
Hydrologic Soil Group: B
Existing Pervious CN = 79 (DPM Plate 22.2 C-2
Pasture or Range Land: poor condition)
Developed Pervious CN = 61 (DPM Plate 22.2 C-2
Open Spaces: good Condition)

Time of Concentration/Time to Peak

$T_C = 0.0078\ l^{0.77}/s^{0.385}$ (Kirpich Equation)

$T_P = T_C = 10$ min.

Point Rainfall

$P_6 = 2.32$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CIA$

where C varies
$i = P_6\ (6.84)\ T_C^{-0.51} = 4.9$ in/hr
$P_6 = 2.32$ in (DPM Plate 22.2D-1)
$T_C = 10$ min (minimum)
A = area, acres

SCS Method

Volume: $V = 3630(DRO)\ A$

Where DRO = Direct runoff in inches
A = area, acres

Existing Condition

$A_{total} = 26,240$ sf $= 0.60$ Ac
Undeveloped area = 26,240 sf (1.0)
C = 0.40 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CIA = 0.4(4.9)0.6 = 1.2$ cfs
A_{imp} = -0- sf; % impervious = -0- %
Composite CN = 79 (DPM Plate 22.2 C-3)
DRO = 0.72 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 1,570$ cf

Developed Condition

$A_{total} = 26,240$ sf $= 0.60$ Ac
Paved area = 22,130 sf (0.84)
Landscaped area = 4,110 sf (0.16)
C = 0.84 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CIA = 0.84(4.9)0.6 = 2.5$ cfs
A_{imp} = 22,130 sf; % impervious = 84 %
Composite CN = 92 (DPM Plate 22.2 C-3)
DRO = 1.53 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)\ A = 3,330$ cf

Comparison

$\Delta Q_{100} = 2.5 - 1.2 = 1.3$ cfs (increase)
$\Delta V_{100} = 3330 - 1570 = 1760$ cf (increase)

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. 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.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
5. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

JEFFREY G. MORITZ NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

06-05-87
07-27-87

RECEIVED JUL 29 1987 HYDROLOGY SECTION

CONSULTING ASSOCIATES INC.
81 DALLAS, N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

NO.	DATE	BY	REVISIONS
1	07-87	PML	REVISED DRAINAGE; ADDED PAVING ALONG E. PL.; ADDED BRICK BLOCK; ADDED METAL FENCE

DESIGNED BY P.M.L.
DRAWN BY C.V.M.
APPROVED J.G.M.

JOB NO. 870111
DATE 03-1987

GRADING & DRAINAGE PLAN
ED BLACK'S CHEVROLET CENTER USED CAR FACILITY

FILE NO.
SHEET 1 OF 1

CITY OF ALBUQUERQUE
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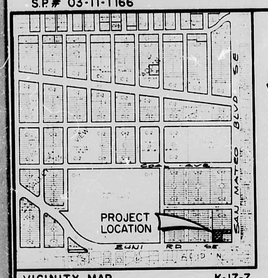
CITY OF ALBUQUERQUE

S.P.# 03-11-1166



VICINITY MAP K-17-Z

SCALE : 1"=800'

0575 .111

PLAT OF
TRACT A, BLOCK 1, VALLEY VIEW ADDITION
ALBUQUERQUE, NEW MEXICO
MARCH, 1987

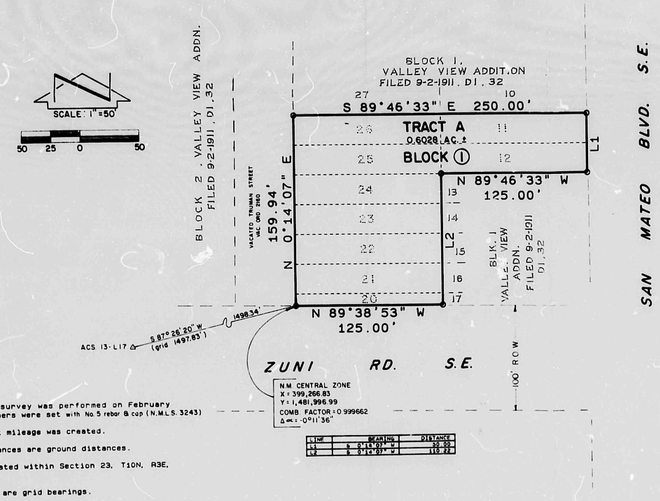
City of Albuquerque
MAY 1 1987
Hydrology Section

C33
144

LEGAL DESCRIPTION

A certain tract of land located within the corporate Limits of the City of Albuquerque, New Mexico, comprising the northerly 10' of Lot 20, Lots 21 - 26, and Lots 11 - 12, Block 1, Valley View Addition, as shown on the plat filed in the Office of the County Clerk of Bernalillo County, New Mexico, on September 2, 1911, Book D1, Page 32, and being more particularly described as follows:

Beginning at the northeast corner of the parcel herein described, being a point on the west right-of-way line of San Mateo Boulevard S.E.; thence S 00°14'07" W a distance of 50.00 feet along said right-of-way line; thence N 89°46'33" W a distance of 125.00 feet; thence S 00°14'07" W a distance of 110.22 feet to a point on the north right-of-way line of Zuni Road S.E.; thence N 89°38'53" W a distance of 125.00 feet along said right-of-way line to a point of intersection with the east right-of-way line of vacated Harrison Street S.E. (Vacation Ordinance 2160); thence N 00°14'07" E a distance of 159.94 feet along said vacated right-of-way line; thence S 89°46'33" E a distance of 250.00 feet to the point of beginning and containing 0.6028 acres more or less.



LINE	BEARING	DISTANCE
L1	S 0°14'07" W	50.00'
L2	S 0°14'07" W	110.22'

Notes:

1. A field survey was performed on February
2. 1987. Corners were set with No.5 rebar & cap (N.M.L.S. 3243)
2. No street mileage was created.
3. All distances are ground distances.
4. Site located within Section 23, T10N, R3E, N.M.P.M.
5. Bearings are grid bearings.
6. The purpose of this plat is to eliminate the common lot lines within Lots 20-26 and Lots 11-12.
7. Prior to development, Water & Sanitary Sewer Service to TRACT A must be verified and coordinated with the Utility Development Department, City of Albuquerque, via a request for a Water and Sanitary Sewer availability statement.

FREE CONSENT

The undersigned owners of the land shown hereon do hereby consent to the subdivision of said land in the manner shown on this plat.

April 23, 1987

ED BLACK'S CHEVROLET CENTER, INC. — DATE
MARLIN COFFEE, GENERAL MANAGER

ACKNOWLEDGEMENT

STATE OF NEW MEXICO)
SS
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this _____ day of _____ 19__.

_____
Notary Public

APPROVALS:

DRB 87-178 SP-87-171

for Jack Cloud 5-19-87
Planning Director, City of Albuquerque, N.M. — Date

Ron E. Fitzgerald 5-15-87
Water Utilities, City of Albuquerque, N.M. — Date

N/A
City Engineer, City of Albuquerque — Date

N/A
A.M.A.F.C.A. — Date

N/A
Traffic Engineer, City of Albuquerque, N.M. — Date

N/A
Parks and Recreation, City of Albuquerque, N.M. — Date

050187
Chief City Surveyor, City of Albuquerque, N.M. — Date

Louis Ellwell 5-1-87
Property Manager, City of Albuquerque, N.M. — Date

CERTIFICATION

I, Thomas T. Mann, Jr., a registered Land Surveyor under the laws of the State of New Mexico, do hereby certify that this plat was prepared by me or under my supervision; shows all easements noted in a title report prepared by TITLE U.S.A. INS. CORP. on DECEMBER 30, 1986 (T165227-HHS), meets the minimum requirements of monumentation and surveys of the Albuquerque Subdivision Ordinance, and is true and correct to the best of my knowledge and belief.

4-23-87
Thomas T. Mann, Jr., N.M.P.E. & L.S. No. 3792 — Date

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
THOMAS T. MANN, JR.
3792
NEW MEXICO

ACKNOWLEDGEMENT

STATE OF NEW MEXICO)
SS
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me on this 30th day of April, 1987.

_____
Notary Public

My Commission Expires 1-6-89

RECEIVED
MAY 1 1987
HYDROLOGY SECTION

BOHANNAN-HUSTON INC.
ENGINEERS
8101 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO 87109

JOB # 870111

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