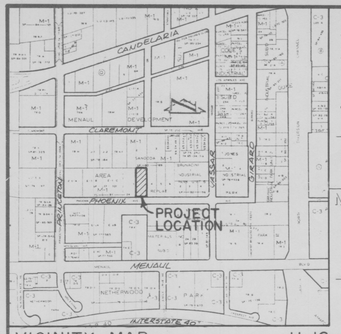
142347



VICINITY MAP H-16

SCALE: 1" = 800'

SCALE: 1" = 20'

LEGEND

- 5088 — EXISTING CONTOUR
- PROPERTY LINE
- TA TOP OF ASPHALT
- TC TOP OF CURB
- PROPOSED SPOT ELEVATION
- 68 PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED RETAINING WALL

PROJECT BENCHMARK

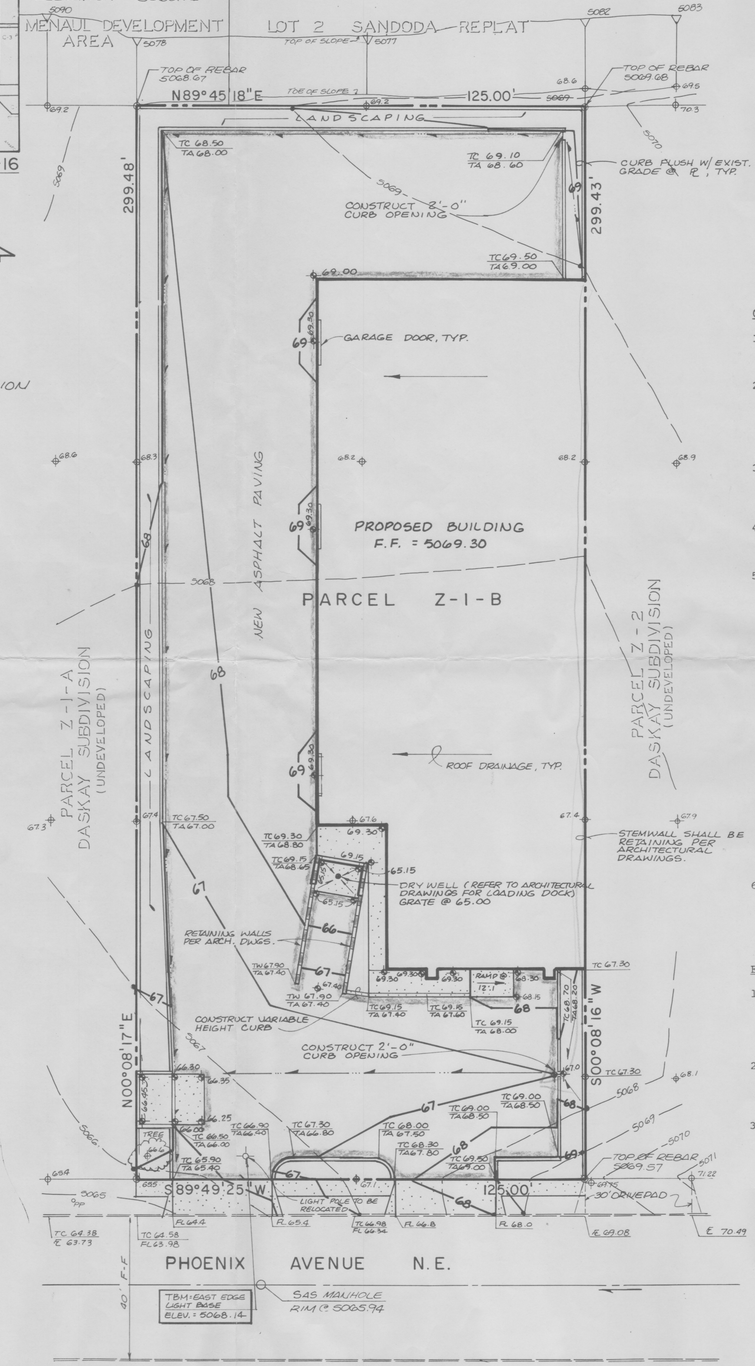
A.C.S. STATION 11-H16. A SQUARE, CHISLED ON TOP OF CONC. CURB AT THE W.N.W. CURB RETURN, LOCATED AT THE INTERSECTION OF CANDELARIA RD. N.E. AND STAFFORD DR. N.E. IN THE NORTHWEST QUADRANT OF THE INTERSECTION.
ELEVATION = 5095.13 FEET (M.S.L.D.)

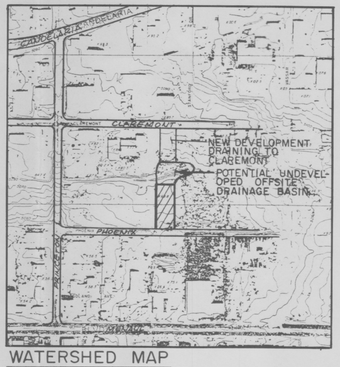
T.B.M.

EAST EDGE OF TOP OF CONCRETE LIGHT POLE BASE AS SHOWN ON DRAWING BELOW
ELEVATION = 5068.14

LEGAL DESCRIPTION

PARCEL Z-1-B, DASKAY SUBDIVISION





WATERSHED MAP

SCALE: 1" = 500'

FEMA PANEL 23 OF 50 OCT. 14, 1983

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SERVICE 260-1990 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 IN WRITING 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.
6. THE DESIGN OF PLANTERS AND LANDSCAPED AREAS IS NOT PART OF THIS PLAN. ALL PLANTERS AND LANDSCAPED AREAS ADJACENT TO THE BUILDING(S) SHALL BE PROVIDED WITH POSITIVE DRAINAGE TO AVOID ANY PONDING ADJACENT TO THE STRUCTURE. FOR CONSTRUCTION DETAILS, REFER TO LANDSCAPING PLAN.

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. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

08-21-91

DRAINAGE PLAN

The following items concerning the Ray's Carpet Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located on the north side of Phoenix Avenue N.E. between Princeton Drive N.E. and Vassar Drive N.E. Presently, the site is undeveloped. The adjacent lots are also undeveloped, but many of the nearby lots are developed for commercial/industrial usage, making this an infill site. The adjacent property to the north presently discharges through this site.

As shown by Panel 23 of 50 of the National Flood Insurance Program Flood Boundary and Floodway Maps for the City of Albuquerque, New Mexico, dated October 14, 1983, this site does not lie within a designated Flood Hazard Zone. Furthermore, this site does not appear to contribute runoff to a downstream flooding condition. Cited in support of this is the "Drainage Plan for Phoenix Warehouse" (H16-D36A) prepared by this office and dated October 18, 1984. The 1984 Plan was prepared for a parcel of land located approximately 350' upstream from the project site. As stated by that Plan, a series of storm inlets is located downstream at the intersection of Phoenix Avenue N.E. and Princeton Drive N.E. These storm inlets connect to an underground storm drain system which ultimately discharges to the Menaul Detention pond. Due to the proximity of the referenced storm drain system, free discharge to Phoenix Avenue N.E. was approved for H16-D36A.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals; 2) the limit and character of the existing improvements; 3) the limit and character of the proposed improvements; and 4) continuity between existing and proposed grades. As shown by this Plan, the proposed improvements consist of the construction of a new warehouse and office space, in conjunction with new paving and landscaping. The project site presently discharges its runoff into Phoenix Avenue N.E., while the adjacent property to the north also discharges a portion of its undeveloped runoff into Phoenix Avenue N.E. through the subject site. This historic drainage pattern will not be altered by the present site development plan. Offsite flows will be accepted and conveyed through the site to Phoenix Avenue N.E.

The calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The peak discharge of runoff has been calculated using the Rational Method while the SCS Method has been used to quantify the volume of runoff generated. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, coupled with the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will increase the peak discharge by 1.9 cfs. This runoff will be allowed to free discharge into Phoenix Avenue N.E. due to the proximity of the existing storm drain system as cited in Drainage Plan H16-D36A, the fact that this is an infill site and the location of the site at the bottom of the watershed.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 21: Cu - Cut and Fill Land
Hydrologic Soil Group: A
Existing Pervious CN = 54 (DPM Plate 22.2 C-3
Pasture or Range Land: fair condition)
Developed Pervious CN = 39 (DPM Plate 22.2 C-3
Open Space: 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

$P_6 = 2.2$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CiA$

where C varies
$i = P_6\ (6.84)\ T_c^{-0.51} = 4.65$ in/hr
$P_6 = 2.2$ 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

$A_{total} = 37,400$ sf $= 0.86$ Ac
Undeveloped area = 37,400 sf (1.00)
C = 0.40 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.40(4.65)0.86 = 1.6$ cfs
% impervious = -0-%
Composite CN = 54 (DPM Plate 22.2 C-3)
DRO = 0.03 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 90$ cf

Developed Condition - Onsite

$A_{total} = 37,400$ sf $= 0.86$ Ac
Roof area = 13,700 sf (0.37)
Paved area = 20,100 sf (0.54)
Landscaped area = 3,600 sf (0.09)
C = 0.87 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.87(4.65)0.86 = 3.5$ cfs
% impervious = 91 %
Composite CN = 92 (DPM Plate 22.2 C-3)
DRO = 1.42 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 4400$ cf

Offsite Flows

$A_{total} = 32,000$ sf $= 0.73$ Ac
Undeveloped area = 32,000 sf (1.00)
C = 0.40 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.40(4.65)0.73 = 1.4$ cfs
% impervious = -0-%
Composite CN = 54 (DPM Plate 22.2 C-3)
DRO = 0.03 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 80$ cf

Comparison

$\triangle Q_{100} = 3.5 - 1.6 = 1.9$ cfs (increase)
$\triangle V_{100} = 4400 - 90 = 4310$ cf (increase)

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JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

GRADING & DRAINAGE PLAN

RAY'S CARPET

DESIGNED BY J.P.K
DRAWN BY C.L.B./S.G.H.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 910551
DATE 8 - 1991
SHEET 1 OF 1