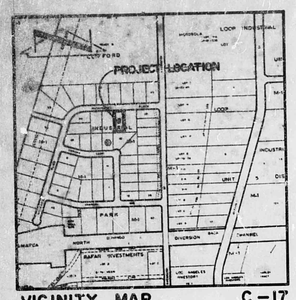
HYDROLOGY

C17/D1X
ONE PLAN

C17/DIX

1 PLAN



VICINITY MAP C-17

SCALE: 1" = 800'

PROJECT BENCHMARK

ACS STA. 15-C17 AS PER SURVEY BY HUGG SURVEYING CO., APRIL 30, 1986.
ELEVATION = 5111.03 FEET (M.S.L.D.)

TBM

TOP OF CURB ELEVATION @ N.E. PROPERTY CORNER AS SET BY HUGG SURVEYING CO., APRIL 30, 1986.
ELEVATION = 5098.03 FEET (M.S.L.D.)

LEGEND

◆	PROPOSED SPOT ELEVATION
◆	EXISTING SPOT ELEVATION
5G	PROPOSED CONTOUR
5850	EXISTING CONTOUR
	SWALE
	PROPERTY LINE
	CONCRETE
	PROPOSED ASPHALT
	PROPOSED FENCE
—x—x—	EXISTING FENCE
T.C. 02.00	TOP OF CURB
FL. 01.65	FLOW LINE

DRAINAGE PLAN

The following items concerning the Kaufman Building Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, this site is located on the south side of Washington Place N.E. just west of the intersection with Washington Street N.E. At present, the site is undeveloped. Many of the lots in this area, Clifford Industrial Park, are undergoing development and construction. Furthermore, this site is covered by a Master Plan prepared by Bohannan-Huston, Inc. entitled "Drainage Report for Clifford Industrial Park" dated August 1982. This report establishes a free discharge for all lots within this subdivision. This report more specifically addresses that this lot should drain to Washington Place N.E.

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 proposed improvements, and 3) continuity between existing and proposed grades. As shown by this Plan, the site naturally drains from southeast to northwest onto Washington Place N.E. Berms exist along the east and west property lines to control onsite and offsite runoff. Because of this, there are no offsite flows affecting this site nor will the runoff from this site affect adjoining lots. In the proposed grading scheme, the site will continue to drain from southeast to northwest and will discharge to Washington Place N.E. via a new drivepad. This pattern of runoff is consistent with the approved Master Plan and the existing conditions.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The SCS Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these calculations, the proposed development will result in a minor increase in runoff from this site.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate: 11: EmB Embudo gravelly fine sandy loam
Hydrologic Soil Group: B
Existing Pervious CN = 70 (DPM Plate 22.2 C-2
Pasture or Range Land: fair condition)
Developed Pervious CN = 69 (DPM Plate 22.2 C-2; open space: fair 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)

Existing Condition

Atotal = 31,250 sf = 0.72 Ac
Aimp = -0- sf; % impervious = -0- %
Composite CN = 70 (DPM Plate 22.2 C-3)
DRO = 0.35 in (DPM Plate 22.2 C-4)
$q_p = 45.4\ A/T_p = 3.27$ cfs/in runoff

$Q_{100} = Q_{peak} = q_p$ (DRO) = 1.1 cfs
$V_{100} = 3630$ (DRO)A = 910 cf

Developed Condition

Atotal = 31,250 sf = 0.72 Ac
Aimp = 10,080 sf; % impervious = 32 %
Composite CN = 78 (DPM Plate 22.2 C-3)
DRO = 0.6 in (DPM Plate 22.2 C-4)
$q_p = 45.4\ A/T_p = 3.27$ cfs/in runoff

$Q_{100} = Q_{peak} = q_p$ (DRO) = 2.0 cfs
$V_{100} = 3630$ (DRO) A = 1570 cf

Comparison

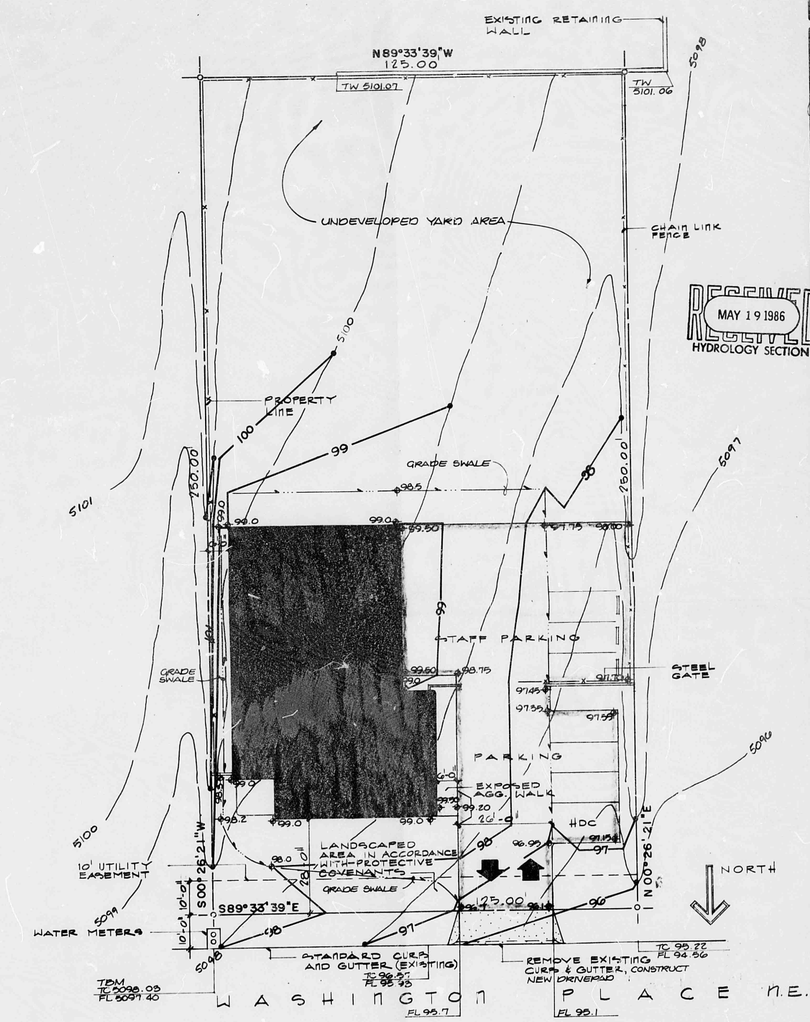
ΔQ_{100} = 2.0 - 1.1 = 0.9 cfs (increase)
ΔV_{100} = 1570 - 910 = 660 cf (increase)

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.



GRADING PLAN SCALE 1" = 20'-0"

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LEGAL DESCRIPTION

LOTS NUMBERED TWENTY SEVEN (27) OF CLIFFORD INDUSTRIAL PARK AS THE SAME IS SHOWN AND DESIGNATED ON THE ON THE SUBDIVISION PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON APRIL 21, 1983, IN MAP BOOK C-21, FOLIO 44

RECEIVED MAY 19 1986 HYDROLOGY SECTION

JOHN MARTIN ASSOCIATES, INC.
ENGINEERS
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JOB NO. 60831

architect

engineer

JEFFREY C. MORTENSEN, NEW MEXICO, 8547, REGISTERED PROFESSIONAL ENGINEER, 05-16-86

LONG & WATERS
PA AIA
ARCHITECTS
ENGINEERS
PLANNERS

sheet title

• GRADING AND DRAINAGE PLAN

project

KAUFMAN BUILDING
WASHINGTON PLACE N.E.
ALBUQUERQUE, NEW MEXICO

date

sheet no.

C17/
D/X