DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING THE WESTERN TECHNOLOGIES STORAGE BUILDING 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 SOUTH END OF THE WASHINGTON PLACE N.E. CUL-DE-SAC WITHIN THE CLIFFORD INDUSTRIAL PARK. AT PRESENT, THE SITE IS DEVELOPED WITH COMMERCIAL BUILDINGS AND ASPHALT PAVING WITH ASSOCIATED LANDSCAPING IMPROVEMENTS.

AS SHOWN BY PANEL 136 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY F.E.M.A. FOR BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS DATED SEPTEMBER 20, 1996, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. THE SITE CURRENTLY DRAINS TO A 45' DRAINAGE EASEMENT LOCATED AT THE WEST END OF THE PROPERTY. THIS EASEMENT OUTFALLS TO THE AMAFCA NORTH DIVERSION CHANNEL TO THE SOUTH. FLOODING IS IDENTIFIED TO BE CONTAINED WITHIN THE AMAFCA NORTH DIVERSION CHANNEL.

OFFSITE FLOWS DO NOT IMPACT THE SITE FROM THE LOTS TO THE NORTH OR TO THE SOUTH WHICH EXHIBIT PARALLEL TOPOGRAPHY, FROM THE DEVELOPED PUBLIC STREET RIGHT-OF-WAY TO THE EAST, OR FROM THE SITE TO THE WEST WHICH LIES TOPOGRAPHICALLY LOWER AND IS THEREFORE INCAPABLE OF CONTRIBUTING OFFSITE FLOWS.

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 BUILDING WHICH LIES WITHIN AN EXISTING PAVED AREA. THE NEW BUILDING ADDITION WILL REPLACE EXISTING IMPERVIOUS AREA. THE PROPOSED CONSTRUCTION WILL NOT CREATE ANY ADDITIONAL DEVELOPED RUNOFF. MINOR MODIFICATIONS TO EXISTING PARKING AND SIDEWALK CONSTRUCTION IS ALSO PROPOSED BY THIS PLAN.

THE CALCULATIONS WHICH APPEAR HEREON ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. THE PROCEDURE FOR 40-ACRE AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS SHOWN BY THESE CALCULATIONS, THERE WILL BE NO CHANGE IN THE VOLUME OR PEAK RATE OF DISCHARGE GENERATED BY THIS SITE. BECAUSE THE PROPOSED IMPROVEMENTS CONSIST OF MODIFICATIONS TO AN EXISTING SITE WHICH DO NOT AFFECT THE DRAINAGE CHARACTERISTICS OF THE SITE, NO ADDITIONAL DRAINAGE IMPROVEMENTS ARE PROPOSED AT THIS TIME.

CALCULATIONS

SITE CHARACTERISTICS

1. PRECIPITATION ZONE = 2
2. $P_{6,100} = P_{360} = 2.35$ IN.
3. TOTAL AREA (A_T) = 56,220 SF/1.29 AC
4. EXISTING LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
B	2,230/0.05	04
C	6,350/0.15	12
D	47,640/1.09	84

5. DEVELOPED LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
B	2,230/0.05	04
C	6,350/0.15	12
D	47,640/1.09	84

EXISTING CONDITION

1. VOLUME

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(0.78)(0.05)+(1.13)(0.15)+(2.12)(1.09)]/1.29 = 1.95$ IN.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.95/12)1.29 = 0.2099$ AC.FT; 9,150 CF

2. PEAK DISCHARGE

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = (2.28)(0.05)+(3.14)(0.15)+(4.70)(1.09) = 5.7$ CFS

CALCULATIONS (CONTINUED)

DEVELOPED CONDITION

1. VOLUME

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(0.78)(0.05)+(1.13)(0.15)+(2.12)(1.09)]/1.29 = 1.95$ IN.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.95/12)1.29 = 0.2099$ AC.FT., 9,150 CF

2. PEAK DISCHARGE

$Q_p = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_p = Q_{100} = (2.28)(0.05)+(3.14)(0.15)+(4.70)(1.09) = 5.7$ CFS

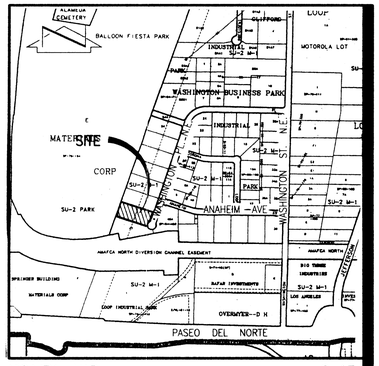
COMPARISON

1. $\triangle V_{100}$ = NO CHANGE
2. $\triangle Q_{100}$ = NO CHANGE

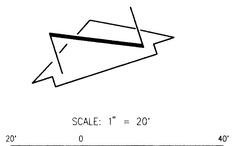
NOTE:
THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR ORIENTATION ONLY. BOUNDARY DATA TAKEN FROM PLAT OF CLIFFORD INDUSTRIAL PARK FILED 04/21/83, C21-44

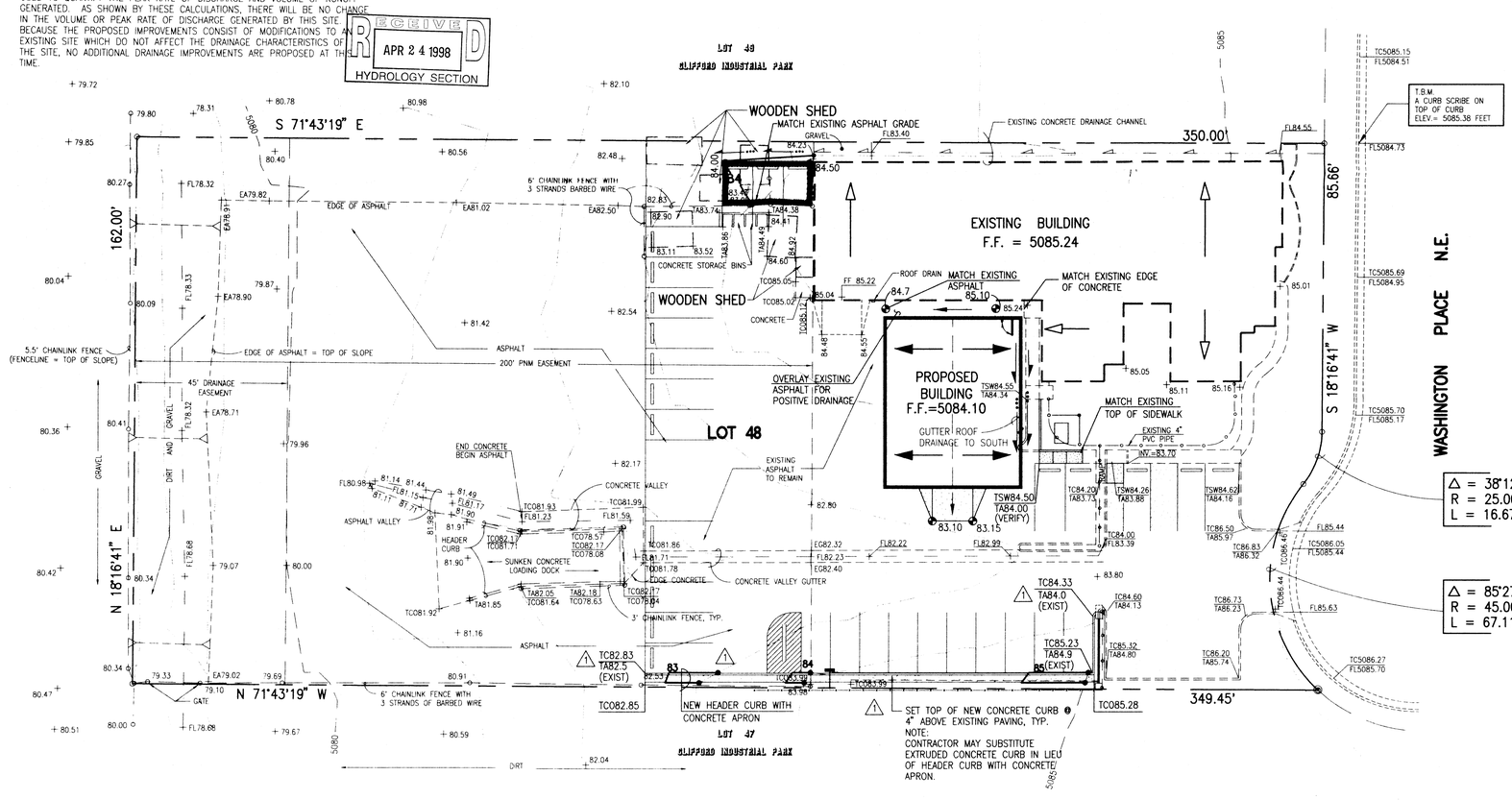
LEGEND

TC	TOP OF CURB
TA	TOP OF ASPHALT
EA	EDGE OF ASPHALT
FL	FLOWLINE
EG	EDGE CONCRETE VALLEY GUTTER
TCO	TOP OF CONCRETE
TSW	TOP OF SIDEWALK
+ 81.42	EXISTING SPOT ELEVATION
	EXISTING CONTOUR
	EXISTING FLOWLINE
82.00	PROPOSED SPOT ELEVATION
	PROPOSED DIRECTION OF FLOW
82	PROPOSED CONTOUR
	PROPOSED CONCRETE
	EXISTING ROOF DRAINAGE
	PROPOSED ROOF DRAINAGE
	PROPOSED ASPHALT PAVING



VICINITY MAP C-17
SCALE: 1" = 750'±





REFER TO STRUCTURAL PLANS FOR BUILDING STEMWALL AND FOUNDATION.

RECEIVED
APR 24 1998
HYDROLOGY SECTION

980061

Kevin Georges & Associates
Architecture & Planning
127 Jefferson Street NE - Suite A Albuquerque, New Mexico 87108-1216 505/255-4975

LEGAL DESCRIPTION

LOT 48, CLIFFORD INDUSTRIAL PARK

PROJECT BENCHMARK = T.B.M.

A CURB SCRIBE LOCATED ON A LINE PROJECTING FROM THE NORTHEAST PROPERTY CORNER AS SHOWN ON THE DRAWING. ELEVATION = 5085.38 FEET (M.S.L.D.)

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990 (Albuquerque Area), 1-800-321-ALERT(2537) (Statewide), 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 conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, 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.
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.

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

Western Technologies Storage Building
8305 Washington Place NE
Albuquerque, New Mexico

Project Title

Drawn By S.G.H. Checked By J.G.M.

Proj No. 9507.01 Date

JEFFREY C. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER 04/23/98 04/13/98

1	G.M.	ADD CURB	04/98

Revisions Architect Engineer

GRADING AND DRAINAGE PLAN C1

Sheet Title Sheet — of —