

VICINITY MAP
SCALE: 1" = 800'

PROJECT BENCHMARK

A STANDARD ACS BRASS TABLET
STAMPED "8-J13A", SET FLUSH
WITH THE CURB, LOCATED AT THE
INTERSECTION OF MOUNTAIN RD.
AND 18 TH. ST.
ELEVATION = 4956.62 ft. (M.S.L.D.)

LEGAL DESCRIPTION

"B-3-B" DIVISION OF THE LANDS
OF FREEWAY-OLD TOWN LIMITED

The following items concerning the Blueher Lumber Grading and Drainage Plan are contained herein:

DRAINAGE PLAN

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, this site is located on the east side of 18th Street N.W. just north of its intersection with Mountain Road N.W. At present, the site is a vacant lot. Much of the surrounding area is developed, making this an infill site. The scope of this project is to construct additional asphalt paving and a new building as an expansion of the present Blueher Lumber facility.

Review of Panel 28 of 50 of the National Flood Insurance Program Flood Boundary and Floodway Maps for the City of Albuquerque reveals that this site does not lie within the .00-year floodplain. The site does, however, lie within the 500-year floodplain which is not a real concern to this project. Furthermore, the site does not contribute runoff to an existing flood hazard zone, as defined by the 100-year floodplain. Previous work in this area by this office has revealed that sufficient downstream capacity does exist in view of the recently constructed Alameda Pump Station and associated line work. These are referred to in the Albuquerque Water Drainage Study, as System 12-22A and System 12-22B, respectively. The adequacy of the downstream storm drainage system has been discussed at length by a project 113-021.

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, 3) the limits of construction, and 4) continuity between existing and proposed grades. As shown by this plan, the proposed improvements consist of the construction of a new building and adjacent asphalt paving, the remainder of the site beyond the limits of construction will be undisturbed by the proposed development. Beyond this, no specific erosion control plans are necessary other than the contractor's exercising of care during construction. In addition, the contractor must secure a topsoil disturbance permit in order to perform this work. The topsoil disturbance permit will identify the method in which the contractor is electing to control erosion during the period of construction. Due to the fact that this is an infill site, that the proposed development involves only a small portion of the overall site, that adequate downstream facilities now exist, and that a relatively minor increase in runoff is anticipated by this project, the free discharge of runoff from this site is appropriate. It should be noted that the developed runoff generated by this site will be directed onto the new asphalt paving and discharged via an existing driveway onto 18th Street N.W. Because the remainder of the site will not be disturbed, the runoff generated by those portions will continue to follow the existing pattern and will not be changed by this project.

Offsite flows are not a concern with this project in view of the fact that the sites to the north and south have parallel topography with the runoff generated by those sites being retained on the sites and/or being discharged to 18th Street N.W. 18th Street N.W. drains from north to south to Mountain Road N.W. Offsite flow generated to the east of this site are blocked by the existing irrigation ditch which lies along that property line. Although the easement appears to have been vacated by the MDOC, the banks of the ditch are still in place at this time.

The calculations which appear herein 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 discharge of runoff and the SCS Method has been utilized to quantify the volume of runoff generated. Both of these methods have been used in accordance with the City of Albuquerque Department of Public Works Manual, Volume II, along with the Mayor's Emergency Rule dated January 14, 1986. As shown by these calculations, a relatively minor increase in runoff is anticipated due to this development.

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 769-1234, 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 SHOWN AND 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 THEREIN, AND ASSUMES NO RESPONSIBILITY OF LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION OF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES 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 RESPECT 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 BURNS 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 "TOISOL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 10: VBA Vinton Sandy loam, or Sila Clay loam.
Hydrologic Soil Group: B
Existing Pervious CN = 71 (DPM Plate 22.2 C-2)
Developed Pervious CN = 71 (DPM Plate 22.2 C-2)
Pasture or Range Land: fair condition

Time of Concentration/Time to Peak

$T_c = 0.0078 L^{.77} S^{.385}$ (Kirpich Equation)

$T_p = T_c + 10$ min.

Point Rainfall

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

Rational Method

Discharge: $Q = CIA$

where C varies
 $C = P_g (6.84) T_c^{-.51} = 4.65$ in/hr
 $P_g = 2.2$ 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

Actual = 143,750 sq ft = 3.3 Ac
 $C = 0.40$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.40(4.65)(3.3) = 6.1$ cfs
Composite CN = 71 (DPM Plate 22.2 C-3)
DRO = 6.4 in (DPM Plate 22.2 C-1)
 $V_{100} = 3630(DRO)A = 4790$ cf

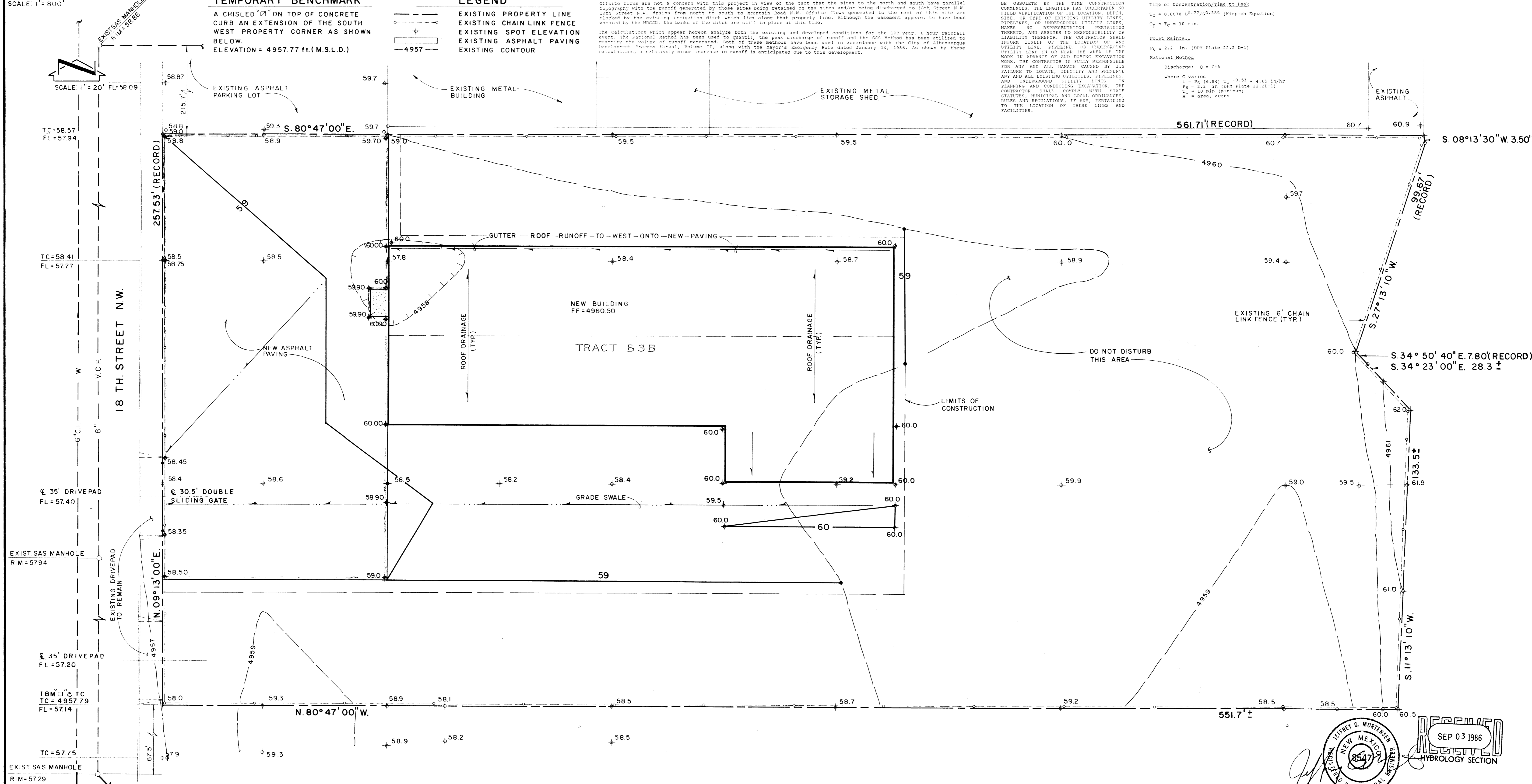
Developed Condition

Actual = 143,750 sq ft = 3.3 Ac
Roof Area = 19,875 sq ft (0.45)
Paved area = 20,000 sq ft (0.14)
Landscape area = 103,875 sq ft (2.35)
 $C = 0.58$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.58(4.65)(3.3) = 8.4$ cfs
Impervious = 29 %
Composite CN = 78 (DPM Plate 22.2 C-3)
DRO = 0.6 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630(DRO)A = 7190$ cf

Comparison

$Q_{100} = 8.4 - 6.1 = 2.3$ cfs (increase)

$V_{100} = 7190 - 4790 = 2400$ cf (increase)



	NO.	DATE	BY	REVISIONS
DESIGNED BY: J.G.M.	JOB NO: 61101	GRADING & DRAINAGE PLAN BLUEHER LUMBER		
DRAWN BY: C.J.W.	DATE: 08-86			
APPROVED: J.G.M.				

SEP 03 1986

HYDROLOGY SECTION

FILE NO:
SHEET 1 OF 1