



- LEGEND**
- PROPERTY LINE
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - EXISTING SPOT ELEVATION
  - PROPOSED SPOT ELEVATION
  - EXISTING GRADE
  - PROPOSED GRADE
  - PROPOSED ASPHALT
  - PROPOSED CONCRETE

**LEGAL DESCRIPTION**

LOT 12, ASHCRAFT CENTER,  
ALBUQUERQUE, NEW MEXICO

**PROJECT BENCHMARK**

ACS BENCHMARK 2-1/2" BEING A SQUARE,  
"B" CHANGED ON TOP OF CONCRETE CURB  
50' WEST OF THE WALK CURB RETURN AT THE  
INTERSECTION OF CONRAD BLVD. & W 4TH ST. N.E.  
IN THE NW QUADRANT OF THE INTERSECTION.  
ELEVATION = 5350.12 (M.S.L.D.)

**TEMPORARY BENCHMARK**

T.B.M. "A" SCATTERED ON TOP OF CURB, ON  
NORTH SIDE OF MARBLE AVE. N.E., APPROX. 60'  
WEST OF OWN PROPERTY LINE, 15' NORTH ST. N.E.  
ELEVATION = 5355.60 (M.S.L.D.)

The following items concerning the Lot 12 Ashcraft Center Drainage Plan are contained herein:

**DRAINAGE PLAN**

- Vicinity Map
- Grading Plan
- Calculations

The proposed improvements, as shown by the Vicinity Map, are located on the north side of Marble Avenue, just east of Rhode Island. At the present time, the site is undeveloped. The surrounding sites are developed.

As shown by Plate J-19 of the Albuquerque Master Drainage Study, the site does not lie within a designated Flood Hazard zone. Further study of this plate reveals that this site is an infill site, that there is no street flooding and that this project will have a minimal impact on downstream facilities. The lot to the north and east are fully developed and stormwater runoff will not enter the site from these areas. Along the south boundary of the site is Marble Avenue and the site is higher than Marble Avenue. The lot to the west is lower than the project site, therefore, off-site flow will be negligible.

The grading plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1' intervals, 2) continuity between the existing and proposed elevations, 3) the limit and character of the existing improvements, and 4) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of a building with associated parking and landscaping. Runoff from the building and parking area will be conveyed directly to Marble Avenue through a driveway. The runoff from the building roof and the landscaped area will be conveyed to Marble Avenue through a sidewalk culvert after it has been routed through the landscaped area.

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 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, 1985. As shown by these calculations, the proposed improvements will result in an increase of runoff discharged from the site. This runoff is negligible and is consistent with the pre-design conference recap which accompanies this submittal.

**CALCULATIONS**

**Ground Cover Information**

From SCS Bernalillo County Soil Survey,  
Plate 1178 - Tijeras  
Hydrologic Soil Group: B  
Existing Previous CN = 79 (DPM Plate 22.2 C-2)  
Future or Range Land: poor condition  
Developed Previous CN = 69 (DPM Plate 22.2 C-2)

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**

$P_2 = 3.4$  in. (DPM Plate 22.2 D-1)

**Rational Method**

Discharge:  $Q = CIA$

where  $C$  varies  
 $C = P_2 / (P_2 + 10)$   
 $C = 0.25$  (DPM Plate 22.2 D-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**

Atotal = 12,458 sq ft = 0.29 AC  
Roof area = 2,248 sq ft (1.00)  
Landscaped area = 10,210 sq ft (2.38)  
 $C = 0.40$  (Weighted average per Emergency Rule, 1/14/86)  
 $C = 0.40$  (Weighted average per Emergency Rule, 1/14/86)  
 $Q_{100} = CIA = 0.40(5.07)(0.29) = 0.59$  cfs  
 $Q_{100} = 0.59$  cfs (1.33)  
Composite CN = 79 (DPM Plate 22.2 C-2)  
 $DRO = 0.8$  in. (DPM Plate 22.2 C-4)  
 $V_{100} = 3630(DRO) A = 842$  cf

**Developed Condition**

Atotal = 12,458 sq ft = 0.29 AC  
Roof area = 2,248 sq ft (1.00)  
Landscaped area = 10,210 sq ft (2.38)  
 $C = 0.72$  (Weighted average per Emergency Rule, 1/14/86)  
 $C = 0.72$  (Weighted average per Emergency Rule, 1/14/86)  
 $Q_{100} = CIA = 0.72(5.07)(0.29) = 1.09$  cfs  
 $Q_{100} = 1.09$  cfs (1.33)  
Composite CN = 79 (DPM Plate 22.2 C-2)  
 $DRO = 1.7$  in. (DPM Plate 22.2 C-4)  
 $V_{100} = 3630(DRO) A = 1,790$  cf

**Comparison**

$Q_{100} = 1.09 - 0.59 = 0.50$  cfs (increase)  
 $V_{100} = 1,790 - 842 = 948$  cf (increase)

**CONSTRUCTION NOTES:**

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 745-1234, FOR LOCATION OF EXISTING UTILITIES.
- 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.
- 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.
- ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
- 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 NOT 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. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY 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.
- AN EXCAVATION/INSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- BACKFILL COMPACTION SHALL BE ACCORDING TO STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

**EROSION CONTROL MEASURES**

- THE CONTRACTOR SHALL FURNISH THAT NO SOIL SHOULD BE EXPOSED TO THE PUBLIC RIGHT-OF-WAY OR OTHER PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONTRACTOR TEMPORARILY BARRING AT THE PROPERTY LINES AND SETTING THE SOIL PROTECTIVE LINES AND SETTING THE SOIL TO BE WASHED DOWN THE STREET.
- 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.
- THE CONTRACTOR SHALL SECURE "PROPOSED DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

RECEIVED  
JUL 27 1987  
HYDROLOGY SECTION

APPROVED  
JUL 27 1987  
NEW MEXICO  
LAND SURVEYOR

APPROVALS	NAME	DATE
ACE/DESIGN	Barry Moring	7/30/88
INSPECTOR	William Hup	8/16/88
ACE/FIELD	Samuel S. Soto	7-16-88

J19/D44

DESIGN BY	J.G.M.	DATE	7/30/88	REVISION		JOB NO.	870831
DRAWN BY	C.V.M.	DATE	7-30-88			DATE	7-87
APPROVED BY	J.G.M.	DATE				SHEET	1 of 1

**GRADING AND DRAINAGE PLAN  
LOT 12 ASHCRAFT CENTER**



811 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO • 87110  
ENGINEERS

CITY OF ALBUQUERQUE  
THIS MICROFILME IS THE BEST  
POSSIBLE REPRODUCTION DUE  
TO THE POOR QUALITY OF THE  
ORIGINAL DOCUMENT

CITY OF ALBUQUERQUE