

ON-SITE FLOW:

It is proposed to drain the warehouse addition onto the existing roof so that all building runoff will be directed to Rosemont Avenue and none to the alley. The portion of Lot 5 that will be paved will be graded to drain to Rosemont Avenue. On the portion that will remain unpaved, precipitation will remain where it falls.

The alley will not be used for access or drainage. Although there is an emergency personnel door at the rear of the building, the overhead door where materials enter and products leave the building is at the front of the building.

OFF-SITE FLOWS:

The general direction of runoff in the area is from east to west. Rosemont Avenue drains west toward Broadway Blvd. There are inlets at the ENE and ESE curb returns of this intersection. The north end of Lot 3 has an existing house that effectively blocks off-site flow. The south end of Lot 3 is undeveloped and is from 6 to 8 inches lower than the alley or Lot 4. Therefore, precipitation collects in this low area and infiltrates into the ground. The south 57 feet of Lot 5 is used for parking by occupants of the existing house on Lot 6. The north 85 feet of Lot 5 is now part of the site. It is higher than Lot 6 and, therefore, receives no off-site flow. The existing 16' alley is unpaved and slopes gently to the west. No flow from the alley enters the site. There is no flow into the alley from the area south of the alley due to the existing wall footing that runs along the south side of the alley.

BENCH MARK:

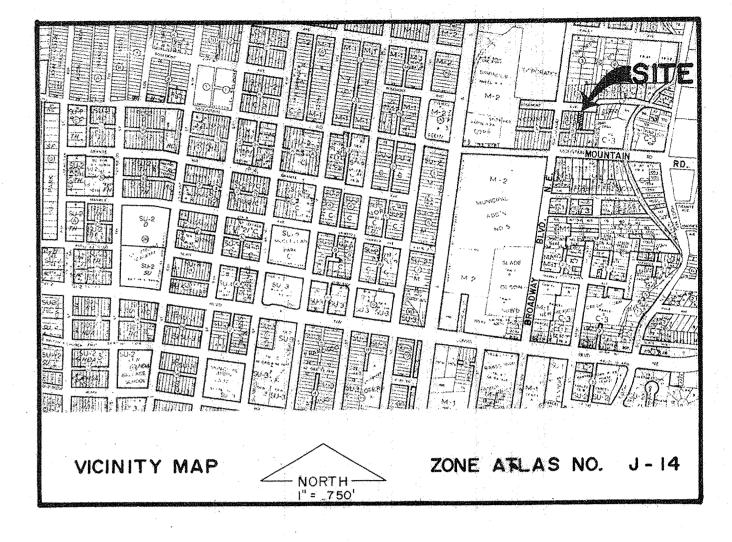
A.C.S. Station L-224R, located on Mountain Road NE at the crossing of AT&SF Railroad mainline, on the concrete base of a traffic warning signal, in the southwest quadrant of the intersection. Station is a standard USC&GS brass tablet, stamped "L-224 RESET", set in top of a conc. base of traffic warning device. Elevation = 4958.560 FEET.

LEGAL DESCRIPTION:

Lot 4, and a portion of Lot 5, Block "B", County Addition, City of Albuquerque, Bernalillo County, New Mexico.

LEGEND:

EXISTING	NEW	DESCRIPTION		
	:	CONTOUR		
43%	56.88	SPOT ELEVATION		
	**	SHEET FLOW		
	••••••••••••••••••••••••••••••••••••••	SWALE		
	TC	TOP OF CURB		
, a	FL	FLOW LINE		
	<u></u>	ROOF FLOW		



SOIL TYPE:

Cu, cut and fill land, Hydrologic Soil Group "A".

LOT AREA:

Lot 4, 27' X 142' and a portion of Lot 5, 27' X 85'; Area = 6129 SF or 0.1407 Acre.

TIME OF CONCENTRATION:

Use ten (10) minutes, minimum time of concentration, due to the small size.

RAINFALL:

6-hour, 100-year rainfall. $R_6 = 2.2$ inches (D.P.M. Plate 22.2 D-1)

INTENSITY

 $I = R_6 \times 6.84 \times Tc^{-0.51}$ (D.P.M. Plate 22.2 D-2)

 $I = 2.2 \times 6.84 \times 10^{-0.51} = 4.65$ inches per hour.

RUNOFF COEFFICIENTS:

KONOFF COEFFICIENTS!		1000	,	4 1	
Existing Conditions:					
Roof Area Asphalt Area Landscaping Unpaved Area	1481 SF 1153 SF 228 SF 3267 SF	X X X	0.90 0.95 0.25 0.40		133 109 130
Totals Weighted "C" = 3792 /	6129 6129 = 0.62				379
Proposed Conditions:					
Roof Area	2304 SF	X	0.90	in.	207
Asphalt Area	1873 SF	X	0.95	;;; ;	177
Landscaping	388 SF	X	0.25	1222	9
Unpaved Area	1564 SF	X	0.40	1000	62
Totals	6129 SF				457

Weighted "C" = 4576 / 6129 = 0.75 CURVE NUMBERS AND DIRECT RUNOFF:

URVE NUMBERS AND	DIRECT	RUNOFF:				
Roof Area		CN = 98	į	Od	***	2.0
Asphalt Area		CN = 98				2.0
Landscaping		CN = 49		Qd	===	0.0
Unpayed Area		CN = 72		Оđ	-	0 4

RUNOFF RATES:

Existing: $Q_{100} = CIA = 0.62 \text{ X } 4.65 \text{ X } 0.1407 = 0.41 \text{ GFS } Q_{10} = 0.657 \text{ X } 0.41$ $Q_{10} = 0.27 \text{ CFS}$

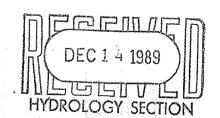
Proposed: $Q_{100} = CIA = 0.75 \times 4.65 \times 0.1407 = 0.49 \text{ CFS}$ $Q_{10} = 0.657 \times 0.49$ $Q_{10} = 0.32 \text{ CFS}$

RUNOFF VOLUMES:

Existing: $V_{100} = \frac{(2634 \times 2.0 + 228 \times 0.05 + 3267 \times 0.40)}{12} = 549 \text{ CF}$

 $V_{10} = 0.657 \text{ X } 549 = 361 \text{ CF}$

 $V_{100} = \frac{(4177 \times 2.0 + 388 \times 0.05 + 1564 \times 0.40)}{12} = 750 \text{ CF}$ $V_{10} = 493 \text{ CF}$





GRADING AND DRAINAGE PLAN WAREHOUSE ADDITION FOR

AZUELAS WOODS

312 ROSEMONT AVENUE, N.E.

ALBUQUERQUE, NEW MEXICO