DRAINAGE CALCULATIONS:

EXISTING CONDITIONS:

The site is located on the East side of Chama Street, the second lot north of Roma Ave. NE. The site is presently occupied by an office building and is partially paved with asphalt paving as shown. The site is enclosed by a stucco wall on the North and on the East sides. Runoff from the site exits through the drivepad into Chama Street and South through an existing asphalt parking lot on Lot B into Roma Avenue. There is a 23' wide access easement from North to South, along the East side of Lot B. The existing buildings have no gutters or downspouts, only drip edges.

PROPOSED CONDITIONS:

It is proposed to pave the remainder of the lot and remove and replace existing pavement that is of substandard quality. It is proposed to continue to discharge runoff in the same manner as runoff is presently discharged. The new asphalt will, as much as possible, drain West into Chama Street. Drainage running South through Lot B will remain essentially unchanged.

DRAINAGE CRITERIA:

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology, of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque in cooperation with Bernalillo County, New Mexico and the Metropolitan Arroyo Flood Control Authority, January, 1993.

PRECIPITATION ZONE:

The site is between San Mateo Blvd. and Eubank Blvd., and is, therefore, in Precipitation Zone 3.

LAND TREATMENT AREAS, EXCESS PRECIPITATION AND UNIT PEAK DISCHARGE:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 3 in the table below, and the values shown are from the City of Albuquerque D. P. M. Also shown are the existing and proposed land treatment areas.

| LAND | q(cfs | 5/ac) | Ε | (in) | Exi | sting S | ite Areas | Deve | loped Site | Areas |
|--------|---------|--------|--------|---------|-------|---------|-----------|-----------|------------|---------|
| TREAT. | 100-yr. | 10-yr. | 100-yr | . 10-yr | . % | Sq. Ft. | Acres | <u>'.</u> | Sq. Ft. | Acres |
| Α | 1. 87 | 0. 58 | 0.66 | | 0.0 | | 0.0000 | 0.0 | • | 0.0000 |
| В | 2. 60 | 1. 19 | 0. 92 | 0. 36 | 0. 0 | 0 | 0.0000 | 4. 7 | 600 | 0. 0138 |
| С | 3. 45 | 2. 00 | 1. 29 | 0. 62 | 58. 0 | 7, 328 | 0. 1682 | 15. 3 | 1,929 | 0. 0443 |
| D | 5. 02 | 3. 39 | 2. 36 | 1.50 | 42. 0 | 5,300 | 0. 1217 | 80. 0 | 10,099 | 0. 2318 |
| Totals | | | | | 100.0 | 12,628 | 0, 2899 | 100.0 | 12,628 | 0. 2899 |

PEAK DISCHARGE:

EXISTING CONDITIONS:

Q100 = 0.1682 * 3.45 + 0.1217 * 5.02 = 1.19 cfs

Q10 = 0.1682 * 2.00 + 0.1217 * 3.39 = 0.75 cfs

DEVELOPED CONDITIONS:

Q100 = 0.0138 * 2.60 + 0.0443 * 3.45 + 0.2318 * 5.02 = 1.35 cfsQ10 = 0.0138 * 1.19 + 0.0443 * 2.00 + 0.2318 * 3.39 = 0.89 cfs

VOLUME, 100-YEAR AND 10-YEAR, 6-HOUR:

EXISTING CONDITIONS:

V100 = (7,328 * 1.29 + 5,300 * 2.36) / 12 = 1,830 cf V10 = (7,328 * 0.62 + 5,300 * 1.50) / 12 = 1,041 cf

DEVELOPED CONDITIONS:

V100 = (600 * 0.92 + 1,929 * 1.29 + 10,099 * 2.36)/12 = 2,240 cf V10 = (600 * 0.36 + 1,929 * 0.62 +10,099 * 1.50)/12 = 1,380 cf

SUMMARY OF ON-SITE VOLUMES AND PEAK DISCHARGE RATES:

| DEVELOPED | V100(CF) 2,240 | V10(CF) 1,380 | Q100(CFS) 1. 35 | Q10(CFS) 0.89 |
|-----------|-------------------|------------------|--------------------|------------------|
| EXISTING | 1,830 | 1,041 | 1, 19 | 0. 75 |
| INCREASE | 410 | 339 | 0. 16 | 0. 14 |

| | TREA | TMENT B | TREA | TMENT C | TREAT | MENT D | TOTAL | AREA | Q100 (CF |
|------------|------|---------|-------|---------|---------|---------|--------|---------|----------|
| SUBBASIN A | 600 | 0. 0138 | | - | 6,245 | 0. 1433 | 6, 845 | 0. 1571 | 0. 75 |
| SUBBASIN B | - | - | 1,929 | 0. 0443 | 1,543 | 0. 0354 | 3, 472 | 0. 0797 | 0. 33 |
| SUBBASIN C | | _ | | | 2,311 | 0. 0531 | 2,311 | 0. 0531 | 0. 27 |
| TOTALS | 600 | 0. 0138 | 1,929 | 0.0443 | 10, 099 | 0. 2318 | 12,628 | 0. 2899 | 1. 35 |

LEGEND:

EXISTING SPOT ELEV.

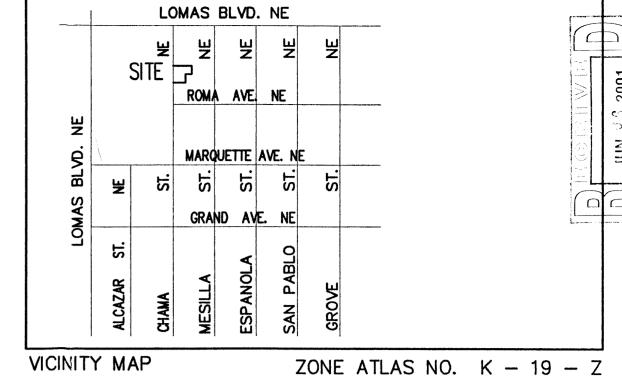
♦ 25.50 NEW SPOT ELEV.

5325 ---- EXISTING CONTOUR

---- 25----- NEW CONTOUR

SHEET FLOW

→ SWALE

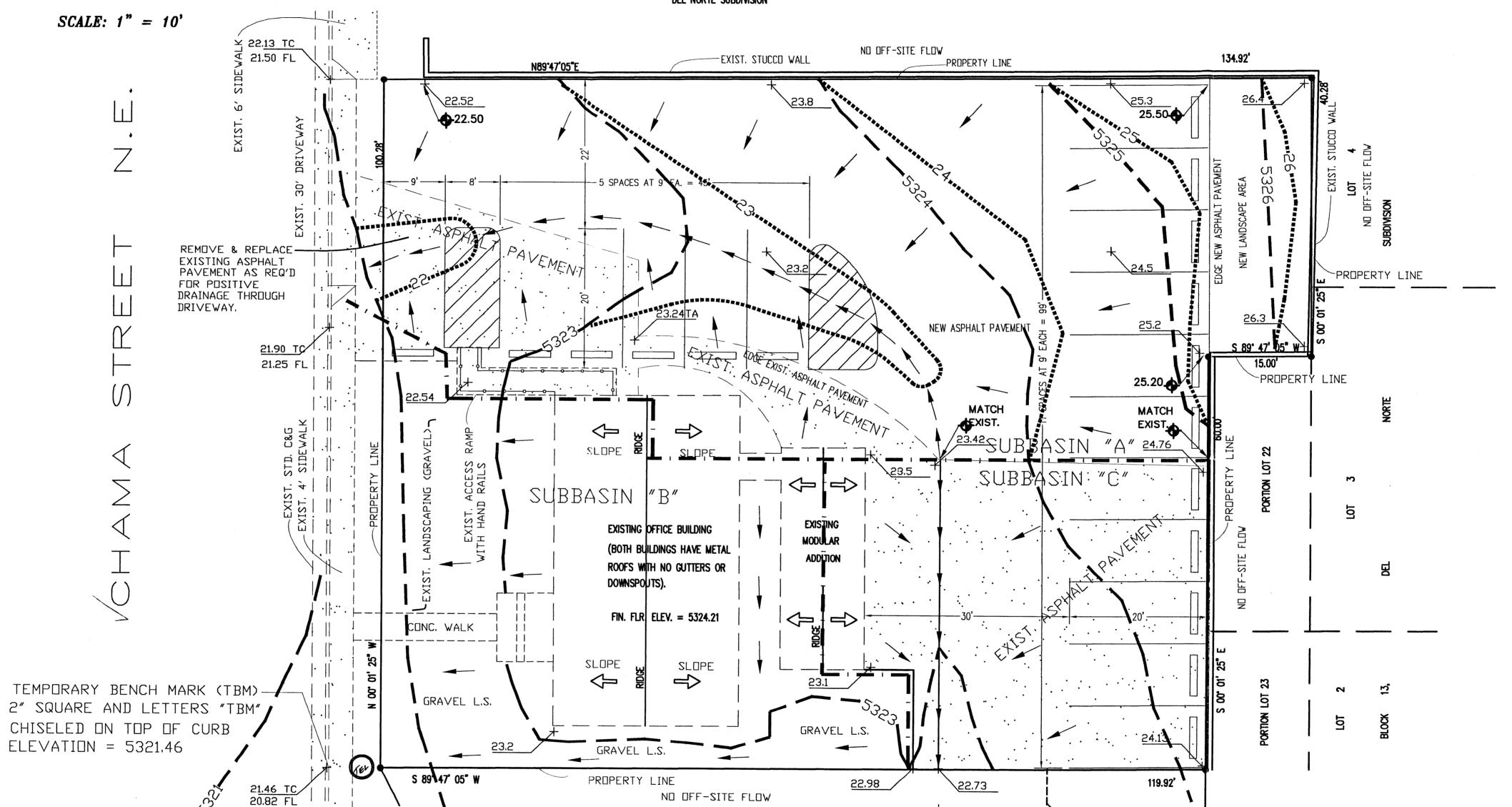


VICINITY MAP

----23' ACCESS EASEMENT ---

TO ROMA AVE.

LOT 19-A DEL NORTE SUBDIVISION



GENERAL NOTES:

- 1. ADD 5300 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION. 2. CONTOUR INTERVAL IS ONE (1) FOOT.
- 3. ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "1-K19",

LOT 21-B

BLOCK 13

DEL NORTE SUBDIVISION

- HAVING AN ELEVATION OF 5320.233.
- 4. UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATIONS BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
- 5. THE TOPOGRAPHIC SURVEY SHOWN ON THIS PLAN IS NOT A BOUNDARY SURVEY. DISTANCES SHOWN ARE FROM THE PLAT OF RECORD AND ARE FOR REFERENCE ONLY.

LEGAL DESCRIPTION: LOT NUMBERED TWENTY ONE - A (21-A) IN BLOCK NUMBERED THIRTEEN (13), DEL NORTE SUBDIVISION, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, NOVEMBER 2000.

DE AUTO INDEPENDENT ME 岁岁

| JOB | NO: 614 |
|------|--------------|
| DATE | June 6, 2001 |
| | REVISIONS |
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SHEET NO.