

DRAINAGE PLAN

The following items concerning the Bruncini Warehouse Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed improvements, as shown by the Vicinity Map, are located on the south side of Columbine Avenue N.E. east of Adams Street. The site is currently undeveloped as are the adjoining sites. The site is within a flood hazard zone.

The site slope from east to west with a slight south to north cross slope. The site is higher than the street to the north and the site to the west. An existing earth swale intercepts any flow that might originate from the site to the south and conveys the flows to the west. The site is lower than the site to the east. Any flows from the east will be conveyed through the site as part of the grading plan. Therefore, off site flows are not significant.

The Grading Plan shows 1) existing and proposed grades, indicated by spot elevations and contours at 1'-0" intervals, 2) continuity between existing and proposed elevations, 3) the limit and character of existing improvements and 4) the limit and character of proposed improvements. As shown by this plan, the proposed improvements consist of an warehouse with associated parking and landscaping. The site will be graded to drain to the driveways at the northwest northeast corners of the site. A free discharge is permissible within this subdivision.

The Calculations, which appear below, analyze the existing and proposed conditions for the 100-year, 6-hour rainfall event. The analysis is in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by the calculations, the rate of runoff and the volume of runoff will increase. The increase is in accordance with the approved master drainage plan for the subdivision.

CALCULATIONS

Precipitation Zone = 2
Area of Site = 0.4821 acres

Existing Conditions

Land Treatment C = 100%
 $E = 1.13 \times 0.4821 / 0.4821 = 1.13$ inches
 $V = 1.13 \times 0.4821 / 12 = 0.05$ ac ft
 $Q = 3.14 \times 0.4821 = 1.5$ cfs

Proposed Conditions

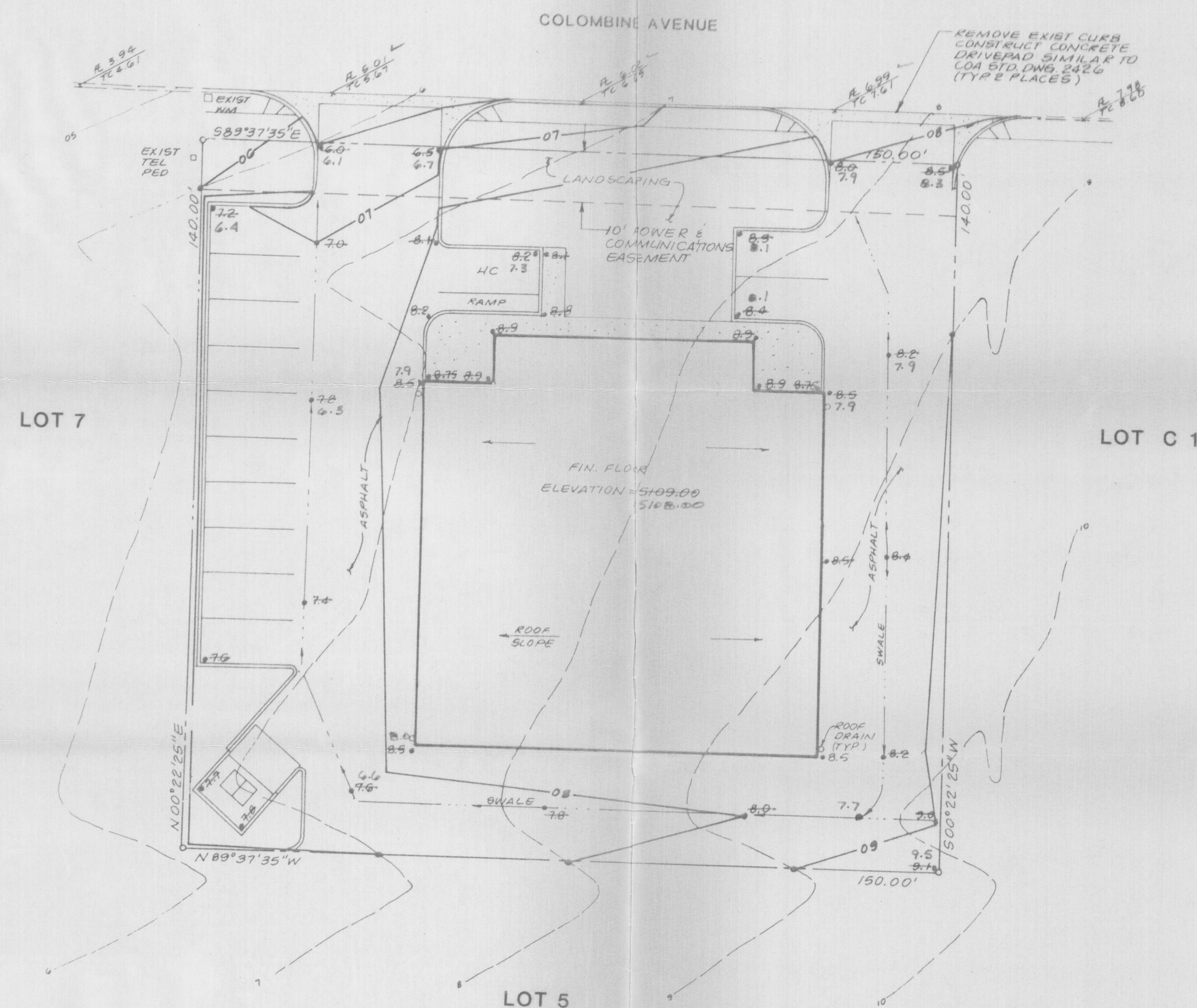
Land Treatment B = 13% D = 87%
 $E = 0.78 \times 0.13 + 2.12 \times 0.87 = 1.95$ inches
 $V = 1.87 \times 0.4821 / 12 = 0.08$ ac ft
 $Q = (2.28 \times 0.13 + 4.70 \times 0.87) \times 0.4821 = 2.1$ cfs

Increase in Rate of Runoff = $2.1 - 1.5 = 0.6$ cfs
Increase in Volume of Runoff = $0.08 - 0.05 = 0.03$ ac ft

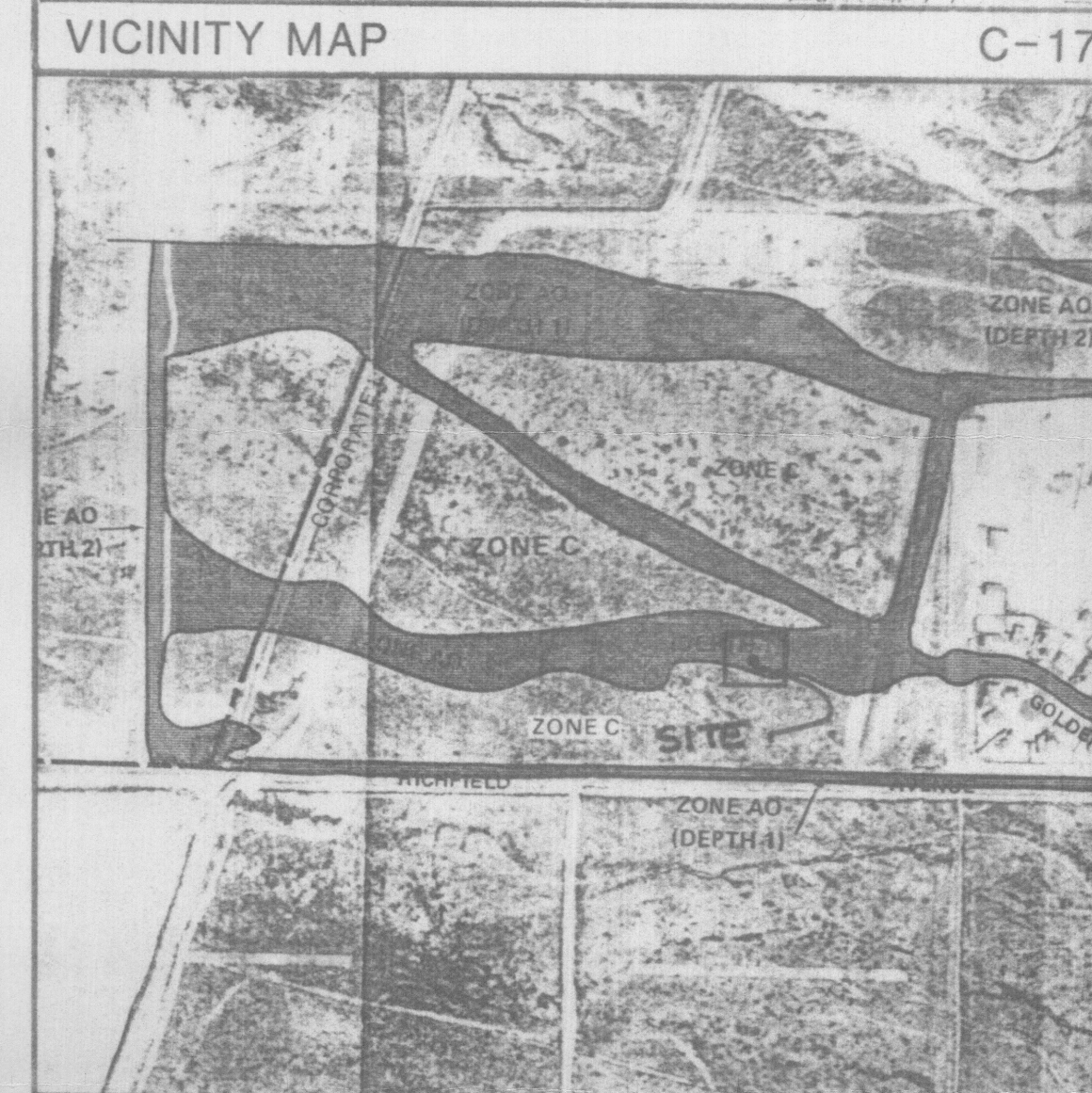
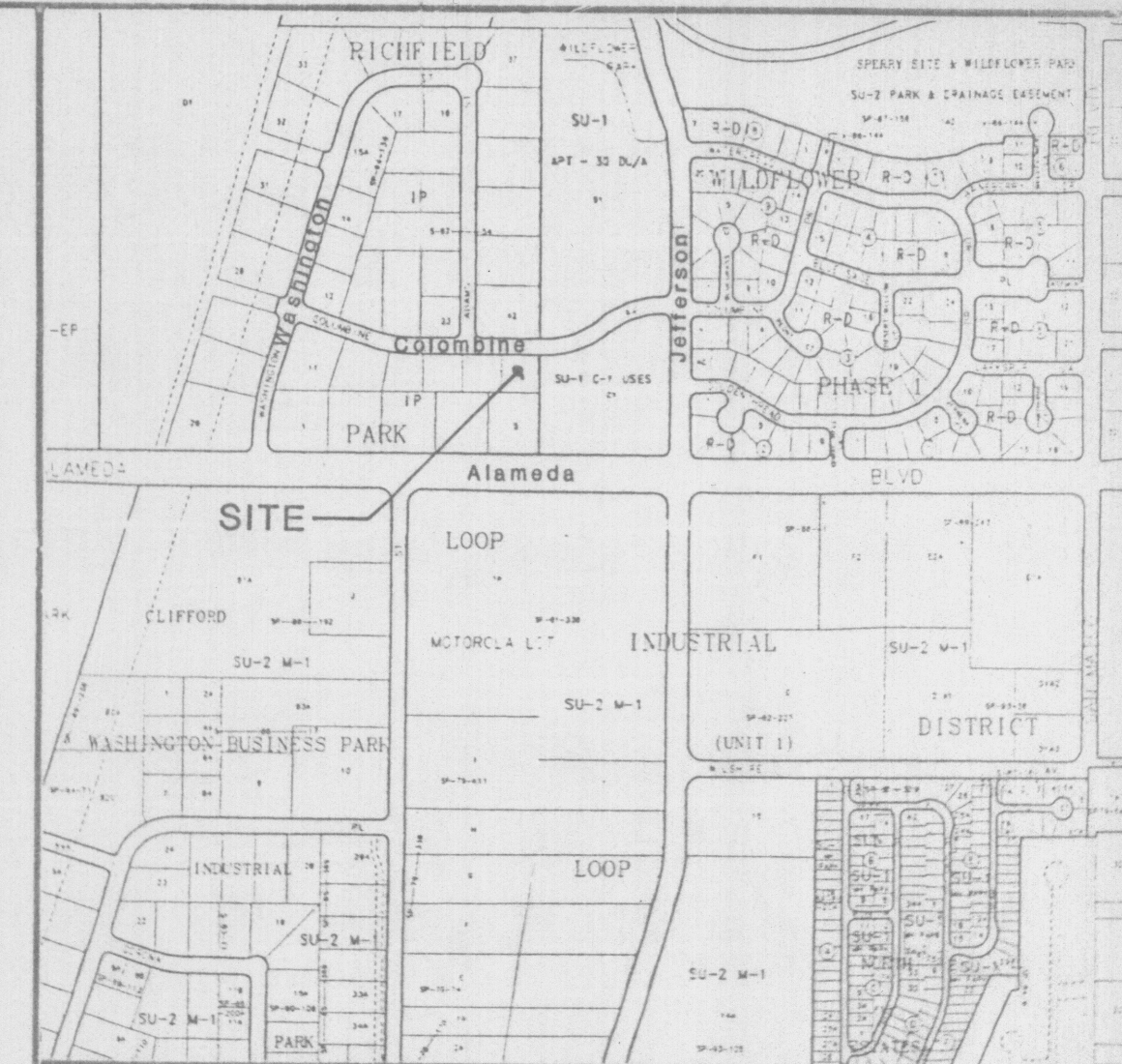
RESPONSE TO 1/23/95 COA COMMENTS

1. THE FEMA MAP INDICATES THE PRESENCE OF A 100-YEAR FLOOD BOUNDARY THROUGH A PORTION OF THIS PROPERTY. THE INFRASTRUCTURE CONSTRUCTED DURING THE SUBDIVISION OF THIS PROPERTY HAS ALTERED THE FLOOD BOUNDARIES. FLOOD PROOFING HAS NOT BEEN PROVIDED. UNTIL REVISIONS ARE MADE TO THE FEMA MAP, THIS PROPERTY MAY BE SUBJECT TO FLOOD INSURANCE REQUIREMENTS.
2. THE DRAINAGE MASTER PLAN FOR THE RICHFIELD SUBDIVISION IS TITLE "DRAINAGE REPORT FOR RICHFIELD PARK" BY ESPEY, HUSTON & ASSOCIATES, INC, AUGUST 1986. THE REPORT DOES NOT USE THE "NEW" HYDROLOGY.
3. A REVIEW OF THE SITE AND THE TOPOGRAPHY INDICATE SWALES TO THE EAST AND SOUTH THAT ROUTE OFF SITE FLOWS AWAY FROM THE SITE.
4. ADJACENT LOTS AND EASEMENTS HAVE BEEN LABELED.

SCALE: 1"=20'



File
C17DPA10



FEMA MAP

BENCHMARK

ACS Brass Cap 9-C18 located at the southwest corner of San Pedro and Wilshire.
Elevation = 5229.79 feet.

TEMPORARY BENCHMARK

Center of manhole lid in the center of the intersection of Columbine and Adams.
Elevation = 5102.31 feet.

LEGAL DESCRIPTION

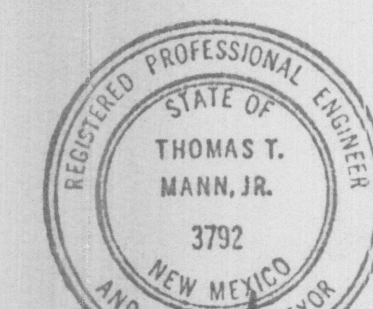
Lot 6, Richfield Park
ADDRESS
4704 Columbine Street NE

LEGEND

- x 6.99 EXISTING SPOT ELEVATION
- 8.5 NEW SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- SWALE
- ✓ VERIFIED ELEVATION

RECEIVED
DEC 14 1995
HYDROLOGY DIVISION

ENGINEER'S CERTIFICATION
THE PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE DRAINAGE CONCEPT OF THIS PLAN. THE ELEVATIONS ARE AS NOTED.



Thomas T. Mann, Jr.
1/9/95 1-25-95

11/14/95

GRADING AND DRAINAGE PLAN

BRUNCINI WAREHOUSE