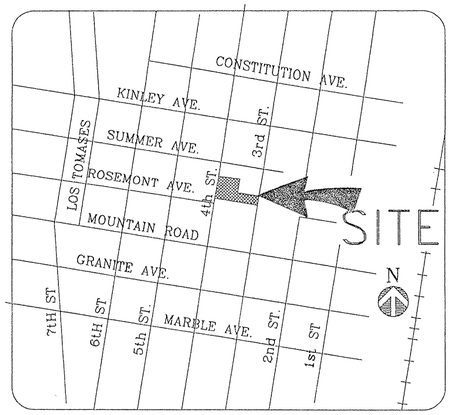
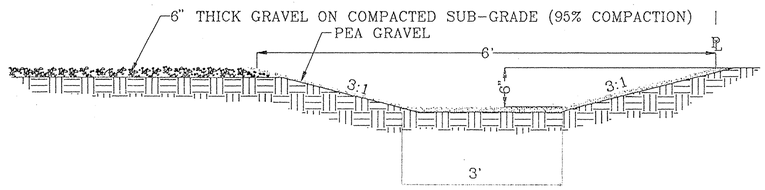
DRAINAGE AND GRADING PLAN



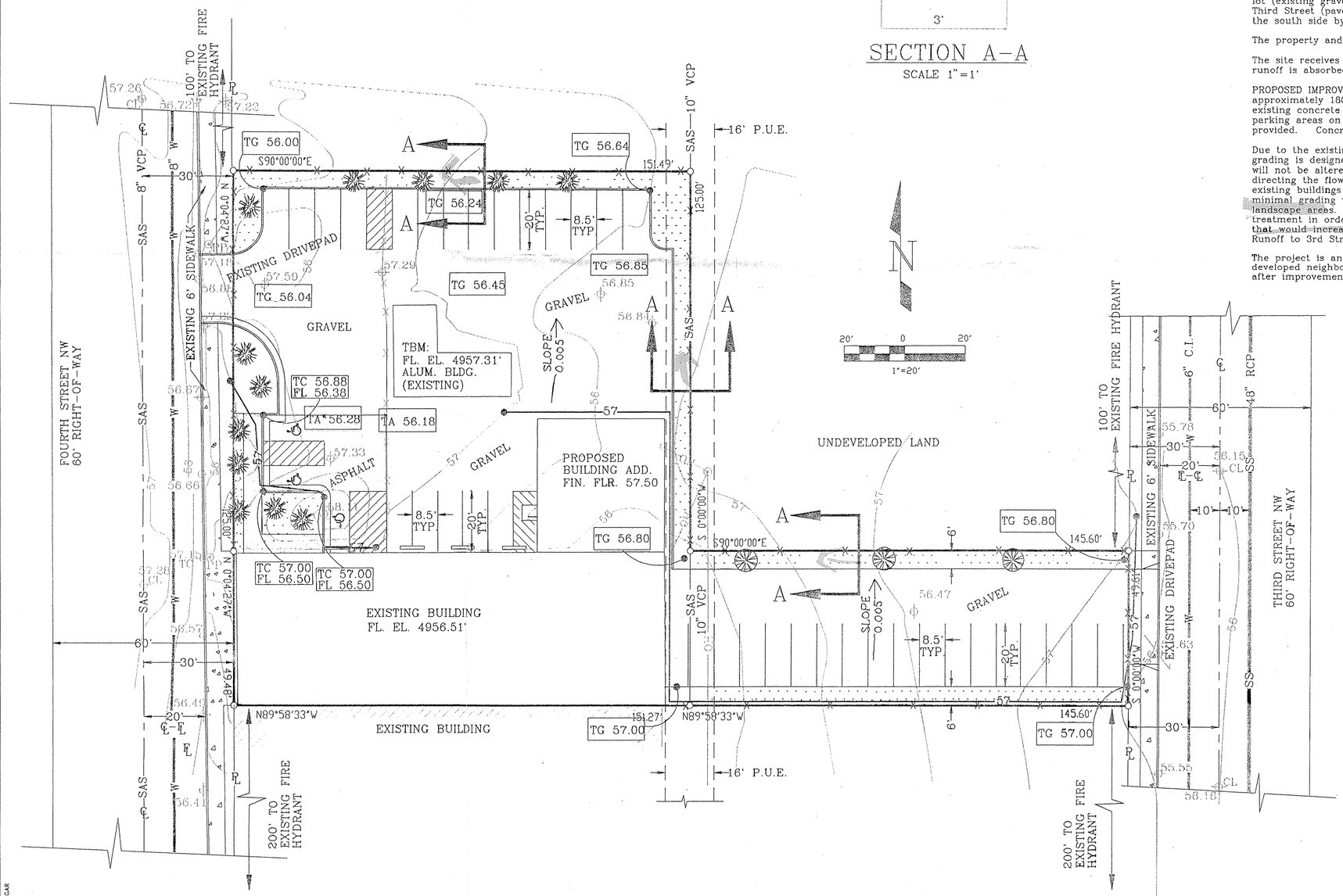
VICINITY MAP
NOT TO SCALE

NOTE:

1. THIS IS NOT A BOUNDARY SURVEY. APPARENT PROPERTY CORNERS ARE SHOWN FOR ORIENTATION ONLY.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON MAPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL UTILITIES, SHOWN OR NOT SHOWN ON THIS DRAWING, PRIOR TO ANY EXCAVATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR KEEPING RUN-OFF ON SITE DURING CONSTRUCTION AND CLEANING UP SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY AND ADJOINING PROPERTIES AFTER CONSTRUCTION.



SECTION A-A
SCALE 1"=1'



BENCHMARK
8th AND LOMAS
ACS STA. 17-J14
ELEVATION: 4954.83

LEGEND

- EXISTING CONTOUR LINES
- 57 PROPOSED CONTOUR LINE
- W EXISTING WATER LINE
- SAS EXISTING SANITARY SEWER
- POWER POLE
- OH EXISTING OVERHEAD LINE
- EXISTING FENCE ON PROPERTY LINE
- EXISTING PROPERTY CORNER
- PROPOSED MEDIAN CURB AND GUTTER
- ASPHALT PAD
- FL 57.00 / TC 57.50 PROPOSED ELEVATIONS, TOP OF CURB, FLOWLINE
- TG 57.50 PROPOSED ELEVATIONS TOP OF GRAVEL
- TA 57.50 PROPOSED ELEVATIONS TOP OF ASPHALT
- 56.16 EXISTING SPOT ELEVATIONS

DRAINAGE AND GRADING PLAN FOR
SOUTHWEST FIRE PROTECTION INC. BUILDING ADDITION

LEGAL DESCRIPTION: Lot 4A and 7A, Block 6, Paris Addition

ADDRESS: 1204 4th STREET N.W.

Zone Atlas J-14

FLOODPLAIN INFORMATION: The property is located in Zone C, areas of minimum flooding, but it abuts Third Street which is in Zone AO, 100-year floodway area, according to the Floodway Boundary and Floodway Map of the City of Albuquerque, New Mexico, Community Panel 350002 0028, effective October 14, 1983.

EXISTING CONDITIONS: Lots 4A and 7A contain an area of approximately three-quarters of an acre. A concrete building occupies 0.17 acre on the southwest corner of Lot 4A and a metal building on concrete on 0.017 acre in the middle. The rest of the lot has gravel surfacing and is used for parking. Lot 7A is vacant land.

The site is bounded on the west side by Fourth Street (paved, with curb and gutter and sidewalk); on the north side by a car lot (existing gravel parking lot, building); on the east side by Third Street (paved with curb and gutter and sidewalk); and on the south side by a building and paved parking lot.

The property and its environs have no landscaping.

The site receives no offsite flows. It is level and the on-site runoff is absorbed by or ponded on its pervious (gravel) surface.

PROPOSED IMPROVEMENTS: A building addition with a roof area of approximately 1800 square feet will be built adjacent to the existing concrete building. Additional asphalt- andgravel-surfaced parking areas on the north and east sides of the property will be provided. Concrete walks and landscaping will be constructed.

Due to the existing flat terrain of the area, the proposed site grading is designed such that the direction of the historic flow will not be altered. Grading the lot for the purpose of directing the flow to 4th Street will adversely impact the existing buildings and the adjoining properties. However, minimal grading will be done to direct on-site flows to on-site landscape areas. Gravel will be used for parking lot surface treatment in order not to create additional impervious surfaces that would increase the amount of surface water to be ponded. Runoff to 3rd Street and 4th Street will remain the same.

The project is an addition to an existing developed site within a developed neighborhood. Runoff of existing condition and runoff after improvements will be compared.

CALCULATIONS:

Existing Conditions:
Land Treatment A = 0
Land Treatment B = 0
Land Treatment C = 24,524 SF = 0.583 Acre
Land Treatment D = 8,145 SF = 0.187 Acre
TOTAL = 0.77 Acre

Proposed Improvement:
Land Treatment A = 0
Land Treatment B = 0
Land Treatment C = 21,780 SF = 0.50 Acre
Land Treatment D = 11,670 SF = 0.27 Acre
TOTAL = 0.77 Acre

Zone 2 (From DPM 22.2, page A-1)

Existing Condition:

Peak Discharge, 100-year: C = 3.14, D = 4.70 (I

Q100 = 0.583 x 3.14 = 1.83 cfs
0.187 x 4.70 = 0.88 cfs
composite = 2.71 cfs

Volume of Runoff,
Excess Precipitation
100-year: C = 1.13, D = 2.12 (from DPM 2

V100 = 0.583 x 1.13 x 43560/12 = 2,391 cf
= 0.187 x 2.12 x 43560/12 = 1,439 cf
composite = 3,830 cf

Proposed Improvement:

Peak Discharge, 100-year

Land Treatment C, 100-year: 3.14 cfs

Land Treatment D, 100-year: 4.70 cfs

Q100 : 0.50 x 3.14 = 1.57 cfs
0.27 x 4.70 = 1.27 cfs
composite = 2.84 cfs

Volume of Runoff, 100-year:

Excess Precipitation, Land Treatment
100-year: 1.13 inch

Excess Precipitation, Land Treatment
100-year: 2.12 inches

V100: C = 0.50 x 1.13 x 43,56
D = 0.27 x 2.12 x 43,56
TOTAL

Change in Discharge, Q100 = 2.84 - 2.71 = 0.13

Change in Runoff Volume, V100 = 4,129 - 3,830 = 29

Runoff Volume that will be ponded on site: Developed

Perimeter landscape on Lot 4A = 2,120 lf. Use trapez
section B1 = 3', B2 = 6' sideslope = 3:1 depth =
Area = 2.25 sf; Volume = 2.25 x 2120 = 4,770 cf pr

CONCLUSION: During a 100-year storm, there will be
change in the peak discharge as a result of the the
impervious areas. The proposed grading and drainage
subject property will not have any adverse impact on
adversely affected by the existing drainage from the s
areas.

EROSION CONTROL: Water, if any, from activities durin
construction and/or from rain will be temporarily pon
to prevent the spread of silt.

Celia S. Tomlinson, PE. 11/5/96

RECEIVED
NOV - 7 1996
HYDROLOGY DIVISION

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C:\DRAINAGE\SWFP\DGAR