LEGEND

- EXISTING FOUND MONUMENT AS INDICATED ON THE PLAN.
- EXISTING NO.4 REBAR WITH CAP #11394 SET BY SURVEYOR.
- EXISTING POWER / LIGHT POLE.
- EXISTING FIRE METER.
- EXISTING FIRE HYDRANT.
- EXISTING SPOT ELEVATION.
- PROPOSED SPOT ELEVATION
- - - - PROPOSED FLOW DIRECTION
- DIRECTION OF FLOW / ROOF DRAINAGE

SCALE: 1" = 20'

PROJECT BENCHMARK

CITY OF ALBUQUERQUE PROJECT BENCHMARK "6-F14".
A SQUARE "□" CHISELED ON TOP OF THE CONCRETE
CURB AT THE ENE CURB RETURN, AT THE INTERSECTION
OF GRIEGOS RD. N.W. AND 12TH STREET N.W. IN THE
N.E. QUADRANT OF THE INTERSECTION.
ELEVATION = 4970.24 FEET (M.S.L.D.)

T.B.M.
FINISHED FLOOR LOCATED AT THE S.E. CORNER OF LOT 66
ELEVATION = 4971.19

LEGAL DESCRIPTION
LOT 66, ROSSITER ADDITION

VICINITY MAP
SCALE 1" = 750'   F-14

F.I.R.M.
SCALE 1" = 500'   15 OF 50

DRAINAGE PLAN

The following items concerning the Hogares – Lot 66 Drainage Plan are contained hereon:

1. Vicinity Map
2. Floodplain Map
3. Grading Plan
4. Calculations

As shown by the Vicinity Map, the site is located in the southwest quadrant of the intersection of 12th Street N.W. and Griegos N.W. At present, the site is developed in residential character. Much of the surrounding sites are also developed, making this a modification to an existing site within an infill area.

As shown by the Floodplain Map and Panel 15 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps published by F.E.M.A. for the City of Albuquerque, New Mexico dated October 14, 1983, this site does not lie within a designated 100-year flood hazard zone. Furthermore, it does not appear that this site contributes runoff to a 100-year designated flood hazard zone. Review of the City of Albuquerque Storm Drainage Facilities Maps, (Plate F-14S) indicates that this site is served by a public storm drain system that lies within 12th Street N.W. and Griegos Road N.W. Inasmuch, public storm drain facilities are readily available to this site.

The Grading Plan shows: 1) existing grades indicated by spot elevations and contours at 1'0" intervals taken from a survey provided by the Owner and prepared by Glen Thurow, NMPS, September 1995, 2) proposed grades indicated by spot elevations and contours at 1'0" intervals, 3) the limit and character of the existing improvements as shown on the above referenced survey, 4) the limit and character of the proposed improvements, and 5) continuity between existing and proposed grades. As shown by this plan, the proposed improvements consist of the installation of a portable classroom building. Conflicting trees and shrubs will be removed. The plan also shows the location of a future parking lot. The finished floor and footing elevations for the portable classroom have been established so as to allow for the positive drainage of runoff generated by this building to and across the future parking lot. Runoff from the parking lot will exit via the existing and/or a proposed drivepad into 12th Street N.W. As stated above, public storm drain facilities lie within both 12th Street N.W. and Griegos Road N.W. The new roof area created by the installation of the portable classroom building will have a negligible impact on downstream conditions.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, a negligible increase in runoff is anticipated due to the proposed improvements. It is based upon the negligible increase in runoff, the fact that this is a modification to an existing site within an infill area, the proximity of existing storm drain improvements, and the fact that this site does not adversely impact a designated flood hazard zone, that the free discharge of runoff from this site is appropriate.

Offsite flows do not impact this site as the adjacent properties drain away from this property. The adjacent street, 12th Street N.W., is a fully improved public street with curb and gutter, paving, and public storm drain facilities. Flooding has not been identified in this roadway or any of the nearby streets.

CALCULATIONS

Site Characteristics

1. Precipitation Zone = 2
2. $P_{6,100} = P_{360} = 2.35$ in.
3. Total Area (A_T) = 13,660 sf; 0.31 acres

4. Existing Land Treatment

Treatment	Area (sf/ac)	%
B	1,000/0.02	7.3
C	8,550/0.20	62.6
D	4,110/0.09	30.1

5. Developed Land Treatment

Treatment	Area (sf/ac)	%
B	1,000/0.02	7.3
C	7,810/0.18	57.2
D	4,850/0.11	35.5

Existing Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$$
$$E_W = [(0.78)(0.02)+(1.13)(0.20)+(2.12)(0.09)]/(0.31) = 1.39 \text{ in.}$$
$$V_{100} = (E_W/12)A_T$$
$$V_{100} = (1.39/12)(0.31) = 0.0360 \text{ ac.ft.; } 1,570 \text{ cf}$$

2. Peak Discharge

$$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$$
$$Q_P = Q_{100} = (2.28)(0.02)+(3.14)(0.20)+(4.70)(0.09) = 1.1 \text{ cfs}$$

Developed Condition

1. Volume

$$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$$
$$E_W = [(0.78)(0.02)+(1.13)(0.18)+(2.12)(0.11)]/(0.31) = 1.46 \text{ in.}$$
$$V_{100} = (E_W/12)A_T$$
$$V_{100} = (1.46/12)(0.31) = 0.0377 \text{ ac.ft.; } 1,645 \text{ cf}$$

2. Peak Discharge

$$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$$
$$Q_P = Q_{100} = (2.28)(0.02)+(3.14)(0.18)+(4.70)(0.11) = 1.1 \text{ cfs}$$

Comparison

1. $\Delta V_{100} = 1,645 - 1,570 = 75$ cf (increase)
2. $\Delta Q_{100} = 1.1 - 1.1 = 0.0$ cfs (no increase)
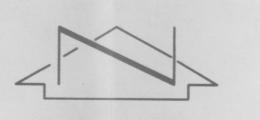
Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990, for location of existing utilities.

2. 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 in writing so that the conflict can be resolved with a minimum amount of delay.

3. 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.

4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.

5. 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 none are 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 conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during 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.

6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

Erosion Control Measures:

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.

2. 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.

3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.

GRIEGOS ROAD NW
GRANDE DRIVE NW
12TH STREET NW

Existing Building
Existing Building
New Portable Building
TOF = 4971.10
FF = 4972.75
Lot 66
Lot 67
Lot 68
Lot 69
EXISTING PARKING LOT
F.F. ELV. 4971.19
CONCRETE BASKETBALL COURT

GRADING AND DRAINAGE PLAN
HOGARES

JEFF MORTENSEN & ASSOCIATES, INC.
□ 6000-B MIDWAY PARK BLVD. N.E.
□ ALBUQUERQUE □ NEW MEXICO 87109
□ ENGINEERS □ SURVEYORS (505) 345-4250

DESIGNED BY: JGM
DRAWN BY: CJH
APPROVED BY: JGM

REVISIONS

JOB NO. 951031
DATE 10-1995
SHEET 1 OF 1

10-18-95
JEFFREY G. MORTENSEN 8547 NEW MEXICO PROFESSIONAL ENGINEER