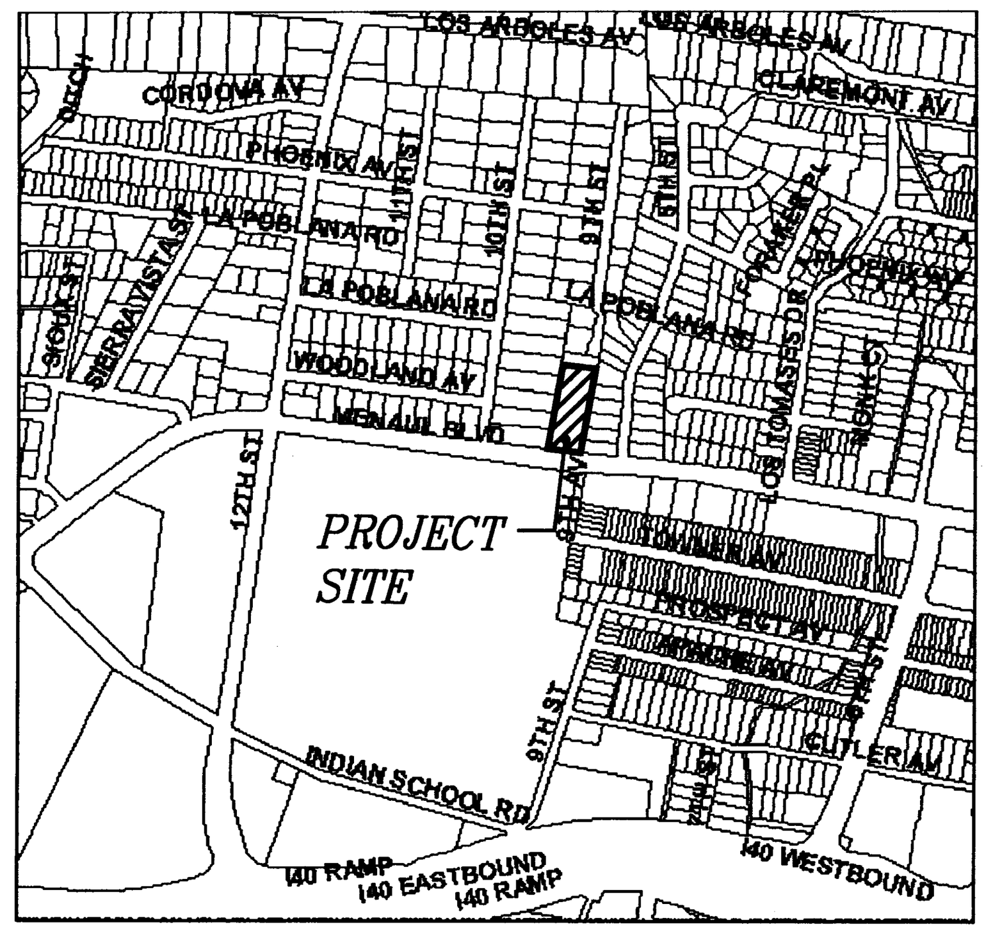

VICINITY MAP ZONE MAP: H-14-Z

PURPOSE
This report has been prepared to support a proposed 5 lot subdivision to be located on a 1.22 acre parcel located along the north side of Menaul Boulevard between Eighth St. and Tenth St. (please refer to Vicinity Map). An existing home with historical designation is located near the northwest quadrant of the site, and will remain upon the development of the site.

EXISTING CONDITIONS
The Foraker Farms site is an infill parcel with existing housing located along the east, north, and west sides of the property. Along the south side of the site, an approximate 5' high earthen berm separates this property from an MRGCD irrigation ditch, with Menaul Blvd. due south of the ditch.

The existing site topography slopes gently from north to south at approximately 0.5% with site generated flows primarily outfalling to an existing drive onto Menaul Blvd. located at the southeast corner of the site. During a 100-year, 6-hour storm event, it is estimated that 3.06 cfs of runoff is generated. This site is not within a 100-year floodplain.

DEVELOPED CONDITIONS
The drainage management plan for this site calls for surface draining developed storm flows within a new curb lined cul de sac to Menaul Blvd. Two Type 'C' drop inlets are proposed along the north side of Menaul near the new intersection to be constructed with this project. The new inlets will connect to an existing 24"/30" main line in Menaul. It is estimated that in the developed state the site will generate 4.65 cfs of runoff during a 100-year, 6-hour event.

As reflected on the Grade & Drain Plan, it will be necessary to replace the MRGCD's existing 24" culvert crossing located just outside the southeast corner of this site in order to construct the new entrance intersection. Functioning the same as the existing crossing, the proposal is to construct new Double 'D' drop inlets along the bottom of the irrigation ditch on either side of the new drive. Irrigation waters will enter the westernmost inlet, fill the new 24" culvert pipe, and ultimately discharge out the easternmost grate into the irrigation ditch east of the new entrance.

SUMMARY
Developing this site in the manner presented will increase runoff from the site by only 1.59 cfs. With new drop inlets constructed at the new intersection on Menaul, the increase in flow will be intercepted immediately upon entering the roadway. Thereby, there will be no adverse impacts downstream upon developing this site.

```
START                 TIME=0.0
*****     FORAKER FARMS G&D PLAN
*****     FILE: C:\AHYMO\FORK.DAT JUNE 24, 2004   BY:AMY
*****
*****     100-YEAR 6-HOUR STORM EVENT
*****
RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=1.90 IN RAIN SIX=2.30 IN
                      RAIN DAY=2.60 IN DT=0.033333 HR
*****
*****    EXISTING CONDITIONS
*****
COMPUTE NM HYD        ID=1 HYD NO=100.00 AREA=0.00202 SQ MI
                      PER A=00.00 PER B=84.00 PER C=11.00 PER D=5.00
                      TP=0.1333 HR MASS RAINFALL=-1
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*****
*****    PROPOSED CONDITIONS
*****
*****    PROPOSED SUBDIVISION
*****
COMPUTE NM HYD        ID=2 HYD NO=200.00 AREA=0.00202 SQ MI
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                      TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=2 CODE=1
*****
FINISH
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AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 06/25/2004
     START TIME (HR:MIN:SEC) = 10:22:10      USER NO.= M_GOODWN.I01
     INPUT FILE = FORK.DAT

START                 TIME=0.0
*****     FORAKER FARMS G&D PLAN
*****     FILE: C:\AHYMO\FORK.DAT JUNE 24, 2004   BY:AMY
*****
*****     100-YEAR 6-HOUR STORM EVENT
*****
RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=1.90 IN RAIN SIX=2.30 IN
                      RAIN DAY=2.60 IN DT=0.033333 HR

           COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
           DT =     .033333 HOURS          END TIME =      5.999940 HOURS
              .0000    .0023    .0047    .0071    .0096    .0122    .0148
              .0174    .0201    .0229    .0258    .0287    .0317    .0348
              .0380    .0412    .0446    .0481    .0517    .0554    .0592
              .0632    .0673    .0716    .0761    .0808    .0856    .0907
              .0961    .1018    .1078    .1130    .1186    .1246    .1376
              .1664    .2109    .2746    .3617    .4762    .6221    .8037
             1.0254   1.2305   1.3163   1.3887   1.4532   1.5118   1.5658
             1.6160   1.6628   1.7067   1.7480   1.7870   1.8239   1.8587
             1.8917   1.9231   1.9528   1.9810   2.0077   2.0143   2.0206
             2.0265   2.0322   2.0376   2.0428   2.0479   2.0527   2.0574
             2.0620   2.0664   2.0707   2.0748   2.0789   2.0828   2.0866
             2.0904   2.0941   2.0976   2.1011   2.1046   2.1079   2.1112
             2.1145   2.1176   2.1207   2.1238   2.1268   2.1297   2.1327
             2.1355   2.1383   2.1411   2.1438   2.1465   2.1492   2.1518
             2.1543   2.1569   2.1594   2.1619   2.1643   2.1667   2.1691
             2.1715   2.1738   2.1761   2.1784   2.1806   2.1828   2.1850
             2.1872   2.1894   2.1915   2.1936   2.1957   2.1978   2.1998
             2.2018   2.2038   2.2058   2.2078   2.2097   2.2117   2.2136
             2.2155   2.2174   2.2192   2.2211   2.2229   2.2247   2.2265
             2.2283   2.2301   2.2319   2.2336   2.2354   2.2371   2.2388
             2.2405   2.2422   2.2438   2.2455   2.2472   2.2488   2.2504
             2.2520   2.2536   2.2552   2.2568   2.2584   2.2599   2.2615
             2.2630   2.2646   2.2661   2.2676   2.2691   2.2706   2.2721
             2.2735   2.2750   2.2765   2.2779   2.2793   2.2808   2.2822
             2.2836   2.2850   2.2864   2.2878   2.2892   2.2906   2.2919
             2.2933   2.2947   2.2960   2.2973   2.2987   2.3000

*****
*****    EXISTING CONDITIONS
*****
COMPUTE NM HYD        ID=1 HYD NO=100.00 AREA=0.00202 SQ MI
                      PER A=00.00 PER B=84.00 PER C=11.00 PER D=5.00
                      TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   .39875    CFS   UNIT VOLUME =    .9711       B =   526.28      P60 = 1.9000
    AREA =       .000101 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    K =   .127917HR    TP =   .133300HR    K/TP RATIO =   .959620    SHAPE CONSTANT, N =  3.682038
    UNIT PEAK =  4.7994    CFS   UNIT VOLUME =    .9975       B =   333.38      P60 = 1.9000
    AREA =       .001919 SQ MI    IA =    .48263 INCHES    INF =   1.20137 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

PRINT HYD             ID=1 CODE=1

                                PARTIAL HYDROGRAPH   100.00

    RUNOFF VOLUME =        .81216 INCHES      =          .0875 ACRE-FEET
    PEAK DISCHARGE RATE =         3.06 CFS   AT    1.500 HOURS    BASIN AREA =    .0020 SQ. MI.

*****
*****    PROPOSED CONDITIONS
*****
*****    PROPOSED SUBDIVISION
*****
COMPUTE NM HYD        ID=2 HYD NO=200.00 AREA=0.00202 SQ MI
                      PER A=00.00 PER B=15.00 PER C=35.00 PER D=50.00
                      TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =  3.9875    CFS   UNIT VOLUME =    .9965       B =   526.28      P60 = 1.9000
    AREA =       .001010 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

    K =   .113572HR    TP =   .133300HR    K/TP RATIO =   .852002    SHAPE CONSTANT, N =  4.177095
    UNIT PEAK =  2.7793    CFS   UNIT VOLUME =    .9955       B =   366.81      P60 = 1.9000
    AREA =       .001010 SQ MI    IA =    .39500 INCHES    INF =    .95600 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033333

PRINT HYD             ID=2 CODE=1

                                PARTIAL HYDROGRAPH   200.00

    RUNOFF VOLUME =       1.49564 INCHES      =          .1611 ACRE-FEET
    PEAK DISCHARGE RATE =         4.65 CFS   AT    1.500 HOURS    BASIN AREA =    .0020 SQ. MI.
```
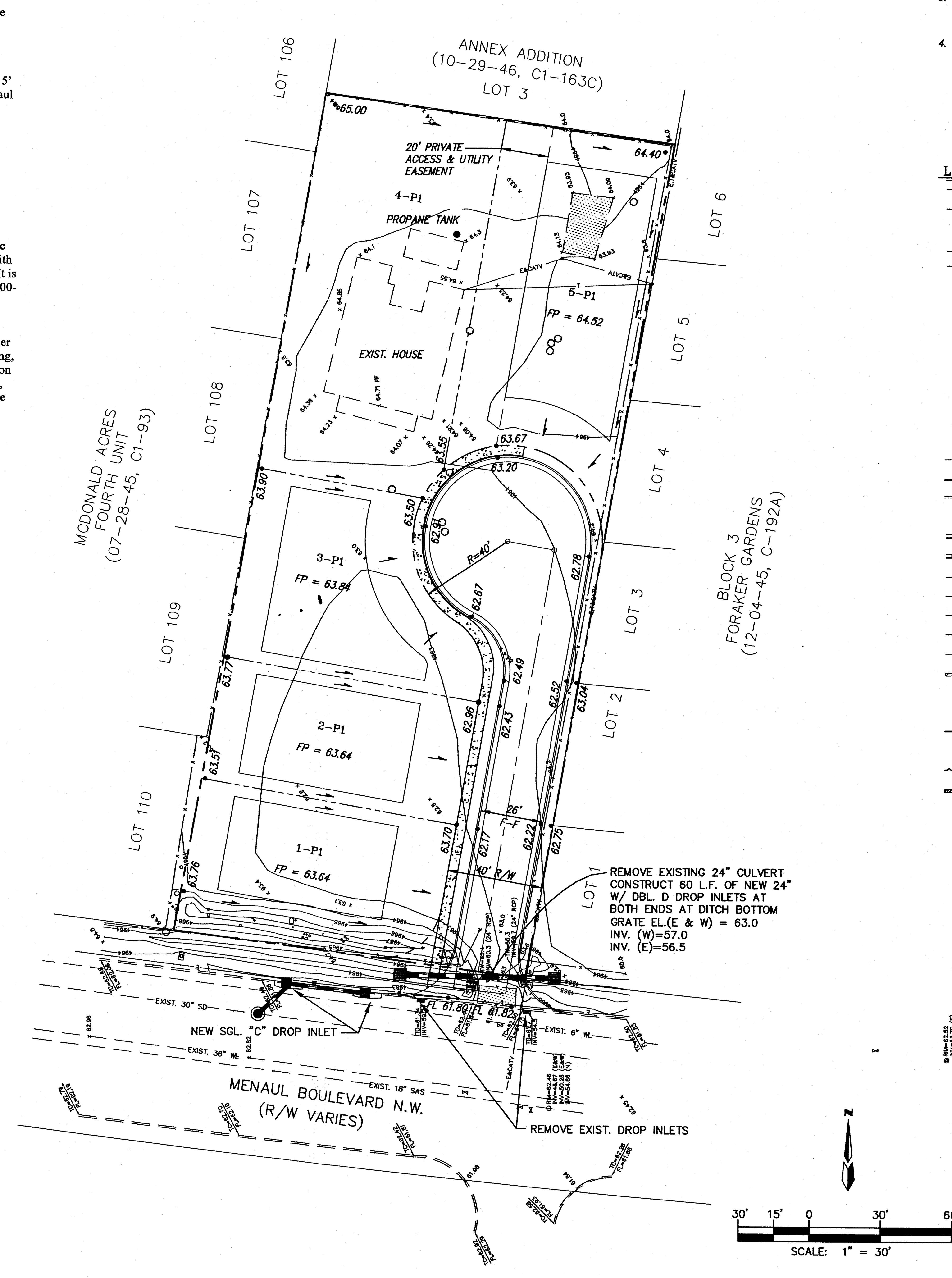
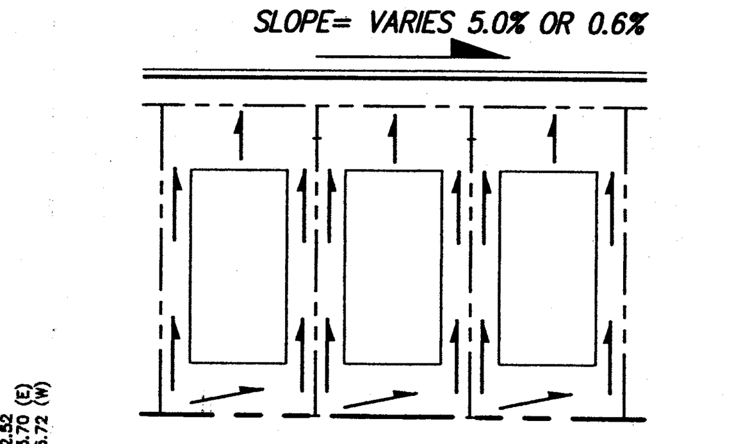



NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION SHALL GOVERN ALL WORK.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND WETTING THE SOIL TO KEEP IT FROM BLOWING.

LEGEND

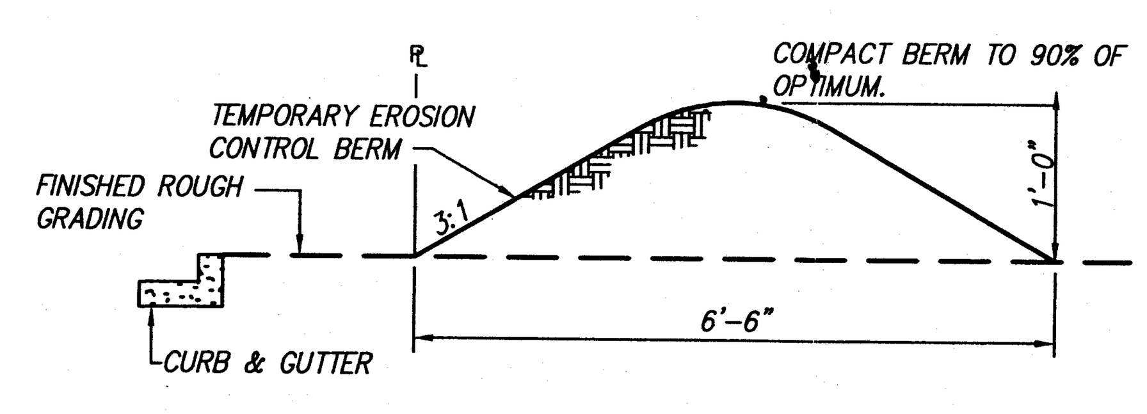
Symbol	Description
5615	EXISTING CONTOUR (MAJOR)
5616	EXISTING CONTOUR (MINOR)
TC= FL= x 00.0	EXISTING SPOT ELEVATION
-x-x-x-x-	EXISTING CHAIN LINK/WIRE FENCE
-E-E-E-E-	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING POWER POLE
	EXISTING GUY WIRE
	EXISTING TELEPHONE MANHOLE
	EXISTING TELEPHONE PEDESTAL
	EXISTING WATER VALVE
	EXISTING WATER METER
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM SEWER MANHOLE
	EXISTING DROP INLET
E&CATV	EXISTING UTILITY LINES
	EXISTING CURB & GUTTER
	EXISTING WALL OR HEADWALL
	EXISTING TREE
	NEW MOUNTABLE CURB & GUTTER
	NEW STANDARD CURB & GUTTER
	NEW SIDEWALK
	NEW RIGHT-OF-WAY
	NEW CENTERLINE
	NEW LOT LINES
	NEW EASEMENTS
	NEW RETAINING WALL
20.00	NEW SPOT ELEVATIONS
	NEW FLOW
18"	NEW STORM DRAIN
	NEW STORM DRAIN MANHOLE
	NEW WATERBLOCK
	NEW WALL
00.00TW 00.00TG	TOP OF WALL TOP OF GRADE



TYPICAL LOT LAYOUT: PLAN VIEW
N.T.S.

NOTES:

1. ALL LOT RUNOFF DRAINS TO THE STREET IN FRONT OF THE LOT.



EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING UP ANY SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. EROSION CONTROL BERMS ARE REQUIRED AROUND THE ENTIRE SITE.
5. ALL EROSION CONTROL BERMS MUST BE IN PLACE AND ENGINEER CERTIFIED PRIOR TO BUILDING PERMIT RELEASE.

AS BUILT INFORMATION: CONTRACTOR; WORK STAKED BY / DATE; INSPECTOR'S ACCEPTANCE BY / DATE; FIELD VERIFICATION BY / DATE; DRAWINGS CORRECTED BY / DATE

MICRO-FILM INFORMATION: RECORDED BY / DATE; NO.

BENCH MARKS
NMSHC/ACS Brass Cap stamped "NM47-13"
Located on south center median of the intersection of Menaul Blvd. N.W. and Second Street N.W.
Geographic Position (NAD 1927), in feet
N.M. State Plane Coordinates (Central Zone)
X=382,262.47, Y=1,495,630.34
Elevation=4968.39, NGVD29, in feet

SURVEY INFORMATION — FIELD NOTES: NO. | BY | DATE

ENGINEER'S SEAL

REMARKS / REVISIONS / DESIGN: NO. | DATE | BY

		DATE
DESIGNED BY	ALN	10/04
DRAWN BY	ACH	10/04
CHECKED BY	DMG	10/04

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

RECEIVED NOV 30 2004 HYDROLOGY SECTION

TITLE: FORAKER FARMS SUBDIVISION GRADING & DRAINAGE PLAN

DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | LAST DESIGN UPDATE | MO./DAY/YR. | MO./DAY/YR.

CITY PROJECT NO. | ZONE MAP NO. H-14-Z | SHEET 1 OF 1

A4050FRF/GRADE-N-DRAIN/A4050GD-30/11-29-04/ACH RDQ