BOARD OF COUNTY COMMISSIONERS
PATRICK J. BACA, CHAIRMAN
DISTRICT 1
JACQUELYN SCHAEFER, VICE CHAIR
DISTRICT 5
ALBERT "AL" VALDEZ, MEMBER
DISTRICT 2
EUGENE M. GILBERT, MEMBER
DISTRICT 3
PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4
JUAN R. VIGIL, COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

ADMINISTRATION (505) 768-4000
COMMISSION (505) 768-4217
FAX (505) 768-4329

February 23, 1993

Mike Beyer, P.E.
The B.E.A.R. Company
1311 Apex Court
Rio Rancho, NM 87124

RE: DRAINAGE PLAN FOR LOT 24, BLOCK 15, TRACT 2, UNIT 1, N.A.A.,
(C-22/D33), ENGINEER'S STAMP DATED JANUARY 18, 1993

Dear Mr. Beyer:

Based on the information provided on the referenced submittal received
February 16, 1993, the plan is acceptable for Building Permit release.

Please be advised that prior to final inspection by County Building
Department, an Engineer's Certification must be submitted and approved by this
office.

On future submittals, use the zone atlas for the vicinity map, also you need
to check the appropriate review request on your information sheet.

If you should have any questions, please do not hesitate to contact me at
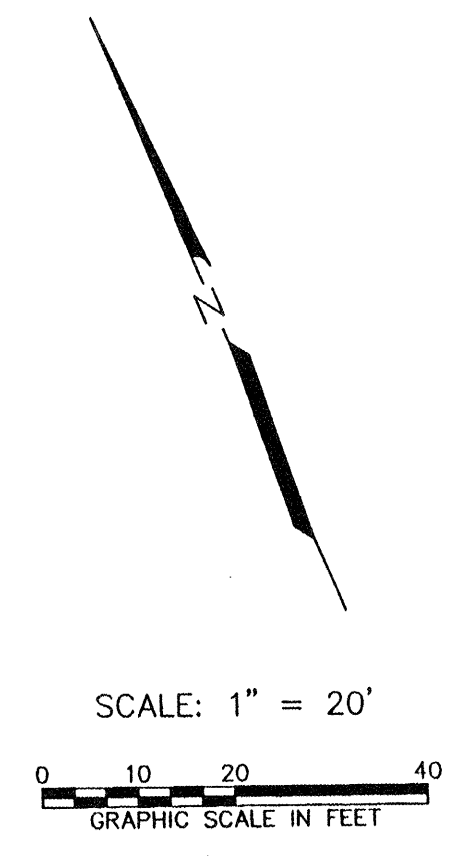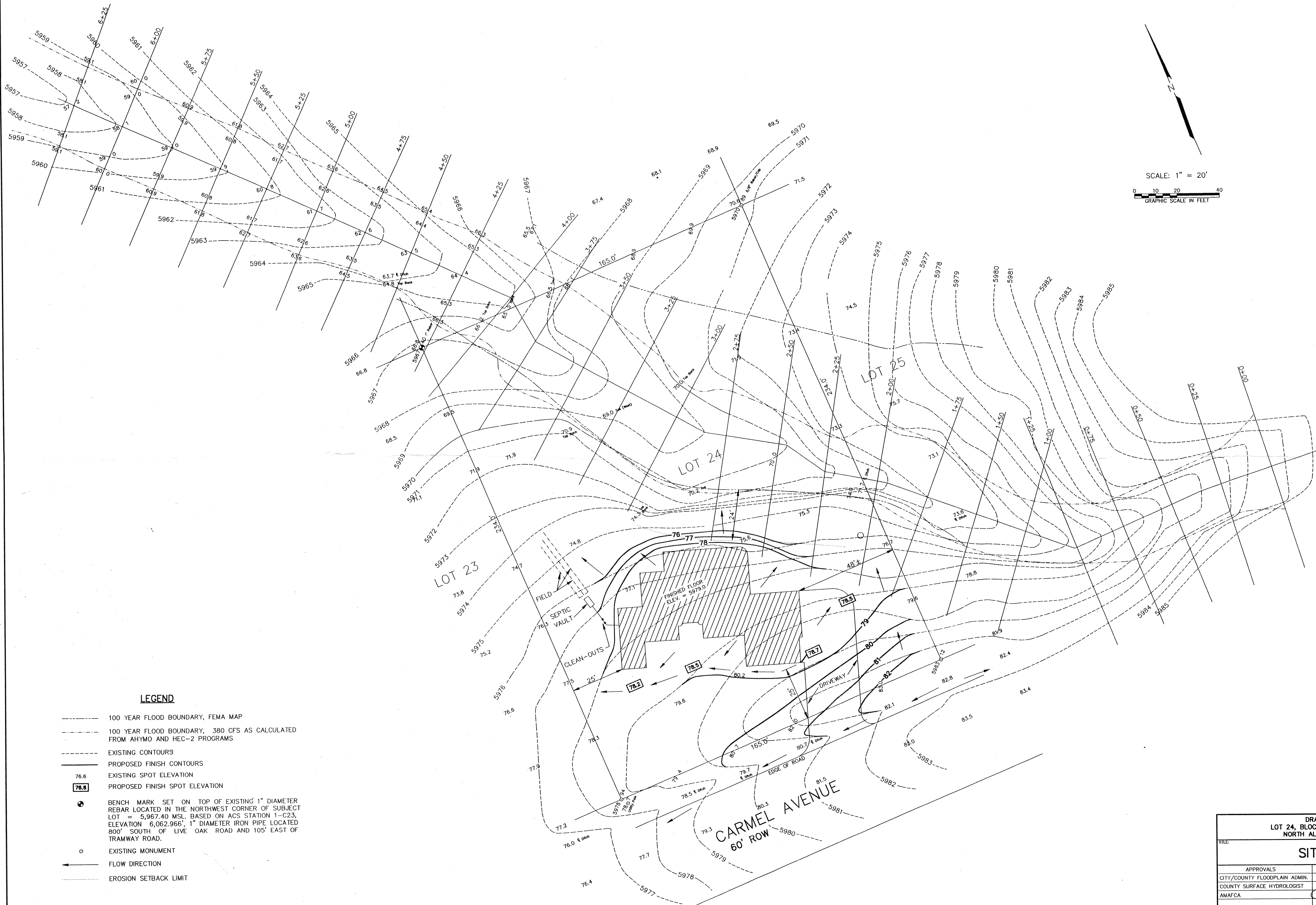768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
City/County Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
     Bob Foglesong, County PWD
     Tom Burlison, County Building Dept.
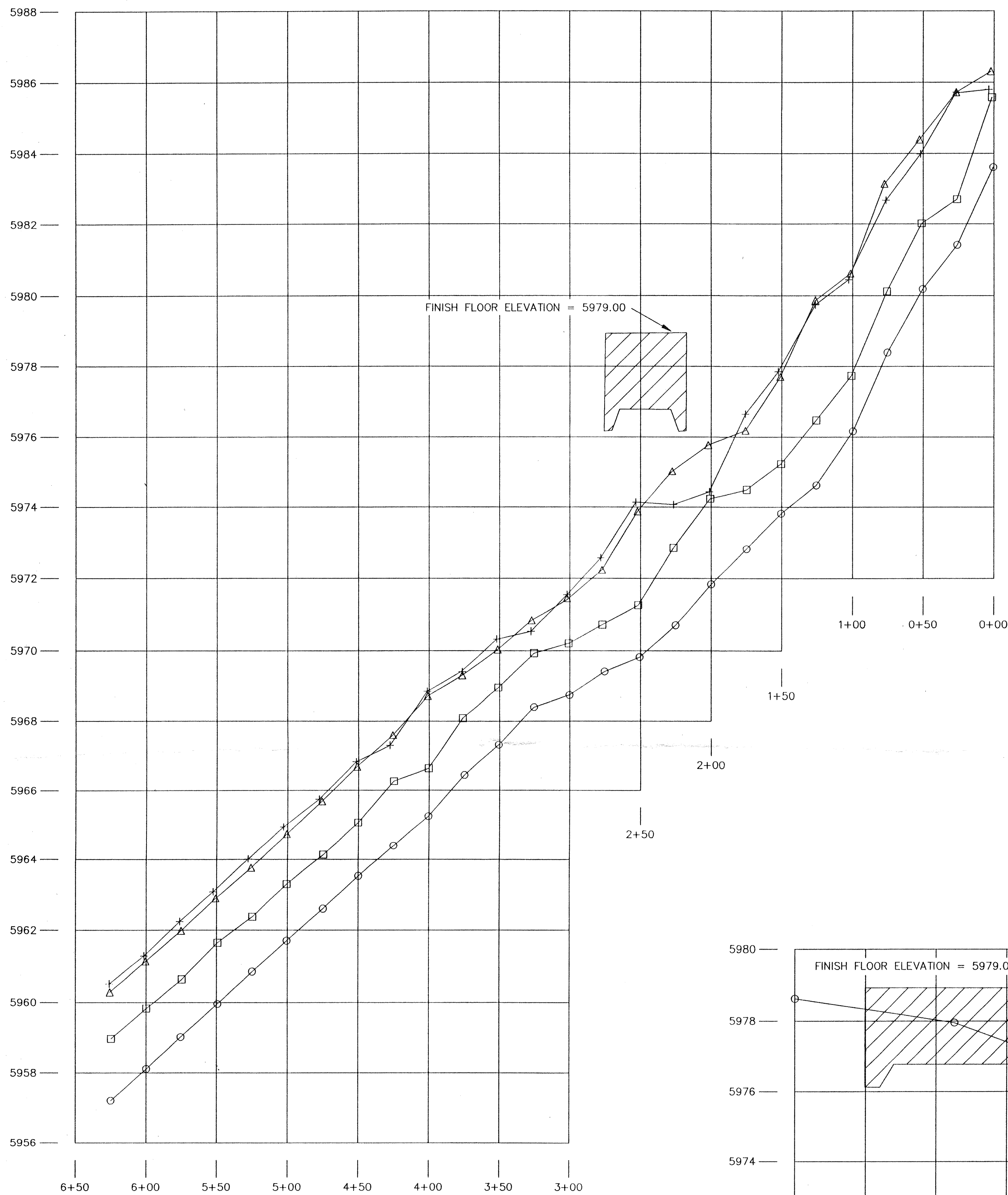   John Mechembier, Mechembier Construction
     File

wp+3802

SCALE: 1" = 20'

0 10 20 40
GRAPHIC SCALE IN FEET

LOT 25

LOT 24

LOT 23

FINISHED FLOOR
ELEV. = 5979.0

SEPTIC
VAULT

FIELD

CLEAN-OUTS

DRIVEWAY

EDGE OF ROAD

CARMEL AVENUE
60' ROW

LEGEND

— · · · — 100 YEAR FLOOD BOUNDARY, FEMA MAP

— · — · — 100 YEAR FLOOD BOUNDARY, 380 CFS AS CALCULATED
FROM AHYMO AND HEC-2 PROGRAMS

– – – – EXISTING CONTOURS

——— PROPOSED FINISH CONTOURS

76.6   EXISTING SPOT ELEVATION

[76.6]   PROPOSED FINISH SPOT ELEVATION

⊕   BENCH MARK SET ON TOP OF EXISTING 1" DIAMETER
REBAR LOCATED IN THE NORTHWEST CORNER OF SUBJECT
LOT = 5,967.40 MSL. BASED ON ACS STATION 1-C23,
ELEVATION 6,062.966'. 1" DIAMETER IRON PIPE LOCATED
800' SOUTH OF LIVE OAK ROAD AND 105' EAST OF
TRAMWAY ROAD.

○   EXISTING MONUMENT

→   FLOW DIRECTION

· · · · · · · · · EROSION SETBACK LIMIT

ENGINEER'S SEAL

18 JANUARY 1993

NO.	DATE	REVISIONS	BY
		REMARKS	

DESIGN

DESIGNED BY: MICHAEL E. BEYER	DATE: 01 DEC 92
DRAWN BY: ALAN R. CIEBACA	DATE: 02 DEC 92
CHECKED BY: MICHAEL E. BEYER	DATE: 03 DEC 92

DRAINAGE PLAN
LOT 24, BLOCK 15, TRACT 2, UNIT 1
NORTH ALBUQUERQUE ACRES

TITLE:

SITE PLAN

APPROVALS	ENGINEER	DATE
CITY/COUNTY FLOODPLAIN ADMIN.		
COUNTY SURFACE HYDROLOGIST		1/20/93
AMAFCA		1/15/93

SCALE: 1" = 20'	DATE: 04 DECEMBER 1992	SHEET 2 OF 3

FINISH FLOOR ELEVATION = 5979.00
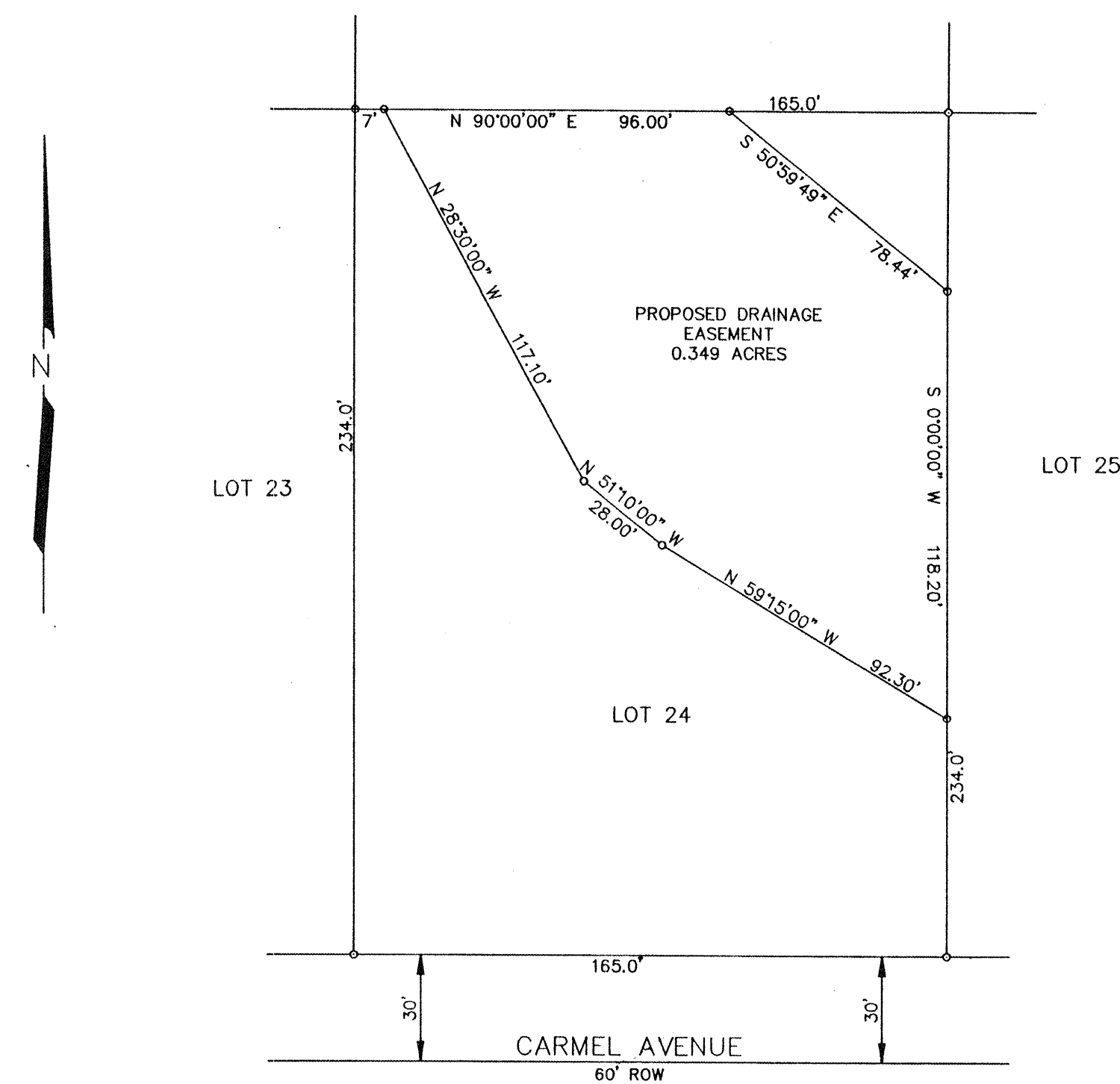
1+00
0+50
0+00

1+50

2+00

2+50

HYDRAULIC ANALYSIS PROFILE

SCALE: 1" = 50' HORIZ.
1" = 2' VERT.

LEGEND

○──○ INVERT OF ARROYO (EXISTING GROUND)

□──□ COMPUTED WATER SURFACE ELEVATION

△──△ ENERGY GRADE LINE

+──+ CONJUGATE GRADE LINE

N

THE B.E.A.R. COMPANY

ENGINEERING – SURVEYING

1311 APEX COURT, RIO RANCHO, NM 87124   505-892-0421

LOT 23

N 90°00'00" E 96.00
165.0'
S 50°59'49" E 78.44

PROPOSED DRAINAGE
EASEMENT
0.349 ACRES

N 28°30'00" W 117.0'

N 51°10'00" W 28.00
N 59°15'00" W 92.30

S 00°00'00 W 118.20

234.0'

234.0'

LOT 25

LOT 24

165.0'

30'   30'

CARMEL AVENUE
60' ROW

DRAINAGE EASEMENT
SCALE: 1" = 40'

LEGAL DESCRIPTION

A certain tract of land to be designated as a Flood Plain Easement being the northerly portion of Lot numbered twenty-four (24) in Block numbered fifteen (15) of Tract 2, Unit 1, NORTH ALBUQUERQUE ACRES, Albuquerque New Mexico, as the same is shown and designated on the plat thereof, filed in the office of the County Clerk of Bernalillo County, New Mexico, on June 8, 1931, Book D, page 133 and being more particularly described as follows:

Beginning at the Northwest Corner of said tract being the Northwest corner of said Lot 24; thence, along the North property line of said lot due East, 7.00 feet to a point in the Northwest corner of Flood Plain Easement; thence, along the North boundary of said easement due East, 96.00 feet to a point; thence, S 50°59'49" E, 78.44 feet to a point in the East property line of said lot; thence, along the East property line due South, 118.20 feet to a point in the South boundary of said easement; thence, along the South boundary of said easement N 59°15'00" W, 92.30 feet to a point; thence, N 51°10'00" W, 28.00 feet to a point; thence, continuing along the South boundary of said easement, N 28°30'00" W, 117.10 feet to the point of beginning, containg 0.349 acres more or less.

SURVEYOR'S CERTIFICATE

I, Michael E. Beyer, licensed under the laws of the State of New Mexico, do hereby certify that this drainage easement was prepared by me or under my direction and is true and correct to the best of my knowledge and belief.

This is executed at Albuquerque, New Mexico on this __26 th__ day of __November__, 1992 .

Michael E. Beyer, New Mexico licensed Surveyor No. 7459
THE B.E.A.R. COMPANY, 1311 Apex Court, Rio Rancho, NM 87124
(505) 892-0421

FINISH FLOOR ELEVATION = 5979.00'

CROSS SECTION AT STATION 2+75
SCALE: 1" = 10' HORIZ.
1" = 2' VERT.

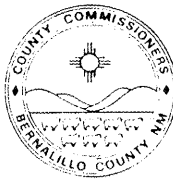ENGINEER'S SEAL

DRAINAGE PLAN
LOT 24, BLOCK 15, TRACT 2, UNIT 1
NORTH ALBUQUERQUE ACRES

TITLE:
DRAINAGE EASEMENT, CROSS SECTION
HYDRAULIC ANALYSIS PROFILE

APPROVALS	ENGINEER	DATE
CITY/COUNTY FLOODPLAIN ADMIN.		
COUNTY SURFACE HYDROLOGIST		1/20/93
AMAFCA		4/5/93

SCALE: 1" = 20'	DATE: 04 DECEMBER 1992	SHEET 3 OF 3

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

ADMINISTRATION (505) 768-4000
COMMISSION (505) 768-4217
FAX (505) 768-4329

BOARD OF COUNTY COMMISSIONERS

PATRICK J. BACA, CHAIRMAN
DISTRICT 1

JACQUELYN SCHAEFER, VICE CHAIR
DISTRICT 5

ALBERT "AL" VALDEZ, MEMBER
DISTRICT 2

EUGENE M. GILBERT, MEMBER
DISTRICT 3

PATRICIA "PAT" CASSIDY, MEMBER
DISTRICT 4

JUAN R. VIGIL, COUNTY MANAGER

RAY GALLAGHER, SHERIFF

PATRICK J. PADILLA, TREASURER

GLADYS M. DAVIS, CLERK

MARK J. CARRILLO, ASSESSOR

THOMAS J. MESCALL, PROBATE JUDGE

January 13, 1993

Mike Beyer, P.E.
The B.E.A.R. Company
1311 Apex Court
Rio Rancho, NM 87124

RE: DRAINAGE PLAN FOR LOT 24, BLOCK 15, TRACT 2, UNIT 1, N.A.A.,
RECEIVED DECEMBER, 1992 FOR BUILDING PERMIT APPROVAL, (C-22/D33)

Dear Mr. Beyer:

Prior to Building Permit release please address the attached letter dated
December 21, 1992 by AMAFCA regarding the floodplain easement. In addition
please secure AMAFCA's and County Public Works signature on the plan.

In the future, for your vicinity maps, use the zone atlas so we can locate the
site.

The above comments include AMAFCA and County Public Works review. If you
should have any questions, please do not hesitate to contact me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
City/County Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
Bob Foglesong, County PWD
file

wp+3802

THE
B.E.A.R.
COMPANY

ENGINEERING ● SURVEYING

MICHAEL E. BEYER

PROFESSIONAL ENGINEER
License No. 7902

PROFESSIONAL SURVEYOR
License No. 7459

1311 Apex Court • Rio, Rancho, New Mexico 87124 • 505-892-0421

DRAINAGE PLAN CALCULATIONS
FOR

LOT 24, BLOCK 15, TRACT 2, UNIT 1
WITHIN NORTH ALBUQUERQUE ACRES

BERNALILLO COUNTY, NEW MEXICO
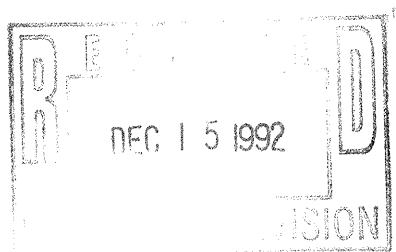
THE B.E.A.R. COMPANY

MICHAEL E. BEYER

PROFESSIONAL ENGINEER
License No. 7902

PROFESSIONAL SURVEYOR
License No. 7459

ENGINEERING ● SURVEYING   *1311 Apex Court • Rio, Rancho, New Mexico 87124 • 505-892-0421*

DRAINAGE DESIGN CALCULATIONS
FOR

LOT 24, BLOCK 15, TRACT 2, UNIT 1
NORTH ALBUQUERQUE ACRES

ONSITE CONDITIONS EXISTING: All property is East of Eubank and North of Interstate 40 yielding Zone 4. Subject lot contains 0.89 acres and is a type "A" land treatment. Drainage primarily sheet flow in developmental area with a designated 100 Year Flood Boundary area across Northern half of property.

Using Table 9 from Page 9 of Interim Criteria:

Peak Drainage = 2.26 cfs/acre x 0.89 acres = 2.01 cfs.

Using rational method:

$$Q = CIA = (0.37)(6.03)(0.89) = 2.00 \text{ cfs}$$

ONSITE CONDITIONS - PROPOSED: Using 50% or 0.45 acres as type "D" from Pate 5 of criteria.

After improvements:

$$Q = 2.26 (0.45 \text{ acres}) + 5.74 (0.45 \text{ acres}) = 3.6 \text{ cfs}$$

NOTE: An increase of 1.6 cfs.

OFFSITE FLOWS ONTO SUBJECT PROPERTY: Designated 100 Year Flood Boundaries are indicated on drainage plan.

FLOODWAY ESTABLISHMENT: The AHYMO392 computer program (AMAFCA Hydrologic Model) was implemented for 100 year storm flow determination across subject property. Velocity and depth of flow was calculated by HEC-2, Water Surface Profiles Program. See Attachment No. 4.

COMPARISON OF DRAINAGE PLAN CALCULATIONS: A review of document entitled "North and South Domingo Baca Arroyos and Paseo Del Norte Corridor Drainage Management Plan" by Resource Technology, Inc., Dated December 1991, indicates a 329 cfs 100 Year peak discharge at analysis point 910.20, this point is downstream of subject lot on Lowell Street. The 376 cfs 100 Year peak discharge used in this analysis is very conservative. Difference is in the drainage areas.

EARTHWORK VOLUMES:

    Cut = 112 cubic yards
    Fill = 64 cubic yards

EROSION LIMITS: City of Albuquerque checklist states that building setback requirements for 100 Year Flood Plain should be six feet per 100 cfs, or fraction thereof; at a flow of 376 cfs the setback would be as follows:

    (4) (6') = 24'

Northeast corner of proposed residence meets this minimum setback requirement. See drainage plan.

Tp CALCULATIONS: Time of concentration, t_c, equation for subbasins with reach lengths between 4,000 and 12,000 feet.

$$t_c = [(12,000-L)/(120(K)S^{0.5})] + [(L-4,000)(K_N)(L_{CA}/L)^{0.33}/(4.305)(S^{0.165})]$$

where,

L = Subbasin length = 1,300 + 600 + 1,400 + 1,800 = 5,100 ft.

K = 3, from Table 12, Conveyance Factors Page 14, D.P.M., Section 22.2

S = Slope, from topo 4.7%

K_N = 0.025, from Table 13

L_{CA} = 0.60(5,100) = 3,060

This equation is from page 14 of D.P.M., Section 22.2

$$t_c = [(12,000 - 5,100)/(120(3)(4.7)^{0.5})] + [(5,100-4,000)(0.025)(3,060/5,100)^{0.33}/(4.305)(4.7)^{0.165})] = 4.661$$

$$t_p = 2/3(t_c) = 0.66(4.661) = 3.076 \text{ min} = 0.051 \text{ hours}$$

FINISH FLOOR ELEVATION: A review of the D.P.M. for freeboard analysis (Section 22.3, Pages 61, 61.1 and 91 Trapezoidal Channel and Associated Types and Berms and Levees) requires a minimum of 3.0 feet of freeboard. The finish floor elevation of 5,979.00 feet meets this requirement as shown on the profile of hydraulic analysis of the drainage plan.

NOTES:

(1) The insignificant increase of 1.6 cfs will not cause additional erosion downstream.

(2) Additional grading will be required for the driveway as shown on the drainage plan. Slight swale will be used for crossing Carmel Avenue onto subject lot. Driveway ditchline crossing is near apex of ditch. See drainage plan.

(3) No development or improvements will infringe on any designated 100 year flood boundaries.

(4) This is to certify that I, Michael E. Beyer, a duly qualified professional engineer and surveyor, licensed under the laws of the State of New Mexico, have on April 18, 1992 visited the subject site and that it appears no grading, filling, or excavation has taken place.
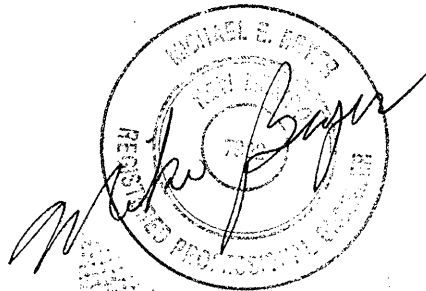
5 NOVEMBER 1992

```
AHYMO PROGRAM (AHYMO392) - AMAFCA VERSION OF HYMO - MARCH, 1992
       RUN DATE (MON/DAY/YR) = 08/09/1992
       START TIME (HR:MIN:SEC) = 14:09:26      USER NO.= BEYER_NM.I01
       INPUT FILE = GOAT


START              TIME=0   PUNCH CODE=0
RAINFALL           TYPE=1   QUARTER=0
                   ONE=2.23 SIX=2.90
                   DAY=3.65 DT=0.033333HR


         COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK
         DT =   .033333 HOURS          END TIME =      5.999940 HOURS
          .0000    .0055    .0110    .0167    .0225    .0284    .0345
          .0406    .0470    .0534    .0600    .0668    .0738    .0809
          .0882    .0958    .1035    .1115    .1198    .1283    .1370
          .1461    .1555    .1653    .1755    .1860    .1971    .2036
          .2207    .2335    .2469    .2531    .2596    .2667    .2819
          .3158    .3679    .4428    .5450    .6793    .8505   1.0637
         1.3239   1.5646   1.6653   1.7504   1.8260   1.8948   1.9562
         2.0171   2.0720   2.1236   2.1721   2.2178   2.2611   2.3020
         2.3407   2.3775   2.4124   2.4455   2.4769   2.4850   2.4928
         2.5002   2.5074   2.5143   2.5210   2.5275   2.5339   2.5400
         2.5460   2.5518   2.5575   2.5631   2.5685   2.5738   2.5790
         2.5841   2.5891   2.5940   2.5989   2.6036   2.6083   2.6129
         2.6174   2.6218   2.6262   2.6305   2.6348   2.6390   2.6431
         2.6472   2.6512   2.6552   2.6591   2.6630   2.6668   2.6706
         2.6744   2.6781   2.6817   2.6854   2.6890   2.6925   2.6960
         2.6995   2.7029   2.7064   2.7097   2.7131   2.7164   2.7197
         2.7230   2.7262   2.7294   2.7326   2.7357   2.7388   2.7419
         2.7450   2.7481   2.7511   2.7541   2.7571   2.7600   2.7630
         2.7659   2.7688   2.7716   2.7745   2.7773   2.7802   2.7829
         2.7857   2.7885   2.7912   2.7939   2.7967   2.7993   2.8020
         2.8047   2.8073   2.8099   2.8125   2.8151   2.8177   2.8203
         2.8228   2.8254   2.8279   2.8304   2.8329   2.8354   2.8378
         2.8403   2.8427   2.8451   2.8476   2.8500   2.8524   2.8547
         2.8571   2.8595   2.8618   2.8641   2.8664   2.8688   2.8711
         2.8733   2.8756   2.8779   2.8801   2.8824   2.8846   2.8868
         2.8891   2.8913   2.8935   2.8957   2.8978   2.9000


COMPUTE NM HYD       ID=2 HYD NO=401.0
                     AREA=0.107 SQ MI
                     A=11 AC   B= 7 AC
                     C=41 AC   D=9  AC
                     TP=0.051 HRS MASS RAIN=-1
*****WARNING*****  SUM OF TREATMENT TYPES DOES NOT EQUAL 100 PERCENT OR TOTAL


K =   .027893HR    TP =   .051000HR    K/TP RATIO =    .546930    SHAPE CONSTA
UNIT PEAK =   145.72  .CFS   UNIT VOLUME =    1.015       B =    524.76      F
AREA =     .014162 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES F
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .0
```

K = .045581HR   TP = .051000HR   K/TP RATIO = .893750   SHAPE CONST?

UNIT PEAK = 642.54 CFS UNIT VOLUME = 1.005   B = 352.98   F
AREA = .092838 SQ MI   IA = .42373 INCHES   INF = 1.03644 INCHES F
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .00

RINT HYD   ID=2 CODE=1

                      HYDROGRAPH FROM AREA   401.00

RUNOFF VOLUME =   1.43795 INCHES   =   8.2058 ACRE-FEET
PEAK DISCHARGE RATE =   376.10 CFS AT 1.433 HOURS   BASIN AREA = .1070

INISH

CARMEL LOT 24

NORMAL PROGRAM FINISH   END TIME (HR:MIN:SEC) = 14:09:28

FROM

FLOOD BOUNDARY MAP

COMMUNITY - PANEL NUMBER

350127-0011

SEPT 15, 1983

LOT 24, TRACT 5, BLOCK 15, UNIT 1

```
*****************************************
*                          *
*          E D I T 2       *
*                          *
* HEC-2 DATA CHECKER       *
* May 1991                 *
* FOR THE IBM PC/XT/AT     *
*                          *
* U.S. ARMY CORPS OF ENGINEERS  *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET        *
* DAVIS, CALIFORNIA 95616-4687  *
* (916) 756-1104           *
* RUN DATE 31OCT92  TIME 11:50:57  *
*                          *
*****************************************
```

```
T1 CARMEL LOT 24
T2
T3    CARMEL LOT 24  REVISED 10/31/92
J1     0      0      0      1      0      0      0    380   5986      0

J2    -1      1      0      0      0      0     -1      0      0      0
J3     1      2      3      4     43      8     14     26     25     68
J3    42     50     51    150
J5    -1    -10
NC 0.035  0.035  0.030      0      0
X1 0.00     11     32     65     25     25     26      0      0      0
GR5988.0    10 5987.0     20 5986.0     27 5985.0     32 5984.0     37
GR5983.6    50 5984.0     60 5985.0     65 5986.0     80 5987.0     87
GR5988.0    93
X1 0.25     12     31     72     24     25     28      0      0      0
GR5987.0    10 5986.0     20 5985.0     26 5984.0     31 5983.0     33
GR5982.0    37 5981.4     50 5982.0     62 5983.0     66 5984.0     72
GR5985.0    80 5986.0     90
X1 0.50     11     33     64     25     25     25      0      0      0
GR5985.0    18 5984.0     23 5983.0     28 5982.0     33 5981.0     41
GR5980.2    50 5981.0     59 5982.0     64 5983.0     70 5984.0     84
GR5985.0    96
X1 0.75     12     33     62     25     25     25      0      0      0
GR5984.0    11 5983.0     16 5982.0     24 5981.0     28 5980.0     33
GR5979.0    44 5978.4     50 5979.0     57 5980.0     62 5981.0     66
GR5982.0    75 5983.0     96
X1 1.00     10     40     80     31     25      7      0      0      0
GR5982.0    20 5981.0     25 5980.0     30 5979.0     37 5978.0     40
GR5977.0    45 5976.1     50 5977.0     70 5978.0     80 5979.0     95
X1 1.25     11     35     72     25     25     25      0      0      0
GR5979.8    20 5979.0     28 5978.0     35 5977.0     38 5976.0     40
GR5975.0    45 5974.6     50 5975.0     56 5976.0     63 5977.0     72
GR5978.0    78
```

```
X1  1.50    12    32    82    25    25    25     0        0     0
GR5979.0    20  5978.0    28  5977.0    32  5976.0    34  5975.0    39
GR5974.0    46  5973.8    50  5974.0    63  5975.0    68  5976.0    82
GR5977.0    90  5978.0    96
X1  1.75    12    36    81    26    25    23     0        0     0
GR5977.3    20  5977.0    26  5976.0    31  5975.0    36  5974.0    43
GR5973.0    47  5972.8    50  5973.0    52  5974.0    76  5975.0    81
GR5976.0    87  5977.0    99
X1  2.00    12    44    60    24    25    27     0        0     0
GR5976.6    20  5976.0    24  5975.0    33  5974.0    44  5973.0    46
GR5972.0    47  5971.8    50  5972.0    56  5973.0    60  5974.0    76
GR5975.0    80  5976.0    94
X1  2.25    11    34    62    22    25    23     0        0     0
GR5975.8    20  5975.0    34  5974.0    39  5973.0    41  5972.0    42
GR5971.0    48  5970.7    50  5971.0    54  5972.0    62  5973.0    68
GR5974.0   105
X1  2.50    12    23    62    25    25    25     0        0     0
GR5975.0    17  5974.0    23  5973.0    24  5972.0    27  5971.0    31
GR5970.0    45  5969.8    50  5970.0    53  5971.0    62  5972.0    73
GR5973.0    84  5974.0    98
X1  2.75    14    13    89    34    25    19     0        0     0
GR5975.8     0  5975.0     8  5974.3    13  5974.0    16  5973.0    17
GR5972.0    18  5971.0    21  5970.0    30  5969.4    50  5970.0    60
GR5971.0    75  5972.0    89  5972.0   101  5971.0   170
X1  3.00    12    14    82    25    25    25     0        0     0
GR5974.0     0  5974.3     1  5974.0     2  5973.0     3  5972.0     7
GR5971.0    14  5970.0    22  5969.0    32  5968.7    50  5969.0    56
GR5970.0    64  5971.0    82
X1  3.25     9    18    62    25    25    25     0        0     0
GR5972.0     5  5971.0    17  5970.9    18  5970.0    23  5969.0    30
GR5968.4    50  5969.0    62  5970.0   100  5970.0   159
X1  3.50     9    23    80    27    25    23     0        0     0
GR5971.9     0  5971.0    15  5970.0    23  5969.0    28  5968.0    35
GR5967.3    50  5968.0    59  5969.0    80  5969.0   111
X1  3.75     9    23    59    25    25    18     0        0     0
GR5970.0     0  5969.0    14  5968.0    23  5967.0    36  5966.4    50
GR5967.0    59  5968.0    64  5968.1    83  5968.0   103
X1  4.00     5    34    61    21    25    32     0        0     0
GR5967.0    21  5966.0    34  5965.0    50  5966.0    61  5967.0    73
X1  4.25     8    34    65    25    25    25     0        0     0
GR5967.0    16  5966.3    28  5966.0    29  5965.3    34  5965.0    39
GR5965.0    63  5965.3    65  5966.3    72
X1  4.50     8    33    69    25    25    25     0        0     0
GR5966.0     7  5965.0    33  5964.0    38  5963.5    50  5964.0    60
GR5964.4    65  5965.0    69  5965.4    72
X1  4.75    11    32    68    25    25    25     0        0     0
GR5965.0    26  5964.5    30  5964.0    32  5963.5    35  5963.0    45
GR5962.6    50  5963.0    58  5963.0    65  5964.0    68  5964.5    73
GR5965.0    77
X1  5.00    12    24    75    25    25    25     0        0     0
GR5964.0    24  5963.6  27.5  5963.0    33  5962.6    35  5962.0    43
GR5961.7    50  5962.0    56  5962.6    65  5963.0    68  5963.6    73
GR5964.0    75  5965.0    87
X1  5.25    12    23    75    25    25    25     0        0     0
GR5963.0    23  5962.7    27  5962.0    32  5961.7    35  5961.0    44
GR5960.8    50  5961.0    55  5961.7    65  5962.0    67  5962.7    73
```

GR5963.0	75	5964.0	82					
X1 5.50	12	23	75	25	25	25	0	0	0
GR5962.0	23	5961.8	27	5961.0	33	5960.8	40	5960.0	46
GR5959.9	50	5960.0	52	5960.8	65	5961.0	67	5961.8	73
GR5962.0	75	5963.0	101					
X1 5.75	11	26	74	25	25	25	0	0	0
GR5961.0	26	5960.9	27	5960.0	33	5959.9	35	5959.0	48
GR5959.0	51	5959.9	65	5960.0	66	5960.9	72	5961.0	74
GR5962.0	84							
X1 6.00	7	28	72	25	25	25	0	0	0
GR5961.0	19	5960.0	28	5959.0	35	5958.1	50	5959.0	64
GR5960.0	72	5961.0	83					
X1 6.25	11	29	71	25	25	25	0	0	0
GR5960.0	18	5959.1	27	5959.0	29	5958.1	35	5958.0	38
GR5957.2	50	5958.0	60	5958.1	65	5959.0	71	5959.1	72
GR5960.0	81							

BJ
ER
1SUMMARY OF ERRORS
0
T1 CARMEL LOT 24
T2
T3   CARMEL LOT 24 REVISED 10/31/92

```
*----------------------------------*
|               S U M P O          |
|                                  |
|    Interactive Summary Printout  |
|    for MS/PC-DOS micro computers |
|               May 1991           |
*----------------------------------*
```

NOTE - Asterisk (*) at left of profile number
       indicates message in summary of errors
       list

CARMEL LOT 24 REVISED 1

Summary Printout

	SECNO	CWSEL	TOPWID	AREA	Q	DEPTH	QCH	VCH	CRIWS	FRCH	ELMIN	DIFWSX	KRATIO
*	.00	5985.65	46.05	58.38	380.00	2.05	371.47	6.86	5985.65	.94	5983.60	.00	.00
*	.25	5982.71	30.62	27.04	380.00	1.31	380.00	14.05	5983.52	2.64	5981.40	-2.94	3.09
*	.50	5982.08	31.86	34.15	380.00	1.88	380.00	11.14	5982.67	1.87	5980.20	-.63	.68
	.75	5980.18	30.56	30.08	380.00	1.78	379.98	12.69	5980.90	2.20	5978.40	-1.90	1.19
	1.00	5977.54	33.08	26.89	380.00	1.44	380.00	14.13	5978.32	2.76	5976.10	-2.63	1.30
	1.25	5976.23	25.50	24.71	380.00	1.63	380.00	15.38	5977.18	2.75	5974.60	-1.31	.97
	1.50	5975.16	32.02	29.56	380.00	1.36	380.00	12.86	5975.91	2.36	5973.80	-1.07	.86
	1.75	5974.46	38.51	35.93	380.00	1.66	380.00	10.58	5974.99	1.93	5972.80	-.70	.82
*	2.00	5974.33	36.96	46.80	380.00	2.53	316.33	9.68	5974.69	1.19	5971.80	-.13	.56
*	2.25	5972.84	25.91	33.29	380.00	2.14	370.53	11.89	5973.63	1.71	5970.70	-1.49	1.49
*	2.50	5971.29	35.34	29.89	380.00	1.49	378.52	12.86	5972.03	2.37	5969.80	-1.55	1.48
	2.75	5970.76	48.14	38.53	380.00	1.36	380.00	9.86	5971.25	1.94	5969.40	-.54	.84
	3.00	5970.10	44.88	41.41	380.00	1.40	380.00	9.18	5970.54	1.68	5968.70	-.65	.85
	3.25	5969.92	73.40	58.08	380.00	1.52	320.80	7.64	5970.20	1.29	5968.40	-.19	.74
	3.50	5968.99	51.63	45.72	380.00	1.69	380.00	8.31	5969.34	1.56	5967.30	-.93	1.25
	3.75	5968.09	78.37	44.50	380.00	1.69	363.19	9.13	5968.49	1.53	5966.40	-.90	.95
	4.00	5966.63	42.87	35.68	380.00	1.63	358.41	11.70	5967.25	1.94	5965.00	-1.45	1.26
	4.25	5966.25	43.42	43.71	380.00	1.25	351.90	9.38	5966.64	1.50	5965.00	-.39	.77
	4.50	5965.05	37.64	37.00	380.00	1.55	380.00	10.28	5965.58	1.79	5963.50	-1.20	1.23
	4.75	5964.15	38.24	38.28	380.00	1.55	379.80	9.97	5964.65	1.71	5962.60	-.90	.95
	5.00	5963.32	40.49	39.70	380.00	1.62	380.00	9.57	5963.76	1.70	5961.70	-.84	1.01
	5.25	5962.39	41.17	40.15	380.00	1.59	380.00	9.46	5962.83	1.69	5960.80	-.92	.99
	5.50	5961.61	43.13	42.07	380.00	1.71	380.00	9.03	5962.01	1.61	5959.90	-.78	.95
	5.75	5960.61	41.05	40.37	380.00	1.61	380.00	9.41	5961.03	1.67	5959.00	-1.00	1.04
	6.00	5959.82	41.28	41.82	380.00	1.72	380.00	9.09	5960.20	1.59	5958.10	-.78	.95
	6.25	5958.94	41.19	41.28	380.00	1.74	380.00	9.21	5959.34	1.62	5957.20	-.88	1.02

Mike Beyer, P.E.
The B.E.A.R. Company
1311 Apex Court
Rio Rancho, NM 87124

The above comments include AMAFCA and County Public Works review. If you
should have any questions, please do not hesitate to contact me at 768-2650.

Cordially,

Gilbert Aldaz, P.E. & P.S.
City/County Floodplain Administrator

xc: Clifford E. Anderson, AMAFCA
     Bob Foglesong, County PWD
     file
wp+3802