City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 19, 2000

Greg Krenik, P.E.
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: GRADING & DRAINAGE PLAN FOR RETENTION POND RECLAIMATION POINT WEST SUBD., (L9/D10), ENGINEER'S CERTIFICATION STAMP DATED 10/17/00, RECEIVED BY HYDROLOGY 12/15/2000.

Dear Mr. Krenik,

The referenced Grading and Drainage Plan is approved for reclaiming the temporary ponding area and subdividing into lots.

Please furnish this office with a final plan sheet showing the final approved pad elevations and lot grading, including the drainage easement final grading.

Engineer's Certification for completion of final site grading and drainage per the plan is required for Hydrology final approval.

If you have any questions, please call me at 924-3980.

Sincerely,

Loren D. Meinz, P.E.
Hydrology Division

c: Whitney Reierson
File

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

[redacted]

MARK GOODWIN & ASSOCIATES
CONSULTING ENGINEERS

FINAL SUMP CALC'S.

POINTE WEST

POND RECLAMATION

RECEIVED
DEC 15 2000
HYDROLOGY SECTION

GREGORY JAMES KRENK
NEW MEXICO
11929
REGISTERED PROFESSIONAL ENGINEER
12-11-00

12-15-00

LETTER OF TRANSMITTAL

dmg
D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

DATE 12-15-00 JOB NO.

ATTENTION

RE: POINTE WEST
DRB 1000349
L9/D010

TO LOREN MEINZ
ONE STOP

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☒ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			REVISED DRAINAGE CLARIFICATION

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☒ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

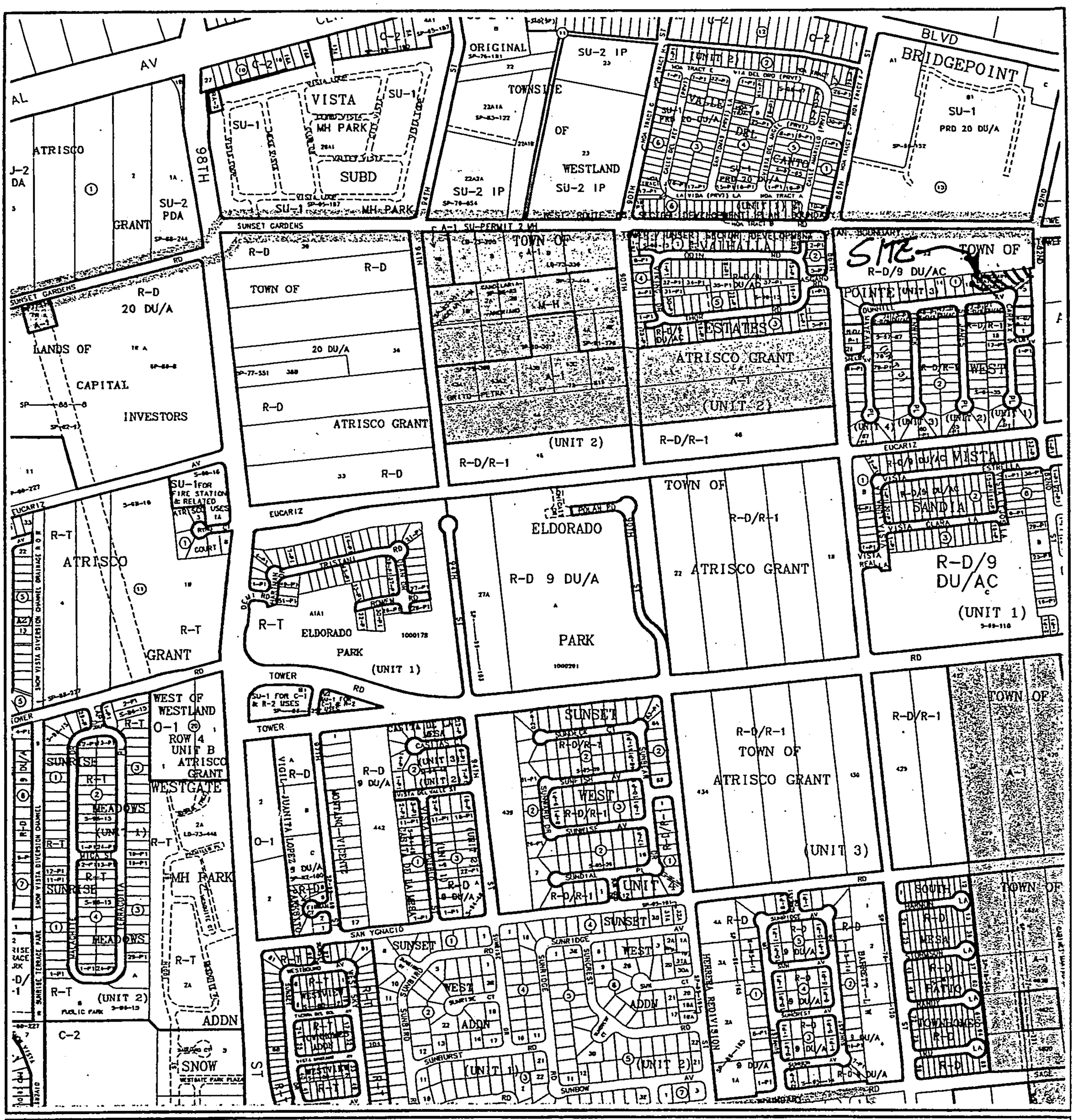
REMARKS _____

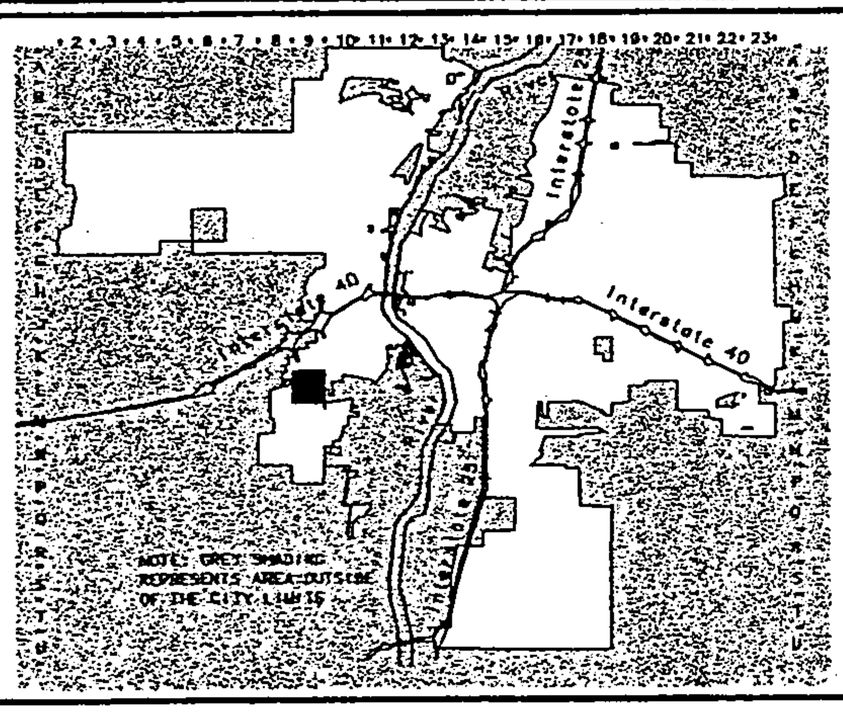
RECEIVED
DEC 15 2000
HYDROLOGY SECTION

COPY TO _____

SIGNED: GREGORY J. KRONIK

If enclosures are not as noted, kindly notify us at once.





CITY OF
Albuquerque

Albuquerque Geographic Information System
PLANNING DEPARTMENT

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GRAPHIC SCALE IN FEET

250 0 750 1000

Zone Atlas Page

L-9-Z

Map Amended through August 15, 2000

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE, NM 87199
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e-mail: dmg@swcp.com

PROJECT POINTE WEST SUB.
SUBJECT POND RECLAMATION
BY GSK DATE 12-11-00
CHECKED _____ DATE _____
SHEET 1 OF ____

REVISED 12-15-00

- PER THE POINTE WEST DRAINAGE REPORT 64.20 CFS IS GENERATED BY THE SITE ITSELF. SHEETS 4-7
- THE OFFSITE BASINS DO NOT AFFECT THE SITE AS ALL STORMDRAINS ARE IN PLACE.
- PER THE POINTE WEST REPORT THERE ARE 4 - DBL "C" INLETS IN SUMP CONDITION IN THE KNUCKLE OF DUNHILL AND CARFAX. PRIOR TO THESE INLETS ARE 4 - SGL "A" INLETS
- PER THE ASBUILTS 18 CFS ENTERS THE STORMDRAIN THROUGH THE SGL "A" INLETS ON CARFAX.
- PER THE ASBUILTS 28 CFS ENTERS THE STORMDRAIN THROUGH THE SGL "A" INLETS ON DUNHILL

TOTAL Q IN SUMP CONDITION

$= 64.20 - (18 + 28)$

$= 18.20$ CFS

Perimeter of A DBL "C" INLET $= (2.5 + 6)2 = 17$

$Q/P = 3.0 H^{3/2}$ H = WATER SURFACE ABOVE GRATE

- SIZE FOR TWICE FLOW

$Q = 2(18.20) = 36.4$ $P = 4 \times 17 = 68$

$H = 0.32' < 0.67'$ WATER SURFACE IS BELOW TOP OF CURB

- SIZE IF 50% PLUGGED

$H = 0.50' < 0.67'$ OK

- SIZE IF ONLY CURB OPENING IS FREE (WEIR)

$Q = 3.0(18 + 1.8(2.5)) H^{1.5}$

$H = 0.66' < 0.67'$ OK

- ALL CASES HAVE FLOW BELOW TOP OF CURB THERE FOR INLETS WORK GRATES = 94.30
- MAX WATER ELEVATION = 94.30 + 0.66 = 94.96
- LOWEST PAD = 96.10 > 94.96 OK

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PROJECT POINTE WEST SUB.
SUBJECT POND RECLAMATION
BY GJK DATE 12-11-00
CHECKED _____ DATE _____
SHEET 2 OF ____
REVISED 12-15-00

OUTFALL PIPE = 36" RCP @ 1.87%

THIS CARRIES A MAX NOT UNDER PRESSURE OF 90 CFS SEE NOMO SHEET 3

SITE DISCHARGES 18 + 24 + 36.4 = 82.40 CFS

EXIST. OUTFALL PIPE TO 82nd STREET IS OK

** NO OVERFLOW IS REQUIRED AND THE 15' EASEMENT CAN REMAIN JUST AN EASEMENT WITH NO CHANNEL

- FIND DEPH OF WATER IF SUMP INLETS ARE 100% BLOCKED

ELEV.	OUTFLOW (CFS)	VOLUME (AC-FT)	AREA (SF)
94.3	0	0	825
94.8	45.97	0.051	3600
95.3	45.98	0.173	7050
95.8	45.99	0.406	13,250
96.3	46.00	0.829	23,600

FROM AHYMO OUTPUT SHEETS 4-7

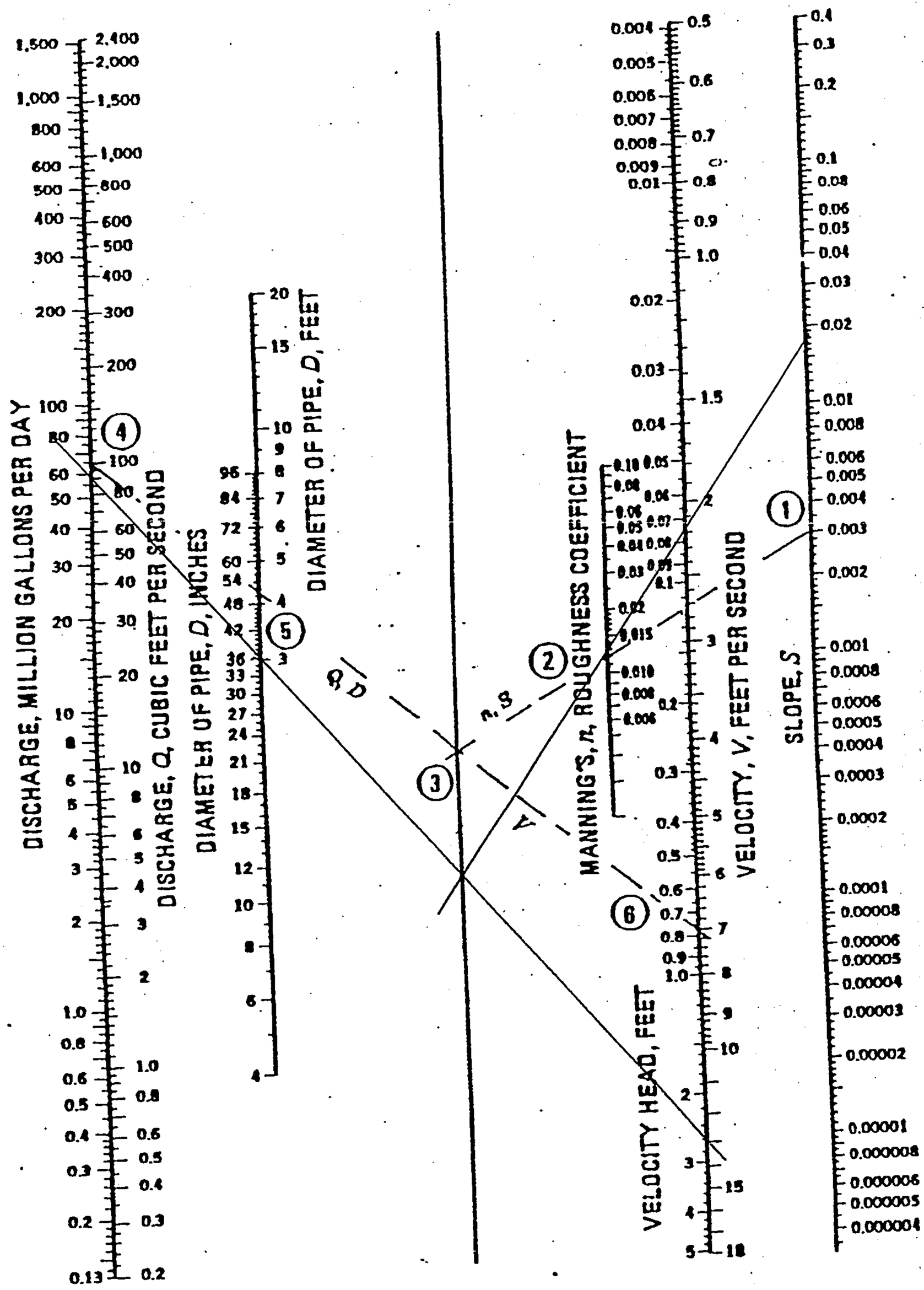
MAX WATERSURFACE = 95.37

WE WILL RAISE THE LOW PAD OF 95.35 TO 96.10

PROPERTY LINE AT INLETS = 95.07

- WATER WILL POND 5.44' PAST THE PROPERTY LINE OF THE LOW LOTS.

Reference: American Concrete Pipe Association (1980).



B) Circular Pipe Solution

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST POND
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.0314 SQ MI
                         PER A=0 PER B=50 PER C=0 PER D=50
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
*****RESERVOIR ROUTE THE DEVELOPED STORM
ROUTE RESERVOIR          ID=2 HYD NO=101.2 INFLOW ID=1 CODE=24
                         OUTFLOW (CFS)     STORAGE(AC-FT)   ELEVATION(FT)
                            0.0               0.0              94.3
                           45.97              0.051            94.8
                           45.98              0.173            95.3
                           45.99              0.406            95.8
                           46.0               0.829            96.3
FINISH
```

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 12/15/2000
START TIME (HR:MIN:SEC) = 14:03:07 USER NO.= M_GOODWN.I01
INPUT FILE = PWPOND.DAT

START TIME=0.0
***** HYDROGRAPH FOR POINTE WEST POND
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.87 IN RAIN SIX=2.20 IN
RAIN DAY=2.66 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400

HOURS						
	.0000	.0016	.0033	.0050	.0067	.0085
.0103						
	.0122	.0141	.0160	.0180	.0201	.0222
.0243						
	.0266	.0289	.0312	.0337	.0362	.0388
.0415						
	.0443	.0472	.0502	.0534	.0567	.0601
.0637						
	.0675	.0715	.0758	.0809	.0865	.0924
.1050						
	.1334	.1771	.2398	.3254	.4379	.5814
.7600						
	.9780	1.1804	1.2649	1.3363	1.3997	1.4575
1.5106						
	1.5600	1.6061	1.6493	1.6900	1.7284	1.7646
1.7989						
	1.8314	1.8623	1.8915	1.9193	1.9456	1.9518
1.9576						
	1.9630	1.9682	1.9732	1.9780	1.9825	1.9869
1.9912						
	1.9953	1.9993	2.0031	2.0068	2.0104	2.0140
2.0174						
	2.0207	2.0240	2.0272	2.0303	2.0333	2.0363
2.0392						
	2.0420	2.0448	2.0475	2.0502	2.0528	2.0554
2.0580						
	2.0605	2.0629	2.0653	2.0677	2.0700	2.0723
2.0746						
	2.0768	2.0790	2.0812	2.0833	2.0855	2.0875
2.0896						
	2.0916	2.0936	2.0956	2.0976	2.0995	2.1014
2.1033						
	2.1051	2.1070	2.1088	2.1106	2.1124	2.1141
2.1159						
	2.1176	2.1193	2.1210	2.1227	2.1244	2.1260
2.1276						
	2.1292	2.1308	2.1324	2.1340	2.1355	2.1371
2.1386						
	2.1401	2.1416	2.1431	2.1446	2.1460	2.1475
2.1489						
	2.1504	2.1518	2.1532	2.1546	2.1560	2.1573
2.1587						

	2.1600	2.1614	2.1627	2.1640	2.1654	2.1667
2.1680						
	2.1692	2.1705	2.1718	2.1731	2.1743	2.1756
2.1768						
	2.1780	2.1792	2.1804	2.1817	2.1829	2.1840
2.1852						
	2.1864	2.1876	2.1887	2.1899	2.1910	2.1922
2.1933						
	2.1944	2.1956	2.1967	2.1978	2.1989	2.2000

```
     COMPUTE NM HYD       ID=1 HYD NO=101.1 AREA=0.0314 SQ MI
                          PER A=0 PER B=50 PER C=0 PER D=50
                          TP=0.1333 HR MASS RAINFALL=-1

          K =    .072649HR    TP =    .133300HR    K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    61.984    CFS   UNIT VOLUME =    .9992       B =
526.28       P60 = 1.8700
          AREA =       .015700 SQ MI    IA =    .10000 INCHES    INF =
.04000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
METHOD - DT =    .033330


          K =    .130992HR    TP =    .133300HR    K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593448
          UNIT PEAK =    38.524    CFS   UNIT VOLUME =    1.000       B =
327.09       P60 = 1.8700
          AREA =       .015700 SQ MI    IA =    .50000 INCHES    INF =
1.25000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
METHOD - DT =    .033330

     PRINT HYD            ID=1 CODE=1

                                          PARTIAL HYDROGRAPH   101.10


          RUNOFF VOLUME =      1.31643 INCHES      =       2.2046 ACRE-FEET
          PEAK DISCHARGE RATE =       64.20 CFS  AT   1.500 HOURS   BASIN
AREA =    .0314 SQ. MI.


     *****RESERVOIR ROUTE THE DEVELOPED STORM
     ROUTE RESERVOIR      ID=2 HYD NO=101.2 INFLOW ID=1 CODE=24
                          OUTFLOW (CFS)      STORAGE(AC-FT)
ELEVATION(FT)                                                        Elev
                              0.0                0.0                 94.3
                             45.97               0.051               94.8
                             45.98               0.173               95.3
                             45.99               0.406               95.8
                             46.0                0.829               96.3

     *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

       TIME       INFLOW     ELEV       VOLUME     OUTFLOW
       (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

        .00         .00      94.30        .000        .00
        .80         .00      94.30        .000        .00
```

```
        1.60      46.28      95.37        .203      45.98
        2.40       2.51      94.33        .003       2.60
        3.20        .47      94.31        .001        .48
        4.00        .27      94.30        .000        .27
        4.80        .26      94.30        .000        .26
        5.60        .29      94.30        .000        .29
        6.40        .03      94.30        .000        .03
     PEAK DISCHARGE =        45.981 CFS - PEAK OCCURS AT HOUR    1.60
     MAXIMUM WATER SURFACE ELEVATION =        95.365
     MAXIMUM STORAGE =          .2035 AC-FT       INCREMENTAL TIME=
.033330HRS

    FINISH

        NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 14:03:07
```

L9/D10

December 1, 2000

Comments on: Pointe West Unit 1 (Faxed on Dec 1, 2000)

To: Mark Goodwin

From: Loren Meinz

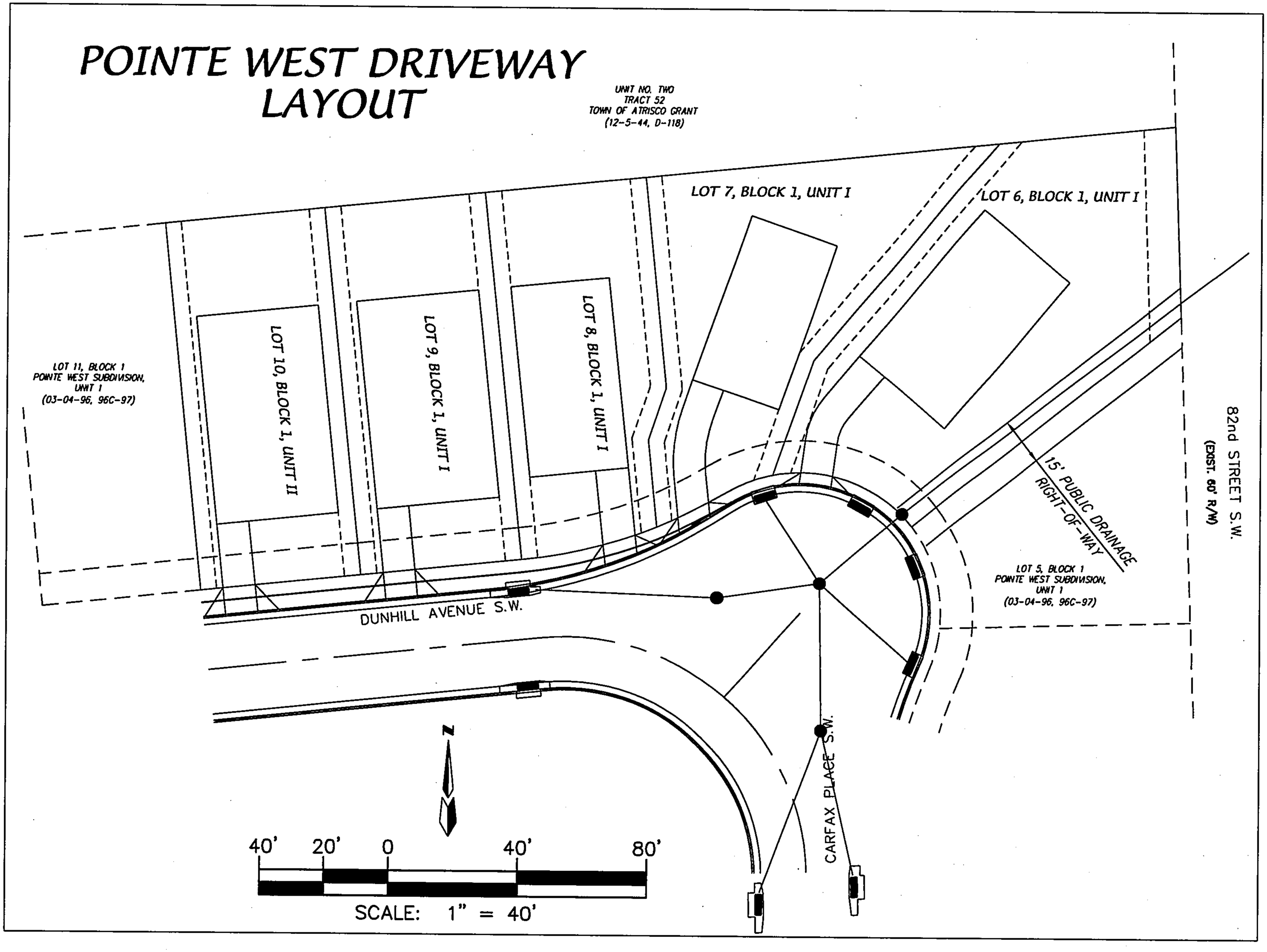
Re: Vacation of existing temp pond and replat for lots (DRB #152)

Per our meeting Dec. 1, 2000, attached is the current requirements for slump conditions. Plan needs to address the following.

1. Overflow condition and facility. Prefer hard lined small channel to 82nd St.
2. Location of inlets and impact on future driveways. The curb openings cannot be eliminated without additional infrastructure. If lot lines are adjusted to coincide with inlet locations, it might take care of this condition.

FAX 997-9539

POINTE WEST DRIVEWAY LAYOUT



[redacted]

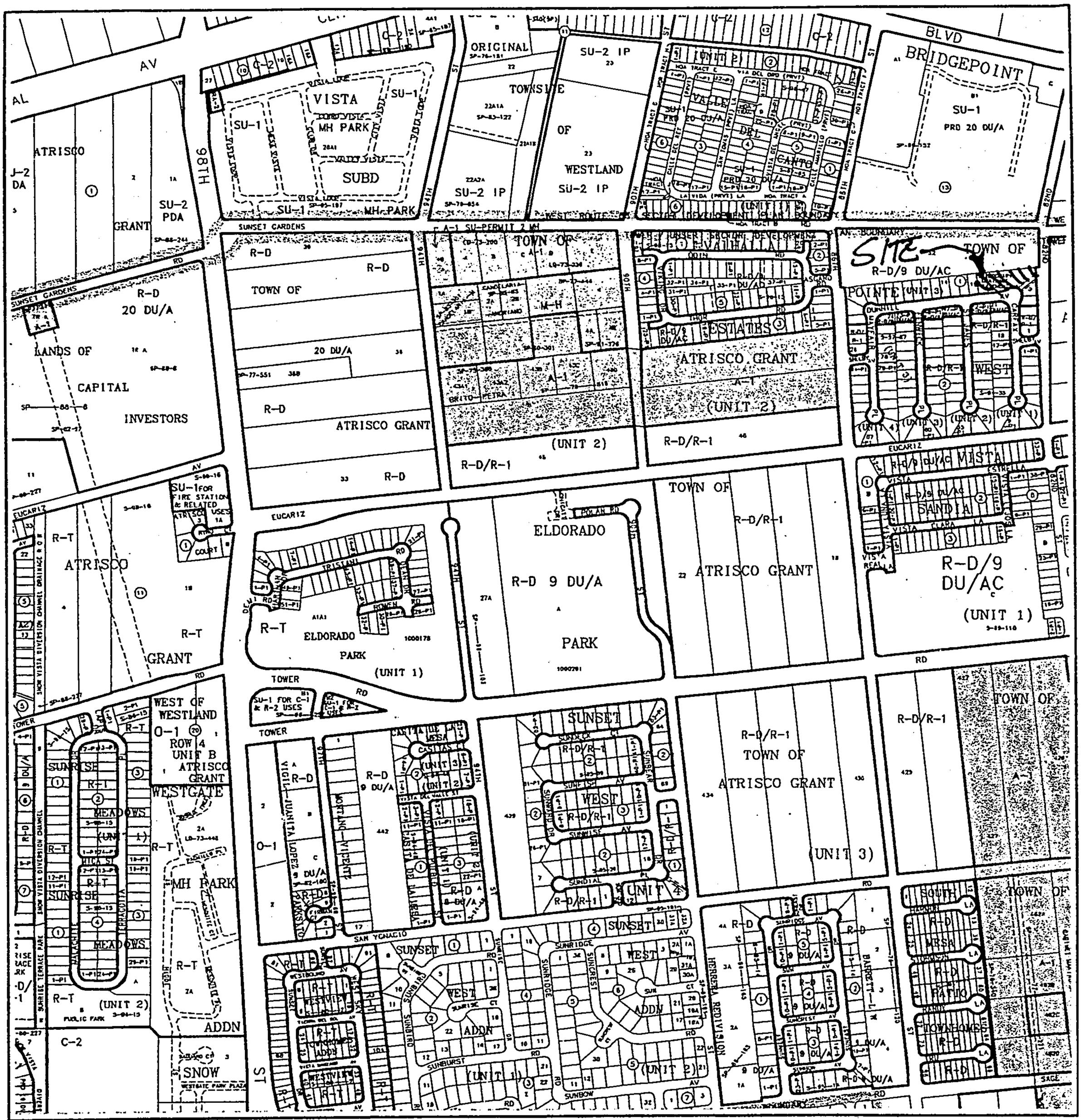
MARK GOODWIN & ASSOCIATES
CONSULTING ENGINEERS

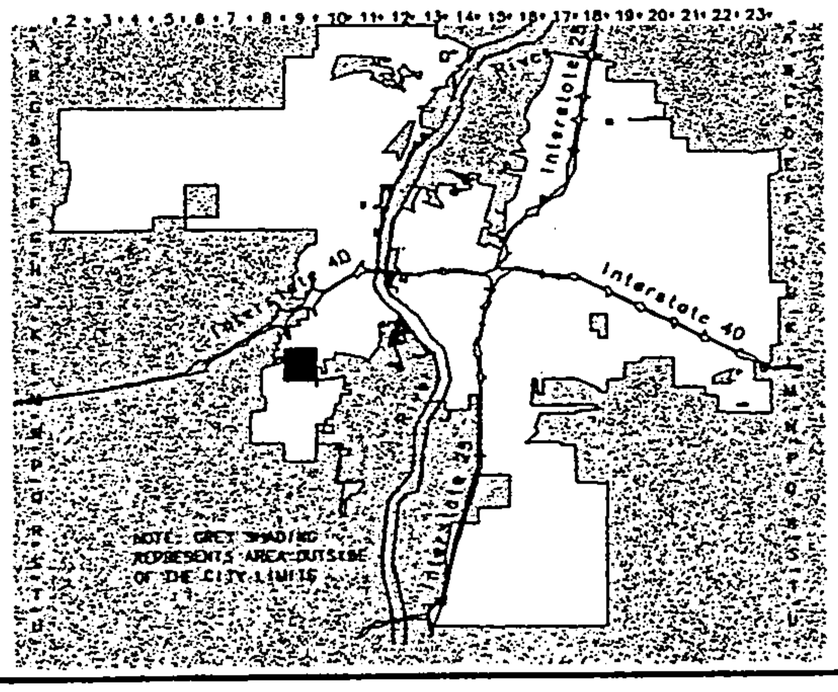
RUM. TEMP. POND.
CALC'S.

POINTE WEST

POND RECLAMATION

GREGORY JAMES KRENK
NEW MEXICO
11929
12-11-00
REGISTERED PROFESSIONAL ENGINEER





CITY OF
Albuquerque

Albuquerque Geographic Information System
PLANNING DEPARTMENT

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GRAPHIC SCALE IN FEET
250 0 750 1000

Zone Atlas Page

L-9-Z

Map Amended through August 15, 2000

Canfax Highest Inlet Grate El. ≅ 95.50

S = 1.0 %, "A" non-sump Q = 6 cfs. @ d = 0.50

Canfax 12 cfs + Dunhill 28 cfs = 40 cfs in pipes.

Sump flow = 64.2 − 40 = 24.2

If 2Q; design Q = 48.4 cfs.

weir only, $Q = CLH^{3/2}$, $48.4 = 2.9\,(28)\,H^{3/2}$

$H^{3/2} = 0.59'$, $H = 0.70'$

Dunhill, Highest grate Elev. ≅ 94.80'

S = 1.28%, "A" non-sump Q = 14 cfs @ d = 0.87'

sump $Q = CLH^{3/2}$ $L = 4\,(7) = 28'$

$= 66$ cfs. $H = 0.87'$

$C = 2.9$

LETTER OF TRANSMITTAL

dmg
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Consulting Engineers
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e-mail: dmg@swcp.com

DATE 12-12-00 JOB NO.

ATTENTION

RE: POINTE WEST
DRB 1000349

TO LOREN MEINZ
ONE STOP

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☒ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Drainage clarification per your request

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REMARKS

RECEIVED
DEC 12 2000
HYDROLOGY SECTION

COPY TO

SIGNED: GREGORY J. KRENIK

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PROJECT POINTE WEST SUB.
SUBJECT POND RECLAMATION
BY GSK DATE 12-11-00
CHECKED _____ DATE _____
SHEET 1 OF ____

- PER THE POINTE WEST DRAINAGE REPORT 64.20 CFS IS GENERATED BY THE SITE ITSELF. SHEETS 4-6
- THE OFFSITE BASINS DO NOT AFFECT THE SITE AS ALL STORMDRAINS ARE IN PLACE.
- PER THE POINTE WEST REPORT THERE ARE 4 - DBL "C" INLETS IN SUMP CONDITION IN THE KNUCKLE OF DUNHILL AND CARFAX. PRIOR TO THESE INLETS ARE 4 SGL "A" INLETS
- PER THE ASBUILTS 18 CFS ENTERS THE STORMDRAIN THROUGH THE SGL "A" INLETS ON CARFAX.
- PER THE ASBUILTS 28 CFS ENTERS THE STORMDRAIN THROUGH THE SGL "A" INLETS ON DUNHILL

TOTAL Q IN SUMP CONDITION

$= 64.20 - (18 + 28)$

$= 18.20$ CFS

Perimeter of A DBL "C" INLET $= (2.5 + 6)2 = 17$

$Q/P = 3.0 H^{3/2}$ H = WATER SURFACE ABOVE GRATE

- SIZE FOR TWICE FLOW

$Q = 2(18.20) = 36.4$ $P = 4 \times 17 = 68$

$H = 0.32' < 0.67'$ WATER SURFACE IS BELOW TOP OF CURB

- SIZE IF 50% PLUGGED

$H = 0.50' < 0.67'$ OK

- SIZE IF ONLY CURB OPENING IS FREE (WEIR)

$Q = 3.0(18 + 1.8(2.5))H^{1.5}$

$H = 0.66' < 0.67'$ OK

- ALL CASES HAVE FLOW BELOW TOP OF CURB THERE FOR INLETS WORK GRATES = 94.30
- MAX WATER ELEVATION = 94.30 + 0.66 = 94.96
- LOWEST PAD = 95.35 > 94.96 OK

Volume -

for $Q = 64.2$, $V = 2.2$ af

assume $Q_{sump} = 24.2$, $V_{sump} \cong \frac{24.2}{64.2}(2.2) = 0.82$ af

Street area available = $80' \times 80' = 6400$ SF

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e-mail: dmg@swcp.com

PROJECT POINTE WEST SUB.
SUBJECT POND RECLAMATION
BY GJK DATE 12-11-00
CHECKED _____ DATE _____
SHEET 2 OF ____

OUTFALL PIPE = 36" RCP @ 1.87%

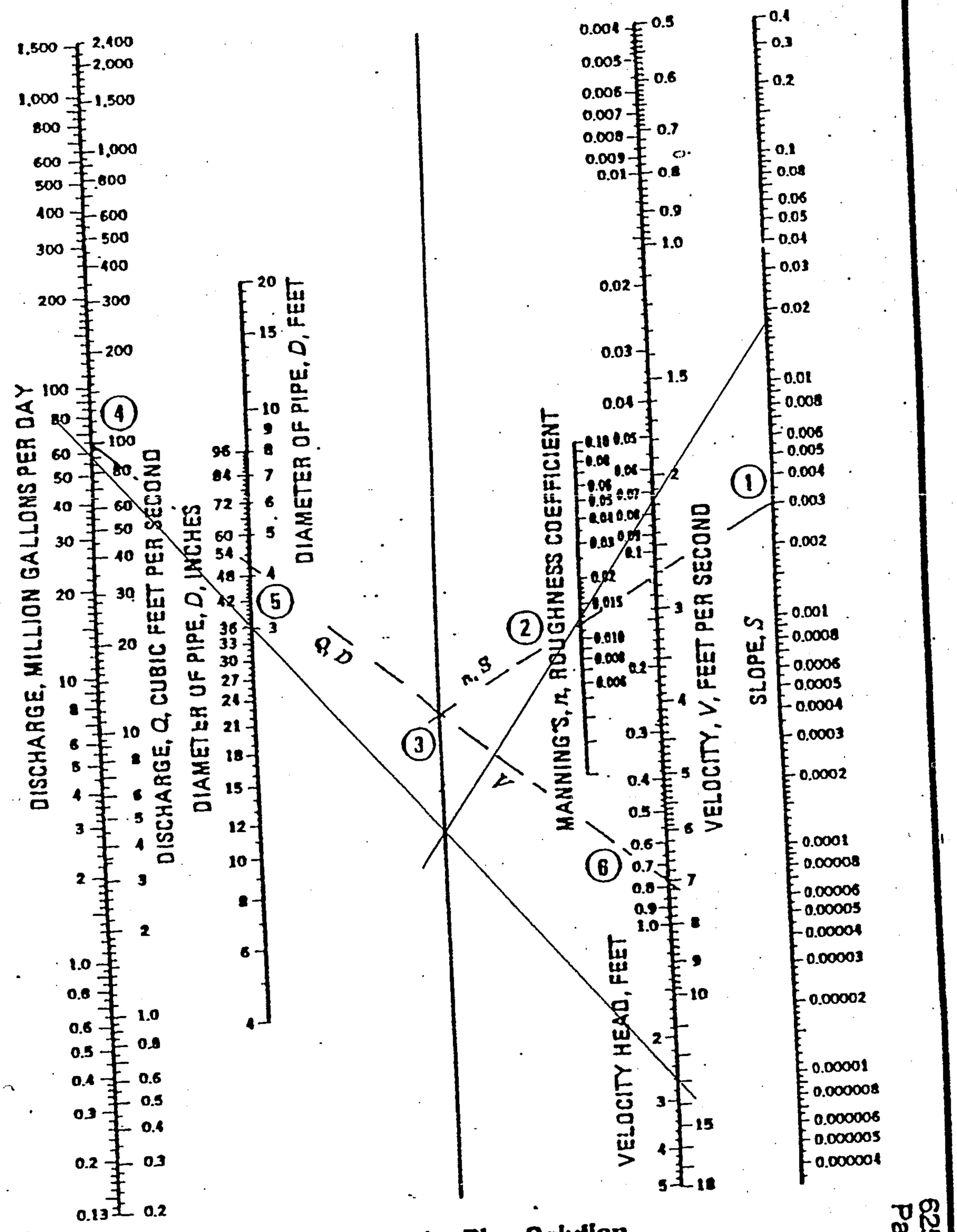
THIS CARRIES A MAX NOT UNDER PRESSURE OF 90 CFS SEE NOMO SHEET 3

SITE DISCHARGES 18 + 24 + 36.4 = 82.40 CFS

EXIST. OUTFALL PIPE TO 82nd STREET IS OK

** NO OVERFLOW IS REQUIRED AND THE 15' EASEMENT CAN REMAIN JUST AN EASEMENT WITH NO CHANNEL

Reference: American Concrete Pipe Association (1980).



B) Circular Pipe Solution

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST ON-SITE DEVELOPED
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.031400 SQ MI
                         PER A=0 B=50 C=0 D=50
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
```

□

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 12/11/2000
START TIME (HR:MIN:SEC) = 16:17:04 USER NO.= M_GOODWN.I01
INPUT FILE = PW.DAT

START TIME=0.0
***** HYDROGRAPH FOR POINTE WEST ON-SITE DEVELOPED
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=1.87 IN RAIN SIX=2.20 IN
RAIN DAY=2.66 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0016	.0033	.0050	.0067	.0085
.0103	.0122	.0141	.0160	.0180	.0201
.0222	.0243	.0266	.0289	.0312	.0337
.0362	.0388	.0415	.0443	.0472	.0502
.0534	.0567	.0601	.0637	.0675	.0715
.0758	.0809	.0865	.0924	.1050	.1334
.1771	.2398	.3254	.4379	.5814	.7600
.9780	1.1804	1.2649	1.3363	1.3997	1.4575
1.5106	1.5600	1.6061	1.6493	1.6900	1.7284
1.7646	1.7989	1.8314	1.8623	1.8915	1.9193
1.9456	1.9518	1.9576	1.9630	1.9682	1.9732
1.9780	1.9825	1.9869	1.9912	1.9953	1.9993
2.0031	2.0068	2.0104	2.0140	2.0174	2.0207
2.0240	2.0272	2.0303	2.0333	2.0363	2.0392
2.0420	2.0448	2.0475	2.0502	2.0528	2.0554
2.0580	2.0605	2.0629	2.0653	2.0677	2.0700
2.0723	2.0746	2.0768	2.0790	2.0812	2.0833
2.0855	2.0875	2.0896	2.0916	2.0936	2.0956
2.0976	2.0995	2.1014	2.1033	2.1051	2.1070
2.1088	2.1106	2.1124	2.1141	2.1159	2.1176
2.1193	2.1210	2.1227	2.1244	2.1260	2.1276
2.1292	2.1308	2.1324	2.1340	2.1355	2.1371
2.1386	2.1401	2.1416	2.1431	2.1446	2.1460
2.1475	2.1489	2.1504	2.1518	2.1532	2.1546
2.1560	2.1573	2.1587	2.1600	2.1614	2.1627
2.1640	2.1654	2.1667			

```
2.1680
                    2.1692  2.1705  2.1718  2.1731  2.1743  2.1756
2.1768
                    2.1780  2.1792  2.1804  2.1817  2.1829  2.1840
2.1852
                    2.1864  2.1876  2.1887  2.1899  2.1910  2.1922
2.1933
                    2.1944  2.1956  2.1967  2.1978  2.1989  2.2000

     COMPUTE NM HYD       ID=1 HYD NO=101.1 AREA=0.031400 SQ MI
                          PER A=0 B=50 C=0 D=50
                          TP=0.1333 HR MASS RAINFALL=-1

          K =    .072649HR    TP =    .133300HR    K/TP RATIO =    .545000
SHAPE CONSTANT, N =  7.106420
          UNIT PEAK =    61.984    CFS   UNIT VOLUME =    .9992       B =
526.28       P60 = 1.8700
          AREA =       .015700 SQ MI    IA =    .10000 INCHES    INF =
.04000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
METHOD - DT =    .033330


          K =    .130992HR    TP =    .133300HR    K/TP RATIO =    .982685
SHAPE CONSTANT, N =  3.593448
          UNIT PEAK =    38.524    CFS   UNIT VOLUME =    1.000       B =
327.09       P60 = 1.8700
          AREA =       .015700 SQ MI    IA =    .50000 INCHES    INF =
1.25000 INCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
METHOD - DT =    .033330

     PRINT HYD            ID=1 CODE=1

                                          PARTIAL HYDROGRAPH   101.10


          RUNOFF VOLUME =      1.31643 INCHES      =       2.2046 ACRE-FEET
          PEAK DISCHARGE RATE =       64.20 CFS  AT   1.500 HOURS   BASIN
AREA =    .0314 SQ. MI.


     FINISH

          NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 16:17:04
```

[redacted]

MARK GOODWIN & ASSOCIATES
CONSULTING ENGINEERS

DRAINAGE REPORT

for

POINTE WEST SUBDIVISION

L9-D10

RECEIVED
JUN 30 1994
HYDROLOGY DIVISION

Prepared For

REXCOR, Inc.

May 1994

D. MARK GOODWIN
NEW MEXICO
8948
REGISTERED PROFESSIONAL ENGINEER

5/17/94
6/30/94

D. MARK GOODWIN & ASSOCIATES

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MKG DATE 6/28/94
CHECKED _____ DATE _____
SHEET 1 OF ____

The temporary retention pond is to be constructed for the total volume at full development plus O.S. 1.

Vol. O.S. 1 = 0.73 Ac.-Ft.
Vol. Entire On-Site = 2 X 2.20 Ac-Ft. = 4.40 Ac.-Ft.

Total Pond Volume Req'd = 5.13 Ac. Ft.

Vol. Provided:

Elev.	Δ	Area	Avg. Area	Accum. Vol.
87		12,600		
	1		14,150	14,150
88		15,700		
	1		17,300	31,450
89		18,900		
	1		19,850	51,300
90		20,800		
	1		22,000	73,300
91		23,200		
	1		24,350	97,650
92		25,500		
	1		26,650	124,300
93		27,800		
	1		28,500	152,800
94		29,200		
	1		30,350	183,150
95		31,500		
	1		33,550	217,100
96		35,600		
	1		36,750	253,850 Cu-Ft
97		37,900		

Vol. Provided = 5.83 Ac Ft. > 5.13 Ac. Ft. o.k.

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 6/28/94
CHECKED _____ DATE _____
SHEET 2 OF ____

Since Unser is an Arterial all flows will have to be collected. Furthermore, the 11½ Ac. of an area west of 82nd we will designate O.S.5 will need to be included. This area is zoned R-1.

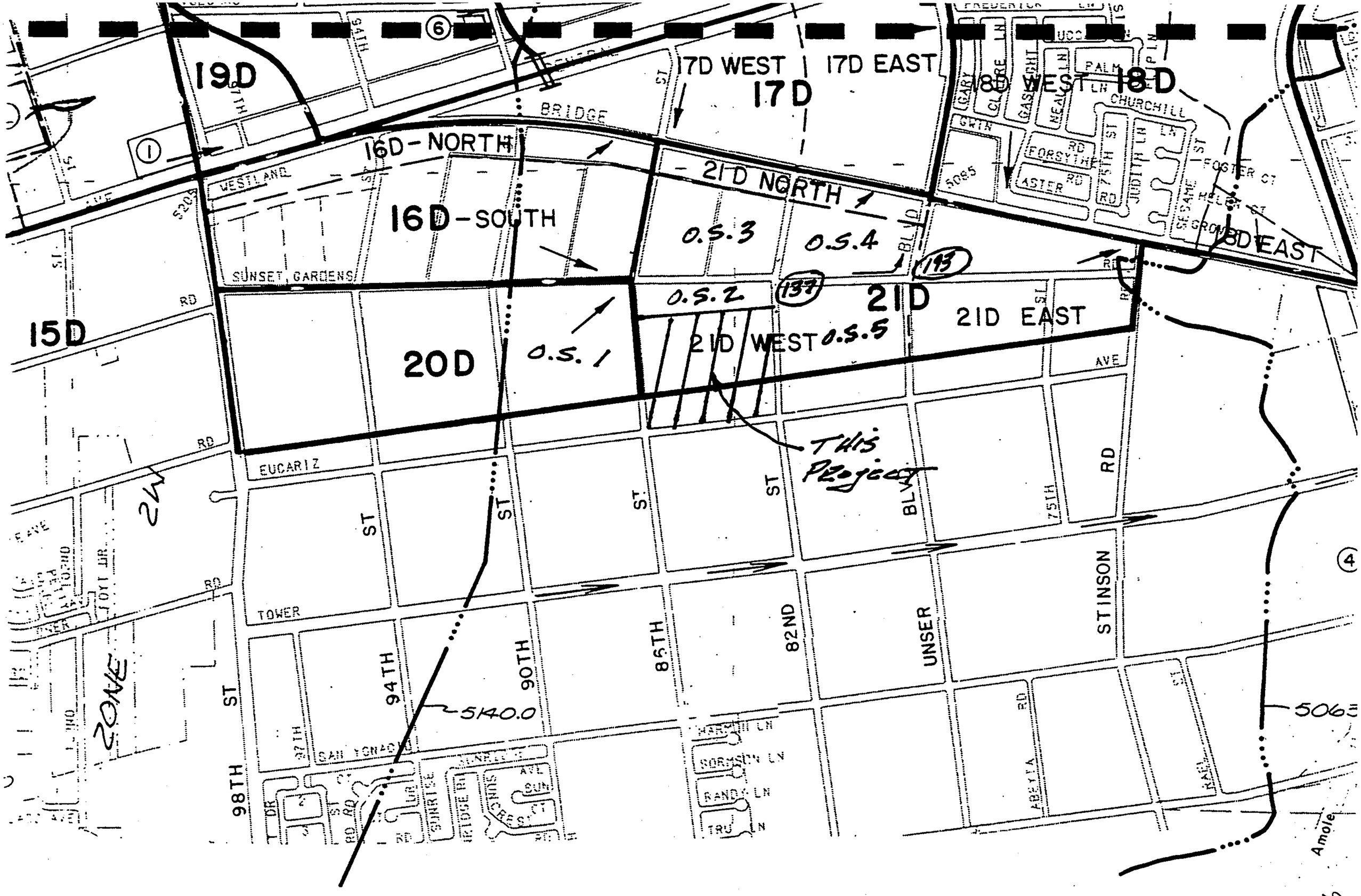
Per Attached AHYMO:

Q_{100} = 37 cfs

RUNOFF SUMMARY

AREA	% O	Q_{100}	$Vol._{100}$
ON-SITE	50 %	64 cfs	2.20 Ac.-Ft.
* O.S. 1	0 %	26	0.73
O.S. 2	10%	14	0.40
O.S. 3	60%	59	2.06
O.S. 4	80%	45	1.65
O.S. 5	50%	37	1.26
		* 193	

* Area O.S.1 not included in Storm Drain Calculations since masterplanned to go north on 86th



However basins down stream (east) of 93th Street would remain as shown

basin

NOTES:

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST - U.S.5
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.018000 SQ MI
                         PER A=00  PER B=50  PER C=0     PER D=50
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
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AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 06/28/1994
     START TIME (HR:MIN:SEC) = 08:09:17      USER NO.= M_GOODWN.I01
     INPUT FILE = PW.DAT

START                    TIME=0.0

***** HYDROGRAPH FOR POINTE WEST - 0.5.5

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN

                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.66 IN DT=0.03333 HR

                    COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
- PEAK AT 1.40 HR.
                    DT =     .033330 HOURS        END TIME =      5.999400 HOURS
                      .0000    .0016    .0033    .0050    .0067    .0085    .0103
                      .0122    .0141    .0160    .0180    .0201    .0222    .0243
                      .0266    .0289    .0312    .0337    .0362    .0388    .0415
                      .0443    .0472    .0502    .0534    .0567    .0601    .0637
                      .0675    .0715    .0758    .0809    .0865    .0924    .1050
                      .1334    .1771    .2398    .3254    .4379    .5814    .7600
                      .9780   1.1804   1.2649   1.3363   1.3997   1.4575   1.5106
                     1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7989
                     1.8314   1.8623   1.8915   1.9193   1.9456   1.9518   1.9576
                     1.9630   1.9682   1.9732   1.9780   1.9825   1.9869   1.9912
                     1.9953   1.9993   2.0031   2.0068   2.0104   2.0140   2.0174
                     2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                     2.0420   2.0448   2.0475   2.0502   2.0528   2.0554   2.0580
                     2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                     2.0768   2.0790   2.0812   2.0833   2.0855   2.0875   2.0896
                     2.0916   2.0936   2.0956   2.0976   2.0995   2.1014   2.1033
                     2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                     2.1176   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                     2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                     2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                     2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                     2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                     2.1692   2.1705   2.1718   2.1731   2.1743   2.1756   2.1768
                     2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                     2.1864   2.1876   2.1887   2.1899   2.1910   2.1922   2.1933
                     2.1944   2.1956   2.1967   2.1978   2.1989   2.2000

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.018000 SQ MI

                         PER A=00  PER B=50  PER C=0     PER D=50

                         TP=0.1333 HR MASS RAINFALL=-1

          K =    .072649HR     TP =    .133300HR     K/TP RATIO =    .545000      SHAPE
CONSTANT, N =   7.106420
          UNIT PEAK =    35.532     CFS    UNIT VOLUME =     .9990        B =    526.28
      P60 = 1.8700
          AREA =        .009000 SQ MI     IA =     .10000 INCHES     INF =     .04000 I
NCHES PER HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
=    .033330
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```
        K =    .130992HR     TP =    .133300HR     K/TP RATIO =    .982685      SHAPE
CONSTANT, N =  3.593448
        UNIT PEAK =    22.084     CFS    UNIT VOLUME =    .9997        B =    327.09
     P60 = 1.8700
        AREA =       .009000 SQ MI     IA =     .50000 INCHES     INF =    1.25000 I
CHES PER HOUR
        RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
    .033330

    PRINT HYD              ID=1 CODE=1


                                          PARTIAL HYDROGRAPH    101.10


        RUNOFF VOLUME =      1.31643 INCHES      =        1.2638 ACRE-FEET
        PEAK DISCHARGE RATE =       36.81 CFS   AT    1.500 HOURS    BASIN AREA =
.0180 SQ. MI.


    FINISH

        NORMAL PROGRAM FINISH                END TIME (HR:MIN:SEC) = 08:09:25
```

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 13, 1994

Mark Goodwin, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, N.M. 87199

RE: DRAINAGE REPORT FOR POINTE WEST SUBD (L-9/D6)
RECEIVED MAY 18, 1994 FOR PRELIMINARY PLAT & R.G PERMIT APPROVAL
ENGINEER'S STAMP DATED 5/17/94

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology has the following comments that must be addressed prior to Preliminary Plat & Rough Grading Permit approval:

1. Reference the Amole Del Norte Phase 3 DMP that was used to determine off-site drainage basins and off-site improvements. It would help expedite the review if copies of the proposed drainage basin map & proposed drainage improvement plan from the DMP were included in this report.

2. Based on the drainage basin map on calculation sheet 9, it appears that all of basin 21D West drains to Sunset Gardens. Add the area south of Sunset Gardens as basin O.S.5. It would help expedite the review if a summary table was provided which included the area, % D, Q100 and V100.

3. Unser is an arterial street and 86th is a collector street. Both streets have 10yr criteria that they must be designed for. If 100% of the runoff is not intercepted at Unser, then downstream capacity must be verified until all of the runoff is accounted for. All streets must be evaluated to verify that the Hydraulic Jump stays within the right of way. Extend the 8" curb on Dunhill Avenue west to the knuckle at Mayfair Place.

4. The Temporary Retention Pond must accept runoff from Basin O.S.1 until 86th Street is constructed. Calculate the hydrology for the interim condition for Phase 1, when Unit 1 is developed and the rest of the subdivision is undeveloped. Provide calculations for the volume provided at Phase 1 and when the entire subdivision is developed.

5. Based on the proposed spot elevations, there will be backyard ponding on most of the lots adjacent to Eucariz & 82nd. This must be clearly noted.

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Fred Aguirre

WPHYD/8581/jpc

DRAINAGE REPORT

for

POINTE WEST SUBDIVISION

Prepared For

REXCOR, Inc.

May 1994

D. MARK GOODWIN
NEW MEXICO
8948
REGISTERED PROFESSIONAL ENGINEER
5/11/94

D. MARK GOODWIN & ASSOCIATES

PURPOSE

The intent of this report is to present the Drainage Management Plan for Final Plat and Work Order Approvals. All applicable ordinances and the Development Process Manual were utilized for this analysis. The latest version of AHYMO was used to determine the various peak rates used for design in this plan.

EXISTING CONDITIONS

This site comprises an area of 20.19 acres that is currently undeveloped and is in an area where no development exists. The site is bounded by the rights-of-way for 86th Street on the west, Eucariz on the south and 82nd Street on the east. 86th Street is currently a dirt road that, due to repeated grading, is below adjacent properties. This project is shown on the Zone Atlas as being in the County, but was annexed by the City of Albuquerque by Council Bill O-20.

Current on-site runoff flows overland to the east where it is ultimately collected by the Amole Channel. Minimal off-site flows enter the property from the west and will be routed through our project.

This site, as well as several others, was studied for the development of the Amole Phase III project performed by Greiner. That study anticipated this site in a fully developed condition and that the flows would enter the Amole at Unser and Bridge street. Our plan will not change this concept.

PROPOSED MANAGEMENT PLAN

This site will be developed into a 94 lot residential subdivision constructed in four phases working from east to west. The interior drainage scheme is to collect runoff in the streets and to convey all runoff overland to the northeast corner of the project. All of the cul-de-sacs have been shown to have adequate capacity using mountable curb and gutter. This capacity included an analysis for hydraulic jumps in the streets. All runoff ultimately reaches Dunhill Avenue from the cul-de-sacs so we analyzed Dunhill as well. Due to the potential for a hydraulic jump leaving the right-of-way, 8 inch standard curb will be necessary on Dunhill from Bristol Place eastward. This is indicated on the Grading Plan.

Due to the fact that this site will be the first developed within this sub-basin of the Amole Phase III, an analysis of the future conditions when the basin is developed out had to be performed. Utilizing each properties current Zoning, a hydrologic analysis was done to determine each sites' peak rate of runoff. This analysis indicates that at full development, the combined peaks at critical points will be:

- *Intersection of 82nd Street and Sunset Gardens = 137 cfs*
- *Intersection of Sunset Gardens and Unser = 182 cfs*

These values assumed that all flows reached these intersections overland.

We then provided preliminary layouts and grades for all of the future streets within this sub-basin. These can be seen on the drawing in the Map Pocket. Since Sunset Gardens will be the critical street, we analyzed its capacity to carry flows. This analysis indicates a capacity of 69 cfs. With anticipated flows at the intersection with 82nd Street of 137 cfs, 68 cfs will need to be placed in a future storm drain. At the intersection with Unser, 182 less 68 will leave a peak rate of 114 cfs. An additional 45 cfs will need to be collected by the proposed storm drain.

Given the anticipated grades in Sunset Gardens and Unser and the preliminary design of the Amole Phase III project, a 36 inch storm drain will be necessary in Sunset Gardens and a 48 inch storm drain in Unser. The line in Unser may be reduced if the peaks from the properties east of 82nd Street are sufficiently ahead of the projects west of 82nd Street.

The costs of the future storm drain improvements should be shared by all properties contributing flows on a percentage of contribution basis. At a minimum, the cost of the 36 inch storm drain from 82nd Street to Unser would be borne by this site, the property immediately north, and the property north of Sunset Gardens. This site contributes 47%, the property immediately north 10% and the property north of Sunset Gardens 43%.

In order to provide sanitary sewer to the property adjacent to this site and to aid in grading this site as well as the adjacent streets, 82nd Street needs to be kept higher than our outfall. This will require that this site will ultimately need to be drained via an underground system. Per current City policy, we have to plan on a storm drain and inlet system sized for 2-100 Year events, since a hard-lined outlet will not be possible. This system would exit the site at the northeast corner via a public drainage easement and tie to the proposed line in Sunset Gardens. Since this would remove 64 cfs from the intersection of 82nd and Sunset Gardens, only an additional 4 cfs would have to be collected at Sunset Gardens.

Because none of the systems discussed are in place but are in the near future and because this site can stand alone, this plan proposes to provide retention ponding in the interim. The retention pond will be placed on three lots in Unit I and would increase in depth as further units are added. The off-site improvements will be financially guaranteed until constructed.

INTERIM EROSION CONTROL

The erosion control plan centers on the fact that storm waters will not be allowed free discharge during the construction process nor off the finished lots prior to home construction. This detail is shown on the plans.

CONCLUSIONS

This report has shown that this project as presented can adequately handle stormwaters while meeting all current City of Albuquerque criteria. It has also been shown how this site fits into the larger scheme off-site and what off-site improvements will be necessary as the basin develops.

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 4/26/94
CHECKED _____ DATE _____
SHEET 1 OF ____

We propose to drain this site to the Amole Phase III proposed in Bridge from Unser to 98th. How we do this i.e. overland or in a SD depends on the magnitude. This site in a developed condition was planned for the Amole.

Site Area = 20.1 Ac. = 0.0314 SQ. Mi.

Precipitation Zone = 1 → P_1 = 1.87 in P_6 = 2.20 in P_{24} = 2.66 in

Land Treatments:

Treatment A = 0%
Treatment B = 50%
Treatment C = 0%
Treatment D = 50%

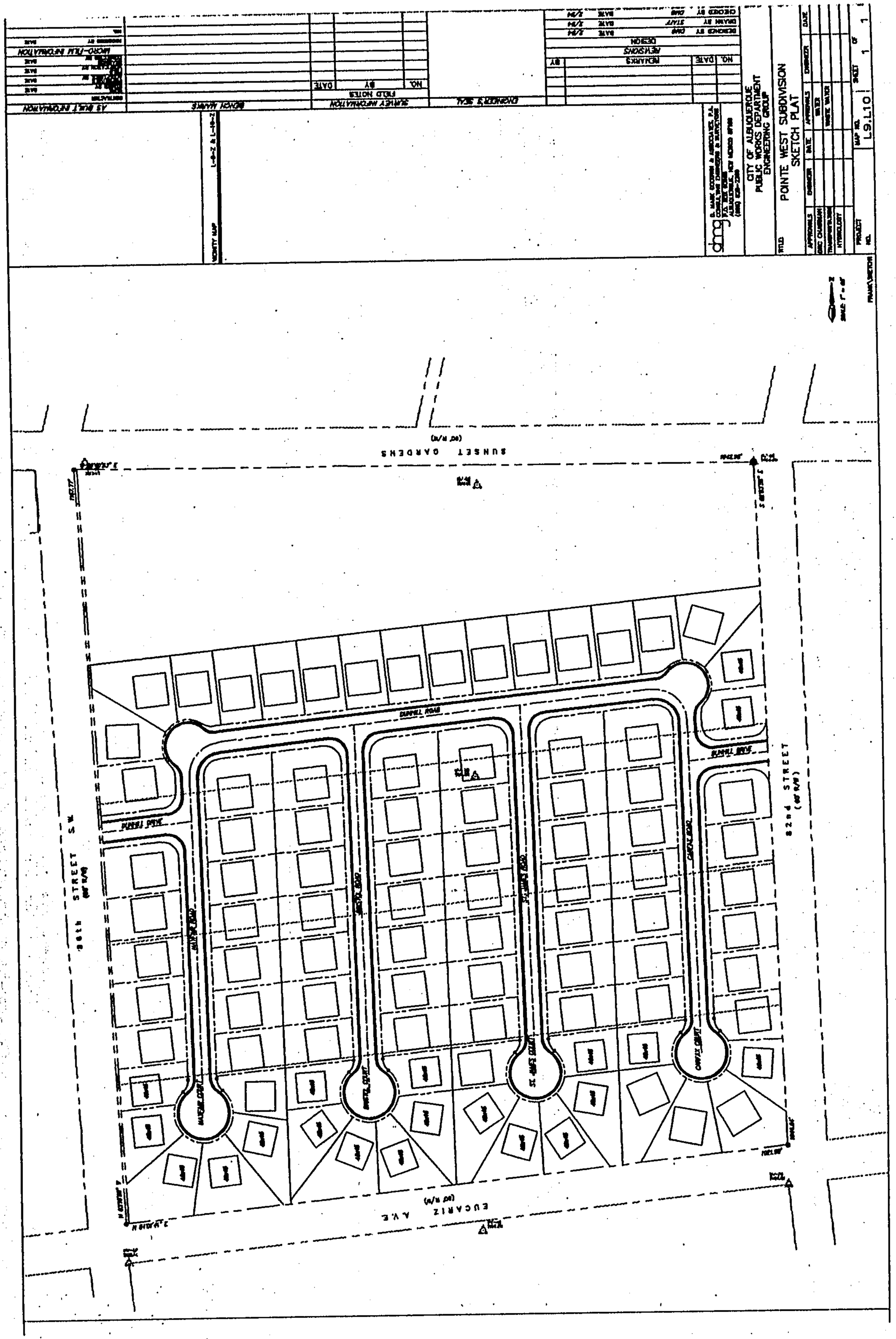
We also need to calc. 1 typical cul-de-sac to see if mountable curb is appropriate:

Area = 4.04 Ac. = 0.0063 SQ. Mi.

Per Attached AHYMO Runs:

Q (total site) = 64 cfs

Q (per cul-de-sac) = 13 cfs


SUNSET GARDENS
(60' R/W)
EUCARIZ AVE
(60' R/W)
82nd STREET
(60' R/W)
DUNNELL ROAD
DUNNELL DRIVE
DUNNELL DRIVE
DUNNELL DRIVE
MAGNUM COURT
MISTY COURT
ST. JAMES COURT
CHAPEL COURT
VICINITY MAP
L-8-Z & L-10-Z
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP
POINTE WEST SUBDIVISION
SKETCH PLAT
L9,L10
SHEET 1 OF 1

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST ON -SITE DEVELOPED
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.031400 SQ MI
                         PER A=00  PER B=50  PER C=00    PER D=50
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
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                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.66 IN DT=0.03333 HR

                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
- PEAK AT 1.40 HR.
                DT =      .033330 HOURS        END TIME =      5.999400 HOURS
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                  .0122    .0141    .0160    .0180    .0201    .0222    .0243
                  .0266    .0289    .0312    .0337    .0362    .0388    .0415
                  .0443    .0472    .0502    .0534    .0567    .0601    .0637
                  .0675    .0715    .0758    .0809    .0865    .0924    .1050
                  .1334    .1771    .2398    .3254    .4379    .5814    .7600
                  .9780   1.1804   1.2649   1.3363   1.3997   1.4575   1.5106
                 1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7989
                 1.8314   1.8623   1.8915   1.9193   1.9456   1.9518   1.9576
                 1.9630   1.9682   1.9732   1.9780   1.9825   1.9869   1.9912
                 1.9953   1.9993   2.0031   2.0068   2.0104   2.0140   2.0174
                 2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                 2.0420   2.0448   2.0475   2.0502   2.0528   2.0554   2.0580
                 2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                 2.0768   2.0790   2.0812   2.0833   2.0855   2.0875   2.0896
                 2.0916   2.0936   2.0956   2.0976   2.0995   2.1014   2.1033
                 2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                 2.1176   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                 2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                 2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                 2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                 2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                 2.1692   2.1705   2.1718   2.1731   2.1743   2.1756   2.1768
                 2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                 2.1864   2.1876   2.1887   2.1899   2.1910   2.1922   2.1933
                 2.1944   2.1956   2.1967   2.1978   2.1989   2.2000

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.031400 SQ MI

                         PER A=00  PER B=50  PER C=00   PER D=50

                         TP=0.1333 HR MASS RAINFALL=-1

      K =    .072649HR     TP =    .133300HR    K/TP RATIO =    .545000     SHAPE
CONSTANT, N =  7.106420
      UNIT PEAK =    61.984    CFS    UNIT VOLUME =    .9992        B =    526.28
   P60 = 1.8700
      AREA =        .015700 SQ MI     IA =    .10000 INCHES    INF =    .04000 I
```

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

4 of

K = .130992HR TP = .133300HR K/TP RATIO = .982685 SHAPE CONSTANT, N = 3.593448

UNIT PEAK = 38.524 CFS UNIT VOLUME = 1.000 B = 327.09 P60 = 1.8700

AREA = .015700 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.31643 INCHES = 2.2046 ACRE-FEET

PEAK DISCHARGE RATE = 64.20 CFS AT 1.500 HOURS BASIN AREA = .0314 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 12:03:29

```
START                    TIME=0.0
***** HYDROGRAPH FOR TYPICAL CUL-DE-SAC
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.006300 SQ MI
                         PER A=00  PER B=50  PER C=00    PER D=50
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
```

```
AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 04/26/1994
     START TIME (HR:MIN:SEC) = 12:05:22      USER NO.= M_DDCDWH.T01
     INPUT FILE = FW.DAT

START                    TIME=0.0

***** HYDROGRAPH FOR TYPICAL CUL-DE-SAC

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN

                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.66 IN DT=0.03333 HR

                    COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
PEAK AT 1.40 HR.
                    DT =     .033333 HOURS        END TIME =      5.099400 HOURS
                       .0000    .0016    .0033    .0050    .0067    .0085    .0103
                       .0122    .0141    .0160    .0180    .0201    .0222    .0243
                       .0266    .0289    .0312    .0337    .0362    .0388    .0415
                       .0443    .0472    .0502    .0524    .0567    .0601    .0637
                       .0675    .0715    .0758    .0809    .0865    .0924    .1050
                       .1331    .1771    .2398    .3254    .4379    .5814    .7600
                       .9780   1.1604   1.2649   1.3363   1.3897   1.4575   1.5106
                      1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7989
                      1.8314   1.8623   1.8915   1.9193   1.9456   1.9518   1.9576
                      1.9630   1.9682   1.9732   1.9780   1.9826   1.9869   1.9912
                      1.9953   1.9993   2.0031   2.0068   2.0104   2.0140   2.0174
                      2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                      2.0420   2.0448   2.0475   2.0502   2.0528   2.0554   2.0580
                      2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                      2.0768   2.0790   2.0812   2.0833   2.0855   2.0875   2.0896
                      2.0916   2.0936   2.0956   2.0976   2.0996   2.1014   2.1033
                      2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                      2.1176   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                      2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                      2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                      2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                      2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                      2.1692   2.1705   2.1718   2.1731   2.1743   2.1756   2.1768
                      2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                      2.1864   2.1876   2.1887   2.1899   2.1910   2.1921   2.1933
                      2.1944   2.1956   2.1967   2.1978   2.1989   2.2000

COMPUTE NH HYD           ID=1 HYD NO=101.1 AREA=0.000300 SQ MI

                         PER A=00  PER B=00  PER C=00    PER D=00

                         TP=0.1333 HR MASS RAINFALL=-1

        K =    .072649HR      TP =    .133333HR      K/TP RATIO =      .545000      SHAPE
CONSTANT, N =  7.190426
        UNIT PEAK =    12.436     CFS    UNIT VOLUME =     .9997          B =    522.23
    PEAK = 1.6706
```

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

7 of

K = .100992HR TP = .133300HR K/TP RATIO = .757685 SHAPE CONSTANT, N = 3.593446
UNIT PEAK = 7.7294. CFS UNIT VOLUME = .9985 B = 327.09
P60 = 1.8700
AREA = .006150 SQ MI IA = .50000 INCHES INF = 1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.31643 INCHES = .4423 ACRE-FEET
PEAK DISCHARGE RATE = 12.89 CFS AT 1.500 HOURS BASIN AREA = .0063 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MI:SECD) = 12:06:20

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 4/27/94
CHECKED _____ DATE _____
SHEET 8 OF ____

Flows from off-site Areas need to be considered for several reasons:

1. Sub-Area drainage plan needs to be developed
2. Un-developed off-site flows from the west need to be routed through our project until 86th St. is built.
3. How much Sunset Gardens can carry and how much will have to go in storm drain.

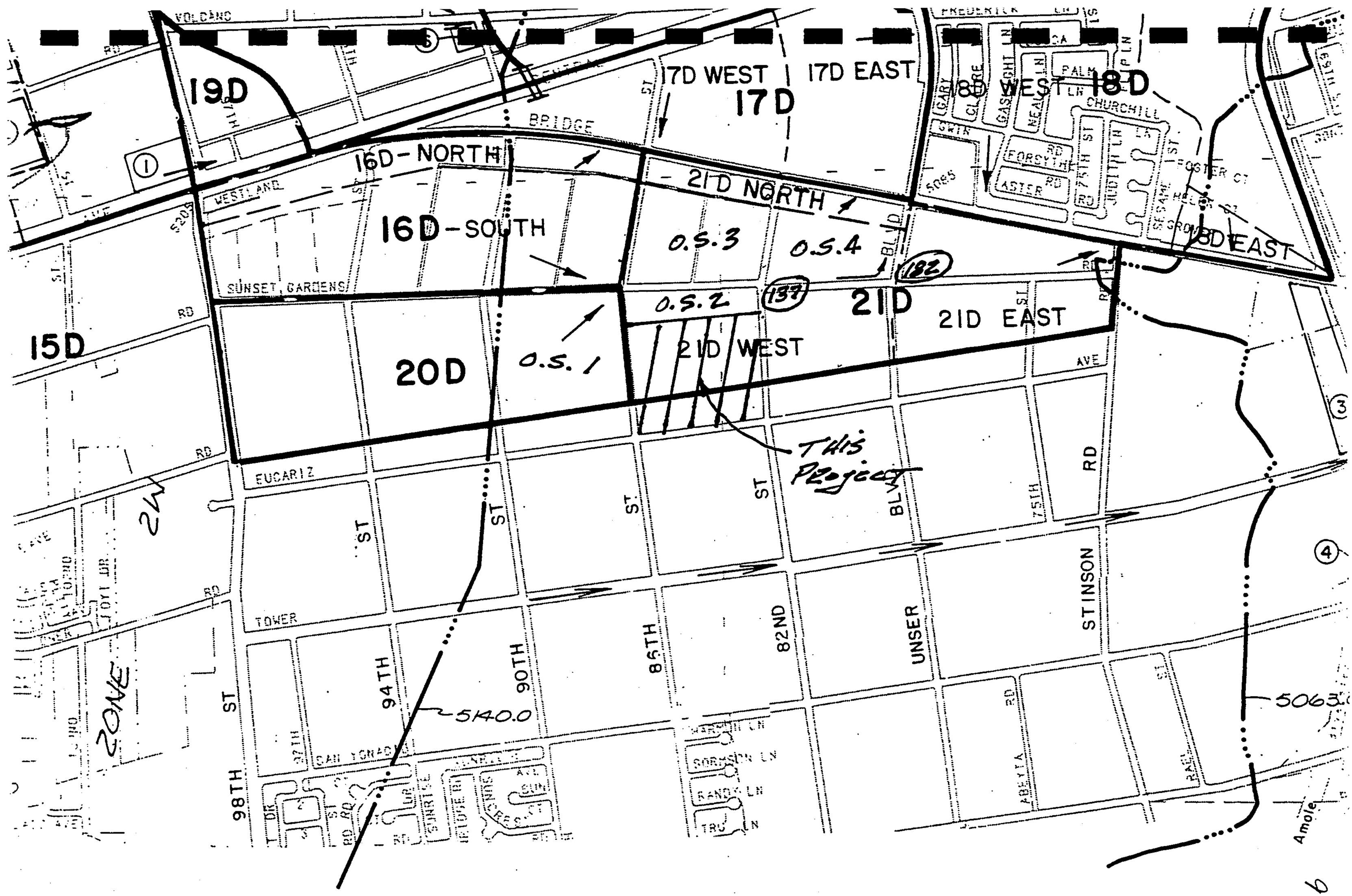
Off-site Areas (shown on nxt. Page) to be Considered are:

1. 20 Ac. O.S.1 to west of this site drains to 86th then onto this project. Zoning will be R-1. Amole masterplan and topography call for these flows to be intercepted by improved 86th and taken north to Bridge St. for collection. As a practical matter, we need to deal with these undeveloped flows temporarily by routing them thru.

2. 5 Ac. O.S.2 immediately north of our site will drain to Sunset Gardens then to Unser. This site is Zoned A-1 and will be developed into 1 Ac. residential lots. Site will need to be analyzed as developed.

3. 16.9 Ac O.S.3 north of Sunset Gardens will drain to 82nd St. then to Sunset Gardens then east to Unser. This site is Zoned SU-1 for PRD for 20 DU/AC. Site will be analyzed as developed.

4. 11.5 Ac. O.S.4 East of 82nd and north of Sunset Gardens could get to Sunset Gardens. This



However basins down stream (east) of 98th Street would remain as shown

basin

NOTES:

Jo 6

site is zoned O-1. Site will be analyzed as developed.

These are all of the contributing areas to be studied.

Drainage Area O.S.1 :

Area = 20 AC = 0.0313 SQ. MI.

All Treatment A

From Attached AHYMO : Q = 26 cfs

Drainage Area O.S.2 :

Area = 5.8 AC = 0.0091 SQ. MI.

A-1 Zoning → 5 Lots

Use 2000 SF House and Drive

Treatment A = 0
Treatment B = 80 %
Treatment C = 10 %
Treatment D = 10%

Q = 14 cfs

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY AMS DATE 4/27/94
CHECKED DATE
SHEET 11 OF

Drainage Area O.S. 3:

Area = 16.9 Ac. = 0.0264 SQ. Mi.
SU-1 for PRD (Apts.)
From recent experience:

Treatment A = 0
Treatment B = 35%
Treatment C = 5%
Treatment D = 60%

Q = 59 cfs

Drainage Area O.S. 4:

Area = 11.5 Ac. = 0.0180 SQ. Mi.
Zoned O-1

Treatment A = 0
Treatment B = 15%
Treatment C = 5%
Treatment D = 80%

Q = 45 cfs

Summarizing Future Conditions:

- At the intersection of Sunset Gardens and 82nd Street will be our site + O.S. 2 + O.S. 3 = 64 + 14 + 59 = 137 cfs

- At the intersection of Unser and Sunset Gardens will be our site + O.S. 2 + O.S. 3 + O.S. 4 = 137 + 45 = 182 cfs

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST - O.S.1
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.031300 SQ MI
                         PER A=100 PER B=00  PER C=00    PER D=00
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
```

```
AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 04/27/1994
     START TIME (HR:MIN:SEC) = 14:30:27      USER NO.= M_GOODWN.I01
     INPUT FILE = PW.DAT

START                    TIME=0.0

***** HYDROGRAPH FOR POINTE WEST - O.S.1

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN

                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.66 IN DT=0.03333 HR

                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
 - PEAK AT 1.40 HR.
                DT =     .033330 HOURS          END TIME =      5.999400 HOURS
                  .0000    .0016    .0033    .0050    .0067    .0085    .0103
                  .0122    .0141    .0160    .0180    .0201    .0222    .0243
                  .0266    .0289    .0312    .0337    .0362    .0388    .0415
                  .0443    .0472    .0502    .0534    .0567    .0601    .0637
                  .0675    .0715    .0758    .0809    .0865    .0924    .1050
                  .1334    .1771    .2398    .3254    .4379    .5814    .7600
                  .9780   1.1804   1.2649   1.3363   1.3997   1.4575   1.5106
                 1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7989
                 1.8314   1.8623   1.8915   1.9193   1.9456   1.9518   1.9576
                 1.9630   1.9682   1.9732   1.9780   1.9825   1.9869   1.9912
                 1.9953   1.9993   2.0031   2.0068   2.0104   2.0140   2.0174
                 2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                 2.0420   2.0448   2.0475   2.0502   2.0528   2.0554   2.0580
                 2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                 2.0768   2.0790   2.0812   2.0833   2.0855   2.0875   2.0896
                 2.0916   2.0936   2.0956   2.0976   2.0995   2.1014   2.1033
                 2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                 2.1176   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                 2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                 2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                 2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                 2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                 2.1692   2.1705   2.1718   2.1731   2.1742   2.1756   2.1768
                 2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                 2.1864   2.1876   2.1887   2.1899   2.1910   2.1922   2.1933
                 2.1944   2.1955   2.1967   2.1978   2.1989   2.2000

   COMPUTE NH HYD        ID=1 HYD NO=101.1 AREA=0.031300 SQ MI

                         PER A=100 PER B=00  PER C=00    PER D=00

                         TP=0.1333 HR MASS RAINFALL=-1

        K =    .16965 HR     TP =    .133300HR     K/TP RATIO =  1.227950      SHAPE
CONSTANT, N =  2.899764
        UNIT PEAK =   84.251     CFS   UNIT VOLUME =    .9994          S =    170.54
    PEO = 1.8700
        AREA =    .031300 SQ MI     IA =    .65000 INCHES     INF =    1.27000 I
```

.03930

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PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = .43925 INCHES = .7683 ACRE FEET
PEAK DISCHARGE RATE = 25.90 CFS AT 1.533 HOURS BASIN AREA =
.0313 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN.SEC) = 14:30:05

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST - 0.5.2
RAINFALL                 TYPE=-1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.009100 SQ MI
                         PER A=00  PER B=90  PER C=10    PER D=10
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
```

```
AHYMO PROGRAM (AHYMO1D4) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 04/27/1994
     START TIME (HR:MIN:SEC) = 14:32:51        USER NO. = M_GOODWN.I01
     INPUT FILE = PW.DAT

START                    TIME=0.0

***** HYDROGRAPH FOR POINTE WEST - U.S.2

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN

                         RAIN ONE=1.07 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.65 IN DT=0.03333 HR

                         COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
 - PEAK AT 1.40 HR.
                         DT =     .033330 HOURS          END TIME =      5.999400 HOURS
                            .0000    .0016    .0033    .0050    .0067    .0085    .0103
                            .0122    .0141    .0160    .0180    .0201    .0222    .0243
                            .0266    .0289    .0312    .0337    .0362    .0389    .0415
                            .0443    .0472    .0502    .0534    .0567    .0601    .0637
                            .0675    .0715    .0758    .0809    .0865    .0924    .1050
                            .1354    .1771    .2098    .3254    .4379    .5814    .7600
                            .9780   1.1894   1.2649   1.3303   1.3997   1.4575   1.5106
                           1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7989
                           1.8314   1.8623   1.8915   1.9192   1.9456   1.9518   1.9576
                           1.9630   1.9682   1.9732   1.9780   1.9825   1.9869   1.9912
                           1.9950   1.9993   2.0031   2.0069   2.0104   2.0140   2.0174
                           2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                           2.0420   2.0446   2.0475   2.0502   2.0528   2.0554   2.0580
                           2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                           2.0768   2.0790   2.0812   2.0833   2.0855   2.0875   2.0896
                           2.0916   2.0936   2.0956   2.0976   2.0995   2.1014   2.1033
                           2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                           2.1176   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                           2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                           2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                           2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                           2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                           2.1692   2.1705   2.1718   2.1731   2.1743   2.1756   2.1768
                           2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                           2.1864   2.1876   2.1887   2.1899   2.1910   2.1922   2.1933
                           2.1944   2.1956   2.1967   2.1978   2.1989   2.2000

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.069100 SQ MI

                         PER A=00  PER B=80  PER C=10   PER D=10

                         TP=0.1333 HR MASS RAINFALL=1.1

      K =    .072343HR     TP =    .133360HR     K/TP RATIO =    .545000     SHAPE
CONSTANT, N =   7.106420
      UNIT PEAK =   6.5027     CFS    UNIT VOLUME =    .9581        B =    526.28
   PEQ = 1.8700
      AREA =    .069010 SQ MI     IA =    .10000 INCHES     INF =    .04000 I
```

= .033330

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K = .128200HR TP = .133000HR K/TP RATIO = .961742 SHAPE CONSTANT, N = 3.673662
UNIT PEAK = 20.447 CFS UNIT VOLUME = .9996 Q = 332.79
P60 = 1.6700
AREA = .000190 SQ MI IA = .48303 INCHES INF = 1.20533 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = .82472 INCHES = .4003 ACRE-FEET
PEAK DISCHARGE RATE = 13.61 CFS AT 1.500 HOURS BASIN AREA = .0091 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 14:02:00

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST - D.S.S
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.01333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.026400 SQ MI
                         PER A=00  PER B=55  PER C=5     PER D=60
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
```

```
AHYMO PROGRAM (AHYMO1994) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 04/27/1994
     START TIME (HR:MIN:SEC) = 14:05:13      USER NO.= M_GOODWN.101
     INPUT FILE = PW.DAT

START                    TIME=0.0

***** HYDROGRAPH FOR POINTE WEST - O.S.S

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN

                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.66 IN LT=0.00000 HR

                         COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
- PEAK AT 1.40 HR.
                         DT =      .033330 HOURS          END TIME =      5.990100 HOURS
                           .0000    .0016    .0033    .0050    .0067    .0085    .0103
                           .0122    .0141    .0160    .0181    .0202    .0223    .0243
                           .0266    .0289    .0312    .0337    .0362    .0388    .0415
                           .0443    .0472    .0502    .0534    .0567    .0601    .0637
                           .0675    .0715    .0758    .0803    .0855    .0924    .1050
                           .1334    .1771    .2398    .3254    .4279    .5514    .7600
                           .9780   1.1804   1.2649   1.3363   1.3997   1.4575   1.5106
                          1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7983
                          1.8314   1.8623   1.8915   1.9193   1.9456   1.9510   1.9576
                          1.9630   1.9682   1.9732   1.9780   1.9825   1.9869   1.9912
                          1.9953   1.9993   2.0031   2.0068   2.0104   2.0140   2.0174
                          2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                          2.0420   2.0448   2.0476   2.0502   2.0528   2.0554   2.0580
                          2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                          2.0768   2.0790   2.0812   2.0833   2.0855   2.0875   2.0898
                          2.0918   2.0938   2.0958   2.0978   2.0998   2.1014   2.1033
                          2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                          2.1176   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                          2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                          2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                          2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                          2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                          2.1692   2.1705   2.1716   2.1731   2.1742   2.1756   2.1768
                          2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                          2.1863   2.1876   2.1887   2.1898   2.1910   2.1922   2.1933
                          2.1944   2.1956   2.1967   2.1978   2.1989   2.2000

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.020400 SQ MI

                         PER A=00  PER B=05  PER C=5   PER D=90

                         TP=0.1869 IN MAXIMUM RAINFALL=-1

K =    .072679HR     TP =    .136964HR     K/TP RATIO =    .545000     SHAPE
CONSTANT, N =   7.196420
UNIT PEAK =    62.557    CFS    UNIT VOLUME =    .9992        B =    326.00
P60 = 1.6700
AREA =    .013040 SQ MI     IA =    .10000 INCHES     INF =    .04000 I
```

= .033330

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K = .127851HR TP = .133800HR K/TP RATIO = .559134 SHAPE CONSTANT, N = 3.684067

UNIT PEAK = 26.421 CFS UNIT VOLUME = .9997 B = 333.52

P60 = 1.8760

AREA = .010560 SQ MI IA = .43125 INCHES INF = 1.19736 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.46007 INCHES = 2.0058 ACRE-FEET

PEAK DISCHARGE RATE = 58.64 CFS AT 1.500 HOURS BASIN AREA = .0264 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 14:03:21

```
START                    TIME=0.0
***** HYDROGRAPH FOR POINTE WEST - 0.5.4
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                         RAIN DAY=2.66 IN DT=0.03333 HR
COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.018000 SQ MI
                         PER A=00  PER B=15  PER C=5     PER D=80
                         TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD                ID=1 CODE=1
FINISH
```

```
AHYMO PROGRAM (AHYMO1994) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 04/27/1994
     START TIME (HR:MIN:SEC) = 14:37:03        USER NO. = M_SOUUWH.T01
     INPUT FILE = PW.DAT

START                    TIME=0.0

***** HYDROGRAPH FOR POINTE WEST - U.S.4

RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN

                         RAIN ONE=1.87 IN RAIN SIX=2.20 IN

                         RAIN DAY=2.66 IN DT=0.033333 HR

                 COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2
- PEAK AT 1.40 HR.
                 DT =      .033330 HOURS          END TIME =      5.999100 HOURS
                    .0003    .0016    .0033    .0050    .0067    .0085    .0103
                    .0122    .0141    .0160    .0180    .0201    .0222    .0243
                    .0266    .0289    .0312    .0337    .0362    .0388    .0415
                    .0443    .0472    .0502    .0534    .0567    .0601    .0637
                    .0674    .0715    .0758    .0803    .0849    .0924    .1050
                    .1334    .1771    .2398    .3254    .4370    .5814    .7600
                    .9760   1.1604   1.2649   1.3363   1.3997   1.4575   1.5106
                   1.5600   1.6061   1.6493   1.6900   1.7284   1.7646   1.7989
                   1.8314   1.8623   1.8915   1.9193   1.9456   1.9518   1.9576
                   1.9630   1.9682   1.9732   1.9780   1.9825   1.9869   1.9912
                   1.9953   1.9993   2.0031   2.0068   2.0104   2.0140   2.0174
                   2.0207   2.0240   2.0272   2.0303   2.0333   2.0363   2.0392
                   2.0420   2.0448   2.0475   2.0502   2.0528   2.0554   2.0580
                   2.0605   2.0629   2.0653   2.0677   2.0700   2.0723   2.0746
                   2.0768   2.0790   2.0812   2.0833   2.0855   2.0876   2.0896
                   2.0916   2.0936   2.0956   2.0976   2.0995   2.1014   2.1033
                   2.1051   2.1070   2.1088   2.1106   2.1124   2.1141   2.1159
                   2.1175   2.1193   2.1210   2.1227   2.1244   2.1260   2.1276
                   2.1292   2.1308   2.1324   2.1340   2.1355   2.1371   2.1386
                   2.1401   2.1416   2.1431   2.1446   2.1460   2.1475   2.1489
                   2.1504   2.1518   2.1532   2.1546   2.1560   2.1573   2.1587
                   2.1600   2.1614   2.1627   2.1640   2.1654   2.1667   2.1680
                   2.1693   2.1706   2.1718   2.1731   2.1743   2.1756   2.1768
                   2.1780   2.1792   2.1804   2.1817   2.1829   2.1840   2.1852
                   2.1864   2.1876   2.1887   2.1898   2.1910   2.1922   2.1933
                   2.1944   2.1956   2.1967   2.1978   2.1989   2.2000

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.010000 SQ MI

                         PER A=00  PER B=15  PER C=5     PER D=80

                         IP=0.1335 IN BASE RAINFALL...

        K =    .372649HR     TP =    .133330HR     K/TP RATIO =    .545000     SHAPE
CONSTANT, N =   7.166420
        UNIT PEAK =    46.052    CFS    UNIT VOLUME =    .9992        B =    526.28
    PCO =   1.0700
        ...    .014400 SQ MI    ID =    .10000 ARCHEL    IMP =    .010000 I
```

= .003636

24 of

K = .1247118R TP = .1330000R K/TP MSTIO = .003564 SHAPE CONSTANT, N = 3.780927

UNIT PEAK = 9.1890 CFS UNIT VOLUME = .9987 S = 340.25 PEO = 1.0700

AREA = .003600 SQ MI IA = .46230 INCHES INF = 1.14500 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION MODEL METHOD - DT = .0333333

PRINT HYD ID=1 CODE=1 ...

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.72002 INCHES = 1.6212 ACRE-FEET

PEAK DISCHARGE RATE = 45.41 CFS AT 1.500 HOURS BASIN AREA = .0180 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 14:07:11

Now that flows are known, we need to chk. street capacities:

Dunhill west of Bristol Place:

50' R/w 32' FF Q = 15 cfs slope = 1.5%

$D = 0.39'$ $V = 3$ fps $D + \frac{V^2}{2g} = 0.51$

Flows remain confined with mountable curb since cul-de-sacs have peak $Q = 13 < 15$ they can have mountable curb as well.

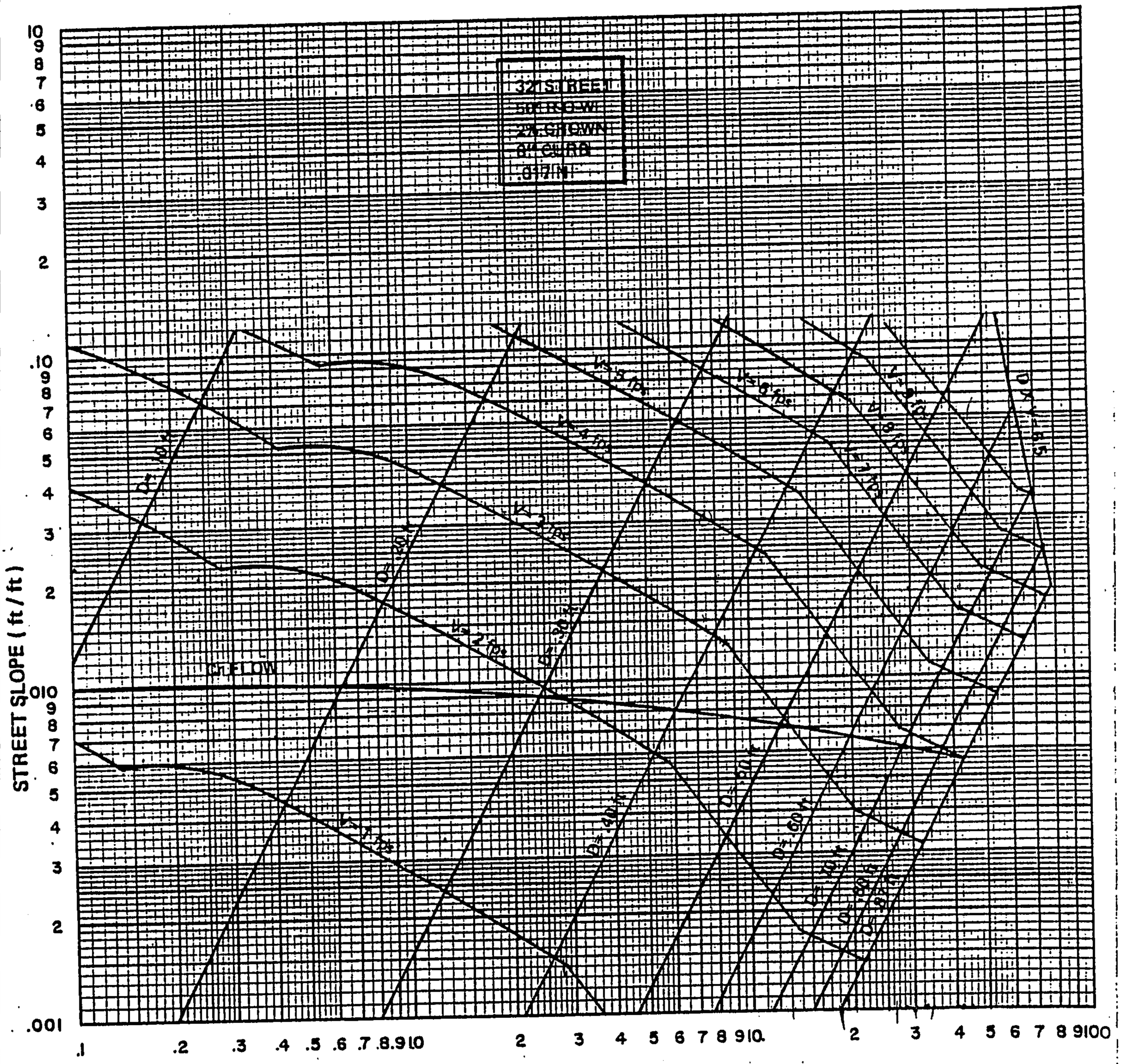
Dunhill west of Carfax:

50' R/w 32' FF Q = 49 cfs slope = 1.75%

$D = 0.54'$ $V = 4.7$ $D + \frac{V^2}{2g} = 0.88'$

We will need 8" standard curb on Dunhill from Carfax Place to Bristol Place. This will confine Hydraulic Jump to R/w.

STREET CAPACITY



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 5/10/94
CHECKED _____ DATE _____
SHEET 28 OF ____

To complicate matters, due to off-site SAS considerations, future street profiles, etc., our site cannot surface drain to Sunset Gardens! We will have to discharge our site in the future via storm drain. We will not be able to provide a hard lined easement so storm drain needs to be sized for that run leaving our site for 2 design storms.

$Q(6\text{-}100) = 64$ cfs $Q(\text{design}) = 128$ cfs

Per off-site map $\rightarrow S = 1.50\%$

Required Pipe $\phi = 42''$ to first MH

Inlets will be in a sump and act as weirs:

$$Q = CLH^{3/2}$$

$$L = \frac{Q}{CH^{3/2}} = \frac{128}{2.9(.87)^{3/2}} = 54'$$

4 Double "C" = 29.58'
4 "A" = 28'
} 57.58' ✓

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 5/2/94
CHECKED _____ DATE _____
SHEET 29 OF ____

We now need to start looking at off-site Street & Drainage improvements. For this project we propose to improve our 1/2 of 82nd for our frontage and place a temporary section the remainder of the way to Bridge. However, our future flows and those of several other projects will flow down an improved Sunset Gardens to Unser then north a short distance to the Amole System. We need to determine the capacity of the future Sunset Gardens and a storm drain if necessary.

Sunset Gardens is currently a 60' R/W so there will be a 40' FF street with standard Curb & Gutter. Due to Zoning and Tract configuration houses' fronting on Sunset Gardens is doubtful so Hydraulic jumps will not be considered. Min. Slope = < 0.6%

A = 20.60 S.F.

WP = 59.34 Ft.

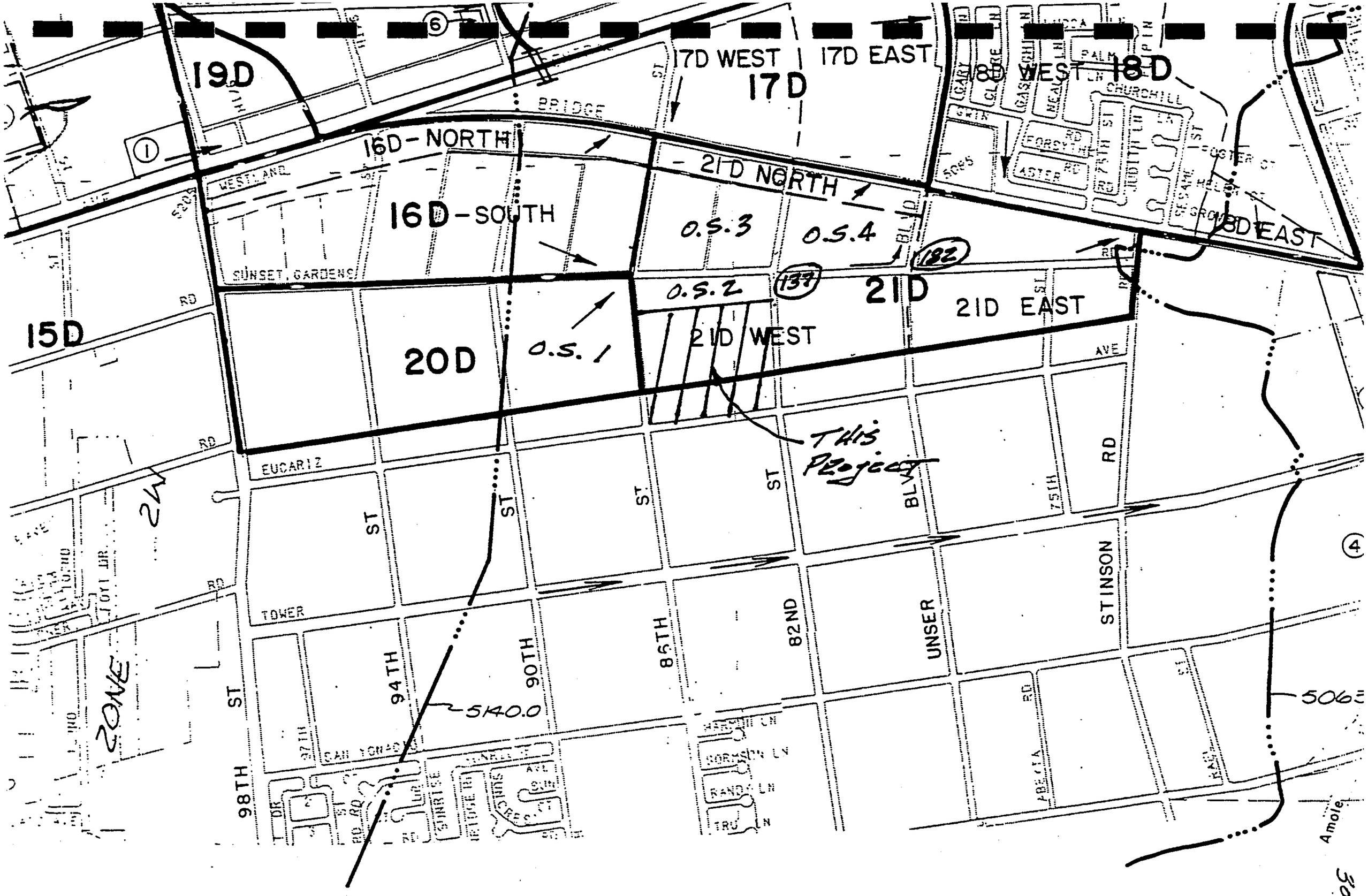
$$V = \frac{1.486}{.017}\left(\frac{20.60}{59.34}\right)^{2/3}(.006)^{1/2} = 3.35 \text{ fps}$$

Q = AV = 69 cfs

Per the following Sht. the capacity of Sunset Gardens will be exceed from 82nd to Unser:

69 cfs capacity - vs. 137 design = 68 cfs at the intersection. If we place our site in a 50, 4 more additional cfs will need to be picked up. Q(50) = 68 need a 36" SD.

At Unser, there is a design flow of 182 cfs = 113 cfs over capacity. 68 cfs will be intercepted @ 82nd, so 45 cfs needs to be intercepted here. This requires a 48" SD To Amole.



However basins down stream (east) of 98th Street should remain as shown

basin

NOTES:

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 5/10/94
CHECKED _____ DATE _____
SHEET 31 OF ____

The last item to complete is to size the temporary retention pond by phase & to size the emergency spillway.

For retention ponds, design vol. is V_{100AY}

For Phase I:

$$V_{10} = .44 \text{ Ac.-Ft.} + 2.02\left(\frac{3.67-2.2}{12}\right) = 0.69 \text{ Ac-Ft.}$$

For TOTAL SITE:

$$V_{10} = 2.2 + 10.10\left(\frac{3.67-2.2}{12}\right) = 3.44 \text{ Ac.-Ft.}$$

.678

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Pointe West Unit I

ZONE ATLAS#: L-9 ~~&L-10~~ /D 10

DRB#:

EPC#

WORKORDER#:

LEGAL DESCRIPTION: Lots 6-9, Block 1, Pointe West Unit I

CITY ADDRESS: 82nd and Sunset West

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Mark Goodwin, PE
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:	C & W Land Development Co.	CONTACT:	Rex Wilson
ADDRESS:	11109 Central SE, Albuquerque, NM 87123	PHONE:	450-2395
ARCHITECT:	N/A	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:	Aldrich Land Surveying	CONTACT:	Tim Aldrich
ADDRESS:	P.O. Box 30701, Albuquerque, NM 87190	PHONE:	884-1990
CONTRACTOR:	Franklin's Earthmoving	CONTACT:	John Ellis
ADDRESS:	2425 Jefferson NE, Albuquerque, NM 87110	PHONE:	884-6947

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL
- X ENGINEER'S CERTIFICATION
- X OTHER - Pond Reclamation
- X EASEMENT VACATION

PRE-DESIGN MEETING:

- ___ YES
- X NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APRROVAL
- X PRELIMINARY PLAT APRROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- X FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER
- ___ RELEASE OF FINANCIAL GUARANTY
- ___ TRAFFIC CIRCULATION LAYOUT

DATE SUBMITTED: 10/18/00

BY: Mark Goodwin

Mark Goodwin, PE

RECEIVED
OCT 18 2000
HYDROLOGY SECTION

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

October 18, 2000

Mr. Loren Meinz
Hydrology Division
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Pointe West Unit 1 Pond Reclamation

Dear Mr. Meinz:

Attached, please find a copy of our Engineer's Certification and As-Built Grading Plan for the referenced project.

In 1994, we master planned a four phase residential subdivision that would require significant off-site storm drain improvements to implement a Free Discharge Scenario. In the interim we proposed a Temporary Retention Pond which gained City approval. A drainage easement was granted to the City by plat action and the appropriate covenant was recorded. In late 1999, the developer of Pointe West in conjunction with the developer of Valhalla Estates constructed the storm drain in Sunset Gardens to its' outfall at the Tierra Bayita Channel (Amole).

The developer of Pointe West has now filled the pond to the grades as shown on the original grading plan. We are requesting Hydrology acceptance of our certification where upon we will request Vacation of the Drainage Easement and Plat approval.

Please call if you have any questions or concerns.

Sincerely,

MARK GOODWIN & ASSOCIATES, PA

Mark Goodwin, PE
President

DMG/sw

f:\\ptwest\hydrolog.ltr

RECEIVED
OCT 18 2000
HYDROLOGY SECTION

City of Albuquerque

P. O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103
PUBLIC WORKS DEPARTMENT

March 20, 1997

CERTIFICATE OF WORK ORDER COMPLETION

Rex-Cor Inc.
1611 Francisca NW
Albuquerque, NM 87107

RE: POINTE WEST SUBDIVISION UNIT 2 PROJECT NO. 5048.91 (MAP NO. L-9)

Dear Sir:

This is to certify that the City of Albuquerque accepts Project No. 5048.91 as being completed according to approved plans and construction specifications. Please be advised this certificate of completion and acceptance shall only become effective upon final plat approval and filing in the office of the Bernalillo County Clerk's Office.

The project is described as follows:

- Installation of subdvision infrastructure. On St. James Place constructed curb and gutter, installation of water and sewer services, sidewalks and paving.
- On Eurcariz constructed sidewalk along the northside. Installation of sewer and water without services to half roadway about fifty feet.
- Waterline was done in Phase I from 86th to 82nd on Dunhill Ave.
- Sanitary sewer and paving were done on Dunhill Avenue Lot 10, Block 1 to Lot 15, Block 1.

The contractor's correction period began the date of this letter and is effective for a period of one (1) year.

Sincerely,

Russell B. Givler, P.E.
Chief Construction Engineer,
Engineering Group
Public Works Department

cc: Mark Goodwin & Associates
Franklins Earthmoving
Fred Aguirre, Engineering Group, PWD
Tina Pohl, Engineering Group, PWD
Terri Martin, Engineering Group, PWD
Martin Barker, Engineering Group, PWD
Linda Adamsko, Special Assessments, DFM
Sam Hall, Operations Group, PWD
Jim Fink, Operations Group, PWD
Dean Wall, Engineering Group, PWD
Jack McDonough, Water/Wastewater Group, PWD
Ray Chavez, Traffic Engineering, PWD
Josie Gutierrez, New Meter Sales, Finance Group, PWD
Richard Zamora, Engineering Group, PWD
f/Project No. 5048.91
f/Readers
f/Warranty:Contract

CITY OF
Albuquerque

March 24, 1997

Martin J. Chávez, Mayor

CERTIFICATION OF COMPLETION AND ACCEPTANCE

Coralie Franklin
President
RexCor, Inc.
1611 Francisca N.W.
Albuquerque, NM 87107

RE: POINTE WEST UNIT II; CITY PROJECT NO. 5048; MAP NO. L-9

Dear Ms. Franklin:

This is to certify that the City of Albuquerque accepts the construction of the infrastructure provided in the Work Order Construction Plans, City Project No. 5048.91 as compliance with completing the required public infrastructure listed in the Subdivision Improvements Agreement (SIA) RexCor, Inc. and the City of Albuquerque executed on July 15, 1996.

Having satisfied the requirements referenced above, the SIA and any associated Financial Guaranty, held by the City, can now be released. The Contractors one-year warranty period started at the date of acceptance by the Chief Construction Engineer, dated March 20, 1997.

Please be advised this Certificate of Completion and Acceptance shall only become effective upon final plat approval and filing in the office of the Bernalillo County Clerk's Office.

Should you have any questions or issues regarding this project, please contact me.

Sincerely,

John R. Castillo, P.E.
Acting City Engineer
Dev. & Bld. Services Div.
Public Works Department

c. Mark Goodwin, P.E., Mark Goodwin & Assoc., P.A.
Kyle Beasley, Director, The Bank of New Mexico
Teresa Martin, Project Administrator, Project Review
Theresa Lucero, Assistant Project Administrator , PWD
Kym Dicome, DRB Chairman, Planning
Fred Aguirre, Hydrology, PWD
Richard Dourte, Transportation Development, PWD
John M. Stomp, Jr. III, Utility Development, PWD
Ed Stang, Planning Section, CIP
f/Project file

CITY OF
Albuquerque

March 4, 1998

Mark Goodwin, P.E.
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: POINTE WEST UNITS 3 AND 4 (L9-D10). ENGINEER'S CERTIFICATION FOR RELEASE OF FINANCIAL GUARANTEE. ENGINEER'S CERTIFICATION DATED JANUARY 30, 1998.

Dear Mr. Goodwin:

Based on the information provided on your February 10, 1998 submittal, City Hydrology accepts the Engineer's Certification for Financial Guarantee release (Work Order Number 5048.92)

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Hydrology

c: Terri Martin
Andrew Garcia
File

CITY OF
Albuquerque
P.O. Box 1293, Albuquerque, NM 87103

December 13, 1996

Martin J. Chávez, Mayor

Mark Goodwin, PE
Mark Goodwin & Assoc
PO Box 90606
Albuquerque, NM 87199

RE: ENGINEER'S CERTIFICATION FOR POINTE WEST, UNIT 2 (L-9/D10)
RECEIVED DECEMBER 4, 1996 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 12/2/96

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above and the Infrastructure List for DRB 94-98 approved 7/26/94, City Hydrology accepts the engineer's certification for financial guaranty release.

Contact Terri Martin to obtain the Financial Guaranty Release for City Project Number 5048.91.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer, Hydrology

C: Terri Martin, CPN 5048.91

Pointe West (L-9/D10)

12-12-96 JPC

#10

Looking W From 82nd St

#11

Looking West From 82nd st

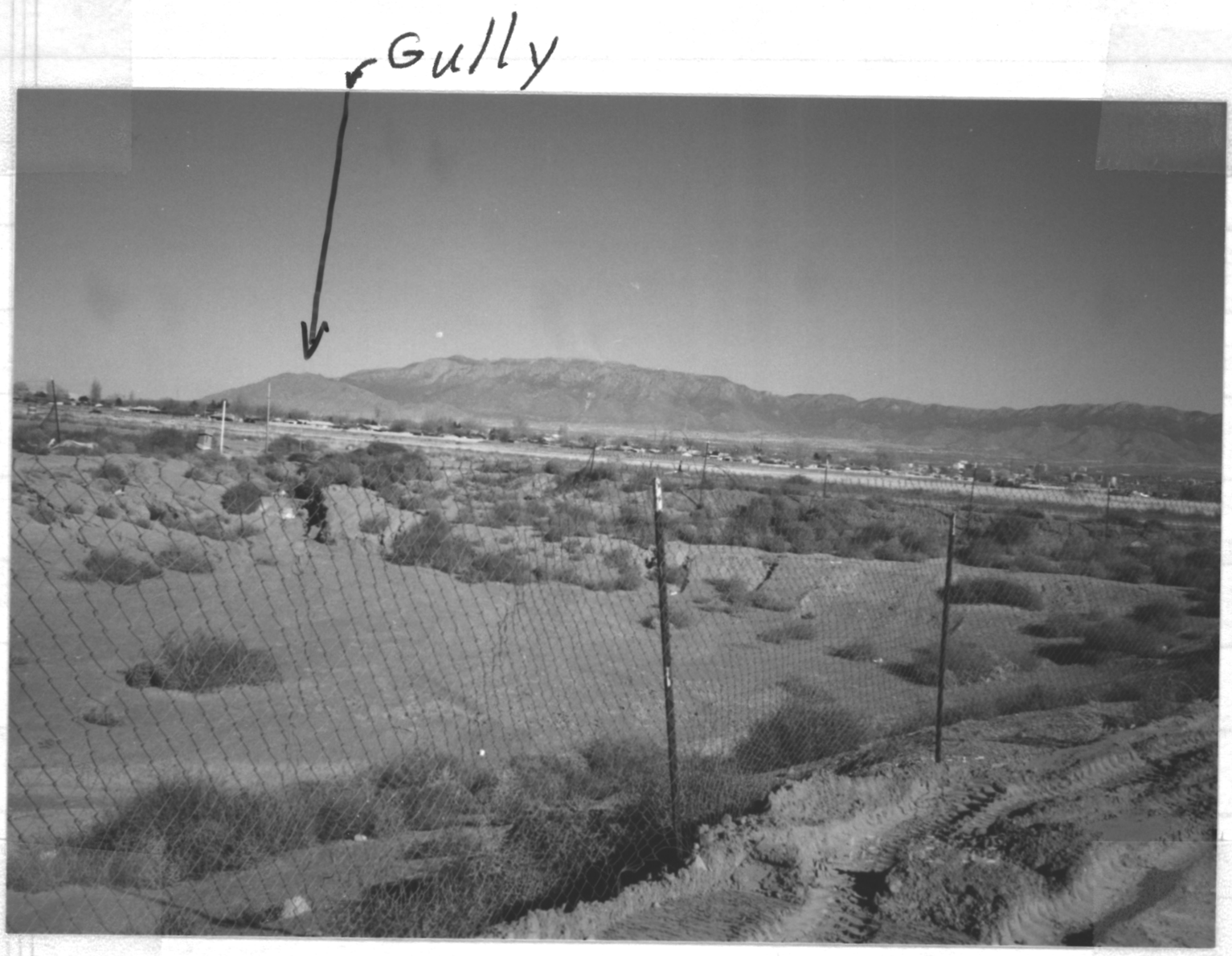
Pointe West (CL-9/D10)

JPC 12-12-96

#12

Looking N From Dunhill Ave at Fill dirt in West End of Pond.

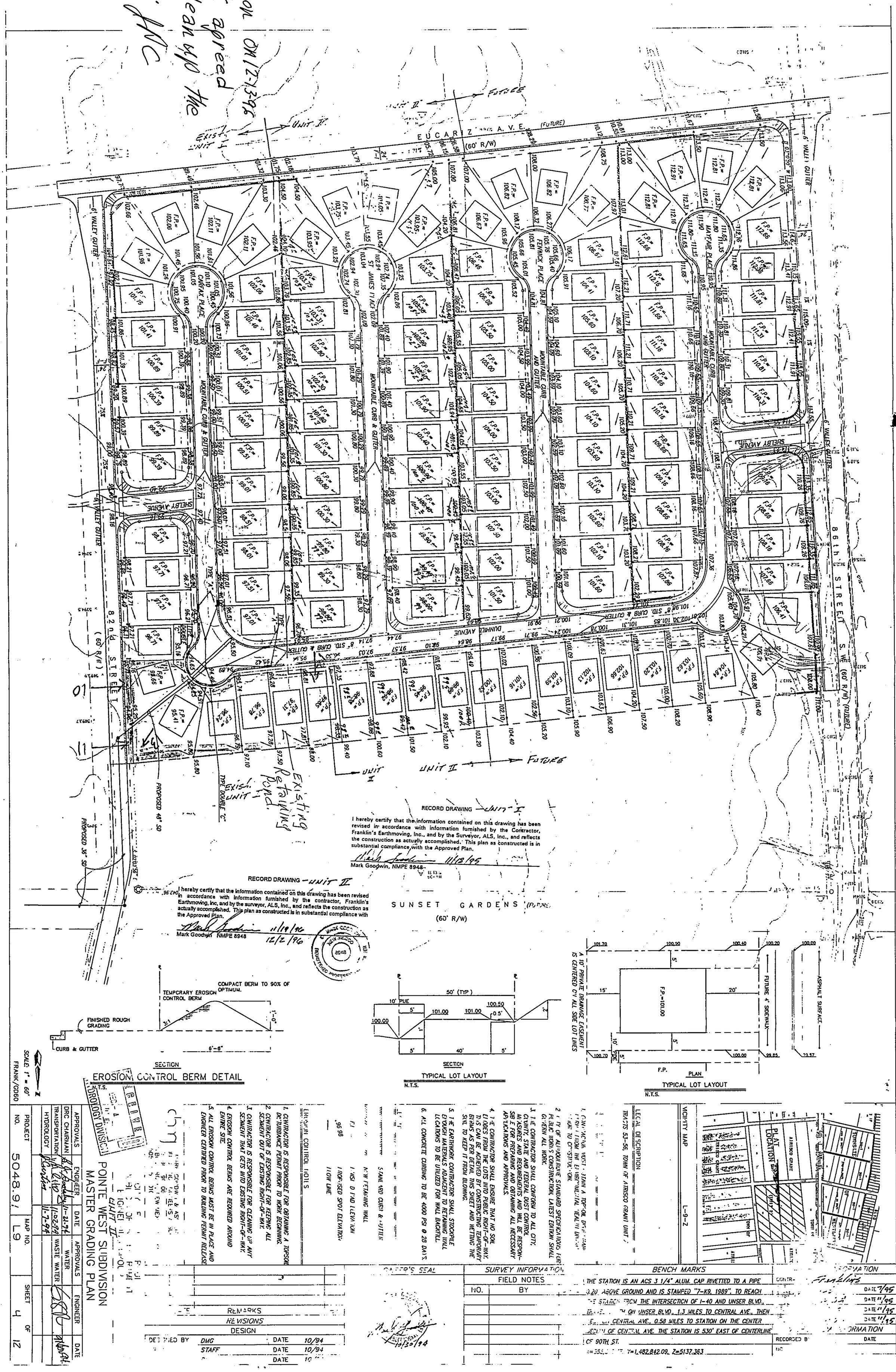
#13



Looking NE From Dunhill Ave

Gully at NE Corner appears to be caused by runoff from Street

Telecon OM 12-13-96
Mark agreed to clean up the pond. JNC



RECORD DRAWING — UNIT I

I hereby certify that the information contained on this drawing has been revised in accordance with information furnished by the Contractor, Franklin's Earthmoving, Inc., and by the Surveyor, ALS, Inc., and reflects the construction as actually accomplished. This plan as constructed is in substantial compliance with the Approved Plan.

Mark Goodwin, NMPE 8948 11/18/95

RECORD DRAWING — UNIT II

I hereby certify that the information contained on this drawing has been revised in accordance with information furnished by the contractor, Franklin's Earthmoving, Inc, and by the surveyor, ALS, Inc., and reflects the construction as actually accomplished. This plan as constructed is in substantial compliance with the Approved Plan.

Mark Goodwin NMPE 8948 11/19/96 12/2/96

COMPACT BERM TO 90% OF OPTIMUM.
TEMPORARY EROSION CONTROL BERM
FINISHED ROUGH GRADING
CURB & GUTTER
3:1
1'-0"
6'-6"
SECTION
EROSION CONTROL BERM DETAIL

50' (TYP)
10' PUE
5'
101.00
100.50
0.5'
100.00
40'
SECTION
TYPICAL LOT LAYOUT
N.T.S.

A 10' PRIVATE DRAINAGE EASEMENT IS CENTERED O'V ALL SIDE LOT LINES
F.P.=101.00
FUTURE 4' SIDEWALK
ASPHALT SURFACE
15'
20'
5'
10' PUE
F.P.
PLAN
TYPICAL LOT LAYOUT
N.T.S.

SCALE: 1" = 60'
FRANK/GD60

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO WORK BEGINNING.
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 ENTIRE SITE.
5. ALL EROSION CONTROL BERMS MUST BE IN PLACE AND ENGINEER CERTIFIED PRIOR TO BUILDING PERMIT RELEASE.

CONTRACTOR SHALL MAINTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION TO CONSTRUCT.
2. COPY 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 EROSION FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL THIS SHEET AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE EARTHWORK CONTRACTOR SHALL STOCKPILE ENOUGH MATERIALS ADJACENT TO RETAINING WALL LOCATIONS TO BE UTILIZED FOR WALL BACKFILL.
6. ALL CONCRETE CURBING TO BE 4000 PSI @ 28 DAYS.

STANDARD CURB & GUTTER
NEW RETAINING WALL
EXISTING GROUND ELEVATION
PROPOSED SPOT ELEVATION
FLOW LINE

LEGAL DESCRIPTION
TRACTS 53-56, TOWN OF ATRISCO GRANT UNIT 2

VICINITY MAP
L-9-Z

PLAT LOCATION
ATRISCO GRANT
TOWNSITE
UNIT 2
TOWN OF ATRISCO

BENCH MARKS
THE STATION IS AN ACS 3 1/4" ALUM. CAP RIVETTED TO A PIPE 0.20 ABOVE GROUND AND IS STAMPED "7-K9, 1989". TO REACH THE STATION FROM THE INTERSECTION OF I-40 AND UNSER BLVD., TRAVEL N ON UNSER BLVD. 1.3 MILES TO CENTRAL AVE., THEN E ON CENTRAL AVE. 0.58 MILES TO STATION ON THE CENTER MEDIAN OF CENTRAL AVE. THE STATION IS 530' EAST OF CENTERLINE OF 90TH ST.
Y=1,482,842.09, Z=5137.363

SURVEY INFORMATION
FIELD NOTES
NO. | BY

SEAL

REMARKS
REVISIONS
DESIGN
DESIGNED BY DMG DATE 10/94
STAFF DATE 10/94
DATE

CHY
POINTE WEST SUBDIVISION
MASTER GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN			WATER		
TRANSPORTATION		11-21-94	WASTE WATER		
HYDROLOGY		11-22-94			
		11-7-94			

PROJECT NO. 5048.91 | MAP NO. L9 | SHEET 4 OF 12

CONTR. Franklin's
DATE 7/95
DATE 11/95
DATE 11/95
DATE 11/95
RECORDED BY
DATE
NO.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Point West - Unit II

ZONEATLAS/DRNG,FILE#: L-9/D-10

DRB#: 94-98 EPC#

WORK ORDER#:

LEGAL DESCRIPTION:

CITY ADDRESS: 82nd and Eucariz SW

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Mark Goodwin
ADDRESS:	P.O. Box 90606 Alb., NM 87199	PHONE:	(505) 345-2010
OWNER:	RexCor, Inc.	CONTACT:	Coralie Franklin
ADDRESS:	1611 Francisca NW Alb., NM 87107	PHONE:	(505) 352-2133
ARCHITECT:	N/A	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:	Aldrich Land Surveying	CONTACT:	Tim Aldrich
ADDRESS:	P.O. Box 30701Alb., NM 87190	PHONE:	(505) 884-1990
CONTACTOR:	Franklin's Earthmoving, Inc.	CONTACT:	John Ellis
ADDRESS:	2425 Jefferson NE Alb., NM 87110	PHONE:	(505) 884-6947

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL
- X ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APRROVAL
- ___ PRELIMINARY PLAT APRROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- X OTHER (Release of Finacial Guarntee)

DATE SUBMITTED: 12/2/96

BY: Mark Goodwin

RECEIVED
DEC - 4 1996
HYDROLOGY DIVISION

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 345-2010

December 3, 1996

Mr. John P. Curtin, PE
Hydrology Division
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Pointe West, Unit II (L-9/D10)

Dear Mr. Curtin:

We are in receipt of your letter dated 11/25/96 and offer the following:

1. *We are attaching a copy of the Unit I certification that indicated the pond. At that time the temporary pond was constructed to its ultimate size. No additional work was performed in Unit II.*

2. *Due to the confusion over Lot 10, we have had the surveyor, ALS, Inc., verify this situation once and for all. I hereby certify that Lot 10 is indeed part of the pond. We have revised our drawing accordingly.*

With this response, we respectfully request Release of the Financial Guarantee. Please contact our office if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Mark Goodwin, PE
President

DMG/sb

b:\ptwest.2\comments.pnd

RECEIVED
DEC - 4
HYDROLOGY

D.R.B. Case No. 94-98
D.R.C. Project No. _____
Date Submitted 7/26/94
Prelim. Plat Approved 7/26/94
Prelim. Plat Expires _____
Drainage File No. L-9-D10

Figure 12

EXHIBIT "A"
To Subdivision Improvements Agreement
DEVELOPMENT REVIEW BOARD (DRB) REQUIRED INFRASTRUCTURE LISTING
for Pointe West Subdivision

Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development. This summary is not necessarily a complete listing. During the design process, if the City determines that appurtenant items have not been included in the summary, those items will be included in the listing and related financial guarantee, if the items normally are the Subdivider responsibility. In addition, any unforseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility are the responsibility of the Subdivider and will be included in the financial guarantee provided to the City.

Size	Type Improvement	Location	From	To
		UNIT I		
20'	Residential Paving	Eucariz	Lot 10, Blk 2	82nd Street
4'	Temporary Paving	Eucariz	Lot 10, Blk 2	82nd Street
--	Standard Curb & Gutter	Eucariz	Lot 10, Blk 2	82nd Street
6'	Sidewalk (One Side)	Eucariz	Lot 10, Blk 2	82nd Street
20'	Residential Paving	82nd Street	Eucariz	North Boundary
4'	Temporary Paving	82nd Street	Eucariz	North Boundary
--	Standard Curb & Gutter	82nd Street	Eucariz	North Boundary
6'	Sidewalk (One Side)	82nd Street	Eucariz	North Boundary
32' FF	Residential Paving	Shelby Avenue	Carfax	82nd Street
--	Curb & Gutter	Shelby Avenue	Carfax	82nd Street
4' *	Sidewalks (Both Sides)	Shelby Avenue	Carfax	82nd Street
32' FF	Residential Paving	Dunhill Avenue	Lot 9, Blk 1	Carfax
--	Curb & Gutter	Dunhill Avenue	Lot 9, Blk 1	Carfax
4' *	Sidewalks (Both Sides)	Dunhill Avenue	Lot 9, Blk 1	Carfax
32' ~~26'~~ FF	Residential Paving	Carfax Place	~~Cul-de-sac~~ Shelby	Dunhill Avenue
--	Curb & Gutter	Carfax Place	Cul-de-sac	Dunhill Avenue
4' *	Sidewalks (Both Sides)	Carfax Place	Cul-de-sac	Dunhill Avenue
26' FF	Residential	Carfax	Shelby	Cul-de-sac
24'	Temporary Paving	82nd Street	North Boundary	Bridge Street
8"	Waterline PVC	82nd Street	Eucariz	North Boundary
6"	Waterline PVC	50' Utility Easement	86th Street	Dunhill Avenue
6"	Waterline PVC	Dunhill Avenue	Lot 9, Blk 1	Carfax
6"	Waterline PVC	Carfax	Cul-de-sac	Dunhill Avenue
6"	Waterline PVC	Shelby Avenue	Carfax	82nd Street
12"	Waterline PVC	Eucariz	Lot 10, Blk 2	82nd Street
6"	Waterline	Dunhill	CarFAX	Unit II

D.R.B. Case No. _____
D.R.C. Project No. _____
Date Submitted _____
Prelim. Plat Approved _____
Prelim. Plat Expires _____

Size	Type Improvement	Location	From	To
8"	SAS Gravity Line	82nd Street	Tower	North Boundary
8"	SAS Gravity Line	Dunhill Road	Lot 9 ~~Lot 4~~, Blk 1	Carfax
8"	SAS Gravity Line	Carfax	Cul-de-sac	Dunhill Avenue
8"	SAS Gravity Line	Shelby Avenue	Carfax	82nd Street
8"	SAS Gravity Line	Eucariz	Lot 10, Blk 2	82nd Street
42"	Storm Drain	15' Drainage Easement	Carfax	82nd Street
36"	Storm Drain	82nd Street	North Boundary	Sunset Gardens
36"	Storm Drain	Sunset Gardens	82nd Street	Unser
60"	Storm Drain	Unser	Sunset Gardens	Amole Channel
		UNIT II		
26' FF	Residential Paving	St. James Place	Cul-de-sac	Dunhill Avenue
--	Curb & Gutter	St. James Place	Cul-de-sac	Dunhill Avenue
4' *	Sidewalk (Both Sides)	St. James Place	Cul-de-sac	Dunhill Avenue
32' FF	Residential Paving	Dunhill Avenue	Lot 14, Blk 1	Lot 9, Blk 1
--	Curb & Gutter	Dunhill Avenue	Lot 14, Blk 1	Lot 9, Blk 1
4' *	Sidewalks (Both Sides)	Dunhill Avenue	Lot 14, Blk 1	Lot 9, Blk 1
20'	Residential Paving	Eucariz	Lot 36, Blk 2	Lot 10, Blk 2
4'	Temporary Paving	Eucariz	Lot 36, Blk 2	Lot 10, Blk 2
--	Standard Curb & Gutter	Eucariz	Lot 36, Blk 2	Lot 10, Blk 2
6'	Sidewalk (One Side)	Eucariz	Lot 36, Blk 2	Lot 10, Blk 2
6"	Waterline	Dunhill	Unit I	Unit III
~~12"~~	~~Waterline PVC~~	~~Eucariz~~	~~Lot 36, Blk 2~~	~~Lot 10, Blk 2~~
6"	Waterline PVC	St. James Place	Cul-de-sac	Dunhill Avenue
8"	SAS Gravity Line	Eucariz	Lot 36, Blk 2	Lot 10, Blk 2
8"	SAS Gravity Line	St. James Place	Cul-de-sac	Dunhill Avenue
8"	SAS	Dunhill	Unit III	Unit I
		UNIT III		
26' FF	Residential Paving	Fenwick Place	Cul-de-sac	Dunhill Avenue
--	Curb & Gutter	Fenwick Place	Cul-de-sac	Dunhill Avenue
4' *	Sidewalk (Both Sides)	Fenwick Place	Cul-de-sac	Dunhill Avenue
32' FF	Residential Paving	Dunhill Avenue	Mayfair	Lot 14, Blk 1
--	Curb & Gutter	Dunhill Avenue	Mayfair	Lot 14, Blk 1
4' *	Sidewalk (Both Sides)	Dunhill Avenue	Mayfair	Lot 14, Blk 1
32 ~~26'~~ FF	Residential Paving	Mayfair Place	Shelby ~~Lot 94, Blk 2~~	Dunhill Avenue
--	Curb & Gutter	Mayfair Place	Lot 94, Blk 2	Dunhill Avenue
4' *	Sidewalk (Both Sides)	Mayfair Place	Lot 94, Blk 2	Dunhill Avenue
26' FF	Residential	Mayfair	Shelby	Cul-de-sac
32' FF	Residential Paving	Dunhill Avenue	86th Street	Mayfair
--	Curb & Gutter	Dunhill Avenue	86th Street	Mayfair
4' *	Sidewalk (Both Sides)	Dunhill Avenue	86th Street	Mayfair

D.R.B. Case No. _____
D.R.C. Project No. _____
Date Submitted _____
Prelim. Plat Approved _____
Prelim. Plat Expires _____

Size	Type Improvement	Location	From	To
20′	Residential Paving	Eucariz	Lot 62, Blk 2	Lot 36, Blk 2
4′	Temporary Paving	Eucariz	Lot 62, Blk 2	Lot 36, Blk 2
--	Standard Curb & Gutter	Eucariz	Lot 62, Blk 2	Lot 36, Blk 2
6′	Sidewalk (One Side)	Eucariz	Lot 62, Blk 2	Lot 36, Blk 2
25′	Residential Paving	86th Street	Lot 94, Blk 2	North Boundary
--	Standard Curb & Gutter	86th Street	Lot 94, Blk 2	North Boundary
6′	Sidewalk (One Side)	86th Street	Lot 94, Blk 2	North Boundary
6"	Waterline	Shelby	Dunhill	86th
~~12"~~	~~Waterline PVC~~	~~Eucariz~~	~~Lot 62, Blk 2~~	~~Lot 36, Blk 2~~
6"	Waterline PVC	Fenwick Place	Cul-de-sac	Dunhill Avenue
6"	Waterline PVC	Mayfair	Lot 94, Blk 2	Dunhill Avenue
8"	SAS Gravity Line	Eucariz	Lot 62, Blk 2	Lot 36, Blk 2
8"	SAS Gravity Line	Dunhill	Mayfair	Lot 14, Blk 1
8"	SAS Gravity Line	Fenwick Place	Cul-de-sac	Dunhill Avenue
8"	SAS Gravity Line	Mayfair Place	~~Lot 94, Blk 2~~ Unit II	~~Dunhill Avenue~~ Unit II
8"	SAS Gravity Line	86th Street	Lot 94, Blk 2	North Boundary
6"	waterline	Dunhill	Unit I	Shelby

UNIT IV

26′ FF	Residential Paving	Mayfair Place	Cul-de-sac	Lot 94, Blk 2
--	Curb & Gutter	Mayfair Place	Cul-de-sac	Lot 94, Blk 2
4′ *	Sidewalk (Both Sides)	Mayfair Place	Cul-de-sac	Lot 94, Blk 2
20′	Residential Paving	Eucariz	86th Street	Lot 62, Blk 2
4′	Temporary Paving	Eucariz	86th Street	Lot 62, Blk 2
--	Standard Curb & Gutter	Eucariz	86th Street	Lot 62, Blk 2
6′	Sidewalk (One Side)	Eucariz	86th Street	Lot 62, Blk 2
25′	Residential Paving	86th Street	Eucariz	Lot 94, Blk 2
--	Standard Curb & Gutter	86th Street	Eucariz	Lot 94, Blk 2
6′	Sidewalk (One Side)	86th Street	Eucariz	Lot 94, Blk 2
~~12"~~	~~Waterline PVC~~	~~Eucariz~~	~~86th Street~~	~~Lot 62, Blk 2~~
6"	Waterline PVC	Mayfair Place	Cul-de-sac	~~Lot 94, Blk 2~~ Unit III
8"	SAS Gravity Line	Eucariz	86th Street	Lot 62, Blk 2
8"	SAS Gravity Line	86th Street	Eucariz	~~Lot 94, Blk 2~~
8"	SAS Gravity Line	Mayfair	Cul-de-sac	~~Lot 94, Blk 2~~ Unit III

Storm Drain includes catch basins, manholes and appurtenances.

Sanitary Sewer includes manholes and service connections.

Waterlines include valves, fittings, boxes, fire hydrants and service connections.

Residential Street lights per DPM

Engineer's certification for Grading per DPM, including Private Retaining Walls as shown on the Grading Plan for release of SIA and Financial Guarantees.

* Internal Sidewalks deferred.

D.R.B. Case No. _____
D.R.C. Project No. _____
Date Submitted _____
Prelim. Plat Approved _____
Prelim. Plat Expires _____

Prepared By: _____

Print Name: Mark Goodwin, PE

Firm: Mark Goodwin and Associates, PA

* * * *

CITY OF
Albuquerque

November 25, 1996

Martin J. Chávez, Mayor

Mark Goodwin, PE
Mark Goodwin & Assoc
PO Box 90606
Albuquerque, NM 87199

RE: ENGINEER'S CERTIFICATION FOR POINTE WEST, UNIT 2 (L-9/D10)
RECEIVED NOVEMBER 19, 1996 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 11/19/96

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology has the following comments that must be addressed:

Indicate the retention pond on the Certification. Calculate the as-built volume. Verify that the as-built volume is adequate. The Agreement & Covenant indicates that the lot at the northeast corner of Unit 2 is part of the retention pond. Why does it have an as-built pad elevation?

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer, Hydrology

Good for You, Albuquerque!

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Point West - Unit II

ZONEATLAS/DRNG,FILE#: L-9/D-10

DRB#: 94-98 EPC#

WORK ORDER#:

LEGAL DESCRIPTION:

CITY ADDRESS: 82nd and Eucariz SW

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Mark Goodwin
ADDRESS:	P.O. Box 90606 Alb., NM 87199	PHONE:	(505) 345-2010
OWNER:	RexCor, Inc.	CONTACT:	Coralie Franklin
ADDRESS:	1611 Francisca NW Alb., NM 87107	PHONE:	(505) 352-2133
ARCHITECT:	N/A	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:	Aldrich Land Surveying	CONTACT:	Tim Aldrich
ADDRESS:	P.O. Box 30701Alb., NM 87190	PHONE:	(505) 884-1990
CONTACTOR:	Franklin's Earthmoving, Inc.	CONTACT:	John Ellis
ADDRESS:	2425 Jefferson NE Alb., NM 87110	PHONE:	(505) 884-6947

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL
- X ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

RECEIVED
NOV 19 1996
HYDROLOGY DIVISION

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APRROVAL
- ___ PRELIMINARY PLAT APRROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- X OTHER (Release of Finacial Guarntee)

DATE SUBMITTED: 11/19/96

BY: Mark Goodwin

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 6, 1995

Mark Goodwin, PE
Mark Goodwin & Assoc
PO Box 90606
Albuquerque, NM 87199

RE: ENGINEER'S CERTIFICATION FOR POINTE WEST, UNIT 1 (L-9/D10)
RECEIVED NOVEMBER 22, 1995 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 11/12/95

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology accepts the Engineer's Certification of grading & drainage, including the temporary retention pond, for Financial Guaranty Release. Contact Billy Goolsby to obtain the Financial Guaranty Release for City Project Number 5048.90.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer, Hydrology

c: Andrew Garcia
Billy Goolsby, CPN 5048.90

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE INFORMATION SHEET

29/610

PROJECT TITLE: Pointe West Subdivision Unit I ZONE ATLAS/DRNG,FILE#: ~~L9 & 10~~

DRB #: 94-98 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tracts 53-56, Town of Atrisco Unit 2

CITY ADDRESS: Eucariz between 86th & 82nd

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE

ADDRESS: PO Box 90606 PHONE: 345-2010

OWNER: REXCOR, Inc. CONTACT: Coralie Franklin

ADDRESS: 1611 Francisca NE PHONE: 242-2182

ARCHITECT: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich

ADDRESS: PO Box 30701 PHONE: 884-1990

CONTRACTOR: Franklins CONTACT: John Ellis

ADDRESS: _____ PHONE: 884-6947

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- X ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- X OTHER Eng Cert (Specify)

DATE SUBMITTED: 11/18/95

BY: Mark Goodwin

Mark Goodwin, PE

RECEIVED NOV 22 1995

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 1, 1994

Mark Goodwin, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, N.M. 87199

RE: GRADING & DRAINAGE PLAN FOR POINTE WEST SUBD (L-9/D10)
RECEIVED OCTOBER 21, 1994 FOR FINAL PLAT & WORK ORDER APPROVAL
ENGINEER'S STAMP DATED 10/20/94

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology approves this project for Final Plat & Work Order.

Engineer's Certification of grading & drainage per DPM checklist must be approved before the Financial Guaranty will be released.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Fred Aguirre, DRB 94-98
Andrew Garcia

WPHYD/8581/jpc

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Pointe West Subdivision ZONE ATLAS/DRNG,FILE#: L9/D10

DRB #: 94-98 EPC #: WORK ORDER #:

LEGAL DESCRIPTION: Tracts 53-56, Town of Atrisco Unit 2

CITY ADDRESS: Eucariz between 86th & 82nd

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE

ADDRESS: PO Box 90606 PHONE: 345-2010

OWNER: REXCOR, Inc. CONTACT: Coralie Franklin

ADDRESS: 1611 Francisca NE PHONE: 242-2182

ARCHITECT: N/A CONTACT:

ADDRESS: PHONE:

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich

ADDRESS: PO Box 30701 PHONE: 884-1990

CONTRACTOR: N/A CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- X FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- X OTHER Work Order (Specify)

DATE SUBMITTED: 10/20/94

BY: Mark Goodwin

Mark Goodwin, PE

RECEIVED
OCT 21 1994
DIVISION

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 345-2010

October 20, 1994

Mr. John Curtin
Hydrology Division
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87199

Re: Pointe West Subdivision (L-9/D10)

Dear Mr. Curtin:

Attached please find the revised Grading and Drainage Plans and the Plat for the referenced project. We offer the following comments concerning your letter dated 10/14/94:

1. *Typical lot layout and Plat Sheet No.2 call out a 10 foot Private Drainage Easement on all side lots lines.*

2. *Lot layouts have been revised to show maximum depths and elevation differences. We checked the 2nd & 3rd lots and found 1.5 feet of fall in 5 feet for a slope flatter than 3:1. This seems sufficient.*

With this response, we hereby request Final Plat and Work Order approval. Please contact me if I can be of further assistance.

Sincerely,

MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin

Mark Goodwin, P.E.

DMG:smr

Attachment

RECEIVED
OCT 21 1994

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 14, 1994

Mark Goodwin, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, N.M. 87199

RE: DRAINAGE REPORT FOR POINTE WEST SUBD (L-9/D10)
RECEIVED SEPTEMBER 28, 1994 FOR FINAL PLAT & WORK ORDER APPROVAL
ENGINEER'S STAMP DATED 9/8/94

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology has the following comments that must be addressed prior to Final Plat & Work Order approval:

1. The Typical Lot Layout indicates that adjacent lots are using a common side yard swale. Since this mixes the runoff, a 10' private drainage easement centered on the property line is required. This must be indicated on the Typical Lot Layout and noted on the Plat.

2. The Layout section is assumed to be cut at the front of the pad. It should indicate the minimum depth of the swale and the maximum elevation change between pads. Check whether the 2nd & 3rd lots from the north boundary along 86th Street require a retaining wall between them.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Fred Aguirre
Andrew Garcia

WPHYD/8581/jpc

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE INFORMATION SHEET

L9/D10

PROJECT TITLE: Pointe West Subdivision ZONE ATLAS/DRNG,FILE#: L9 & 10

DRB #: 94-98 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tracts 53-56, Town of Atrisco Unit 2

CITY ADDRESS: Eucariz between 86th & 82nd

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE

ADDRESS: PO Box 90606 PHONE: 345-2010

OWNER: REXCOR, Inc. CONTACT: Coralie Franklin

ADDRESS: 1611 Francisca NE PHONE: 242-2182

ARCHITECT: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich

ADDRESS: PO Box 30701 PHONE: 884-1990

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- X FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- X OTHER Work Order (Specify)

DATE SUBMITTED: 9/12/94

BY: Mark Goodwin

Mark Goodwin, PE

RECEIVED SEP 28 1994

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 345-2010

September 8, 1994

Mr. John Curtin
Hydrology Division
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87199

Re: Pointe West Subdivision (L-9/D6)

Dear Mr. Curtin:

Attached please find the revised Unit I Grading Plan and the proposed Storm Drain Layout. We offer the following response to your letter of 7/12/94:

1. *Temporary Retention Pond has been re-graded and re-computed and is now consistent. Depth is less than 10 feet.*

2. *Finished pad on St. James Place has been raised.*

With this submittal, we are requesting Final Plat and Work Order approvals. Please contact our office if you have any further questions or comments.

Sincerely,

MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin, P.E.

DMG:smr

Attachment

SEP 2 8 1994

Since site cannot discharge overland, inlets and storm drain need to be sized for 2-100 Year events:

Carfax : Q = 13 cfs Q(design) = 26 cfs
Dunhill : Q = 51 cfs Q(design) = 102 cfs
Outfall : Q (design) = 128 cfs

Dunhill :

2-"A" inlets upstream
$S_{AVG.}$ = 1.5% 32' FF Q = 102 cfs
D = 0.72' Q intercept = 14 cfs EA.

Remainder of inlets are essentially in a sump:

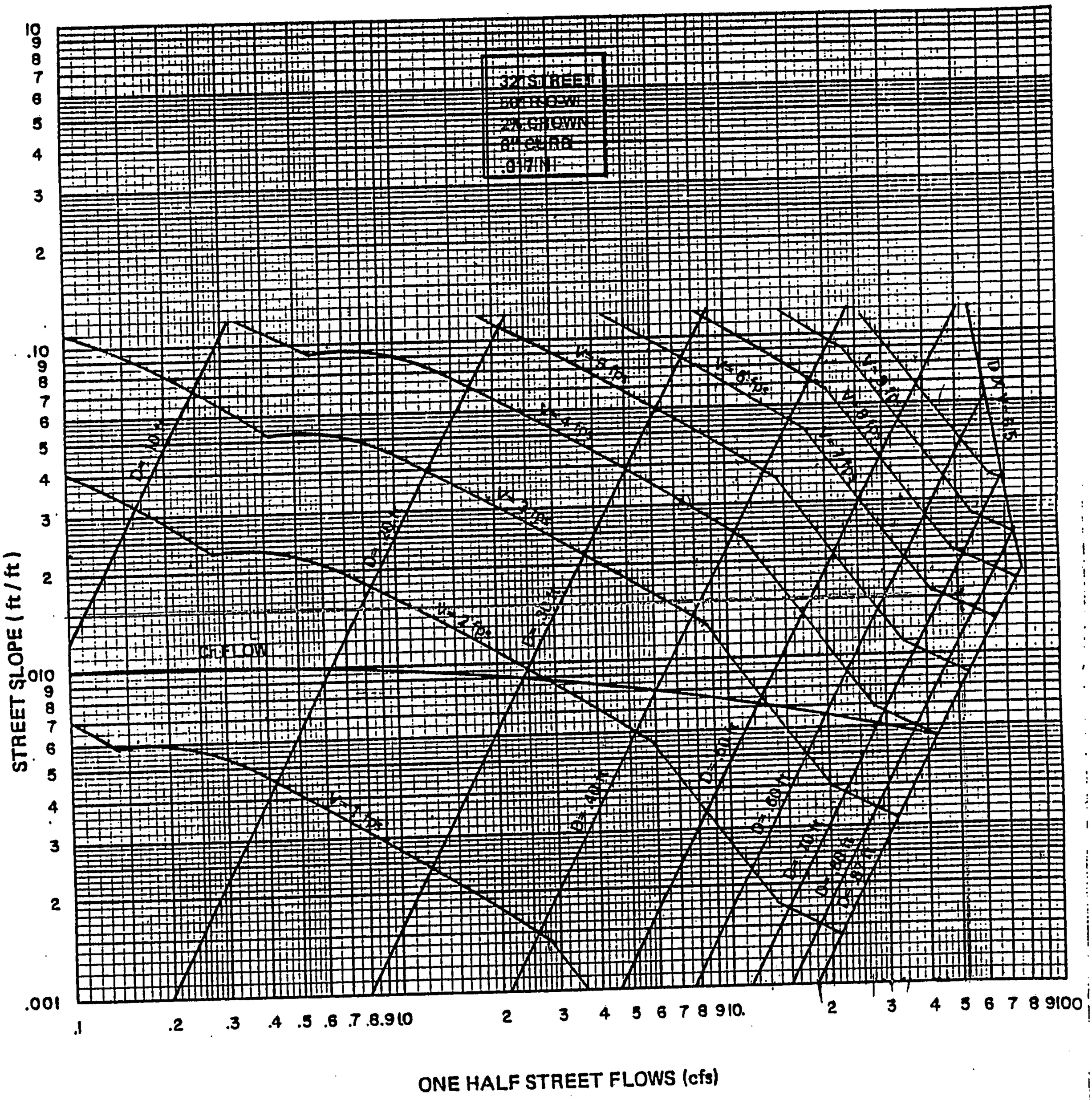
Q (remaining) = 102 - 28 = 74 cfs
will act as weirs
$Q = CLH^{3/2}$ H = 0.87' L = 30'
4 Double "C" @ 7'-4 3/4" = 29.68 Close enough
Q/inlet = 18.5 cfs → requires 24" Laterals

CARFAX :

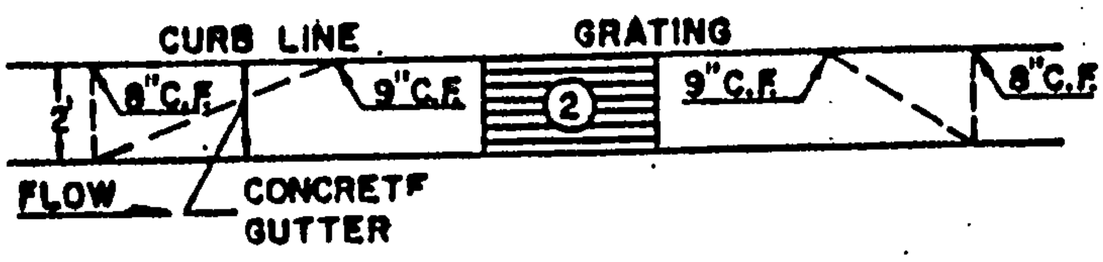
2 - A inlets upstream
S = 2% 32' FF Q = 26 cfs
D = 0.43' Q(intercept) = 9 Ea.

Remaining 7 cfs intercepted by 4-Double "C" in knuckle.

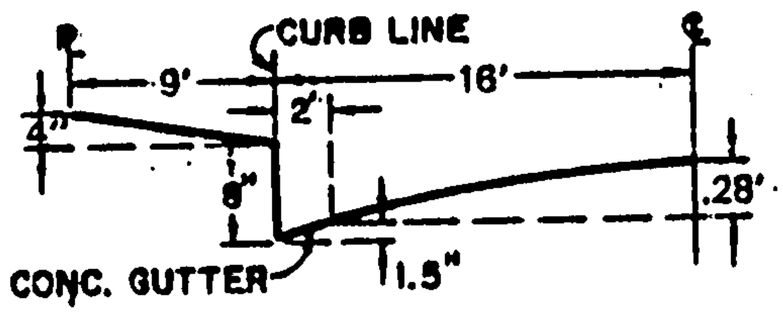
STREET CAPACITY



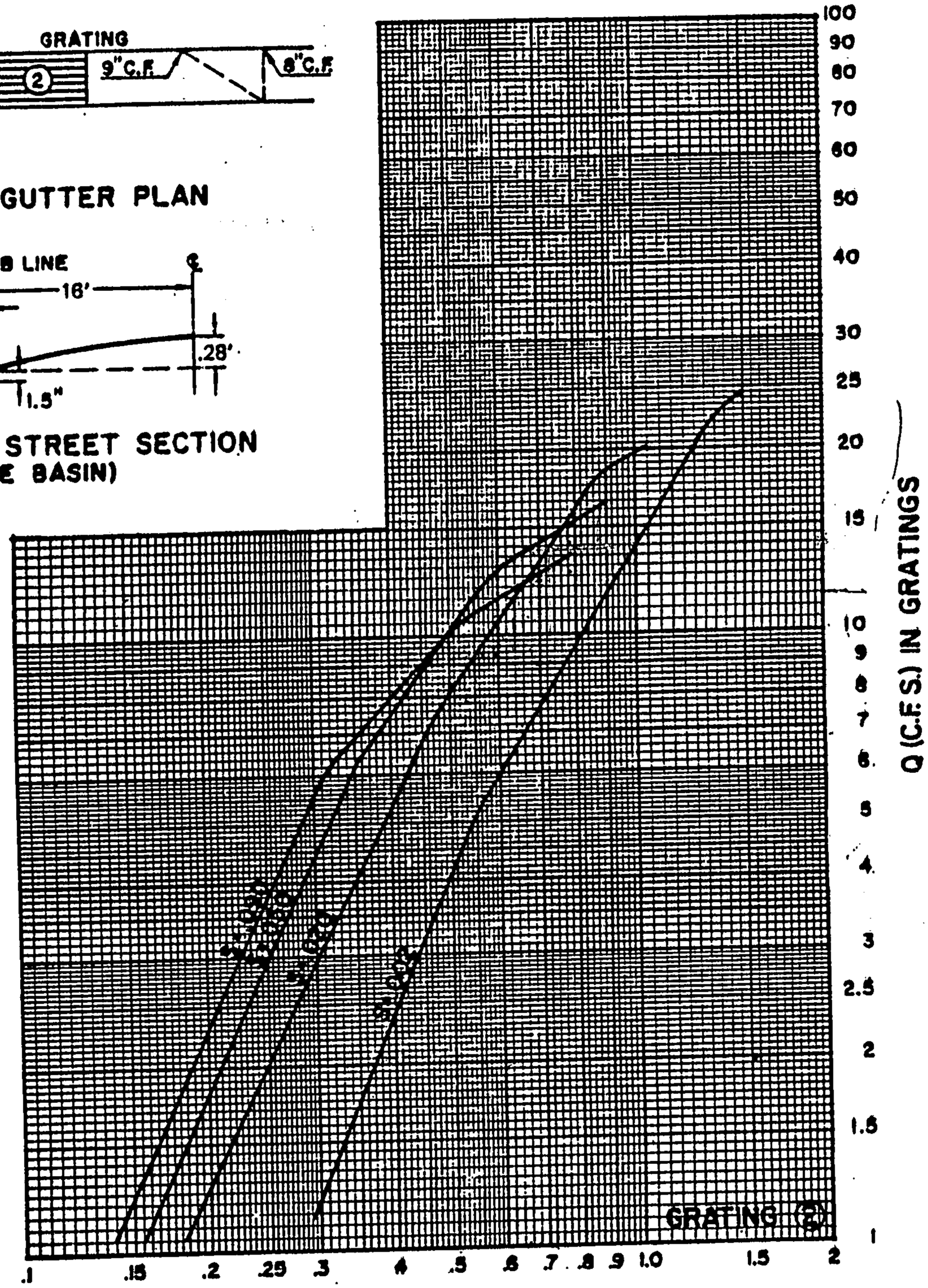
GRATING CAPACITIES FOR TYPE "A", "C" and "D"



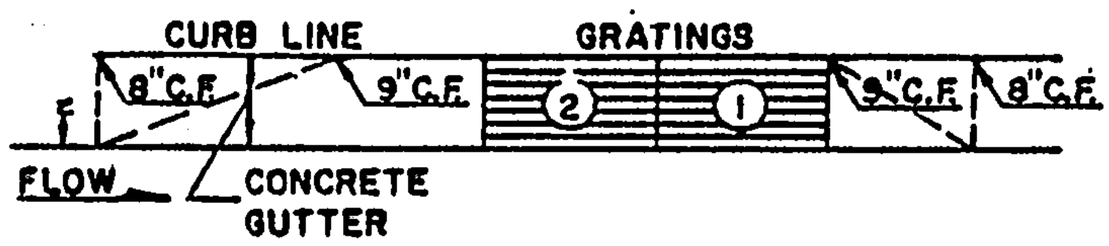
GRATING & GUTTER PLAN



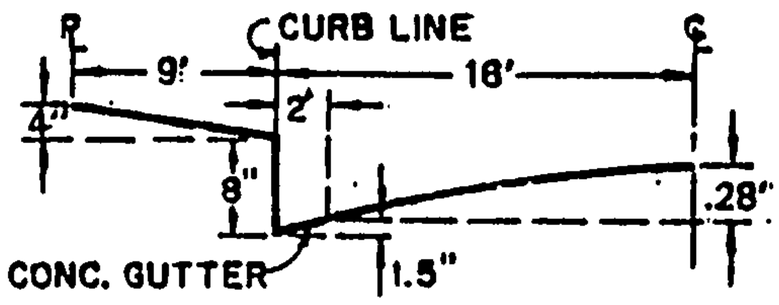
TYPICAL HALF STREET SECTION
(ABOVE BASIN)



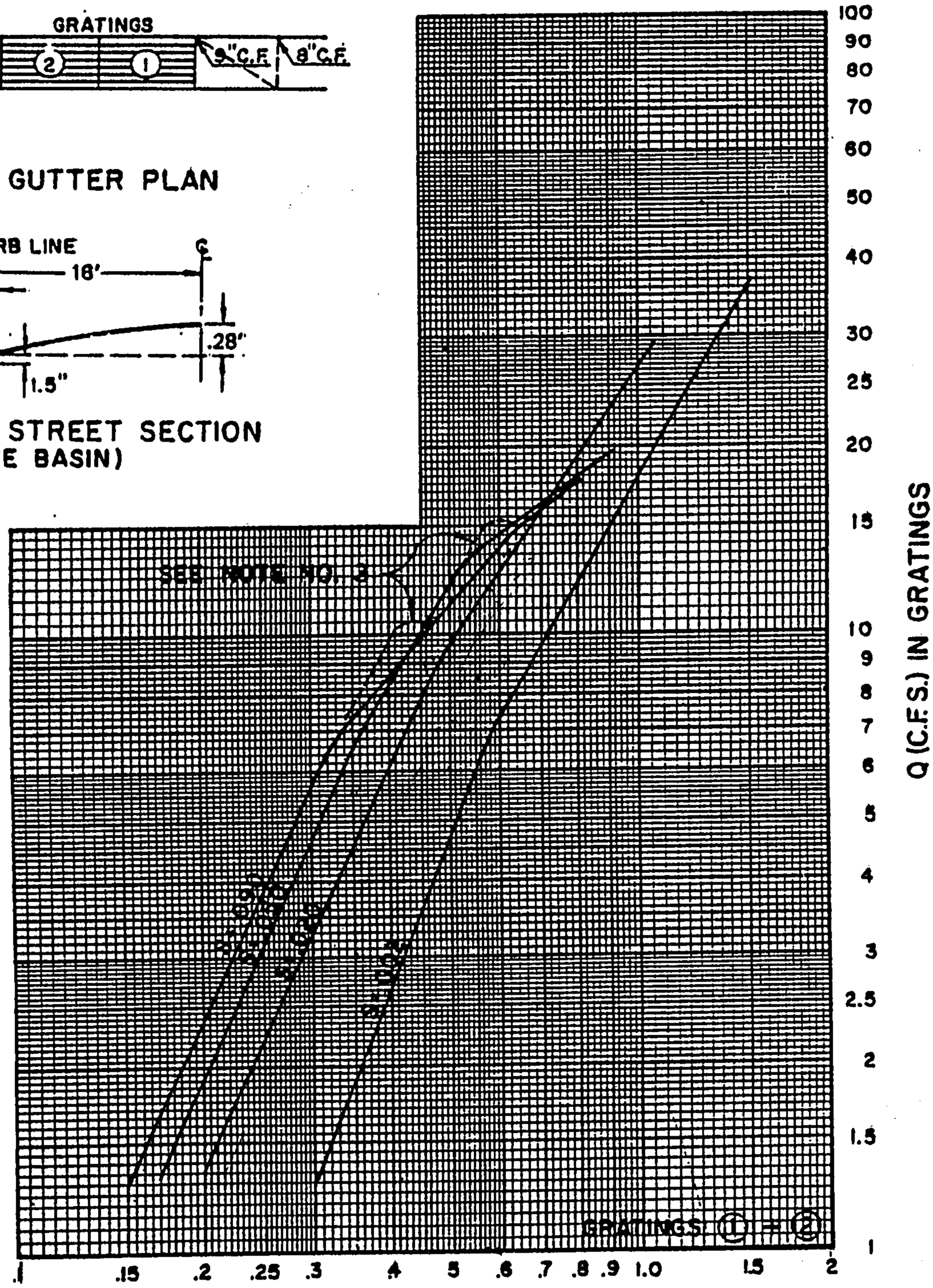
GRATING CAPACITIES FOR TYPE DOUBLE "C," AND "D"



GRATING & GUTTER PLAN



TYPICAL HALF STREET SECTION
(ABOVE BASIN)



D = DEPTH OF FLOW (FT.) ABOVE NORMAL GUTTER GRADE

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Pointe West
SUBJECT Drainage
BY MG DATE 9/8/94
CHECKED _____ DATE _____
SHEET 6 OF 6

Ponding Area needs to be refined.
Vol. (REQ'D) = 5.13 Ac-Ft.

Elev.	Δ	Area	Avg. Area	Accum. Vol.
85		17,500		
	1		18,850	18,850
86		20,200		
	1		21,532	40,382
87		22,863		
	1		24,132	64,514
88		25,400		
	1		26,500	91,014
89		27,600		
	1		28,763	119,777
90		29,925		
	1		30,913	150,690
91		31,900		
	1		33,050	183,740
92		34,200		
	1		35,975	219,715
93		37,750		
	0.5		38,075	257,790
93.5		38,400		

Vol. Provided = 5.92 Ac-Ft.
MAX. H_2O Elev. = 93.29
MAX. Depth = 8.29'

CARFAX

HYDRAULIC ANALYSIS

Run date: 09-08-1994
File:

Return Period = 100 Yrs
Rainfall file: Your_County

LINE 1 / Q = 18.0 / HT = 30 / WID = 30 / N = .013 / L = 46.03 / JLC = .25

1 / Outfall

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	94.03	30.00	87.42	3.67	94.24	0.00	N/A	4.91
UPSTRM	94.12	30.00	87.65	3.67	94.33	0.00	4.4	4.91

Drainage area (ac)	= 0	Slope of invert (%)	= 0.500
Runoff coefficient	= 0	Slope energy grade line (%)	= 0.193
Time of conc (min)	= 0	Critical depth (in)	= 17.01
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 1.1
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 1.9
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 18	Confluence angle (deg)	= 0
Default Q (cfs)	= 18	Natural ground elev (ft)	= 94.55
Line capac. (cfs)	= 29.0	Line storage (cuft)	= 226

LINE 2 / Q = 9.0 / HT = 18 / WID = 18 / N = .013 / L = 54.17 / JLC = .25

2 / DNLN = 1

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	94.17	18.00	89.90	5.09	94.57	0.00	3.15	1.77
UPSTRM	94.67	18.00	91.00	5.09	95.07	0.00	3.19	1.77

Drainage area (ac)	= 0	Slope of invert (%)	= 2.031
Runoff coefficient	= 0	Slope energy grade line (%)	= 0.735
Time of conc (min)	= 0	Critical depth (in)	= 13.74
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 0.6
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 1.0
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 9	Confluence angle (deg)	= 0
Default Q (cfs)	= 9	Natural ground elev (ft)	= 95.69
Line capac. (cfs)	= 15.0	Line storage (cuft)	= 96

Dunhill

HYDRAULIC ANALYSIS

Run date: 09-08-1994
File:

Return Period = 100 Yrs
Rainfall file: Your_County

LINE 1 / Q = 128.0 / HT = 48 / WID = 48 / N = .013 / L = 25 / JLC = .25

1 / Outfall

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	93.29	48.00	86.45	10.19	94.90	0.00	N/A	12.56
UPSTRM	93.49	48.00	86.82	10.19	95.10	0.00	4.18	12.57

Drainage area (ac)	= 0	Slope of invert (%)	= 1.480
Runoff coefficient	= 0	Slope energy grade line (%)	= 0.794
Time of conc (min)	= 1	Critical depth (in)	= 40.14
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 8.0
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 13.7
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 128	Confluence angle (deg)	= 0
Default Q (cfs)	= 128	Natural ground elev (ft)	= 95
Line capac. (cfs)	= 174.8	Line storage (cuft)	= 314

LINE 2 / Q = 91.0 / HT = 48 / WID = 48 / N = .013 / L = 33.67 / JLC = .5

2 / DNLN = 1

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	93.89	48.00	86.87	7.24	94.71	0.00	4.12	12.56
UPSTRM	94.03	48.00	87.37	7.24	94.84	0.00	3.04	12.57

Drainage area (ac)	= 0	Slope of invert (%)	= 1.485
Runoff coefficient	= 0	Slope energy grade line (%)	= 0.401
Time of conc (min)	= 1	Critical depth (in)	= 33.85
Inlet time (min)	= 0	Req'd length curb inlet (ft)	= 5.7
Intensity (in/hr)	= 0.00	Req'd grate area (sf)	= 9.8
Cumulative C*A	= 0.0	Depth at inlet opening (in)	= 36
Flow contrib (cfs)	= 91	Confluence angle (deg)	= 30
Default Q (cfs)	= 91	Natural ground elev (ft)	= 94.42
Line capac. (cfs)	= 175.0	Line storage (cuft)	= 423

LINE 3 / Q = 28.0 / HT = 36 / WID = 36 / N = .013 / L = 31.84 / JLC = .25

3 / DNLN = 2

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	94.43	36.00	87.87	3.96	94.68	0.00	3.54	7.07
UPSTRM	94.49	36.00	88.03	3.96	94.73	0.00	3.77	7.07

Drainage area (ac) =	0	Slope of invert (%) =	0.503
Runoff coefficient =	0	Slope energy grade line (%) =	0.176
Time of conc (min) =	0	Critical depth (in) =	20.23
Inlet time (min) =	0	Req'd length curb inlet (ft) =	1.7
Intensity (in/hr) =	0.00	Req'd grate area (sf) =	3.0
Cumulative C*A =	0.0	Depth at inlet opening (in) =	36
Flow contrib (cfs) =	28	Confluence angle (deg) =	0
Default Q (cfs) =	28	Natural ground elev (ft) =	94.8
Line capac. (cfs) =	47.3	Line storage (cuft) =	225

LINE 4 / Q = 14.0 / HT = 24 / WID = 24 / N = .013 / L = 60.25 / JLC = .25

4 / DNLN = 3

	HGL	DEPTH	INVERT	VEL	EGL	T WID	COVER	AREA
DNSTRM	94.55	24.00	91.95	4.46	94.86	0.00	.85	3.14
UPSTRM	94.86	24.00	92.25	4.46	95.17	0.00	1	3.14

Drainage area (ac) =	0	Slope of invert (%) =	0.498
Runoff coefficient =	0	Slope energy grade line (%) =	0.383
Time of conc (min) =	0	Critical depth (in) =	15.90
Inlet time (min) =	0	Req'd length curb inlet (ft) =	0.9
Intensity (in/hr) =	0.00	Req'd grate area (sf) =	1.5
Cumulative C*A =	0.0	Depth at inlet opening (in) =	36
Flow contrib (cfs) =	14	Confluence angle (deg) =	10
Default Q (cfs) =	14	Natural ground elev (ft) =	95.25
Line capac. (cfs) =	16.0	Line storage (cuft) =	189

FIGURE 6

CITY OF ALBUQUERQUE
NOTICE OF D.R.C. MEETING — RESCHEDULED!

9-15-94
(DATE)

PROJECT NO: 5048.90
ZONE ATLAS: L-9

PROJECT NAME: POINTE WEST SUBD UNIT 1
LOCATION: (E. OF 86TH ST B/W SUNSET GARDENS & ROCKY)

TYPE OF PROJECT: AHBA ✓ CIP ___ PWC ___ SAD ___ ALL PRIVATE ___

Contact Person: MARK GOODWIN **Phone:** ~~345-2010~~
Firm:

9-28-94 @ 1:30

X Scheduled with the D.R.C. on ~~9-21-94 at 3:30 in Conf. Room 300~~
___ No DRC Meeting Scheduled. Please return any comments by ___

The Project Is Scheduled For:
/ / Design Report Review / / Final Plan Review (Approved Infra. List)
/ / Pre-Design Meeting / / Signoff of Plans (Mylars Required)
X Preliminary Plan Review / / ___

The Project Relates To:
X Water X San. Sewer X Paving X Storm Drainage / / ___

The Attached Package Includes:
/D/ Drawings /S/ Spec's /E/ Estimate /R/ Report /M/ Memo Only

Indicated below are the Departments/Divisions that have received project documents and/or are invited to attend. It will be the Project Managers responsiblity to notify consulting engineering firms of date and time of scheduled meetings.

/D/ DRC Chairman	Project Review Section	All
/D/ Traffic Repres	Transportation Development	All
/D/ Water Repres.	Utility Design	All
/D/ Hydro Repres. CURTIN	Hydrology	All
/D/ Const. Repres.	Construction	All
/D/ Bill Coleman	Traffic Operations	
/ / Dick Salas	Street Maintenance	
/D/ Sergio Miranda	Water (Shutoff Plan)	ALL WATER SHUTOFF
/D/ Diane Scena	Parks & Recreation	ALL LANDSCAPING
/ / Joe Luehring	Utility Coordinator	ALL PWC & CIP
/ / Sheryl Germack	Transit Department	CIP/Memo
/ / Rick Roybal	Construction Coordinator	CIP/Memo
/ / Jim Fink	Line Maintenance	CIP-SAS/Memo
/ / Joe Dellalonga	City Architect	ARCHITECTURAL
/ / Lee Lunsford	SAD Engineer	SAD/Memo
/ / Brett Locke	Transportation Develop.	CIP/Memo
/ / Roger Green	Utility Design	CIP/WATER & SAS
/ / Mike Minturn	General Services Dept.	BUILDINGS
/ / Greg Smith	PWD/Legal	DWGS & SPECS
/ / Richard Sertich	Planning Department	CIP/Memos
/ / CIP Manager	CIP	CIP/Memos
/ / ___	___	___
/ / ___	___	___

RG/tm (WP+123400) Rev. 11/05/91

FIGURE 6

CITY OF ALBUQUERQUE
NOTICE OF D.R.C. MEETING

9-15-94 9/16 (DATE)

PROJECT NO: 5048.90
ZONE ATLAS: L-9

PROJECT NAME: POINTE WEST SUBD UNIT 1
LOCATION: (E. OF 86TH ST B/W SUNSET GARDENS & OCCIDENTAL)

TYPE OF PROJECT: AHBA ✓ CIP ___ PWC ___ SAD ___ ALL PRIVATE ___

Contact Person: MARK GOODWIN **Phone:** 345-2010
Firm: ___

X Scheduled with the D.R.C. on 9-21-94 at 3:30 in Conf. Room 302
___ No DRC Meeting Scheduled. Please return any comments by ___

The Project Is Scheduled For:
/ / Design Report Review / / Final Plan Review (Approved Infra. List)
/ / Pre-Design Meeting / / Signoff of Plans (Mylars Required)
/X/ Preliminary Plan Review / / ___

The Project Relates To:
/X/ Water /X/ San. Sewer /X/ Paving /X/ Storm Drainage / / ___

The Attached Package Includes:
/D/ Drawings /S/ Spec's /E/ Estimate /R/ Report /M/ Memo Only

Indicated below are the Departments/Divisions that have received project documents and/or are invited to attend. It will be the Project Managers responsiblity to notify consulting engineering firms of date and time of scheduled meetings.

/D/	DRC Chairman	Project Review Section	All
/D/	Traffic Repres	Transportation Development	All
/D/	Water Repres.	Utility Design	All
/D/	Hydro-Repres. CURTIN	Hydrology	All
/D/	Const. Repres.	Construction	All
/D/	Bill Coleman	Traffic Operations	
/ /	Dick Salas	Street Maintenance	
/X/	Sergio Miranda	Water (Shutoff Plan)	ALL WATER SHUTOFF
/D/	Diane Scena	Parks & Recreation	ALL LANDSCAPING
/ /	Joe Luehring	Utility Coordinator	ALL PWC & CIP
/ /	Sheryl Germack	Transit Department	CIP/Memo
/ /	Rick Roybal	Construction Coordinator	CIP/Memo
/ /	Jim Fink	Line Maintenance	CIP-SAS/Memo
/ /	Joe Dellalonga	City Architect	ARCHITECTURAL
/ /	Lee Lunsford	SAD Engineer	SAD/Memo
/ /	Brett Locke	Transportation Develop.	CIP/Memo
/ /	Roger Green	Utility Design	CIP/WATER & SAS
/ /	Mike Minturn	General Services Dept.	BUILDINGS
/ /	Greg Smith	PWD/Legal	DWGS & SPECS
/ /	Richard Sertich	Planning Department	CIP/Memos
/ /	CIP Manager	CIP	CIP/Memos
/ /	___	___	___
/ /	___	___	___

RG/tm (WP+123400) Rev. 11/05/91

S-94-35
SV-94-31
DRB-94-98

Mark Goodwin & Associates, P.A., agents for Coralie Franklin, request a Sidewalk Variance and Preliminary Plat approval (includes grading approval) for approximately 94 lots on Tracts 53 through 56, Town of Atrisco Unit 1, zoned R-1 (City) and located on Eucariz NW between 82nd St NW and 86th St NW containing approximately 20.19 acres. (L-9/L-10)

COUNTY COMMENTS

DRAN: Defer comments to City Hydrology. DRE: 1. This subdivision was annexed to the City of Albuquerque Council Bill O-21 in March of 1994, thus the County defers all comments to the City of Albuquerque.

Real Estate "No adverse comment."

Zoning Enforcement "No adverse comment."

Community Econ.Devel. "No adverse comment."

APS

The 122 homes in the proposed subdivision will affect Mary Ann Binford Elementary School, Truman Middle School and West Mesa High School. The APS facililties in the area are all large and overcrowded. A new elementary school will not help alleviate overcrowding in the western portion of the mesa. The current APS Facilities Master Plan includes no other new schools for the area. As schools become overcrowded, boundary changes, alternative schedules, transportation to less crowded schools, and/or combinations of the above strategies may be employed to relieve schools with large numbers of students.

Gas Company of New Mexico Approves.

COG

No adverse comment given the dedication of 4 feet of right-of-way along 86th Street. The Long Range Major Street Plan designates 86th Street as a collector which requires 68 feet of right-of-way.

Jones Intercable "No adverse comment."

PNM "No adverse comment."

Police Department "No adverse comment."

Transit "No adverse comment."

Environmental Health "No adverse comment."

Parks and General Services

The Developer under Ordinance 7-1976, as amended, is required to dedicate land which is suitable for development. The City may in lieu of dedication of land accept a cash payment of an amount equal to the value of the land required. In this case, Parks is asking for cash-in-lieu of land for 122 lots. At the time of issuance of building permits, the developer shall be required to pay a development fee.

Utilities Development	The infrastructure list needs minor revision which can be discussed at the DRB meeting. No adverse comment on Sidewalk Variance.
City Engineering	An approved drainage report is required for Preliminary Plat approval. City Surveyor's review and approval is required for Preliminary Plat approval. An approved Infrastructure Listing is required for Preliminary Plat approval. An executed Subdivision Improvements Agreement with financial guarantees are required for Final Plat sign-off. Development projects with land area of 5 acres, or more, are required to file a Notice Of Intent (NOI) with the U.S. Environmental Protection Agency for storm water discharge during construction.
Transportation Develop.	1. Car fax needs to be 50 feet from Dunhill to Shelby also Mayfair. 2. Is 82nd Street paved to Sunset Gardens? 3. Comments on the infrastructure list. 4. No objection to the sidewalk deferral.
Planning Department	No adverse comment on Sidewalk Variance for temporary deferral of installation for interior sidewalks.

A copy of annexation ordinance is needed for this DRB file.

<u>IT IS REQUESTED THAT THE APPLICANT AND/OR AGENT BE PRESENT AT THE HEARING</u>

cc:Coralie Franklin, 1611 Francisco NE, 87107
Mark Goodwin & Associates PA, P.O. Box 90606, 87199

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 12, 1994

Mark Goodwin, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, N.M. 87199

RE: DRAINAGE REPORT FOR POINTE WEST SUBD (L-9/~~D6~~ D10)
RECEIVED JUNE 30, 1994 FOR PRELIMINARY PLAT & R.G PERMIT APPROVAL
ENGINEER'S STAMP DATED 6/30/94

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology approves this project for Preliminary Plat and approves Unit 1 for Rough Grading Permit.

The following comments must be addressed prior to Final Plat & Work Order approval:

1. The proposed contours for the Temporary Retention Pond do not agree with the calculations in the Report. The calculations are based on a maximum water surface elevation of 97 and a bottom of 87 while the contours indicate that the bottom is 86 and the water spills out at less than 95. If the pond is 10' deep it must be reviewed by the State Engineer.

2. Check the F.P. = 103.05 at the south end of St. James Place. This proposed elevation appears to be about a foot too low.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Fred Aguirre
Andrew Garcia

WPHYD/8581/jpc

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

D10
L9/~~B6~~

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Pointe West Subdivision ZONE ATLAS/DRNG,FILE#: L9 & 10

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tracts 53-56, Town of Atrisco Unit 2

CITY ADDRESS: Eucariz between 86th & 82nd

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE

ADDRESS: PO Box 90606 PHONE: 345-2010

OWNER: REXCOR, Inc. CONTACT: Coralie Franklin

ADDRESS: 1611 Francisca NE PHONE: 242-2182

ARCHITECT: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich

ADDRESS: PO Box 30701 PHONE: 884-1990

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- X PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER _____ (Specify)

DATE SUBMITTED: 6/30/94

BY: Mark Goodwin

Mark Goodwin, PE

RECEIVED
JUN 30 1994
HYDROLOGY DIVISION

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 345-2010

June 29, 1994

Mr. John P. Curtin
Hydrology Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87199

Re: Pointe West Subdivision; (L-9/D6)

Dear Mr. Curtin:

We are in receipt of your letter dated June 13, 1994 and offer the following response:

1. *The area wide Drainage Masterplan we are attempting to conform to is the "Amole Del Norte Phase 3" prepared by Greiner respectively. We have attached to this submittal the copies you have requested.*

2. *As requested, we have added O.S. 5 to the analysis of contributing areas. We have included a summary table in this submittal.*

3. *We have revised the "Future Off-Site" map to reflect 100% interception of flows at Unser. We have extended the 8" curb as requested.*

4. *We have analyzed the retention pond as requested, however, we propose to construct the ultimate pond in Phase I instead of phasing this pond. We propose to not phase the pond because it is more convenient to just build the entire structure now and not "piece-meal."*

5. *We have re-graded the lots so that all flows go to the streets in front. There will be no rear yard ponds.*

With this response and the attached revisions, we hereby request Preliminary Plat and Rough Grading Approval.

Sincerely,

MARK GOODWIN AND ASSOCIATES, P.A.

Mark Goodwin, P.E.

DMG:smr

Attachment

RECEIVED
JUN 30 1994
HYDROLOGY DIVISION

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
PLANNING DIVISION

DEVELOPMENT REVIEW BOARD
June 14, 1994
S-94-35/DRB-94-98/SV-94-31

S-94-35
DRB-94-98
SV-94-31

Mark Goodwin & Associates, P.A., agents for Coralie Franklin, request a Sidewalk Variance and Preliminary Plat approval (includes grading approval) for approximately 94 lots on Tracts 53-56, Town of Atrisco Grant Unit No. 2, zoned R-1 (City) and located on the north side of Eucariz Ave NW between 82nd St NW and 86th St NW, containing approximately 20.19 acres. (L-9, L-10)

Fire Department	Need to locate fire hydrants.
Gas Company of New Mexico	Approves.
PNM	PNM currently reviewing the proposed plat and will advise applicant of PNM easement needs.
Real Estate	"No adverse comment."
Jones Intercable	"No adverse comment."
Police Department	"No adverse comment."
Zoning Enforcement	"No adverse comment."
COG	"No adverse comment."
Environmental Health	"No adverse comment."
Transit	"No adverse comment."
Community Economic Devel.	"No adverse comment."

AMAFCA

See Amafca Designee's comments.

APS

The 94 homes in the proposed development will affect Binford Elementary School, Truman Middle School and West Mesa High School. The schools in the area are at or approaching site capactiy. The recent approval of a new elementary school may help alleviate enrollment growth pressures at some northwest area elementary schools, however, the timing, scale, and pace of development on the west side is far greater than district resources. Enrollment growth in the area is expected to be vigorous well past the turn-of-the-century. As schools become overcrowded, boundary changes, alternative schedules, transportation to less crowded schools, and/or combinations of the above strategies may be employed to relieve schools with large numbers of students.

Parks and General Services

It is unclear whether this property is in the City or in the County. If it is in the County, the developer will be required to comply with the County Park Dedication Ordinance.

Parks and General Services

If the property is in the City, the developer, under Ordinance 7-1976, is required to dedicate land which is suitable for development. The City may, in lieu of dedication of land, accept a cash payment of an amount equal to the value of the land required. Additionally, at the time of issuance of building permits, a park development fee of $78 for each house will be owed.

Utilities Development — No adverse comment on the Sidewalk Variance. The infrastructure list needs minor revision which can be accomplished at DRB.

City Engineering — An approved drainage report is required for Preliminary Plat approval.

City Surveyor's review and approval is required for Preliminary Plat approval.

An approved Infrastructure Listing is required for Preliminary Plat approval.

An executed Subdivision Improvements Agreement with financial guarantees are required for Final Plat sign-off.

Development projects with land area of 5 acres, or more, are required to file a Notice Of Intent (NOI) with the U.S. Environmental Protection Agency for storm water discharge during construction.

No objection to the sidewalk variance request.

Transportation Develop. — 1. 75 foot radii are required at eyebrows. 2. Comments on the infrastructure list. 3. See comments dated 2/22/94.

Planning Department — No adverse comment on Sidewalk Variance for temporary deferral of installation for interior sidewalks.

<u>IT IS REQUESTED THAT THE APPLICANT AND/OR AGENT BE PRESENT AT THE HEARING</u>

cc:Coralie Franklin, 1611 Francisca NE, 87107
Mark Goodwin & Associates Inc., P.O. Box 90606, 87107

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 13, 1994

Mark Goodwin, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, N.M. 87199

RE: DRAINAGE REPORT FOR POINTE WEST SUBD (L-9/D6)
RECEIVED MAY 18, 1994 FOR PRELIMINARY PLAT & R.G PERMIT APPROVAL
ENGINEER'S STAMP DATED 5/17/94

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology has the following comments that must be addressed prior to Preliminary Plat & Rough Grading Permit approval:

1. Reference the Amole Del Norte Phase 3 DMP that was used to determine off-site drainage basins and off-site improvements. It would help expedite the review if copies of the proposed drainage basin map & proposed drainage improvement plan from the DMP were included in this report.

2. Based on the drainage basin map on calculation sheet 9, it appears that all of basin 21D West drains to Sunset Gardens. Add the area south of Sunset Gardens as basin O.S.5. It would help expedite the review if a summary table was provided which included the area, % D, Q100 and V100.

3. Unser is an arterial street and 86th is a collector street. Both streets have 10yr criteria that they must be designed for. If 100% of the runoff is not intercepted at Unser, then downstream capacity must be verified until all of the runoff is accounted for. All streets must be evaluated to verify that the Hydraulic Jump stays within the right of way. Extend the 8" curb on Dunhill Avenue west to the knuckle at Mayfair Place.

4. The Temporary Retention Pond must accept runoff from Basin O.S.1 until 86th Street is constructed. Calculate the hydrology for the interim condition for Phase 1, when Unit 1 is developed and the rest of the subdivision is undeveloped. Provide calculations for the volume provided at Phase 1 and when the entire subdivision is developed.

5. Based on the proposed spot elevations, there will be backyard ponding on most of the lots adjacent to Eucariz & 82nd. This must be clearly noted.

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Fred Aguirre

WPHYD/8581/jpc

DRAINAGE INFORMATION SHEET

L9/U6

PROJECT TITLE: Pointe West Subdivision ZONE ATLAS/DRNG,FILE#: ~~L9 & 10~~

DRB #: 94-98 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tracts 53-56, Town of Atrisco Unit 2

CITY ADDRESS: Eucariz between 86th & 82nd

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Mark Goodwin, PE

ADDRESS: PO Box 90606 PHONE: 345-2010

OWNER: REXCOR, Inc. CONTACT: Coralie Franklin

ADDRESS: 1611 Francisca NE PHONE: 242-2182

ARCHITECT: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Aldrich Land Surveying CONTACT: Tim Aldrich

ADDRESS: PO Box 30701 PHONE: 884-1990

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- X YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- X PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER _____ (Specify)

DATE SUBMITTED: 5/18/94

BY: Mark Goodwin

Mark Goodwin, PE

RECEIVED MAY 18 1994 HYDROLOGY SECTION

8581