```
    AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02c
         RUN DATE (MON/DAY/YR) = 01/08/2012
         START TIME (HR:MIN:SEC) = 13:26:37     USER NO.= AHYMO-C-9803c01UNMLIB-AH
         INPUT FILE = PROP VH.TXT

* PASEO DEL NORTE DRAINAGE ANALYSIS
* WILSON & COMPANY PROJECT X3210022
* DEVELOPED CONDITIONS MODEL
* 100 YR 6 HR STORM EVENT
* DATE: DECEMBER 2011
* FILE: X:\Public\PROJECTS\X3210022\Drainage Report\DOCS\AHYMO\PROP VH.TXT
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*S*************************************************************************
*S
*S                  100 YEAR 6 HOUR STORM - PROPOSED RUNOFF ANALYSIS
*S                  RAINFALL DATA FROM NOAA ATLAS 14
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START                    0.0 HOURS
LOCATION            BERNALILLO COUNTY
     Bernalillo County soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
          A            0.65                  1.67
          B            0.50                  1.25
          C            0.35                  0.83
          D            0.10                  0.04

RAINFALL            TYPE=1       RAIN QUARTER=0.0 IN    RAIN ONE=1.70 IN
                         RAIN SIX=2.20 IN       RAIN DAY=0 IN  DT=0.033333 HR

                 COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT
1.40 HR.
                 DT =    .033333 HOURS       END TIME =     5.999940 HOURS
                    .0000   .0040   .0081   .0122   .0165   .0208   .0252
                    .0297   .0344   .0391   .0439   .0489   .0540   .0592
                    .0646   .0701   .0758   .0816   .0877   .0939   .1003
                    .1070   .1139   .1211   .1285   .1363   .1443   .1528
                    .1617   .1710   .1809   .1856   .1906   .1960   .2076
                    .2334   .2731   .3302   .4081   .5105   .6411   .8036
                  1.0019  1.1854  1.2622  1.3270  1.3847  1.4372  1.4855
                  1.5303  1.5722  1.6115  1.6485  1.6834  1.7163  1.7475
                  1.7771  1.8051  1.8317  1.8569  1.8809  1.8871  1.8930
                  1.8987  1.9041  1.9094  1.9145  1.9195  1.9243  1.9289
                  1.9335  1.9379  1.9422  1.9464  1.9505  1.9546  1.9585
                  1.9624  1.9662  1.9699  1.9736  1.9771  1.9807  1.9841
                  1.9876  1.9909  1.9942  1.9975  2.0007  2.0039  2.0070
                  2.0101  2.0131  2.0161  2.0191  2.0220  2.0249  2.0278
                  2.0306  2.0334  2.0361  2.0389  2.0416  2.0443  2.0469
                  2.0495  2.0521  2.0547  2.0572  2.0598  2.0623  2.0647
                  2.0672  2.0696  2.0720  2.0744  2.0768  2.0791  2.0815
                  2.0838  2.0861  2.0883  2.0906  2.0928  2.0951  2.0973
                  2.0995  2.1016  2.1038  2.1059  2.1081  2.1102  2.1123
                  2.1144  2.1164  2.1185  2.1205  2.1226  2.1246  2.1266
                  2.1286  2.1306  2.1325  2.1345  2.1364  2.1384  2.1403
                  2.1422  2.1441  2.1460  2.1479  2.1497  2.1516  2.1534
                  2.1553  2.1571  2.1589  2.1607  2.1625  2.1643  2.1661
                  2.1679  2.1696  2.1714  2.1731  2.1749  2.1766  2.1783
                  2.1800  2.1818  2.1835  2.1851  2.1868  2.1885  2.1902
                  2.1918  2.1935  2.1951  2.1967  2.1984  2.2000

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*S
*S ------------------------------------------------------------------------------
*S SUB-BASINS NORTH AND WEST OF UNSER BLVD. TO POND 11,
*S ULTIMATELY DISCHARGING TO CHAMISA BASIN
*S ------------------------------------------------------------------------------
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     *S COMPUTE BASIN "E2.1" ************************************************

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=480 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         480.0           .020000            2.0000
          CHANNEL FLOW PORTION            .0           .000000             .0000
          TOTAL BASIN                  880.0           .020000            1.0845


          TIME OF CONCENTRATION (HRS)=   .1594     TIME TO PEAK (HRS)=   .1063     LAG
TIME (HRS)=   .1195



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=99        HYD NO=200.1   DA=0.01243 SQ MI
                              PER A=0   PER B=15  PER C=35   PER D=50
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   24.531    CFS   UNIT VOLUME =    .9989       B =   526.28      P60
= 1.7000
          AREA =      .006215 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .112987HR    TP =   .133333HR    K/TP RATIO =   .847407     SHAPE
CONSTANT, N =  4.201796
          UNIT PEAK =   17.172    CFS   UNIT VOLUME =    .9994       B =   368.41      P60
= 1.7000
          AREA =      .006215 SQ MI    IA =    .39500 INCHES    INF =    .95600 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=99        CODE=1

                                      PARTIAL HYDROGRAPH   200.10


         RUNOFF VOLUME =     1.37668 INCHES     =        .9126 ACRE-FEET
         PEAK DISCHARGE RATE =      25.55 CFS  AT   1.500 HOURS   BASIN AREA =   .0124 SQ.
MI.



     *S
     *S THE TRAILS UNIT 4 - NORTH BASINS
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     *S COMPUTE BASIN "K1" ******************************************************
     *

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                     LENGTH=600 FT  SLOPE=0.02   K=2.0
                              LENGTH=100 FT  SLOPE=0.02   K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         600.0           .020000            2.0000
          CHANNEL FLOW PORTION         100.0           .020000            3.0000
          TOTAL BASIN                 1100.0           .020000            1.2158


          TIME OF CONCENTRATION (HRS)=   .1777     TIME TO PEAK (HRS)=   .1185     LAG
TIME (HRS)=   .1333



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=200       HYD NO=200.2   DA=0.0238 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   75.152    CFS   UNIT VOLUME =    .9992       B =   526.28      P60
= 1.7000
          AREA =      .019040 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   12.616    CFS   UNIT VOLUME =    .9994       B =   353.38      P60
= 1.7000
          AREA =      .004760 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=200      CODE=1

                                       PARTIAL HYDROGRAPH   200.20


         RUNOFF VOLUME =     1.70664 INCHES     =       2.1663 ACRE-FEET
         PEAK DISCHARGE RATE =      55.46 CFS  AT   1.500 HOURS   BASIN AREA =   .0238 SQ.
MI.
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     *S COMPUTE BASIN "K2" ************************************************************

     COMPUTE LT TP       LCODE=1      NK=1 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION             .0            .000000             .0000
          CHANNEL FLOW PORTION             .0            .000000             .0000
          TOTAL BASIN                    400.0           .020000             .7000


          TIME OF CONCENTRATION (HRS)=   .1122     TIME TO PEAK (HRS)=   .0748     LAG
TIME (HRS)=   .0842



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=201       HYD NO=200.3   DA=0.0059 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   18.630    CFS   UNIT VOLUME =    .9988       B =   526.28      P60
= 1.7000
          AREA =      .004720 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   3.1274    CFS   UNIT VOLUME =    .9961       B =   353.38      P60
= 1.7000
          AREA =      .001180 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=201      CODE=1

                                      PARTIAL HYDROGRAPH   200.30


         RUNOFF VOLUME =     1.70664 INCHES     =        .5370 ACRE-FEET
         PEAK DISCHARGE RATE =      13.76 CFS  AT   1.500 HOURS   BASIN AREA =   .0059 SQ.
MI.



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     *S COMPUTE BASIN "K3" ******************************************************

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                    LENGTH=400 FT  SLOPE=0.020  K=0.7
                    LENGTH=600 FT  SLOPE=0.020   K=2.0
                             LENGTH=100 FT  SLOPE=0.020   K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION           600.0           .020000            2.0000
          CHANNEL FLOW PORTION           100.0           .020000            3.0000
          TOTAL BASIN                   1100.0           .020000            1.2158


          TIME OF CONCENTRATION (HRS)=   .1777     TIME TO PEAK (HRS)=   .1185     LAG
TIME (HRS)=   .1333



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=202       HYD NO=200.4   DA=0.0148 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   46.733    CFS   UNIT VOLUME =    .9991       B =   526.28      P60
= 1.7000
          AREA =      .011840 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   7.8451    CFS   UNIT VOLUME =    .9988       B =   353.38      P60
= 1.7000
          AREA =      .002960 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=202      CODE=1

                                       PARTIAL HYDROGRAPH   200.40


         RUNOFF VOLUME =     1.70664 INCHES     =       1.3471 ACRE-FEET
         PEAK DISCHARGE RATE =      34.49 CFS  AT   1.500 HOURS   BASIN AREA =   .0148 SQ.
MI.



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     *S COMPUTE BASIN "K4" ************************************************************

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                    LENGTH=400 FT  SLOPE=0.020  K=0.7
                    LENGTH=590 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION         400.0           .020000             .7000
          SHALLOW FLOW PORTION       590.0           .020000            2.0000
          CHANNEL FLOW PORTION          .0           .000000             .0000
          TOTAL BASIN                990.0           .020000            1.1426


          TIME OF CONCENTRATION (HRS)=   .1702     TIME TO PEAK (HRS)=   .1135     LAG
TIME (HRS)=   .1276



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=203       HYD NO=200.5   DA=0.01959 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   61.859    CFS   UNIT VOLUME =    .9992       B =   526.28      P60
= 1.7000
          AREA =      .015672 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   10.384    CFS   UNIT VOLUME =    .9992       B =   353.38      P60
= 1.7000
          AREA =      .003918 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=203       CODE=1

                                       PARTIAL HYDROGRAPH   200.50


         RUNOFF VOLUME =     1.70664 INCHES     =       1.7831 ACRE-FEET
         PEAK DISCHARGE RATE =      45.65 CFS  AT   1.500 HOURS   BASIN AREA =   .0196 SQ.
MI.



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     *S COMPUTE BASIN "ST11" ********************************************************
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     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                     LENGTH=1730 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
               NOTE: Upland factor input values have been adjusted to meet Upland/Lag Time
requirements.
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION        1600.0           .020000            2.0000
          CHANNEL FLOW PORTION         130.0           .020000            3.0000
          TOTAL BASIN                 2130.0           .020000            1.5056


          TIME OF CONCENTRATION (HRS)=   .2779     TIME TO PEAK (HRS)=   .1853     LAG
TIME (HRS)=   .2084

     COMPUTE NM HYD      ID=204       HYD NO=200.6   DA=0.006758 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1853

          K =   .100965HR    TP =   .185257HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   17.278    CFS   UNIT VOLUME =    .9991       B =   526.28      P60
= 1.7000
          AREA =      .006082 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .186206HR    TP =   .185257HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   1.1718    CFS   UNIT VOLUME =    .9880       B =   321.21      P60
= 1.7000
          AREA =      .000676 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=204      CODE=1

                                       PARTIAL HYDROGRAPH   200.60


         RUNOFF VOLUME =     1.81350 INCHES     =        .6536 ACRE-FEET
         PEAK DISCHARGE RATE =      13.96 CFS  AT   1.567 HOURS   BASIN AREA =   .0068 SQ.
MI.




     *S
     *S ADD SUB-BASINS "K1" AND "K2"  ++++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=205  HYD NO=200.7   ID I=200       ID II=201
     PRINT HYD           ID=205      CODE=1

                                       PARTIAL HYDROGRAPH   200.70


         RUNOFF VOLUME =     1.70662 INCHES     =       2.7033 ACRE-FEET
         PEAK DISCHARGE RATE =      69.22 CFS  AT   1.500 HOURS   BASIN AREA =   .0297 SQ.
MI.
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     *S
     *S ADD SUB-BASINS "K3" AND "K4"   ++++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=206  HYD NO=200.8   ID I=202       ID II=203
     PRINT HYD           ID=206       CODE=1

                                      PARTIAL HYDROGRAPH   200.80


         RUNOFF VOLUME =     1.70663 INCHES     =       3.1302 ACRE-FEET
         PEAK DISCHARGE RATE =      80.14 CFS  AT   1.500 HOURS   BASIN AREA =   .0344 SQ.
MI.



     *S
     *S ADD SUB-BASINS "K1", "K2" AND "E2.1"  ++++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=207  HYD NO=200.9   ID I=99        ID II=205
     PRINT HYD           ID=207       CODE=1

                                      PARTIAL HYDROGRAPH   200.90


         RUNOFF VOLUME =     1.60927 INCHES     =       3.6159 ACRE-FEET
         PEAK DISCHARGE RATE =      94.76 CFS  AT   1.500 HOURS   BASIN AREA =   .0421 SQ.
MI.



     *S
     *S ADD SUB-BASINS "K1", "K2", "E2.1" AND "K3", "K4"  ++++++++++++++++++++++++++++

     ADD HYD                  ID=208  HYD NO=200.10  ID I=206       ID II=207
     PRINT HYD           ID=208       CODE=1

                                      PARTIAL HYDROGRAPH   200.10


         RUNOFF VOLUME =     1.65302 INCHES     =       6.7461 ACRE-FEET
         PEAK DISCHARGE RATE =     174.91 CFS  AT   1.500 HOURS   BASIN AREA =   .0765 SQ.
MI.



     *S
     *S
     *S ---------------------------------------------------------------------------
     *S SUB-BASINS NORTH AND WEST OF UNSER BLVD W/ OVERFLOW OF STORMS (5 YR EVENT MIN
     *S TO THE CHAMISA DETENTION. THE UNSER DETENTION BASIN OUTFLOW IS LIMITED
     *S TO 120 CFS.  FLOWS ULTIMATELY DISCHARGE TO AP3
     *S ---------------------------------------------------------------------------
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     *S COMPUTE BASIN "1" ************************************************************
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     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                     LENGTH=275 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION           275.0           .020000            2.0000
          CHANNEL FLOW PORTION              .0           .000000             .0000
          TOTAL BASIN                    675.0           .020000             .9521


          TIME OF CONCENTRATION (HRS)=   .1392     TIME TO PEAK (HRS)=   .0928     LAG
TIME (HRS)=   .1044



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=1 HYD NO=1.1     DA=0.01324 SQ MI
                              PER A=0   PER B=15  PER C=35   PER D=50
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   26.130    CFS   UNIT VOLUME =    .9989       B =   526.28      P60
= 1.7000
          AREA =      .006620 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .112987HR    TP =   .133333HR    K/TP RATIO =   .847407     SHAPE
CONSTANT, N =  4.201796
          UNIT PEAK =   18.291    CFS   UNIT VOLUME =    .9995       B =   368.41      P60
= 1.7000
          AREA =      .006620 SQ MI    IA =    .39500 INCHES    INF =    .95600 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=1 CODE=1

                                        OUTFLOW HYDROGRAPH REACH     1.10


         RUNOFF VOLUME =     1.37668 INCHES     =        .9721 ACRE-FEET
         PEAK DISCHARGE RATE =      27.21 CFS  AT   1.500 HOURS   BASIN AREA =   .0132 SQ.
MI.



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     *S COMPUTE BASIN "2" ************************************************************
     *
     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                         LENGTH=400 FT  SLOPE=0.020  K=0.7
                         LENGTH=280 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         280.0           .020000            2.0000
          CHANNEL FLOW PORTION            .0           .000000             .0000
          TOTAL BASIN                  680.0           .020000             .9558


          TIME OF CONCENTRATION (HRS)=   .1397     TIME TO PEAK (HRS)=   .0932     LAG
TIME (HRS)=   .1048



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=2 HYD NO=1.2     DA=0.0113 SQ MI
                              PER A=0   PER B=10  PER C=15   PER D=75
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   33.451    CFS   UNIT VOLUME =    .9990       B =   526.28      P60
= 1.7000
          AREA =      .008475 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .115991HR    TP =   .133333HR    K/TP RATIO =   .869938     SHAPE
CONSTANT, N =  4.083776
          UNIT PEAK =   7.6427    CFS   UNIT VOLUME =    .9986       B =   360.72      P60
= 1.7000
          AREA =      .002825 SQ MI    IA =    .41000 INCHES    INF =    .99800 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=2 CODE=1

                                       OUTFLOW HYDROGRAPH REACH     1.20


         RUNOFF VOLUME =     1.65421 INCHES     =        .9969 ACRE-FEET
         PEAK DISCHARGE RATE =      25.87 CFS  AT   1.500 HOURS   BASIN AREA =   .0113 SQ.
MI.




     *S
     *S ADD SUB-BASINS "1" AND "2" ++++++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=11   HYD NO=1.3     ID I=1  ID II=2
     PRINT HYD           ID=11       CODE=1

                                       OUTFLOW HYDROGRAPH REACH     1.30


         RUNOFF VOLUME =     1.50445 INCHES     =       1.9690 ACRE-FEET
```

PEAK DISCHARGE RATE = 53.09 CFS AT 1.500 HOURS BASIN AREA = .0245 SQ. MI.

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```
     *S COMPUTE BASIN "U1" (UNSER TO PDN)****************************************
     *
     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                         LENGTH=280 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         280.0           .020000            2.0000
          CHANNEL FLOW PORTION            .0           .000000             .0000
          TOTAL BASIN                  680.0           .020000             .9558


          TIME OF CONCENTRATION (HRS)=   .1397     TIME TO PEAK (HRS)=   .0932     LAG
TIME (HRS)=   .1048



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=4 HYD NO=1.4     DA=0.0158 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   56.127    CFS   UNIT VOLUME =    .9992       B =   526.28      P60
= 1.7000
          AREA =      .014220 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .134016HR    TP =   .133333HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   3.8064    CFS   UNIT VOLUME =    .9966       B =   321.21      P60
= 1.7000
          AREA =      .001580 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=4 CODE=1

                                       OUTFLOW HYDROGRAPH REACH     1.40


         RUNOFF VOLUME =     1.81350 INCHES     =       1.5282 ACRE-FEET
         PEAK DISCHARGE RATE =      38.16 CFS  AT   1.500 HOURS   BASIN AREA =   .0158 SQ.
MI.




     *S
     *S ADD SUB-BASINS "1", "2" AND "U1"  ++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=13   HYD NO=1.5     ID I=11 ID II=4
     PRINT HYD           ID=13       CODE=1

                                       OUTFLOW HYDROGRAPH REACH     1.50


         RUNOFF VOLUME =     1.62549 INCHES     =       3.4972 ACRE-FEET
```

PEAK DISCHARGE RATE = 91.25 CFS AT 1.500 HOURS BASIN AREA = .0403 SQ. MI.

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     *S COMPUTE BASIN "PDN1" ******************************************************
     *

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                     LENGTH=2510 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
               NOTE: Upland factor input values have been adjusted to meet Upland/Lag Time
requirements.
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0            .020000             .7000
          SHALLOW FLOW PORTION          1600.0            .020000            2.0000
          CHANNEL FLOW PORTION           910.0            .020000            3.0000
          TOTAL BASIN                   2910.0            .020000            1.7376


          TIME OF CONCENTRATION (HRS)=   .3290     TIME TO PEAK (HRS)=   .2193     LAG
TIME (HRS)=   .2467

     COMPUTE NM HYD      ID=209       HYD NO=1.9     DA=0.01955 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .2193

          K =   .119520HR    TP =   .219303HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   42.224    CFS   UNIT VOLUME =    .9998       B =   526.28      P60
= 1.7000
          AREA =      .017595 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .220427HR    TP =   .219303HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   2.8635    CFS   UNIT VOLUME =    .9950       B =   321.21      P60
= 1.7000
          AREA =      .001955 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=209      CODE=1

                                          OUTFLOW HYDROGRAPH REACH     1.90


         RUNOFF VOLUME =     1.81350 INCHES     =       1.8909 ACRE-FEET
         PEAK DISCHARGE RATE =      37.08 CFS  AT   1.600 HOURS   BASIN AREA =   .0196 SQ.
MI.



     *S
     *S ADD SUB-BASINS "1", "2", "U1" AND "PDN1"  ++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=210  HYD NO=200.11  ID I=13 ID II=209
     PRINT HYD           ID=210      CODE=1

                                       PARTIAL HYDROGRAPH   200.11


         RUNOFF VOLUME =     1.68686 INCHES     =       5.3880 ACRE-FEET
         PEAK DISCHARGE RATE =     120.82 CFS  AT   1.533 HOURS   BASIN AREA =   .0599 SQ.
MI.
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     *S COMPUTE BASIN "3" ********************************************************
     *

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                     LENGTH=470 FT  SLOPE=0.020   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         470.0           .020000            2.0000
          CHANNEL FLOW PORTION            .0           .000000             .0000
          TOTAL BASIN                  870.0           .020000            1.0788


          TIME OF CONCENTRATION (HRS)=   .1584     TIME TO PEAK (HRS)=   .1056     LAG
TIME (HRS)=   .1188



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=3 HYD NO=2.6     DA=0.0151 SQ MI
                              PER A=0   PER B=10  PER C=15   PER D=75
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   44.701    CFS   UNIT VOLUME =    .9991       B =   526.28      P60
= 1.7000
          AREA =      .011325 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .115991HR    TP =   .133333HR    K/TP RATIO =   .869938     SHAPE
CONSTANT, N =  4.083776
          UNIT PEAK =   10.213    CFS   UNIT VOLUME =    .9990       B =   360.72      P60
= 1.7000
          AREA =      .003775 SQ MI    IA =    .41000 INCHES    INF =    .99800 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=3 CODE=1

                                        OUTFLOW HYDROGRAPH REACH     2.60


         RUNOFF VOLUME =     1.65421 INCHES     =       1.3322 ACRE-FEET
         PEAK DISCHARGE RATE =      34.57 CFS  AT   1.500 HOURS   BASIN AREA =   .0151 SQ.
MI.




     *S
     *S ADD SUB-BASINS "1", "2", "U1", "PDN1" AND "3"++++++++++++++++++

     ADD HYD                  ID=14   HYD NO=2.7     ID I=210       ID II=3
     PRINT HYD           ID=14       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     2.70
```

RUNOFF VOLUME = 1.68028 INCHES = 6.7202 ACRE-FEET
PEAK DISCHARGE RATE = 154.62 CFS AT 1.500 HOURS BASIN AREA = .0750 SQ. MI.

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     *S COMPUTE BASIN "E1" ******************************************************
     *
     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                         LENGTH=400 FT  SLOPE=0.030  K=0.7
                         LENGTH=1060 FT  SLOPE=0.030   K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION         400.0           .030000             .7000
          SHALLOW FLOW PORTION      1060.0           .030000            2.0000
          CHANNEL FLOW PORTION         .0            .000000             .0000
          TOTAL BASIN               1460.0           .030000            1.3256


          TIME OF CONCENTRATION (HRS)=   .1766     TIME TO PEAK (HRS)=   .1178     LAG
TIME (HRS)=   .1325



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=10        HYD NO=2.8     DA=0.01175 SQ MI
                              PER A=0   PER B=15  PER C=35   PER D=50
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   23.189    CFS   UNIT VOLUME =    .9988       B =   526.28      P60
= 1.7000
          AREA =      .005875 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .112987HR    TP =   .133333HR    K/TP RATIO =   .847407     SHAPE
CONSTANT, N =  4.201796
          UNIT PEAK =   16.233    CFS   UNIT VOLUME =    .9994       B =   368.41      P60
= 1.7000
          AREA =      .005875 SQ MI    IA =    .39500 INCHES    INF =    .95600 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=10       CODE=1

                                       OUTFLOW HYDROGRAPH REACH     2.80


         RUNOFF VOLUME =     1.37668 INCHES     =        .8627 ACRE-FEET
         PEAK DISCHARGE RATE =      24.15 CFS  AT   1.500 HOURS   BASIN AREA =   .0118 SQ.
MI.




     *S
     *S ADD SUB-BASINS "E1", "1", "2","3" AND "U1" ++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=15   HYD NO=2.9     ID I=10 ID II=14
     PRINT HYD           ID=15       CODE=1

                                       OUTFLOW HYDROGRAPH REACH     2.90


         RUNOFF VOLUME =     1.63915 INCHES     =       7.5829 ACRE-FEET
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PEAK DISCHARGE RATE = 178.77 CFS AT 1.500 HOURS BASIN AREA = .0867 SQ. MI.

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     *S COMPUTE BASIN "E2" ******************************************************
     *
     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                         LENGTH=400 FT  SLOPE=0.030  K=0.7
                              LENGTH=600 FT  SLOPE=0.030  K=2.0
                         LENGTH=1800 FT  SLOPE=0.030   K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .030000             .7000
          SHALLOW FLOW PORTION         600.0           .030000            2.0000
          CHANNEL FLOW PORTION        1800.0           .030000            3.0000
          TOTAL BASIN                 2800.0           .030000            1.9029


          TIME OF CONCENTRATION (HRS)=   .2360     TIME TO PEAK (HRS)=   .1573     LAG
TIME (HRS)=   .1770

     COMPUTE NM HYD      ID=11        HYD NO=3.0     DA=0.045259 SQ MI
                              PER A=0   PER B=15  PER C=35   PER D=50
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1573

          K =   .085740HR    TP =   .157320HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   75.701    CFS   UNIT VOLUME =    .9998       B =   526.28      P60
= 1.7000
          AREA =      .022630 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .133314HR    TP =   .157320HR    K/TP RATIO =   .847407     SHAPE
CONSTANT, N =  4.201796
          UNIT PEAK =   52.993    CFS   UNIT VOLUME =    1.000       B =   368.41      P60
= 1.7000
          AREA =      .022630 SQ MI    IA =    .39500 INCHES    INF =    .95600 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=11       CODE=1

                                       OUTFLOW HYDROGRAPH REACH     3.00


         RUNOFF VOLUME =     1.37668 INCHES     =       3.3230 ACRE-FEET
         PEAK DISCHARGE RATE =      85.32 CFS  AT   1.533 HOURS   BASIN AREA =   .0453 SQ.
MI.




     *S
     *S ADD SUB-BASINS "E2","E1", "1", "2","3" AND "U1" ++++++++++++++++++++++++++++

     ADD HYD                 ID=16   HYD NO=3.2     ID I=15 ID II=11
     PRINT HYD           ID=16       CODE=1

                                       OUTFLOW HYDROGRAPH REACH     3.20


         RUNOFF VOLUME =     1.54915 INCHES     =      10.9059 ACRE-FEET
         PEAK DISCHARGE RATE =     262.23 CFS  AT   1.533 HOURS   BASIN AREA =   .1320 SQ.
MI.
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     *S COMPUTE BASIN "U2" (UNSER NORTH OF PDN)************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                         LENGTH=600 FT  SLOPE=0.02   K=2.0
                     LENGTH=2550 FT  SLOPE=0.02   K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         600.0           .020000            2.0000
          CHANNEL FLOW PORTION        2550.0           .020000            3.0000
          TOTAL BASIN                 3550.0           .020000            2.0622


          TIME OF CONCENTRATION (HRS)=   .3381     TIME TO PEAK (HRS)=   .2254     LAG
TIME (HRS)=   .2536

     COMPUTE NM HYD      ID=20        HYD NO=3.3     DA=0.025933 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .2254

          K =   .122850HR    TP =   .225414HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   54.491    CFS   UNIT VOLUME =    .9997       B =   526.28      P60
= 1.7000
          AREA =      .023340 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .226569HR    TP =   .225414HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   3.6954    CFS   UNIT VOLUME =    .9963       B =   321.21      P60
= 1.7000
          AREA =      .002593 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=20       CODE=1

                                         OUTFLOW HYDROGRAPH REACH     3.30


         RUNOFF VOLUME =     1.81350 INCHES     =       2.5082 ACRE-FEET
         PEAK DISCHARGE RATE =      48.61 CFS  AT   1.600 HOURS   BASIN AREA =   .0259 SQ.
MI.




     *S
     *S ADD SUB-BASINS "E1","E1", "1", "2","3","U1" AND "U2"  ++++++++++++++++++++++

     ADD HYD                 ID=17   HYD NO=3.4     ID I=20 ID II=16
     PRINT HYD               ID=17   CODE=1

                                         OUTFLOW HYDROGRAPH REACH     3.40


         RUNOFF VOLUME =     1.59256 INCHES     =      13.4141 ACRE-FEET
         PEAK DISCHARGE RATE =     305.56 CFS  AT   1.533 HOURS   BASIN AREA =   .1579 SQ.
MI.
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     *S COMPUTE BASIN "F" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=1 ISLOPE=-1
                     LENGTH=320 FT  SLOPE=0.020  K=0.7


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION         320.0           .020000             .7000
          SHALLOW FLOW PORTION         .0            .000000             .0000
          CHANNEL FLOW PORTION         .0            .000000             .0000
          TOTAL BASIN                320.0           .020000             .7000


          TIME OF CONCENTRATION (HRS)=   .0898     TIME TO PEAK (HRS)=   .0599     LAG
TIME (HRS)=   .0673



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=21        HYD NO=3.5     DA=0.00433 SQ MI
                              PER A=0   PER B=15  PER C=35   PER D=50
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   8.5454    CFS   UNIT VOLUME =    .9980       B =   526.28      P60
= 1.7000
          AREA =      .002165 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .112987HR    TP =   .133333HR    K/TP RATIO =   .847407     SHAPE
CONSTANT, N =  4.201796
          UNIT PEAK =   5.9820    CFS   UNIT VOLUME =    .9979       B =   368.41      P60
= 1.7000
          AREA =      .002165 SQ MI    IA =    .39500 INCHES    INF =    .95600 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=21       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     3.50


         RUNOFF VOLUME =     1.37668 INCHES     =        .3179 ACRE-FEET
         PEAK DISCHARGE RATE =       8.91 CFS  AT   1.500 HOURS   BASIN AREA =   .0043 SQ.
MI.




     *S
     *S ADD SUB-BASINS "E1","E1", "1", "2","3","U1", "U2" AND "F"++++++++++++++++++++

     ADD HYD                 ID=18   HYD NO=3.6     ID I=17 ID II=21
     PRINT HYD           ID=18       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     3.60


         RUNOFF VOLUME =     1.58679 INCHES     =      13.7320 ACRE-FEET
```

PEAK DISCHARGE RATE = 314.09 CFS AT 1.533 HOURS BASIN AREA = .1623 SQ. MI.

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     *S COMPUTE BASIN "11A" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=80 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                       LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              400.0            .020000             .7000
          SHALLOW FLOW PORTION             80.0            .020000            2.0000
          CHANNEL FLOW PORTION               .0            .000000             .0000
          TOTAL BASIN                     480.0            .020000             .7850


          TIME OF CONCENTRATION (HRS)=   .1201     TIME TO PEAK (HRS)=   .0801     LAG
TIME (HRS)=   .0901



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=22       HYD NO=3.7     DA=0.00656 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   20.714    CFS   UNIT VOLUME =    .9988       B =   526.28      P60
= 1.7000
          AREA =      .005248 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   3.4773    CFS   UNIT VOLUME =    .9965       B =   353.38      P60
= 1.7000
          AREA =      .001312 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=22       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     3.70


         RUNOFF VOLUME =     1.70664 INCHES     =        .5971 ACRE-FEET
         PEAK DISCHARGE RATE =      15.30 CFS  AT   1.500 HOURS   BASIN AREA =   .0066 SQ.
MI.



     *S
     *S ADD SUB-BASINS "E1","E1", "1", "2","3","U1", "U2", "F" AND "11A" ++++++++++++
     *S THIS IS THE FLOW THAT IS BEING CONTRIBUTED TO THE UNSER DETENTION BASIN

     ADD HYD                 ID=19   HYD NO=3.6     ID I=18 ID II=22
     PRINT HYD           ID=19       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     3.60
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RUNOFF VOLUME = 1.59145 INCHES = 14.3291 ACRE-FEET
PEAK DISCHARGE RATE = 328.67 CFS AT 1.533 HOURS BASIN AREA = .1688 SQ. MI.

*S

*S THE OVERFLOW FOR THE CHAMISA DETENTION BASIN SHALL BE DONE IN A FUTURE STUDY.
*S THE UNSER DETENTION BASIN LIMITS FLOW TO 120 CFS
*S ROUTE THROUGH UNSER DETENTION BASIN >>

ROUTE RESERVOIR ID=220 HYD=POND1 INFLOW ID=19 CODE=10

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEV(FT)
0	0	0
10	2.0	1
20	3.5	2
50	5.0	3
80	6.0	4
110	7.0	5
130	8.0	6
150	9.5	7
170	11.0	8

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

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.33	.00	.00	.000	.00
.67	.00	.00	.000	.00
1.00	12.31	.07	.147	.73
1.33	76.80	.36	.725	3.62
1.67	216.88	4.46	6.461	93.84
2.00	87.95	5.12	7.121	112.42
2.33	25.46	3.90	5.905	77.14
2.67	11.71	2.84	4.754	45.09
3.00	6.81	2.32	3.984	29.67
3.33	4.72	1.98	3.471	19.81
3.67	3.82	1.72	3.078	17.19
4.00	3.43	1.49	2.736	14.91
4.33	3.23	1.30	2.444	12.96
4.67	3.19	1.13	2.199	11.32
5.00	3.22	1.00	1.994	9.97
5.33	3.29	.91	1.821	9.11
5.67	3.43	.84	1.673	8.37
6.00	3.57	.77	1.548	7.74
6.33	.66	.70	1.403	7.02
6.67	.17	.62	1.232	6.16
7.00	.05	.54	1.076	5.38
7.33	.02	.47	.938	4.69
7.67	.01	.41	.818	4.09
8.00	.00	.36	.713	3.56
8.33	.00	.31	.621	3.10
8.67	.00	.27	.541	2.70
9.00	.00	.24	.471	2.36
9.33	.00	.21	.411	2.05
9.67	.00	.18	.358	1.79
10.00	.00	.16	.312	1.56
10.33	.00	.14	.272	1.36
10.67	.00	.12	.237	1.18
11.00	.00	.10	.206	1.03
11.33	.00	.09	.180	.90
11.67	.00	.08	.157	.78
12.00	.00	.07	.136	.68
12.33	.00	.06	.119	.59
12.67	.00	.05	.104	.52
13.00	.00	.05	.090	.45
13.33	.00	.04	.079	.39

13.67	.00	.03	.069	.34
14.00	.00	.03	.060	.30
14.33	.00	.03	.052	.26
14.67	.00	.02	.045	.23
15.00	.00	.02	.040	.20
15.33	.00	.02	.034	.17
15.67	.00	.01	.030	.15
16.00	.00	.01	.026	.13
16.33	.00	.01	.023	.11
16.67	.00	.01	.020	.10
17.00	.00	.01	.017	.09
17.33	.00	.01	.015	.08
17.67	.00	.01	.013	.07
18.00	.00	.01	.011	.06
18.33	.00	.00	.010	.05

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
18.67	.00	.00	.009	.04
19.00	.00	.00	.008	.04
19.33	.00	.00	.007	.03
19.67	.00	.00	.006	.03

PEAK DISCHARGE = 115.338 CFS - PEAK OCCURS AT HOUR 1.87
MAXIMUM WATER SURFACE ELEVATION = 5.267
MAXIMUM STORAGE = 7.2669 AC-FT INCREMENTAL TIME= .033333HRS

PRINT HYD ID=220 CODE=10

HYDROGRAPH FROM AREA POND1

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS
.000	.0	4.000	14.9	8.000	3.6	12.000	.7	16.000
.333	.0	4.333	13.0	8.333	3.1	12.333	.6	16.333
.667	.0	4.667	11.3	8.667	2.7	12.667	.5	16.667
1.000	.7	5.000	10.0	9.000	2.4	13.000	.5	17.000
1.333	3.6	5.333	9.1	9.333	2.1	13.333	.4	17.333
1.667	93.8	5.667	8.4	9.667	1.8	13.667	.3	17.666
2.000	112.4	6.000	7.7	10.000	1.6	14.000	.3	18.000
2.333	77.1	6.333	7.0	10.333	1.4	14.333	.3	18.333
2.667	45.1	6.667	6.2	10.667	1.2	14.667	.2	18.666
3.000	29.7	7.000	5.4	11.000	1.0	15.000	.2	19.000
3.333	19.8	7.333	4.7	11.333	.9	15.333	.2	19.333
3.667	17.2	7.667	4.1	11.667	.8	15.667	.1	19.666

RUNOFF VOLUME = 1.59089 INCHES = 14.3240 ACRE-FEET
PEAK DISCHARGE RATE = 115.34 CFS AT 1.867 HOURS BASIN AREA = .1688 SQ. MI.

*S ROUTE BASINS TO AP-3 THROUGH PNM BOUNDARY
*S

□□□

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     *S COMPUTE BASIN "F1" ********************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=1 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION           .0            .000000             .0000
          CHANNEL FLOW PORTION           .0            .000000             .0000
          TOTAL BASIN                  400.0           .020000             .7000


          TIME OF CONCENTRATION (HRS)=   .1122     TIME TO PEAK (HRS)=   .0748     LAG
TIME (HRS)=   .0842



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=23        HYD NO=3.9     DA=0.02044 SQ MI
                              PER A=0   PER B=60  PER C=40   PER D=0
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .122000HR    TP =   .133333HR    K/TP RATIO =   .915001     SHAPE
CONSTANT, N =  3.869519
          UNIT PEAK =   53.099    CFS   UNIT VOLUME =    1.000       B =   346.37      P60
= 1.7000
          AREA =      .020440 SQ MI    IA =    .44000 INCHES    INF =   1.08200 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=23       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     3.90


         RUNOFF VOLUME =      .71481 INCHES     =        .7792 ACRE-FEET
         PEAK DISCHARGE RATE =      28.58 CFS  AT   1.500 HOURS   BASIN AREA =   .0204 SQ.
MI.




     *S ROUTE THROUGH SUB-BASIN "H" IN CHANNEL "H" TO AP-3

     COMPUTE RATING CURVE     CID=1   VS NO=1 NO SEGS=1
                         MIN ELEV=0   MAX ELEV=4.50
                                      CH SLOPE=0.020 FP SLOPE=0.020
                                      N=0.038        DIST=52.0
                                      DIST    ELEV    DIST    ELEV
                                      0.0     5.0     6.0     0.0
                                      46.0    0.0     52.0    5.0


                                     RATING CURVE VALLEY SECTION  1.0
                                         WATER       FLOW        FLOW        TOP
                                        SURFACE      AREA        RATE        WIDTH
                                         ELEV        SQ FT       CFS         FT
                                           .00         .00         .00       40.00
                                           .24        9.54       20.05       40.57
                                           .47       19.22       63.63       41.14
                                           .71       29.03      125.05       41.71
                                           .95       38.97      201.97       42.27
```

1.18	49.05	292.99	42.84
1.42	59.27	397.11	43.41
1.66	69.61	513.59	43.98
1.89	80.10	641.88	44.55
2.13	90.72	781.50	45.12
2.37	101.47	932.08	45.68
2.61	112.36	1093.31	46.25
2.84	123.38	1264.92	46.82
3.08	134.53	1446.68	47.39
3.32	145.82	1638.40	47.96
3.55	157.25	1839.92	48.53
3.79	168.81	2051.09	49.09
4.03	180.51	2271.78	49.66
4.26	192.34	2501.88	50.23
4.50	204.30	2741.30	50.80

ROUTE MCUNGE ID=25 HYD NO=4.1 INFLOW ID=220
DT=0.0 L=6500 FT NS=0 SLOPE=0.020
MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

INFLOW END= 600 TABLE PTS= 20
DT= .033333 QMED= 57.67 CKMED= 4.5042
WIDTH MED= 41.06 NREACH= 24 DX= 270.83

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck	VEL (FPS)	C (FPS)	D	C1	C2	C3	Q-M	C1-M	C2-M	C3-M
.00	.0	.0	1.173	40.0	2.26	.98	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.24	9.5	20.0	.859	40.6	3.48	2.10	1.541	.026	.980	.221	-.200	6.3	.994	.070	-.063
.47	19.2	63.6	.545	41.1	5.45	3.31	2.413	.052	.970	.423	-.393	39.4	.974	.343	-.317
.71	29.0	125.0	.419	41.7	7.04	4.31	3.118	.079	.963	.523	-.486	92.3	.966	.480	-.445
.95	39.0	202.0	.348	42.3	8.41	5.18	3.727	.105	.957	.586	-.543	161.7	.959	.558	-.517
1.18	49.1	293.0	.302	42.8	9.63	5.97	4.268	.131	.951	.630	-.581	245.8	.954	.609	-.563
1.42	59.3	397.1	.269	43.4	10.74	6.70	4.760	.157	.947	.662	-.609	343.5	.949	.647	-.596
1.66	69.6	513.6	.245	44.0	11.76	7.38	5.211	.183	.943	.687	-.630	453.9	.945	.675	-.620
1.89	80.1	641.9	.225	44.5	12.71	8.01	5.630	.209	.939	.708	-.646	576.4	.941	.698	-.638
2.13	90.7	781.5	.210	45.1	13.59	8.61	6.021	.235	.935	.724	-.660	710.4	.937	.716	-.653
2.37	101.5	932.1	.197	45.7	14.42	9.19	6.388	.261	.932	.739	-.670	855.5	.933	.732	-.665
2.61	112.4	1093.3	.186	46.3	15.20	9.73	6.734	.287	.928	.751	-.679	1011.5	.930	.745	-.675
2.84	123.4	1264.9	.176	46.8	15.94	10.25	7.063	.313	.925	.761	-.686	1177.9	.927	.756	-.683
3.08	134.5	1446.7	.168	47.4	16.64	10.75	7.375	.339	.922	.770	-.693	1354.7	.924	.766	-.690
3.32	145.8	1638.4	.161	48.0	17.32	11.24	7.672	.364	.919	.779	-.698	1541.4	.921	.775	-.695
3.55	157.3	1839.9	.154	48.5	17.96	11.70	7.957	.390	.917	.786	-.703	1738.1	.918	.782	-.700
3.79	168.8	2051.1	.149	49.1	18.58	12.15	8.230	.415	.914	.793	-.707	1944.5	.915	.789	-.705
4.03	180.5	2271.8	.143	49.7	19.17	12.59	8.492	.441	.911	.799	-.710	2160.4	.913	.796	-.708
4.26	192.3	2501.9	.139	50.2	19.74	13.01	8.745	.466	.909	.804	-.713	2385.8	.910	.801	-.711
4.50	204.3	2741.3	.135	50.8	20.21	13.42	8.956	.493	.906	.809	-.714	2620.6	.907	.807	-.714

MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) = 5 OCCURRED 2 TIMES. AVERAGE NUMBER ITERATIONS = 1.2190

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck	VEL (FPS)	C (FPS)	D	C1	C2	C3	Q-M	C1-M	C2-M	C3-M
.00	.0	.0	1.173	40.0	2.26	.98	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000

```
          .24    9.5     20.0    .859   40.6     2.34   2.10    1.039   .039   .963   .037
.000      6.3    .987   .013   .000
          .47   19.2     63.6    .545   41.1     2.51   3.31    1.114   .114   .898   .102
.000     39.4    .932   .068   .000
          .71   29.0    125.0    .419   41.7     2.72   4.31    1.204   .204   .831   .169
.000     92.3    .864   .136   .000
          .95   39.0    202.0    .348   42.3     2.94   5.18    1.301   .301   .769   .231
.000    161.7    .799   .201   .000
         1.18   49.1    293.0    .302   42.8     3.16   5.97    1.400   .400   .714   .286
.000    245.8    .741   .259   .000
         1.42   59.3    397.1    .269   43.4     3.38   6.70    1.499   .499   .667   .333
.000    343.5    .690   .310   .000
         1.66   69.6    513.6    .245   44.0     3.61   7.38    1.598   .598   .626   .374
.000    453.9    .646   .354   .000
         1.89   80.1    641.9    .225   44.5     3.83   8.01    1.695   .695   .590   .410
.000    576.4    .607   .393   .000
         2.13   90.7    781.5    .210   45.1     4.04   8.61    1.791   .791   .558   .442
.000    710.4    .574   .426   .000
         2.37  101.5    932.1    .197   45.7     4.25   9.19    1.885   .885   .530   .470
.000    855.5    .544   .456   .000
         2.61  112.4   1093.3    .186   46.3     4.46   9.73    1.978   .978   .506   .494
.000   1011.5    .518   .482   .000
         2.84  123.4   1264.9    .176   46.8     4.67  10.25    2.068  1.068   .483   .517
.000   1177.9    .494   .506   .000
         3.08  134.5   1446.7    .168   47.4     4.87  10.75    2.157  1.157   .464   .536
.000   1354.7    .473   .527   .000
         3.32  145.8   1638.4    .161   48.0     5.07  11.24    2.245  1.245   .445   .555
.000   1541.4    .454   .546   .000
         3.55  157.3   1839.9    .154   48.5     5.26  11.70    2.331  1.331   .429   .571
.000   1738.1    .437   .563   .000
         3.79  168.8   2051.1    .149   49.1     5.45  12.15    2.415  1.415   .414   .586
.000   1944.5    .421   .579   .000
         4.03  180.5   2271.8    .143   49.7     5.64  12.59    2.498  1.498   .400   .600
.000   2160.4    .407   .593   .000
         4.26  192.3   2501.9    .139   50.2     5.82  13.01    2.579  1.579   .388   .612
.000   2385.8    .394   .606   .000
         4.50  204.3   2741.3    .135   50.8     6.00  13.42    2.660  1.660   .376   .624
.000   2620.6    .382   .618   .000
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED      63 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.1159
     Equations solved with two passes: first using the Ponce correction to C1, second
using the Fread correction to C1, C2 and C3

     PRINT HYD           ID=25       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     4.10


         RUNOFF VOLUME =     1.58269 INCHES     =      14.2502 ACRE-FEET
         PEAK DISCHARGE RATE =     114.53 CFS  AT   2.567 HOURS   BASIN AREA =   .1688 SQ.
MI.



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     *S COMPUTE BASIN "H" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.040  K=0.7
                              LENGTH=2100 FT  SLOPE=0.060  K=2.0
                              LENGTH=4000 FT  SLOPE=0.060  K=3.0


          BASIN LONGER THAN 4000.0 FT AND ALL BASIN LAG FACTORS NOT SPECIFIED
          USE Kn=   .0160 AND Lca/L=  .50000


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
               NOTE: Upland factor input values have been adjusted to meet Upland/Lag Time
requirements.
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .040000             .7000
          SHALLOW FLOW PORTION          1600.0           .060000            2.0000
          CHANNEL FLOW PORTION          4500.0           .060000            3.0000
          TOTAL BASIN                   6500.0           .058769            2.1893


          LAG EQUATION FACTORS:     Kn=   .0160     TOTAL BASIN LENGTH (FT)=      6500.0
          TOTAL BASIN SLOPE (FT/FT)=    .058769     CENTROUD LENGTH (FT)=         3250.0


          TIME OF CONCENTRATION (HRS)=   .2359     TIME TO PEAK (HRS)=   .1573     LAG
TIME (HRS)=   .1769

     COMPUTE NM HYD      ID=26        HYD NO=4.2     DA=0.38256 SQ MI
                              PER A=100   PER B=0  PER C=0   PER D=0
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1573

          K =   .164971HR    TP =   .157274HR    K/TP RATIO =  1.048941     SHAPE
CONSTANT, N =  3.365808
          UNIT PEAK =   755.04    CFS   UNIT VOLUME =    1.000       B =   310.40      P60
= 1.7000
          AREA =      .382560 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=26        CODE=1

                                          OUTFLOW HYDROGRAPH REACH     4.20


         RUNOFF VOLUME =      .40375 INCHES     =       8.2378 ACRE-FEET
         PEAK DISCHARGE RATE =     288.36 CFS  AT   1.533 HOURS   BASIN AREA =   .3826 SQ.
MI.




     *S
     *S ADD SUB-BASINS "F1", DISCHARGE FROM POND-1 AND "H"+++++(AP-3)+++++++++++++++++

     ADD HYD                  ID=27   HYD NO=4.3     ID I=26 ID II=25
     PRINT HYD           ID=27        CODE=1

                                          OUTFLOW HYDROGRAPH REACH     4.30


         RUNOFF VOLUME =      .76472 INCHES     =      22.4880 ACRE-FEET
         PEAK DISCHARGE RATE =     288.37 CFS  AT   1.533 HOURS   BASIN AREA =   .5514 SQ.
MI.
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*S ------------------------------------------------------------------------------
*S BASINS EAST OF UNSER AND SOUTH OF PASEO DEL NORTE BLVD
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     *S COMPUTE BASIN "4A" ******************************************************
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     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=760 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION           760.0           .020000            2.0000
          CHANNEL FLOW PORTION             .0            .000000             .0000
          TOTAL BASIN                   1160.0           .020000            1.2192


          TIME OF CONCENTRATION (HRS)=   .1869     TIME TO PEAK (HRS)=   .1246     LAG
TIME (HRS)=   .1402



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=40        HYD NO=5.0     DA=0.0388 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   122.52    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .031040 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   20.567    CFS   UNIT VOLUME =    .9998       B =   353.38      P60
= 1.7000
          AREA =      .007760 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=40       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.00


         RUNOFF VOLUME =     1.70664 INCHES     =       3.5316 ACRE-FEET
         PEAK DISCHARGE RATE =      90.40 CFS  AT   1.500 HOURS   BASIN AREA =   .0388 SQ.
MI.
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     *S COMPUTE BASIN "4B" ******************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=410 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                       LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              400.0            .020000             .7000
          SHALLOW FLOW PORTION            410.0            .020000            2.0000
          CHANNEL FLOW PORTION              .0             .000000             .0000
          TOTAL BASIN                     810.0            .020000            1.0432


          TIME OF CONCENTRATION (HRS)=   .1525     TIME TO PEAK (HRS)=   .1017     LAG
TIME (HRS)=   .1144



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=70        HYD NO=5.5     DA=0.0080 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   25.261    CFS   UNIT VOLUME =    .9989       B =   526.28      P60
= 1.7000
          AREA =      .006400 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   4.2406    CFS   UNIT VOLUME =    .9972       B =   353.38      P60
= 1.7000
          AREA =      .001600 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=70       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.50


         RUNOFF VOLUME =     1.70664 INCHES     =        .7282 ACRE-FEET
         PEAK DISCHARGE RATE =      18.65 CFS  AT   1.500 HOURS   BASIN AREA =   .0080 SQ.
MI.




     *S
     *S ADD SUB-BASINS "4A"AND "4B"++++++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=43   HYD NO=5.6     ID I=70 ID II=40
     PRINT HYD           ID=43       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.60
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RUNOFF VOLUME = 1.70663 INCHES = 4.2597 ACRE-FEET
PEAK DISCHARGE RATE = 109.05 CFS AT 1.500 HOURS BASIN AREA = .0468 SQ. MI.

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     *S COMPUTE BASIN "PDN2" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=750 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION           750.0           .020000            2.0000
          CHANNEL FLOW PORTION             .0           .000000             .0000
          TOTAL BASIN                   1150.0           .020000            1.2151


          TIME OF CONCENTRATION (HRS)=   .1859     TIME TO PEAK (HRS)=   .1239     LAG
TIME (HRS)=   .1394



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=60        HYD NO=5.3     DA=0.0126 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   44.760    CFS   UNIT VOLUME =    .9991       B =   526.28      P60
= 1.7000
          AREA =      .011340 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .134016HR    TP =   .133333HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   3.0355    CFS   UNIT VOLUME =    .9959       B =   321.21      P60
= 1.7000
          AREA =      .001260 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=60       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.30


         RUNOFF VOLUME =     1.81350 INCHES     =       1.2187 ACRE-FEET
         PEAK DISCHARGE RATE =      30.43 CFS  AT   1.500 HOURS   BASIN AREA =   .0126 SQ.
MI.




     *S
     *S ADD SUB-BASINS "4A", "4B" AND "PDN2"++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=42   HYD NO=42.1    ID I=60 ID II=43
     PRINT HYD           ID=42       CODE=1

                                        OUTFLOW HYDROGRAPH REACH    42.10
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RUNOFF VOLUME = 1.72930 INCHES = 5.4784 ACRE-FEET
PEAK DISCHARGE RATE = 139.49 CFS AT 1.500 HOURS BASIN AREA = .0594 SQ. MI.

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*S ROUTE THROUGH POND-10 >>

ROUTE RESERVOIR ID=421 HYD=POND10 INFLOW ID=42 CODE=10

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEV(FT)
0	0	0
5	2	2
10	3	4
20	4.1	6

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	.00	.000	.00
.33	.00	.00	.000	.00
.67	.00	.00	.000	.00
1.00	5.76	.08	.078	.20
1.33	40.76	.38	.380	.95
1.67	70.37	3.96	2.980	9.90
2.00	32.05	5.55	3.853	17.76
2.33	7.48	5.51	3.832	17.56
2.67	3.52	4.96	3.527	14.79
3.00	2.19	4.42	3.233	12.12
3.33	1.66	3.97	2.983	9.91
3.67	1.45	3.53	2.767	8.84
4.00	1.36	3.15	2.576	7.88
4.33	1.31	2.81	2.407	7.04
4.67	1.32	2.52	2.260	6.30
5.00	1.34	2.26	2.132	5.66
5.33	1.37	2.04	2.021	5.11
5.67	1.43	1.92	1.924	4.81
6.00	1.49	1.83	1.835	4.59
6.33	.17	1.73	1.732	4.33
6.67	.04	1.62	1.619	4.05
7.00	.01	1.51	1.512	3.78
7.33	.00	1.41	1.412	3.53
7.67	.00	1.32	1.318	3.29
8.00	.00	1.23	1.230	3.07
8.33	.00	1.15	1.148	2.87
8.67	.00	1.07	1.072	2.68
9.00	.00	1.00	1.000	2.50
9.33	.00	.93	.934	2.33
9.67	.00	.87	.872	2.18
10.00	.00	.81	.814	2.03
10.33	.00	.76	.759	1.90
10.67	.00	.71	.709	1.77
11.00	.00	.66	.662	1.65
11.33	.00	.62	.618	1.54
11.67	.00	.58	.577	1.44
12.00	.00	.54	.538	1.35
12.33	.00	.50	.502	1.26
12.67	.00	.47	.469	1.17
13.00	.00	.44	.438	1.09
13.33	.00	.41	.409	1.02
13.67	.00	.38	.381	.95
14.00	.00	.36	.356	.89
14.33	.00	.33	.332	.83
14.67	.00	.31	.310	.78
15.00	.00	.29	.290	.72
15.33	.00	.27	.270	.68

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        15.67        .00       .25       .252       .63
        16.00        .00       .24       .236       .59
        16.33        .00       .22       .220       .55
        16.67        .00       .21       .205       .51
        17.00        .00       .19       .192       .48
        17.33        .00       .18       .179       .45
        17.67        .00       .17       .167       .42
        18.00        .00       .16       .156       .39
        18.33        .00       .15       .145       .36

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

        18.67        .00       .14       .136       .34
        19.00        .00       .13       .127       .32
        19.33        .00       .12       .118       .30
        19.67        .00       .11       .110       .28
     PEAK DISCHARGE =       18.587 CFS - PEAK OCCURS AT HOUR    2.13
     MAXIMUM WATER SURFACE ELEVATION =        5.717
     MAXIMUM STORAGE =        3.9446 AC-FT      INCREMENTAL TIME=     .033333HRS

   PRINT HYD           ID=421      CODE=10

                                          HYDROGRAPH FROM AREA POND10

         TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
          HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
         .000        .0          4.000       7.9          8.000       3.1         12.000
1.3         16.000        .6
         .333        .0          4.333       7.0          8.333       2.9         12.333
1.3         16.333        .5
         .667        .0          4.667       6.3          8.667       2.7         12.667
1.2         16.667        .5
        1.000        .2          5.000       5.7          9.000       2.5         13.000
1.1         17.000        .5
        1.333       1.0          5.333       5.1          9.333       2.3         13.333
1.0         17.333        .4
        1.667       9.9          5.667       4.8          9.667       2.2         13.667
1.0         17.666        .4
        2.000      17.8          6.000       4.6         10.000       2.0         14.000
.9          18.000        .4
        2.333      17.6          6.333       4.3         10.333       1.9         14.333
.8          18.333        .4
        2.667      14.8          6.667       4.0         10.667       1.8         14.667
.8          18.666        .3
        3.000      12.1          7.000       3.8         11.000       1.7         15.000
.7          19.000        .3
        3.333       9.9          7.333       3.5         11.333       1.5         15.333
.7          19.333        .3
        3.667       8.8          7.667       3.3         11.667       1.4         15.667
.6          19.666        .3

        RUNOFF VOLUME =     1.69665 INCHES     =       5.3750 ACRE-FEET
        PEAK DISCHARGE RATE =      18.59 CFS  AT   2.133 HOURS   BASIN AREA =   .0594 SQ.
MI.


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   *S BASINS NORTH OF PASEO DEL NORTE BLVD TO EXISTING 72" IN PDN
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     *S COMPUTE BASIN "7" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=1150 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                       LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              400.0            .020000             .7000
          SHALLOW FLOW PORTION           1150.0            .020000            2.0000
          CHANNEL FLOW PORTION              .0            .000000             .0000
          TOTAL BASIN                    1550.0            .020000            1.3520


          TIME OF CONCENTRATION (HRS)=   .2252     TIME TO PEAK (HRS)=   .1501     LAG
TIME (HRS)=   .1689

     COMPUTE NM HYD      ID=80        HYD NO=5.7     DA=0.0354 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1501

          K =   .081815HR    TP =   .150120HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   99.281    CFS   UNIT VOLUME =    1.000       B =   526.28      P60
= 1.7000
          AREA =      .028320 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .133977HR    TP =   .150120HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973242
          UNIT PEAK =   16.666    CFS   UNIT VOLUME =    .9994       B =   353.38      P60
= 1.7000
          AREA =      .007080 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=80        CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.70


         RUNOFF VOLUME =     1.70664 INCHES     =       3.2221 ACRE-FEET
         PEAK DISCHARGE RATE =      77.49 CFS  AT   1.533 HOURS   BASIN AREA =   .0354 SQ.
MI.




     *S
     *S ADD SUB-BASINS "POND 10" AND "7"++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=44   HYD NO=5.2     ID I=421       ID II=80
     PRINT HYD           ID=44        CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.20


         RUNOFF VOLUME =     1.70038 INCHES     =       8.5971 ACRE-FEET
         PEAK DISCHARGE RATE =      82.43 CFS  AT   1.533 HOURS   BASIN AREA =   .0948 SQ.
MI.
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     *S COMPUTE BASIN "12B" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=800 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                       LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              400.0            .020000             .7000
          SHALLOW FLOW PORTION            800.0            .020000            2.0000
          CHANNEL FLOW PORTION              .0             .000000             .0000
          TOTAL BASIN                    1200.0            .020000            1.2353


          TIME OF CONCENTRATION (HRS)=   .1908     TIME TO PEAK (HRS)=   .1272     LAG
TIME (HRS)=   .1431



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=90        HYD NO=5.9     DA=0.0144 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   45.470    CFS   UNIT VOLUME =    .9991       B =   526.28      P60
= 1.7000
          AREA =      .011520 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   7.6331    CFS   UNIT VOLUME =    .9988       B =   353.38      P60
= 1.7000
          AREA =      .002880 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=90       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     5.90


         RUNOFF VOLUME =     1.70664 INCHES     =       1.3107 ACRE-FEET
         PEAK DISCHARGE RATE =      33.56 CFS  AT   1.500 HOURS   BASIN AREA =   .0144 SQ.
MI.




     *S
     *S ADD SUB-BASINS "POND 10", "7" AND "12B"++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=45   HYD NO=6.0     ID I=90 ID II=44
     PRINT HYD           ID=45       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     6.00
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RUNOFF VOLUME = 1.70120 INCHES = 9.9077 ACRE-FEET
PEAK DISCHARGE RATE = 114.41 CFS AT 1.533 HOURS BASIN AREA = .1092 SQ. MI.

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     *S COMPUTE BASIN "PDN3" ******************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=500 FT  SLOPE=0.020  K=2.0
                              LENGTH=2130 FT  SLOPE=0.020  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         500.0           .020000            2.0000
          CHANNEL FLOW PORTION        2130.0           .020000            3.0000
          TOTAL BASIN                 3030.0           .020000            1.9785


          TIME OF CONCENTRATION (HRS)=   .3008     TIME TO PEAK (HRS)=   .2005     LAG
TIME (HRS)=   .2256

     COMPUTE NM HYD      ID=100       HYD NO=6.1     DA=0.01509 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .2005

          K =   .109291HR    TP =   .200534HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   35.642    CFS   UNIT VOLUME =    .9994       B =   526.28      P60
= 1.7000
          AREA =      .013581 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .201562HR    TP =   .200534HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   2.4171    CFS   UNIT VOLUME =    .9941       B =   321.21      P60
= 1.7000
          AREA =      .001509 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=100       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.10


         RUNOFF VOLUME =     1.81351 INCHES     =       1.4595 ACRE-FEET
         PEAK DISCHARGE RATE =      30.10 CFS  AT   1.567 HOURS   BASIN AREA =   .0151 SQ.
MI.



     *S
     *S ****************************************************************
     *S ADD SUB-BASINS "POND 10", "7","12B" AND PDN3++++++++++++++++++++++++++++++++

     ADD HYD                  ID=48   HYD NO=6.0     ID I=100       ID II=45
     PRINT HYD           ID=48       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.00


         RUNOFF VOLUME =     1.71483 INCHES     =      11.3672 ACRE-FEET
         PEAK DISCHARGE RATE =     143.17 CFS  AT   1.533 HOURS   BASIN AREA =   .1243 SQ.
MI.
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     *S COMPUTE BASIN "PDN4" ******************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=500 FT  SLOPE=0.020  K=2.0
                              LENGTH=1130 FT  SLOPE=0.020  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         500.0           .020000            2.0000
          CHANNEL FLOW PORTION        1130.0           .020000            3.0000
          TOTAL BASIN                 2030.0           .020000            1.6944


          TIME OF CONCENTRATION (HRS)=   .2353     TIME TO PEAK (HRS)=   .1569     LAG
TIME (HRS)=   .1765

     COMPUTE NM HYD      ID=110       HYD NO=6.3     DA=0.01114 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1569

          K =   .085503HR    TP =   .156885HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   33.632    CFS   UNIT VOLUME =    .9996       B =   526.28      P60
= 1.7000
          AREA =      .010026 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .157689HR    TP =   .156885HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   2.2808    CFS   UNIT VOLUME =    .9939       B =   321.21      P60
= 1.7000
          AREA =      .001114 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=110       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.30


         RUNOFF VOLUME =     1.81350 INCHES     =       1.0775 ACRE-FEET
         PEAK DISCHARGE RATE =      24.99 CFS  AT   1.533 HOURS   BASIN AREA =   .0111 SQ.
MI.



     *S
     *S ADD SUB-BASINS "POND 10", "7","12B",PDN3 AND "PDN4"++++++++++++++++++++++++++

     ADD HYD                  ID=46   HYD NO=6.2     ID I=48 ID II=110
     PRINT HYD           ID=46        CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.20


         RUNOFF VOLUME =     1.72295 INCHES     =      12.4447 ACRE-FEET
         PEAK DISCHARGE RATE =     168.16 CFS  AT   1.533 HOURS   BASIN AREA =   .1354 SQ.
MI.
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*S
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*S ROUTE SUB-BASINS THROUGH PIPE IN "PDN4">>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
*S
COMPUTE RATING CURVE     CID=1   VS NO=1 CODE=-1 SLP=0.01
                                 DIA=7.0 FT     N=0.013
```

RATING CURVE PIPE SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
.00	.00	.00	.00
.36	.76	3.35	3.11
.73	2.13	14.55	4.28
1.09	3.84	33.82	5.08
1.46	5.81	60.82	5.69
1.82	7.97	94.97	6.15
2.19	10.28	135.50	6.49
2.55	12.70	181.53	6.74
2.92	15.19	232.10	6.90
3.28	17.72	286.12	6.99
3.65	20.28	342.43	7.00
4.01	22.82	399.77	7.00
4.38	25.32	456.77	7.00
4.74	27.75	511.95	7.00
5.11	30.08	563.63	7.00
5.47	32.27	609.88	7.00
5.84	34.28	648.35	7.00
6.20	36.05	675.88	7.00
6.57	37.49	687.20	7.00
7.00	38.48	687.20	7.00

```
     ROUTE MCUNGE        ID=772       HYD NO=6.21    INFLOW ID=46
                              DT=0.0  L=1500  NS=0    SLP=0.01
                             MATCODE=0      REGCODE=0      CCODE=0 MM CODE=0

          INFLOW END= 600            TABLE PTS= 19
          DT=  .033333               QMED=       84.08  CKMED=     15.7945
          WIDTH MED=        6.00     NREACH=  2         DX=      750.00
```

DEPTH (FT)	AREA Q-M (SQ FT)	Q C1-M (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3 Q-M (CFS)
.00	.0	.0	.129	.0	6.25	2.07	1.000	.000	1.000	.000	.000
.0	1.000	.000	.000								
.36	.8	3.4	.095	3.1	7.21	4.38	1.153	.020	.982	.080	-.061
.5	.997	.013	-.010								
.73	2.1	14.5	.061	4.3	9.95	6.84	1.592	.046	.965	.242	-.207
8.0	.970	.151	-.121								
1.09	3.8	33.8	.047	5.1	12.59	8.80	2.015	.070	.954	.352	-.306
23.3	.959	.301	-.260								
1.46	5.8	60.8	.040	5.7	14.83	10.46	2.372	.096	.945	.423	-.368
46.6	.949	.391	-.339								
1.82	8.0	95.0	.035	6.1	16.73	11.91	2.676	.123	.935	.474	-.409
77.2	.940	.451	-.390								
2.19	10.3	135.5	.032	6.5	18.34	13.18	2.934	.152	.926	.511	-.436
114.6	.930	.494	-.424								
2.55	12.7	181.5	.029	6.7	19.70	14.30	3.152	.182	.916	.539	-.454
158.0	.921	.526	-.447								
2.92	15.2	232.1	.027	6.9	20.81	15.28	3.330	.215	.905	.560	-.465
206.4	.911	.551	-.461								
3.28	17.7	286.1	.026	7.0	21.69	16.14	3.470	.252	.893	.576	-.470
258.7	.900	.569	-.469								
3.65	20.3	342.4	.025	7.0	22.29	16.89	3.567	.293	.880	.588	-.468
314.0	.887	.584	-.471								
4.01	22.8	399.8	.024	7.0	22.44	17.52	3.590	.339	.862	.594	-.457
370.8	.872	.592	-.464								
4.38	25.3	456.8	.023	7.0	22.02	18.04	3.523	.395	.839	.593	-.433
428.1	.852	.595	-.447								
4.74	27.8	512.0	.023	7.0	20.97	18.45	3.356	.465	.807	.585	-.392
484.2	.825	.591	-.416								
5.11	30.1	563.6	.022	7.0	19.22	18.74	3.076	.558	.759	.568	-.327
537.7	.787	.578	-.365								

```
         5.47   32.3    609.9    .022    7.0    16.63  18.90    2.661   .698   .680   .541
-.221    586.8    .727   .557  -.284
         5.84   34.3    648.4    .022    7.0    12.95  18.91    2.072   .954   .526   .503
-.029    629.2    .622   .524  -.146
         6.20   36.1    675.9    .022    7.0     7.59  18.75    1.214  1.697   .132   .489
.379    662.2    .399   .487   .114
         6.57   37.5    687.2    .023    7.0     4.32  18.33     .692  3.028  -.283   .576
.707    681.6   -.078   .533   .545
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED      26 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.2552
     Equations solved using the Ponce correction to C2

     PRINT HYD           ID=772       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.21


         RUNOFF VOLUME =     1.72272 INCHES     =      12.4430 ACRE-FEET
         PEAK DISCHARGE RATE =     167.01 CFS  AT   1.533 HOURS   BASIN AREA =   .1354 SQ.
MI.



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     *S COMPUTE BASIN "A" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.03  K=0.7
                              LENGTH=1100 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .030000             .7000
          SHALLOW FLOW PORTION          1100.0           .020000            2.0000
          CHANNEL FLOW PORTION             .0           .000000             .0000
          TOTAL BASIN                   1500.0           .022667            1.3860


          TIME OF CONCENTRATION (HRS)=   .1997     TIME TO PEAK (HRS)=   .1331     LAG
TIME (HRS)=   .1498



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=72        HYD NO=9.3     DA=0.0275 SQ MI
                              A=0  B=5  C=10  D=85
                              TP=0.0  MASSRAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   92.263    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .023375 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .113989HR    TP =   .133333HR    K/TP RATIO =   .854918     SHAPE
CONSTANT, N =  4.161582
          UNIT PEAK =   11.317    CFS   UNIT VOLUME =    .9990       B =   365.80      P60
= 1.7000
          AREA =      .004125 SQ MI    IA =    .40000 INCHES    INF =    .97000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=72       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     9.30


         RUNOFF VOLUME =     1.77452 INCHES     =       2.6026 ACRE-FEET
         PEAK DISCHARGE RATE =      65.96 CFS  AT   1.500 HOURS   BASIN AREA =   .0275 SQ.
MI.



     *

     *S FLOWS INTO EXISTING 72" PDN STORM SYSTEM
     *S ADD SUB-BASINS "POND 10", "7","12B","PDN3","PDN4" AND A +++++++++++++++++++++
     *S
     ADD HYD                  ID=73   HYD NO=9.4     ID I=72 ID II=772
     PRINT HYD           ID=73       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     9.40
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          RUNOFF VOLUME =     1.73146 INCHES     =      15.0456 ACRE-FEET
          PEAK DISCHARGE RATE =     229.78 CFS  AT   1.533 HOURS   BASIN AREA =   .1629 SQ.
MI.


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*S FLOWS INTO POND 2************************************************************
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     *S COMPUTE BASIN "5" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=650 FT  SLOPE=0.020  K=2.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0            .020000             .7000
          SHALLOW FLOW PORTION           650.0            .020000            2.0000
          CHANNEL FLOW PORTION             .0            .000000             .0000
          TOTAL BASIN                   1050.0            .020000            1.1713


          TIME OF CONCENTRATION (HRS)=   .1761     TIME TO PEAK (HRS)=   .1174     LAG
TIME (HRS)=   .1321



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=50        HYD NO=5.1     DA=0.0298 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   94.098    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .023840 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   15.796    CFS   UNIT VOLUME =    .9996       B =   353.38      P60
= 1.7000
          AREA =      .005960 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=50       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     5.10


         RUNOFF VOLUME =     1.70664 INCHES     =       2.7124 ACRE-FEET
         PEAK DISCHARGE RATE =      69.43 CFS  AT   1.500 HOURS   BASIN AREA =   .0298 SQ.
MI.
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     *S COMPUTE BASIN "6A" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=500 FT  SLOPE=0.020  K=2.0
                              LENGTH=1040 FT  SLOPE=0.020  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         500.0           .020000            2.0000
          CHANNEL FLOW PORTION        1040.0           .020000            3.0000
          TOTAL BASIN                 1940.0           .020000            1.6608


          TIME OF CONCENTRATION (HRS)=   .2294     TIME TO PEAK (HRS)=   .1530     LAG
TIME (HRS)=   .1721

     COMPUTE NM HYD      ID=60        HYD NO=7.0     DA=0.01527 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1530

          K =   .083362HR    TP =   .152957HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   42.031    CFS   UNIT VOLUME =    .9999       B =   526.28      P60
= 1.7000
          AREA =      .012216 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .136509HR    TP =   .152957HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   7.0557    CFS   UNIT VOLUME =    .9983       B =   353.38      P60
= 1.7000
          AREA =      .003054 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=60       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.00


         RUNOFF VOLUME =     1.70664 INCHES     =       1.3899 ACRE-FEET
         PEAK DISCHARGE RATE =      33.25 CFS  AT   1.533 HOURS   BASIN AREA =   .0153 SQ.
MI.




     *S
     *S ADD SUB-BASINS "5" AND "6A"++++++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=49   HYD NO=49.1    ID I=60 ID II=50
     PRINT HYD           ID=49       CODE=1

                                        OUTFLOW HYDROGRAPH REACH    49.10


         RUNOFF VOLUME =     1.70663 INCHES     =       4.1023 ACRE-FEET
         PEAK DISCHARGE RATE =     102.01 CFS  AT   1.500 HOURS   BASIN AREA =   .0451 SQ.
MI.
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     *S COMPUTE BASIN "6" ********************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=600 FT  SLOPE=0.02  K=2.0
                              LENGTH=150 FT  SLOPE=0.02  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         600.0           .020000            2.0000
          CHANNEL FLOW PORTION         150.0           .020000            3.0000
          TOTAL BASIN                 1150.0           .020000            1.2481


          TIME OF CONCENTRATION (HRS)=   .1810     TIME TO PEAK (HRS)=   .1207     LAG
TIME (HRS)=   .1357



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=61        HYD NO=7.1     DA=0.03547 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   112.00    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .028376 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   18.802    CFS   UNIT VOLUME =    .9997       B =   353.38      P60
= 1.7000
          AREA =      .007094 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=61       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.10


         RUNOFF VOLUME =     1.70664 INCHES     =       3.2285 ACRE-FEET
         PEAK DISCHARGE RATE =      82.64 CFS  AT   1.500 HOURS   BASIN AREA =   .0355 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6", "5" AND "6A"++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=50   HYD NO=7.2     ID I=49 ID II=61
     PRINT HYD           ID=50       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.20
```

RUNOFF VOLUME = 1.70663 INCHES = 7.3307 ACRE-FEET
PEAK DISCHARGE RATE = 184.65 CFS AT 1.500 HOURS BASIN AREA = .0805 SQ. MI.

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     *S COMPUTE BASIN "8" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=480 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0            .020000             .7000
          SHALLOW FLOW PORTION           480.0            .020000            2.0000
          CHANNEL FLOW PORTION             .0            .000000             .0000
          TOTAL BASIN                    880.0            .020000            1.0845


          TIME OF CONCENTRATION (HRS)=   .1594     TIME TO PEAK (HRS)=   .1063     LAG
TIME (HRS)=   .1195



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=62        HYD NO=7.3     DA=0.0198 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   62.522    CFS   UNIT VOLUME =    .9992       B =   526.28      P60
= 1.7000
          AREA =      .015840 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   10.495    CFS   UNIT VOLUME =    .9992       B =   353.38      P60
= 1.7000
          AREA =      .003960 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=62       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     7.30


         RUNOFF VOLUME =     1.70664 INCHES     =       1.8022 ACRE-FEET
         PEAK DISCHARGE RATE =      46.14 CFS  AT   1.500 HOURS   BASIN AREA =   .0198 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6","6A" AND "8"++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=51   HYD NO=7.4     ID I=50 ID II=62
     PRINT HYD           ID=51       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     7.40
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RUNOFF VOLUME = 1.70663 INCHES = 9.1329 ACRE-FEET
PEAK DISCHARGE RATE = 230.79 CFS AT 1.500 HOURS BASIN AREA = .1003 SQ. MI.

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     *S COMPUTE BASIN "9" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=890 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION           890.0           .020000            2.0000
          CHANNEL FLOW PORTION             .0            .000000             .0000
          TOTAL BASIN                   1290.0           .020000            1.2691


          TIME OF CONCENTRATION (HRS)=   .1996     TIME TO PEAK (HRS)=   .1331     LAG
TIME (HRS)=   .1497



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=63        HYD NO=7.5     DA=0.03156 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   99.656    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .025248 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   16.729    CFS   UNIT VOLUME =    .9996       B =   353.38      P60
= 1.7000
          AREA =      .006312 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=63       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.50


         RUNOFF VOLUME =     1.70664 INCHES     =       2.8726 ACRE-FEET
         PEAK DISCHARGE RATE =      73.54 CFS  AT   1.500 HOURS   BASIN AREA =   .0316 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6","6A","8" AND "9"++++++++++++++++++++++++++++++++++++++++

     ADD HYD                 ID=52   HYD NO=7.6     ID I=51 ID II=63
     PRINT HYD           ID=52       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.60
```

RUNOFF VOLUME = 1.70663 INCHES = 12.0055 ACRE-FEET
PEAK DISCHARGE RATE = 304.33 CFS AT 1.500 HOURS BASIN AREA = .1319 SQ. MI.

*S
*S ROUTE SUB-BASINS THROUGH PIPE IN UPPER HALF "ST1">>>>>>>>>>>>>>>>>>>>>>>>>>>
*S
COMPUTE RATING CURVE CID=1 VS NO=1 CODE=-1 SLP=0.022
DIA=5.0 FT N=0.013

RATING CURVE PIPE SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
.00	.00	.00	.00
.26	.39	2.03	2.22
.52	1.09	8.80	3.06
.78	1.96	20.45	3.63
1.04	2.97	36.78	4.06
1.30	4.07	57.43	4.39
1.56	5.25	81.93	4.64
1.82	6.48	109.77	4.81
2.08	7.75	140.35	4.93
2.35	9.04	173.01	4.99
2.61	10.35	207.06	5.00
2.87	11.64	241.74	5.00
3.13	12.92	276.21	5.00
3.39	14.16	309.57	5.00
3.65	15.35	340.82	5.00
3.91	16.47	368.79	5.00
4.17	17.49	392.05	5.00
4.43	18.39	408.70	5.00
4.69	19.13	415.54	5.00
5.00	19.63	415.54	5.00

ROUTE MCUNGE ID=1 HYD NO=7.51 INFLOW ID=52
DT=0.0 L=1566 NS=0 SLP=0.022
MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0

INFLOW END= 220 TABLE PTS= 19
DT= .033333 QMED= 152.16 CKMED= 25.2496
WIDTH MED= 4.95 NREACH= 2 DX= 783.00

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.114	.0	6.53	2.45	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.26	.4	2.0	.084	2.2	8.54	5.19	1.309	.006	.995	.136	-.131	.3	.999	.021	-.021
.52	1.1	8.8	.054	3.1	11.79	8.10	1.807	.014	.990	.291	-.281	4.8	.991	.203	-.194
.78	2.0	20.4	.042	3.6	14.93	10.43	2.287	.022	.987	.396	-.382	14.1	.988	.347	-.335
1.04	3.0	36.8	.035	4.1	17.57	12.40	2.693	.030	.984	.463	-.447	28.2	.985	.432	-.417
1.30	4.1	57.4	.031	4.4	19.82	14.11	3.038	.038	.981	.509	-.491	46.7	.982	.488	-.471
1.56	5.2	81.9	.028	4.6	21.74	15.62	3.331	.047	.978	.543	-.522	69.3	.980	.528	-.508
1.82	6.5	109.8	.026	4.8	23.35	16.94	3.578	.057	.976	.568	-.544	95.5	.977	.557	-.534
2.08	7.7	140.3	.024	4.9	24.67	18.11	3.780	.067	.972	.587	-.560	124.8	.974	.579	-.553
2.35	9.0	173.0	.023	5.0	25.70	19.13	3.939	.078	.969	.601	-.570	156.5	.971	.596	-.566
2.61	10.3	207.1	.022	5.0	26.42	20.02	4.049	.091	.965	.611	-.576	189.8	.967	.607	-.574
2.87	11.6	241.7	.021	5.0	26.59	20.77	4.075	.106	.959	.614	-.573	224.2	.962	.614	-.576

```
         3.13   12.9    276.2    .020    5.0    26.09  21.38    3.999   .123   .952   .610
-.562    258.9    .956   .613  -.569
         3.39   14.2    309.6    .020    5.0    24.86  21.86    3.810   .145   .942   .596
-.538    292.8    .948   .605  -.552
         3.65   15.3    340.8    .020    5.0    22.79  22.21    3.492   .174   .926   .571
-.497    325.2    .935   .586  -.521
         3.91   16.5    368.8    .019    5.0    19.71  22.40    3.021   .217   .898   .528
-.426    354.8    .914   .554  -.468
         4.17   17.5    392.1    .019    5.0    15.35  22.41    2.352   .297   .837   .452
-.289    380.5    .876   .498  -.374
         4.43   18.4    408.7    .020    5.0     8.99  22.22    1.378   .528   .637   .312
.052    400.4    .781   .398  -.179
         4.69   19.1    415.5    .020    5.0     5.12  21.72     .785   .942   .309   .267
.424    412.2    .329   .264   .408
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED      46 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.2000
     Equations solved using the Ponce correction to C2

     PRINT HYD           ID=1 CODE=1

                                          OUTFLOW HYDROGRAPH REACH     7.51


         RUNOFF VOLUME =     1.70658 INCHES     =      12.0051 ACRE-FEET
         PEAK DISCHARGE RATE =     303.29 CFS  AT   1.533 HOURS   BASIN AREA =   .1319 SQ.
MI.



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     *S COMPUTE BASIN "12A" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=820 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         820.0           .020000            2.0000
          CHANNEL FLOW PORTION            .0           .000000             .0000
          TOTAL BASIN                 1220.0           .020000            1.2431


          TIME OF CONCENTRATION (HRS)=   .1928     TIME TO PEAK (HRS)=   .1285     LAG
TIME (HRS)=   .1446



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=64        HYD NO=7.7     DA=0.0308 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   97.256    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .024640 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   16.326    CFS   UNIT VOLUME =    .9996       B =   353.38      P60
= 1.7000
          AREA =      .006160 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=64       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.70


         RUNOFF VOLUME =     1.70664 INCHES     =       2.8034 ACRE-FEET
         PEAK DISCHARGE RATE =      71.76 CFS  AT   1.500 HOURS   BASIN AREA =   .0308 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6","6A","8","9" AND "12A"++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=53   HYD NO=7.8     ID I=1  ID II=64
     PRINT HYD           ID=53       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     7.80
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RUNOFF VOLUME = 1.70659 INCHES = 14.8085 ACRE-FEET
PEAK DISCHARGE RATE = 371.66 CFS AT 1.533 HOURS BASIN AREA = .1627 SQ. MI.

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     *S COMPUTE BASIN "10" ******************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=1270 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION        1270.0           .020000            2.0000
          CHANNEL FLOW PORTION           .0           .000000             .0000
          TOTAL BASIN                1670.0           .020000            1.3843


          TIME OF CONCENTRATION (HRS)=   .2370     TIME TO PEAK (HRS)=   .1580     LAG
TIME (HRS)=   .1777

     COMPUTE NM HYD      ID=65        HYD NO=7.9     DA=0.0567 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1580

          K =   .086097HR    TP =   .157977HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   151.11    CFS   UNIT VOLUME =    .9998       B =   526.28      P60
= 1.7000
          AREA =      .045360 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .140989HR    TP =   .157977HR    K/TP RATIO =   .892469     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   25.367    CFS   UNIT VOLUME =    .9995       B =   353.38      P60
= 1.7000
          AREA =      .011340 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=65       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     7.90


         RUNOFF VOLUME =     1.70664 INCHES     =       5.1609 ACRE-FEET
         PEAK DISCHARGE RATE =     122.05 CFS  AT   1.533 HOURS   BASIN AREA =   .0567 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6","6A","8","9","12A" AND "10"++++++++++++++++++++++++++++++++

     ADD HYD                 ID=54   HYD NO=8.0     ID I=53 ID II=65
     PRINT HYD           ID=54       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.00


         RUNOFF VOLUME =     1.70660 INCHES     =      19.9694 ACRE-FEET
         PEAK DISCHARGE RATE =     493.72 CFS  AT   1.533 HOURS   BASIN AREA =   .2194 SQ.
MI.
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     *S COMPUTE BASIN "ST1" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=1400 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION        1400.0           .020000            2.0000
          CHANNEL FLOW PORTION           .0           .000000             .0000
          TOTAL BASIN                 1800.0           .020000            1.4157


          TIME OF CONCENTRATION (HRS)=   .2497     TIME TO PEAK (HRS)=   .1665     LAG
TIME (HRS)=   .1873

     COMPUTE NM HYD      ID=66        HYD NO=8.1     DA=0.01413 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1665

          K =   .090736HR    TP =   .166488HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   40.199    CFS   UNIT VOLUME =    1.000       B =   526.28      P60
= 1.7000
          AREA =      .012717 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .167341HR    TP =   .166488HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   2.7262    CFS   UNIT VOLUME =    .9951       B =   321.21      P60
= 1.7000
          AREA =      .001413 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=66       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.10


         RUNOFF VOLUME =     1.81350 INCHES     =       1.3666 ACRE-FEET
         PEAK DISCHARGE RATE =      30.89 CFS  AT   1.533 HOURS   BASIN AREA =   .0141 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6","6A","8","9","12A","10" AND "ST1"++++++++++++++++++++++++++

     ADD HYD                 ID=55   HYD NO=8.2     ID I=66 ID II=54
     PRINT HYD           ID=55       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.20


         RUNOFF VOLUME =     1.71307 INCHES     =      21.3360 ACRE-FEET
         PEAK DISCHARGE RATE =     524.61 CFS  AT   1.533 HOURS   BASIN AREA =   .2335 SQ.
MI.
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     *S COMPUTE BASIN "ST2"*****************************************************
     *S
     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=1400 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION          1400.0           .020000            2.0000
          CHANNEL FLOW PORTION             .0           .000000             .0000
          TOTAL BASIN                   1800.0           .020000            1.4157


          TIME OF CONCENTRATION (HRS)=   .2497     TIME TO PEAK (HRS)=   .1665     LAG
TIME (HRS)=   .1873

     COMPUTE NM HYD      ID=67       HYD NO=8.3     DA=0.01094 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1665

          K =   .090736HR    TP =   .166488HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   31.124    CFS   UNIT VOLUME =    .9999       B =   526.28      P60
= 1.7000
          AREA =      .009846 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .167341HR    TP =   .166488HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   2.1107    CFS   UNIT VOLUME =    .9936       B =   321.21      P60
= 1.7000
          AREA =      .001094 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=67       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     8.30


         RUNOFF VOLUME =     1.81350 INCHES     =       1.0581 ACRE-FEET
         PEAK DISCHARGE RATE =      23.92 CFS  AT   1.533 HOURS   BASIN AREA =   .0109 SQ.
MI.




     *S
     *S ADD SUB-BASINS "6","6A","8","9","12A","10","ST1" AND "ST2"++++++++++++++++++

     ADD HYD                 ID=56   HYD NO=8.4     ID I=55 ID II=67
     PRINT HYD           ID=56       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     8.40


         RUNOFF VOLUME =     1.71756 INCHES     =      22.3941 ACRE-FEET
         PEAK DISCHARGE RATE =     548.53 CFS  AT   1.533 HOURS   BASIN AREA =   .2445 SQ.
MI.
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*S --------------------------------------------------------------------------
*S REMAINDER OF SUB-BASINS IN INTERNAL STREET TO POND 2
*S --------------------------------------------------------------------------
*S
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     *S COMPUTE BASIN "13" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.020  K=0.7
                              LENGTH=600 FT  SLOPE=0.020  K=2.0
                              LENGTH=680 FT  SLOPE=0.020  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         600.0           .020000            2.0000
          CHANNEL FLOW PORTION         680.0           .020000            3.0000
          TOTAL BASIN                 1680.0           .020000            1.5299


          TIME OF CONCENTRATION (HRS)=   .2157     TIME TO PEAK (HRS)=   .1438     LAG
TIME (HRS)=   .1618

     COMPUTE NM HYD      ID=120       HYD NO=6.5     DA=0.0626 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1438

          K =   .078369HR    TP =   .143791HR    K/TP RATIO =   .545019     SHAPE
CONSTANT, N =  7.106100
          UNIT PEAK =   183.29    CFS   UNIT VOLUME =    1.000       B =   526.26      P60
= 1.7000
          AREA =      .050080 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .128328HR    TP =   .143791HR    K/TP RATIO =   .892461     SHAPE
CONSTANT, N =  3.973283
          UNIT PEAK =   30.770    CFS   UNIT VOLUME =    .9998       B =   353.38      P60
= 1.7000
          AREA =      .012520 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=120      CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.50


         RUNOFF VOLUME =     1.70664 INCHES     =       5.6979 ACRE-FEET
         PEAK DISCHARGE RATE =     139.56 CFS  AT   1.500 HOURS   BASIN AREA =   .0626 SQ.
MI.



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     *S COMPUTE BASIN "11B" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=1400 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION        1400.0           .020000            2.0000
          CHANNEL FLOW PORTION           .0           .000000             .0000
          TOTAL BASIN                 1800.0           .020000            1.4157


          TIME OF CONCENTRATION (HRS)=   .2497     TIME TO PEAK (HRS)=   .1665     LAG
TIME (HRS)=   .1873

     COMPUTE NM HYD      ID=68        HYD NO=8.5     DA=0.05527 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1665

          K =   .090736HR    TP =   .166488HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   139.77    CFS   UNIT VOLUME =    1.000       B =   526.28      P60
= 1.7000
          AREA =      .044216 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .148586HR    TP =   .166488HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973242
          UNIT PEAK =   23.463    CFS   UNIT VOLUME =    .9995       B =   353.38      P60
= 1.7000
          AREA =      .011054 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=68       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.50


         RUNOFF VOLUME =     1.70664 INCHES     =       5.0307 ACRE-FEET
         PEAK DISCHARGE RATE =     116.14 CFS  AT   1.533 HOURS   BASIN AREA =   .0553 SQ.
MI.



     *S
     *S ADD BASINS "11B" AND "13"++++++++++++++++++++++++++++++

     ADD HYD                 ID=681  HYD NO=6.6     ID I=120       ID II=68
     PRINT HYD           ID=681      CODE=1

                                          OUTFLOW HYDROGRAPH REACH     6.60


         RUNOFF VOLUME =     1.70664 INCHES     =      10.7285 ACRE-FEET
         PEAK DISCHARGE RATE =     254.39 CFS  AT   1.533 HOURS   BASIN AREA =   .1179 SQ.
MI.
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□□□
     *S COMPUTE BASIN "ST3" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=1400 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION        1400.0           .020000            2.0000
          CHANNEL FLOW PORTION           .0           .000000             .0000
          TOTAL BASIN                 1800.0           .020000            1.4157


          TIME OF CONCENTRATION (HRS)=   .2497     TIME TO PEAK (HRS)=   .1665     LAG
TIME (HRS)=   .1873

     COMPUTE NM HYD      ID=69        HYD NO=8.7     DA=0.00686 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1665

          K =   .090736HR    TP =   .166488HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   19.516    CFS   UNIT VOLUME =    .9996       B =   526.28      P60
= 1.7000
          AREA =      .006174 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .167341HR    TP =   .166488HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   1.3235    CFS   UNIT VOLUME =    .9897       B =   321.21      P60
= 1.7000
          AREA =      .000686 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=69       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.70


         RUNOFF VOLUME =     1.81350 INCHES     =        .6635 ACRE-FEET
         PEAK DISCHARGE RATE =      15.01 CFS  AT   1.533 HOURS   BASIN AREA =   .0069 SQ.
MI.




     *S
     *S ADD SUB-BASINS "11B" AND "ST3"++++++++++++++++++++++++++++++++

     ADD HYD                 ID=58   HYD NO=8.8     ID I=681       ID II=69
     PRINT HYD           ID=58       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.80


         RUNOFF VOLUME =     1.71251 INCHES     =      11.3920 ACRE-FEET
         PEAK DISCHARGE RATE =     269.40 CFS  AT   1.533 HOURS   BASIN AREA =   .1247 SQ.
MI.
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□□□
     *S COMPUTE BASIN "ST4" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=1400 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION        1400.0           .020000            2.0000
          CHANNEL FLOW PORTION           .0           .000000             .0000
          TOTAL BASIN                 1800.0           .020000            1.4157


          TIME OF CONCENTRATION (HRS)=   .2497     TIME TO PEAK (HRS)=   .1665     LAG
TIME (HRS)=   .1873

     COMPUTE NM HYD      ID=588       HYD NO=8.9     DA=0.00772 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1665

          K =   .090736HR    TP =   .166488HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   21.963    CFS   UNIT VOLUME =    .9997       B =   526.28      P60
= 1.7000
          AREA =      .006948 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .167341HR    TP =   .166488HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   1.4895    CFS   UNIT VOLUME =    .9910       B =   321.21      P60
= 1.7000
          AREA =      .000772 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=588       CODE=1

                                          OUTFLOW HYDROGRAPH REACH     8.90


         RUNOFF VOLUME =     1.81350 INCHES     =        .7467 ACRE-FEET
         PEAK DISCHARGE RATE =      16.89 CFS  AT   1.533 HOURS   BASIN AREA =   .0077 SQ.
MI.




     *S
     *S ADD SUB-BASINS "11B","ST3" AND "ST4"++++++++++++++++++++++++++++++++

     ADD HYD                  ID=59   HYD NO=9.0     ID I=58 ID II=588
     PRINT HYD           ID=59        CODE=1

                                          OUTFLOW HYDROGRAPH REACH     9.00


         RUNOFF VOLUME =     1.71840 INCHES     =      12.1387 ACRE-FEET
         PEAK DISCHARGE RATE =     286.28 CFS  AT   1.533 HOURS   BASIN AREA =   .1324 SQ.
MI.
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     *S COMPUTE BASIN "11C" ****************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=2 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.02  K=0.7
                              LENGTH=50 FT  SLOPE=0.02  K=2.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION             400.0           .020000             .7000
          SHALLOW FLOW PORTION            50.0           .020000            2.0000
          CHANNEL FLOW PORTION              .0           .000000             .0000
          TOTAL BASIN                    450.0           .020000             .7545


          TIME OF CONCENTRATION (HRS)=   .1171     TIME TO PEAK (HRS)=   .0781     LAG
TIME (HRS)=   .0879



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=71        HYD NO=9.1     DA=0.03317 SQ MI
                              PER A=0   PER B=10  PER C=10   PER D=80
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   104.74    CFS   UNIT VOLUME =    .9993       B =   526.28      P60
= 1.7000
          AREA =      .026536 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .118996HR    TP =   .133333HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   17.583    CFS   UNIT VOLUME =    .9997       B =   353.38      P60
= 1.7000
          AREA =      .006634 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=71       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     9.10


         RUNOFF VOLUME =     1.70664 INCHES     =       3.0191 ACRE-FEET
         PEAK DISCHARGE RATE =      77.29 CFS  AT   1.500 HOURS   BASIN AREA =   .0332 SQ.
MI.




     *S
     *S ADD SUB-BASINS "13", "11B","ST3","ST4" AND "11C"++++++++++++++++++++++++++++
     *S
     ADD HYD                  ID=60   HYD NO=9.2     ID I=71 ID II=59
     PRINT HYD           ID=60       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     9.20
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RUNOFF VOLUME = 1.71604 INCHES = 15.1578 ACRE-FEET
PEAK DISCHARGE RATE = 359.92 CFS AT 1.533 HOURS BASIN AREA = .1656 SQ. MI.

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*S ALL DISCHARGE TO POND 2
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     ****************************************************************************
     *S ADD ALL SUB-BASINS NORTH OF PDN AND REMAINDER OF INTERNAL STREETS ++++++++++
     *S DISCHARGING TO POND 2
     *S
     ADD HYD                  ID=74   HYD NO=9.5     ID I=56 ID II=60

     PRINT HYD           ID=74       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     9.50


         RUNOFF VOLUME =     1.71695 INCHES     =      37.5519 ACRE-FEET
         PEAK DISCHARGE RATE =     908.45 CFS  AT   1.533 HOURS   BASIN AREA =   .4101 SQ.
MI.



     *S
     *S ROUTE THROUGH POND-2  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

     ROUTE RESERVOIR          ID=601  HYD=POND2      INFLOW ID=74 CODE=10
                                      OUTFLOW(CFS)   STORAGE(AC-FT) ELEV(FT)
                                             0              0       5290
                                            20              5       5291
                                            40              7       5292
                                           300              9       5293

                                           350             13       5295
                                           530             15       5296


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

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

            .00        .00   5290.00       .000       .00
            .33        .00   5290.00       .000       .00
            .67        .00   5290.00       .000       .00
           1.00      36.77   5290.09       .437      1.75
           1.33     223.55   5290.43      2.127      8.51
           1.67     528.08   5295.64     14.289    466.04
           2.00     229.90   5294.68     12.360    341.99
           2.33      58.71   5292.45      7.902    157.31
           2.67      27.40   5291.98      6.966     39.66
           3.00      16.42   5291.76      6.513     35.13
           3.33      11.97   5291.50      5.998     29.98
           3.67      10.12   5291.27      5.538     25.38
           4.00       9.35   5291.08      5.159     21.59
           4.33       9.00   5290.97      4.854     19.41
           4.67       8.97   5290.92      4.581     18.32
           5.00       9.09   5290.87      4.338     17.35
           5.33       9.31   5290.83      4.125     16.50
           5.67       9.69   5290.79      3.943     15.77
           6.00      10.11   5290.76      3.791     15.16
           6.33       1.49   5290.71      3.549     14.19
           6.67        .36   5290.64      3.198     12.79
           7.00        .09   5290.57      2.870     11.48
           7.33        .02   5290.51      2.572     10.29
           7.67        .00   5290.46      2.303      9.21
           8.00        .00   5290.41      2.063      8.25
           8.33        .00   5290.37      1.848      7.39
           8.67        .00   5290.33      1.655      6.62
           9.00        .00   5290.30      1.482      5.93
           9.33        .00   5290.27      1.328      5.31
           9.67        .00   5290.24      1.189      4.76
          10.00        .00   5290.21      1.065      4.26
          10.33        .00   5290.19       .954      3.82
          10.67        .00   5290.17       .854      3.42
          11.00        .00   5290.15       .765      3.06
          11.33        .00   5290.14       .685      2.74
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        11.67        .00   5290.12       .614      2.46
        12.00        .00   5290.11       .550      2.20
        12.33        .00   5290.10       .492      1.97
        12.67        .00   5290.09       .441      1.76
        13.00        .00   5290.08       .395      1.58
        13.33        .00   5290.07       .354      1.42
        13.67        .00   5290.06       .317      1.27
        14.00        .00   5290.06       .284      1.14
        14.33        .00   5290.05       .254      1.02
        14.67        .00   5290.05       .228       .91
        15.00        .00   5290.04       .204       .82
        15.33        .00   5290.04       .183       .73
        15.67        .00   5290.03       .164       .65
        16.00        .00   5290.03       .147       .59
        16.33        .00   5290.03       .131       .53
        16.67        .00   5290.02       .118       .47
        17.00        .00   5290.02       .105       .42
        17.33        .00   5290.02       .094       .38
        17.67        .00   5290.02       .084       .34
        18.00        .00   5290.02       .076       .30
        18.33        .00   5290.01       .068       .27

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

        18.67        .00   5290.01       .061       .24
        19.00        .00   5290.01       .054       .22
        19.33        .00   5290.01       .049       .19
        19.67        .00   5290.01       .044       .17
     PEAK DISCHARGE =      472.541 CFS - PEAK OCCURS AT HOUR    1.70
     MAXIMUM WATER SURFACE ELEVATION =     5295.681
     MAXIMUM STORAGE =       14.3616 AC-FT      INCREMENTAL TIME=     .033333HRS

   PRINT HYD           ID=601      CODE=10

                                          HYDROGRAPH FROM AREA POND2

         TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME
FLOW          TIME      FLOW
          HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS           HRS       CFS
         .000        .0          4.000      21.6          8.000       8.3         12.000
2.2        16.000        .6
         .333        .0          4.333      19.4          8.333       7.4         12.333
2.0        16.333        .5
         .667        .0          4.667      18.3          8.667       6.6         12.667
1.8        16.667        .5
        1.000       1.7          5.000      17.4          9.000       5.9         13.000
1.6        17.000        .4
        1.333       8.5          5.333      16.5          9.333       5.3         13.333
1.4        17.333        .4
        1.667     466.0          5.667      15.8          9.667       4.8         13.667
1.3        17.666        .3
        2.000     342.0          6.000      15.2         10.000       4.3         14.000
1.1        18.000        .3
        2.333     157.3          6.333      14.2         10.333       3.8         14.333
1.0        18.333        .3
        2.667      39.7          6.667      12.8         10.667       3.4         14.667
.9         18.666        .2
        3.000      35.1          7.000      11.5         11.000       3.1         15.000
.8         19.000        .2
        3.333      30.0          7.333      10.3         11.333       2.7         15.333
.7         19.333        .2
        3.667      25.4          7.667       9.2         11.667       2.5         15.667
.7         19.666        .2

        RUNOFF VOLUME =     1.71515 INCHES     =      37.5127 ACRE-FEET
        PEAK DISCHARGE RATE =     472.54 CFS  AT   1.700 HOURS   BASIN AREA =   .4101 SQ.
MI.


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*S ALL DISCHARGE FROM POND 2, BASIN A AND BASINS NORTH OF PDN
*S TO EXISTING 72" PDN STORM SYSTEM (AP-1)
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     ********************************************************************************
     *S
     ADD HYD                  ID=744  HYD NO=9.51    ID I=73 ID II=601

     PRINT HYD           ID=744      CODE=1

                                        OUTFLOW HYDROGRAPH REACH     9.51


         RUNOFF VOLUME =     1.71979 INCHES     =      52.5582 ACRE-FEET
         PEAK DISCHARGE RATE =     620.23 CFS  AT   1.667 HOURS   BASIN AREA =   .5730 SQ.
MI.



     *S
     *S


     ********************************************************************************
     *S EXISTING PDN STORM SYSTEM
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     ********************************************************************************
     *S
     *S ROUTE AP-1 THROUGH PIPE IN "PDN5" (AP-1 TO AP-2)>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     *S
     COMPUTE RATING CURVE     CID=1   VS NO=1 CODE=-1 SLP=0.01
                                      DIA=7.0 FT     N=0.013
```

RATING CURVE PIPE SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
.00	.00	.00	.00
.36	.76	3.35	3.11
.73	2.13	14.55	4.28
1.09	3.84	33.82	5.08
1.46	5.81	60.82	5.69
1.82	7.97	94.97	6.15
2.19	10.28	135.50	6.49
2.55	12.70	181.53	6.74
2.92	15.19	232.10	6.90
3.28	17.72	286.12	6.99
3.65	20.28	342.43	7.00
4.01	22.82	399.77	7.00
4.38	25.32	456.77	7.00
4.74	27.75	511.95	7.00
5.11	30.08	563.63	7.00
5.47	32.27	609.88	7.00
5.84	34.28	648.35	7.00
6.20	36.05	675.88	7.00
6.57	37.49	687.20	7.00
7.00	38.48	687.20	7.00

```
     ROUTE MCUNGE        ID=1 HYD NO=9.6     INFLOW ID=744
                              DT=0.0  L=1500  NS=0    SLP=0.01
                              MATCODE=0       REGCODE=0       CCODE=0 MM CODE=0

          INFLOW END= 600            TABLE PTS= 19
          DT=  .033333               QMED=      310.11  CKMED=     22.0632
          WIDTH MED=        6.99     NREACH=  2         DX=      750.00
```

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.129	.0	6.25	2.07	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.36	.8	3.4	.095	3.1	7.21	4.38	1.153	.020	.982	.080	-.061	.5	.997	.013	-.010
.73	2.1	14.5	.061	4.3	9.95	6.84	1.592	.046	.965	.242	-.207	8.0	.970	.151	-.121
1.09	3.8	33.8	.047	5.1	12.59	8.80	2.015	.070	.954	.352	-.306	23.3	.959	.301	-.260
1.46	5.8	60.8	.040	5.7	14.83	10.46	2.372	.096	.945	.423	-.368	46.6	.949	.391	-.339
1.82	8.0	95.0	.035	6.1	16.73	11.91	2.676	.123	.935	.474	-.409	77.2	.940	.451	-.390
2.19	10.3	135.5	.032	6.5	18.34	13.18	2.934	.152	.926	.511	-.436	114.6	.930	.494	-.424
2.55	12.7	181.5	.029	6.7	19.70	14.30	3.152	.182	.916	.539	-.454	158.0	.921	.526	-.447
2.92	15.2	232.1	.027	6.9	20.81	15.28	3.330	.215	.905	.560	-.465	206.4	.911	.551	-.461
3.28	17.7	286.1	.026	7.0	21.69	16.14	3.470	.252	.893	.576	-.470	258.7	.900	.569	-.469
3.65	20.3	342.4	.025	7.0	22.29	16.89	3.567	.293	.880	.588	-.468	314.0	.887	.584	-.471
4.01	22.8	399.8	.024	7.0	22.44	17.52	3.590	.339	.862	.594	-.457	370.8	.872	.592	-.464
4.38	25.3	456.8	.023	7.0	22.02	18.04	3.523	.395	.839	.593	-.433	428.1	.852	.595	-.447
4.74	27.8	512.0	.023	7.0	20.97	18.45	3.356	.465	.807	.585	-.392	484.2	.825	.591	-.416
5.11	30.1	563.6	.022	7.0	19.22	18.74	3.076	.558	.759	.568

```
-.327    537.7    .787   .578  -.365
         5.47   32.3    609.9    .022    7.0    16.63  18.90    2.661   .698   .680   .541
-.221    586.8    .727   .557  -.284
         5.84   34.3    648.4    .022    7.0    12.95  18.91    2.072   .954   .526   .503
-.029    629.2    .622   .524  -.146
         6.20   36.1    675.9    .022    7.0     7.59  18.75    1.214  1.697   .132   .489
.379    662.2    .399   .487   .114
         6.57   37.5    687.2    .023    7.0     4.32  18.33     .692  3.028  -.283   .576
.707    681.6   -.078   .533   .545
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   4 OCCURRED       4 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.5172
     Equations solved using the Ponce correction to C2

     PRINT HYD           ID=1 CODE=1

                                          OUTFLOW HYDROGRAPH REACH     9.60


         RUNOFF VOLUME =     1.71917 INCHES     =      52.5392 ACRE-FEET
         PEAK DISCHARGE RATE =     619.44 CFS  AT   1.700 HOURS   BASIN AREA =   .5730 SQ.
MI.
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     *S COMPUTE BASIN "PDN5" ******************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=50 FT  SLOPE=0.02  K=0.7
                              LENGTH=250 FT  SLOPE=0.02  K=2.0
                              LENGTH=900 FT  SLOPE=0.02  K=3.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              50.0           .020000             .7000
          SHALLOW FLOW PORTION           250.0           .020000            2.0000
          CHANNEL FLOW PORTION           900.0           .020000            3.0000
          TOTAL BASIN                   1200.0           .020000            2.4173


          TIME OF CONCENTRATION (HRS)=   .0975     TIME TO PEAK (HRS)=   .0650     LAG
TIME (HRS)=   .0731



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=75        HYD NO=9.7     DA=0.01978 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   70.266    CFS   UNIT VOLUME =    .9992       B =   526.28      P60
= 1.7000
          AREA =      .017802 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .134016HR    TP =   .133333HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   4.7652    CFS   UNIT VOLUME =    .9974       B =   321.21      P60
= 1.7000
          AREA =      .001978 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=75       CODE=1

                                        OUTFLOW HYDROGRAPH REACH     9.70


         RUNOFF VOLUME =     1.81350 INCHES     =       1.9131 ACRE-FEET
         PEAK DISCHARGE RATE =      47.77 CFS  AT   1.500 HOURS   BASIN AREA =   .0198 SQ.
MI.




     *S
     *S ADD ALL SUB-BASINS NORTH OF PDN, SOUTH OF UNSER,"A" AND "PDN5"+++++++++++++++

     ADD HYD                  ID=76   HYD NO=9.8     ID I=1  ID II=75

     PRINT HYD           ID=76       CODE=1
```

OUTFLOW HYDROGRAPH REACH 9.80

RUNOFF VOLUME = 1.72231 INCHES = 54.4523 ACRE-FEET
PEAK DISCHARGE RATE = 640.82 CFS AT 1.700 HOURS BASIN AREA = .5928 SQ. MI.

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```
     *S COMPUTE BASIN "B" ************************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=200 FT  SLOPE=0.03  K=0.7
                              LENGTH=200 FT  SLOPE=0.02  K=2.0
                              LENGTH=1000 FT  SLOPE=0.03  K=3.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           200.0           .030000             .7000
          SHALLOW FLOW PORTION         200.0           .020000            2.0000
          CHANNEL FLOW PORTION        1000.0           .030000            3.0000
          TOTAL BASIN                 1400.0           .028571            1.9346


          TIME OF CONCENTRATION (HRS)=   .1189     TIME TO PEAK (HRS)=   .0793     LAG
TIME (HRS)=   .0892



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=77        HYD NO=9.9     DA=0.02114 SQ MI
                              PER A=100   PER B=0  PER C=0   PER D=0
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .168011HR    TP =   .133333HR    K/TP RATIO =  1.260086     SHAPE
CONSTANT, N =  2.833209
          UNIT PEAK =   42.480    CFS   UNIT VOLUME =    .9991       B =   267.93      P60
= 1.7000
          AREA =      .021140 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=77        CODE=1

                                        OUTFLOW HYDROGRAPH REACH     9.90


         RUNOFF VOLUME =      .40375 INCHES     =        .4552 ACRE-FEET
         PEAK DISCHARGE RATE =      15.98 CFS  AT   1.500 HOURS   BASIN AREA =   .0211 SQ.
MI.




     *S
     *S ADD ALL SUB-BASINS N. OF PDN, S. UNSER,"A","PDN5"AND "B"++++++++(AP-2)+++++++

     ADD HYD                  ID=78   HYD NO=10.0    ID I=76 ID II=77

     PRINT HYD           ID=78        CODE=1

                                        OUTFLOW HYDROGRAPH REACH    10.00


         RUNOFF VOLUME =     1.67691 INCHES     =      54.9075 ACRE-FEET
         PEAK DISCHARGE RATE =     647.99 CFS  AT   1.700 HOURS   BASIN AREA =   .6139 SQ.
MI.
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*S
*S ROUTE THROUGH "PDN6" IN PIPE (AP-2)>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
*S
COMPUTE RATING CURVE     CID=1   VS NO=1 CODE=-1 SLP=0.01
                                 DIA=7.0 FT      N=0.013
```

RATING CURVE PIPE SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	MAX WIDTH FT
.00	.00	.00	.00
.36	.76	3.35	3.11
.73	2.13	14.55	4.28
1.09	3.84	33.82	5.08
1.46	5.81	60.82	5.69
1.82	7.97	94.97	6.15
2.19	10.28	135.50	6.49
2.55	12.70	181.53	6.74
2.92	15.19	232.10	6.90
3.28	17.72	286.12	6.99
3.65	20.28	342.43	7.00
4.01	22.82	399.77	7.00
4.38	25.32	456.77	7.00
4.74	27.75	511.95	7.00
5.11	30.08	563.63	7.00
5.47	32.27	609.88	7.00
5.84	34.28	648.35	7.00
6.20	36.05	675.88	7.00
6.57	37.49	687.20	7.00
7.00	38.48	687.20	7.00

```
ROUTE MCUNGE        ID=788      HYD NO=788.1   INFLOW ID=78
                          DT=0.0  L=1000  NS=0    SLP=0.01
                          MATCODE=0      REGCODE=0      CCODE=0 MM CODE=0

     INFLOW END= 600            TABLE PTS= 19
     DT=  .033333               QMED=      324.00  CKMED=     22.0632
     WIDTH MED=        7.00     NREACH=  1         DX=     1000.00
```

DEPTH (FT)	AREA (SQ FT)	Q (CFS)	TRAVEL TIME(HR)	WIDTH (FT)	ck (FPS)	VEL (FPS)	C	D	C1	C2	C3	Q-M (CFS)	C1-M	C2-M	C3-M
.00	.0	.0	.086	.0	8.33	2.07	1.000	.000	1.000	.000	.000	.0	1.000	.000	.000
.36	.8	3.4	.063	3.1	8.22	4.38	.987	.013	.987	.000	.013	.5	.998	.000	.002
.73	2.1	14.5	.041	4.3	9.95	6.84	1.194	.034	.969	.102	-.072	8.0	.974	.008	.018
1.09	3.8	33.8	.032	5.1	12.59	8.80	1.511	.053	.959	.220	-.179	23.3	.963	.165	-.128
1.46	5.8	60.8	.027	5.7	14.83	10.46	1.779	.072	.949	.299	-.248	46.6	.954	.262	-.216
1.82	8.0	95.0	.023	6.1	16.73	11.91	2.007	.092	.940	.355	-.295	77.2	.945	.329	-.274
2.19	10.3	135.5	.021	6.5	18.34	13.18	2.201	.114	.931	.397	-.328	114.6	.936	.378	-.313
2.55	12.7	181.5	.019	6.7	19.70	14.30	2.364	.137	.922	.429	-.351	158.0	.927	.414	-.341
2.92	15.2	232.1	.018	6.9	20.81	15.28	2.497	.162	.912	.453	-.365	206.4	.917	.443	-.360
3.28	17.7	286.1	.017	7.0	21.69	16.14	2.602	.189	.900	.472	-.373	258.7	.906	.464	-.371
3.65	20.3	342.4	.016	7.0	22.29	16.89	2.675	.219	.887	.486	-.374	314.0	.894	.481	-.375
4.01	22.8	399.8	.016	7.0	22.44	17.52	2.692	.255	.871	.493	-.364	370.8	.880	.491	-.371
4.38	25.3	456.8	.015	7.0	22.02	18.04	2.642	.296	.849	.492	-.342	428.1	.861	.494	-.356
4.74	27.8	512.0	.015	7.0	20.97	18.45	2.517	.349	.820	.483	-.302	484.2	.836	.489	-.325
5.11	30.1	563.6	.015	7.0	19.22	18.74	2.307	.419	.775	.463	-.238	537.7	.801	.475	-.275
5.47	32.3	609.9	.015	7.0	16.63	18.90	1.996	.524	.702	.432	-.134	586.8	.745	.450	-.195

```
         5.84   34.3    648.4    .015    7.0    12.95  18.91    1.554   .715   .562   .388
.049    629.2    .650   .413  -.062
         6.20   36.1    675.9    .015    7.0     7.59  18.75     .910  1.273   .200   .372
.428    662.2    .447   .369   .184
         6.57   37.5    687.2    .015    7.0     4.32  18.33     .519  2.271  -.198   .472
.726    681.6   -.002   .423   .579
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   4 OCCURRED       2 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.4052
     Equations solved using the Ponce correction to C2

     PRINT HYD           ID=788      CODE=1

                                          HYDROGRAPH FROM AREA   788.10


         RUNOFF VOLUME =     1.67627 INCHES     =      54.8864 ACRE-FEET
         PEAK DISCHARGE RATE =     644.55 CFS  AT   1.700 HOURS   BASIN AREA =   .6139 SQ.
MI.


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     *S COMPUTE BASIN "G" (AP-3)**************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=400 FT  SLOPE=0.060  K=0.7
                              LENGTH=350 FT  SLOPE=0.060  K=2.0
                              LENGTH=1050 FT  SLOPE=0.060  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .060000             .7000
          SHALLOW FLOW PORTION         350.0           .060000            2.0000
          CHANNEL FLOW PORTION        1050.0           .060000            3.0000
          TOTAL BASIN                 1800.0           .060000            1.6417


          TIME OF CONCENTRATION (HRS)=   .1243     TIME TO PEAK (HRS)=   .0829     LAG
TIME (HRS)=   .0933



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=28       HYD NO=10.11   DA=0.1032 SQ MI
                              PER A=100   PER B=0  PER C=0   PER D=0
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .163428HR    TP =   .133333HR    K/TP RATIO =  1.225712     SHAPE
CONSTANT, N =  2.904527
          UNIT PEAK =   212.03    CFS   UNIT VOLUME =    .9996       B =   273.94      P60
= 1.7000
          AREA =      .103200 SQ MI    IA =    .65000 INCHES    INF =   1.67000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=28       CODE=1

                                        OUTFLOW HYDROGRAPH REACH    10.11


         RUNOFF VOLUME =      .40375 INCHES     =       2.2222 ACRE-FEET
         PEAK DISCHARGE RATE =      79.53 CFS  AT   1.500 HOURS   BASIN AREA =   .1032 SQ.
MI.



     *S
     *S

     *S ADD ALL SUB-BASINS NORTH OF PDN, SOUTH OF UNSER,"A","B","PDN5"AND "G"++++++++

     *S
     ADD HYD                 ID=281  HYD NO=10.12   ID I=28 ID II=788

     PRINT HYD           ID=281      CODE=1

                                        OUTFLOW HYDROGRAPH REACH    10.12


         RUNOFF VOLUME =     1.49314 INCHES     =      57.1086 ACRE-FEET
         PEAK DISCHARGE RATE =     696.48 CFS  AT   1.567 HOURS   BASIN AREA =   .7171 SQ.
MI.
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*S

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     *S COMPUTE BASIN "PDN6" ******************************************************
     *S

     COMPUTE LT TP       LCODE=1      NK=3 ISLOPE=-1
                     LENGTH=50 FT  SLOPE=0.02  K=0.7
                              LENGTH=250 FT  SLOPE=0.02  K=2.0
                              LENGTH=1200 FT  SLOPE=0.02  K=3.0



          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                      LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION              50.0           .020000             .7000
          SHALLOW FLOW PORTION           250.0           .020000            2.0000
          CHANNEL FLOW PORTION          1200.0           .020000            3.0000
          TOTAL BASIN                   1500.0           .020000            2.5150


          TIME OF CONCENTRATION (HRS)=   .1171     TIME TO PEAK (HRS)=   .0781     LAG
TIME (HRS)=   .0879



          TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
          REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=
.1333     LAG TIME (HRS)=   .1500

     COMPUTE NM HYD      ID=79        HYD NO=10.2    DA=0.01847 SQ MI
                              PER A=0   PER B=10  PER C=0   PER D=90
                              TP=0.0  MASS RAIN=-1

          TIME TO PEAK (hrs)=   .1333

          K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   65.612    CFS   UNIT VOLUME =    .9992       B =   526.28      P60
= 1.7000
          AREA =      .016623 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .134016HR    TP =   .133333HR    K/TP RATIO =  1.005125     SHAPE
CONSTANT, N =  3.512129
          UNIT PEAK =   4.4496    CFS   UNIT VOLUME =    .9972       B =   321.21      P60
= 1.7000
          AREA =      .001847 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD           ID=79       CODE=1

                                        OUTFLOW HYDROGRAPH REACH    10.20


         RUNOFF VOLUME =     1.81350 INCHES     =       1.7864 ACRE-FEET
         PEAK DISCHARGE RATE =      44.61 CFS  AT   1.500 HOURS   BASIN AREA =   .0185 SQ.
MI.




     *S
     *S ADD ALL SUB-BASINS TO "PDN6"++++++++++++++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=80   HYD NO=10.3    ID I=281       ID II=79

     PRINT HYD           ID=80       CODE=1
```

```
                                        OUTFLOW HYDROGRAPH REACH    10.30

         RUNOFF VOLUME =     1.50119 INCHES     =      58.8951 ACRE-FEET
         PEAK DISCHARGE RATE =     733.18 CFS  AT   1.567 HOURS   BASIN AREA =   .7356 SQ.
MI.



     *S
     *S
     *S ADD FLOWS TO AP-4++++(PIEDRAS MARCADAS)++++++++++++++++++++++++++++++++++++++

     ADD HYD                  ID=81   HYD NO=10.4    ID I=27 ID II=80

     PRINT HYD           ID=81       CODE=1

                                        OUTFLOW HYDROGRAPH REACH    10.40

         RUNOFF VOLUME =     1.18566 INCHES     =      81.3830 ACRE-FEET
         PEAK DISCHARGE RATE =    1012.90 CFS  AT   1.567 HOURS   BASIN AREA =  1.2870 SQ.
MI.



     *S
     *S ---------------------------------------------------------------------------
     *S UNIVERSE STORM DRAIN TO BOCA NEGRA DAM
     *S ---------------------------------------------------------------------------
     *S
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     *S  COMPUTE STATE LAND OFFICE BASIN, P1 (SPLIT FROM SCHOOL SITE)****************
     *
     COMPUTE LT TP         LCODE=1  NK=2  ISLOPE=-1
                                    LENGTH=400  SLOPE=0.0148  K=1.0
                                    LENGTH=1100  SLOPE=0.0148  K=2.0

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                  LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION          400.0           .014800            1.0000
          SHALLOW FLOW PORTION       1100.0           .014800            2.0000
          CHANNEL FLOW PORTION          .0            .000000             .0000
          TOTAL BASIN                1500.0           .014800            1.5789


          TIME OF CONCENTRATION (HRS)=   .2169     TIME TO PEAK (HRS)=   .1446     LAG
TIME (HRS)=   .1627

     *
     COMPUTE NM HYD          ID=50  HYD=P2B  DA=0.03125 SQ MI
                                    A=25  B=26 C=27  D=22
                                    TP=0.0  MASSRAIN=-1
          TIME TO PEAK (hrs)=   .1446

          K =   .078813HR    TP =   .144610HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   25.020    CFS   UNIT VOLUME =    .9997       B =   526.28      P60
= 1.7000
          AREA =      .006875 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .145890HR    TP =   .144610HR    K/TP RATIO =  1.008851     SHAPE
CONSTANT, N =  3.499068
          UNIT PEAK =   53.982    CFS   UNIT VOLUME =    1.000       B =   320.26      P60
= 1.7000
          AREA =      .024375 SQ MI    IA =    .49615 INCHES    INF =   1.23923 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD                    ID=50  CODE=5

                                          HYDROGRAPH FROM AREA P2B

          TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
           HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
          .000        .0          1.500      43.9          3.000        .6          4.500
.2          6.000        .2
          .167        .0          1.667      25.7          3.167        .4          4.667
.2          6.167        .1
          .333        .0          1.833      11.6          3.333        .4          4.833
.2          6.333        .0
          .500        .0          2.000       7.1          3.500        .3          5.000
.2          6.500        .0
          .667        .0          2.167       4.0          3.667        .3          5.167
.2          6.667        .0
          .833        .4          2.333       2.3          3.833        .2          5.333
.2          6.833        .0
         1.000        .8          2.500       1.5          4.000        .2          5.500
.2          7.000        .0
         1.167        .7          2.667       1.1          4.167        .2          5.667
.2
         1.333       6.0          2.833        .8          4.333        .2          5.833
.2

        RUNOFF VOLUME =      .90878 INCHES     =       1.5146 ACRE-FEET
        PEAK DISCHARGE RATE =      44.34 CFS  AT   1.533 HOURS   BASIN AREA =   .0313 SQ.
```

MI.

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     *S
     *S
     *S ROUTE THROUGH PIPE IN UNIVERSE BLVD>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     COMPUTE RATING CURVE  CID=1  VS NO=1  CODE=-1  SLP=0.02
                                      DIA=2.5  N=0.013

                                     RATING CURVE PIPE SECTION  1.0
                                        WATER       FLOW        FLOW        MAX
                                      SURFACE       AREA        RATE       WIDTH
                                        ELEV       SQ FT        CFS         FT
                                         .00         .00         .00         .00
                                         .13         .10         .30        1.11
                                         .26         .27        1.32        1.53
                                         .39         .49        3.07        1.82
                                         .52         .74        5.52        2.03
                                         .65        1.02        8.62        2.19
                                         .78        1.31       12.30        2.32
                                         .91        1.62       16.48        2.41
                                        1.04        1.94       21.07        2.47
                                        1.17        2.26       25.98        2.50
                                        1.30        2.59       31.09        2.50
                                        1.43        2.91       36.30        2.50
                                        1.56        3.23       41.48        2.50
                                        1.69        3.54       46.49        2.50
                                        1.82        3.84       51.18        2.50
                                        1.95        4.12       55.38        2.50
                                        2.08        4.37       58.87        2.50
                                        2.21        4.60       61.37        2.50
                                        2.35        4.78       62.40        2.50
                                        2.50        4.91       62.40        2.50
     ROUTE MCUNGE          ID=71  HYD=TRSLO1  INFLOW ID=50
                                     DT=0.0   L=1100  NS=0   SLOPE=0.022
                                     MATCODE=0  REGCODE=0  CCODE=0  MM CODE=0

         INFLOW END= 213            TABLE PTS= 19
         DT=  .033333               QMED=       22.17  CKMED=     15.1660
         WIDTH MED=        2.47     NREACH=  2         DX=      550.00

       DEPTH   AREA      Q    TRAVEL  WIDTH     ck      VEL      C       D      C1     C2
C3     Q-M      C1-M   C2-M   C3-M
        (FT)  (SQ FT)  (CFS)  TIME(HR) (FT)     (FPS)   (FPS)
(CFS)
         .00     .0       .0    .133     .0     4.58   1.47    1.000   .000  1.000   .000
.000      .0   1.000   .000   .000
         .13     .1       .3    .098    1.1     5.13   3.12    1.119   .004   .996   .058
-.054     .0    .999   .009  -.009
         .26     .3      1.3    .063    1.5     7.08   4.87    1.545   .010   .992   .217
-.209     .7    .993   .126  -.120
         .39     .5      3.1    .049    1.8     8.97   6.26    1.956   .016   .990   .327
-.316    2.1    .991   .276  -.267
         .52     .7      5.5    .041    2.0    10.55   7.45    2.303   .021   .987   .398
-.386    4.2    .988   .365  -.354
         .65    1.0      8.6    .036    2.2    11.91   8.48    2.598   .027   .985   .448
-.433    7.0    .986   .425  -.412
         .78    1.3     12.3    .033    2.3    13.06   9.38    2.849   .034   .983   .485
-.468   10.4    .984   .468  -.452
         .91    1.6     16.5    .030    2.4    14.02  10.18    3.059   .040   .980   .512
-.492   14.3    .982   .500  -.482
        1.04    1.9     21.1    .028    2.5    14.82  10.88    3.233   .048   .978   .533
-.510   18.7    .979   .524  -.503
        1.17    2.3     26.0    .027    2.5    15.44  11.49    3.368   .056   .975   .548
-.523   23.5    .976   .542  -.518
        1.30    2.6     31.1    .025    2.5    15.87  12.02    3.463   .065   .971   .558
-.530   28.5    .973   .554  -.528
        1.43    2.9     36.3    .024    2.5    15.97  12.47    3.485   .075   .967   .561
-.528   33.7    .969   .561  -.531
        1.56    3.2     41.5    .024    2.5    15.67  12.84    3.420   .087   .961   .556
-.517   38.9    .964   .560  -.525
        1.69    3.5     46.5    .023    2.5    14.93  13.13    3.258   .103   .953   .541
-.494   44.0    .958   .551  -.508
        1.82    3.8     51.2    .023    2.5    13.69  13.34    2.986   .124   .940   .513
```

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-.453     48.8    .947   .530  -.477
         1.95    4.1     55.4    .023    2.5    11.84  13.45    2.583   .155   .917   .465
-.382     53.3    .931   .494  -.424
         2.08    4.4     58.9    .023    2.5     9.22  13.46    2.012   .211   .869   .379
-.248     57.1    .900   .431  -.331
         2.21    4.6     61.4    .023    2.5     5.40  13.35    1.178   .376   .706   .217
.077     60.1    .823   .318  -.142
         2.35    4.8     62.4    .023    2.5     3.08  13.05     .671   .670   .428   .146
.427     61.9    .445   .144   .411
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED      11 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.1103
       DEPTH   AREA      Q    TRAVEL  WIDTH     ck      VEL      C       D      C1     C2
C3     Q-M      C1-M   C2-M   C3-M
        (FT)  (SQ FT)  (CFS)  TIME(HR) (FT)     (FPS)   (FPS)
(CFS)
          .00     .0       .0    .133     .0     4.58   1.47    1.000   .000  1.000   .000
.000       .0   1.000   .000   .000
          .13     .1       .3    .098    1.1     4.61   3.12    1.005   .005   .995   .005
.000       .0    .998   .002   .000
          .26     .3      1.3    .063    1.5     4.65   4.87    1.015   .015   .985   .015
.000       .7    .990   .010   .000
          .39     .5      3.1    .049    1.8     4.72   6.26    1.030   .030   .971   .029
.000      2.1    .978   .022   .000
          .52     .7      5.5    .041    2.0     4.80   7.45    1.047   .047   .955   .045
.000      4.2    .963   .037   .000
          .65    1.0      8.6    .036    2.2     4.89   8.48    1.066   .066   .938   .062
.000      7.0    .946   .054   .000
          .78    1.3     12.3    .033    2.3     4.99   9.38    1.088   .088   .919   .081
.000     10.4    .928   .072   .000
          .91    1.6     16.5    .030    2.4     5.09  10.18    1.111   .111   .900   .100
.000     14.3    .909   .091   .000
         1.04    1.9     21.1    .028    2.5     5.21  10.88    1.136   .136   .880   .120
.000     18.7    .890   .110   .000
         1.17    2.3     26.0    .027    2.5     5.32  11.49    1.162   .162   .861   .139
.000     23.5    .871   .129   .000
         1.30    2.6     31.1    .025    2.5     5.45  12.02    1.189   .189   .841   .159
.000     28.5    .851   .149   .000
         1.43    2.9     36.3    .024    2.5     5.57  12.47    1.215   .215   .823   .177
.000     33.7    .832   .168   .000
         1.56    3.2     41.5    .024    2.5     5.69  12.84    1.241   .241   .806   .194
.000     38.9    .814   .186   .000
         1.69    3.5     46.5    .023    2.5     5.80  13.13    1.265   .265   .790   .210
.000     44.0    .798   .202   .000
         1.82    3.8     51.2    .023    2.5     5.90  13.34    1.287   .287   .777   .223
.000     48.8    .784   .216   .000
         1.95    4.1     55.4    .023    2.5     5.99  13.45    1.306   .306   .766   .234
.000     53.3    .771   .229   .000
         2.08    4.4     58.9    .023    2.5     6.06  13.46    1.321   .321   .757   .243
.000     57.1    .761   .239   .000
         2.21    4.6     61.4    .023    2.5     5.40  13.35    1.178   .376   .706   .217
.077     60.1    .754   .246   .000
         2.35    4.8     62.4    .023    2.5     3.08  13.05     .671   .670   .428   .146
.427     61.9    .445   .144   .411
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   3 OCCURRED       2 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.0707
     Equations solved with two passes: first using the Ponce correction to C1, second
using the Fread correction to C1, C2 and C3
     PRINT HYD             ID=71 CODE=5

                                                HYDROGRAPH FROM AREA TRSLO1

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME
FLOW           TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS
CFS            HRS       CFS
          .000        .0          1.500      31.8          3.000        .6          4.500
.2          6.000        .2
          .167        .0          1.667      33.9          3.167        .5          4.667
.2          6.167        .2
          .333        .0          1.833      15.3          3.333        .4          4.833
.2          6.333        .0
          .500        .0          2.000       8.2          3.500        .3          5.000
.2          6.500        .0
          .667        .0          2.167       5.4          3.667        .3          5.167
.2          6.667        .0
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           .833        .1          2.333       2.7          3.833        .2          5.333
.2           6.833        .0
          1.000        .7          2.500       1.8          4.000        .2          5.500
.2           7.000        .0
          1.167        .8          2.667       1.2          4.167        .2          5.667
.2
          1.333       2.2          2.833        .9          4.333        .2          5.833
.2

         RUNOFF VOLUME =      .90626 INCHES     =       1.5104 ACRE-FEET
         PEAK DISCHARGE RATE =      43.94 CFS  AT   1.567 HOURS   BASIN AREA =   .0313 SQ.
MI.


     *S
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     *S  BASIN P2 (HIGH SCHOOL) FROM UNIVERSE STORM DRAIN STUDY**********************
     *
     COMPUTE LT TP         LCODE=1  NK=3  ISLOPE=-1
                                      LENGTH=400  SLOPE=0.0148  K=1.0
                                      LENGTH=1600  SLOPE=0.0148  K=2.0
                                      LENGTH=1300  SLOPE=0.0148  K=3.0

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .014800            1.0000
          SHALLOW FLOW PORTION        1600.0           .014800            2.0000
          CHANNEL FLOW PORTION        1300.0           .014800            3.0000
          TOTAL BASIN                 3300.0           .014800            2.0204


          TIME OF CONCENTRATION (HRS)=   .3729     TIME TO PEAK (HRS)=   .2486     LAG
TIME (HRS)=   .2797

     *
     COMPUTE NM HYD          ID=72  HYD=P2A  DA=0.1094 SQ MI
                                      A=0  B=25 C=25  D=50
                                      TP=0.0  MASSRAIN=-1
          TIME TO PEAK (hrs)=   .2486

          K =   .137678HR    TP =   .248628HR    K/TP RATIO =   .553749     SHAPE
CONSTANT, N =  6.963196
          UNIT PEAK =   114.30    CFS   UNIT VOLUME =    .9999       B =   519.51      P60
= 1.7000
          AREA =      .054700 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .220947HR    TP =   .248628HR    K/TP RATIO =   .888665     SHAPE
CONSTANT, N =  3.991408
          UNIT PEAK =   78.014    CFS   UNIT VOLUME =    .9998       B =   354.60      P60
= 1.7000
          AREA =      .054700 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD                    ID=72  CODE=5

                                                HYDROGRAPH FROM AREA P2A

          TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
           HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
          .000        .0          1.833      94.2          3.667       2.7          5.500
1.6          7.333        .0
          .167        .0          2.000      58.8          3.833       2.4          5.667
1.6          7.500        .0
          .333        .0          2.167      38.8          4.000       2.1          5.833
1.6          7.667        .0
          .500        .0          2.333      21.9          4.167       2.0          6.000
1.7          7.833        .0
          .667        .0          2.500      14.1          4.333       1.8          6.167
1.5          8.000        .0
          .833        .8          2.667      10.4          4.500       1.7          6.333
.6          8.167        .0
         1.000       4.0          2.833       7.9          4.667       1.7          6.500
.3          8.333        .0
         1.167       5.8          3.000       6.1          4.833       1.6          6.667
.2          8.500        .0
         1.333      15.0          3.167       4.8          5.000       1.6          6.833
.1          8.667        .0
         1.500     102.3          3.333       3.9          5.167       1.6          7.000
.1
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          1.667     147.8          3.500       3.2          5.333       1.6          7.167
.1

         RUNOFF VOLUME =     1.34570 INCHES     =       7.8516 ACRE-FEET
         PEAK DISCHARGE RATE =     152.78 CFS  AT   1.633 HOURS   BASIN AREA =   .1094 SQ.
MI.


     *S ADD STATE LAND OFFICE & HIGH SCHOOL++++++++++++++++++++++++++++++++++++++++++++
     ADD HYD              ID=73 HYD=TR.HS  ID I=71 II=72
     PRINT HYD            ID=73 CODE=5

                                          HYDROGRAPH FROM AREA TR.HS

          TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
           HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
          .000        .0          1.833     109.4          3.667       3.0          5.500
1.8          7.333        .0
          .167        .0          2.000      67.0          3.833       2.6          5.667
1.8          7.500        .0
          .333        .0          2.167      44.2          4.000       2.4          5.833
1.8          7.667        .0
          .500        .0          2.333      24.6          4.167       2.2          6.000
1.9          7.833        .0
          .667        .0          2.500      15.9          4.333       2.0          6.167
1.6          8.000        .0
          .833        .9          2.667      11.6          4.500       1.9          6.333
.7          8.167        .0
         1.000       4.7          2.833       8.8          4.667       1.9          6.500
.3          8.333        .0
         1.167       6.6          3.000       6.8          4.833       1.8          6.667
.2          8.500        .0
         1.333      17.2          3.167       5.3          5.000       1.8          6.833
.1          8.667        .0
         1.500     134.1          3.333       4.3          5.167       1.8          7.000
.1
         1.667     181.7          3.500       3.5          5.333       1.8          7.167
.1

         RUNOFF VOLUME =     1.24806 INCHES     =       9.3620 ACRE-FEET
         PEAK DISCHARGE RATE =     194.24 CFS  AT   1.600 HOURS   BASIN AREA =   .1407 SQ.
MI.


     *S
     *S ROUTE THROUGH PIPE IN UNIVERSE BLVD>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
     COMPUTE RATING CURVE  CID=1  VS NO=1  CODE=-1  SLP=0.013
                                        DIA=4  N=0.013

                                      RATING CURVE PIPE SECTION  1.0
                                         WATER       FLOW        FLOW        MAX
                                       SURFACE       AREA        RATE       WIDTH
                                         ELEV       SQ FT         CFS         FT
                                          .00         .00          .00         .00
                                          .21         .25          .86        1.78
                                          .42         .69         3.73        2.44
                                          .63        1.25         8.67        2.91
                                          .83        1.90        15.59        3.25
                                         1.04        2.60        24.35        3.51
                                         1.25        3.36        34.74        3.71
                                         1.46        4.15        46.54        3.85
                                         1.67        4.96        59.50        3.94
                                         1.88        5.79        73.35        3.99
                                         2.08        6.62        87.79        4.00
                                         2.29        7.45       102.49        4.00
                                         2.50        8.27       117.10        4.00
                                         2.71        9.06       131.25        4.00
                                         2.92        9.82       144.50        4.00
                                         3.13       10.54       156.35        4.00
                                         3.34       11.20       166.22        4.00
                                         3.54       11.77       173.28        4.00
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                                        3.75       12.24      176.18        4.00
                                        4.00       12.57      176.18        4.00
     *
     ROUTE MCUNGE          ID=74  HYD=TRHS  INFLOW ID=73
                                     DT=0.0   L=1700  NS=0   SLOPE=0.013
                                     MATCODE=0  REGCODE=0  CCODE=0  MM CODE=0

          INFLOW END= 262            TABLE PTS= 19
          DT=  .033333               QMED=       97.12  CKMED=     17.7185
          WIDTH MED=        4.00     NREACH=  2         DX=      850.00

        DEPTH   AREA      Q    TRAVEL  WIDTH     ck      VEL      C       D      C1     C2
C3     Q-M      C1-M   C2-M   C3-M
         (FT)  (SQ FT)  (CFS)  TIME(HR) (FT)     (FPS)   (FPS)
(CFS)
          .00     .0       .0    .187     .0     7.08   1.62    1.000   .000  1.000   .000
.000       .0   1.000   .000   .000
          .21     .2       .9    .137    1.8     7.04   3.44     .994   .006   .994   .000
.006       .1    .999   .000   .001
          .42     .7      3.7    .088    2.4     7.81   5.37    1.103   .018   .983   .057
-.040      2.1    .989   .024  -.013
          .63    1.3      8.7    .068    2.9     9.89   6.91    1.396   .027   .977   .175
-.152      6.0    .980   .119  -.099
          .83    1.9     15.6    .057    3.2    11.64   8.22    1.643   .037   .972   .254
-.226     11.9    .975   .217  -.192
         1.04    2.6     24.3    .051    3.5    13.13   9.35    1.854   .048   .967   .311
-.278     19.8    .969   .285  -.254
         1.25    3.4     34.7    .046    3.7    14.40  10.35    2.033   .059   .962   .353
-.315     29.4    .964   .334  -.298
         1.46    4.1     46.5    .042    3.9    15.47  11.22    2.183   .071   .957   .385
-.342     40.5    .959   .371  -.330
         1.67    5.0     59.5    .039    3.9    16.34  12.00    2.307   .084   .951   .410
-.361     52.9    .954   .399  -.353
         1.88    5.8     73.4    .037    4.0    17.03  12.67    2.404   .098   .944   .429
-.373     66.3    .948   .421  -.369
         2.08    6.6     87.8    .036    4.0    17.50  13.26    2.471   .113   .937   .442
-.379     80.5    .941   .437  -.378
         2.29    7.5    102.5    .034    4.0    17.62  13.76    2.487   .132   .927   .447
-.375     95.1    .932   .446  -.379
         2.50    8.3    117.1    .033    4.0    17.29  14.16    2.440   .153   .915   .443
-.358    109.7    .922   .447  -.369
         2.71    9.1    131.2    .033    4.0    16.47  14.48    2.325   .180   .897   .429
-.327    124.1    .907   .438  -.345
         2.92    9.8    144.5    .032    4.0    15.09  14.71    2.131   .217   .871   .403
-.273    137.9    .886   .419  -.304
         3.13   10.5    156.4    .032    4.0    13.06  14.84    1.844   .271   .826   .358
-.184    150.4    .853   .384  -.237
         3.34   11.2    166.2    .032    4.0    10.17  14.85    1.436   .370   .736   .287
-.023    161.3    .793   .329  -.121
         3.54   11.8    173.3    .032    4.0     5.96  14.72     .841   .658   .473   .200
.327    169.8    .657   .245   .098
         3.75   12.2    176.2    .033    4.0     3.39  14.39     .479  1.174   .115   .246
.639    174.7    .135   .239   .626
     MAXIMUM NO. ITERATIONS FOR SOLUTION (KKMAX) =   5 OCCURRED       1 TIMES.  AVERAGE
NUMBER ITERATIONS =  1.1767
     Equations solved using the Ponce correction to C2
     PRINT HYD             ID=74  CODE=5

                                        HYDROGRAPH FROM AREA TRHS

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME
FLOW          TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS
CFS           HRS       CFS
          .000        .0          1.833     120.1          3.667       3.2          5.500
1.8          7.333        .0
          .167        .0          2.000      71.9          3.833       2.8          5.667
1.8          7.500        .0
          .333        .0          2.167      48.4          4.000       2.5          5.833
1.8          7.667        .0
          .500        .0          2.333      27.7          4.167       2.2          6.000
1.9          7.833        .0
          .667        .0          2.500      17.3          4.333       2.1          6.167
1.8          8.000        .0
          .833        .1          2.667      12.5          4.500       2.0          6.333
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1.0          8.167        .0
          1.000       3.4          2.833       9.5          4.667       1.9          6.500
.4          8.333        .0
          1.167       6.5          3.000       7.3          4.833       1.8          6.667
.2          8.500        .0
          1.333       9.9          3.167       5.7          5.000       1.8          6.833
.1          8.667        .0
          1.500     105.8          3.333       4.6          5.167       1.8          7.000
.1
          1.667     178.1          3.500       3.8          5.333       1.8          7.167
.1

         RUNOFF VOLUME =     1.23175 INCHES     =       9.2397 ACRE-FEET
         PEAK DISCHARGE RATE =     179.11 CFS  AT   1.700 HOURS   BASIN AREA =   .1407 SQ.
MI.



     *S
     *S BASIN P3 (FUTURE SAD) FROM UNIVERSE STORM DRAIN STUDY*****************
     *
     COMPUTE LT TP         LCODE=1  NK=3  ISLOPE=-1
                                    LENGTH=400  SLOPE=0.0084  K=0.7
                                    LENGTH=1600  SLOPE=0.0084  K=2.0
                                    LENGTH=400  SLOPE=0.0084  K=3.0

          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .008400             .7000
          SHALLOW FLOW PORTION        1600.0           .008400            2.0000
          CHANNEL FLOW PORTION         400.0           .008400            3.0000
          TOTAL BASIN                 2400.0           .008400            1.5949


          TIME OF CONCENTRATION (HRS)=   .4561     TIME TO PEAK (HRS)=   .3040     LAG
TIME (HRS)=   .3420

     *
     COMPUTE NM HYD          ID=75  HYD=P3  DA=0.0515 SQ MI
                                    A=0  B=25  C=25  D=50
                                    TP=0.0  MASSRAIN=-1
          TIME TO PEAK (hrs)=   .3040

          K =   .165703HR    TP =   .304043HR    K/TP RATIO =   .545000     SHAPE
CONSTANT, N =  7.106420
          UNIT PEAK =   44.571    CFS   UNIT VOLUME =    .9997       B =   526.28      P60
= 1.7000
          AREA =      .025750 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .271349HR    TP =   .304043HR    K/TP RATIO =   .892470     SHAPE
CONSTANT, N =  3.973240
          UNIT PEAK =   29.929    CFS   UNIT VOLUME =    .9996       B =   353.38      P60
= 1.7000
          AREA =      .025750 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD
                                ID=75  CODE=5

                                          HYDROGRAPH FROM AREA P3

          TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
           HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
          .000        .0          1.833      50.3          3.667       1.7          5.500
.8          7.333        .0
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           .167        .0          2.000      32.8          3.833       1.4          5.667
.8          7.500        .0
           .333        .0          2.167      21.9          4.000       1.3          5.833
.8          7.667        .0
           .500        .0          2.333      13.2          4.167       1.1          6.000
.8          7.833        .0
           .667        .0          2.500       8.2          4.333       1.0          6.167
.8          8.000        .0
           .833        .2          2.667       5.9          4.500        .9          6.333
.4          8.167        .0
          1.000       1.4          2.833       4.6          4.667        .9          6.500
.2          8.333        .0
          1.167       2.4          3.000       3.6          4.833        .8          6.667
.1          8.500        .0
          1.333       4.7          3.167       2.9          5.000        .8          6.833
.1          8.667        .0
          1.500      32.0          3.333       2.4          5.167        .8          7.000
.1          8.833        .0
          1.667      63.4          3.500       2.0          5.333        .8          7.167
.0

         RUNOFF VOLUME =     1.34570 INCHES     =       3.6962 ACRE-FEET
         PEAK DISCHARGE RATE =      63.39 CFS  AT   1.667 HOURS   BASIN AREA =   .0515 SQ.
MI.


     *S
     *S ADD UNIVERSE SUB-BASINS TO BOCA NEGRA DAM++++++++++++++++++++++++++++++++++++
     ADD HYD              ID=76 HYD=TR.HS  ID I=74 II=75
     PRINT HYD            ID=76 CODE=5

                                                HYDROGRAPH FROM AREA TR.HS

          TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
           HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
           .000        .0          1.833     170.5          3.667       4.9          5.500
2.6          7.333        .1
           .167        .0          2.000     104.7          3.833       4.2          5.667
2.6          7.500        .0
           .333        .0          2.167      70.3          4.000       3.7          5.833
2.6          7.667        .0
           .500        .0          2.333      40.8          4.167       3.4          6.000
2.6          7.833        .0
           .667        .0          2.500      25.5          4.333       3.1          6.167
2.6          8.000        .0
           .833        .3          2.667      18.4          4.500       2.9          6.333
1.5          8.167        .0
          1.000       4.7          2.833      14.1          4.667       2.8          6.500
.6          8.333        .0
          1.167       8.9          3.000      11.0          4.833       2.7          6.667
.3          8.500        .0
          1.333      14.7          3.167       8.7          5.000       2.6          6.833
.2          8.667        .0
          1.500     137.8          3.333       7.0          5.167       2.6          7.000
.2          8.833        .0
          1.667     241.5          3.500       5.8          5.333       2.5          7.167
.1

         RUNOFF VOLUME =     1.26229 INCHES     =      12.9358 ACRE-FEET
         PEAK DISCHARGE RATE =     242.47 CFS  AT   1.700 HOURS   BASIN AREA =   .1922 SQ.
MI.


     *S
     *S ------------------------------------------------------------------------------
     *S UNSER BLVD SOUTH OF THE GRANT LINE TO BOCA NEGRA DAM
     *S ------------------------------------------------------------------------------
     *S
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     *S COMPUTE SUB-BASIN THE TRAILS UNIT 4 (SUB-BASIN T1)**************************
     *S ASSUME AN AREA OF 10 ACRES FOR THE THREE PONDS IN THIS SUB-BASIN
     *S
     COMPUTE LT TP         LCODE=1  NK=3  ISLOPE=-1
                                      LENGTH=400  SLOPE=0.02  K=0.7
                                      LENGTH=900  SLOPE=0.02  K=2.0
                                      LENGTH=1500  SLOPE=0.02  K=3.0


          Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

          SCS UPLAND METHOD FACTORS
                                    LENGTH (FT)      SLOPE (FT/FT)       COMPOSITE K
          SHEET FLOW PORTION           400.0           .020000             .7000
          SHALLOW FLOW PORTION         900.0           .020000            2.0000
          CHANNEL FLOW PORTION        1500.0           .020000            3.0000
          TOTAL BASIN                 2800.0           .020000            1.8404


          TIME OF CONCENTRATION (HRS)=   .2988     TIME TO PEAK (HRS)=   .1992     LAG
TIME (HRS)=   .2241

     COMPUTE NM HYD          ID=10  HYD=10.1  DA=0.089 SQ MI
                                      A=0  B=10  C=40  D=50
                                 TP=0.0  MASSRAIN=-1

          TIME TO PEAK (hrs)=   .1992

          K =   .109562HR    TP =   .199225HR    K/TP RATIO =   .549944     SHAPE
CONSTANT, N =  7.024763
          UNIT PEAK =   116.69    CFS   UNIT VOLUME =    .9997       B =   522.43      P60
= 1.7000
          AREA =      .044500 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333


          K =   .164588HR    TP =   .199225HR    K/TP RATIO =   .826145     SHAPE
CONSTANT, N =  4.320682
          UNIT PEAK =   83.989    CFS   UNIT VOLUME =    .9999       B =   376.01      P60
= 1.7000
          AREA =      .044500 SQ MI    IA =    .38000 INCHES    INF =    .91400 INCHES PER
HOUR
          RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033333

     PRINT HYD               ID=10  CODE=5

                                          OUTFLOW HYDROGRAPH REACH    10.10

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME
FLOW          TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS
CFS           HRS       CFS
          .000        .0          1.667     121.2         3.333       2.3         5.000
1.2         6.667        .1
          .167        .0          1.833      67.3         3.500       2.0         5.167
1.2         6.833        .1
          .333        .0          2.000      42.5         3.667       1.7         5.333
1.2         7.000        .0
          .500        .0          2.167      26.8         3.833       1.5         5.500
1.3         7.167        .0
          .667        .0          2.333      14.0         4.000       1.4         5.667
1.3         7.333        .0
          .833       1.3          2.500       9.2         4.167       1.3         5.833
1.3         7.500        .0
         1.000       4.2          2.667       6.6         4.333       1.3         6.000
1.3         7.667        .0
         1.167       4.9          2.833       4.9         4.500       1.3         6.167
1.0         7.833        .0
         1.333      20.5          3.000       3.7         4.667       1.2         6.333
.3          8.000        .0
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          1.500     124.6          3.167       2.9          4.833       1.2          6.500
.2

         RUNOFF VOLUME =     1.39293 INCHES     =       6.6117 ACRE-FEET
         PEAK DISCHARGE RATE =     148.83 CFS  AT   1.567 HOURS   BASIN AREA =   .0890 SQ.
MI.


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     *S RECALL POND K DISCHARGE FROM THE TRAILS SUBDIVISION**************************
     *S
     RECALL HYD           ID=70        HYD=TRAIL.POND DT=0.0
          ***** WARNING ***** HYDROGRAPH WITH HYD NUMBER =   TRAIL.POND NOT FOUND ON SAVE
FILE.
     PRINT HYD            ID=70        CODE=5

                                              HYDROGRAPH FROM AREA TRAIL.POND

          TIME      FLOW           TIME      FLOW           TIME      FLOW           TIME
FLOW           TIME      FLOW
           HRS       CFS            HRS       CFS            HRS       CFS            HRS
CFS            HRS       CFS
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